Spanning the Generations

A Study of Old Bridges in Waterloo Region
May 2004

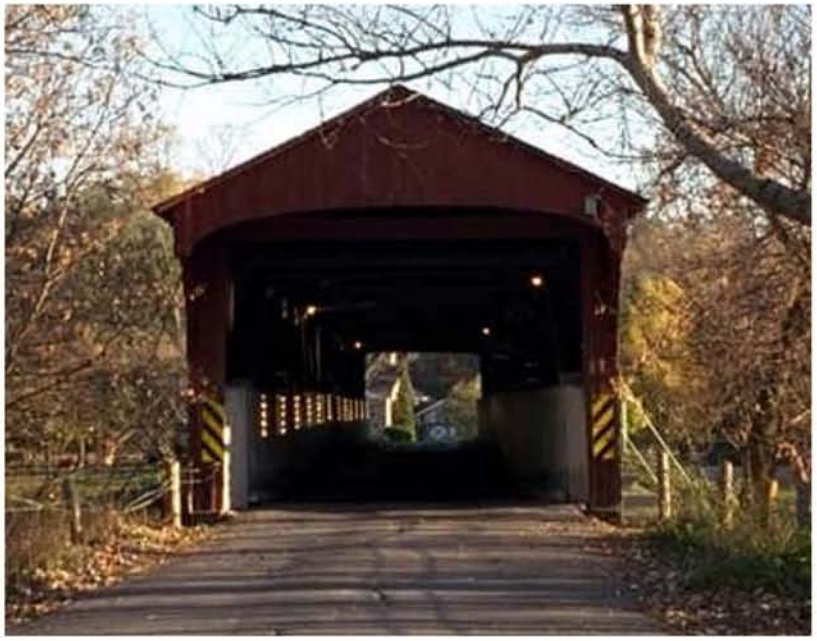
Phase 1: Inventory

Region of Waterloo

Park Hill Road Bridge, Cambridge

Mill Creek Bridge, Cambridge

Freeport Bridge, Kitchener



West Montrose Covered Bridge, Woolwich

Hayesville 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:

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Revised and reprinted May 2004 by

PLANNING, HOUSING AND COMMUNITY SERVICES DEPARTMENT

Photographs and Research by Mike Fontaine

Region of Waterloo

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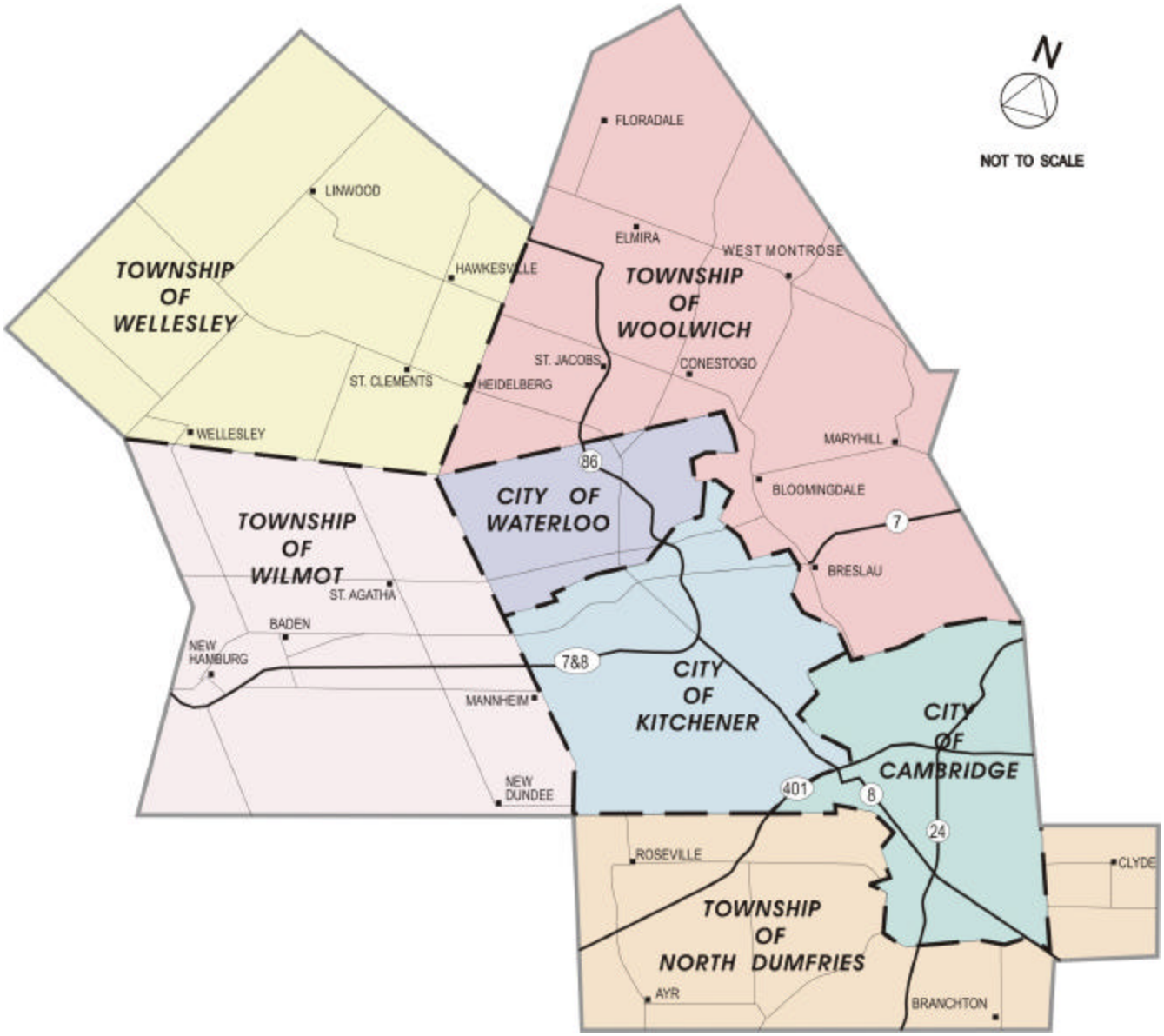
REGIONAL MUNICIPALITY OF WATERLOO



Executive Summary

Bridges play an important role that goes well beyond their obvious function as components of our transportation infrastructure. The best of them become familiar and distinctive landmarks that contribute to a strong sense of place. *Spanning the Generations: A Study of Old Bridges in Waterloo Region* is an inventory and heritage evaluation of all types of bridges, some old and some more recent, found throughout the Regional Municipality of Waterloo.

The project was initiated by the Region's Heritage Planning Advisory Committee in response to growing concerns about the loss of heritage bridges. Mike Fontaine conducted most of the work for this project in 1998-99 as a contract employee of the Planning and Culture Department. Many refinements and corrections are the result of extensive reviews and suggestions from numerous volunteers with a passion for the subject matter.

Phase One of this two-phase study assembled data on over 100 bridges. This reference uses a standardized format of text, while photographs provide a glimpse of the many different types of bridges found throughout Waterloo Region. Although the inventory is both comprehensive and representative, a special emphasis is placed on older structures. All extant road bridges built before 1950 are inventoried, as are a selection of railway viaducts, pedestrian walkways, abandoned bridges, and post-1950 bridges. Together, they illustrate the progression of bridge design and technology. Phase Two assessed the heritage merits of the older bridges. Using criteria developed for the Ontario Heritage Foundation, all of the bridges were scored on a wide range of indicators. The top ten bridges were then selected for more detailed attention, laying the foundation for the eventual formal recognition of these outstanding heritage structures. These bridges are presented in order of rank:

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

Although their function in moving goods and people from place-to-place is well appreciated, the more subtle heritage significance of our bridges is all too easily lost. From the early days of settlement on the banks of the Grand River and its tributaries, bridges were important focal points for communities. Although these early bridges have long since disappeared, their more substantial and permanent replacements have taken on deep and enduring symbolic significance. As modern landmarks, these links to the past span the generations as well as our waterways. Their future cannot be taken for granted, however, as the ravages of time take their toll. The challenge for our generation is to find ways to maintain their functional and symbolic integrity in an economically feasible manner. This study makes a significant contribution to that effort.

Organization of the Document

The inventory is organized in a chronological fashion. This format provides the user with groups of similar bridges since new bridge designs are invented approximately every 10 years. If more than one bridge was built in the same year, they are organized alphabetically. The inventory sheet is standardized for each bridge. It provides basic statistics, a map, and a few photos. The statistics have been divided into three categories: general information, physical components, and descriptive details. When a bridge does not have a name, it is given the name of the road or its bridge number. An alphabetic index by municipality is provided at the back of this report.

General Information

Bridge No. This category provides a bridge number used by the respective area municipalities in which the bridge is located. No unified identification system is used by the area municipalities.

Jurisdiction The municipality that owns the bridge.

Year Built The year in which the bridge was constructed and open to the public.

Drawings If any blueprints, sketches, or plans exist, their location or who to contact is listed. If drawings are not readily available, these are listed as "Not Available".

Physical Components

Type The type of material used and/or the construction design of the bridge.

Spans The number of separate construction links incorporated into the structure.

Dimensions The deck length, width and sometimes vertical clearance, depending on the type of structure.

Load Limit How much weight the bridge can safely withstand (in metric tonnes).

Descriptive Details

This section records any additional information that might better describe the physical surroundings, the nature of the bridge or any other points of interest.

Location

A map of the immediate vicinity is provided showing the location and related features.

Photographs

A direction in front of the name indicates, generally, which way the camera is facing. There are two views of each bridge.

Section 1

Pre-1950 Bridges

West Montrose Covered Bridge/Kissing Bridge

Location Bridge St.(now Covered Bridge Drive), 0.1 km North of Riverside Drive (now Rivers Edge Drive) in the village of West Montrose, Township of Woolwich.

General Information

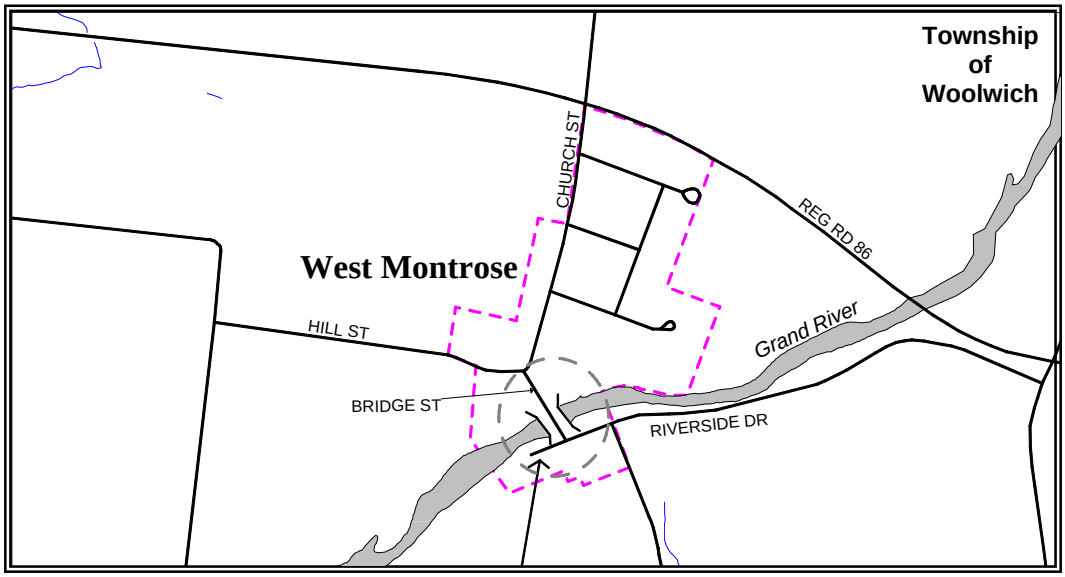
Bridge No.	N/A
Jurisdiction	Regional Municipality of Waterloo
Year built	1881
Drawings	Kitchener Public Library and Township of Woolwich

Physical Components

Type	Wooden, Covered
Spans	2
Dimensions	Length 62.4 m Width 5.1 m Vertical Clearance 3.9 m
Load Limit	3 Tonnes

Descriptions

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/Kissing Bridge

North East View

South View

Nithvale Bridge (Abandoned)

Location At the end of North Dumfries Township Road 11 (now Nith Road), Concession VII, Lot 38, 0.05 km. south of Piper St, in Ayr, Township of North Dumfries.

General Information

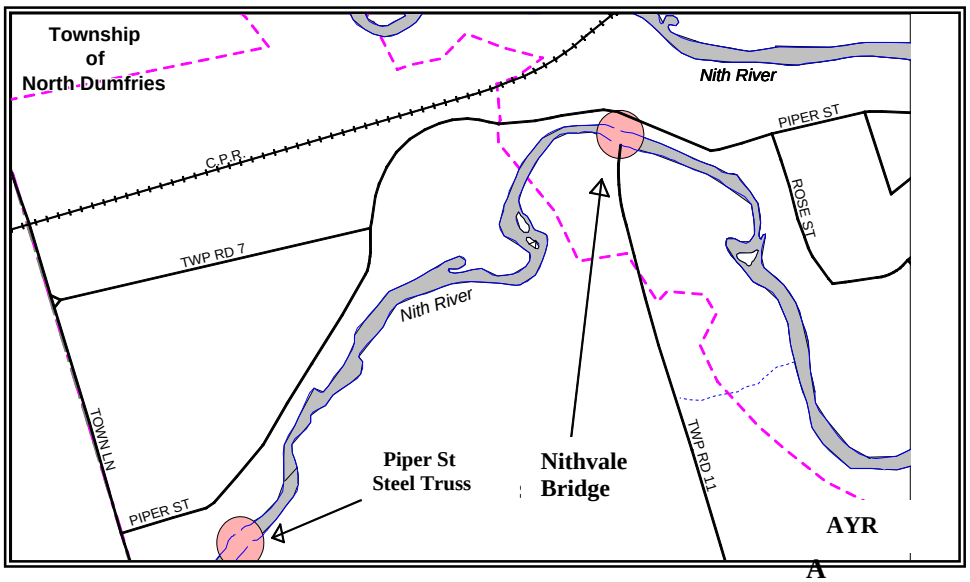
Bridge No	N/A
Jurisdiction	Not known
Year built	1883
Drawings	Not available

Physical Components

Type	through Truss
Spans	1
Dimensions	Length 30 m Width 5 m
Load Limit	None posted

Descriptive details

This bridge is almost completely concealed by the Piper Street foliage. In 1967 this bridge was closed to vehicular traffic, but remains in use for pedestrians. The deck consists of 2x4 planks covered with pitch and tar. Of the two abandoned trusses in Ayr, this bridge is most likely the older of the two. The difference is in the nature of its construction, since this bridge is pin-jointed rather than riveted. Riveting bridges together required highly skilled bridge crews and equipment whereas pin-jointed bridges could be fastened by hand. In 1914 the Hamilton Bridge Company added a span to this bridge–a short steel girder bridge at the south end of the truss.



A

Nithvale Bridge (Abandoned)

East View

Detail of wooden planks

Bridge #6

Location MTO Site No. 33-17, Township Road 18 South (now Chalmers-Forrest Road) south of Kingwood, Township of Wellesley.

General Information

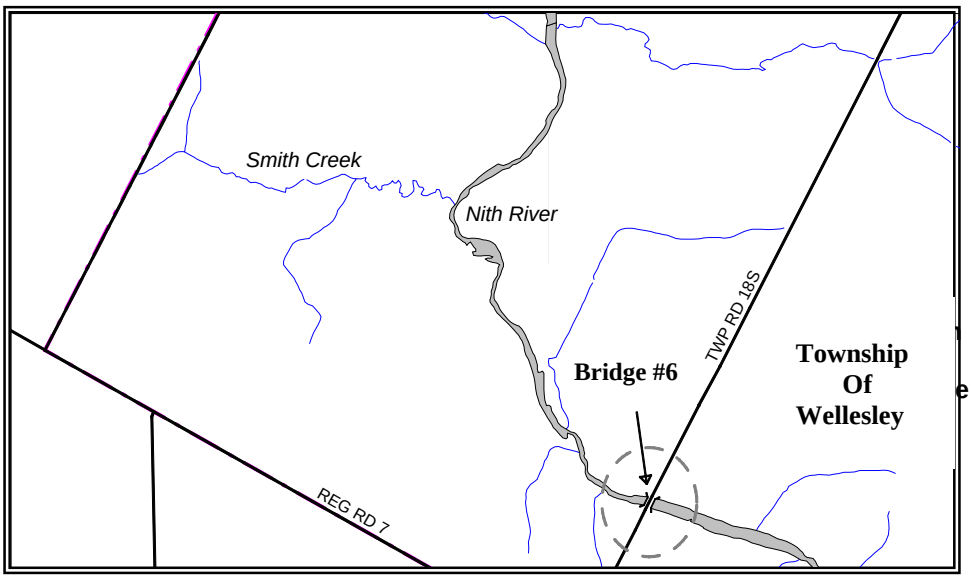
Bridge No	6
Jurisdiction	Township of Wellesley
Year built	1910 +/- 10 years
Drawings	Not available

Physical Components

Type	through Truss
Spans	1
Dimensions	Length 34 m Width 5 m
Load Limit	5 Tonnes

Descriptive details

This is a very slender pin-jointed, one lane, steel through truss. Its deck consists of laminated timber with a tar and chip wearing surface. The roadway approaches were reconstructed in 1981. It is approximately 90 years old and was last inspected in 1989. In the last 10 years there have been two major repairs. The Township has debated whether or not to close or replace this bridge since 1974.



Bridge #6

North East View

East View

Holland Mills Road Bridge

Location Wilmot Township Road No. 13 (now Holland Mills Road), 0.3 km South of Bleams Road, Concession SBR, Lot 20 Block A, east of New Hamburg, Township of Wilmot.

