

MAKINO FOOTBRIDGE – Hobson Street, Feilding



Designer: NZ Railway engineers

Construction date: 1900

Visible materials: Wrought iron structure, timber decking

Architectural style: Bow-string arch truss bridge

Use/building type: Bridge

Date and Compiler: Ian Bowman, 2016

Heritage New Zealand listing:

Proposed category: B

PHYSICAL AND SOCIAL HISTORY

Introduction

The granite *plaque* that marks this bridge states that: *“This bridge was erected in 1900 by New Zealand Railways at a cost of £353 as an over rail bridge for Feilding pedestrians and was used as such until 27th February 1978. To preserve its historical value it was moved to this site by the Feilding Lions Club and is regarded as a historic place.”* Although its address is given as 135 Manchester Street, the bridge in fact leads across the Makino Stream from the Hobson Street - Stafford Street intersection. It now provides access from Hobson Street to the Makino Aquatic Centre and the Manawatu District Council offices.

Background

The agitation that led to the construction of this bridge began in 1897, when a proposal was put forward to extend the station’s goods yard. An effect of this extension was that the railway crossing that linked the two parts of Eyre Street would be closed. The *Feilding Star* of 3 December 1897, in reporting on a meeting of the Feilding Borough Council, duly reported on a letter received *“From Railway Engineer, Wanganui, stating it was necessary, in order to provide for future extension of sidings at the Feilding railway station, that the present crossing through the yard in line with Eyre street should be closed. With a view to this a road had been metalled from Eyre to Gladstone streets and the Department were prepared to hand it over to the borough, and asking for the Council’s decision in the*

matter.”¹ This new ‘road’ is likely to be the accessway that still runs between these two streets, alongside the Feilding & Districts’ Steam Rail Society’s facilities.

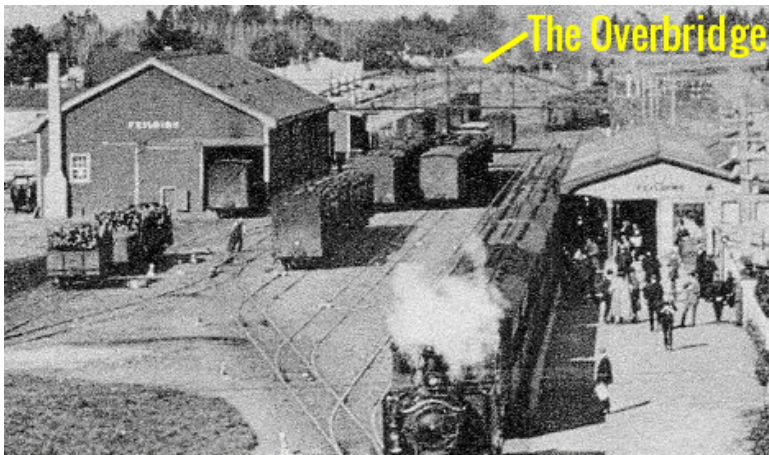


Figure 1 The overbridge in the background of a scene at the Feilding Railway Station. Cropped from an early postcard from c1900-1910. (Source: Val Burr, postcard collection)

The Feilding Borough Council meeting of 6 January 1898 reported on a letter it had received from the District Railway Engineer, of Wanganui, regarding the Eyre Street crossing. Accordingly, the *Feilding Star* recorded that: *The Mayor reported having seen the traffic manager with reference to the crossing at Eyre street and the latter gave him to understand that the Department would either provide a subway or an over-head crossing if the Council took over the road. He thought (with the traffic manager) that a subway would be preferable. It was then “Resolved ... That the Mayor be authorised to make the necessary arrangements with the Railway Department for providing a subway or overhead bridge at Eyre street and taking over the road to the gas works.”*²

In October 1899, the Feilding Borough Council received a letter from the General Manager of NZ Railways with regards to the inadequate accommodation at the railway station for goods and livestock. The letter advised that Parliament would shortly make the money available to undertake this work.³

At a Feilding Borough Council meeting in January 1900: *“The Mayor reported that the Railway Engineer had waited on him with respect to the railway crossing at Eyre street which the railway department intended closing for vehicular traffic. The department had arranged to put a foot bridge over it in place of the level crossing.”*⁴

The Bridge

The decision to precede with the overbridge having finally been made, six months later the *Feilding Star* published an article on the extensive work that had been going on at the railway station:

“For some months the employees of the Railway Department have been busily engaged in effecting alterations and improvements to the Feilding Railway Station, which are now rapidly approaching completion. The goods shed has been removed to a new site and enlarged sufficiently to meet the requirements of the district of which Feilding is the centre, for the next few years.

