

# Spanning the Generations



**A Study of Old Bridges in Waterloo Region  
May 2004**



Region of Waterloo :

**Phase 2: Heritage Assessment**





*Park Hill Road Bridge, Cambridge*



*Mill Creek Bridge, Cambridge*



*Freeport Bridge, Kitchener*



*West Montrose Covered Bridge, Woolwich*



*Haysville Bridge, Wilmot (Demolished)*



*Hartman Bridge, Wilmot*



*Blackbridge Road Bridge, Cambridge*



*Mennonite Bridge, Woolwich*



*Bridgeport Bridge, Kitchener*



*Main Street Bridge, Cambridge*

Prepared by:  
Planning, Housing and Community Services

Prepared for the:

## **HERITAGE PLANNING ADVISORY COMMITTEE**

- MEMBERS -

*Councillor Jean Haalboom - Chair*  
*Robert Shipley - Vice-Chair*

*Tom Hardacre, Liz Heinrichs, Harriet Schaefer, Al Junker,  
Lynda Schneider, Marg Rowell, Patricia Wagner, Robert  
Woolner –(Past Members)- Councillor Lynne Woolstencroft,  
Terry Gallamore, Alex Galloway*

Revised and reprinted May 2004 by

## **PLANNING, HOUSING AND COMMUNITY SERVICES DEPARTMENT**

Photographs and Research by Mike Fontaine



Region of Waterloo

# Table of Contents

|                                             |     |
|---------------------------------------------|-----|
| <b>Table of Contents</b>                    | i   |
| <b>Executive Summary</b>                    | iii |
| <b>Section 1: Introduction</b>              |     |
| 1.1 Background                              | 1   |
| 1.2 Purpose of the Bridge Study             | 1   |
| 1.3 Organization of the Information         | 1   |
| <b>Section 2: Cultural Context</b>          |     |
| 2.1 Summary of Bridge Importance            | 2   |
| 2.2 Pre-history, History and Heritage       | 2   |
| 2.3 Local Settlement History                | 2   |
| 2.4 Early Bridges in the Region of Waterloo | 3   |
| <b>Section 3: Methodology</b>               |     |
| 3.1 The Inventory: Phase One                | 4   |
| 3.1.1 Contents of Inventory                 | 4   |
| 3.1.2 Excluded Structures                   | 4   |
| 3.1.3 Included Structures                   | 4   |
| 3.1.4 Finding the Bridges                   | 4   |
| 3.1.5 1950: the "Heritage Divider"          | 5   |
| 3.2 Heritage Assessment: Phase Two          | 5   |
| 3.2.1 Scoring of the Criteria               | 5   |
| 3.2.2 Criteria Checklist                    | 6   |
| 3.2.3 Application of Criteria               | 8   |
| 3.2.4 Additional Criteria                   | 8   |
| 3.2.5 Interpretation                        | 9   |
| <b>Section 4: Bridge Profiles</b>           |     |
| 4.1 Heritage Bridges                        | 10  |
| 4.2 Detailed Bridge Profiles                | 10  |
| Freeport Bridge                             | 11  |
| West Montrose Covered Bridge                | 17  |
| Main Street Bridge                          | 25  |
| Hartman Bridge                              | 30  |
| Mill Creek Bridge                           | 35  |
| Mennonite Buggy Bridge                      | 41  |
| Haysville Bridge                            | 47  |
| Bridgeport Bridge                           | 54  |
| Park Hill Road Bridge                       | 59  |
| Blackbridge Road Bridge                     | 64  |



|                                               |        |
|-----------------------------------------------|--------|
| <b>Section 5: Future Actions</b>              |        |
| 5.1    The Importance of Public Awareness     | 69     |
| 5.2    Threats to Heritage Bridges Strategies | 69     |
| 5.3    Protection Strategies                  | 69     |
| 5.3.1  Maintenance Strategies                 | 69     |
| 5.3.2  Protection Strategies                  | 69     |
| 5.4    Preservations Options                  | 70     |
| 5.5    Documentation                          | 71     |
| 5.6    Conclusion.                            | 71     |
| <br><b>General Bibliography</b>               | <br>72 |
| <br><b>Appendix A: Assessment Total</b>       | <br>74 |

# Executive Summary

**Title:** Spanning the Generations: A study of Old Bridges in Waterloo Region  
Phase Two: Heritage Assessment

## Background

Spurred on by the loss of the Bender Hill Truss Bridge, the Heritage Planning Advisory Committee (HPAC) of the Region of Waterloo became concerned about the destruction of old bridges. As a result of that concern, HPAC undertook a research study which would locate and identify bridges with heritage value in Waterloo Region. This involved creating a region-wide bridge inventory, encompassing the seven area municipalities. Research was then conducted in order to assess older bridges for their heritage potential.

## Summary

The report, *Spanning the Generations: Heritage Assessment*, is the final product of the research study. It is the companion to the publication, *Spanning the Generations: Inventory*. The Inventory locates bridges built primarily before 1950 in Waterloo Region. The Heritage Assessment identifies heritage bridges using an adopted set of criteria from the *Ontario Heritage Bridge Program*, a 1991 publication produced by the Ministry of Citizenship and Culture. The Heritage Assessment contains a brief history of bridges in Waterloo Region, the assessment methodology, preservation strategies, and provides research information about the top ten heritage bridges. These bridges are:

|                               |           |
|-------------------------------|-----------|
| Freeport Bridge               | Kitchener |
| West Montrose Covered Bridge  | Woolwich  |
| Main Street Bridge            | Cambridge |
| Hartman Bridge                | Wilmot    |
| Mill Creek Bridge             | Cambridge |
| Mennonite Bridge              | Woolwich  |
| Haysville Bridge (demolished) | Wilmot    |
| Bridgeport Bridge             | Kitchener |
| Park Hill Road Bridge         | Cambridge |
| Blackbridge Road Bridge       | Cambridge |

## Conclusion

This information will assist planners, engineers, and heritage, environmental and recreational organizations in the conservation, rehabilitation, or maintenance of historic bridges before they are lost as a valuable heritage resource to the community. It is believed that better planning procedures and/or guidelines will aid in this overall goal. This study provides the necessary background information to assist in defining future actions to preserve bridges and will serve to promote the goals of the Heritage Planning Advisory Committee and heritage preservation in general.

# Section 1: Introduction

## 1.1 Background

In 1997, the Region of Waterloo set up a Project Team to undertake a planning study of the Bender Bridge, an old steel truss bridge. The Bender Bridge was located on Regional Road 1, over the Nith River, west of New Hamburg. The team assessed the structural integrity, environmental impact, and the archaeological/heritage merit of this bridge. Unfortunately, after careful consideration, the team recommended replacement with a modern structure, noting that other steel bridges remain.

Spurred on by the loss of the Bender Bridge, the Heritage Planning Advisory Committee (HPAC) acted on their concern about the gradual disappearance of old bridges in the Region of Waterloo. They requested the Planning and Culture Department to undertake a research study that would identify and document bridges with heritage merit throughout this Region.

The Committee believes that bridges form an integral part of our local heritage. The importance of these bridges lay not only in their utilitarian aspects but also in the history which they represent. The Region of Waterloo lies entirely within the watershed of the Grand River, a nationally designated Heritage River. The Grand River, along with its tributaries, was designated on the basis of its human heritage elements. As a component of the cultural mosaic, bridges and their contribution to the development of Ontario are an important part of the built heritage of this nationally recognized resource.<sup>1</sup>

## 1.2 Purpose of the Bridge Study

The purpose of this study is to locate, identify and document bridges in Waterloo Region having significant heritage value, and to provide information to be used in their preservation. This comprehensive data will assist planners and engineers in the conservation, rehabilitation, and maintenance of these structures. The report provides the necessary background information to assist in defining future actions to preserve bridges.

## 1.3 Organization of the Information

The Study is organized into two phases. *Phase I: Inventory* is a broad inventory of bridges built primarily before 1950 in the Region of Waterloo. The *Inventory* contains basic information, photographs and maps of the bridges. The *Inventory* was required since no comprehensive bridge inventory was available at the time.

*Phase II: Heritage Assessment* investigates the heritage potential of the bridges in the *Inventory*. It provides a more comprehensive understanding of the nature and types of bridges in Waterloo Region, as well as their context in local history. It also describes the methodology used to evaluate the heritage merits of the bridges, and provides in-depth detail regarding the ten most significant bridges in the Region.

---

<sup>1</sup>Regional Municipality of Waterloo, *Heritage Planning Advisory Committee Minutes*, April 9, 1998, p. 17. "Bridge Policy- first draft", Elizabeth Waters Heinrichs.



## Section 2: Cultural Context

### 2.1 Summary of Bridge Importance

Heritage bridges are an important non-renewable resource for several reasons:

- Bridges possess historic value. They are a significant part of our local heritage rather than solely utilitarian.
- Bridges have contributed to the social and economical development of the Region.
- Bridges reflect the technology of their times and the needs of society.
- Identifying heritage bridges is the crucial first step toward their future preservation.

### 2.2 Pre-History, History and Heritage

The study of history is the systematic study, analysis and interpretation of the documented events of the past; in the case of this study the recorded past of the Region of Waterloo. The prehistory of the region is the period prior to that of which we have written documentation. It has its own documentation in the oral history passed down from earlier inhabitants and in the archeological record left on the land. Heritage refers to both tangible objects and intangible characteristics, which are passed down or remain from our past. Bridges are a component of the built heritage from our historic past; they are both tangible objects and intangible markers of cultural characteristics of our area. In addition, because of the importance of water crossings, they may also be built on sites that have pre-historic significance.

### 2.3 Local Settlement Activity

Before the arrival of ethnic Europeans, First Nations peoples occupied the land that became the area townships, then the County of Waterloo within what is now the Region of Waterloo. However, settlement in this case refers to the arrival of ethnic European migrants, predominantly of Pennsylvania Mennonite and Tunker (later known as Brethren in Christ) origin beginning around 1800. After about 1830, immigrants of non-Mennonite origin soon outnumbered them and their descendants.<sup>2</sup>

At the time of their arrival the region was a wooded area, part of the northern fringes of the Carolinian Forest. As a result, settlement involved clearing trees from much of the land in order to make it suitable for the agricultural activities of the settlers. The harvesting of timber furthered the economic development of the area, but it had a deleterious effect on the areas around the natural watercourses.<sup>3</sup> Considerable run-off from the denuded riverbanks contributed to soil erosion and the pooling of water in low-lying ground. Spring thaws also brought flooding to areas adjacent to the river.

The most serious constraint on settlers was the Grand River itself since other physical features were relatively benign. Both natural phenomena, such as spring flooding and flooding as the result of heavy rainfall, as well as the results of human activity along its banks, made the Grand River unpredictable. At times, it was difficult to cross. For this reason, bridges were particularly significant in the development of the region.

---

<sup>2</sup> For Detailed discussion of settlement, see: Elizabeth Bloomfield, *Waterloo Township Through Two Centuries*, (Region of Waterloo - St Jacobs Printery: Waterloo Historical Society, 1995.)

<sup>3</sup> Timber was used as a building material; as fuel for homes and then railways; ash from the burnt stumps was used in the production of potash.

## 2.4 Early Bridges in the Region of Waterloo

Bridges have always been of considerable importance to the economic and social life of the inhabitants of the region. Settlers wanting wood or grain milled had to take their goods to one of the mills along the river. Crossing the river via bridges was easier than fording the river. Small settlements began to spring up where there were mills serviced by bridges.

The creation of the railways in the 1850s made it necessary to have reliable bridges able to withstand the heavy load of the locomotives and the variable stresses of a seasonally changing waterway. Once there was regular rail service, it became important to have good road bridges so that farm produce could be transported to the local railway stations for distribution to cities such as Toronto.

After World War I, the increase in personal ownership of motorized vehicles meant that stronger bridges became necessary to accommodate the traffic. Some of the stronger concrete bridges constructed in the 1930s formed part of the "Depression Era" Public Works Programs that made work for the unemployed. In the post World War II building boom, many older bridges and culverts were strengthened or replaced as traffic continued to increase.

Bridges, as heritage structures, reflect the technology of their times. Early wooden bridges were replaced by more durable wrought iron, and then by steel, and later, by reinforced concrete. Some later bridges were made from stone. Without an awareness of their heritage significance, old bridges are likely to be replaced rather than maintained or rehabilitated.

## Section 3: Methodology

### 3.1 The Inventory: Phase I

The goal of the inventory is to identify all of the existing heritage bridges and related built heritage. Included are all road and river crossings that have heritage potential, ranging from culverts to railway overpasses and viaducts. Knowing how many bridges existed in this Region and where to find them was a priority lest a heritage bridge was overlooked. Unfortunately, a region-wide bridge inventory was not available. The inventory phase needed to be completed before evaluation of heritage merit could proceed. For this reason, the work plan was divided into two phases, inventory and assessment.

#### 3.1.1 Contents of Inventory

A region-wide bridge inventory was assembled in the first phase. It contains current photographs, maps and general statistics for bridges in Waterloo Region. The information was gathered and consolidated into a publication entitled *Spanning the Generations: Phase I: Inventory*. The *Inventory* is set up in a chronological fashion; this presents the bridges in clusters of similar types according to the date they were built.

#### 3.1.2 Excluded Structures

Given the time constraints and the nature of the study, the "master inventory" does not include every bridge in this Region. The *Inventory* focused on structures that were likely to have some heritage potential (pre-1950). Abandoned bridges, ancient bridge abutments and old bridges on "unmarked"<sup>4</sup> roads were generally not included in the *Inventory* since these structures were not the focus of the study.

#### 3.1.3 Included Structures

A number of culverts and railway overpasses were included in the *Inventory* because these structures were deemed to be part of the built heritage along the Grand River. The *Inventory* includes all bridges built before 1950, and historically significant or unique bridges built after 1950. The *Inventory* focuses on pre-1950 bridges, and it could be expanded in the future to cover all "crossing" structures within the Region or the Grand River corridor, both old and new.

#### 3.1.4 Finding the Bridges

Information for the *Inventory* was obtained from the following sources:

- , road superintendents
- , bridge appraisals
- , local historians
- , local Architectural Conservation Advisory Committees (LACAC's)
- , public works departments
- , railway companies
- , "Ontario Road Needs" studies
- , road maps

Area municipalities are responsible for the maintenance of the bridges under their jurisdiction. Thus the road superintendents were the source for most of the information. Road superintendents hire consultants every five years to assess the structural integrity of the bridges in their area. The consultants' bridge appraisals were the best sources for

---

<sup>4</sup>"Unmarked" roads include, Mennonite roads, paths, driveways, and township road extensions.

statistical information. They were stored in the MBADES data format and contained information such as length, width, load limit, location, type, and age.

Local historians were also valuable information sources. Historians monitor the older structures and are intimately familiar with the history of their community. Local Architectural Conservation Advisory Committees (LACACs) keep an inventory of designated buildings, are likely to know the historians, and can provide other useful contacts. Public Works departments store information about pedestrian bridges. Railway crossings are owned and operated by their respective companies, CPR or CNR. The Ministry of Transportation also publishes "Ontario Road Needs" studies approximately every ten years. These reports list the locations of every road bridge in use. Mapped river and road crossings were investigated in person. All of these sources were used to complete the *Inventory*.

### 3.1.5 "1950, the 'Heritage Divider'"

After World War II, large-scale building programs and transportation improvements were initiated to rebuild and upgrade the nation (e.g., construction of Highway 401). Old bridges, and bridges which had not been maintained during the depression, were replaced with new bridges. The year 1950 was chosen as the "heritage bridge divider" because of the major changes that took place during that decade.

## 3.2 Heritage Assessment: Phase II

In the second phase of the study, the heritage significance of every bridge structure in the *Inventory* was assessed. The procedure for evaluating a heritage structure is to apply a set of criteria. The criteria, outlined in the 1991 publication *Ontario Heritage Bridge Program* (Ontario Heritage Foundation), were selected to evaluate the bridges in Waterloo Region. This set of criteria was chosen because it:

- , specifically deals with bridges
- , is the most comprehensive set of criteria
- , covers all aspects of bridges, including the history, architecture and technology
- , is available at public libraries
- , is simple and thus easy to understand, easy to apply and easy to interpret
- , is used by the provincial government and is widely accepted
- , avoids confusion over what may or may not be a heritage bridge

The full set of criteria is included in this report (Appendix A), while a summary is provided on the next page.

### 3.2.1 Scoring of the Criteria

The criteria were used as an analytical tool to quantify the heritage merits of every bridge in the study. The criteria are divided into 12 categories, and each category is given a numerical score. The numerical total represents the relative heritage potential of the bridge. The scoring ranges from 0 to 100 points, and heritage bridges usually achieve a score within the range of 50 to 80 points.

### 3.2.2 Criteria Checklist

This checklist is based on the Ontario Heritage Bridge Program Criteria found in Appendix A. It consists of different categories for which points are awarded.

## Documentation

| Builder                                 | Points | Age       | Points |
|-----------------------------------------|--------|-----------|--------|
| a) Unknown                              | 0 ±    | Pre 1880  | 14 ±   |
| b) Known; undetermined contribution     | 2 ±    | 1880-1900 | 12 ±   |
| c) Known; prolific builder contribution | 4 ±    | 1901-1910 | 10 ±   |
| d) Known; unusual designer              | 6 ±    | 1911-1920 | 8 ±    |
|                                         |        | 1921-1930 | 6 ±    |
|                                         |        | 1931-1940 | 4 ±    |
|                                         |        | 1941-1950 | 2 ±    |

## Technology

| Materials                      | Points | Design Style                     | Points |
|--------------------------------|--------|----------------------------------|--------|
| a) Wrought Iron                | 4 ±    | a) Unique                        | 16 ±   |
| b) Stone                       | 4 ±    | b) Typical; but rare as survivor | 16 ±   |
| c) Other (not normally in use) | 4 ±    | c) Unusual                       | 16 ±   |

| Prototype        | Points | Structural Integrity            | Points |
|------------------|--------|---------------------------------|--------|
| a) Prototype     | 10 ±   | a) No significant modifications | 10 ±   |
| b) Early example | 10 ±   | b) Sympathetic modification     | 5 ±    |

## Bridge Aesthetics and Environment

| Visual Appeal               | Points | Integrity               | Points |
|-----------------------------|--------|-------------------------|--------|
| a) Design merits            | 10 ±   | a) At original location | 4 ±    |
| b) Ornamentation/Decoration | 2 ±    |                         |        |

| Landmark               | Points | Gateway                     | Points |
|------------------------|--------|-----------------------------|--------|
| a) Physical prominence | 6 ±    | a) Entrance/exit occurrence | 4 ±    |
| b) Public perception   | 6 ±    |                             |        |
|                        |        | Character contribution      | 4 ±    |



## Historical Association

## Points

- |                                   |    |   |
|-----------------------------------|----|---|
| a) Associated with person/group   | 10 | ± |
| b) Associated with event          | 10 | ± |
| c) Associated with theme          | 10 | ± |
| d) Associated with former bridges | 10 | ± |

Yes

No

 $\pm$  $\pm$ 

## Field Notes

[illegible]

### 3.2.3 Application of the Criteria

Preliminary research is conducted in order to satisfy the criteria, particularly in the categories pertaining to the documentation and history of the bridge. The information contacts and sources used in this study are listed in Appendix E. Further research may uncover additional facts that would increase the heritage potential of a bridge.