General Information

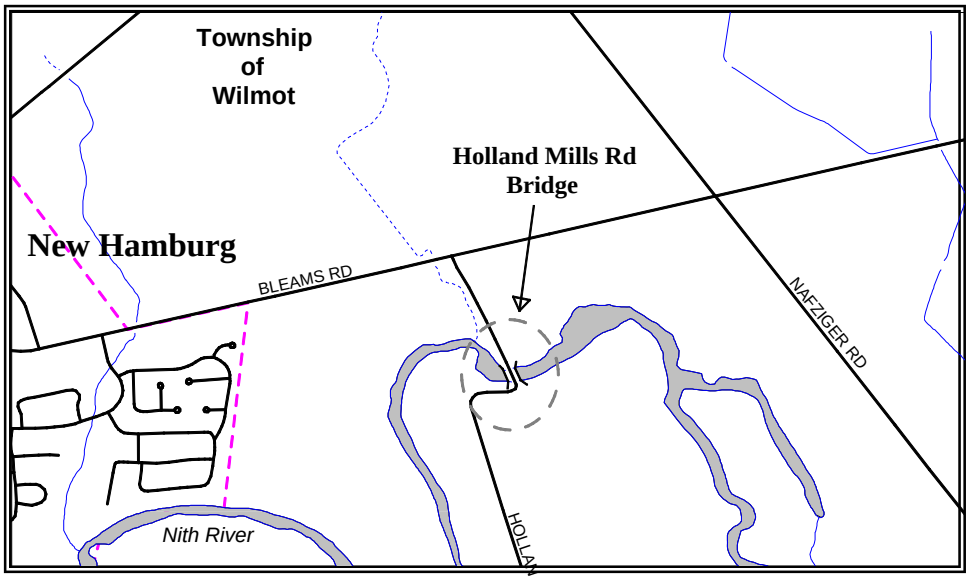
Bridge No	13016
Jurisdiction	Township of Wilmot
Year built	1910
Drawings	Not available

Physical Components

Type	through Truss
Spans	1
Dimensions	Length 30.5 m Width 4.9 m
Load Limit	4 Tonnes

Descriptive details

This is a single lane, pin-jointed through truss bridge. The southern approach is a dirt road which has a 90 degree turn. In 1978 the 2x4 wooden deck was replaced. The wooden piles of a previous bridge lie 40 metres northwest of the bridge.



Holland Mills Road Bridge

South East View

West View

Piper Street Steel Truss (Abandoned)

Location Located 0.2 km East of the Town Line (now Trussler Road) and 0.05 km south of Piper Street, near Ayr, Township of North Dumfries.

General Information

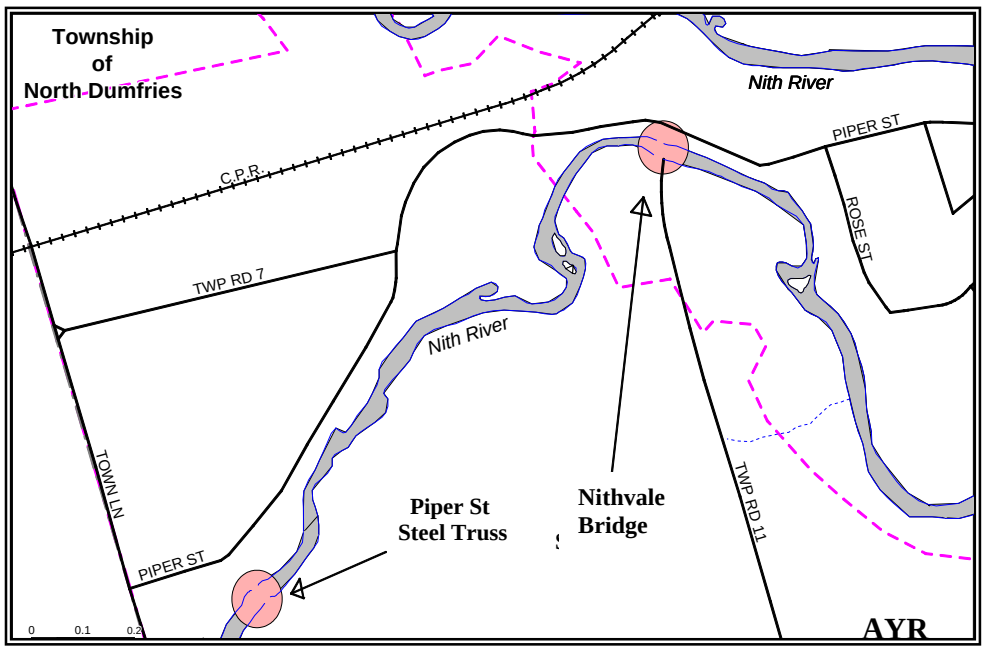
Bridge No	N/A
Jurisdiction	Private Owner
Year built	1915 +/- 10 years
Drawings	Not available

Physical Components

Type	Through Truss
Spans	1
Dimensions	Not known
Load Limit	None posted

Descriptive details

This is a single lane, riveted through truss bridge. It is no longer maintained by the North Dumfries Township, but by a private land owner. The owner has replaced the old deck with 2x8 wooden planks within the past year, and there is ongoing interest by the GRCA that the crumbling abutments be repaired. The deck has a load limit of at least three tonnes for the owner drives farm tractors across the river quite regularly. This bridge is of the Pratt Truss bridge design, the same as the other early trusses, only this bridge is welded, rather than pin-jointed. This bridge was referred to as the Slabtown Bridge.



Piper Street Steel Truss (Abandoned)

East View

West View

Oxford-Waterloo Road Bridge

Location Concession 4-A, Lots 20 & 21, (now Oxford-Waterloo Road), south of Haysville, Township of Wilmot.

General Information

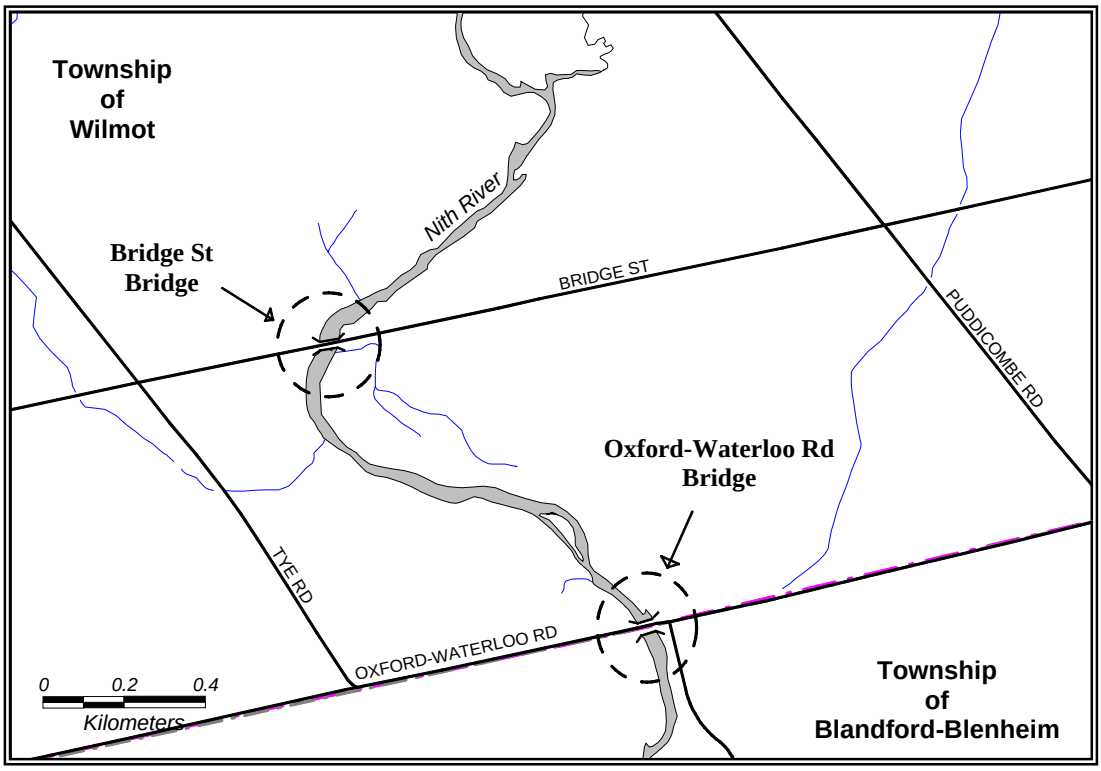
Bridge No	00032
Jurisdiction	Township of Wilmot
Year built	1912
Drawings	Not available

Physical Components

Type	through Truss
Spans	1
Dimensions Length	46.6 m
Width	3.7 m
Load Limit	9 tonnes

Descriptive details

This is a single lane through truss bridge. The maintenance costs are shared with the Township of Blandford-Blenheim and the Township of Wilmot. This bridge appears to be welded.



Oxford-Waterloo Road Bridge

South East View

South View

Bridge Street Bridge

Location Wilmot Township Road 9, Lot 21, Concessions 3 & 4 Block A (now Bridge Street), south of Haysville, Township of Wilmot.

General Information

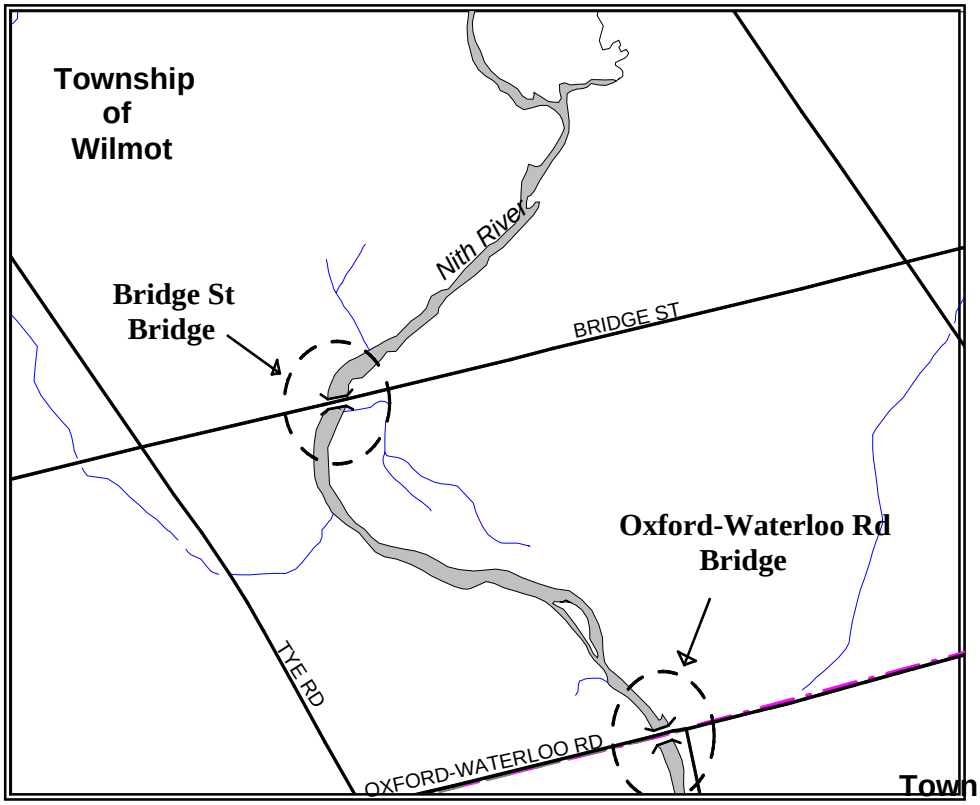
Bridge No.	28
Jurisdiction	Township of Wilmot
Year built	1913
Drawings	Not available

Physical Components

Type	through Truss
Spans	1
Dimensions	Length 45.7 m Width 4.1 m
Load Limit	11 tonnes

Descriptive details

This bridge is identical in design to the Oxford-Waterloo Bridge, except that it has a higher load limit.



Bridge Street Bridge

South East View

East View

Floradale Bridge

Location Woolwich Township Road No. 6 (now Floradale Road), 0.06 km North of Village Limits of Floradale, Township of Woolwich.

General Information

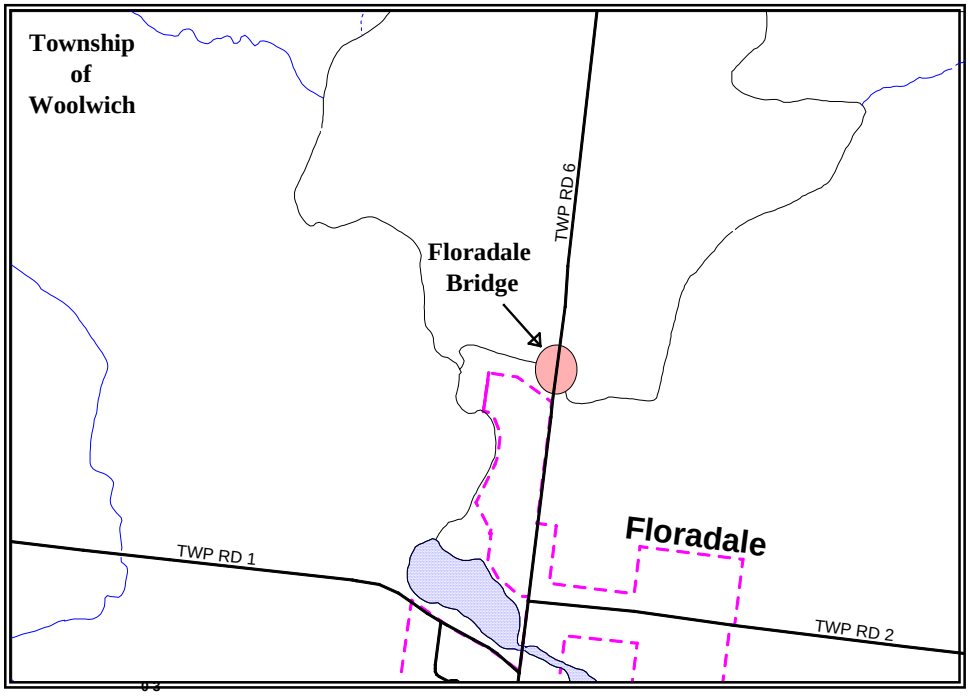
Bridge No.	050106
Jurisdiction	Township of Woolwich
Year built	1913
Drawings	Not available

Physical Components

Type	Concrete earth filled arch
Spans	1
Dimensions	Length 9.3 m Width 8.5 m
Load Limit	14 tonnes

Descriptive details

This structure has been widened 3 metres to east side. The 1993 bridge appraisal recommended a replacement structure. The earth filled concrete arch represents a technological innovation. Concrete is superior to steel for it strengthens with age and requires less maintenance.



Floradale Bridge

West View

East View

Schuett Bridge

Location MTO Site No. 033-0063, Woolwich Twp. Rd. No. 54 (now Maryhill Road), North-East of Winterbourne, Township of Woolwich.

General Information

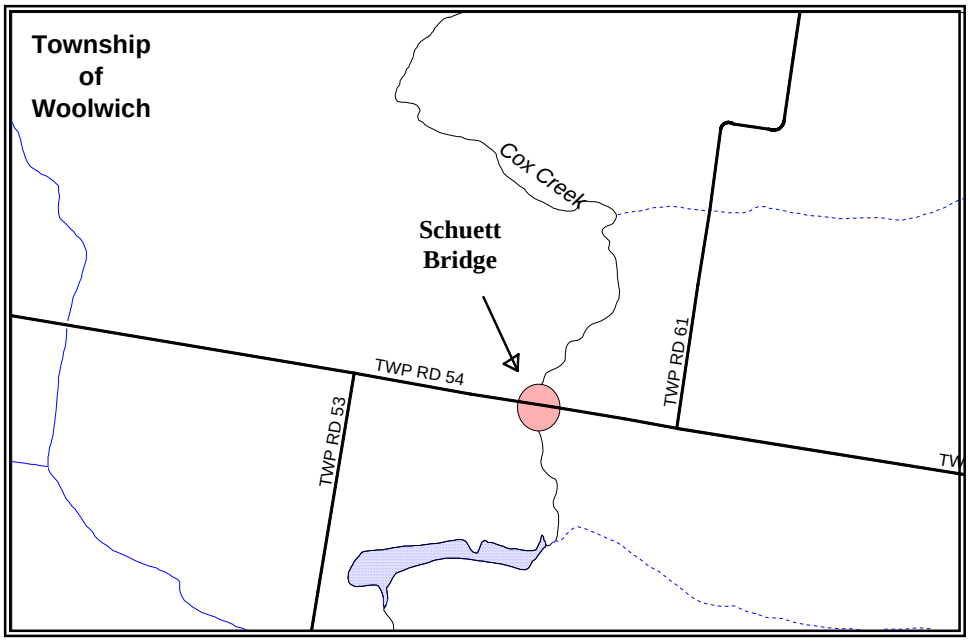
Bridge No.	290154
Jurisdiction	Township of Woolwich
Year built	1913
Drawings	Not available

Physical Components

Type	Earth filled concrete arch
Spans	1
Dimensions	Length 15.2 m Width 3.9 m
Load Limit	11 tonnes

Descriptive details

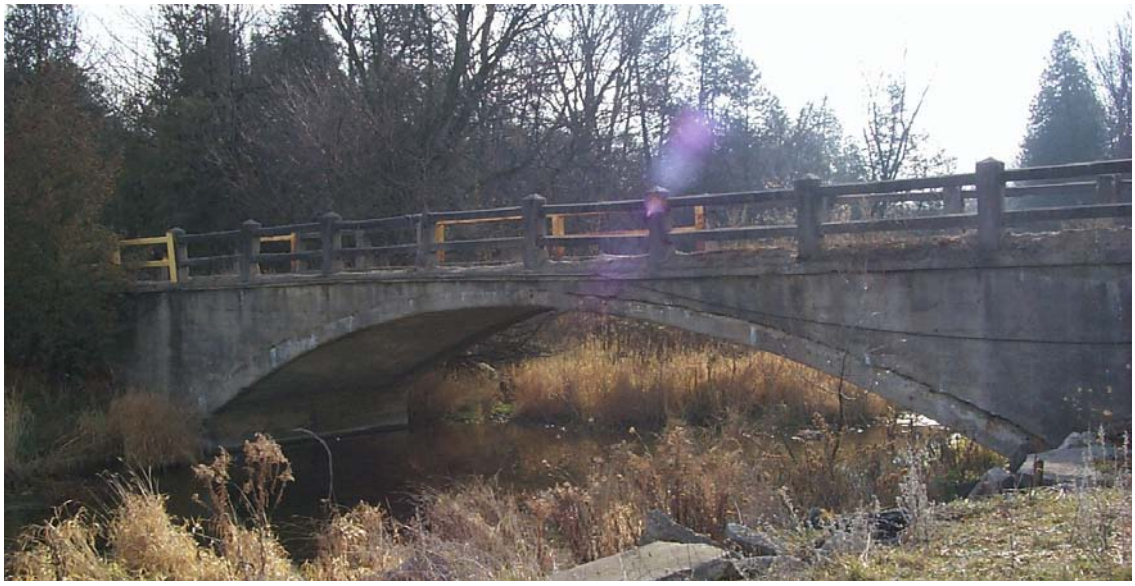
This is a single span cast in place concrete, earth filled arch, with hinged abutments. The superstructure is failing and the concrete railings are warping.