¹ *Feilding Star*, 3 December 1897, p. 2

² *Feilding Star*, 7 January 1898, p. 2

³ *Feilding Star*, 6 October 1899, p. 2

⁴ *Feilding Star*, 19 January 1900, p. 2

The whole of the station yard has been renovated and greater facilities afforded for shunting and loading horses, cattle and sheep, also, wool, butter, cheese and all other produce. Gates have been placed at the Kimbolton road end, while a handsome foot bridge has been erected so as to connect those portions of Eyre street bisected by the main line. The verandah newly erected on the station platform is a great convenience to the public as a shelter whether from the sun or the rain.

“We expect that the rules will now be strictly enforced as to trespassing on the railway premises (except of course where the public are allowed at ordinary hours) also when the station gates are closed in the afternoon at five o'clock no access whatever will be allowed to the goods shed, so dilatory people will have to cultivate the virtue of punctuality. The railway hands have to work very long hours as it is, and there is no need to have them lengthened without good and valid reason.

In order to avoid any necessity for consignees crossing the line from the goods shed to the Station master's office or vice versa a goods clerk should be appointed at once. This would also be a convenience to the public, and at the same time do away with the necessity which now obtains of the clerks having to work on Sundays to make up their returns.”⁵

Ken Cassells, in *The Foxton and Wanganui Railway*, described the new footbridge, which was built from old rails, as being 77 feet in length, and as having been built to span the five sets of tracks then in use.⁶

Throughout its lifetime on its original site, this bridge doubtless was a place to play and a place to admire the activity taking place beneath it. Certainly it was a popular place to take photos of the station and its surrounds. However, it also presented dangers in its own right, and the following letter appeared in the *Feilding Star* within weeks of the bridge becoming available for the public to use: *“Sir,— I should like to draw the attention of the railway authorities, through the columns of your paper, to the necessity of lighting the overhead bridge they have recently erected in Eyre street. As a resident I have occasion to cross this bridge to get home and this last few nights I have had to feel my way over with my feet, for it is quite impossible to see the steps from the top. Already one child has tumbled down the steps, and I am sure if there are not some lights fixed on the structure there will be a serious accident. Thanking you in anticipation. I am, etc., Dangerous.”⁷*

The *Feilding Star* of 27 March 1915 (p. 2) appears to refer to refer to the bridge, albeit with an apparent typo in the original article. The author was complaining about the constant delays to traffic moving along Kimbolton Road due to trains standing still with their wagons across the tracks, while the engines were being watered. The writer went on to state that: *“The overhead bridge which spans the yard in Glasgow street could be done away with by constructing a subway. If the latter was made wide enough to take vehicles it would be a great convenience, as much traffic flows from the town out to Denbigh street and South street...”*. Glasgow Street⁸ was subsequently renamed Ongley Street⁸, and it appears to have no relationship to the railway station's yard. It seems more likely that the writer was referring to Eyre Street – and thus the bridge being researched here.

In 1919, a sub-committee of Feilding's Chamber of Commerce, undertook an investigation of the various improvements it deemed necessary at the station. Amongst the various criticisms included the need for a larger goods yard that was organised in a different way. The report also noted that in 1913, 173,000 sheep passed outward-bound through the station, with 187,000 sheep doing likewise in 1918. There were 32,000 inward-bound sheep in 1913, with 158,000 sheep arriving in 1918. The report

⁵ *Feilding Star*, 7 June 1900, p. 2. Note that the *Feilding Star* of 7 February 1896 (p. 2) also refers to the Feilding goods shed being about to be enlarged by 20 feet, and whether or not this is the same enlargement, was not researched.

⁶ K.R. Cassells, *The Foxton and Wanganui Railway* (Wellington, 1984), p. 150

⁷ *Feilding Star*, 29 June 1900, p. 2

⁸ Dorothy Pilkington, *Signs of the Times: The story of Feilding street names* (Feilding, 2015), p. 63

stated that in terms of stock traffic, Feilding's stock movements by rail were the largest of any country station in the North Island.⁹ While this article does not refer to the overbridge, it provides an idea of just how much activity took place around the station at that time – the Feilding Stock Sales being a major attractant to these stock movements.

