Project Number: 4-61138.00

Wills Street Rail Footbridge

Conservation Management Plan

25 October 2022

FINAL

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Executive Summary

WSP has been commissioned by Ashburton District Council to prepare a Conservation Management Plan for the Wills Street Rail Footbridge, located in Ashburton. The bridge is a bowstring design spanning 25 metres, built in 1917 as part of the Ashburton Railway Station complex which has since been demolished. The footbridge replaced an earlier wooden footbridge on the same site which was built in 1911.

Conservation Management Plans explain why a place is significant, what that significance is, and how to manage a place in accordance with that significance. A fundamental part of good conservation practice, Conservation Management Plans are imperative for the informed and appropriate treatment, and ongoing maintenance, of a historic structure or place. The purpose of this Conservation Management Plan, therefore, is to provide strategies, guidelines and actions that will allow for the appropriate conservation, management, and maintenance of the Wills Street Rail Footbridge.

The Wills Street Rail Footbridge is scheduled in the Ashburton District Plan (ADP) as a Category A Heritage Item (#13) and is also listed as a Category II Historic Place with Heritage New Zealand Pouhere Taonga (#7665).

Overall, the 1917 Wills Street Rail Footbridge in Ashburton has high heritage significance. The structure has high architectural value as a nationally unique example of the NZR adopted Whipple bowstring design, being the only one of its typology in its original location and serving its original purpose. The structure has high aesthetic value as a graceful interpretation of a structure typology which, prior to 1900, consisted of primitive and utilitarian timber bridges. The footbridge also has high authenticity and integrity – apart from the removal of one of the original ramps, the bridge appears to be unchanged since its construction in 1917 more than a century ago. The footbridge is an architectural legacy of the renowned Troup era of railway expansion in the early 20th century. The footbridge has high historic value for its association with renowned Railways architect George Troup and the pioneering NZR scheme which revolutionised transport across New Zealand, especially in isolated areas such as the Canterbury Plains. The place has high cultural and social value as a well-recognised local icon, held in high esteem by the public as an active infrastructure element and landmark which has served the community continuously for more than a century. The Wills Street rail footbridge has high technological value for its Whipple bowstring design and use of durable materials such as cast iron and jarrah wood which have stood strong for more than a century. The structure has some contextual value for its location over the 1874 rail lines of the historic South Island Main Trunk Line (SIMTL), though the demolition of the associated 1917 Ashburton Rail Station has caused a significant loss of contextual value to the place. Scientifically, the value of the site is unknown - further archaeological assessment is required, though the area is known to have been occupied prior to 1900.

Currently, the bridge is in poor condition. Corrosion of the cast iron trusses, metal balusters and supports, and fixings is evident. Microbiological growth in multiple forms is also widespread, and has caused some of the timber fabric, most notably to the deck surface, to rot. Deposits and staining are visible in numerous areas, and graffiti is also evident.

Recommendations to remedy these issues are included in the Maintenance Plan in Appendix 2.

1 Introduction

1.1 Purpose of this Conservation Management Plan

WSP has been commissioned by Ashburton District Council to prepare a Conservation Management Plan for the Wills Street Rail Footbridge, located in Ashburton. The bridge is a bowstring design spanning 25 metres, built in 1917 as part of the Ashburton Railway Station complex which has since been demolished.

Conservation Management Plans explain why a place is significant, what that significance is, and how to manage a place in accordance with that significance. A fundamental part of good conservation practice, Conservation Management Plans are imperative for the informed and appropriate treatment, and ongoing maintenance, of a historic structure or place. The purpose of this Conservation Management Plan, therefore, is to provide strategies, guidelines and actions that will allow for the appropriate conservation, management, and maintenance of the Wills Street Rail Footbridge.

1.2 Methodology for Developing this Conservation Management Plan

This Conservation Management Plan has been prepared in accordance with Heritage New Zealand's *Guidelines for the Preparation of Conservation Management Plans*.[1] It also incorporates relevant aspects of J. S. Kerr's *Conservation Management Plan: A Guide to the Preparation of Conservation Management Plans for Places of European Cultural Significance (7th Edition)*[2] and *The Illustrated Burra Charter: Good Practice for Heritage Places*.[3] The principles outlined in these guides have been adopted for use in this Conservation Management Plan, but adapted to ensure they meet requirements for New Zealand.