Schuett Bridge

West View

South View



Winterbourne Bridge

Location MTO Site No. 033-0049, Peel Street, west of Winterbourne, Township of Woolwich.

General Information

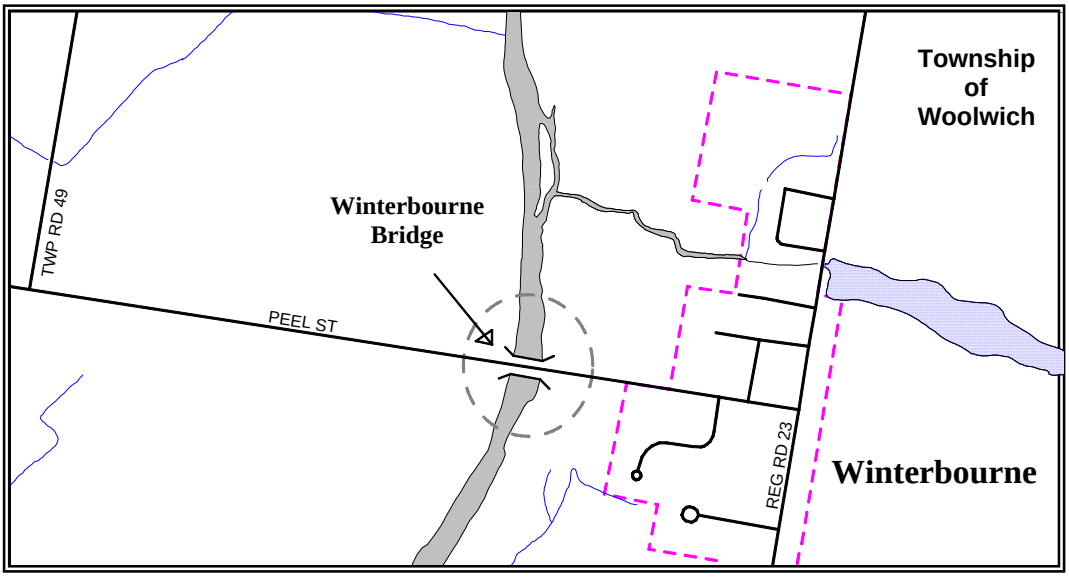
Bridge No.	270148
Jurisdiction	Township of Woolwich
Year built	1913
Drawings	Not available

Physical Components

Type	through Truss
Spans	2
Dimensions	Length 95 m Each span 46.9 m Width 4.3 m
Load Limit	10 tonnes

Descriptive details

This is a two span steel through truss bridge. The deck consists of transverse laminated wood. It is growing old and several repairs are needed. There is a 20km/hr speed limit. Light steel pipes act as barrier rails.



Winterbourne Bridge

North View

North West View

Blackbridge Road Bridge

Location Blackbridge Road over Speed River, 2.4 km East of Regional Road 24 (now Hespeler Road), north end of Cambridge**.**

General Information

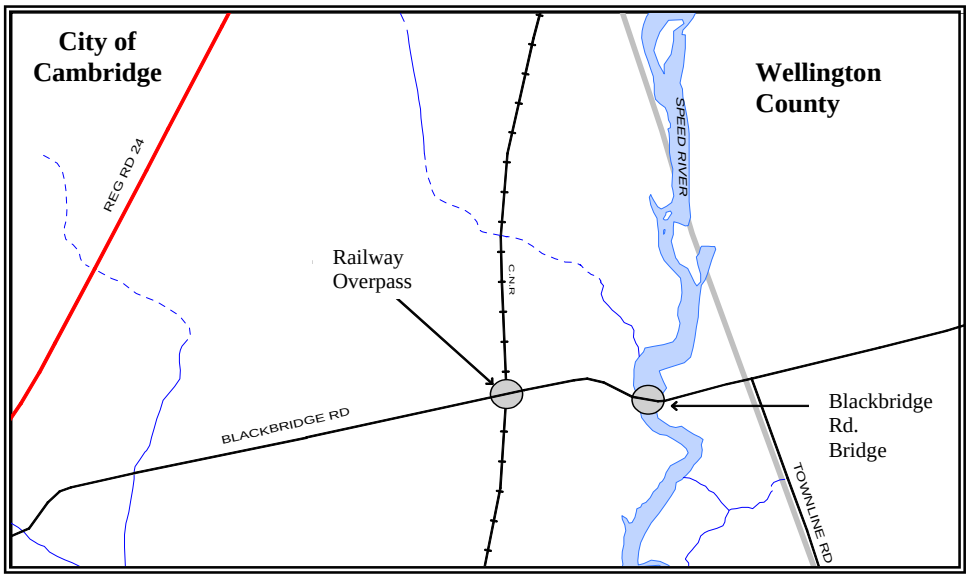
Bridge No.	Blackbridge Road
Jurisdiction	City of Cambridge
Year built	1916
Drawings	Not available

Physical Components

Type	Single Lane Pratt Truss
Spans	1
Dimensions	Length 35 m
Load Limit	4.5 tonnes

Descriptive details

This is a single lane Pratt truss bridge. Blackbridge Road is an old gravel road. The bridge crosses the Speed River at the north end of Cambridge. The bridge is located at the bottom of a gully. The approach is considerably steep to the east. The deck consists of laminated wooden timbers covered with tar and chip. There is some confusion among the media 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. This structure is a designated heritage structure as of 1988. It has undergone extensive repairs in the last 10 years.



Blackbridge Road Bridge

South View

East View

Beitz' Bridge

Location Woolwich Twp. Rd. No. 72 (now Greenhouse Road), 0.12 km south of Twp. Rd. 68 (Hopewell Creek Road), north-east of Breslau, Township of Woolwich.

General Information

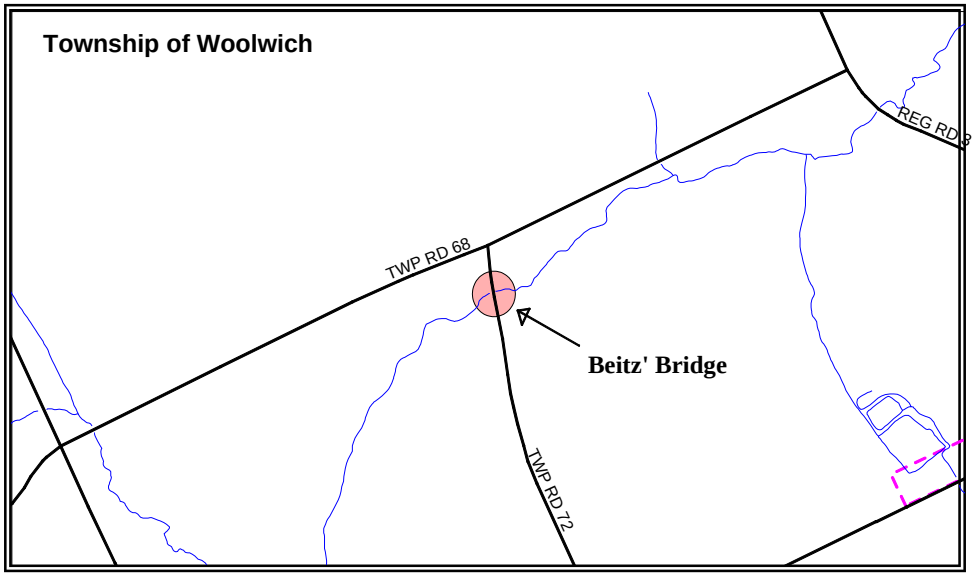
Bridge No.	400172
Jurisdiction	Township of Woolwich
Year built	1919
Drawings	Not available

Physical Components

Type	T-beam and Slab concrete
Spans	1
Dimensions	Length 7.3 m Width 4.9 m
Load Limit	14 tonnes

Descriptive details

This bridge represents the next evolution in bridge technology. Concrete is poured into T-shaped wooden scaffolding. The wood is removed and the T-beams are joined together to form the deck. The "T" joints and 2x4 marks are visible from underneath the deck.



Beitz' Bridge

North View

South View

Lot 69, German Company Tract

Location Woolwich Twp. Rd. No. 46 (now Hill Street), 0.6 km east of the intersection with Reg. Rd. 22 (Northfield Drive E.), and west of West Montrose, Township of Woolwich.

General Information

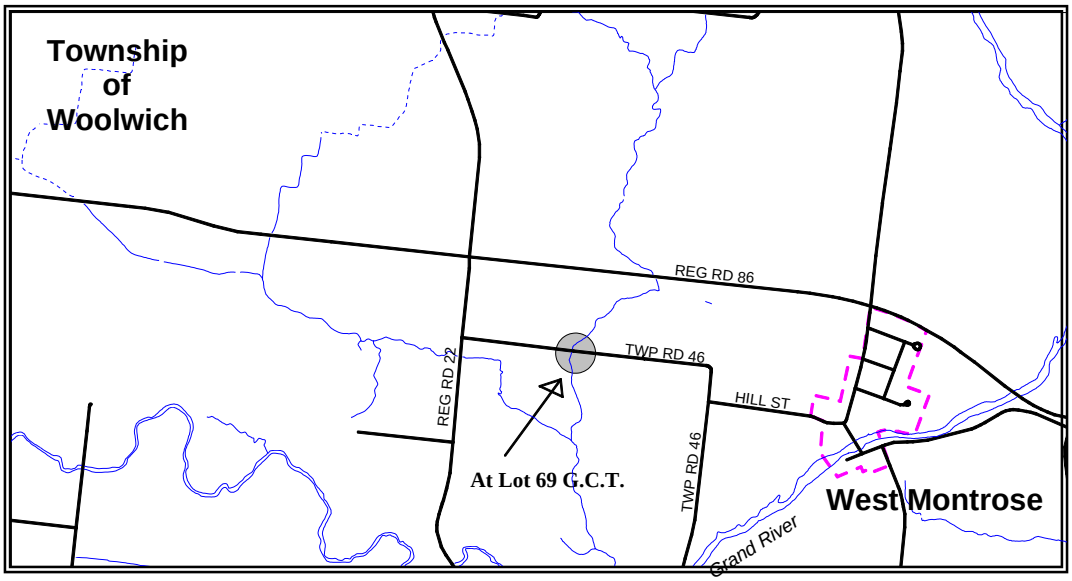
Bridge No.	250146
Jurisdiction	Township of Woolwich
Year built	1919
Drawings	Not available

Physical Components

Type	T-beam and Slab concrete
Spans	1
Dimensions	Length 8.9 m Width 6.1 m
Load Limit	14 tonnes

Descriptive details

This bridge lies west of West Montrose. This bridge was formerly structure #00017. Refer to Beitz' Bridge for a comparison. The concrete barrier walls have been replaced with a latticed steel barrier.



Lot 69, German Company Tract

North West View

North View

Klein's Bridge

Location MTO Site No. 033-0108, Woolwich Township Road. No. 64a, 0.33 km East of the Intersection of Township Roads 64 & 64a, PT. Lot 98/99 G.C.T., Township of Woolwich.

General Information

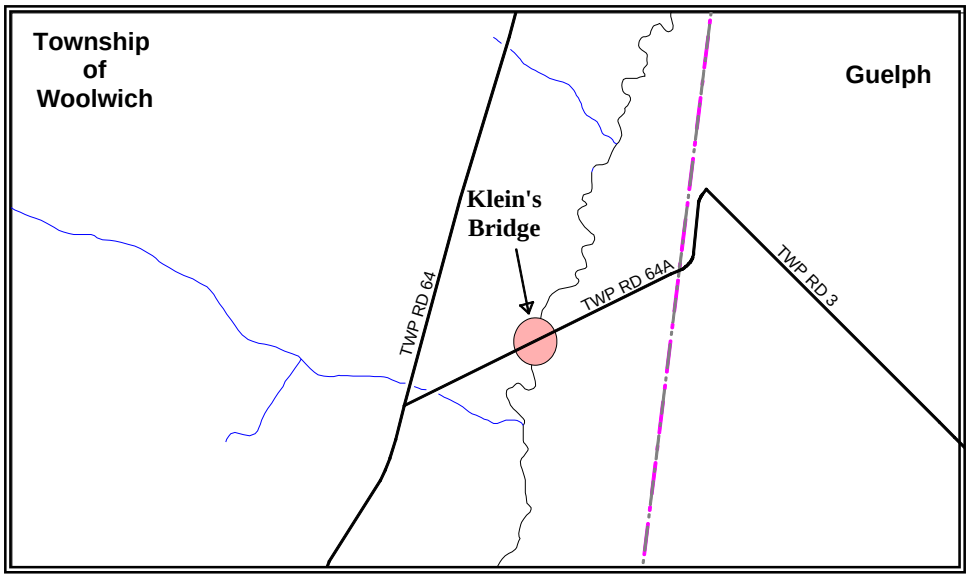
Bridge No.	380164
Jurisdiction	Township of Woolwich
Year built	1920
Drawings	Not available

Physical Components

Type	Rigid Frame
Spans	1
Dimensions	Length 7.0 m Width 6.9 m
Load Limit	14 tonnes

Descriptive details

This is a single span rigid frame bridge. This bridge represents the next step in bridge technology. The abutments and the deck are one unit cast in place. This design can only be used with small bridges. There are no barrier walls. It is located northeast of Maryhill.



Klein's Bridge

North East View

North View

Mill Creek Bridge, Cambridge

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

General Information

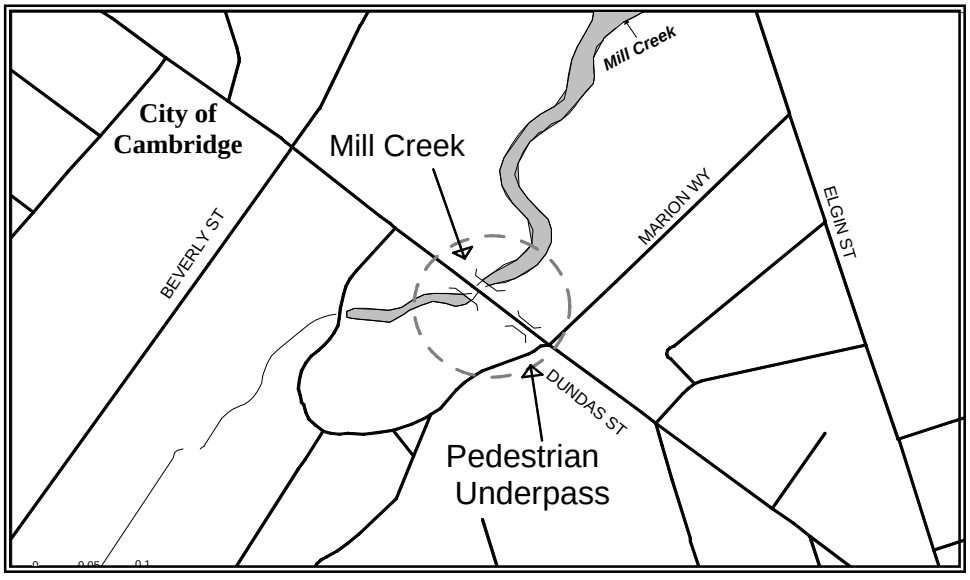
Bridge No.	000802
Jurisdiction	Regional Municipality of Waterloo
Year built	1837
Drawings	Regional HQ and City of Cambridge

Physical Components

Type	Stone Masonry arch
Spans	1
Dimensions	Length 5.7 m Width 11.4 m
Load Limit	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 vertical steel bars. In addition to a roadway sidewalk there is also a creek sidewalk, allowing pedestrians to cross through the arch beneath the bridge. 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. In 2004, the existing concrete will be replaced, replicating the original arch structure.



Mill Creek Bridge

North View

South-East View

Freeport Bridge

Location MTO Site No. 33-136, King Street E., 0.2 km north of Riverbank Drive, City of Kitchener.

General Information

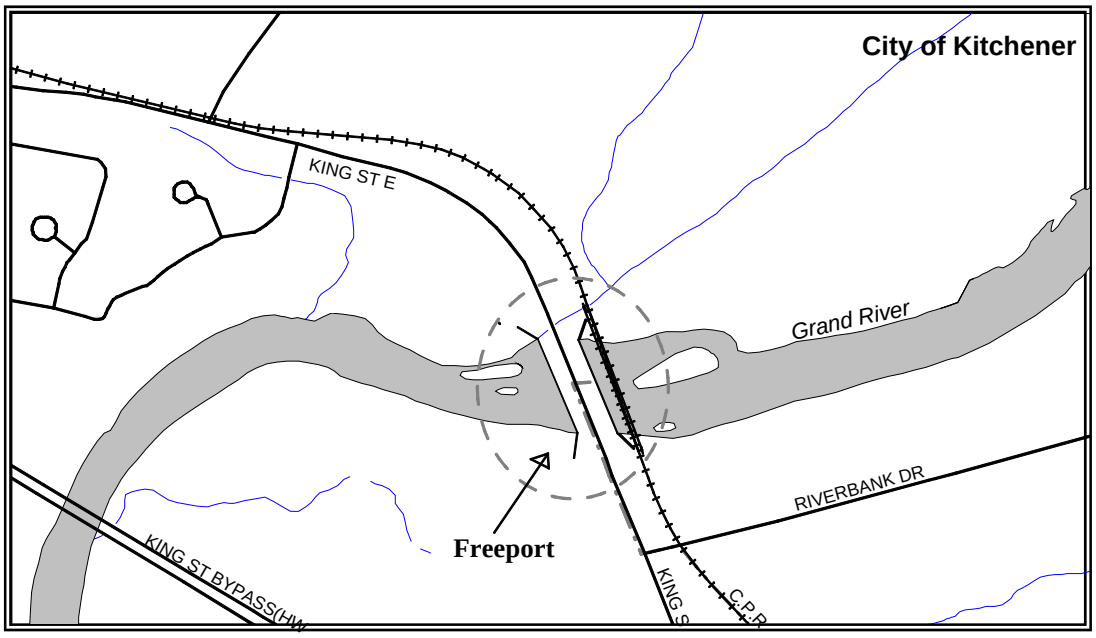
Bridge No.	000807
Jurisdiction	Regional Municipality of Waterloo
Year built	1926
Drawings	Regional HQ

Physical Components

Type	Concrete Bowstring
Spans	7
Dimensions	Length 160.1 m Width 11 m
Load Limit	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 in the City of Kitchener and Main Street in downtown Galt. The bridge was completely rehabilitated in 2003.