In some cases, the application of the criteria was a simple process. For instance, if the bridge was built in 1881 then it would be assigned a numerical value of 12 under the "Age" category. However, other criteria were designed for the general assessment of bridges throughout the province. After studying the collected data, the provincial criteria did not seem to adequately express the specific nature of the local bridges. The following categories have been modified to be more representative of the heritage merit of bridges in Waterloo Region.

#### Builder

There were no large bridge-building firms located in Waterloo County. Any builder, therefore, who built more than one bridge in the County is considered a *c) Known; prolific builder/designer* (See "c".under the above category).

#### Materials

Steel bridges are comparatively rare in this Region; therefore, steel bridges score 4 points in *c) Other (not normally in use)*.

#### Design/Style

There are only nine steel truss bridges out of approximately 500 bridges in Waterloo Region. Their scarcity justifies *b) Typical; but rare as a survivor*. *Editors' note: As of 2000, there are only 8 steel truss bridges remaining.*

#### Prototype

Any bridge in the *Inventory* that is earlier by more than 10 years than the others of its type was given *b) Early example*.

### 3.2.4 Additional Criteria

The Ontario Heritage Bridge Program Criteria appeared comprehensive except for considering groups of bridges or the spectrum of bridge types. For this reason HPAC chose to include the following category, although it was not given a numerical value:

#### Bridge Group

Is this bridge part of a group of similar bridges/structures? (e.g., clusters of steel bridges)

The question should be answered yes/no with an explanation for the choice.

#### Explanation

Bridge aesthetics and environment contribute to the particular "look" of the area or region. A group of historically associated bridges or theme of similar structures contributes to the aesthetic appeal of the environment. This group may be totally within the region or may be part of a larger group within the context of the Grand River as a nationally designated Heritage River. Similarly, a bridge might exemplify a bridge type in the spectrum of bridges along the Grand River.

**A "yes" response is particularly significant. Efforts must be made to retain and preserve bridges identified as part of this group.**

### 3.2.5 Interpretation

The criteria were designed so as to distinctly separate bridges by their heritage value. Heritage bridges typically score above 50 points, usually averaging 60, because the categories are not weighted evenly. Those scoring points in both the *Design/Style* and *History* categories (26 points) attained significantly higher scores than those that did not receive these points. Small differences in scoring may occur due to the subjectivity of the question (e.g., Is this bridge visually appealing?, Does it contribute to the character of the town?). However, this subjectivity does not usually "make or break" a heritage bridge. Of course, there are exceptions, particularly if there is a lack of information.

A score of 50 points or more indicates a heritage bridge. The reasons are:

It was empirically proven, both in this evaluation and for those bridges tested by David Cuming, the creator of the criteria, that a properly researched heritage bridge is unlikely to score below 50 points.

When the criteria were applied to provincially designated bridges, the scores ranged from 50 to 78 points.

## Section 4: Bridge Profiles

### 4.1 Heritage Bridges

Twenty bridges scored above 50, indicating significant heritage value. They are listed in Table 1 in order of rank. The asterisks indicate those bridges designated under the *Ontario Heritage Act*.

Table 1. Heritage Bridges in Waterloo Region

| Bridge Name                   | Location       | Criteria Score | Page |
|-------------------------------|----------------|----------------|------|
| Freeport Bridge*              | Kitchener      | 78             | 11   |
| West Montrose Covered Bridge* | Woolwich       | 76             | 17   |
| Main Street Bridge*           | Cambridge      | 74             | 25   |
| Hartman Bridge                | Wilmot         | 70             | 30   |
| Mill Creek Bridge             | Cambridge      | 68             | 35   |
| Mennonite Bridge              | Woolwich       | 66             | 41   |
| Haysville Bridge (demolished) | Wilmot         | 64             | 47   |
| Bridgeport Bridge             | Kitchener      | 64             | 54   |
| Park Hill Road Bridge         | Cambridge      | 62             | 59   |
| Blackbridge Road Bridge       | Cambridge      | 62             | 64   |
| Holland Mills Road Bridge     | Wilmot         | 60             |      |
| Conestogo Bridge              | Woolwich       | 60             |      |
| Huron Road Bridge             | Kitchener      | 60             |      |
| Bridge #6                     | Wellesley      | 60             |      |
| Suspension Bridge             | Wilmot         | 60             |      |
| Nithvale Bridge (abandoned)   | North Dumfries | 60             |      |
| Piper Street Bridge           | North Dumfries | 58             |      |
| Shade Street Bridge           | Wilmot         | 58             |      |
| Blair Bridge                  | Cambridge      | 54             |      |
| Winterbourne Bridge           | Woolwich       | 52             |      |

### 4.2 Detailed Bridge Profiles

This chapter contains the profiles of the ten most significant heritage bridges in Waterloo Region, according to their rank, from Freeport Bridge to Blackbridge Road Bridge. The bridge profiles consist of research information which follows the format of the assessment criteria, photographs, maps and general statistics excerpted from the *Inventory*, and a bibliography pertaining to research on the specific bridge.

# Freeport Bridge

Score: 78



---

This profile was researched and written by Elizabeth Waters Heinrichs "Heritage Property Report for Heritage Kitchener: Freeport Bridge," Kitchener, Ontario, July 1998.

## Documentation

### Builder

The engineer responsible for the design of Freeport Bridge was A.B. Crealock, the Bridge Engineer for the Province of Ontario. Crealock rose from draughtsman to Bridge Engineer in one year (1922-1923). As the Bridge Engineer for the Province, he was responsible for the design of many bridges of the period. Although the position may appear prestigious, at \$2,300 per annum in 1924, the salary was only equivalent to that of the senior draughtsman. By 1927, Crealock's salary had risen to \$2,850.<sup>1</sup> The actual provincial supervision of the building of the bridge was provided by G.A. Downey, of Stratford, who supervised highway construction in this area.<sup>2</sup>

The contract for the construction was awarded to Campbell and Lattimore, of Toronto, according to the journal "Canadian Engineer".<sup>3</sup> However, the payments for the bridge work were made to Campbell and Gzowski, the company that held the contract for concrete work on Hamilton to Kitchener projects. As a matter of public record, they were paid \$27,427.44 in 1925 and then \$20,291.61 in 1926 for their work on the "Freeport Bridge in the Township of Waterloo".<sup>4</sup> Aside from the payments to the construction company, there were other associated costs. Grading land for the approaches to the bridge and the purchase of rights-of-way raised the total cost of the bridge to an estimated \$85,000.<sup>5</sup> Although a relatively small sum by today's standards, the total cost of provincial highway work - including bridges - for 1925, in the County of Waterloo, was \$126,146.33.<sup>6</sup>

### Age

Construction of the Freeport Bridge began in 1925 and the bridge was open for traffic in 1926. The age is verifiable through the *Ontario Legislative Assembly Sessional Papers*, as well as through other contemporary sources.

## Technology

### Materials

The bridge is constructed of reinforced concrete, a popular building material of the time. Concrete construction began to replace steel for many road bridges since it required less maintenance than steel, which was prone to corrosion and needed frequent painting. Areas such as Waterloo County and neighbouring Wellington County also had good local supplies of aggregates for use in construction. In the case of the Freeport Bridge, it was estimated at the time that

---

<sup>1</sup>*Ontario Legislative Assembly Sessional Papers*, Public Accounts for the years 1922-23 p. 130, and 1927, p. K10.

<sup>2</sup>*Sessional Papers*, Public Accounts 1926, p. K29.

<sup>3</sup>*Canadian Engineer*, "Concrete Highway Bridge at Freeport, Ont.", March 30th 1926.

<sup>4</sup>*Sessional Papers*, Public Accounts 1926, p. K29; Public Accounts 1927, p. L10. Since the discussion papers regarding the awarding of the contracts are not available in printed form, it is not possible to provide further information without visiting the Ontario Public Archives.

<sup>5</sup>*Canadian Engineer*, "Concrete Highway Bridge at Freeport, Ont.", March 30th 1926.

<sup>6</sup>*Sessional Papers*, Public Accounts 1926, p. K10.

"approximately 3,000 yards of concrete [were] poured, which required 150 tons of reinforcing steel and 4,500 barrels of cement".<sup>7</sup>

### Design/Style

The Freeport bridge is a bowstring truss bridge with seven spans and six piers. This type of bridge was built mostly during the first third of the 20<sup>th</sup> Century. It is a good example of the period that saw a move away from steel truss bridges to concrete truss bridges. It represents a newer material use but an older engineering design. (By the early 1930s, there was both a newer design concept - the rigid frame bridge - and the use of the newer material).<sup>8</sup>

### Prototype

For the 1920's, the six-foot wide sidewalk on the west side of the bridge was a unique feature on bowstring truss bridges. Although the same sidewalk is seen on the later Bridgeport Bridge, it was a new innovation at Freeport. According to the *Canadian Engineer*, this sidewalk was "a new feature in rural bridge design".<sup>9</sup>

### Structural Integrity

This bridge remains essentially as it was at the completion of construction, although there have been some modifications made to the deck material and various repairs over the years. Although it is in need of further repairs, the 1993 Municipal Bridge Appraisal concluded there was "no serious evidence of structural distress" at the time.

(Note: A complete rehabilitation of the bridge was undertaken in 2003.)

## Bridge Aesthetics and Environment

### Visual Appeal

This is a very attractive bridge, which has strong visual appeal when viewed from the bridge itself or from the riverbanks.

### Integrity

There is a high degree of integrity since the bridge is in its original location and retains its original visual characteristics.

### Landmark

Freeport Bridge is well known locally as a distinctive bridge and is certainly one of the older bridges in the City of Kitchener.

### Gateway

Although many people now approach the City on the newer part of Highway 8, this bridge does have a clear gateway function for those who use King Street, the old Highway 8.

### Character Contribution

The bridge adds significantly to the attractiveness of the older part of Highway 8.

---

<sup>7</sup>*Canadian Engineer*, "Concrete Highway Bridge at Freeport, Ont.", March 30<sup>th</sup> 1926.

<sup>8</sup>Discussion of this progression can be found in David Cuming, *Discovering Heritage Bridges on Ontario's Roads*, (Ontario: Boston Mills Press, 1988) part 2, particularly pp. 51-56.

<sup>9</sup>*Canadian Engineer*, "Concrete Highway Bridge at Freeport, Ont.", March 30<sup>th</sup> 1926.

## Historical Association

The Freeport Bridge is important historically because it is a part of the provincial highway upgrading which was undertaken after the Great War, in order to accommodate the rising popularity of the automobile. It represents an era which saw the rise of personal and leisure travel in an area which, only one hundred years before, had seen the first settlers.

As recently as 1992, the *Kitchener Waterloo Record* ran an article about a local resident who remembered the building of the bridge. Charlie Gottfried lived in the small house on the southeast bank of the river. The traffic on King Street (Highway 8) passed to the front of the house and the rail traffic passed to the back of the house. He recalled how he had made 50 cents per week selling water to the labourers who worked on the bridge. Some of those same labourers were Polish immigrants who, lacking other accommodation, dug caves in the riverbank and slept there wrapped in burlap.<sup>10</sup>

The present day Freeport area has long been an important crossing area for the Grand River. The present bridge is slightly downstream from the original fording place and is the fourth successive bridge in that approximate location. In 1820, the first bridge, a wooden structure, was erected to allow crossing when the water was too high to ford. Subsequently, another wooden bridge replaced that one in 1865, and beams from the second bridge were known to be in a barn in Preston (Cambridge) as late as the 1960s. Around 1880, the last wooden bridge was replaced with a steel bridge, which was the first one built in the county. When the steel bridge was taken down in order to build the present concrete bridge, two spans went to Woolwich Township and one to Wellesley.<sup>11</sup>

In the 19<sup>th</sup> century, there was a significant settlement in the area of the Freeport Bridge, but little remains today apart from the older house on the southeast bank. However, the Region's bomb shelter/command centre, for local officials in the event of nuclear war, can be seen on the northwest bank close to the bridge. In spring and summer, there are many varieties of local wild flowers growing on the riverbanks in the area of the bridge. It also marks a popular local fishing spot.

## Bridge Group

Freeport Bridge is one of a group of four bridges, two of which are in Kitchener, one in Cambridge and one in Caledonia. All were erected in a similar time period and are similar in style. They all represent part of the upgrading process that occurred between the Great Wars in this Province.

(Note: The Freeport Bridge was designated as a heritage structure by the City of Kitchener in 2003.)

---

<sup>10</sup> *Kitchener-Waterloo Record*, "Freeport Bridge Holds Many a Tale," September 20, 1992.

<sup>11</sup> *Waterloo Historical Society Journal*, R.S. Oberholtzer, "One Hundred and Fifty Years of Change Along the Preston-Kitchener Roadway," Volume 51, 1963, pp. 80-81.



# Freeport Bridge

**Location** MTO Site No. 33-136, King Street East, 0.2 km north of Riverbank Road, City of Kitchener.

## General Information

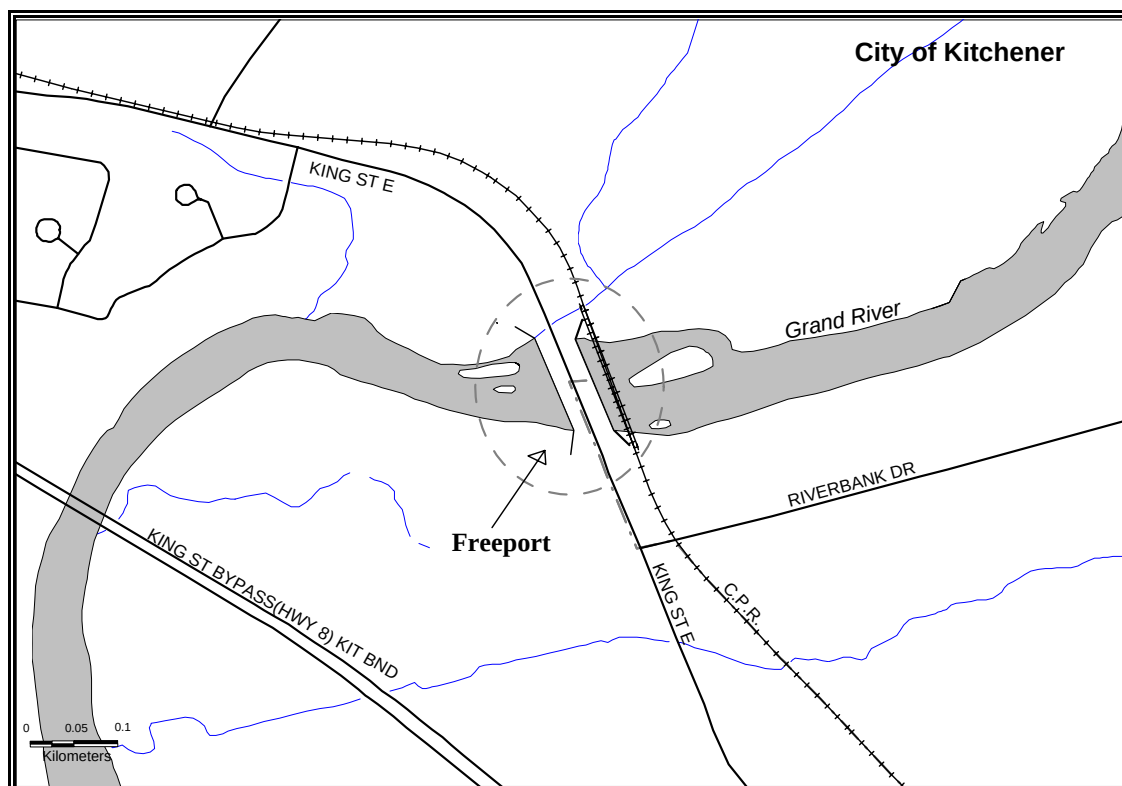
|                     |                                   |
|---------------------|-----------------------------------|
| <i>Bridge No.</i>   | 000807                            |
| <i>Jurisdiction</i> | Regional Municipality of Waterloo |
| <i>Year built</i>   | 1926                              |
| <i>Drawings</i>     | Regional HQ                       |

## Physical Components

|                   |                                |
|-------------------|--------------------------------|
| <i>Type</i>       | Concrete Bowstring             |
| <i>Spans</i>      | 7                              |
| <i>Dimensions</i> | Length 160.1 m<br>Width 22.1 m |
| <i>Load Limit</i> | None posted                    |

## Descriptive details

This is a seven-span, concrete, bowstring arch bridge, with a concrete deck and asphalt wearing surface. This bridge represents the next step in bridge evolution, the highway bridge. This bridge crosses the Grand River along the Kitchener/Cambridge border. There are three bowstring bridges in the Region: Freeport, Bridgeport, and Main Street Bridge in downtown Galt. The bridge was completed rehabilitated in 2003.

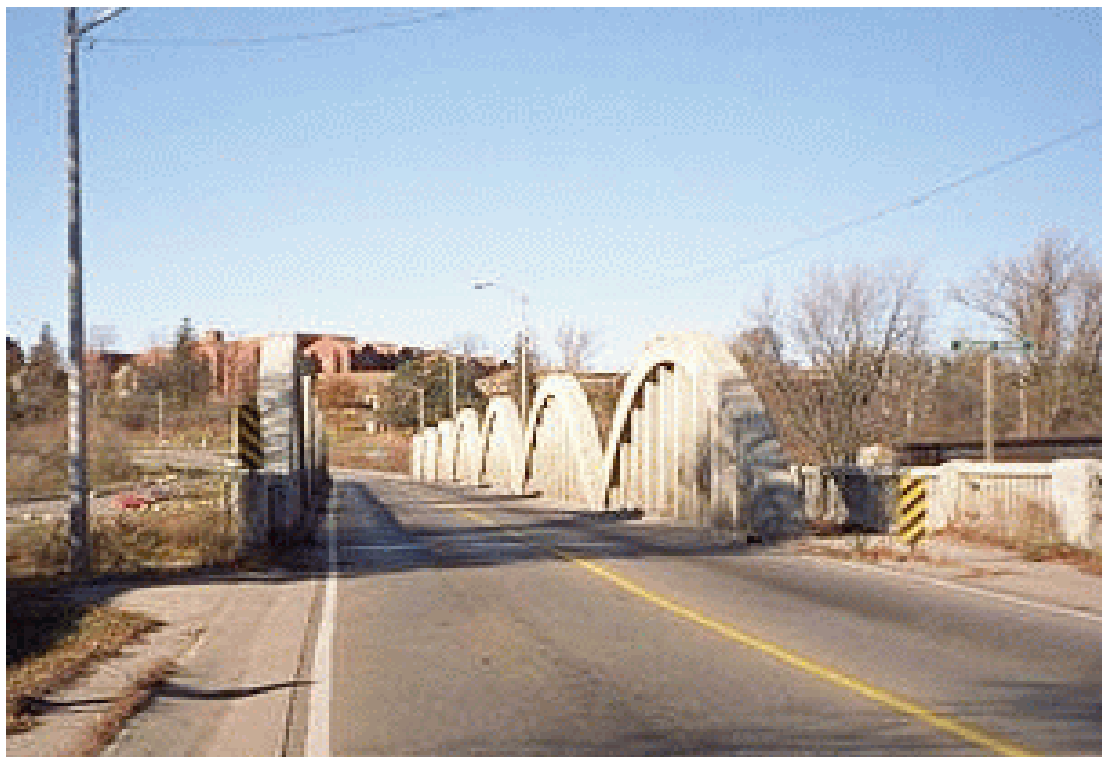


## Freeport Bridge

North View



South-East View



## Freeport Bridge Bibliography

"Concrete Highway Bridge at Freeport, Ont." Canadian Engineer, 30 March 1926.