This Conservation Management Plan provides:

- an account of the history and development of the place;
- an assessment of heritage significance of the place;
- an outline of how a proposed change of use will impact on this heritage significance;
- an assessment of the current condition of the place;
- conservation management policies and guidelines for the place;
- detailed guidance for protecting, maintaining, and managing the heritage features of the place.

The assessment of significance, formation of policies and recommendations for future maintenance and management are informed by New Zealand legislation, including the Resource Management Act 1991 and the Heritage New Zealand Pouhere Taonga Act 2014; and by the guidance of the International Council on Monuments and Sites (ICOMOS). ICOMOS is the custodian of the *International Charter for the Conservation and Restoration of Monuments and Sites* (the *Venice Charter 1964*) which defines the basic principles for preservation and restoration of historic buildings and structures. The New Zealand derivation of the Venice Charter is the *ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value Revised 2010* (ICOMOS NZ Charter). A copy of the ICOMOS NZ Charter is provided in Appendix 1.

[1] *Bowron & Harris (1994)*
[2] *Kerr (2013)*
[3] *Marquis-Kyle & Walker (2004)*

1.3 Terminology

1.3.1 Abbreviations

Abbreviations used throughout this Conservation Management Plan include the following:

ALHI	Auckland Library Heritage Images
ATL	Alexander Turnbull Library
ADC	Ashburton District Council
ADP	Ashburton District Plan
CMP	Conservation Management Plan
HNZPT	Heritage New Zealand Pouhere Taonga
HNZPTA	Heritage New Zealand Pouhere Taonga Act 2014
ICOMOS	International Council on Monuments and Sites
ICCROM	International Centre for the Study of the Preservation and Restoration of Cultural Property
NZAA	New Zealand Archaeological Association
RMA (1991)	Resource Management Act 1991
UNESCO	United Nations Educational, Scientific, and Cultural Organization

1.4 The Site

1.4.1 Legal Description

The Wills Street Rail Footbridge sits above the South Island Main Trunk rail line with access from Wills Street to the northwest and southeast on either side. As such, it has no legal address, associated land parcel, or certificate of title. It is shown on SO 10006 – an extensive set of survey plans prepared for the South Island Main Trunk Line in the late 19th century. The land is under a designation (#56) with New Zealand Rail, now known as KiwiRail, listed as the requiring authority.

1.4.2 Location and Description of the Site

The footbridge sits in the heart of Ashburton, spanning the rail line between two of the main streets – East Street and West Street (the latter serves as State Highway 1). The bridge sits between the bisected sections of Wills Street, which runs on a northwest to southeast axis generally. Although the bridge itself doesn't align exactly with Wills Street, the two ramps which are on a perpendicular angle to the bridge slope downwards towards the two sections of Wills Street. These two sloping ramps are approximately 50 metres in length and feature a concrete base where they meet the ground, with an asphalt deck surface covering a timber substructure. The ramps are supported by metal supports on a concrete base and have a timber handrail supported by metal balusters. The balustrade has tensioned wire cables running horizontally between the balusters. The centre of the footbridge features a metal arch which has a span of approximately 25 metres. The structure and site are described in more detail in Section 3.1.

Figure 1: Aerial view showing the location of Ashburton, approximately 86 kilometres southwest from Christchurch. Source: Google Earth

Figure 2: Aerial view of Ashburton, with the location of the Wills Street Rail Footbridge indicated. Source: Google Earth

Figure 3: Aerial view of the surrounding context of the Wills Street Footbridge, with the structure indicated. Source: ADP Maps

1.4.3 Extent of the Site Considered

This Conservation Management Plan is focussed on the Wills Street Rail Footbridge and only considers the wider land parcel as it relates to the history and setting of the structure itself.

1.5 Heritage Status

1.5.1 Heritage New Zealand Pouhere Taonga

The Wills Street Rail Footbridge is listed as a Category II Historic Place with HNZPT (#7665). Category II Historic Places are defined as being places which are of historical or cultural significance or value. The listing previously included the Ashburton Rail Station Building which were demolished in 2013. The rail footbridge, platform, and a vintage engine shed are the only remnants of the complex.

1.5.2 Ashburton District Council

The Wills Street Rail Footbridge is scheduled as a Category A heritage item (#13) in the ADP.