Freeport Bridge

North View

South-East View

Lot 82, German Company Tract

Location Woolwich Twp. Rd. No. 29 (now New Jerusalem Road), 0.35 km north of South Field Drive, east of Elmira, Township of Woolwich.

General Information

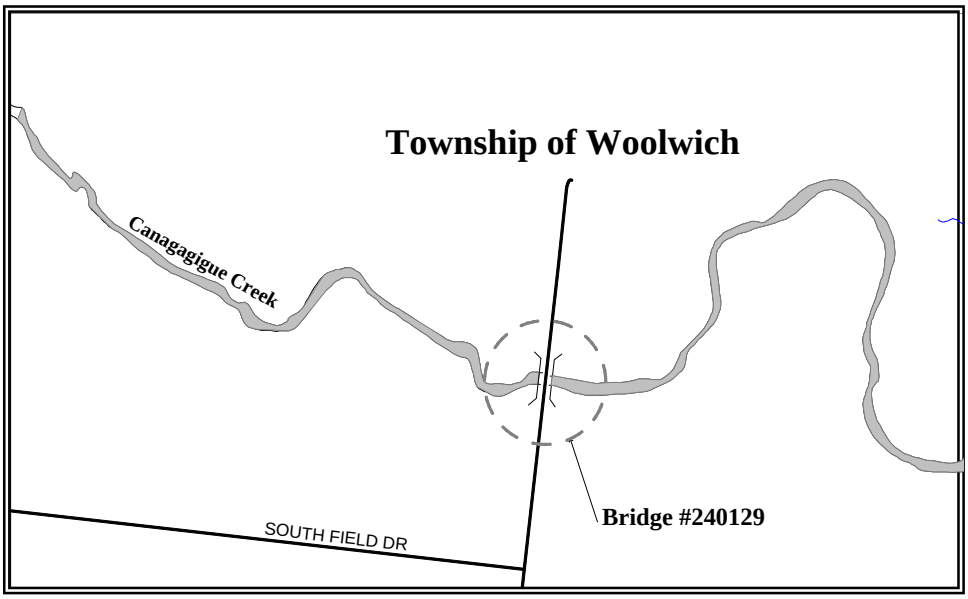
Bridge No.	240129
Jurisdiction	Township of Woolwich
Year built	1927
Drawings	MTO

Physical Components

Type	Concrete slab
Spans	1
Dimensions	Length 7.3 m Width 5.5 m
Load Limit	10 tonnes

Descriptive details

This is single span concrete slab bridge. The deck is a concrete slab that rests on top of the abutments. This bridge was formerly known as structure #00015.



Lot 82, German Company Tract

North West View

West View

Conestogo Bridge

Location MTO Site No. 033-0194, Woolwich Twp. Rd. No. 44 (now Glasgow Street S.), 0.3 km south of King Street, Conestogo, Township of Woolwich.

General Information

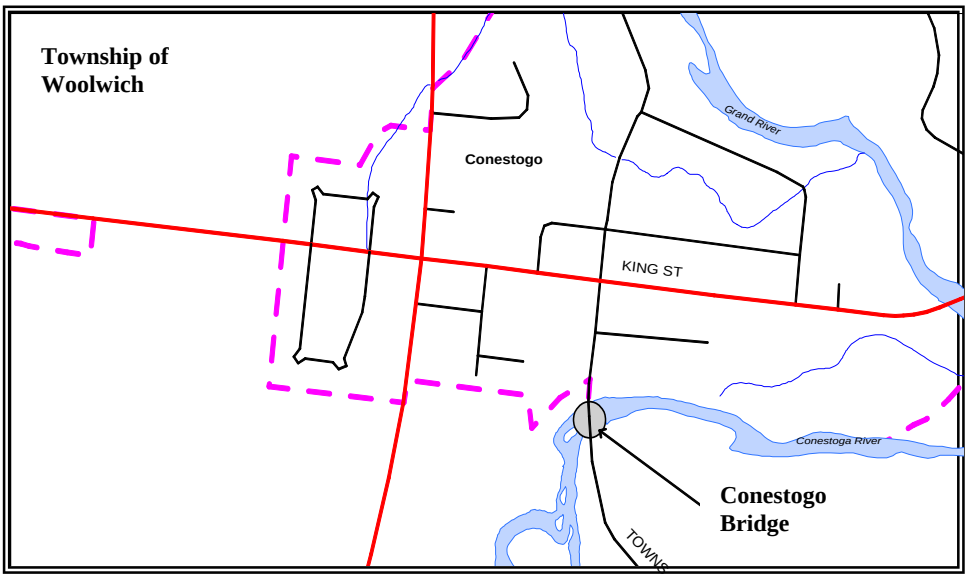
Bridge No.	320144
Jurisdiction	Township of Woolwich
Year built	1886, 1928
Drawings	Not available

Physical Components

Type	Through Truss
Spans	2
Dimensions	Length 39.8 m Width 5.5 m Vertical Clearance 4.5 m
Load Limit	5 tonnes

Descriptive details

This is a two span through truss bridge, made by the Hamilton Bridge and Tool Co. in 1886. The trusses were welded and steel cables form the boundary walls. The worn surface is made of transverse laminated timber.



Conestogo Bridge

South View

West View

Schneider Creek Bridge 1

Location MTO Site No. 33-133, Doon Village Road, 0.3 km South of Homer Watson Boulevard, City of Kitchener.

General Information

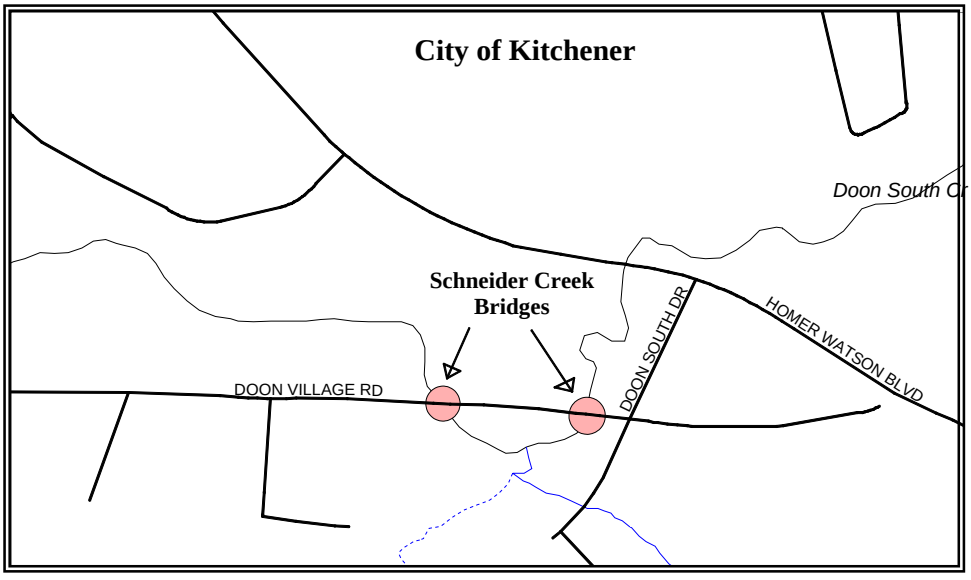
Bridge No.	000802
Jurisdiction	City of Kitchener
Year built	1929
Drawings	Not available

Physical Components

Type	Concrete earth filled arch
Spans	1
Dimensions	Length 20.0 m Width 8.1 m
Load Limit	None posted

Descriptive details

This is a single-lane earth filled concrete arch with a minimum of 300 mm of fill with a paved roadway surface. Doon Village Road is only accessible to the east; the west end is considered a one-way road. The concrete parapet walls are in generally good condition although they look as though they were recently constructed, as there are no water stains. The main superstructure has been re-plastered within the last four years. There is no serious evidence of structural distress and if not for the fact that this is a single-lane bridge, one might assume that it is a new bridge.



Schneider Creek Bridge 1

East View

South View

Schneider Creek Bridge 2

Location MTO Site No. 33-132, Doon Village Road, 0.38 km South of Homer Watson Boulevard, City of Kitchener.

General Information

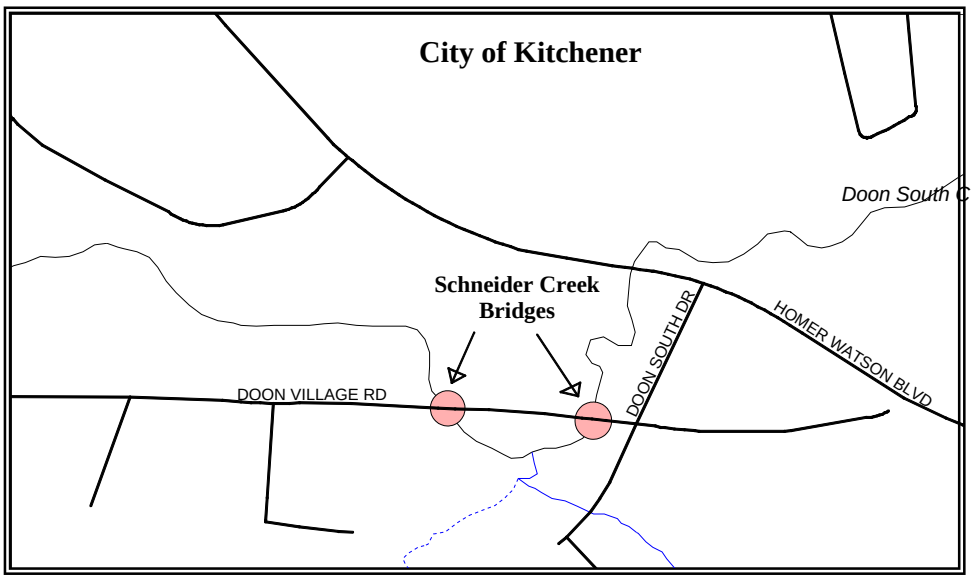
Bridge No.	000803
Jurisdiction	City of Kitchener
Year built	1929
Drawings	Not available

Physical Components

Type	Concrete earth filled arch
Spans	1
Dimensions	Length 18.3 m Width 8.1 m
Load Limit	None posted

Descriptive details

This bridge, also named Schneider Creek, lies less than 100 metres to the west of the first bridge. It also looks identical to the first bridge including the recently re-plastered facade. The only difference is that this creek has been directed by a carefully constructed concrete path. This structure is a single lane bridge, covered with a minimum of 300 mm of fill.



Schneider Creek Bridge 2

East View

North View

Lots 114/115 German Company Tract

Location Woolwich Twp. Rd. No. 12 (now Reid Woods Drive), east of Peel Twp. Line, west of Elmira, Township of Woolwich.

General Information

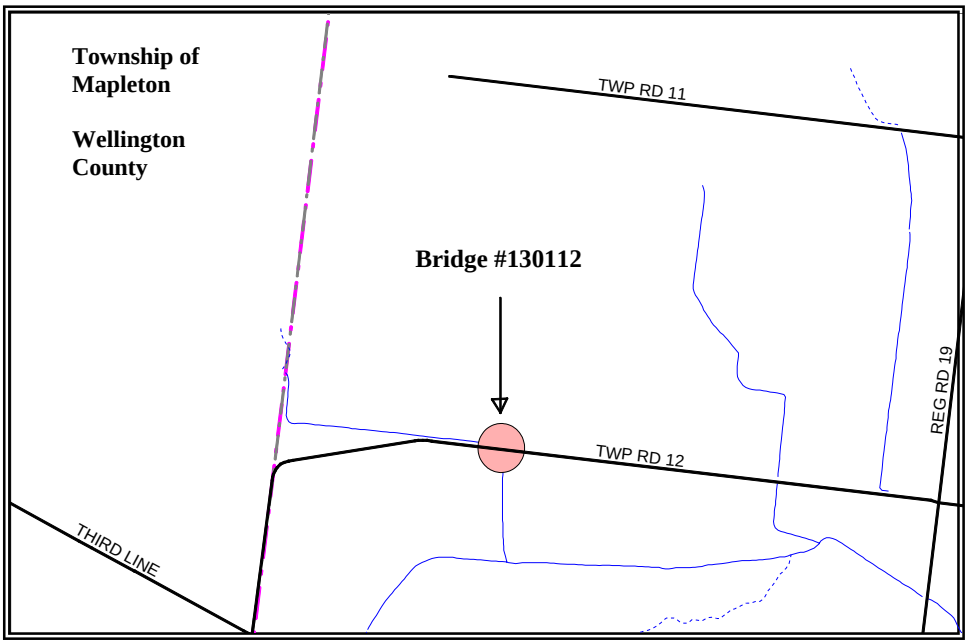
Bridge No.	130112
Jurisdiction	Township of Woolwich
Year built	1930
Drawings	Not available

Physical Components

Type	Open footing, concrete box
Spans	1
Dimensions	Length 4.9 m Width 7.5 m
Load Limit	None posted

Descriptive details

This is a single span open footing concrete box bridge. It looks like a culvert but it is not. A culvert is a bridge structure that has more than 300mm of fill above it, or is less than 3 metres in length.



Lots 114/115 German Company Tract

North View

West View

Lot 3 Concession 2 Hitching's Tract

Location Woolwich Twp. Rd. No. 60 (now Weisenburg Road), 1.4 km east of Twp. Rd.58 (Woolis Road), northwest of Weisenburg, Township of Woolwich.

General Information

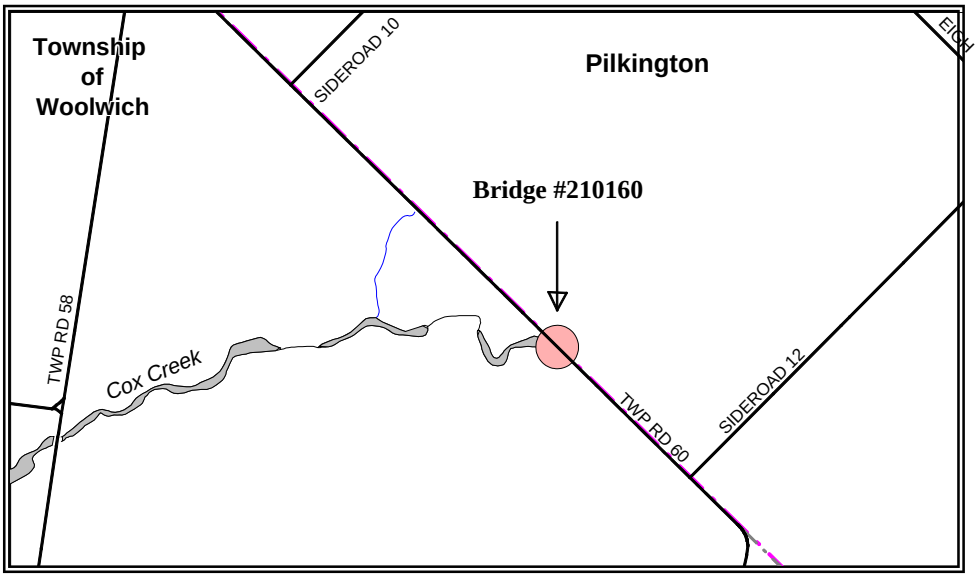
Bridge No.	210160
Jurisdiction	Township of Woolwich
Year built	1930
Drawings	Not available

Physical Components

Type	Concrete slab
Spans	1
Dimensions	Length 13.7 m Width 5.2 m
Load Limit	14 tonnes

Descriptive details

This bridge is half subsidized by the Township of Woolwich and the other half by the Township of Pilkington (now Centre Wellington). The area is surrounded by poor soil conditions as noted from the 1964 design drawings for a replacement structure, which was not constructed.



Lot 3 Concession 2 Hitching's Tract

West View

South West View

Floradale Road Bridge

Location MTO Site No. 33-276, Floradale Road, south of Floradale, Township of Woolwich.

General Information

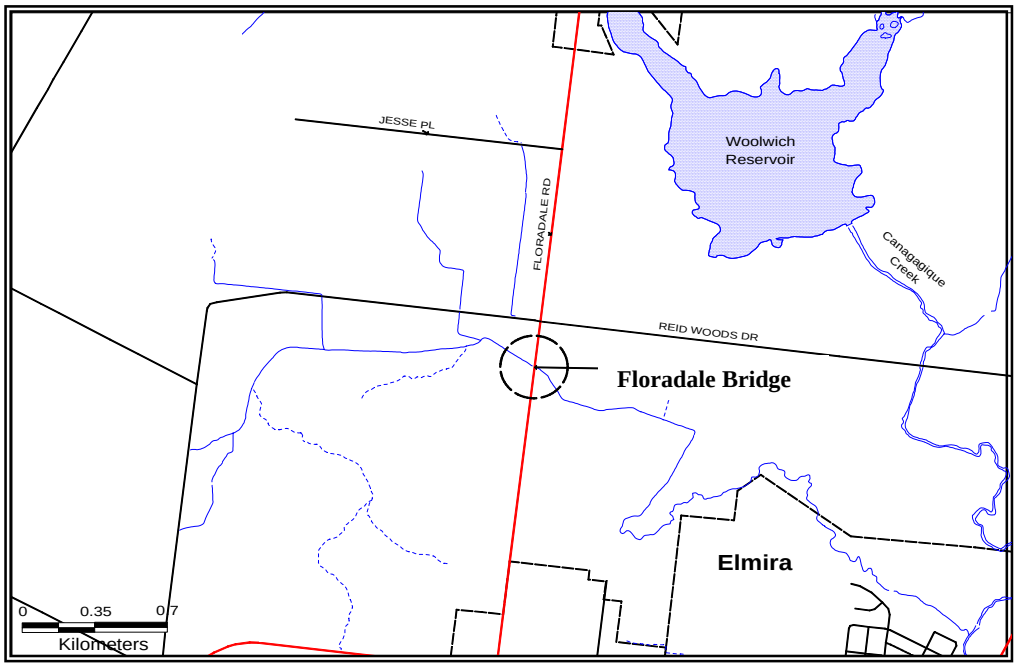
Bridge No.	001901
Jurisdiction	Regional Municipality of Waterloo
Year built	1930
Drawings	Not available

Physical Components

Type	Concrete slab and T-beam construction
Spans	1
Dimensions	Length 6.9 m Width 9.0 m
Load Limit	None posted

Descriptive details

This is a single span concrete bridge of T-beam and slab construction with a concrete deck and asphalt wearing surface. The bridge has been widened approximately 1.5 m to the east and west with concrete encased structural steel girders. It crosses a branch of the Canagagigue Creek, directly south of Floradale. It has a steel flex beam guard rail. As of 1993 the bridge appraisal suggested that the bridge be replaced.