"Decay." K-W Record. 18 August 1972. Photograph

"High wires." K-W Record. 16 July 1987. Photograph

"Juggling act gets everybody running." K-W Record. 18 Dec 1981. Photograph

"New Freeport Bridge Recalls Near- Tragedy." K-W Record. 7 Sept.1963. Photograph

"Repairs under way." K-W Record. 11 July 1973. Photograph.

"Start Work to End Freeport Hazard." K-W Record. 9 Oct. 1953. Photograph

"The Lion and the Lamb." K-W Record, 15 May 1978. Photograph

"Township of Waterloo the first far-inland Settlement in Upper Canada" WHS. 1922, 219.

"Woolwich Township Council: By-Law No. 3, 21. Feb. 1850." Waterloo Historical Society (WHS), Waterloo, Ontario. 1961, 39.

Breithaupt, W.H. "The 'Canada' Museum" WHS. 1939, 66.

Caldwell, B., "Freeport Bridge holds many a tale." K-W Record, 30 Sept. 1992. Photograph

Cuming, D. Discovering Heritage Bridges on Ontario's Roads, Ontario: Boston Mills Press, 1988.

Heinrichs, E. "Heritage Property Report for Heritage Kitchener, Freeport Bridge" Kitchener, Ontario, July 1988.

Canada. Ontario Legislative Assembly Sessional Papers, Public Accounts for the years 1922-23 p130, 1927 p. K29.

Jaffray, P.J. The highly industrialized and strikingly beautiful Grand River Valley, Galt: Jaffray, 1932: 43.

Oberholtzer, R.S. "One Hundred and Fifty years of Change along the Preston-Kitchener Roadway", WHS, 1963 p. 81.

Panabaker, D.N. "Town of Hespeler" WHS, 1958, 33.

Schmidt, J. & Taylor, A. "The Electric Railways", WHS. 1956, 30.

Sherk, M.G., "Reminiscences of Freeport" WHS. 1924, 104.\_

# West Montrose Covered Bridge

Score: 76



---

## Documentation

### Builder

John Bear was hired by Woolwich Council on October 15, 1880 to inspect the following bridges: the West Montrose bridge over the Grand River, the bridge over the Conestogo River at Daniel Weber's farm and the gully bridge on the north side of Scheifele's farm.<sup>12</sup> On November 16, he stated that these bridges should be replaced in the following year.<sup>13</sup>

On January 17, 1881, Woolwich Council accepted the tender of \$3,197.50 from John and Benjamin Bear for a covered bridge at West Montrose. John Bear prepared the plans and specifications for a two-span, covered bridge. The total cost, including the extra work, for building this bridge was \$3,557.65.

Bear became a renowned bridge builder after he built the West Montrose bridge. A number of his drafting instruments are part of the museum collection at Doon Heritage Crossroads.

On the 9<sup>th</sup> day of May, 1883, George Peppler & Company's tender to paint the bridge with oil paint for \$74.25 was accepted.<sup>14</sup> In 1895, a cedar crib was built by M. Richard Boye at a cost of \$124.00. In 1900, Bowman and Elliot built a centre pier of stone at a cost of \$981.00. The total cost of the bridge was \$4,662.<sup>15</sup>

### Age

The covered bridge was built in 1881. It is the second oldest surviving bridge in the Region.<sup>16</sup>

## Technology

### Materials

In 1881, the West Montrose Bridge was constructed entirely of wood. Over the years, stronger materials have been used when replacing the abutments, piers and deck. Today, the bridge is made of a combination of steel, wood, concrete, asphalt and stone. Despite these improvements, the bridge maintains its original form.

---

<sup>12</sup> *Waterloo Historical Society Journal*, Kathryn Lamb, "West Montrose Covered Bridge," p 27.

<sup>13</sup> *Woolwich Council Minutes*, Nov 16, 1881 p.280

<sup>14</sup> This information comes from the Elmira Municipal Archives, Box #5-1-2-8. "Bridge Book, with statements of Bridges in the Township of Woolwich, November A.D. 1903. It contains builders, tenders, costs and repairs for every bridge in Woolwich from 1881-1910.

<sup>15</sup> Bridge book, 1903, p.36.

<sup>16</sup> After the Inventory was published, it was discovered that the Mill Creek bridge in Soper Park was built in 1837, not 1910. A stone masonry bridge was built in 1910 over Mill Creek across Kerr Street. It is now an underground culvert. The confusion arose from the identical names.

## Design/Style

The West Montrose Bridge is particularly unusual, a hybrid Howe, truss configuration, covered bridge.<sup>17</sup> A bridge built entirely of wood, without any protective coating, would last 10 to 15 years. Builders had discovered that if the bridge was protected with a roof, it could withstand the wear of the weather for 70, or perhaps 80 years.<sup>18</sup> The specifications for this bridge are available at the Kitchener Public Library's Grace Schmidt Room and the Elmira Municipal Archives.

## Prototype

John Bear had experience in building local barns, but the West Montrose Bridge was his first bridge. His design was most likely used in subsequent building projects. The first covered bridge in the county, however, was the "Shingle Bridge" in Blair.<sup>19</sup>

## Structural Integrity

The appearance of the covered bridge has been preserved but over the years, it has undergone extensive repair and renovations. The West Montrose Bridge has been repaired almost every other decade, as required. No records have yet been found as to when the original timber abutments were replaced with concrete (assumed to be after 1900), but all other information has been recorded. In 1904, the bridge was closed for the first time as workmen planked over the original oak floor. The wooden trusses were replaced in 1933. In 1955, the first floor of three-inch oak planking was replaced by longitudinal two-inch planking, a deck of laminated two-by-fours, and a covering of asphalt-bonded crushed stone. In 1959, the Bailey truss bridge, which was recycled from the Second World War, replaced the internal structure. The metal spans were concealed behind wood panelling to maintain the original appearance. The ridge-and-batten boards were tightened in 1971, the roof was re-shingled in 1987, and needle beam extensions were replaced in 1995 and 1996.<sup>20</sup>

Editor's note: Structural integrity rehabilitated in 2000.

## Bridge Aesthetics and Environment

### Visual Appeal

The West Montrose Bridge is the most colourful bridge in the Region. It is painted bright red, with decorative interior lamps and a gabled roof. It is an attractive and a well-built structure. Many artists and photographers come to West Montrose to capture the pastoral setting surrounding the bridge.

### Integrity

This bridge has a high degree of integrity, and is in its original location.

---

<sup>17</sup>Ted Brumfitt, Giffels' Structural Evaluation Report West Montrose Covered Bridge, Kitchener, Ontario, 1996;p.3 Brumfitt notes: "The trusses of the West Montrose Bridge are commonly referred to in literature as Queen Post Trusses. However their configuration does not truly represent a Queen Post and is probably more correctly described as a hybrid Howe configuration. The confusion probably arises from the unusual (if not unique) top chord configuration which gives the impression of two superimposed Queen Posts with a King Post at mid-span. A true Queen Post includes two or three verticals, single uniform top chord and inclined end members (i.e. no interior diagonals). Queen Posts were entirely of heavy timber construction. William Howe introduced iron rods as a modification to the popular 'Long' truss in 1840. He substituted iron rods with nuts and turn buckles for the timber uprights of the 'Long' configuration. However, as noted, the top chord configuration and joint configurations of the West Montrose Bridge represents a unique departure from the typical 'Howe' truss"

<sup>18</sup>*Waterloo Historical Society Journal*, Kathryn Lamb, "West Montrose Covered Bridge," 1977, p. 25.

<sup>19</sup>According to Robert Ligget *The History of Doon*, "The Steel Bridge," 1984,p3. The Journal belonging to Samuel B. Bowman has an entry dated Nov. 14, 1835 for labour on the road from the (Blair) Bridge to Erb's Mill. This means the "Shingle Bridge," which made Blair famous, was in use in 1835. It was destroyed in 1857 by a flood.

<sup>20</sup>Brumfitt, *Structural Evaluation Report*, p19-20.

## Landmark

The West Montrose Covered Bridge maintains a high profile. Most people know what this bridge looks like and where to find it. Large signs on Highway 86 advertise the bridge location. The red bridge stands out against the green meadows and surrounding park area in the summer. The bridge identifies the community and the residents have placed a symbolic importance upon the structure, often calling it the 'Kissing Bridge'.

## Gateway

The West Montrose Bridge is the gateway dividing the north and south parts of the Village. The northern section of West Montrose was developed after Highway 86 was re-routed. Today, the bridge is primarily used by local residents and tourists, and is near the entrance to a small park.

## Character Contribution

There is a strong bond between the residents and the bridge. The bridge has been involved in many community events, both past and present. The Village is closely identified with the bridge and advertised in many tourism handbooks and brochures. The age of the bridge contributes to the pastoral setting of the Village.

## Historical Association

A notice to bridge-builders was posted in 1880 by John L. Wideman in St. Jacobs, calling for tenders for a covered bridge at West Montrose to span the Grand River. Part of the expense would be covered by the Ontario Ministry of Transportation and Communications and the remainder by the Township of Woolwich. The contract was awarded to the Bear Bros., John and Benjamin, for a sum of \$3,197.50.

John Bear prepared five pages of specifications, written in longhand, to accompany his drawings. The bridge was to be 198 feet long, 20 feet wide, and 13 feet from the low water mark to the top of the corbel. Hardwood was used throughout the structure, but pine was reserved for the rafters. The original timbers were very large, measuring 50 feet long, and 9 to 18 inches thick.

When the bridge was built it measured approximately 208 feet long, 17 feet wide and 13 feet high. Originally, the substructure (pier and abutments) was made of cedar cribs filled with loose stone. The pier consisted of 15 piles driven to a depth of 12 feet, "as far as a hammer of one ton weight will drive them at a rate of one quarter inch to a blow".<sup>21</sup> The oak planks were joined with 7-inch wrought iron spikes. The design also called for 20 shutter type windows, like permanent venetian blinds, admitting air and some light but keeping out rain. According to some of the local residents, however, these windows were never installed, and instead the bridge was originally built with only two windows in the middle.

Early in 1881, the work commenced. The timbers of oak were obtained from the Bridgeport area, and the white pine was cut near Blair and Doon. These timbers were prepared at the West Montrose sawmill, owned by W.J. Letson. Daniel Snyder and Joseph S. Snyder were appointed as a committee to ensure the timber was of the best quality, with no splits or loose knots. The bridge was ready for traffic by November 15, 1881. In May 1882, Geo. Peppler and Co. was contracted for \$74.25 to cover the new bridge with residual oil and fire proof paint.

Each winter a local farmer was hired to "snow" the bridge. This enabled sleighs and cutters to cross the bridge without damaging the oak planks. In 1885, Frank Snyder received \$5.00 for this job, \$6.50 in 1886, and \$8.00 in 1888.

In 1885, Daniel S. Snyder procured a coal-oil lamp and placed it inside the bridge. From then on, the villagers maintained the lighting of the bridge. The cost for maintenance in 1886 was \$21.10, and \$30.50 in 1887. Maintenance included daily cleaning of the glass chimneys and filling the lights with coal oil. A long pole, equipped with a hook, was used to hoist each light onto a beam 13 feet above the bridge floor. In 1950, three 100-watt bulbs were suspended from the ceiling to replace the old lanterns, but were constantly broken by tall trucks. In the goodwill tradition of the citizens, the County paid for electric lanterns in 1954.

The Ontario Archaeological and Historic Sites Board recognized the bridge as an historic site in 1960. In 1975, the bridge was designated as a heritage site. Photostatic copies of the plans and specifications are available in the Woolwich Township offices, Elmira, and the Waterloo Historical Society archives in the Kitchener Public Library.

---

<sup>21</sup> John Bear, *West Montrose Bridge Specifications*, 1881, p. 1.

## Bridge Group

The West Montrose Bridge is unique, and therefore not part of a group of bridges in Waterloo Region. In 1900, New Brunswick had an estimated 400 covered bridges, and Quebec more than 1000, while Ontario had at least 6. One was located in Trenton, and another near Frankford, two in Glengarry County at Williamstown and Martintown, and another located near Napanee. These bridges disappeared a long time ago. The West Montrose bridge is the last early covered bridge in Ontario.

## Jurisdiction

Ownership has changed many hands since the bridge was originally built. As stated earlier, Woolwich Township was the original owner, and later it was transferred to Waterloo County. The Ontario Department of Highways claimed ownership when the Guelph-Elmira road became King's Highway No. 86. The County of Waterloo took responsibility for Highway 86 in 1937, but the Ministry of Transportation retained ownership so the bridge could be properly preserved. In January of 1998, the Ministry passed the ownership to the Regional Municipality of Waterloo.

## Human Interest

The West Montrose Bridge has always remained the focal point of community activity. In addition to connecting both sides of the Village and providing safe passage from Elmira to Guelph, it provided a convenient, dry place for festivals, public speakers, circus posters, merchant advertisements, and even Christmas carollers.

Since it was first built, the West Montrose bridge, as was common of such bridges, has been known as the 'Kissing Bridge'. After all, it was secluded and it was against the law to travel over any bridge faster than a walk. Local girls learned to be wary when their escort's horse stopped inside the bridge without any command from the driver.

Perhaps Elmira District High School students will have the fondest memories. A photograph taken in November 15, 1952, by the K-W Record, shows a familiar bridge-crossing ritual. After the County imposed a two-ton load limit, the local school bus, weighing more than 13 tons, stopped as it approached the bridge. One student would then cross the bridge and wave a red flag at the other end to stop oncoming traffic. The rest of the students would then cross, and the empty bus followed. The bridge was soon after by-passed by the main highway, but it is remembered by all as a relic of romance, built when the pace of life was a bit slower. The familiar heart-shaped graffiti etched in its wood echoes its local name.

# West Montrose Covered Bridge Bibliography

"Ontario's Last Covered Bridge Back in Service," K-W Record. 7 Oct. 1954.

"Repair Landmark," K-W Record. 16 May 1959.

"Repair Historic Bridge," K-W Record. 17 August, 1954.

"Students leave bus." K-W Record. 15 Nov. 1952.

Bear, John. "Specifications." 1881. Kitchener Public Library. Grace Schmidt Room. WHS vertical files, Covered and Carlisle Bridge.

Craig, Jeff. "Unique Bridges: Testament to Pioneer Spirit," Sparetime. Oct. 1986.

Giffels. Structural Evaluation Report West Montrose Covered Bridge. Kitchener, Ontario. 1996.

Lamb, Kathryn Lamb. "West Montrose Covered Bridge," WHS. 1977, p 27.

Ligget, Robert. "The History of Doon: The Steel Bridge." Cambridge Archives, 1984.

Reitz, Thomas. "Covered Bridges: Spanning Rivers with Elegance and Shelter." Doon Collections. Covered Bridge vertical file.

Township of Woolwich. Clerks Department. "Township Council Minutes". 1881. [manuscript]

Township of Woolwich. Clerks Department. "Bridge Book" 1903 [manuscript]

Zacher, Susan. M. The Covered Bridges of Pennsylvania: A Guide, Harrisburg: the Pennsylvania Historical and Museum Commission, 1989, the official guide.



## West Montrose Covered Bridge

**Location** Bridge St. (now Covered Bridge Drive), 0.1 km north of Riverside Dr. (Rivers Edge Drive) in the Village of West Montrose, Township of Woolwich.

### General Information

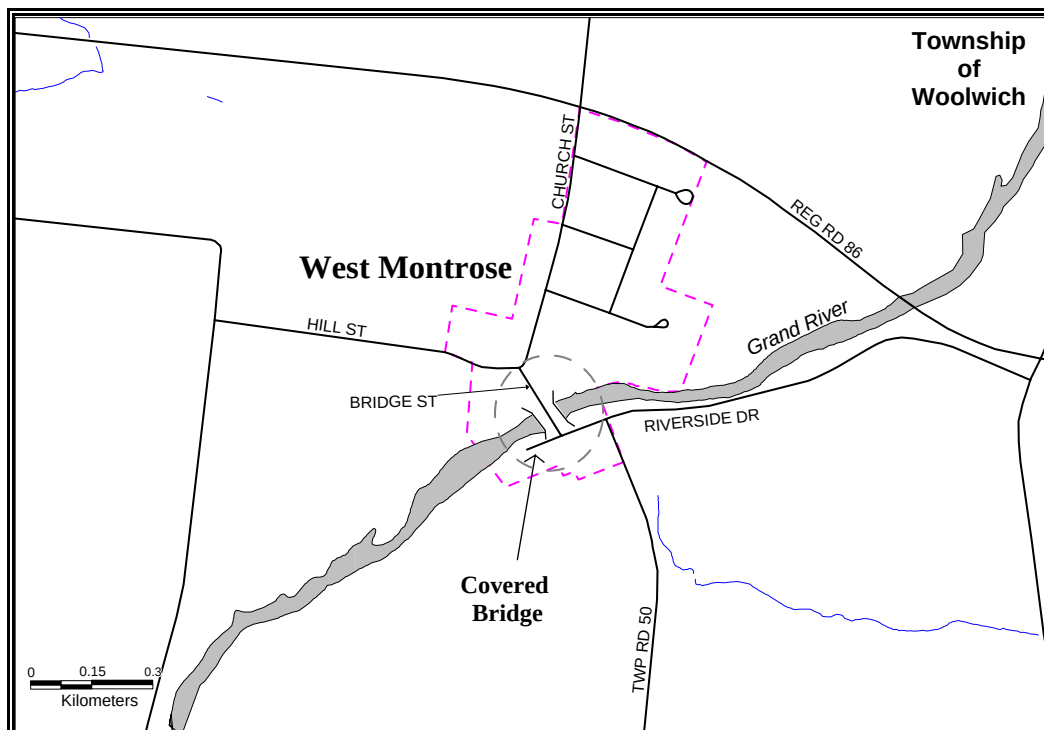
|                     |                                                  |
|---------------------|--------------------------------------------------|
| <i>Bridge No.</i>   | N/A                                              |
| <i>Jurisdiction</i> | Regional Municipality of Waterloo                |
| <i>Year built</i>   | 1881                                             |
| <i>Drawings</i>     | Kitchner Public Library and Township of Woolwich |

### Physical Components

|                   |                                                           |
|-------------------|-----------------------------------------------------------|
| <i>Type</i>       | Wooden, Covered                                           |
| <i>Spans</i>      | 2                                                         |
| <i>Dimensions</i> | Length 62.4 m<br>Width 5.1 m,<br>Vertical Clearance 3.9 m |
| <i>Load Limit</i> | 3 tonnes                                                  |

### Descriptive details

This is the last remaining, nineteenth-century, covered bridge in Ontario. It was built by John and Benjamin Bear. Until recently, it had been owned and maintained by the Provincial Government. It has been a heritage bridge since 1962, and attracts thousands of tourists to the small Village of West Montrose every year.



## West Montrose Covered Bridge

North East View



East View





## West Montrose Covered Bridge

South View



# Main Street Bridge

Score: 74



## Documentation

### Builder

A.B. Crealock was the bridge engineer for the Province of Ontario during the 1920s. He designed the Main Street Bridge in Galt, as well as the Freeport Bridge. His office was located at 156 Young St., Toronto. He made the plans for the Main Street Bridge at no cost to the City of Galt. The City borrowed on debentures and created bylaws to pay for the cost of this bridge during the Depression. The Bank of Toronto granted an additional credit of \$50,000 to the City. Crealock sought tenders for the bridge on Nov. 1, 1930. The tender for Yates Construction Company was accepted August 14, 1931. The bid was \$52,000, the lowest of 18 tenders. In total, \$65,000 was raised by the City through debentures.