By the 1970s, the need for such a large goods yard had significantly diminished. For example, trucks now carried livestock to and from the Feilding Stock Sales, instead of the trains, and thus much of the goods yard was now redundant. One of the things also deemed surplus to requirements was the overbridge, and its demolition was anticipated.¹⁰ However, as in other towns, other people viewed the bridge as still being useful, albeit elsewhere.

Relocation

The *Manawatu Standard* of 28 February 1978, covered the relocation of the bridge. It described the bridge as a local landmark that had been uprooted the previous day and then moved by truck transporter to where "it now straddles the Makino stream, giving access to a children's playground." The article also stated that "The number of railway tracks crossing Kimbolton Road will be reduced from six to two – something Feilding people have been wanting for decades."



Figure 2 The overbridge in its original site above the railway tracks. (Source: Feilding Library photo MAND: 28: <http://feilding.recollect.co.nz/nodes/view/17814>)



Figure 3 Installing the overbridge into its new location over the Makino Stream on 27 February 1978. (Source: Feilding Library photo: UTS:rr5: <http://feilding.recollect.co.nz/nodes/view/16983>)

The article stated that both the removal of the bridge and the reduction in the number of tracks, was the result of the relocation of the railway yards. The project had begun in 1977 and was due to be complete about two weeks after the bridge was removed. Following this work, all the railway yards would be near the railway station, instead of on both sides of Kimbolton Road. "Feilding's stationmaster Mr E.C. Child, said the footbridge, which carried pedestrians across the six railway tracks had (therefore) been made redundant."

The article described how the decision had been made to remove the overbridge about three years earlier, and the Feilding Lions Club had then applied for, and been given permission to put the bridge over the Makino Stream. When the time arrived, a steam crane and a work gang had been sent from

⁹ *Feilding Star*, 9 June 1919, p. 2

¹⁰ Interview with Albert James, Feilding, 20 February 2017

Wanganui to remove the bridge: *“The operation was postponed until mid-day, when no trains were running. After being lifted from its foundations, the 24-metre bridge was swung onto a road transporter. This consisted of the front of an articulated truck and a mini-truck. With each vehicle supporting one end of the bridge, the cavalcade cautiously crossed the six railway tracks of Kimbolton Road and moved down Aorangi Street to its new location. A road crane (then) completed the operation.”*

The various local contractors involved had supplied the vehicles used to transport the bridge, and also the road crane, free of charge. Evidently the work involved was *“quite a feat.”*¹¹ Mr Child (stationmaster) said that the bridge would have been moved some time earlier, if the construction of the new railway yards had not been delayed. The new yards would have begun operating a week or so earlier, if the station had not then been very busy with grain cartage. Once the grain season ended in another two weeks, the *“old high-level loading bank will be removed and the new yards put into operation. After that, four of the tracks crossing Kimbolton road will be removed.”*¹²

Recent History

The footbridge was proposed for a Category One heritage status with the Feilding Borough Council in 1980, due to its historical status.¹³ However, it is not registered with either the Rail Heritage Trust of NZ, or Heritage NZ.¹⁴

During the disastrous floods of 16 February 2004, the Makino Stream flooded badly, inundating the area around it.¹⁵ However, neither the bridge nor its supports were damaged, although water flowed over its deck and it required water-blasting afterwards. Its paths, however, were significantly eroded.¹⁶

In April 2013, the bridge was closed to the public to allow it to be cleaned, repaired and repainted, to the value of \$42,300. It reopened in May 2013.¹⁷ The bridge that was red in 1978 and green in 2004, had also reverted to its traditional shade of red.

Comments

Heritage New Zealand’s on-line listing for the Ashburton Railway Footbridge¹⁸, included the following information on the Makino footbridge: *“Now known as the Makino Footbridge, this bowstring truss footbridge was originally situated over the railway line in Feilding but some years ago it was shifted and now is over the Makino Stream. The bridge is not currently entered on the New Zealand Heritage List.”*

The report on the Ashburton Railway Footbridge report added that: *“The bow or bowstring truss style footbridge was often used, in New Zealand and elsewhere, to provide pedestrian access across the often expansive sets of rail lines associated with railway stations, albeit with variations in the style of*

¹¹ Interview with Albert James, Feilding, 20 February 2017

¹² *Manawatu Standard*, 28 February 1978, p. 3

¹³ Philip Whyte, ‘Hobson Street – Makino Footbridge’, in *“Proposed Register of objects and places of historic interest of natural beauty”* (Feilding Borough Council, 1980): Ref: MDC A/2012/2 : 1568, Archives Central, Feilding