Floradale Road Bridge

West View

Chamber's Bridge (Abandoned)

Location Woolwich Twp. Rd. No. 60 (now Weisenburg Road), 2.4 km west of Katherine Street N., north of Zuber Corners, Township of Woolwich.

General Information

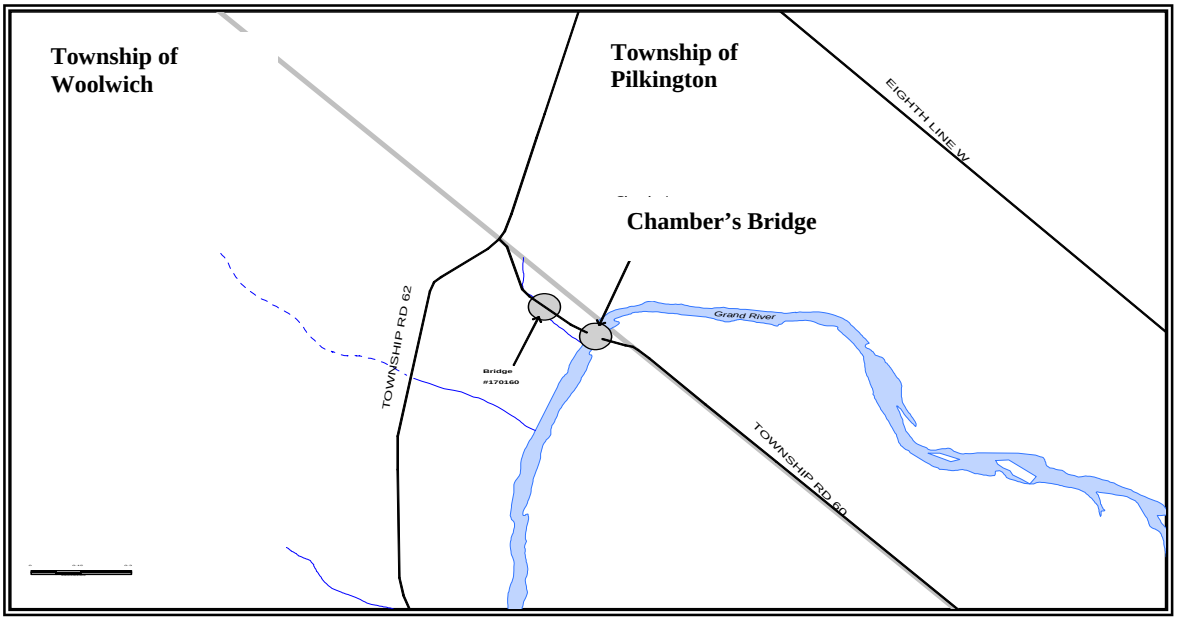
Bridge No.	180160
Jurisdiction	Township of Woolwich
Year built	1930
Drawings	MTO (west abutment)

Physical Components

Type	Through Truss
Spans	1
Dimensions	Length 47.5 m Width 4.3 m
Load Limit	3 tonnes

Descriptive details

This is a single span single lane through truss bridge. The maintenance costs are subsidized between the Township of Woolwich and Pilkington Township (now Centre Wellington). The MTO had drawings of the west abutment and have given copies to the Municipality for evaluation. A 1925 design drawing for a replacement superstructure indicated using the existing east abutment and pier. The west abutment was constructed around 1946, and the truss was likely moved slightly at this time, making the middle pier superfluous. The deck of the bridge was deemed "unsafe" by Woolwich Township, even for pedestrians.



Chamber's Bridge (Abandoned)

West View

North View

Haysville Truss Bridge **DEMOLISHED**

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

General Information

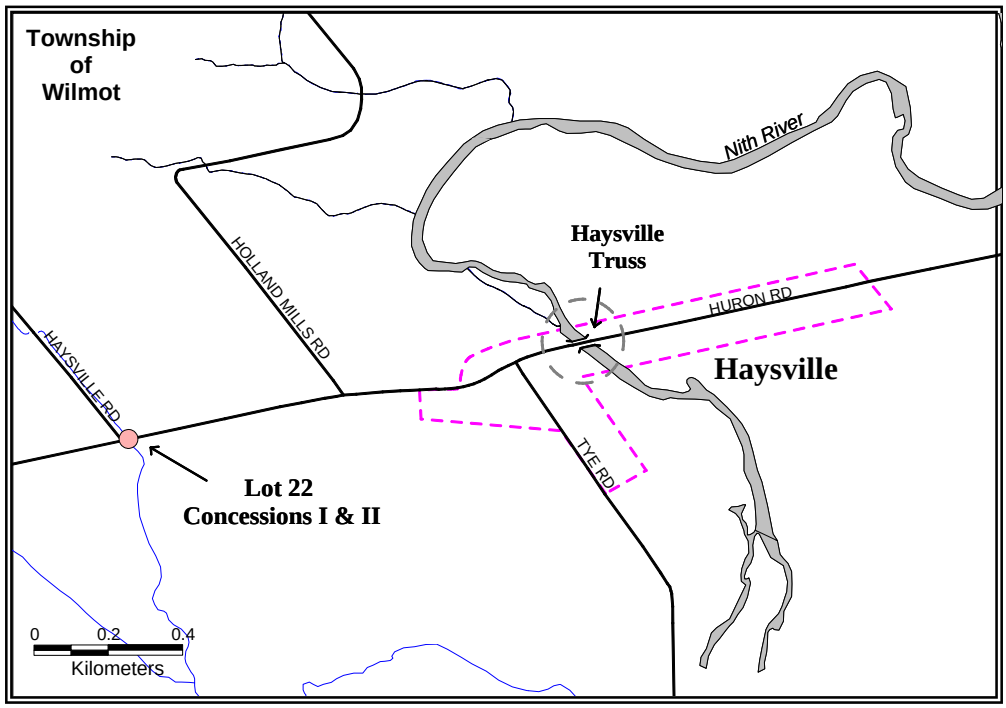
Bridge No.	000203
Jurisdiction	Township of Wilmot
Year built	1930
Drawings	Regional HQ

Physical Components

Type	Through Truss
Spans	1
Dimensions	Length 49.9 m Width 6.1 m
Load Limit	30 tonnes

Descriptive details

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 Truss Bridge **DEMOLISHED**

North West View

North View

Huron Road Bridge

Location MTO Site No. 33-124, Huron Road, 0.21 km East of Homer Watson Boulevard, City of Kitchener**.**

General Information

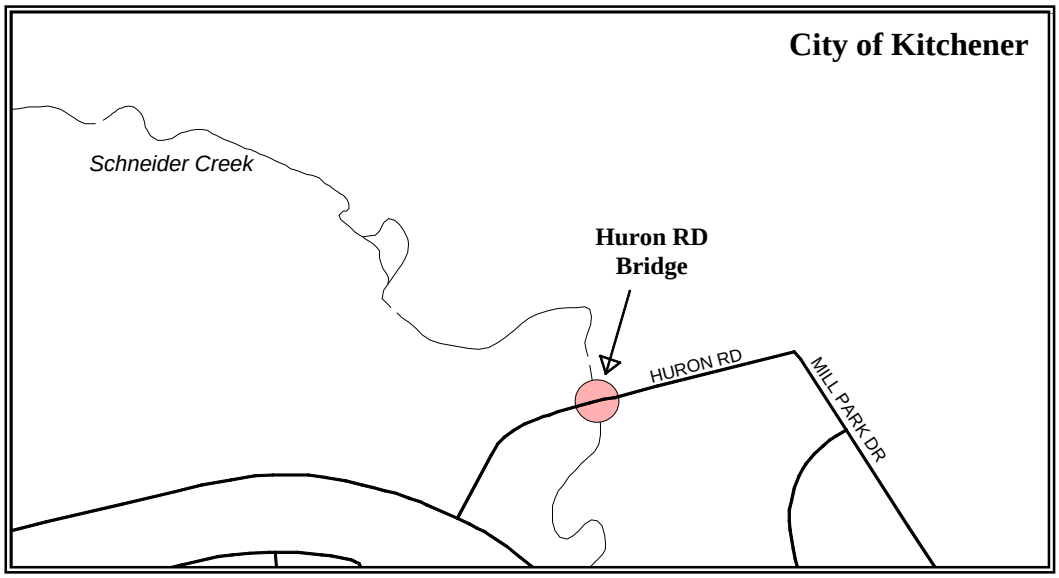
Bridge No.	000805
Jurisdiction	City of Kitchener
Year built	1930
Drawings	Not available

Physical Components

Type	Steel I-Beam and Concrete
Spans	1
Dimensions	Length 13.3 m Width 5.7 m
Load Limit	None posted

Descriptive details

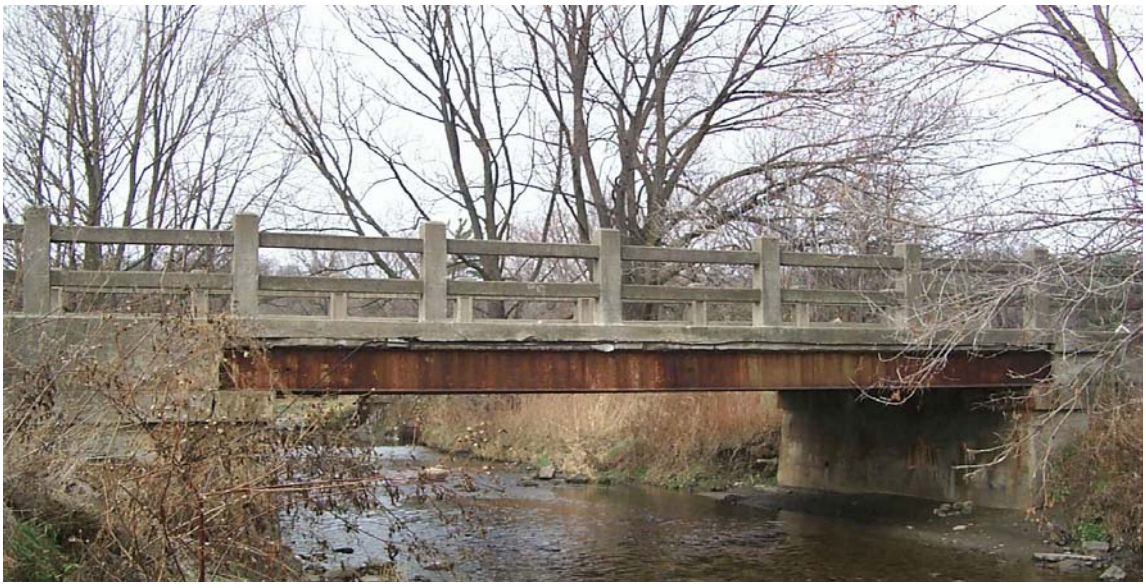
This is a single span steel I-Beam and concrete bridge. A wooden bridge lies to the North of this bridge but only allows pedestrian traffic. This is the earliest example of a bridge in the Waterloo Region with a visible I-beam.



Huron Road Bridge

North View

North West View



King Street Mill Race Bridge

Location King Street, 0.13 km West of Chopin Drive, City of Cambridge.

General Information

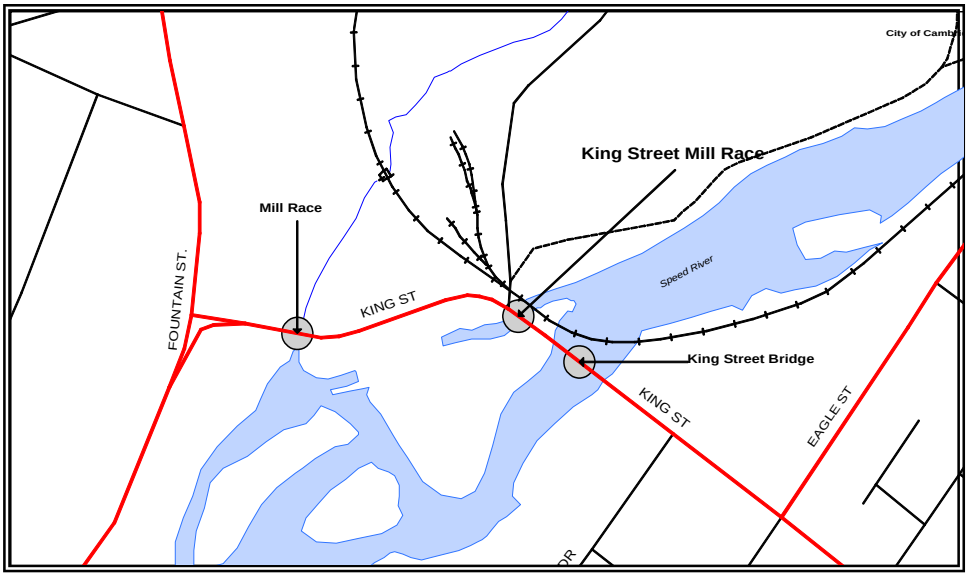
Bridge No.	000805
Jurisdiction	Regional Municipality of Waterloo
Year built	1930
Drawings	Not available

Physical Components

Type	T-Beam and Slab concrete
Spans	1
Dimensions	Length 9.2 m Width 19.8 m
Load Limit	None posted

Descriptive details

This is a single span concrete bridge, of T-beam and slab construction, with a concrete deck and asphalt wearing surface. This bridge crosses a small arm of the Speed River in the north end of Cambridge, slightly west of the King Street Bridge. This bridge is adjacent to the C.P.R. viaduct. The open concrete railing is a distinguishing feature. The bridge will be replaced with a concrete culvert in 2005. It is proposed that the railings be salvaged for display, possibly in Riverside Park.



King Street Mill Race Bridge

North East View

North West View

Mill Race Bridge

Location MTO Site No. 33-153, King Street, 0.2 km south of Fountain Street, City of Cambridge.

General Information

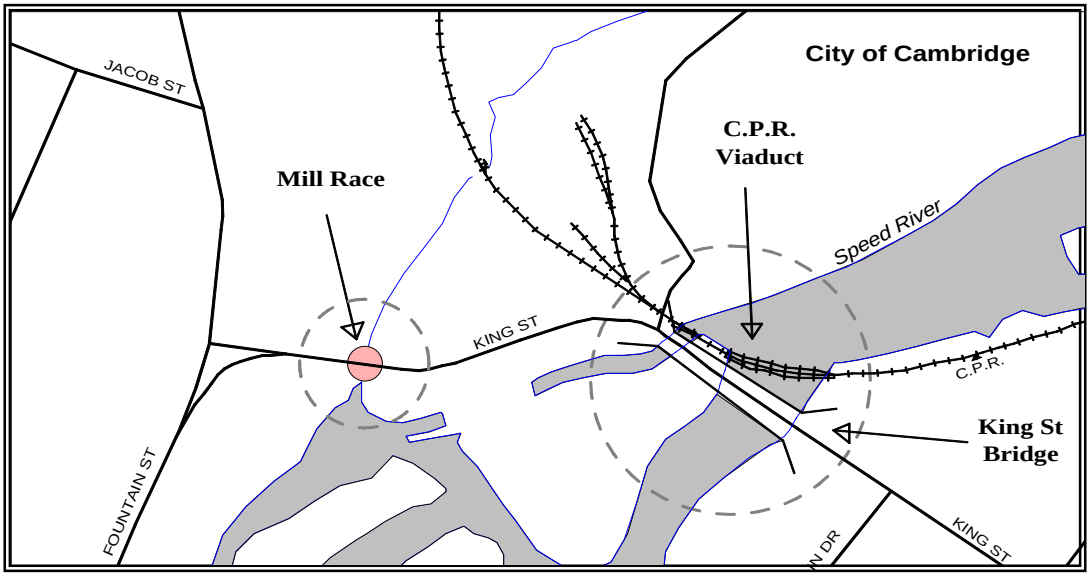
Bridge No.	000806
Jurisdiction	Region of Waterloo
Year built	1930
Drawings	Not available

Physical Components

Type	Concrete Arch
Spans	1
Dimensions	Length 6.6 m Width 18.6 m
Load Limit	None posted

Descriptive details

This is a single span concrete arch bridge. It is covered with approximately 500 mm of earth fill with a paved roadway surface. The bridge crosses a small tributary of the Speed River in the north end of Cambridge. The curved approach road and the busy intersection hide the presence of this bridge. Mill Race is also overshadowed by the more decorative King Street Bridge. There are concrete sidewalks on both sides of the bridge as well as concrete handrails and a horizontal reinforcing steel bar.



Mill Race Bridge

South View

East View

Moffat Creek Bridge

Location Water Street, 0.5 km north of Myers Road, City of Cambridge.