### Age

The Main Street Bridge was built in 1931, during the Great Depression. The provincial government encouraged public works programs during this period, paying 2/3 of the total cost. The concrete workmen were paid 40 cents an hour to build the bridge.

## Technology

### Materials

The bridge is made of reinforced concrete.

### Design/Style

The Main Street Bridge is a two-span, concrete, bowstring bridge. Crealock called it a concrete truss bridge. The bowstring bridge is the concrete version of a contoured steel truss bridge. Its rise in popularity accompanied the popularity of the automobile. These bridges were designed to hold heavy traffic and meet future traffic demands.

### Prototype

Freeport Bridge was the first concrete truss bridge designed by A.B. Crealock. The Main Street Bridge is a scaled down copy of the Freeport Bridge.

### Structural Integrity

There have been no significant modifications. The bridge has been resurfaced and repaired over the years, but these improvements were not structural.

## Bridge Aesthetics and Environment

### Visual Appeal

The bridge is very attractive, ornamental and unique. The visible concrete contributes to the "stone" theme of Galt.

## Integrity

The bridge has stood the test of time. It is still at its original location, which is one of the oldest Grand River crossings in the Region of Waterloo.

## Landmark

The bridge extends the aptly named Main Street in the centre of Galt and crosses over the Grand River. It is a municipal heritage landmark, designated on July 19, 1982. Galt is a part of the City of Cambridge, but its identity is associated with this bridge.

## Gateway

Main Street Bridge was the first connection between the east and west side of the Grand River in Galt. The Concession Street Bridge and the Queen Street Bridge (Park Hill Road Bridge) were built shortly thereafter.

## Character contribution

The Downtown Cambridge Business Improvement Association uses a stylized bowstring bridge as its symbol for information signs in its downtown core.

## Historical Association

The first bridge to cross the Grand River at Galt was built by Absalom Shade in 1819. The small wooden bridge was built beside Absalom Shade's store on Main Street, but it was called "Dickson's bridge" after William Dickson who contributed 800 pounds to its cost. The total cost of the bridge was 2000 pounds. The other main benefactors included: John Shirie, 40 pounds; Moses Strumball, 30 pounds; George Clemens, 20 pounds; Philip Saltzberry, 25 pounds; Thos Clark, 25 pounds. These merchants also repaired the bridge since it linked together the east and west sides of the river. This bridge was replaced in 1832, but it played an important role in the early economic development of Shade's Mill, which later became Galt.

Floods plagued the Grand River. The 1832 wooden bridge was destroyed by a flood in 1834. Again, the bridge was rebuilt, only to suffer the same fate again in 1840, 1854 and 1857. Alexander Carter built the 1854 bridge.

In 1866, the bridge was declared unsafe and closed. McDougall and Bloomfield built the new bridge at a cost of \$1,300. It was opened to the public on June 21, 1867. A flood destroyed the bridge in 1878 and a new steel bridge was built by the Hamilton Bridge and Tool Co. It cost \$4,370 and it was officially opened on December 31, 1878. Floods damaged the steel bridge in 1898 and again in 1918. The bridge was repaired both times. This durable bridge began to show its age when in 1927 the organizers of the Galt Reunion felt a need to apologize for the shoddy appearance of the bridge in their Official Reunion program. The present bowstring bridge replaced the steel bridge in 1931. It was designed by Archie B. Crealock and was built at a cost of \$52,000 by W. H. Yates Construction Co. Ltd. It was opened to the public on December 2, 1931 and was designated as a Cambridge heritage structure on July 19, 1982. Financing for the bridge was provided by the former City of Galt.

## Bridge Group

Park Hill Road Bridge was built to the north, and Concession Street Bridge to the south of the original Main Street Bridge. Bridgeport and Freeport are the two other bowstring bridges in Waterloo Region.

## Human Interest

The bridge is famous for its strategic location. In 1836, the Galt Volunteers were posted around the clock on the Main Street Bridge with instruction to intercept the fleeing William Lyon Mackenzie and his followers. There was a 1,000 pound reward for the arrest of the rebel leader. McKenzie, warned of the trap, sought refuge in Galt before fleeing to the United States. To pay for the erection of the current arched bridge, Albert Brown helped to sell tickets to "buy a brick" for the new bridge. The local merchants petitioned the City to open the bridge early on Dec. 8, 1931, for Christmas trade.

# Main Street Bridge Bibliography

"1931 social life was active" Cambridge Reporter. 22 Dec. 1981.

"Bridge now officially open" Cambridge Reporter. 1 Oct. 1983: 3.

"City's Main Street Bridge celebrates 50th anniversary" Cambridge Reporter. 22 Dec. 1981.

"Then and Now." Cambridge Times. 3 Feb. 1993: 5.

"Then and Now" Cambridge Times. 3 May 1995: 3.

"This was the old main street bridge 40 years ago" Evening Reporter. 4 Feb. 1970.

City of Cambridge. Corporate Archives. Main Street vertical file, A986.219.100 B "Mr. W.H. Fairchild to A.B. Crealock." 1931.

City of Cambridge. Corporate Archives. Main Street vertical file. "Frank Barber and Associates Limited" 28 July 1931.

City of Cambridge. Corporate Archives. Galt Council Minutes, August 14th 1931. August 10th 1931, July 22 1931.

Hamilton, R.S. "The Early History of Galt, 1816-1866", 1956.

Hoerle, Brenda. "City's thrift kept postponing new bridge" Cambridge Reporter. 13 May 1989. 6A.

Innes, J., "Main Street Bridge an important link" Cambridge Reporter. 4 Nov. 1989

McLaughlin, K. Cambridge: The Making of a Canadian City, "The Great Flood of 1974" Burlington, Ontario, 1987.

City of Cambridge. Corporate Archives. Picturesque and Industrial Galt, Galt, 1902.

Quantrell, J. "Bridges of Cambridge" A Part of our Past: Essays on Cambridge's History. Cambridge Archives, 1996.

Quantrell, Jim. The Bridges of Cambridge. Cambridge Archives. Cambridge, Ontario. 1994.

# Main Street Bridge

**Location** MTO Site No. 33-180, Main Street, 0.1 km west of Water Street, City of Cambridge.

## General Information

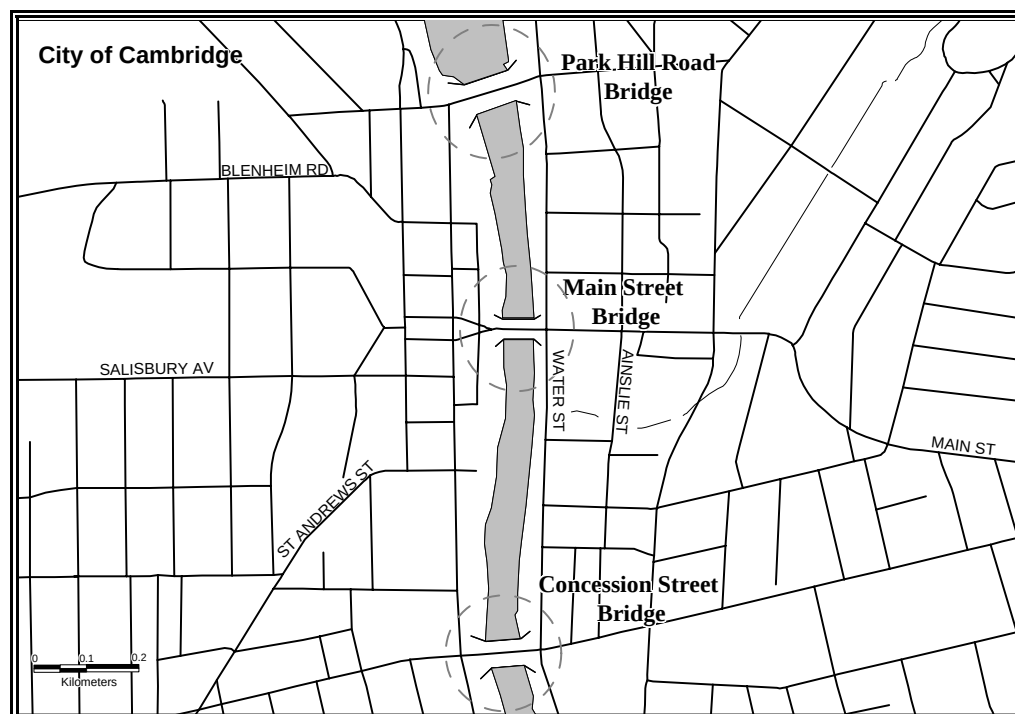
|                     |                                   |
|---------------------|-----------------------------------|
| <i>Bridge No.</i>   | 002703                            |
| <i>Jurisdiction</i> | Regional Municipality of Waterloo |
| <i>Year built</i>   | 1931                              |
| <i>Drawings</i>     | City of Cambridge and Regional HQ |

## Physical Components

|                   |                                                   |
|-------------------|---------------------------------------------------|
| <i>Type</i>       | Concrete Bowstring                                |
| <i>Spans</i>      | 2                                                 |
| <i>Dimensions</i> | Length 59.6 m<br>Each Span 29.5 m<br>Width 18.5 m |
| <i>Load Limit</i> | None posted                                       |

## Descriptive details

This is a two-span, concrete, bowstring arch bridge with a concrete deck and concrete wearing surface. It has concrete balustrade handrails and sidewalks which are in good condition. It crosses the Grand River in the heart of old Galt. Bowstring symbols are used throughout the downtown to indicate historic tourist attractions. These include but are not limited to: City Hall, City Archives and Market Square. This bridge has been a designated structure since 1982.





## Main Street Bridge

West View



South View





# Hartman Bridge

Score:70



---

## Documentation

### Builder

The Hartman Bridge in New Hamburg was built by the Hamilton Bridge and Tool Company. This company was a prolific bridge builder between 1910 and 1950, specializing in steel truss bridges. Three companies monopolized steel bridge construction in Waterloo County. These companies were the Hamilton Bridge Company (1910-1950), the Hamilton Bridge Works Co. (1900-1920), and the Hamilton Bridge and Iron Co. (1880-1900). Waterloo County purchased steel, and steel bridges, from these companies because they were always able to underbid their competitors.<sup>22</sup>

### Age

The bridge was built in 1936, during the Depression. The age and the builder are stamped on a bronze plaque attached to one of the main beams.

## Technology

### Materials

The Hartman Bridge is made of steel. Concrete was the popular building material at the time but the steel bridge was cheaper and a utilitarian bridge was required.

### Design/Style

The bridge is a single-span, Pratt truss bridge. It imitates a popular bridge design of the 1910s but is built with thick rivetted stringers. The two traffic lanes indicate it was designed to hold automobiles.

### Prototype

The Hartman Bridge is not a prototype. In fact, the design was quite old (26 years), but the bridge was built during the Depression and thus an inexpensive and utilitarian structure was needed.

### Structural Integrity

The Hartman Bridge has been repainted in the recent past, and reinforced with additional steel members. It is a sturdy bridge.

## Bridge Aesthetics and Environment

### Visual Appeal

The bridge illustrates an excellent example of structural engineering of the 1930s. The bridge is not enclosed, which allows one to see through the bridge, and to have an unrestricted view of the surrounding landscape.

---

<sup>22</sup>Generalization made from the *Waterloo County Minutes*, 1880-1930.

**Integrity**

The Hartman Bridge remains at its original location.

**Landmark**

The bridge is a distinctive landmark. It is hard to miss the large superstructure when passing through New Hamburg.

**Gateway**

The Hartman Bridge divides the east and west sides of the Town. By crossing the bridge, the east-bound traveller enters the commercial district of New Hamburg, which is also the oldest part of the Town.

**Character contribution**

This steel bridge contributes to the character of New Hamburg and Wilmot Township. Wilmot possesses the majority of the steel truss bridges in Waterloo Region. There are five steel truss bridges in Wilmot, which contribute to the rustic and rural image of Wilmot.

**Historical Association**

The current Hartman Bridge replaced the original Hartman Bridge. The first Hartman Bridge was built around 1900 and named after a prominent merchant. A bridge has existed in this location since New Hamburg was founded. In the 1980s, the bridge was used in the making of a movie.

**Bridge Group**

The Hartman Bridge is part of the group of similar truss bridges in the surrounding area. The other bridges are Shade Street, Holland Mills, Haysville, Oxford-Waterloo, and Bridge Street bridges.

# Hartman Bridge

**Location** MTO Site No. 33-117, Huron Street, 0.2 km east of Waterloo Street, Village of New Hamburg, Township of Wilmot.

## General Information

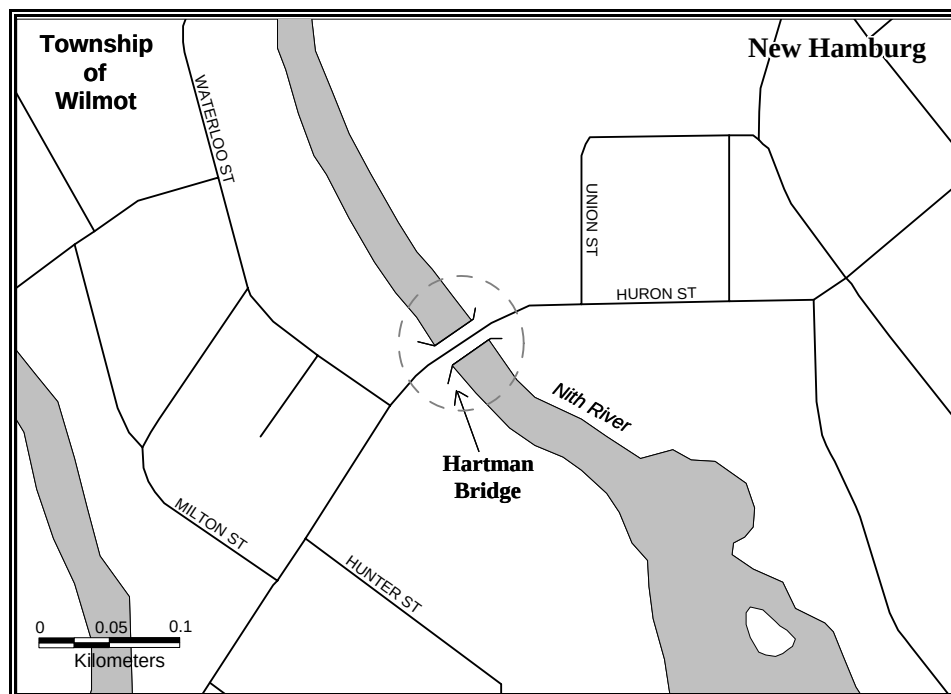
|                     |                                   |
|---------------------|-----------------------------------|
| <i>Bridge No.</i>   | 000404                            |
| <i>Jurisdiction</i> | Regional Municipality of Waterloo |
| <i>Year built</i>   | 1936                              |
| <i>Drawings</i>     | Regional HQ                       |

## Physical Components

|                   |                               |
|-------------------|-------------------------------|
| <i>Type</i>       | Through Truss                 |
| <i>Spans</i>      | 1                             |
| <i>Dimensions</i> | Length 41.5 m<br>Width 11.4 m |
| <i>Load Limit</i> | None posted                   |

## Descriptive details

This is a single-span, structural steel through truss bridge with a concrete deck and asphalt wearing surface. It spans a length of 41.5 m, with a deck width of 11.4 m, over the Nith River. It has a concrete sidewalk with a steel-latticed handrail. In relative terms, this bridge is better preserved than other truss bridges in the area. According to the 1993 bridge appraisal report, there is no serious evidence of structural distress. The structure is intact, but has been slightly modified.



## Hartman Bridge

North View



East View



## Hartman Bridge Bibliography

Regional Municipality of Waterloo. Clerks Department. County Council Minutes. 1880-1930.

Ritz, Ernst. Personal Interview. 23 Nov 1998.

# Mill Creek Bridge

Score: 68



---

## Documentation

### Builder

There is little known about the designer and builder of the Mill Creek Bridge in Soper Park. It is suggested that S. Ghanekar designed this bridge, but this has not been verified by a primary source. The builder remains unknown.

### Age

It is estimated the bridge was built in 1837, making it the oldest surviving bridge in Waterloo Region. The date of 1837 and accompanying photographs are mentioned in *The Jubilee Souvenir of Galt*, 1897, *The Strikingly Beautiful and Highly Industrialized Grand River Valley*, 1932, and the *Galt Centennial and Old Home Week*, 1927. *The Picturesque Galt: The most substantial and prosperous town in Canada*, 1902, makes reference to the "old bridge" but does not give a date.

## Technology

### Materials

Mill Creek Bridge was made of stone. Stone was a popular building material in Scotland, and most of the inhabitants of Galt were of Scottish decent. Stone bridges were popular during early railroad construction (1859-1880) and used as centerpieces in urban parks from 1900 to 1920. Stone was popular since it was both durable and fireproof.<sup>23</sup>

### Design/Style

The bridge is a single-span, stone masonry arch. It was incorporated into the development of Jackson's Park, which was later named Soper Park.

### Prototype

The Mill Creek Bridge is an early example of the stone masonry arch. There are only two stone masonry arches in Waterloo Region. The other bridge is located south of Cambridge along Highway 24, just past the Footbridge. Refer to Spanning the Generations Phase I: Inventory, for details. It is believed this bridge was built circa 1898.

## Structural Integrity

Mill Creek Bridge has been repaired/reconstructed several times. It was widened recently to accommodate the widening of Dundas Street. The structural arch has been altered. The interlocking stones have been shaved/shortened and the keystone is missing. A concrete lining artificially strengthens the arch. Steel and wooden inserts strengthen the upper blocks. The abutments have been encased in a field stone and concrete mix. A steel and concrete pedestrian walkway has been added underneath the arch. In conclusion, this bridge has been significantly altered from its original form. In 2004 the existing concrete will be replaced, replicating the original arch structure, and the existing stone facing will be salvaged and re-installed. The keystone is no longer visible and many of the stone blocks have been trimmed and the arch is lined with modern concrete. A wooden beam, reinforced and bolted with a steel cover provides additional support for the bridge.

---

<sup>23</sup>David Cuming, *Discovering Heritage Bridges on Ontario's Roads*, 1983, p.18.

## Bridge Aesthetics and Environment

### Visual Appeal

The bridge is very old and decorative, and it is an architectural masterpiece. In 1905, when the City was improving Jackson's Park, Frederick Todd described the bridge as "rustic" and suggested that other bridges in the park should imitate its look.<sup>24</sup> The Park Board responded that stone bridges would be too expensive. The other bridges were instead made of cedar, with the bark still intact.

### Integrity

The Mill Creek Bridge is in its original location.

### Landmark

This bridge is a prominent feature of Soper Park, and separates the north and south sides of the park.

### Gateway

Not applicable.

### Character Contribution

The rustic stone arch over Mill Creek complements the peaceful environment of the park. Frederick Todd believed the bridge spruced up the park.<sup>25</sup>

## Historical Association

The stone masonry arch over Mill Creek in Soper Park was built in 1837. It is the oldest surviving bridge in Waterloo Region (162 years old) and still functional. In 1836, the Provincial Government built the McAdamized Road (Hwy. 8). A McAdamized road is a type of road construction named after the Scottish engineer, McAdam, who patented his invention in 1833. This road later became a part of Waterloo Road, which is now called Dundas Street.