'Category A' heritage items have the following definition in the ADP:

> *These heritage items are considered to be of national or regional significance and include NZHPT registered Category I historic places. These places are of special or outstanding value or representative value and the loss of these items would be a matter of national or regional significance and of interest to the wider community. The Council wishes to provide for their long-term conservation and protection.*

Despite the above explanation outlining that Category A ADP scheduled items have a Category I listing with HNZPT, the footbridge – and the Ashburton Rail Station complex prior to its demolition in 2013 – only have a Category II listing.

1.5.3 New Zealand Archaeological Association

New Zealand Archaeological Association's Archaeological Site Recording Scheme website, *ArchSite*, provides an online database of recorded archaeological sites in New Zealand. The

database shows that there are no formally recorded archaeological sites where the Wills Street Bridge currently sits. However, the site may have archaeological value which has not yet been identified. The rail line over which the bridge sits was originally established in the 1870's. Any sites known to have been occupied prior to 1900 are automatically afforded protection under the HNZPT Act (2014). It is illegal to knowingly modify or destroy an archaeological site.

1.6 Information Used to Inform this Assessment

1.6.1 Site Inspection

The site was surveyed by Alex Pirie, WSP Heritage Consultant, on 22 June 2022.

1.6.2 Ashburton District Council

Information has been sourced from the Ashburton District Plan regarding scheduled heritage items in the region, including a specific assessment of the heritage values of the Wills Street Rail Footbridge completed by Arlene Baird on behalf of Davie Lovell-Smith Ltd. in 2014.

1.6.3 Heritage New Zealand Pouhere Taonga (HNZPT)

Information has been sourced from HNZPT's online List Entry for the Wills Street Rail Footbridge.

1.6.4 Key Sources

Bridging the Gap: Early Bridges in New Zealand, by Geoffrey G. Thornton (2001)

1.6.5 General Sources

The documents used to inform this Conservation Management Plan are limited to those listed in the Bibliography. These include a range of primary and secondary sources including published texts, unpublished reports, national and local authority legislation, press releases, certificates of title, survey plans, newspaper articles, archive records, and internet sources.

1.7 Constraints and Limitations

The following constraints should be noted:

- Only the documents listed in the Bibliography and Section 1.6 above have been consulted in preparing this CMP.
- This CMP does not comprise a conclusive fabric condition assessment. No invasive testing or analytical investigation has been carried out for the purpose of preparing this Assessment.
- This CMP does not comprise a structural or safety assessment, or contain any kind of engineering advice.
- While this CMP considers archaeological values, it does not comprise an Archaeological Assessment. This can only be prepared by an appropriately qualified archaeologist.
- No consultation with HNZPT or any other stakeholders or affected parties has been carried out as part of preparing the CMP.
- This CMP does not present the views or history of Ngāi Tahu, mana whenua, or tangata whenua regarding the cultural significance of the place. These are statements that only these specific groups can make.

1.8 Photographs

Many of the photographs included in this Conservation Management Plan were taken by the author of this document at the time of the site visit. All other photographs have been appropriately acknowledged.

2 Understanding the Place: Historical Background

2.1 Pre-European Occupation

The following information has been sourced from the HNZPT listing for the Wills Street Rail Footbridge:

> *Te Wai Pounamu [the South Island] has been occupied for centuries prior to the arrival of the first European colonial settlers. The vast network of wetlands and plains of Kā Pākihi Whakatekateka o Waitaha [Canterbury Plains] is inherently important to the history of its early occupation. The area was rich in food from the forest and waterways. Major awa [rivers] such as the Hakatere [Ashburton River] were supplied from the mountain fed aquifers of Kā Tiritiri o te Moana [Southern Alps] while other spring fed waterways meandered throughout the landscape. The rivers teamed with tuna, kōkopu, kanakana and inaka, the wetlands were a good supply of wading birds and fibres for weaving, food, and medicine, with the forest supplying kererū, tūī and other fauna as well as building materials. Ara Tawhito [traditional travelling routes] crossed over the landscape providing annual and seasonal pathways up and down and across the Plains. Permanent pā sites and temporary kāinga were located within and around the Plains as Rapuwai, Waitaha, Kati Māmoe and latterly Ngāi Tahu established and used the mahinga kai sites where they gathered and utilised natural resources from the network of springs, waterways, wetlands, grasslands, and lowland podocarp forests that abounded along the rivers and estuaries.*
>
> *Ashburton was traditionally called Kāpuka. Situated along the Hakatere mahinga kai network that provided sustenance, tools, and materials, Kāpuka supported the vibrant and successful pā dotted along the coastline which were thriving trade centres for a range of goods, including pounamu.*[4]