General Information

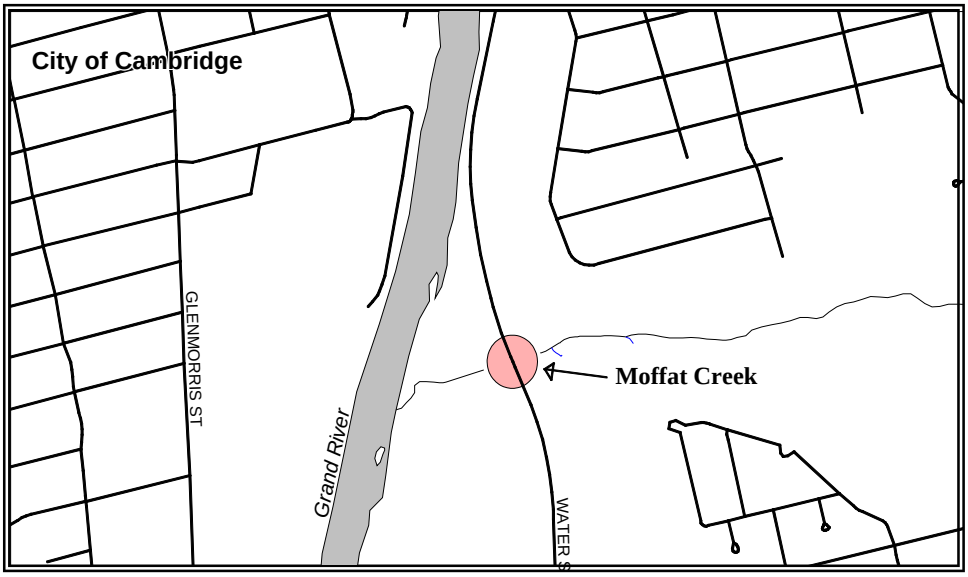
Bridge No.	002401
Jurisdiction	Regional Municipality of Waterloo
Year built	1930
Drawings	Not available

Physical Components

Type	Concrete Slab
Spans	1
Dimensions	Length 3.8 m Width 20.0 m
Load Limit	None posted

Descriptive details

This is a single span concrete bridge with a solid deck slab. The bridge is covered with approximately 500 mm of fill with a paved roadway surface. The culvert extends to the east below the entranceway to Churchill Park. It crosses Moffat Creek, a tributary of the Grand River in the southern end of Cambridge. Three additional low level culverts lie west of this structure. These culverts appear to be quite old but have been left out of this report as they do not cross any major road.



Moffat Creek Bridge

East View

Bridge #10

Location MTO Site No 33-5, Township Road 12 North (now Lavery Road), south of Regional Rd. 86 (Line 86), northeast of Linwood, Township of Wellesley.

General Information

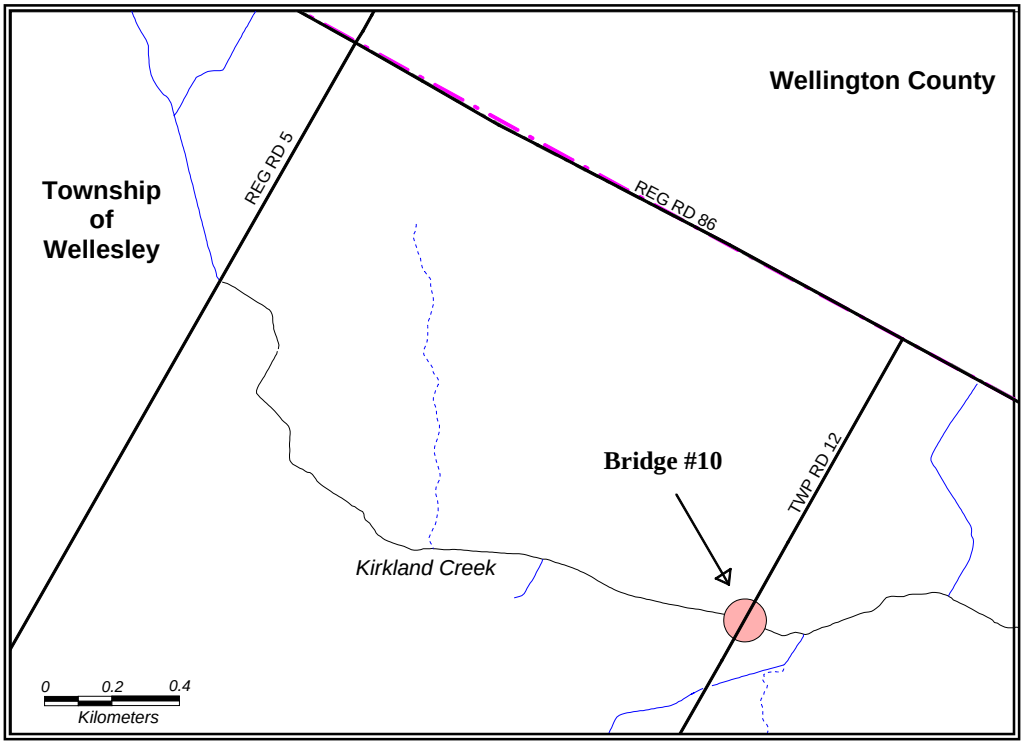
Bridge No.	10
Jurisdiction	Township of Wellesley
Year built	1931
Drawings	Not available

Physical Components

Type	Steel I-Beam and Concrete
Spans	1
Dimensions	Length 6 m
Load Limit	15 tonnes

Descriptive details

This is a single span steel I-beam and concrete bridge. This bridge is very similar to the Huron Road Bridge (No. 000805), except the I-beam is in better condition.



Bridge #10

North West View

West View

Bridge #12

Location MTO Site No. 33-1, Township Road 11 West (now Ament Line), west of Linwood, Township of Wellesley.

General Information

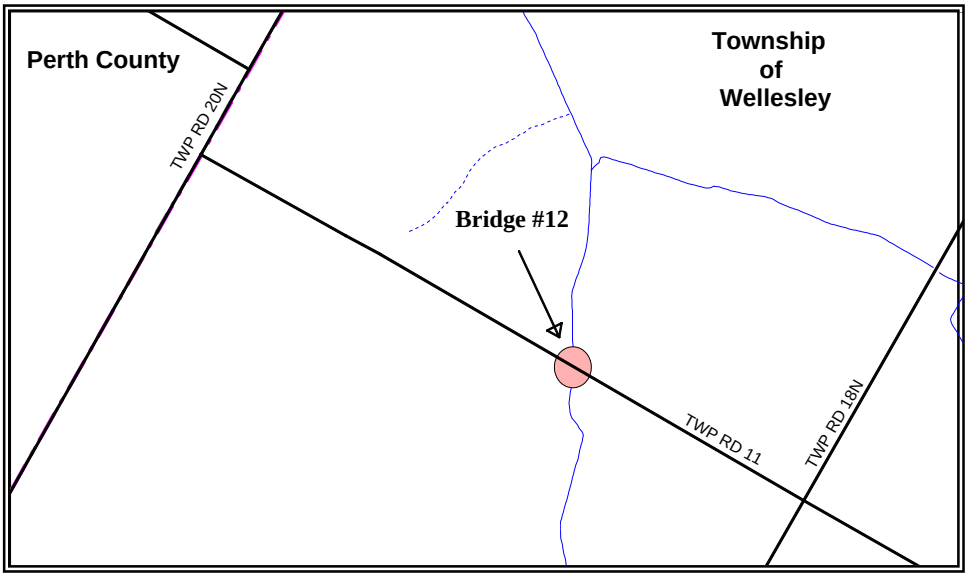
Bridge No.	12
Jurisdiction	Township of Wellesley
Year built	1931
Drawings	Not available

Physical Components

Type	Steel I-Beam and Concrete
Spans	1
Dimensions	Span length 8.8 m
Load Limit	3 tonnes

Descriptive details

This is a single span steel I-Beam and concrete bridge. It is located west of Linwood and the Township wishes to replace this structure. It is similar in construction to the Huron Road Bridge (No. 000805) and Bridge #10.



Bridge #12

West View

South View

Main Street Bridge

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

General Information

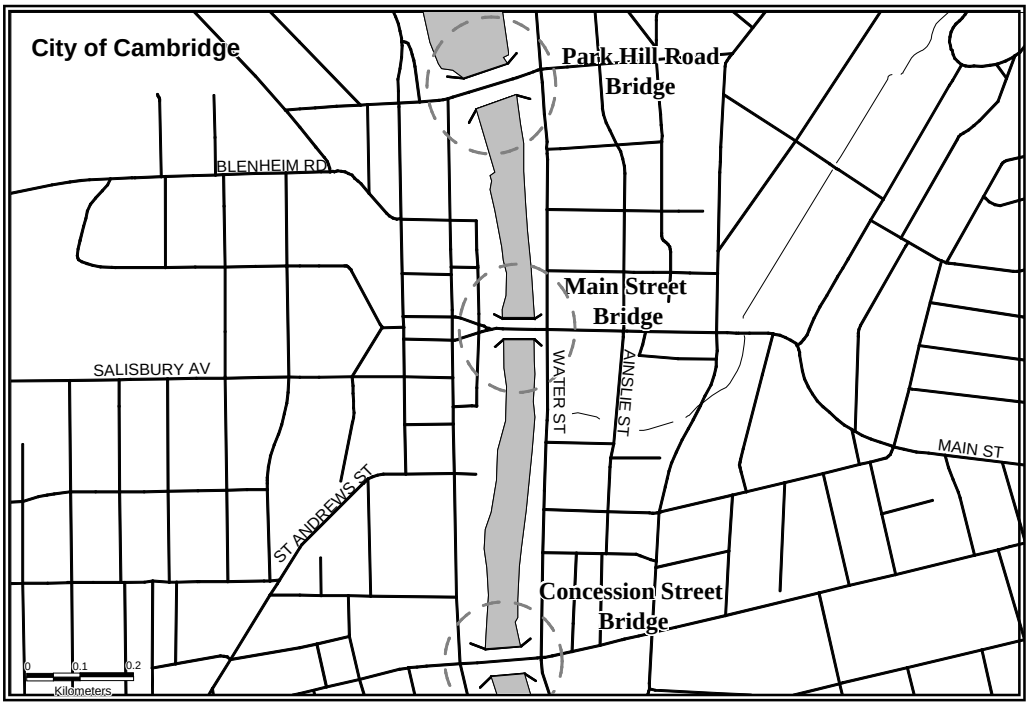
Bridge No.	002703
Jurisdiction	Regional Municipality of Waterloo
Year built	1931
Drawings	City of Cambridge and Regional HQ

Physical Components

Type	Concrete Bowstring
Spans	2
Dimensions	Length 59.6 m Each Span 29.5 m Width 18.5 m
Load Limit	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 the Market Square. This bridge has been a designated structure since 1982.



Main Street Bridge

West View

South View

Lot 64, German Company Tract

Location Woolwich Twp. Rd. 60 (now Weisenburg Road), 2.5 km west of Regional Road 23 (Katherine Street North), north of Zuber Corners, Township of Woolwich.

General Information

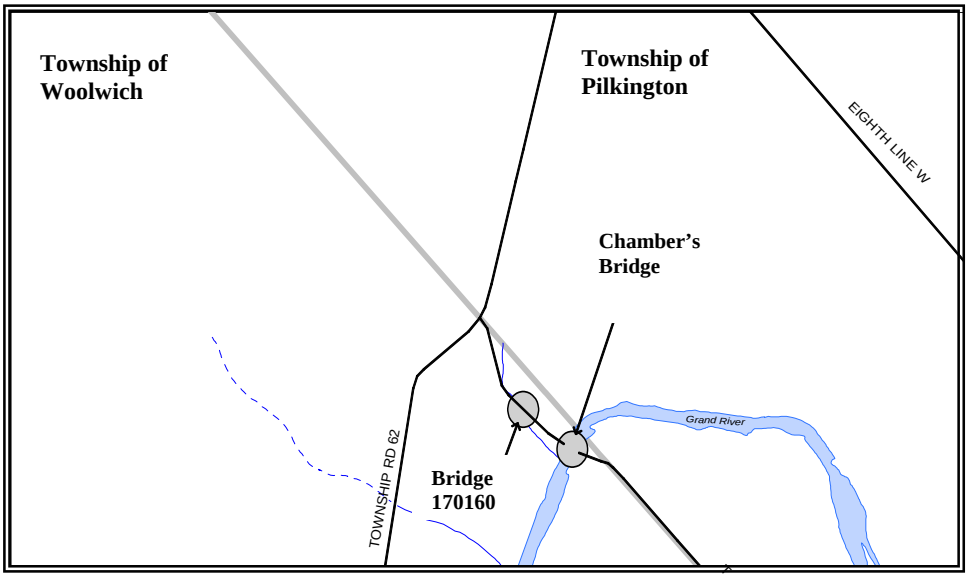
Bridge No.	170160
Jurisdiction	Township of Woolwich
Year built	1932
Drawings	Not available

Physical Components

Type	Concrete box
Spans	1
Dimensions	Length 3.6 m Width 5.5 m
Load Limit	9 tonnes

Descriptive details

This is a single span open footing concrete box bridge. For information on the difference between a culvert and bridge see 1.41, At Lots 114/115 German Company Tract (G.C.T.). This bridge has not been used since the Chamber's Bridge closed.



Lot 64, German Company Tract

West View

East View

Balzer Road Bridge

Location MTO Site No. 33-352, Balzer Road, 0.30 km West of Courtland Avenue, City of Kitchener.

General Information

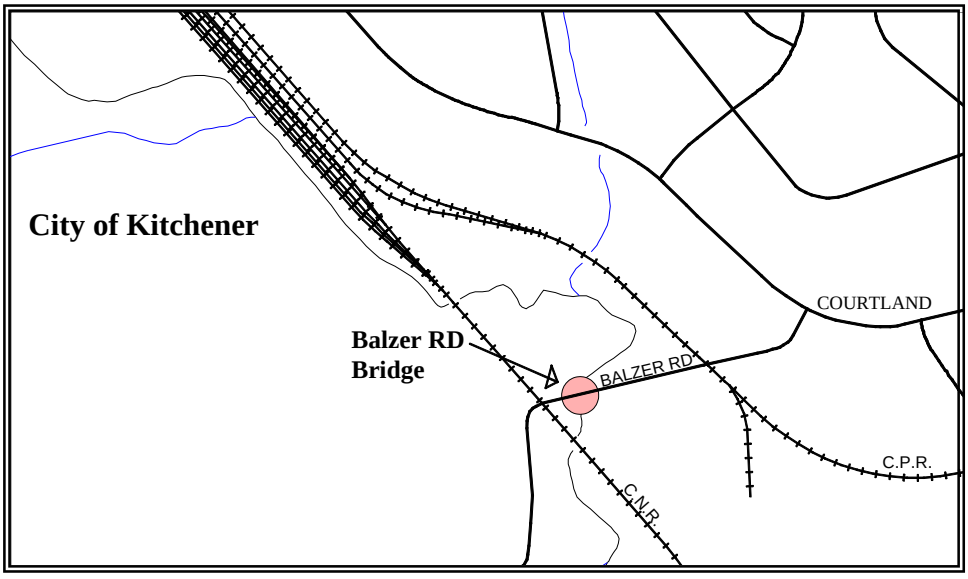
Bridge No.	000806
Jurisdiction	City of Kitchener
Year built	1932
Drawings	Not available

Physical Components

Type	Concrete slab
Spans	1
Dimensions	Length 14.0 m Width 5.5 m
Load Limit	None posted

Descriptive details

Balzer Road is a dead-end dirt road that connects to Courtland Avenue and disappears into hills beyond the C.N.R. railway tracks. It would appear that this bridge is only used by one, perhaps two factories on Balzer Road. According to the Kitchener 1998 Bridge Appraisal, there is no serious evidence of structural distress. One of the original concrete handrails has been replaced with a steel one.



Balzer Road Bridge

West View

North View

Park Hill Road Bridge

Location Park Hill Road, 0.5 km west of Water Street, City of Cambridge.

General Information

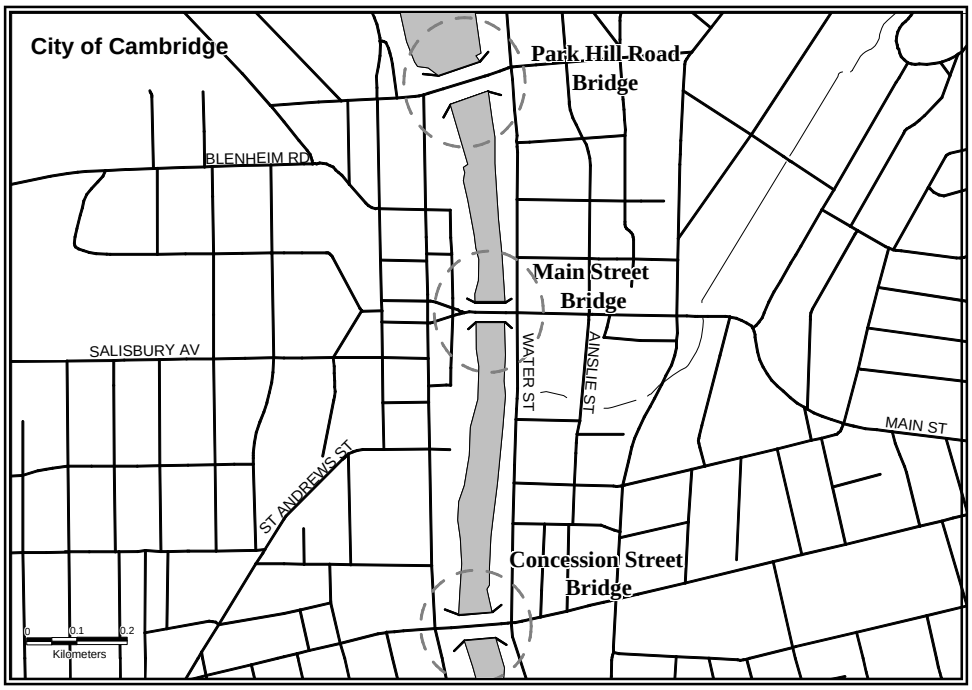
Bridge No.	007701
Jurisdiction	Regional Municipality of Waterloo
Year built	1933
Drawings	Not available

Physical Components

Type	T-beam and Slab concrete
Spans	4
Dimensions	Length 83.7 m Each span 20.7 m Width 12.4 m
Load Limit	None posted

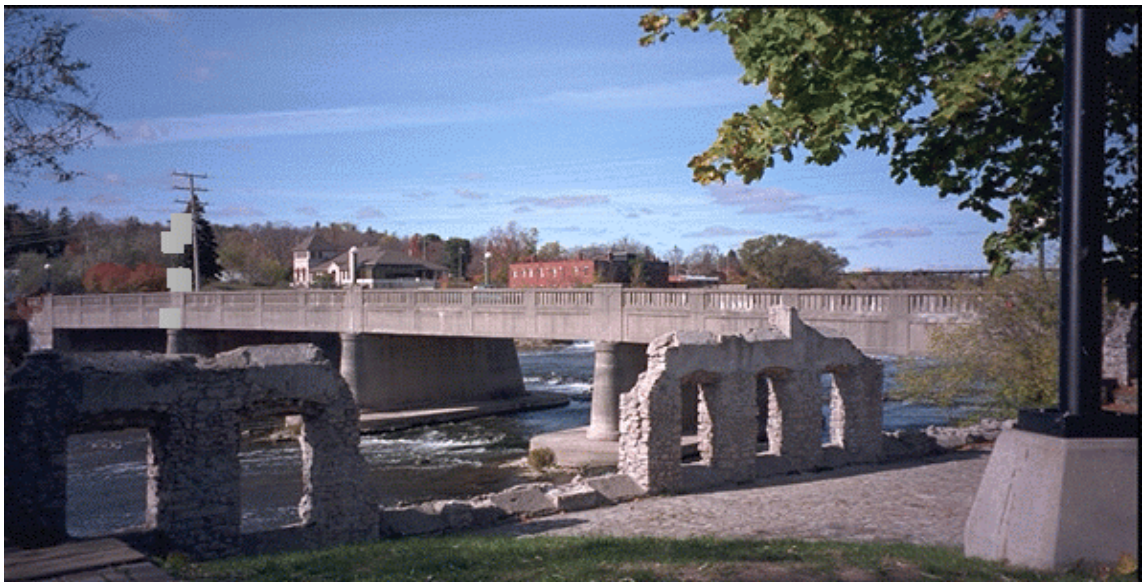
Descriptive details

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 2001-02 when it was widened to four lanes. The new railings and lighting replicate the original features.