On June 2, 1902, the citizens of Galt purchased 10 acres of land for \$1,600 from William Jackson to create Jackson Park. In 1903, an additional 42 acres of land to the north were purchased from William Jackson and incorporated into the park. On Nov. 23, 1920, Jackson Park was renamed Soper Park in honour of Dr. A. Soper for his work in beautifying the north end of the recreation ground. In 1921, the Galt Lawn Bowling Club played at Soper Park. In 1968, the Kinsman Pool was opened, costing the City \$150,000. In 1995, the City of Cambridge spent \$370,000 to make Mill Creek appear more natural.

### Bridge Group

This bridge is not a part of a group of bridges, although it did inspire Jackson Park's designers to build a series of rustic wooden bridges between 1905-1910. Pictures of these bridges can be found in the Cambridge Archives. In 2004, the existing concrete will be replaced, replicating the original arch structure, and the existing stone facing will be salvaged and re-installed.

---

<sup>24</sup>Frederick Todd, *Correspondence with R.O. McCulloch, Esq., Chairman Galt Park Board, Galt, Ont, Renouf Building, September 6<sup>th</sup>, 1905*, p. 6.

<sup>25</sup>*Ibid.*, p. 5.



## Mill Creek Bridge Bibliography

"Jackson Park as it has been designed Mr. Todd." Galt Weekly Reporter. 28 Sept. 1905.

"Oldtimers Enjoy a Rest on Rustic Cedar Bridge" The Evening Reporter, Galt, 20 August. 1965: 3.

"The Dundas Street Bridge: Before the improvements at Soper Park", WHS, 1956: 14.

"The Old Swimming Hole" The Evening Reporter, Galt, 13 March 1951.

"Then and Now." The Cambridge Times, 7 Aug. 1991: A4. Photograph

"Then and Now." The Cambridge Times, 1 May 1996. Photograph

"Then and Now." The Cambridge Times, 30 Aug. 1989. Photograph

City of Cambridge. Public Works Department. Soper Park vertical file. "Frederick Todd, Correspondence with R.O. McCulloch, Esq., Chairman Galt Park Board." Galt, Ontario. 6 Sept. 1905.

City of Cambridge. Public Works Department. Soper Park vertical file. "Specifications for work to be done on Jackson Park.", Galt, Ontario. 1905.

City of Cambridge. Corporate Archives. "Mill Creek Indenture." Galt, Ontario. 1910.

City of Cambridge. Corporate Archives. Galt Centennial and Old Home Week, 1927.

City of Cambridge. Corporate Archives. The Picturesque Galt: The most substantial and prosperous town in Canada, 1902.

City of Cambridge. Corporate Archives. The Strikingly Beautiful and Highly Industrialized Grand River Valley, Jaffray, 1932.

City of Cambridge. Corporate Archives. The Jubilee Souvenir of Galt, 1897.

Martin, Ray. "Major facelift for Soper Park" Cambridge Reporter. 3 April 1996.

## Mill Creek Bridge

**Location** Regional Road No.8 (Dundas Street), 0.2 km South of Regional Road No. 27, City of Cambridge

### General Information

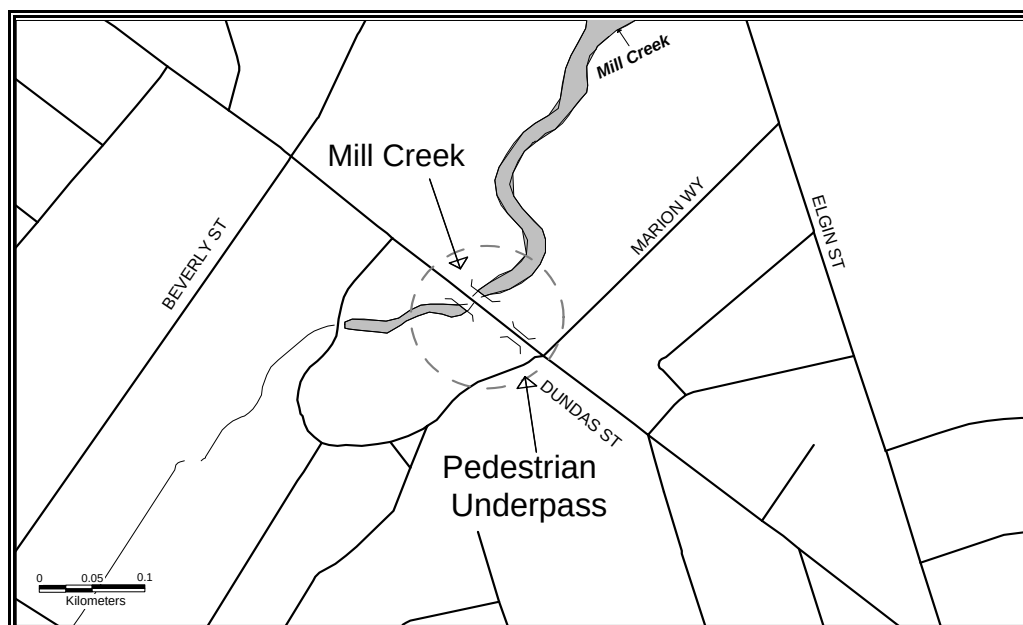
|                     |                                    |
|---------------------|------------------------------------|
| <i>Bridge No.</i>   | 000802                             |
| <i>Jurisdiction</i> | Regional Municipality of Waterloo  |
| <i>Year built</i>   | 1837                               |
| <i>Drawings</i>     | Regional HQ, and City of Cambridge |

### Physical Components

|                   |                              |
|-------------------|------------------------------|
| <i>Type</i>       | Stone Masonry arch           |
| <i>Spans</i>      | 1                            |
| <i>Dimensions</i> | Length 5.7 m<br>Width 11.4 m |
| <i>Load Limit</i> | None posted                  |

### Descriptive details

This is a single-span, stone masonry arch bridge crossing Mill Creek in Soper Park. The original structure was built in 1837, making it the oldest bridge in the Region. The arch is covered with approximately 500 mm of fill, with a paved roadway surface. The handrails for the concrete sidewalks consist of steel vertical bars. In addition to a roadway sidewalk, there is also a creek sidewalk allowing pedestrians to cross through the arch beneath the bridge. In 2004, the existing concrete will be replaced, replicating the original arch structure, and the existing stone facing will be salvaged and re-installed. The keystone is no longer visible, and many of the stone blocks have been trimmed and the arch is lined with modern concrete. A wooden beam, reinforced and bolted with a steel cover, provides additional support for the bridge.



## Mill Creek Bridge

North View



South-East View



## Mill Creek Bridge (View Detail of Reinforcing Timber)





# Mennonite Bridge

Score: 66



---

## Documentation

### Builder

The Mennonite community designed and built the Buggy Bridge. Woolwich Township provided the materials and the heavy machinery, and the Mennonites provided the labour. Although the Mennonites had experience raising barns and building small wooden bridges, this was their first attempt at a large-scale concrete bridge. It was built to funnel buggy traffic off Highway 85, and thus, it is affectionately called the "Buggy Bridge". This bridge provides a short cut between St. Jacobs and Three Bridges. The Mennonites built three similar bridges along the Conestoga River, without the aid of the Township, after the success of the Mennonite Bridge.

### Age

The Mennonite Bridge was built in 1962.

## Technology

### Materials

The bridge is made of reinforced concrete.

### Design/Style

The Mennonite Bridge is a six-span, low-level bridge. The bridge drawings are displayed on a wall in the Municipal Township Office of Elmira. The drawings consist of rough sketches on a recycled piece of paper. The building of this bridge was organized similar to a traditional "barn-raising". Eight experienced builders oversaw forty young workers. It was a community effort. In three days, the foremen dismissed the main workforce, and in less than a week the bridge was built. The bridge was poured in sections, and wooden cribs diverted the river. The bridge is unusual because it is open most of the year but closed during the flooding season. For this reason, the bridge does not possess any guardrails, only removable posts. County, Township and GRCA engineers doubted it would survive the spring floods (e.g., ice jams, debris, or heavy rain) and believed the bridge would be too hazardous. A few cars and buggies have slipped off the bridge, but the people involved were not seriously injured. The Mennonite Bridge has survived despite the initial doubts.

### Prototype

The Mennonite Bridge was the first low-level bridge built in Waterloo Region. Its design was unique and its success prompted the Mennonites to build two more low-level bridges farther west along the Conestoga River. Afterwards, other people used the concept. For example, a similar structure was built over the Grand River at the downstream end of the Elora Gorge.

### Structural Integrity

There are no significant modifications to the bridge's original form. Two years ago, 8 inches of concrete were added to the deck.

## Bridge Aesthetics and Environment

### Visual Appeal

The bridge has an interesting design but it is not decorative or ornamental.

**Integrity**

The bridge still exists at its original location.

**Landmark**

The bridge is an unofficial tourist attraction. Locals come to watch the ice jams buckle and churn in the winter, and tourists walk along the Mill Trail in St. Jacobs to see the bridge and the dam.

**Gateway**

The Mennonite Bridge is not a gateway, but more of a backdoor to St. Jacobs.

**Character contribution**

This low-key bridge does not merit any character contribution. It reflects the Mennonite ideals: plain, out-of-the-way, and inconspicuous.

**Historical Association**

The bridge is associated with Old Order Mennonites, and therefore it is indirectly associated with the grass-root pioneers and their ingenuity. The Mennonites would ford this location before the bridge was built. The bridge likely occupies the location of a very old ford crossing.

**Bridge Group**

There are three low-level bridges used by the Mennonite community along the Conestoga River, west of St. Jacobs. These bridges are not part of any major road system, and so, were not included in the *Inventory*. They were all built by the Mennonites after the successful design of the first bridge.

## Mennonite Bridge Bibliography

"Buggy Bridge." K-W Record. 5 Sept. 1962. Photograph

"Conestogo Ice Cubes." K-W Record. 15 March 1995. Photograph.

"Dams Raise River, Too High for Buggy" K-W Record. 13 July 1962.

"Horse and Buggy Day." K-W Record. 2 April, 1962.

"Speedy Workers." Elmira Independent. 12 August 1962.

Miller, Roger. Personal Interview. 16 Nov. 1998.

Moore, Ruth-Anne. Personal Interview. 15 Nov 1998.

Murdie, R.A., "The Mennonite Communities of Waterloo County," in McLellan, A.G. The Waterloo County Area Selected Essays, Waterloo. 1970.

Township of Woolwich. Corporate Archives. County Council Minutes 1962: 101-102, 106.



# Mennonite Bridge

**Location** MTO Site No. 033-0194, Twp Rd. No. 21 (now Three Bridges Road), 0.61 km west of Twp. Rd. 32 (Henry Street), west of St. Jacobs, Township of Woolwich.

## General Information

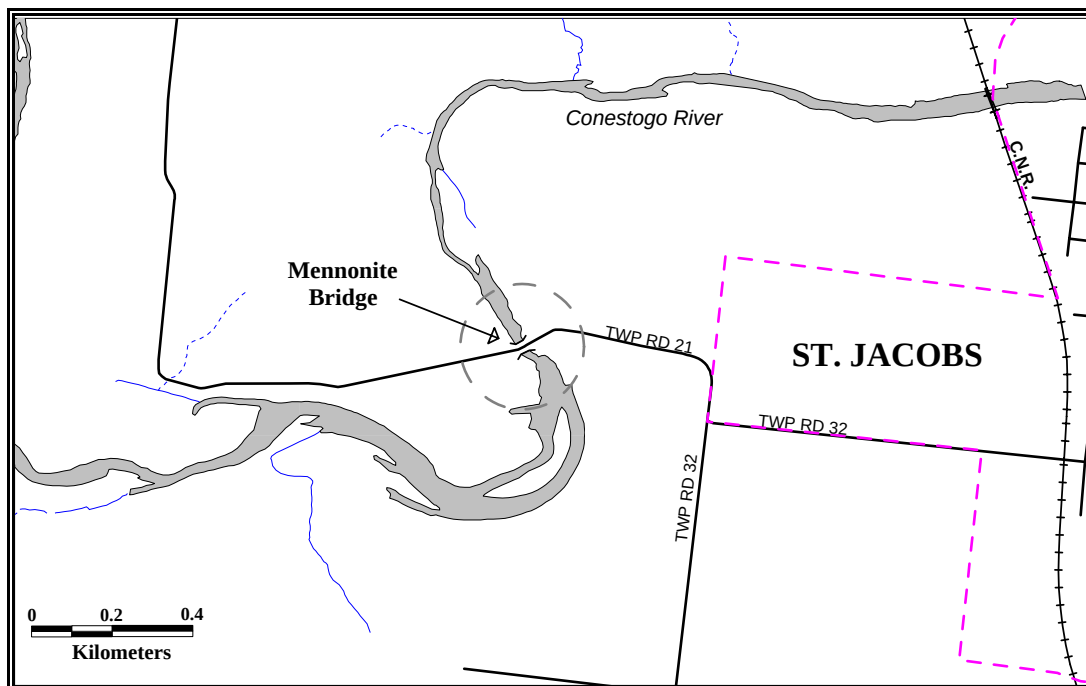
|                     |                      |
|---------------------|----------------------|
| <i>Bridge No.</i>   | 310121               |
| <i>Jurisdiction</i> | Township of Woolwich |
| <i>Year built</i>   | 1962                 |
| <i>Drawings</i>     | None available       |

## Physical Components

|                   |                                                 |
|-------------------|-------------------------------------------------|
| <i>Type</i>       | Slab Concrete, low level                        |
| <i>Spans</i>      | 7                                               |
| <i>Dimensions</i> | Length 23.2 m<br>Each Span 3.3 m<br>Width 4.9 m |
| <i>Load Limit</i> | 11 tonnes                                       |

## Descriptive details

This is a 7 span concrete slab, low-level bridge. There are no railings since this bridge is flooded every year. The Mennonite community provided the labour and built the bridge in 3 days. It is a hidden tourist attraction. Bridge "drawings" exist, but are only rough sketches.



## Mennonite Bridge

East View



South View



## Mennonite Bridge

East View





# Haysville Bridge

Demolished

Score: 64



---

## Documentation

### Builder

On June 6, 1930, the concrete tender for the Haysville Bridge was awarded to the Lichty Bros. at a price of \$7,729. The steel tender was awarded to the Hamilton Bridge and Tool Company at a price of \$15,989. The steel work started June 28 and finished June 30, 1930. Herbert Johnstone was the Engineer who oversaw the bridge building. Blueprints suggest the bridge was completed by July 11 and open to traffic on August 10. The bridge was designed to handle "Class A" loading, which meant it was safe for automobiles and snowploughs. Residents referred to this bridge as the Frank Anderson Bridge, after one of the more prominent members of the community.

The Hamilton Bridge and Tool Company was a prolific bridge builder in Waterloo Region from 1910 to 1950, specializing in steel superstructures. Almost every steel bridge that exists or existed in Waterloo Region was built by this company or its predecessors: the Hamilton Bridge Works Co. and the Hamilton Bridge and Iron Co.

### Age

The Haysville Bridge was built in 1930. It was constructed before the Great Depression affected Waterloo County.

## Technology

### Materials

The bridge was made of steel. Steel bridges are rare in Waterloo Region; there are nine steel bridges in Waterloo Region, and approximately 200-300 steel bridges left in Ontario.

### Design/Style

This was a single-lane, single-span, riveted steel truss bridge. Single-lane steel bridges were quite common at the turn of the century, but they were replaced by concrete which is a more durable substance. There are many different types of steel truss bridges: pony truss versus through truss, one lane versus two, one-span versus two, riveted versus pin-joint, and the Pratt design versus the Warren. The nine steel bridges in Waterloo Region are all slightly different. The Haysville Bridge was one of the later steel truss designs, and the only one of its specific type in the Region.

### Prototype

The Haysville Bridge was neither a prototype nor an early example. In fact, like the Hartman Bridge, the steel design was quite old. Concrete was the popular building material during the 1930s. Single-lane steel truss bridges were being built in Waterloo County 50 years before the Haysville Bridge. Nevertheless, the Haysville Bridge showed a sense of tradition since two other steel bridges existed before the current one.

### Structural Integrity

The Haysville Bridge had undergone a series of repairs since 1970. The steel members had been strengthened and existing steel had been coated and painted. Additional overlays had been applied on parts of the bridge deck to help it last longer. The top truss bracing was damaged by oversized vehicles, and the abutments and wing walls deteriorated.

## Bridge Aesthetics and Environment

### Visual Appeal

It was the focal point of the Huron viewshed at the entrance to Haysville. It illustrated an excellent example of structural engineering, and complimented the surrounding landscape (the Nith River), the blue heron pausing in the Nith, the riverbanks and the farmlands embracing the river.

### Integrity

When Huron Road was straightened in 1928-9, the current Haysville Bridge was built 20 feet south of the 1883 bridge location.

### Landmark

The towering superstructure was very distinctive. The bridge was often mentioned as a landmark when directions were provided.

### Gateway

A bridge had always existed in Haysville, acting as a gateway through the Village. The overhanging superstructure created an impression of a portal or tunnel.

### Character Contribution

The bridge identified the Village, and it reinforced the atmosphere of a rustic village in a rural community. The bridge has been replaced with a concrete bridge.

### History of Haysville

Haysville is a small hamlet on Huron Road (formerly Regional Road #2).<sup>26</sup> Haysville's most prominent feature, an old single-lane steel truss bridge, lies across the Nith river at the centre of the community. The bridge is hard to miss since the superstructure towers above the roadway and all traffic must slow down in order to pass through this narrow bridge. The almost 70-year-old bridge is linked to this rural community and symbolizes a small hamlet in an urban age. The Haysville Bridge and its predecessors have contributed to the development of the Village and Waterloo County. When Upper Canada was a land of unbroken forests, the main sources of transportation were the waterways.<sup>27</sup> Settlements sprang up along the banks of these primitive "roads". In 1824, the Canada Company sought to develop Southern Ontario. They purchased a triangular area of land known as the Huron Tract. John Galt was appointed by the Canada Company to encourage pioneers to settle the interior and he believed the settlers would come if roads were built. In 1828, he blazed a trail through the swamps and tangled underbrush from Guelph to Goderich. He named this wilderness path the "Huron Road". Although the road was often treacherous, and sometimes blocked during the winter--after being a veritable swamp for most of the year--it was one of the first roads to traverse Waterloo County.

The road would not encourage people to come unless it was well maintained. Yearly maintenance required someone to live out in the wilderness. Thus, John Galt established inns along this desolate road. The innkeepers were expected to keep the roads open for traffic. For this service, the first innkeeper twenty miles west of the Wilmot line received fifty dollars per month. The innkeeper twenty miles west of the first would receive seventy-two dollars, and the third, seventy-five.

Hobson's Hotel was located in Haysville, eight miles west of the Wilmot Line. It was one of the many inns that turned Huron Road into a highway of commerce and travel. Hobson's Hotel and Hobson's Stables straddled both sides of the river, and the bridge provided access from one to the other.<sup>28</sup> By 1835, Haysville was considered the half-way stop on the trip from Goderich to Dundas<sup>29</sup>, and the Hobson Hotel provided meals and night lodging for weary travelers, while stagecoach drivers changed horses in the nearby stable.

---

<sup>26</sup> Regional Road #2 reverted to Huron Road (Township of Wilmot jurisdiction) due to extremely low traffic levels.

<sup>27</sup> *WHS*, 1935, p. 169.