¹⁴ Rail Heritage Trust of NZ: <http://www.railheritage.org.nz/>; Heritage NZ: <http://www.heritage.org.nz/>

¹⁵ ‘Feilding takes brunt of raging torrents, *NZ Herald*, 18 February 2004: http://www.nzherald.co.nz/news/article.cfm?c_id=1&objectid=3549686

¹⁶ Interview with Albert James, Feilding, 20 February 2017

¹⁷ *Manawatu Standard*, 19 April 2013, p. 2, 9 May 2013

¹⁸ ‘Railway Footbridge, Ashburton’: <http://www.heritage.org.nz/the-list/details/7665>

bracing and number of trusses. Rather than being a common feature as they once were, they are now relatively rare.”

In addition to the Ashburton Railway Footbridge, Heritage NZ identified another six surviving bowstring truss railway footbridges in their report. These are Oamaru, Dunedin, Woburn No. 1 and No. 2, Feilding, and the Greymouth footbridge that is now at Shanty Town. The report overlooked the former Palmerston North one – or rather a segment of what had been a lengthy overbridge. It was removed from the former central city railway station site in the mid-1960s, and was then installed across the Centennial Lagoon in Hokowhitu, Palmerston North. It also recently underwent a significant overhaul.¹⁹



Figure 4 Game Planet thread: ‘OT – Flooding’ featuring a number of posts made by local members of the forum at the time of the major 2004 flood. This photo of the badly flooded Makino Stream alongside the footbridge was posted to the website by a gamer with the ID ‘Assassin’ at 2:27pm on 16 February 2004. It had been taken about 30 minutes previously. ‘Assassin’ states that the water was on the decline by this time, but with lots of mud, sticks and silt left lying around the town. Earlier in the day it had been flowing over the deck of the bridge – with a corresponding effect on the surrounding area. (Source: <http://www.gpforums.co.nz/threads/204220-OT-Flooding>)

ARCHITECTURAL DESIGN

The architect was the New Zealand Railways engineers.

Bow string arch trusses were most commonly used from approximately 1840 to the late 19th century²⁰. They had a tied metal-framed arch with the vertical structural elements supporting the deck. Diagonals served as bracing. Most bridges of this design were between 21-50 metres in length.

¹⁹ *Manawatu Standard*, 14 October 2015: <http://www.stuff.co.nz/manawatu-standard/news/73006108/central-span-of-hokowhitu-lagoon-bridge-away-for-repairs>

²⁰ Comp, Allan, T, Jackson, Donald, “Bridge Truss Types a guide to dating and identifying”, American Association for State and Local History Technical Leaflet 95, 1977

The Makino example has railway irons forming the bow, base and rectangular arch frame at each entry. The frame is riveted or bolted together. Horizontal structural elements connecting the bow with the entry frames are decorated with traditional wrought iron scrolls.

The footbridges designed and constructed for the New Zealand Railways Department were often a standard design using mass produced components for economy and ease of construction.

The bridge crosses the Makino stream giving access from Hobson Street to the Makino Aquatic Centre to the north. The stream banks are grassed with large trees on either side.

SUMMARY OF HERITAGE VALUES

The bridge has **low to high local** significance for **architectural, representativeness, technology, rarity, authenticity, group, pattern** and **educational** heritage values.

The bridge has **high architectural** and **representativeness** values as a good example of a railway footbridge bridge type once a common feature of large railway stations. The bridge has **moderate technology** values as the bow-string arch bridge type was used throughout the world in the latter half of the 19th century. The New Zealand Railways Department footbridges were innovative as they were often designed using standard components for economy and ease of construction.

The bridge has **high rarity** values as few of this type of bridge remains in New Zealand. Consequently nationally, the bridge has **low group** values because there are few similar such bridges remaining in New Zealand. It has also lost its connection with the Feilding railway station the original station has been replaced.

The bridge has **moderate authenticity** of fabric with most of the structure retained, however it has no authenticity of setting as it has been relocated.

The bridge has **low pattern** and **education** values in its association with the Feilding Railway Station and the general North Island rail network. It has **moderate public esteem values** having been saved and relocated from its original location.

SOURCES

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Other Sources

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Thanks also to Albert James for assisting with some of the recent history of the bridge.