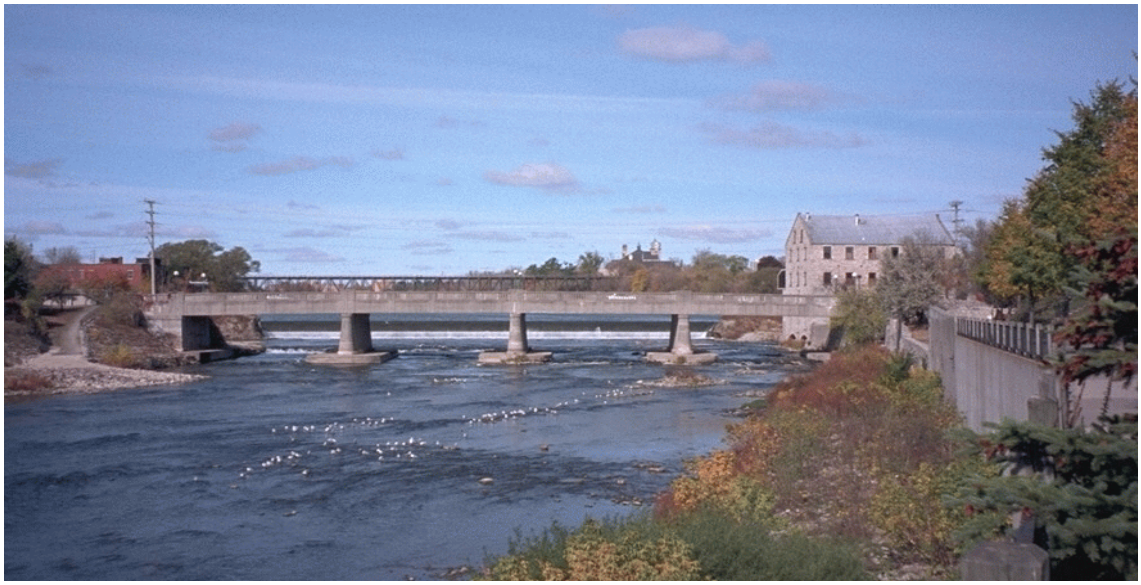


Park Hill Road Bridge

North West View



North View



Bridge #5

Location Township Road 18 South (now Chalmers-Forrest Road), Township of Wellesley.

General Information

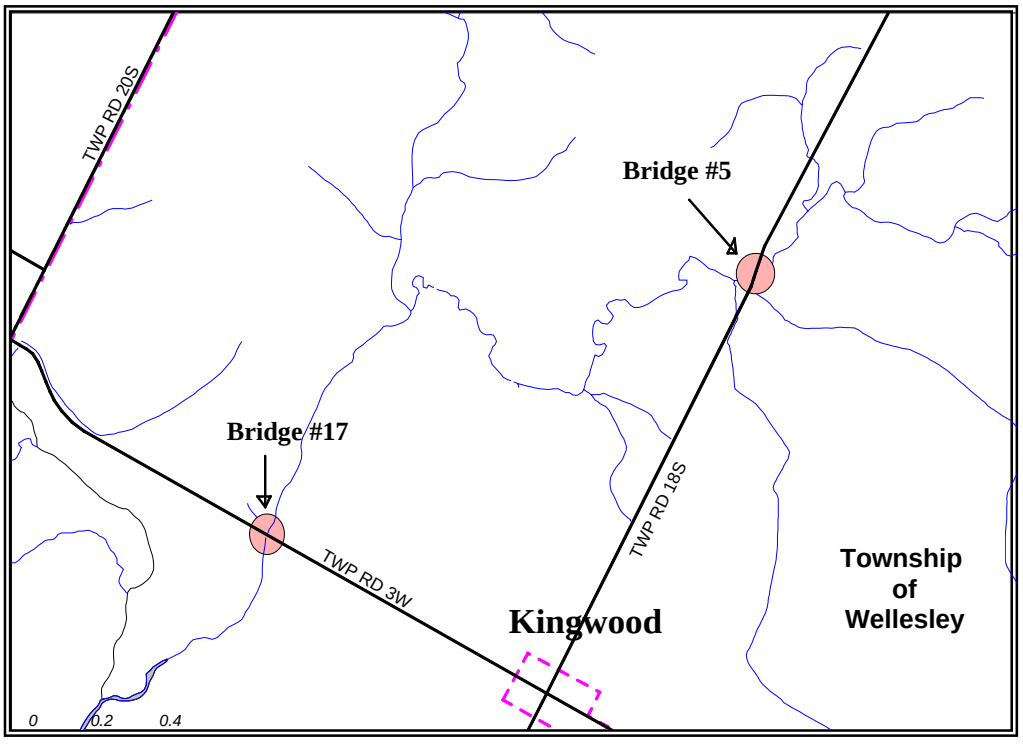
Bridge No.	5
Jurisdiction	Township of Wellesley
Year built	1934
Drawings	Not available

Physical Components

Type	Rigid Frame
Spans	1
Dimensions	Length 7 m Width 5 m
Load Limit	None posted

Descriptive details

This is a single lane rigid frame bridge. It is almost identical to Bridge #11. It was built during the depression with relief labour as a public works project. The engravings on the bridge provide more detail.



Bridge #5

North East View

North View

Bridgeport Bridge

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

General Information

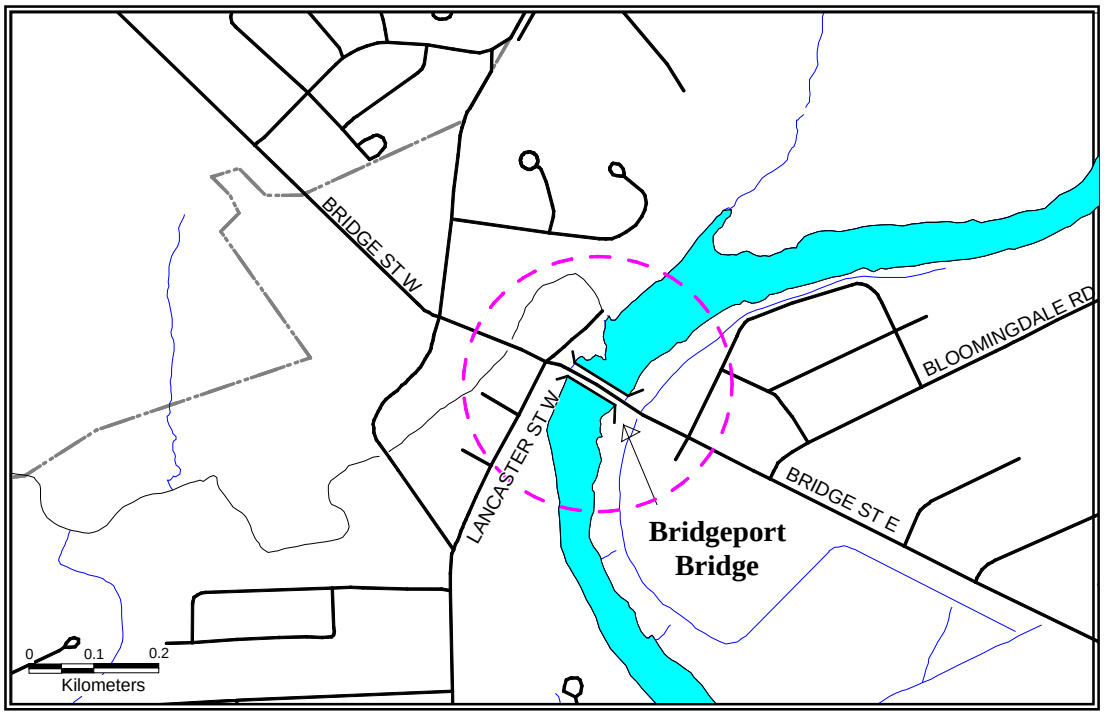
Bridge No.	005201
Jurisdiction	Regional Municipality of Waterloo
Year built	1934
Drawings	Regional HQ

Physical Components

Type	Concrete Bowstring
Spans	5
Dimensions	Length 126 m Each span 25.1 m Width 10.7 m
Load Limit	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 been listed on the City of Kitchener Heritage Inventory. It possesses concrete balustrade handrails.



Bridgeport Bridge

South View

North West View

Bamberg Creek Bridge

Location Regional Road No. 14 (now Moser-Young Road), south of Bamberg, Township of Wellesley.

General Information

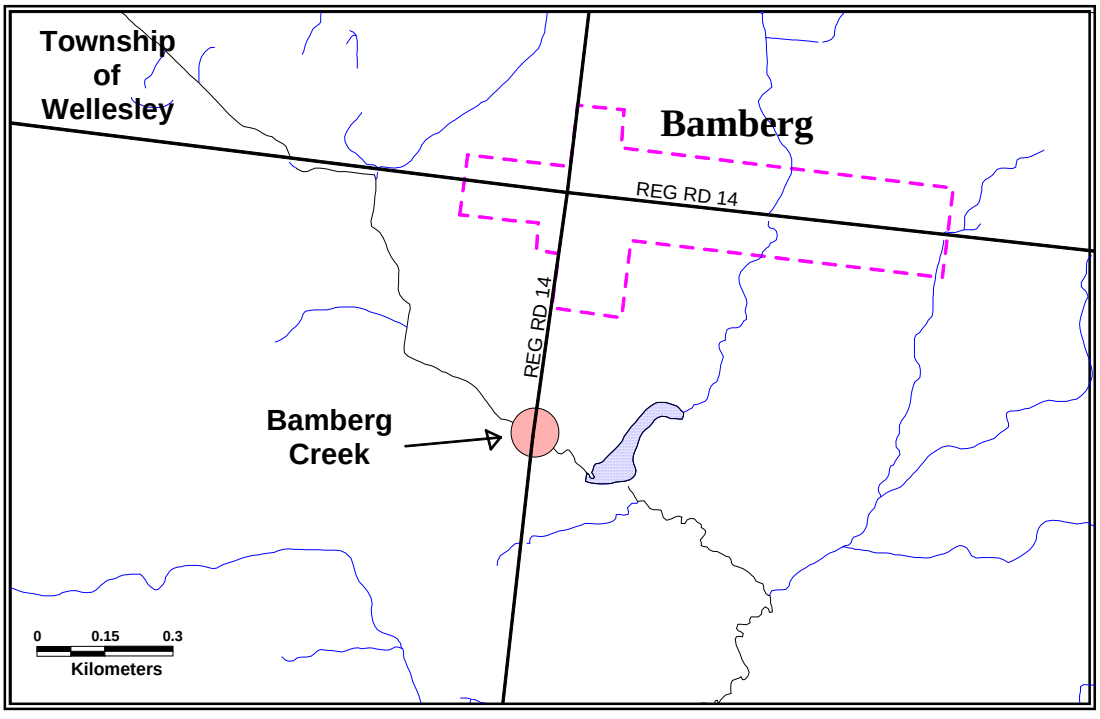
Bridge No.	001401
Jurisdiction	Regional Municipality of Waterloo
Year built	1935
Drawings	Not available

Physical Components

Type	Solid Slab Concrete
Spans	1
Dimensions	Length 3.0 m Width 12.2 m
Load Limit	None posted

Descriptive details

This is a single span concrete bridge with a solid deck slab. The structure is covered with approximately 200 mm of fill with a paved roadway surface. The bridge has been widened approximately 3 m to the east. The 1993 bridge appraisal stated that this structure needed railings but as of 1998 the railings have still not been added.



Bamberg Creek Bridge

East View

Bridge #11

Location Regional Road 5 (now Manser Road), north of Linwood, Township of Wellesley.

General Information

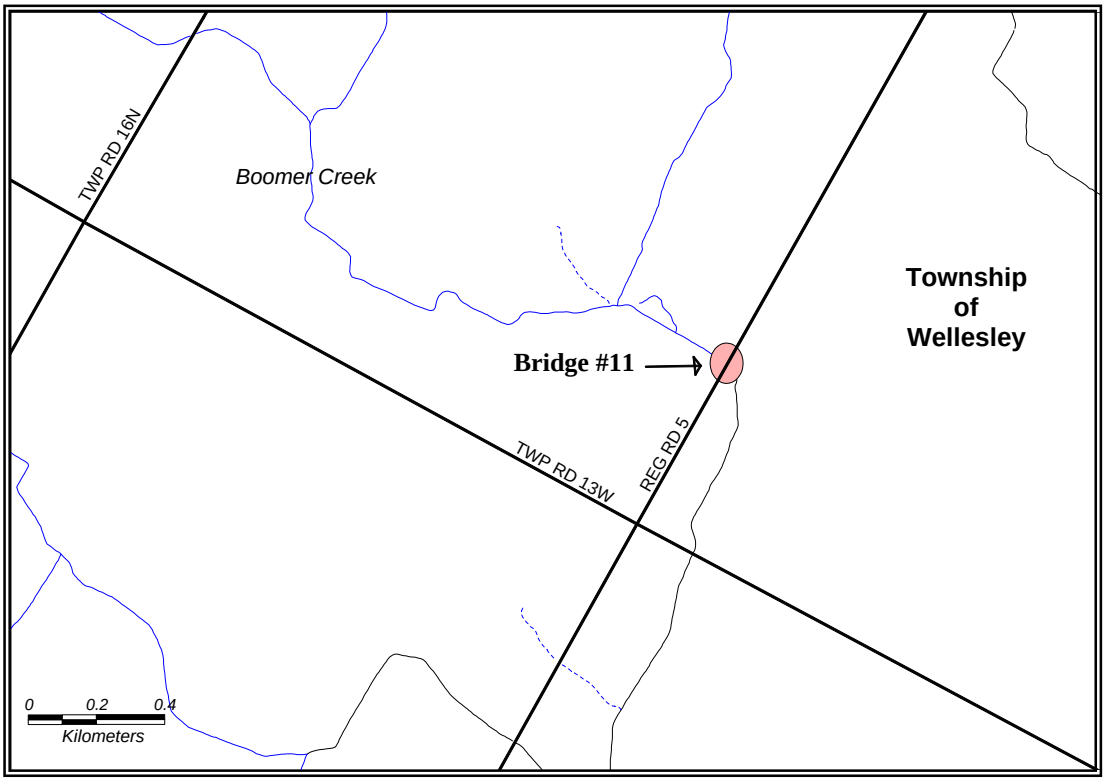
Bridge No.	11
Jurisdiction	Regional Municipality of Waterloo
Year built	1935
Drawings	Not available

Physical Components

Type	Rigid Frame
Spans	1
Dimensions	Length 7 m Width 5 m
Load Limit	None posted

Descriptive details

This is a single lane rigid frame bridge. It is almost identical to Bridge #5. It was built during the depression with relief labour as a public works project. The engravings on the bridge provide more detail.



Bridge #11

South West View

North West View

Martin's Bridge

Location MTO Site No. 033-0108, Woolwich Twp. Rd. No 43 (now Martin Grove Road), north of the City of Waterloo, Township of Woolwich.

General Information

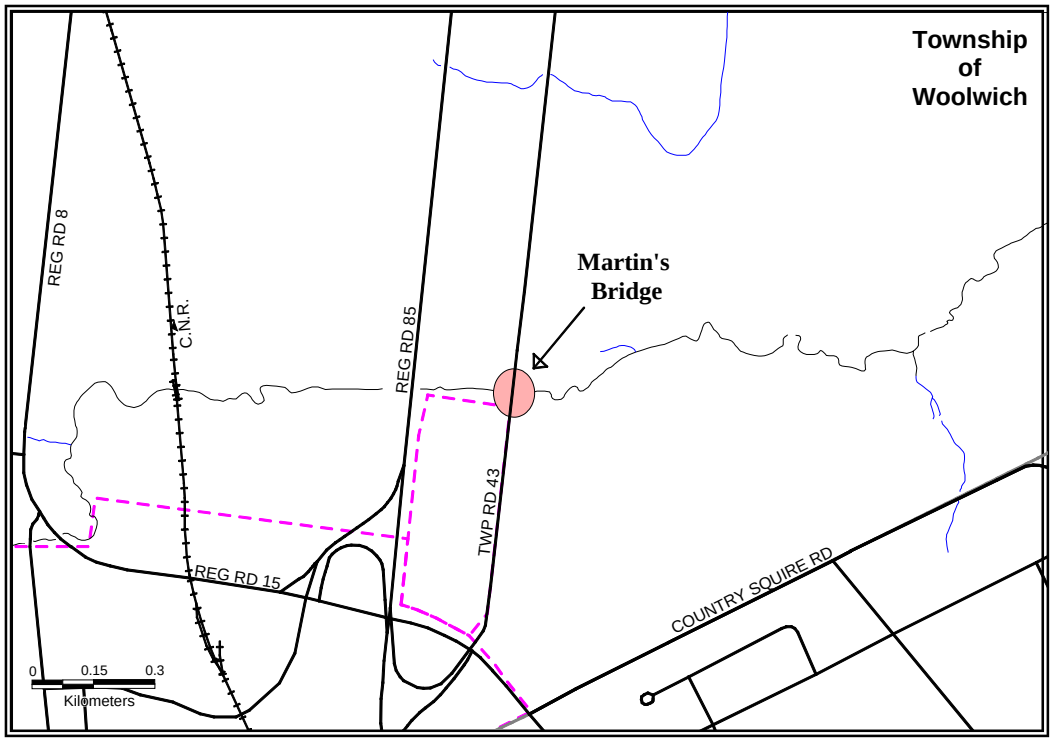
Bridge No.	370143
Jurisdiction	Township of Woolwich
Year built	1935
Drawings	MTO

Physical Components

Type	T-beam and Slab concrete
Spans	1
Dimensions	Length 7.3 m Width 5.5 m
Load Limit	14 tonnes

Descriptive details

This is a single span cast in place concrete bridge with T-beam construction. See Beitz' Bridge for more information about T-beam construction.