<sup>28</sup> Alder, Elizabeth *Heritage Assessment of Haysville Bridge Project: Settlement Area of Haysville*, 1997: plate 8.

<sup>29</sup> Bergey, L.L. "Haysville District Pioneers A Pictorial Review of Their Families and Homes." *WHS* Vol. 1983, Kitchener, Ontario, 1984.

The proximity of the inn, the bridge and the river attracted two sawmills and a grist mill. These five very important structures turned Haysville from a hitching-post into a small village. The next key element in the development of Haysville was the building of the Post Office in 1837, making Haysville the first village in Waterloo County to have a post office. George Morley ran a mail route between Wolverton and Wilmot<sup>30</sup>, and was assisted by John Hays. John Hays became the first appointed postmaster in Waterloo County (circa 1853). Soon after, it was common to see four-horse stage coaches driving through Haysville carrying the Royal Mail and passengers. The weakest link in this mail system was the Haysville Bridge. The necessity for regular mail service prompted the careful upkeep of the village's bridge.

As Huron Road developed, Haysville saw an increasing number of travelers and merchants. These travelers offered big business to the Haysville pioneers. Many buildings were built in the 1850s. These included the tannery and shoe shop, harness shops, a blacksmith and wagon business, carriage shops, a cooperage, a woollen mill, three hotels, two general stores, a drug store, a tin shop, a fanning mill manufacturer, a furniture factory, a church, a school, a post office, and a doctor's office.<sup>31</sup> These buildings lay on both sides of the bridge which linked the town together.<sup>32</sup>

There were two major events that changed Haysville from the bustling town to a quiet village. The first was the construction of the Grand Trunk Railway (G.T.R.), in 1856, built three miles north of Haysville, through New Hamburg. Passenger trains quickly replaced the stage coach. As the importance of Huron Road diminished, so did Haysville. New Hamburg became the central crossroad and postal center in Wilmot.

The final blow to the town was the disastrous flood of 1883. Heavy August rains caused flooding upstream of Wellesley, and broke through the dam there, before heading through the New Hamburg Dam to Haysville. A messenger from New Hamburg was sent to warn Haysville villagers of the danger. He was able to reach the town before the flood, since it was 14 miles to Haysville by river, but only three by road. Local history recounts that, by 1883, citizens of Haysville had erected their first iron bridge, a pony truss, of which they were quite proud.<sup>33</sup> Three men, Blatchford, Plum and Forsyth, believed that the bridge could withstand the flood and stood on top of the bridge as the water rushed toward them. The bridge was quickly swept away but the lives of the men were saved by Mr. Hays. A new bridge, almost identical to the one today, was built after the flood, but the surrounding buildings were not replaced. Haysville, as a town, had died.

In 1928, Huron Road was straightened and paved to better accommodate automobiles. In 1930, the old bridge was demolished and a replacement was built on the realigned road right-of-way. The abutments from the older bridge were left in place.<sup>34</sup>

## Historic Association

Huron Road was the pioneer settlement road for the Canada Company. It was designated by the provincial government in 1969. The historical plaque was erected by the Ontario Archaeology and Historic Sites Board, Department of Public Records and Archives of Ontario, at the Doon Pioneer Village, presently known as Doon Heritage Crossroads. Both the road and the Haysville Bridge have made a contribution to the early cultural heritage and settlement of the Village. Three truss bridges have existed in Haysville: one prior to the flood in 1883, one after, and one since 1930.

Currently, there are eight registered archeological sites within a 3-km radius of the bridge. Six of the sites are of native origin, providing evidence that native people used this area for subsistence activities in prehistoric times. The other two sites relate to historical pioneer settlements. There is a high potential for the discovery of prehistoric sites and historic sites, especially structures that were destroyed by the 1883 flood, located on the floodplain surrounding the bridge.

The flood of 1883 is a significant historical event. It changed the development pattern of Haysville and Wilmot. The old bridge abutments are an important historical feature; they are a good example of late 19<sup>th</sup> Century bridge design and have some architectural recognition.

---

<sup>30</sup>Haysville changed its name from Wilmot to Haysville in 1848 in honour of John Hays.

<sup>31</sup>Alder, Elizabeth *Heritage Assessment of Haysville Bridge Project: Settlement Area of Haysville*, 1997, p. 5.

<sup>32</sup>At this time 500 people were living in Haysville. Haysville was larger than New Hamburg.

<sup>33</sup>Bean, I. "Three Generations Tell of Bethel Church" *WHS*, Vol. 71, 1983.

<sup>34</sup>These abutments will be removed if a new two lane bridge is built.

## Bridge Group

Haysville is part of a group of steel truss bridges in the Township of Wilmot. The other bridges are Shade Street, Hartman, Holland Mills, Oxford-Waterloo, and Bridge Street. This group of bridges symbolizes Wilmot's farming community.

## Other points of interest

The Hartman, the New Hamburg Shade Street, and Haysville Bridges are the only steel bridges in Waterloo Region that pass through communities. The others are on rural roads. The Haysville Bridge captures a moment in time when cars were becoming popular and people became less hampered in their movements. Rural bridges, such as this one, contributed to the growth of the major urban centers. Steel truss construction is a remnant of the industrial age, and the age when railways shaped the face of Canada.

# Haysville Bridge Bibliography

"Building bridge", New Hamburg Independent: Heritage Edition, 14 Feb 1996.

"Community Scenes", New Hamburg Independent, 14 May 1997.

"From Years Past." New Hamburg Independent, 13 Jan. 1999.

"Funding for Haysville Bridge" New Hamburg Independent, 11 Nov 1998.

"Haysville: first important Wilmot centre" New Hamburg Independent: Heritage Edition, 30 Sept 1987.

"Haysville." New Hamburg Independent, 24 August 1883.

"Repair or Replace?." New Hamburg Independent, 23 Sept 1998.

Alder, E. Heritage Assessment of Haysville Bridge Project: Settlement Area of Haysville, Proctor and Redfern Limited, Kitchener, Ontario, 1997.

Alder, E. Scenic Roads Handbook, Planning and Culture Department, Regional Municipality of Waterloo, Kitchener, Ontario, 1995.

Bean, I. "Three Generations Tell of Bethel Church -Reminiscences of Bethel Church." Waterloo Historical Society. Vol. 71- 1983, Kitchener, Ontario. 1984 (Article was originally written by Isaac Bean in 1929)

Bergey, L.L. "Haysville District Pioneer: A Pictorial Review of their Families and Homes," WHS, 1983: 15.

Bergey, L.L. "Haysville District Pioneers A Pictorial Review of Their Families and Homes." WHS, VOL. 71 - 1983, Kitchener, Ontario. 1984

Bergey, L.L. "The History of Pinehill S.S. No. 7, Wilmot." WHS, Vol 52, Kitchener, Ontario, 1969

Bergey, L.L. "The Huron Road." WHS, Vol 57, Kitchener, Ontario, 1969



## Haysville Bridge Bibliography

Chapman, L.J. and D.F. Putnam. The Physiography of Southern Ontario. University of Toronto Press, Toronto, Ontario, 1966

Diamond, F. "RELIC....Hall reflects Haysville saga". K-W Record. Kitchener, Ontario, August 21, 1962.

Janusas, S.E. An Archaeological Perspective of an Historical Overview of the Regional Municipality of Waterloo, Regional Municipality of Waterloo, Waterloo, Ontario, 1988.

Klinkman, R., More than a Century in Wilmot Township, Historical Committee, Waterloo. 1967: 111-123.

Little, E. "Corduroy roads in Waterloo County", WHS Vol 77, Kitchener, Ontario, 1989.

Regional Municipality of Waterloo. Corporate Archives. County Council Minutes, Kitchener, 6 June 6 1930.

Ritz, E.F. "New Hamburg: 1850-1880: A Period of Rapid Growth" WHS, 1983: 82.

Romahn, J. "Haysville loses its only store." K-W Record, Kitchener, Ontario. March 29, 1975.

Rowell, M. "Floods on the Grand." WHS, Vol 62, Kitchener, Ontario, 1974.

Smith, A.R.G. "Haysville, Now Quiet Village, Once was Larger than New Hamburg." The Waterloo Chronicle, Waterloo, Ontario, 14 January 1949.

Smith, A.R.G., "Early History of Haysville and Vicinity," WHS 1916: 10-12.

Smith, A.R.G. "Pioneer Settlement of Southwest Wilmot." WHS, Vol 34, Kitchener, Ontario, 1947.

Weber, E., "The Huron Road of the Canada Company," WHS 1977:55-59.

Wintenburg, W.J. "Origin of the Place and Stream Names of Waterloo County, Ontario." WHS, 15<sup>th</sup> Annual Report, Kitchener, Ontario, 1927.

## Haysville Bridge (Demolished)

**Location** MTO Site No. 33-118, Huron Road in Haysville, Township of Wilmot.

### General Information

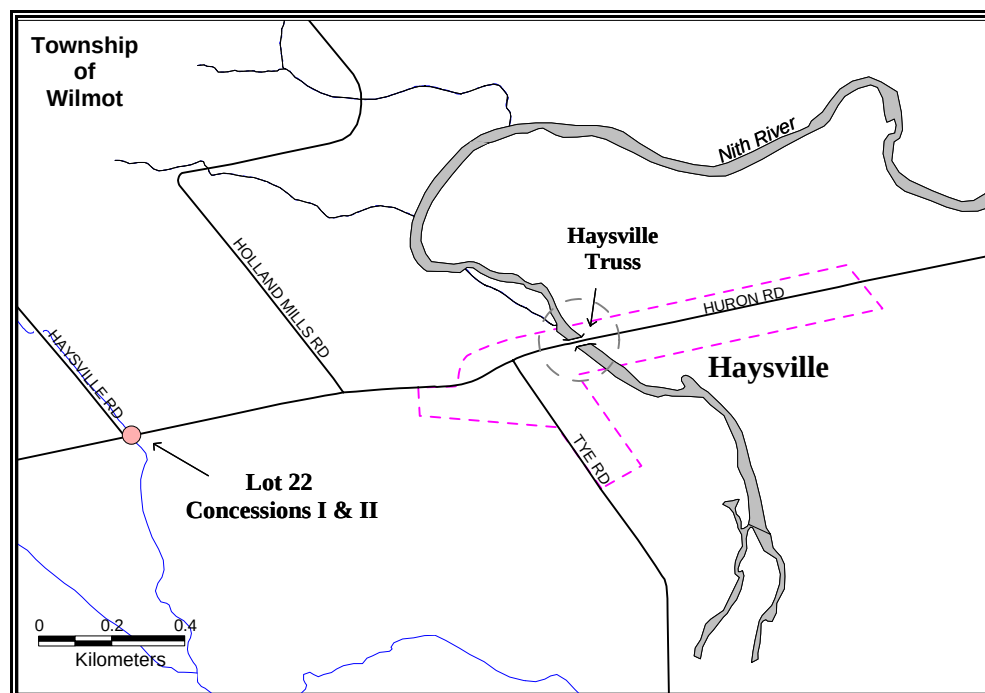
|                     |                                   |
|---------------------|-----------------------------------|
| <i>Bridge No.</i>   | 000203                            |
| <i>Jurisdiction</i> | Regional Municipality of Waterloo |
| <i>Year built</i>   | 1930                              |
| <i>Drawings</i>     | Regional HQ                       |

### Physical Components

|                   |                              |
|-------------------|------------------------------|
| <i>Type</i>       | Through Truss                |
| <i>Spans</i>      | 1                            |
| <i>Dimensions</i> | Length 49.9 m<br>Width 6.1 m |
| <i>Load Limit</i> | 30 tonnes                    |

### Descriptive detail

This was a single-span, single lane, steel through truss bridge with a concrete deck and concrete wearing surface. It had a concrete sidewalk with a steel-latticed handrail. Although the steel superstructure was in generally good condition, the concrete abutments, handrails, and floor beams were all showing signs of fair to serious corrosion. This bridge has been replaced with a concrete bridge.



## Haysville Bridge (Demolished)

North West View



North View





# Bridgeport Bridge

Score: 64



---

## Documentation

### Builder

A bronze plaque on Bridgeport Bridge states that it was erected in 1934 by the Kitchener Suburban Roads Commission. D.J. Emery, the Waterloo County Road Superintendent, was the designer and commissioned engineer of this bridge. He designed many of the County bridges during the 1930s and '40s. The building contract for the concrete work was awarded to Storms Contracting Co. Ltd., Toronto. Bridgeport Bridge was built during the Great Depression as part of a public works project to give work to the unemployed. The bridge cost a total of \$65,600.74, of which \$14,137.83 was subsidized by the Government in the form of relief labour.<sup>35</sup> The construction of this bridge is not mentioned in the Waterloo County Minutes.

### Age

Bridgeport Bridge was built in 1934. It is a depression-era bridge.

## Technology

### Materials

The bridge is constructed of reinforced concrete, a popular building material of the time.

### Design/Style

This is a five-span, concrete, bowstring bridge. It is similar to the Freeport Bridge and Main Street Bridge. This type of bridge was built mostly during the first third of the 20<sup>th</sup> Century. It is a good example of the period, which saw a move away from steel truss to concrete truss bridges. It represents a newer material use but an older engineering design. By the early 1930s, there was both a newer design-- the rigid frame bridge--and the use of the newer material. It was designed to hold urban traffic.

### Prototype

The Bridgeport Bridge is a copy of the Freeport Bridge, with five spans instead of seven.

### Structural Integrity

The Bridgeport Bridge has been resurfaced, patched and repaired over the course of its lifetime, but no significant modifications to the structure have been made.

## Bridge Aesthetics and Environment

### Visual Appeal

Bridgeport Bridge is one of the most attractive bridges in Waterloo Region. It is contoured and smooth, with five equally-spaced arches. It is especially impressive at night when automobile headlights flicker against the stringers and portions of its giant curves.

---

<sup>35</sup>D.J. Emery, *County Engineer and Road Superintendent's Report*, 1934, p. 21.

**Integrity**

Bridgeport Bridge has remained at its original location. It has a high degree of integrity.

**Landmark**

Bridgeport Bridge is well known locally as a distinctive bridge and is certainly one of the older bridges in the City.

**Gateway**

Bridgeport remains an important access point into Kitchener as the only crossing of the Grand River between Conestogo and Victoria Street.

**Character contribution**

The Bridgeport Bridge contributed to the formative years of Waterloo Township. Originally Bridgeport was a town larger than Waterloo, but now it is a suburb of Kitchener.

**Historical Association**

Bridgeport is located on the northern limits of Kitchener. The residents incorporated the Village in 1952, and its reeve sat on Waterloo County Council until 1972. The community then became a part of Kitchener.

In 1836, John Wissler erected a wire suspension bridge over the Grand River at Bridgeport. He built this foot bridge to reach his tannery, which was located on an island nearby.<sup>36</sup> Sometime after, this bridge fell into the river. The local boys were blamed because they swung on it so much. Afterwards, two wooden bridges were built between the island and the mainland. These bridges were replaced in 1897 by a two-span steel truss bridge and a smaller pony truss bridge. The larger of the two bridges spanned the Grand River and was built nearby and built by the Hamilton Bridge Works Company. The pony truss bridge spanned the High Water Channel.

The steel bridges were replaced in 1934 by the bowstring bridge. It was designed by D.J. Emery, the Waterloo County Road Superintendent. The Storms Contracting Co. Ltd., near Brantford built the bridge for a total cost of \$65,600.74. In order to excavate the island, D.J. Emery had to purchase 1.75 acres of land below the bridge from Mr. A. Anderson. The purchase included the island below the bridge, the playground immediately southeast of the bridge, and a small wooden booth on one of the lots. Mr. Anderson refused to sell the island alone, and the County was forced to buy the whole parcel and divide the land in two. Bridgeport Bridge has survived the raging floods of 1948 and Hurricane Hazel in 1954.

**Bridge Group**

There are four bowstring bridges in the surrounding area. Two are in Kitchener, the Bridgeport and Freeport bridges and the other two are in Cambridge and Caledonia, respectively. These bridges were built between the Great wars.

---

<sup>36</sup> WHS, 1939, p. 65.

## Bridgeport Bridge

**Location** MTO Site No. 33-84, Bridge Street, 0.08 km east of Lancaster Street, City of Kitchener.

### General Information

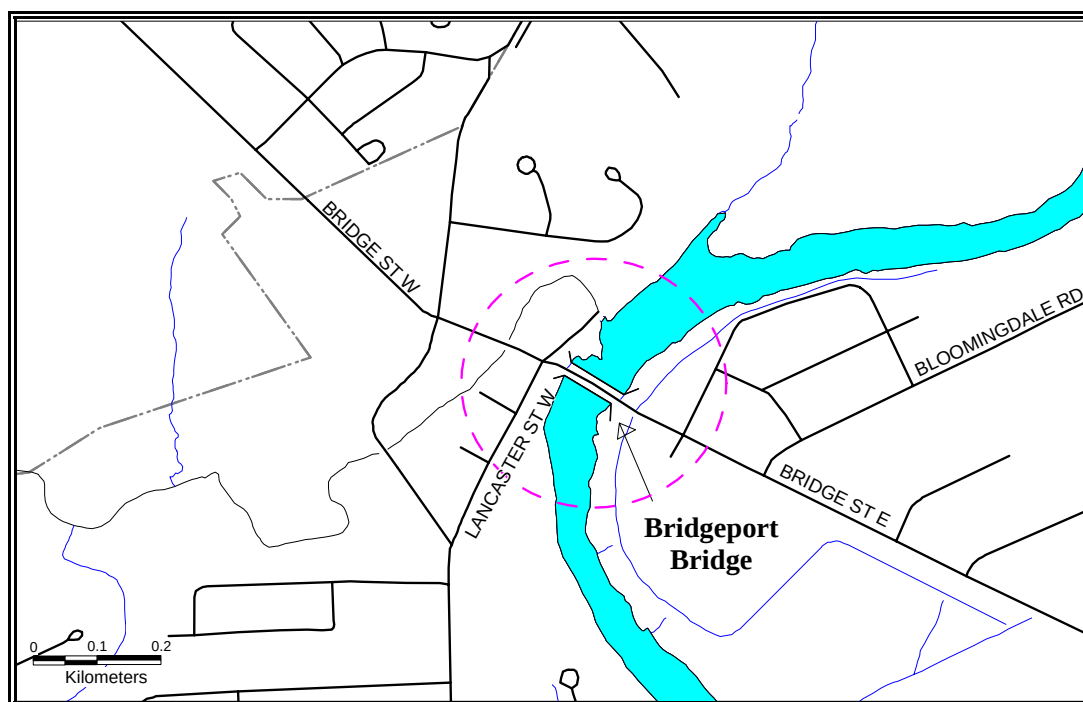
|                     |                                   |
|---------------------|-----------------------------------|
| <i>Bridge No.</i>   | 005201                            |
| <i>Jurisdiction</i> | Regional Municipality of Waterloo |
| <i>Year built</i>   | 1934                              |
| <i>Drawings</i>     | Regional HQ                       |

### Physical Components

|                   |                    |        |
|-------------------|--------------------|--------|
| <i>Type</i>       | Concrete Bowstring |        |
| <i>Spans</i>      | 5                  |        |
| <i>Dimensions</i> | Length             | 126 m  |
|                   | Each span          | 25.1 m |
|                   | Width              | 10.7 m |
| <i>Load Limit</i> | None posted        |        |

### Descriptive details

This is a five-span, concrete bowstring arch bridge, with a concrete deck and concrete wearing surface. Each span has a length of 25.1 m which spans a total distance of 126 m, with a deck width of 10.7 m, over the Grand River in the north end of Kitchener. This bridge has recently been designated as a heritage structure, listed on the City of Kitchener Heritage Inventory. It possesses concrete balustrade handrails.





## Bridgeport Bridge

South View



North West View



## Bridgeport Bridge Bibliography

"Bridgeport" WHS. 1939: 64.

"The Bridgeport Bridge" WHS, 1951: 35.

Featherston, C. "A History of Bridgeport" WHS. 1939: 80.

Hayes, G. Waterloo County: An illustrated history. Waterloo Historical Society, St. Jacobs Printery, 1997.

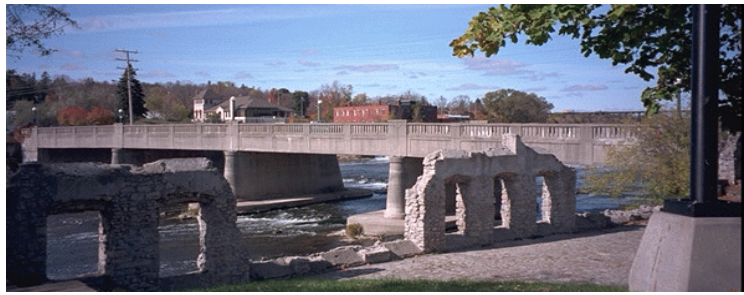
Regional Municipality of Waterloo. Corporate Archives. "County Engineer and Road Superintendent's Report" 1934:20-21.

Seiling, Ken. "Early building in Bridgeport, Ontario area" Waterloo Lutheran University, Waterloo. 1969.

Trestain, W.G. "Interesting Bridges, Old and New, Span the Upper Reaches of Picturesque Grand River" London Free Press, London, Ontario. 6 Sept. 1938.

# Park Hill Road Bridge

Score: 62



## Documentation

### Builder

Archie B. Crealock designed the Park Hill Road Bridge. He was the bridge engineer for the Province of Ontario during the 1920s and designed many bridges, including the Freeport Bridge. His office was located at 156 Young St., Toronto. The Ryan Contracting Company won the building tender for the Park Hill Road Bridge, which was formerly called the Queen Street Bridge. Ryan Contracting Co. bid the lowest of 13 competitors at a price of \$37,869.40. The final cost of the bridge rose to \$45,000, due to the extra work and delays.

### Age

The bridge was built in 1934 and open to the public on May 19. It was a public works project, encouraged and funded in part by the Provincial Government during the Depression.

## Technology

### Materials

The Park Hill Road Bridge is made of reinforced concrete with round steel rods in the piers. The crushed stone for the concrete was provided by the City of Galt from a local quarry.

### Design/Style

The bridge was designed by A.B. Crealock. The design style is considered rare.

### Prototype

A.B. Crealock designed this bridge in accordance with the Ontario Department of Highways tentative "General Specifications for Highways, Bridges. Ontario, 1933" form 8.

### Structural Integrity

Park Hill Road Bridge had not been significantly altered prior to 2001, when it was widened to four lanes. The railings and lighting replicated the original features.

## Bridge Aesthetics and Environment

### Visual Appeal

The Park Hill Road Bridge is attractive. It is a smooth and contoured bridge, and possesses some architectural merit.

### Integrity

Park Hill Road Bridge has remained at its original location. It has a high degree of integrity.

### Landmark

Galt is known for its three downtown bridges over the Grand River. Traveling south on Highway 24, the municipal offices are south of the Park Hill Road Bridge on the left hand side.

## Gateway

The Grand River divides Galt, in the City of Cambridge. The Park Hill Bridge acts as a gateway into the older residential sections of Galt. This bridge is one of three which allows access between the east and west sides of the City.

This bridge, in conjunction with the Main Street Bridge and the Concession Street Bridge, contributes to the ambiance of Cambridge. The decorative lighting on the bridge is essential to highlight the old character of the bridge.

## Historical Association

Robert Dickson, one of the sons of the founder of Galt (William Dickson), built the first bridge on Queen Street, which later became Park Hill Road, over the Grand River. He built the bridge in the late 1830s to develop his industrial complex along the shores of the river. The bridge was damaged by a flood in 1857, and soon after was replaced. The old wooden bridge was replaced by a new iron bridge for \$5,065.57 in 1887. On March 13, 1898, one of the spans was destroyed by heavy ice. The Hamilton Bridge Company rebuilt the iron bridge in 1898. The iron bridge was heavily damaged by a flood in 1912, and replaced by the current bridge in 1934. A.B. Crealock issued the specifications for the bridge construction on November 1, 1933. The contract was for the removal of the existing bridge, provision for a temporary bridge for pedestrian traffic, and the construction of a new bridge and approaches over the Grand River in Galt. Two designs were supplied. One was a concrete superstructure reinforced with round rods, and the other was a concrete superstructure reinforced with a welded structural steel truss. The bidders were instructed to tender both designs, and the City would supply the crushed stone for the concrete from a local quarry. Crealock anticipated the work would begin on November 24, 1933, and finish before March 31, 1934. The building of the bridge was initiated by the Relief Act, and the contractor was expected to make use of his equipment so it would provide the greatest amount of physical labour.<sup>38</sup> Crealock also stated the labourers should not be paid less than 35 cents per hour and preference given to unemployed married men. The contractor was to provide a rotation of labour every six working days, for both night and day shifts, and no workman was to be employed for a period longer than eight hours each day. The workers were selected from the Welfare Board of the City of Galt.

Out of 13 tenders for construction, Crealock accepted the Ryan Contracting Co. tender for the Queen Street Bridge on Nov. 20, 1933. The tender was \$37,869.40 for the building of the concrete bridge reinforced with round rods. The labour costs for the bridge were estimated at \$23,850. To increase Galt labour, the Council decided to reopen a quarry owned by the City to obtain the stone required for the construction locally instead of purchasing it from outside sources. The value of the stone was \$4,000 of which \$3,500 would be expended in labour. The Relief Act stated that 2/3 of the labour costs would be paid by the Provincial and Dominion Governments, and that these Governments would not contribute to the cost of any work done after March 31, 1934. Each Government was expected to pay \$7,950 for the Queen Street Bridge.<sup>39</sup> In total, the Queen Street Bridge cost \$45,000 and it was opened on May 19, 1934.

## Bridge Group

The Park Hill Road Bridge, previously known as the Queen Street Bridge, is associated with the three main bridges in Galt. These bridges contributed to the development of early Galt. Government funding allowed the rebuilding of these bridges in the 1930s, but the Concession Street Bridge has been replaced since then.

---

<sup>38</sup> A.B. Crealock, "Information to bidders and special specifications for the construction of a bridge in the city of Galt", November 1st, 1933, form 6A. -obtained from Cambridge Archives, A984.73.44.

<sup>39</sup> Corporation of Galt Council Minutes, p. 859.

## Park Hill Road Bridge Bibliography

"Parkhill Road now getting much needed bridge work", Cambridge Times, 4 August 1993.

"Then and Now" The Cambridge Times 19 April 1989.

City of Cambridge. Corporate Archives -A984.73.44. "Information to bidders and special specifications for the construction of a bridge in the city of Galt." 1934.

City of Cambridge. Corporate Archives. Galt Council Minutes. 1934.

Quantrell, Jim. The Bridges of Cambridge. Cambridge Archives. Cambridge, Ontario. 1994.

Quantrell, J. "Bridges of Cambridge" A Part of our Past: Essays on Cambridge's History. Cambridge Archives, 1996.

# Park Hill Road Bridge

**Location** Parkhill Road, 0.5 km west of Water Street, City of Cambridge.

## General Information

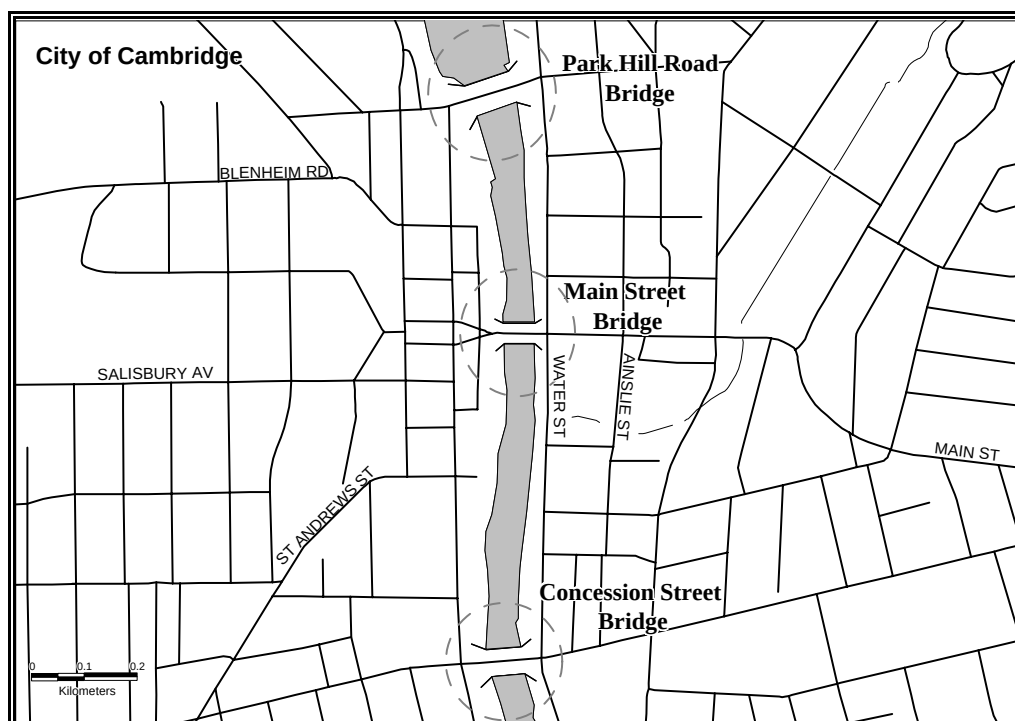
|                     |                                   |
|---------------------|-----------------------------------|
| <i>Bridge No.</i>   | 007701                            |
| <i>Jurisdiction</i> | Regional Municipality of Waterloo |
| <i>Year built</i>   | 1933                              |
| <i>Drawings</i>     | Not available                     |

## Physical Components

|                   |                                                   |
|-------------------|---------------------------------------------------|
| <i>Type</i>       | T-beam and Slab concrete                          |
| <i>Spans</i>      | 4                                                 |
| <i>Dimensions</i> | Length 83.7 m<br>Each span 20.7 m<br>Width 12.4 m |
| <i>Load Limit</i> | None posted                                       |

## Descriptive details

This is a four-span, concrete bridge, of T-beam and slab construction, with an asphalt wearing surface. Each span measures 20.7 m, covering a total distance of 83.7 m, with a deck width of 12.4 m, over the Grand River in old Galt. When the bridge was originally built, the road was called Queen Street. The bridge has undergone serious modifications, most recently in 2001-2002 when it was widened to four lanes. The new railings and lighting replicate the original features.





## Park Hill Road Bridge

North West View



North View



# Blackbridge Road Bridge

Score:62



---

## Documentation

### Builder

The designer and builder are unknown.

### Age

Blackbridge was probably built circa 1916, but this has not been confirmed by a primary source. During the 1989 repairs to the bridge, a wooden timber with '1916' stamped on the bottom was uncovered, suggesting that the bridge was built during this year or after. The 1989 repairs included the re-planking of the wooden deck, which was last replaced in 1931. Also, the single-lane, steel truss design suggests it was built at the beginning of the 20<sup>th</sup> Century, making it one of our oldest bridges.

## Technology

### Materials

Blackbridge is made of steel.

### Design/Style

The bridge is a single-lane, pin-jointed, steel truss bridge.

### Prototype

It has no unusual or unique features. Its design was common 100 years ago.

### Structural Integrity

The bridge was reconstructed in 1996 following its impending heritage designation. Although the repairs were significant, they were unobtrusive and the bridge has maintained its original form.

## Bridge Aesthetics and Environment

### Visual Appeal

Blackbridge is an excellent example of structural engineering of its time, and the open-concept allows an unrestricted view of the landscape.

### Integrity

It remains at its original location.

### Landmark

The bridge is locally known because of the publicity generated from an oil truck accident in 1987.

### Gateway

### Character contribution

The bridge's appearance contributes to the scenic countryside.

## Historical Association

Blackbridge Road was part of the historic Block Line. The Block Line was generally the southern boundary of the German Company Tract. The future Waterloo Township was purchased from the Six Nations Indians on May 10<sup>th</sup>, 1798, by Richard Beasley, James Wilson and John B. Rosseaux. Much of the land was later purchased by the German Company. The Block Line was a very important boundary in Waterloo County, and is shown in several historic maps.

Blackbridge has been repaired over the years as needed. The wooden deck was re-planked in 1931. The steel structure was repaired in 1976, and again in 1982. In 1984, Blackbridge was repainted at a cost of \$25,000. In 1989, the wooden deck was replaced. The repairs cost \$675,000 in 1996. On February 22, 1997, the City of Cambridge designated Blackbridge as a heritage structure.

## Bridge Group

Blackbridge Road Bridge is the only steel bridge in the City of Cambridge.

## Human Interest

In 1987, a very large oil truck rumbled down Town Line Road in winter and made a left turn onto Blackbridge Road. The truck weighed 70 tonnes, and the bridge load limit was posted as 4.5 tonnes. The truck jack-knifed up the hill towards the railway bridge and slid backwards. Stranded, the driver called a taxi, left his truck and went home, leaving the truck imprisoned between the bridges ( the Blackbridge Rd. Bridge and the Railway Bridge). The next day the oil was pumped into smaller trucks to lighten the load.

# Blackbridge Road Bridge

**Location** Blackbridge Road over the Speed River, 2.4 km east of Hespeler, north end of Cambridge.

## General Information

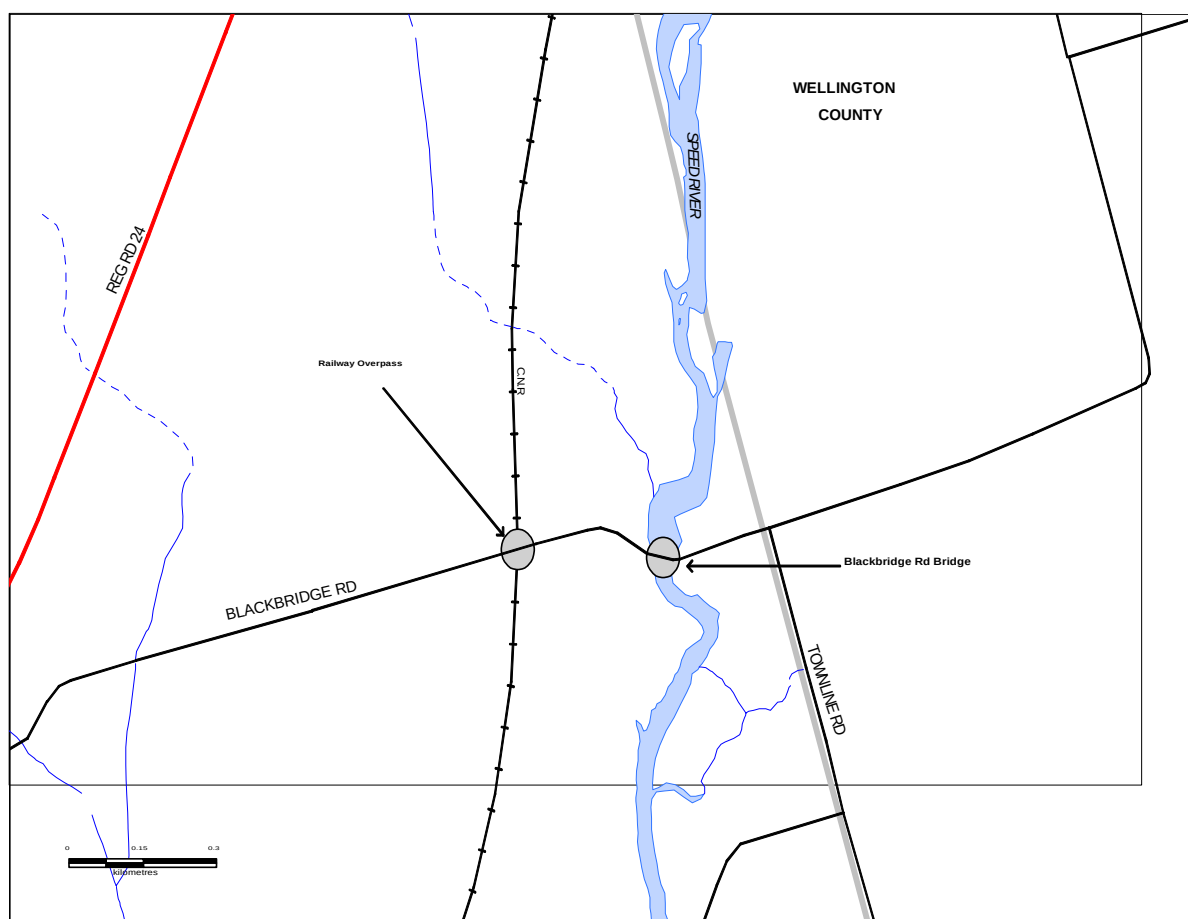
|                     |                   |
|---------------------|-------------------|
| <i>Bridge No.</i>   | Blackbridge Road  |
| <i>Jurisdiction</i> | City of Cambridge |
| <i>Year built</i>   | 1916              |
| <i>Drawings</i>     | Not available     |

## Physical Components

|                   |                         |
|-------------------|-------------------------|
| <i>Type</i>       | Single Lane Pratt Truss |
| <i>Spans</i>      | 1                       |
| <i>Dimensions</i> | Length 35 m             |
| <i>Load Limit</i> | 4.5 tonnes              |

## Descriptive detail

This is a single-lane, Pratt truss bridge on an old gravel road that connected Cambridge to Guelph. The bridge crosses the Speed River at the north end of Cambridge and is located at the bottom of a gully. The deck consists of laminated wooden timbers covered with tar and chip. (There is some confusion among sources as to whether or not this is a steel or iron structure. At a glance, the red oxidation of the metal would indicate wrought iron but wrought iron erodes in bubbles whereas steel erodes in layers. This bridge is most likely made of steel.) It has undergone extensive repairs in the last 10 years.





## Blackbridge Road Bridge

South View



East View



# Blackbridge Road Bridge Bibliography

"Black Bridge" Cambridge Reporter, 10 June 1995.

"Cambridge Landmarks: Black Bridge Road" Cambridge Times, 11 Jan. 1997.

Brewster, W. La Rue de Commerce. "The Lower Block" Cambridge Archives, 1954:16-17

City of Cambridge. Corporate Archives. Blackbridge Road Sepia Photograph, circa 1910.

Cross, Brian. "Bridges pose problems head on" Cambridge Reporter, 11 Feb. 1989.

M.M. Dillon Black Bridge Road Bridge Structural Evaluation. Kitchener, Ontario. 1994

Magor, Ken. "Trucker tempts fate with 70-tonne tanker." Cambridge Reporter. 2 Feb. 1987.

Nagel, James "The Block Line" WHS, 1959:46.

Seiling, Ken. "Early building in Bridgeport, Ontario area" Waterloo Lutheran University, Waterloo. 1969: 8.