Martin's Bridge

North West View

West View

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

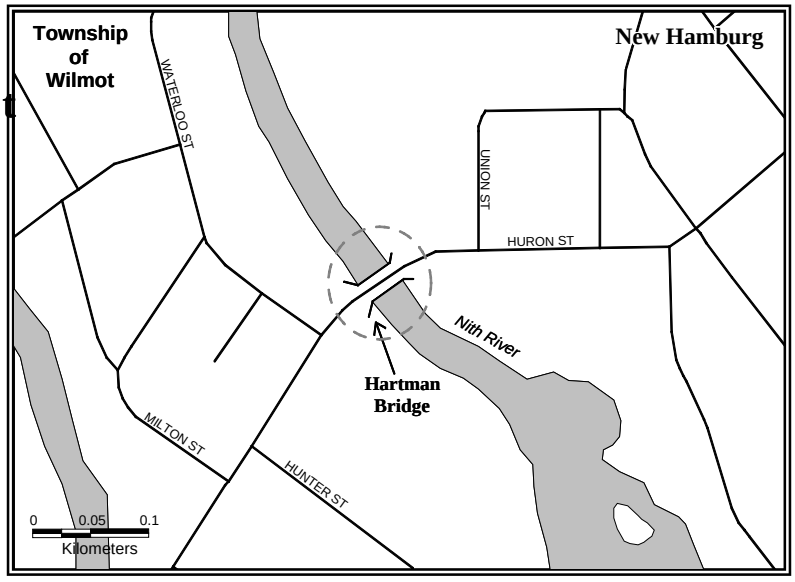
Bridge No.	000404
Jurisdiction	Regional Municipality of Waterloo
Year built	1936
Drawings	Regional HQ

Physical Components

Type	through Truss
Spans	1
Dimensions	Length 41.5 m Width 11.4 m
Load Limit	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 the other truss bridges in the area and according to the 1993 bridge appraisal report there is no serious evidence of structural distress. Most of the structure is intact but slightly modified. The Hamilton Bridge Company built this bridge in 1936. At the time D.J. Emery was the County Engineer.



Hartman Bridge

East View

North View

Bridge #26

Location Nafziger Road , Wellesley Village, Township of Wellesley.

General Information

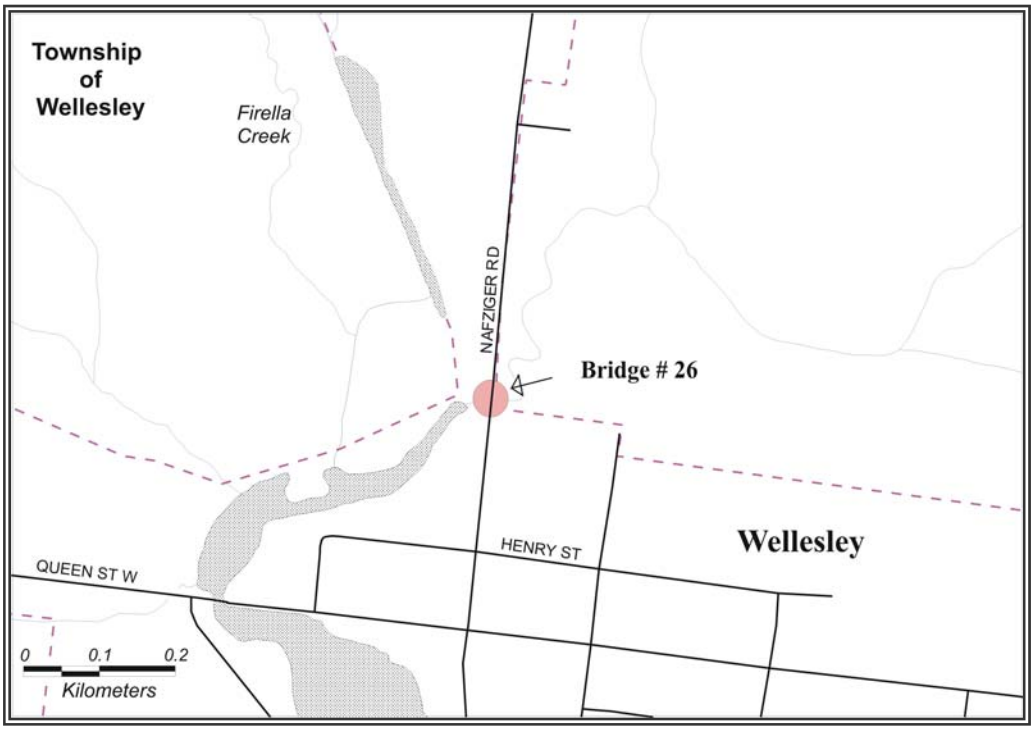
Bridge No.	26
Jurisdiction	Township of Wellesley
Year built	1938
Drawings	Not available

Physical Components

Type	Rigid Frame
Spans	1
Dimensions	Not known
Load Limit	None posted

Descriptive details

This is a single span rigid frame bridge. It is located on Nafziger Road in Wellesley and provides the only means of access to the Apple Brand Factory. The concrete barrier walls are new and the deck has been resurfaced. Nafziger Road is a dead end street to the north.



Bridge #26

West View

East View

Doon Village Road Bridge

Location Doon Village Road, 0.09 km West of Tilt Drive, City of Kitchener.

General Information

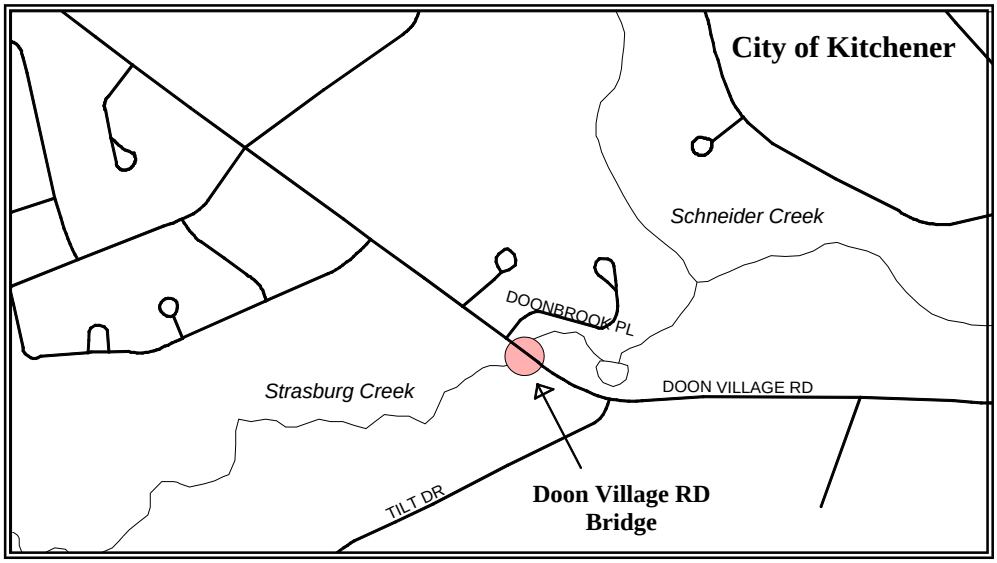
Bridge No.	000845
Jurisdiction	City of Kitchener
Year built	1940
Drawings	Not available

Physical Components

Type	Concrete slab
Spans	1
Dimensions	Length 4.9 m Width 20.0 m
Load Limit	None posted

Descriptive details

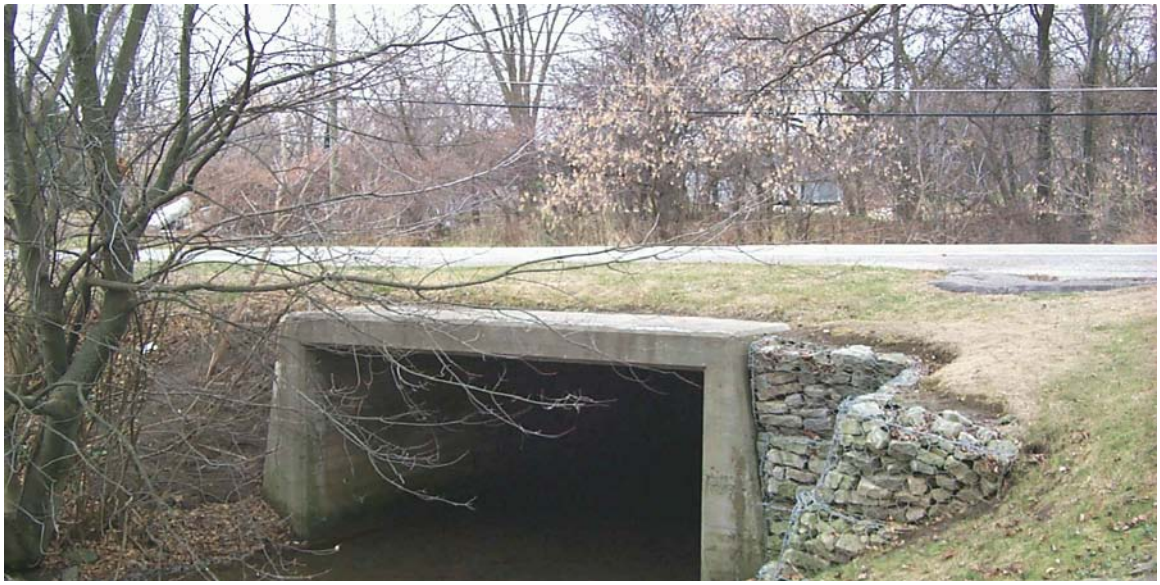
This is a simple box culvert design but classified as a bridge due to its size. Culverts are defined by having more than 300 mm of fill above their deck or by being less than 3 metres in length. The bridge is covered with approximately 400 mm of fill with a paved roadway surface. There are no sidewalks or guardrails. There appears to have been a previous structure inside of this bridge. Several privately owned pedestrian walkways lie to the north of the bridge.



Doon Village Road Bridge

South West View

South East View



Bridge #8

Location Township Road 12 North (now Schummer Line), north of Crosshill, Township of Wellesley.

General Information

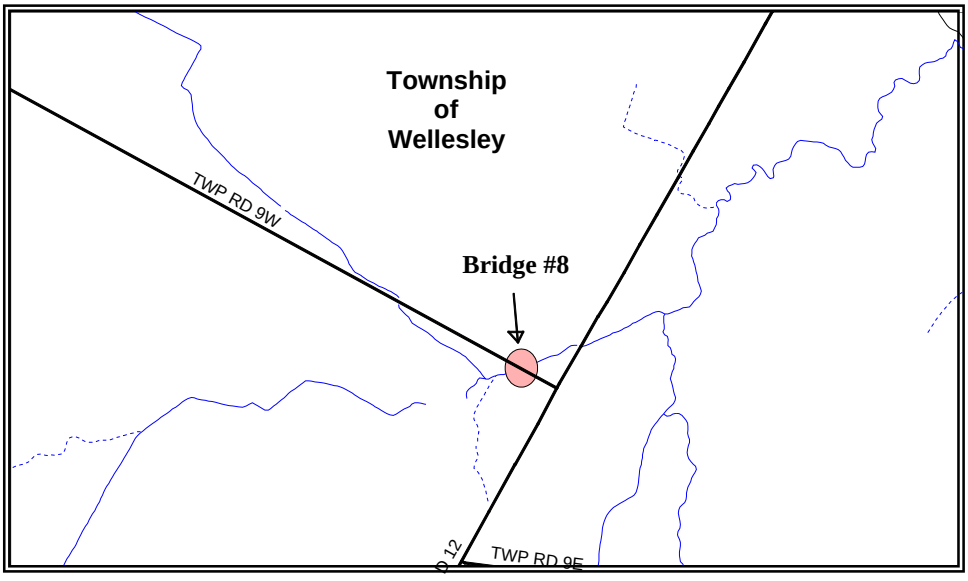
Bridge No.	8
Jurisdiction	Township of Wellesley
Year built	1945
Drawings	Not available

Physical Components

Type	Rigid Frame
Spans	1
Dimensions	Length 7 m Width 5 m
Load Limit	None posted

Descriptive details

This is a single span rigid frame bridge. It is similar in construction to Bridge #5 and Bridge #11 but was constructed during the Second World War.



Bridge #8

South View

North View

Lot 19, German Company Tract

Location Twp. Rd. 39 (now Maple Grove Road), west of Reg. Rd. 8 (Weber Street North), north of the City of Waterloo, Township of Woolwich.

General Information

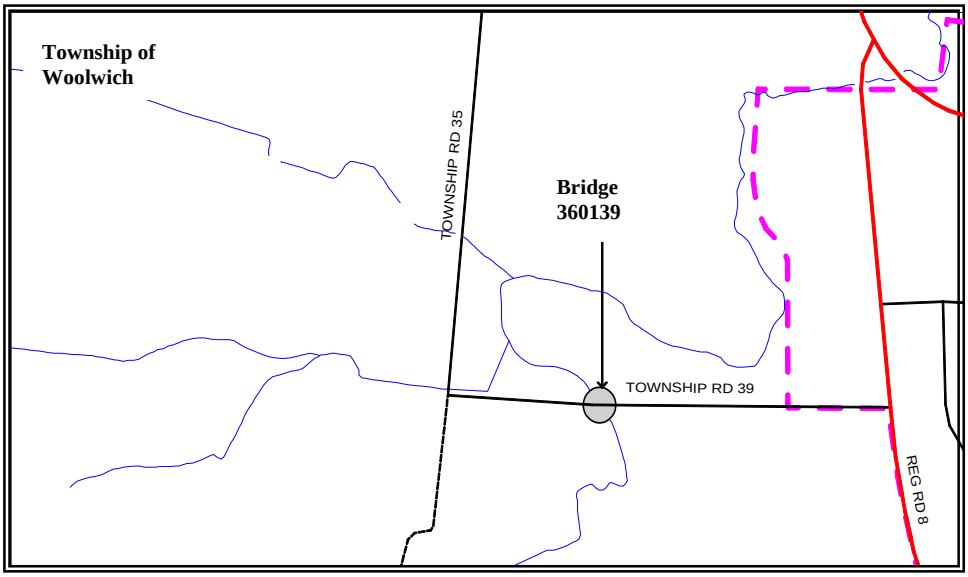
Bridge No.	360139
Jurisdiction	Township of Woolwich
Year built	1945
Drawings	Not available

Physical Components

Type	Rigid Frame
Spans	1
Dimensions	Length 6.9 m Width 6.1 m
Load Limit	14 tonnes

Descriptive details

This is a single span rigid frame bridge. In Woolwich, the rigid frame bridges come in two varieties, the box and the arch. This is a box-shaped rigid frame bridge. The railings are in poor condition. Location note: Township Road 35 is closed south of Township Road 39.



Lot 19, German Company Tract

South View

North View

Lot 122, German Company Tract

Location Woolwich Twp. Rd. 6 (now Floradale Road), 0.40 km south of the intersection with Twp. Rd. 5 (Sideroad 18).

General Information

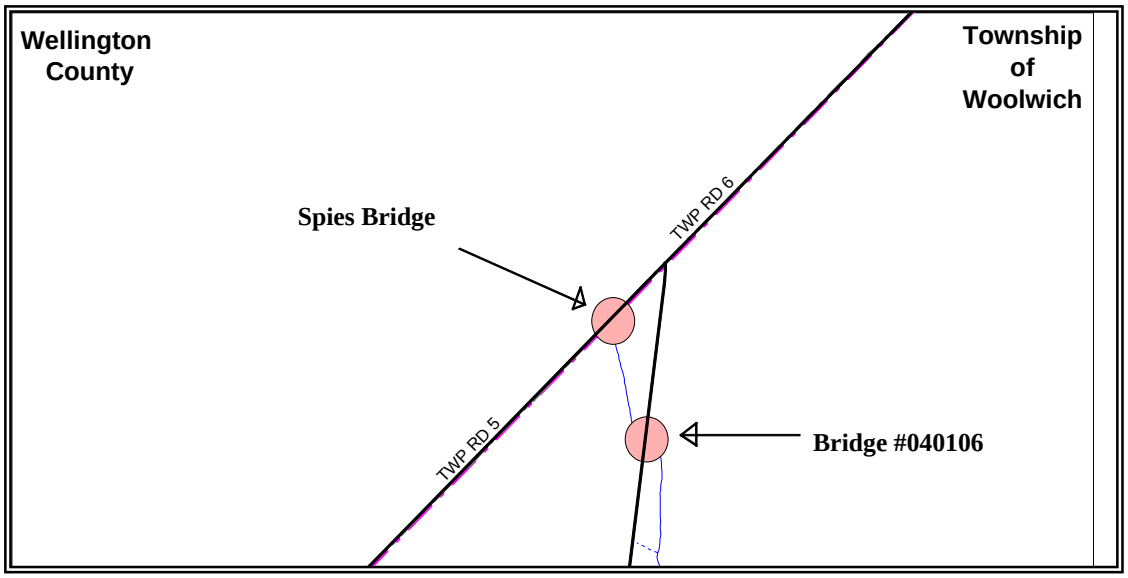
Bridge No.	040106
Jurisdiction	Township of Woolwich
Year built	1945
Drawings	Not available

Physical Components

Type	Rigid Frame
Spans	1
Dimensions	Length 7.3 m Width 6.9 m
Load Limit	15 tonnes

Descriptive details

This is a single span rigid frame bridge. It was formerly structure #00004. The deck and abutments of a rigid frame bridge are constructed as one unit. This bridge is in poor condition.



Lot 122, German Company Tract

West View

East View