Swayze, Kevin. "Council wants to protect bridge" Cambridge Reporter, 25 Feb. 1997.

Wilson, Doug. "Black Bridge gets \$25,000 facelift" Cambridge Reporter, 5 July 1984.



## Section 5: Future Actions

It is important to identify heritage bridges. It is equally important to examine strategies to preserve them. This section looks at preservation methods and lists a number of options and possible recommendations. The key to any successful preservation strategy is public involvement.

### 5.1 The Importance of Public Awareness

Raising public awareness about heritage bridges is a crucial step toward their long term preservation. People need to know these structures are not solely utilitarian. Heritage bridges are aesthetically pleasing, possess historic value, and have contributed to the development of the Region.

Any bridge preservation campaign should focus on public awareness; promoting the historical, architectural and cultural context of the bridge. First, the public must be made aware that the heritage bridges in question are in danger of being removed in the near future. They must also understand that heritage bridges contribute to the development of the Region and are priceless in comparison to their monetary value.

Second, the popularity and profile of the bridge must be increased. Heritage bridges must become commonplace names and people should be familiar with their image and location. For example, the West Montrose Covered Bridge has a high profile and heritage value. The public is familiar with its name, image and location. As a result it would be extremely difficult to neglect, remove or replace this bridge.

### 5.2 Threats to Heritage Bridges

Heritage bridges are threatened primarily by growth and the demand for improved transportation. For instance, threats to heritage bridges are increased use, expanding land use and development for: agricultural, commercial centres, industrial traffic and housing expansion. Other threats are accidents, pollution, salt use and weather. Government policy decisions and financial constraints which contribute to lack of maintenance are also serious threats.

### 5.3 Protection Strategies

A protection strategy could be bridge-specific or region-wide and consist of a combination of different methods and tactics.

#### 5.3.1 Maintenance Strategies

The best strategy is continual maintenance, rehabilitation and conservation, which can preserve a bridge indefinitely. The wear and tear on a bridge is proportionate to the amount of use it receives. Frequently used bridges will require more maintenance than those used infrequently. Maintenance allows the historic bridge to be used by the public in a high profile area and at its original location.

#### 5.3.2 Protection Strategies

- **Creating by-passes or using alternate routes.** This option preserves the original location of the bridge and its profile within the community.
- **Reduction of Load Limit.** There can be a reduction of the load limits, or traffic, or traffic can be reduced to pedestrians only. Planning strategies can then be employed to encourage alternate routes of travel.
- **Incorporation.** Include the bridge into the development scheme. This might involve constructing a new bridge near the existing one.
- **Relocation.** The bridge may be moved to a safer location. However, removing the bridge from its original location reduces its heritage value.

## 5.4 Preservation Protection Strategies

Listed below are some options that either promote public awareness or protect bridges. A combination of these options could be used in a preservation campaign.

### Option No. 1: Municipal Designation

A municipal designation can be used to promote awareness or to delay the intent to demolish a heritage structure. Designation under the Ontario Heritage Act requires a municipal bylaw which grants protection to heritage structures or property. Municipal designation does not provide long term protection, but it does raise the bridge's profile.

### Option No. 2: Heritage Easement

A conservation easement is a private agreement registered on title to a heritage property. A heritage easement is one of the most comprehensive and flexible form of heritage protection.

- It ensures that the heritage building or structure is prudently maintained.
- It ensures that the heritage building or structure is adequately insured.
- It ensures adequate protection from demolition for the heritage structure
- It ensures that any work, which affects the appearance of the structure covered by the easement, receives the meaningful input of the easement holder.
- Easements can be tailor-made to suit the characteristics of the heritage resource they protect.

A heritage easement provides long term protection and ensures preservation. It is a binding agreement and long term commitment.

### Option No. 3: Provincial Plaque

The Federal government provides plaques for heritage sites which are designated as national historic sites by the Historic Sites and Monuments Board of Canada. This type of designation does not confer any heritage protection to privately-owned heritage structures by the Federal Government, but it may make the building/site eligible for cost-sharing programs administered by the Federal Department of Canadian Heritage. There are more than 1,300 sites across Ontario which have been recognized by the Ontario Heritage Foundation or its predecessors which administer the provincial historical plaquing program. The erection of a provincial heritage plaque provides a means of public appreciation and recognition for important heritage sites around Ontario.

### Option No. 4: Amending the Regional Official Policies Plan

The Official Plan of Waterloo Region supports built heritage, in section 6.3.2, but does not specify bridges as part of non-renewable heritage resources. Many of these bridges are maintained by the area municipalities. Their inclusion in the Official Plan would signal a Regional interest in their preservation. Guidelines, options, or plans could be issued to the road superintendents concerning heritage bridges in their jurisdiction.

### Option No. 5: Heritage Focused Tourism and Education

In an attempt to promote public awareness, tours could be developed if the heritage bridges were comprehensively researched. A partnership with the Chambers of Commerce and the Planning Department, for example, could provide scenic bridge tour pamphlets based on the material provided in this Study. Heritage bridges could be incorporated into existing tours, scenic roads or hiking trails. This tourism could be raised to the Provincial or National level. Sufficient care/monitoring would be needed to ensure that although the bridges were publicized, the use was not excessive and, therefore, detrimental to the preservation of the bridges. A tourism initiative increases both the profile of the bridges and public education. Every effort should be made to work with educators to ensure that heritage bridge structures become part of classroom curriculum.

## Option No. 6: Public Partnerships

A preservation campaign might initiate a "Friends of the Bridge" program in which volunteers give support to our heritage and boost internal morale by caring for a bridge.

## 5.5 Documentation

If all else fails, documentation of the bridge is a must. Sometimes it is impossible to preserve a heritage bridge. Documentation involves:

- Measured drawings
- Photographic documentation, both past and present
- The recording of historical and contextual data
- An archaeological assessment

The demolition of the structure will remove its connection to the community, but the bridge will be preserved on paper.

## 5.6 Conclusion

In summary, this report is the final product of a 6-month research project. The purpose was to locate and identify heritage bridges in Waterloo Region. A region-wide bridge-inventory was created. Local history and historic bridges were researched. Bridges were assessed with heritage criteria. In conclusion this report has:

### Created a greater understanding of history and heritage

Every bridge, no matter when it was built, serves one distinct purpose, it was designed to cross an obstacle that would otherwise cause an inconvenience. New bridge designs were created to handle the increasing traffic loads as our society progressed. Along with a change in design, newer materials were used in bridge construction. The reader should be able to identify the relative date of a bridge based on these factors. Wooden bridges were the earliest bridges (1800-1880). Stone and Iron bridges were built during the Railway-building period (1850-1900). Single lane steel bridges were designed for horse and buggies (1900-1920). Concrete bowstring bridges were built for automobile traffic (1920-1935). Rigid frame bridges were popular during the Depression (1930-1940). Few bridges were built during the War (1940-44). Reinforced concrete bridges were built after the War (1944-present). Bridges illustrate the social climate, economic hardships and the settlement pattern of this Region.

### Listed bridges in the Regional Municipality of Waterloo with heritage significance

These are the bridges which scored above 50 in the heritage assessment. They are considered the most historically significant bridges in the Region of Waterloo. Bridge profiles for first ten bridges on this list are included in Section 4.

### Provided Options for Preservation

This report is designed to spark discussion and interest in our local heritage bridges. It provides a number of suggestions for the future management of heritage bridges and various strategies.

### Set a Precedent

This report provides a precedent for identifying and assessing heritage bridges in several municipalities. It is a developmental step toward a better overall management of our heritage resources. This information will assist planners and engineers, heritage, environmental and recreational organizations to conserve, rehabilitate, and maintain historic bridges before they are lost as a valuable heritage resource to the community. It is believed that better planning procedures and/or guidelines will aid this overall goal. The information contained in this report will assist in future development issues and serve to promote the goals of HPAC and heritage preservation in general.

# Bibliography

- Anderson, P. Introduction to Structural Mechanics. Ronald Press, New York, 1960.
- Alder, E. & Voigt, R.J. Scenic Roads Handbook. Regional Municipality of Waterloo. July 1995.
- Baechler, G. "Waterloo County's Romance with the Automobile," WHS, 1971: 8-19.
- Barber and Young, Bridge and Structural Engineers. Types of Modern Highway Bridges. Toronto, 1910.
- Bloomfield, E. Waterloo Township through Two Centuries, Waterloo Historical Society, St. Jacobs Printery, 1995.
- Breithaupt, W.H., "Waterloo County Railway History," WHS, 1917, 14-23.
- Cherry, G. Town Planning in its social context. Leonard Hill, London, 1970.
- Cuming, D. Discovering Heritage Bridges on Ontario Roads. Boston Mills Press, Erin, Ontario, 1983.
- English, J. & McLaughlin, K., Kitchener: An Illustrated History, Waterloo, 1983.
- Foster, J. Structure and Fabric. Michell's building series part 1, Batsford, London, 1983.
- City of Cambridge. Corporate Archives. Galt: The Gem City of the Famous Grand River Valley, Galt, 1920.
- Hayes, G. Waterloo County: An Illustrated History. Waterloo Historical Society, St. Jacobs Printery, 1997.
- Heinrichs, E.W. Heritage Property Report for Heritage Kitchener: Freeport Bridge. Kitchener, Ontario, July 1998.
- Heinrichs, E.W. "Importance of Bridges" Heritage Planning Advisory Committee Minutes for April 9, 1998. Regional Municipality of Waterloo, 1998.
- Henry, D. and Jerome, J.A. Modern British Bridges. C.R. Books, London, 1965.
- Hopkins, H.J. A Span of Bridges. Newton Abbot: David & Charles, New York, 1970.
- I.C.S. staff. Bridge Members and Details. International textbook, Scranton, Pa., 1929.
- Jaffray, P.J. The highly industrialized and strikingly beautiful Grand River Valley, Galt: Jaffray, 1932.
- McLaughlin, K. Cambridge: The Making of a Canadian City, Burlington, Ontario, 1987.
- Metcalf, L. Bridges and Bridge building. London Hanford Press, London, 1970.
- Ministry of Citizenship, Culture and Recreation. Conserving a future for our Past: A comprehensive Guide to Conserving Ontario's Archaeological Heritage. Cultural Programs Branch, Archaeology and Heritage Planning Unit, 1997.
- Quantrell, J. A Part of our Past: Essays on Cambridge's History, Cambridge Archives, 1996.
- Quantrell, J. Time Frames: Historical Chronologies of Galt, Preston, Hespeler and Cambridge, 2nd edition. Cambridge, 1993.

Regional Municipality of Waterloo. Regional Official Policies Plan: December 1998 Consolidation, Planning & Culture Department, 1995.

Ritter, L. Jr. Highway Engineering. Ronald Press Co., New York, 1960.

Salvadori, M. The Art of Construction. Chicago Review Press, Chicago, 1979.

Tyrrel, H.G. History of Bridge Engineering. The author, Chicago, 1911.

## Appendix A: Ontario Heritage Bridge Program

In the 1980s, the Ministry of Transportation and the Ministry of Culture and Communication created a set of criteria to evaluate the heritage potential of bridges. The criteria are outlined below and as extracted from the 1991 publication entitled "Ontario Heritage Bridge Program".

### 1. Documentation

#### Builder

|                                     |   |                                                                                                                                                                                                      |
|-------------------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Unknown-----                     | 0 |                                                                                                                                                                                                      |
| b) Known; undetermined contribution | 2 | Companies, engineers, builders about which there is little present information may be elevated to categories c) and d) as knowledge increases.                                                       |
| c) Known: prolific builder-designer | 4 | Companies, engineers, builders responsible for large numbers of bridges utilizing standard forms, elements e.g. Ontario Department of Highways, Wrought Iron Bridge Co, Dominion Bridge Building Co. |
| d) Know unusual designer            | 6 | Innovative companies, engineers, builders having major impacts on the development of bridge design, e.g. W.A. McLean; Barber and Young; Ontario Department of Highways.                              |
| <u>Maximum Total Score</u>          | 6 |                                                                                                                                                                                                      |

The above criterion recognizes the value placed by society on the age of artifacts. Old structures, irrespective of whether they are ill or well designed, are often seen to have value simply because they still remain in our environment. Given the physical legacy of 120 years of bridge building, radical changes in pace and form of physical development prove a threat to many bridges built as late as the 1950's.

#### Age

|                            |    |
|----------------------------|----|
| pre 1880                   | 14 |
| 1880-1900                  | 12 |
| 1901-1910                  | 10 |
| 1911-1920                  | 8  |
| 1921-1930                  | 4  |
| 1931-1940                  | 2  |
| <u>Maximum Total Score</u> | 14 |

Points may be awarded when the date can be accurately determined from date plates, newspaper accounts, plans, etc. When date can only be estimated from design/materials it may be necessary subtract one point.



## 2. Technology

### Materials

Wrought iron and stone are afforded high priority because these materials are no longer in use. Category "Other" means only materials not normally used in bridges or that have not gained favour, as well as unusual combinations of materials used in superstructure, piers or abutments.

|                                |   |
|--------------------------------|---|
| a) Wrought Iron                | 4 |
| b) Stone                       | 4 |
| c) Other (not normally in use) | 4 |
| <u>Maximum Total Score</u>     | 4 |

### Design/Style

|                                    |    |                                                                                                                                                                                                                                                                         |
|------------------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Unique                          | 16 | The only one of its kind. It may be eccentric, old, an exaggerated version by virtue of its size, sophistication, use of a particular truss type. e.g. Sioux Narrows, Burlington Skyway.                                                                                |
| b) Typical: but rare as a survivor | 16 | In any given period many bridges will be built which are typical of their age, being neither unique nor unusual. The ravages of time, climate and changing transportation requirements may have seen a number of such bridges disappear. The survivors may now be rare. |
| c) Unusual                         | 16 | Included here are bridges of which only a small number may have been built and perhaps a smaller number now remain. e.g. suspension spans, stone arches.                                                                                                                |
| <u>Maximum Total Score</u>         | 16 |                                                                                                                                                                                                                                                                         |

---

## 3. Prototype

|                            |    |                                                                                                                                                                                                                                             |
|----------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Prototype               | 10 | A bridge may possess a technological or stylistic innovation or adaption, which marks it as a first of a type, an early example or an important improvement. e.g. reinforced concrete bridge at Massey: concrete bowstring arch, Etobicoke. |
| B) Early example           | 10 |                                                                                                                                                                                                                                             |
| <u>Maximum Total Score</u> | 10 |                                                                                                                                                                                                                                             |

## 4. Structural Integrity

|                                 |    |                                                                                                                                                                                                                                                                            |
|---------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) No significant modifications | 10 | Bridges are often on, hydrological. Those that have escaped unchanged are more often than not a rarity and thus of importance in illustrating their original forms. Many bridges may have been modified over the years to the extent that they are no longer recognizable. |
| b) Sympathetic modifications    | 5  | A few however, may still be able to illustrate their original form because of sympathetic modifications e.g. QEW widening/Bronte Creek; unobtrusive strengthening in Blackfriars Bridge, or other renovation and repair work.                                              |
| <u>Maximum Total Score</u>      | 10 |                                                                                                                                                                                                                                                                            |

---

## 5. Visual Appeal

|                             |    |                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Design merits            | 10 | This criterion addresses the intrinsic worth of a structure beyond its technological and functional characteristics. It may be an attractive structure because it is well designed and admirably fitted to a particular site. e.g. Sioux Narrows, Massey, Bronte Creek/QEW. Such a structure will always add to its environment rather than detract. The removal of such a structure would be detrimental to the ambiance of the setting. |
| B) Ornamentation/Decoration | 2  | Decoration or ornamentation, whether discreet or ostentatious, adds visual interest to the structure. It may appear in sculptured forms, belustrading light standards, piers, cross members, portals. etc.                                                                                                                                                                                                                                |
| <u>Maximum Total Score</u>  | 12 |                                                                                                                                                                                                                                                                                                                                                                                                                                           |

---

## 6. Integrity

|                            |   |                                                                                                                                                    |
|----------------------------|---|----------------------------------------------------------------------------------------------------------------------------------------------------|
| a) At original location    | 4 | Original locations are often benchmarks in the past development of a particular environment, and they often contribute to a strong sense of place. |
| <u>Maximum Total Score</u> | 4 |                                                                                                                                                    |

## 7. Landmark

|                            |   |                                                                                                                                                                                                                                                                                            |
|----------------------------|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Physical prominence     | 6 | A bridge may be a visually prominent feature in the landscape, either from the road or some other vantage point. Landmarks may be used by people as guides for moving through an area, or more simply for adding interest in the environment. e.g. Welland Canal lift bridges, Skyway etc. |
| b) Public perception       | 6 | Bridges may be perceived as landmarks in the community and have a symbolic importance rather than a purely visual or aesthetic value.                                                                                                                                                      |
| <u>Maximum Total Score</u> | 6 |                                                                                                                                                                                                                                                                                            |

---

## 8. Gateway

|                             |   |                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Entrance/exit occurrence | 4 | In some instance, particularly urban areas, certain bridges may assume the function of a gateway, albeit quasi, emphasizing to drivers and pedestrians that they are entering into or leaving a specific area. The Gateway function may be recognized as either a funneling phenomena as at Caledonia, or as a prominent superstructure on the road, e.g. Port Colborne, Hamilton. |
| <u>Maximum Total Score</u>  | 4 |                                                                                                                                                                                                                                                                                                                                                                                    |

---

## 9. Character Contribution

|                            |   |                                                                                                                                                                                                                           |
|----------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | 4 | A bridge, together with other buildings or structures, may contribute to a particular character or atmosphere of an area. This is more readily identifiable in certain places than others. e.g. stone bridges, St. Marys. |
| <u>Maximum Total Score</u> | 4 |                                                                                                                                                                                                                           |

## 10. Historical Association

|                                   |    |                                                                                                                                                                            |
|-----------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a) Associated with person /group  | 10 | Associated with the life or activities of a person or group that has made a significant contribution to the community, province or nation, e.g. entrepreneurs, politician. |
| b) Associated with event          | 10 | Associated with a significant event that contributed to the future activities of a community, province or nation, e.g. road building programs, public work projects.       |
| c) Associated with theme          | 10 | Associated with and illustrative of significant patterns of cultural, social, political, economic or industrial history, e.g. Depression era, urban growth.                |
| d) Associated with former bridges | 10 | Associated with former bridge that have served the same site or locale, i.e. a traditional river crossing.                                                                 |
| <u>Maximum Total Score</u>        | 10 |                                                                                                                                                                            |

HPAC<sup>1</sup> is a diversified group of volunteers who advise the Commissioner of Planning and Culture on "heritage issues that are in accordance with the Regional Official Policies Plan for the Region of Waterloo."<sup>2</sup> The members are appointed by Regional Council and have a personal and/or professional interest in cultural heritage.

Their duties, as stated in the HPAC Terms of Reference, are to:

- advise Regional Planning and Culture Commissioner on Regional heritage issues;
- assist in the implementation of Regional heritage policies;
- assist in developing heritage policies and strategies;
- assist in promoting Regional heritage;
- gather information about heritage issues; and,
- increase public awareness and understanding of heritage issues.

---

<sup>1</sup>HPAC (pronounced "H-pack") is the abbreviation for the Heritage Planning Advisory Committee.

<sup>2</sup>HPAC Terms of Reference, 1998. The *Planning and Culture Department* became known as *Planning, Housing and Community Services Department* in 2001 to reflect an enlarged mandate. The function of HPAC was not affected by these changes.