2.2 The Establishment of Ashburton

Prior to 1850, travellers used a coastal route to traverse the South Island until the inland area, including the land which was to become Ashburton, was eventually settled in the early 1850's by pastoralists.[5] In the 1860's and 1870's a small township became established on the northern side of the Ashburton River, due to its popularity as an overnight stopping point and staging post after crossing the river (Figure 4).[6] In 1858 William Turton, generally regarded as the pioneer settler of Ashburton, established a ferry station on the site of the present town bridge and built an accommodation house for travellers.[7] A two-day coach service through Ashburton was run by Cobb & Co. between Christchurch and Timaru until the proposed railway was completed.[8] The township was named for Lord Ashburton - Alexander Baring - British politician and financier (1774–1848).[9] The well-known Baring Square in Ashburton also carries his name.

[4] *https://www.heritage.org.nz/the-list/details/7665*
[5] *McLintock, A. H., Te Ara Encyclopaedia of New Zealand, 1966*
[6] *https://www.heritage.org.nz/the-list/details/7665*
[7] *McLintock, A. H., Te Ara Encyclopaedia of New Zealand, 1966*
[8] *McLintock, A. H., Te Ara Encyclopaedia of New Zealand, 1966*
[9] *McLintock, A. H., Te Ara Encyclopaedia of New Zealand, 1966*

Figure 4: A painting of travellers crossing the Ashburton River, 1880.
Source: Canterbury Museum, Thomas Cane

Figure 5: Street scene in Ashburton, 1901.
Source: ALHI, ID: NZG-19011005-648-6

2.3 The South Island Main Trunk Line (SIMTL)

In the 1860's, the Canterbury Provincial Government acknowledged the growing need for a link from the flourishing Canterbury Plains settlements, such as Ashburton, to the main port at Lyttelton.[10] A new tunnel was dug through the Port Hills in 1867, and the new rail line was proposed to roughly cover the same path that travellers were currently using via the coach services between Christchurch and Timaru. The line reached Selwyn in 1867, and Rakaia six years later in 1873 – however, there was a significant delay between these two points due to funding issues, but construction was eventually resumed due to the passing of Julius Vogel's 1870 Public Works Act which secured national funding for railway construction.[11]

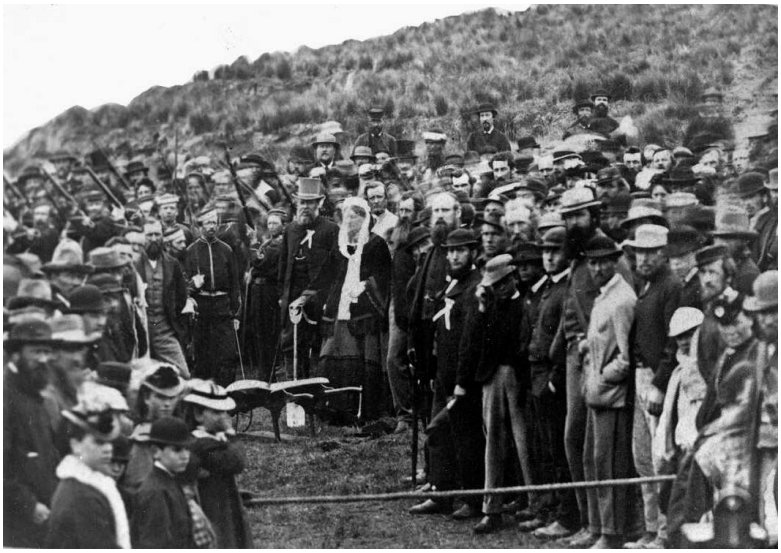


Figure 6: A crowd gathers to watch the turning of the first sod for the Christchurch to Timaru section of the new rail line, 1871.
Source: ATL, ID: 1-2-020116-F

Figure 7: The South Island Main Trunk Line and associated rail lines, undated
Source: NZR

A year later, in 1874, the South Island Main Trunk Line reached the township of Ashburton, splitting the settlement in two (Figure 8). A station building was established (Figure 10), evident on the 1874 map, but this was described as a "very basic assemblage of structures" that were "an eyesore rather than an enhancement".[12] The township would have to wait a further four decades before a new station was built.

[10] *https://www.heritage.org.nz/the-list/details/7665*
[11] *https://www.heritage.org.nz/the-list/details/7665*
[12] *https://www.heritage.org.nz/the-list/details/7665*

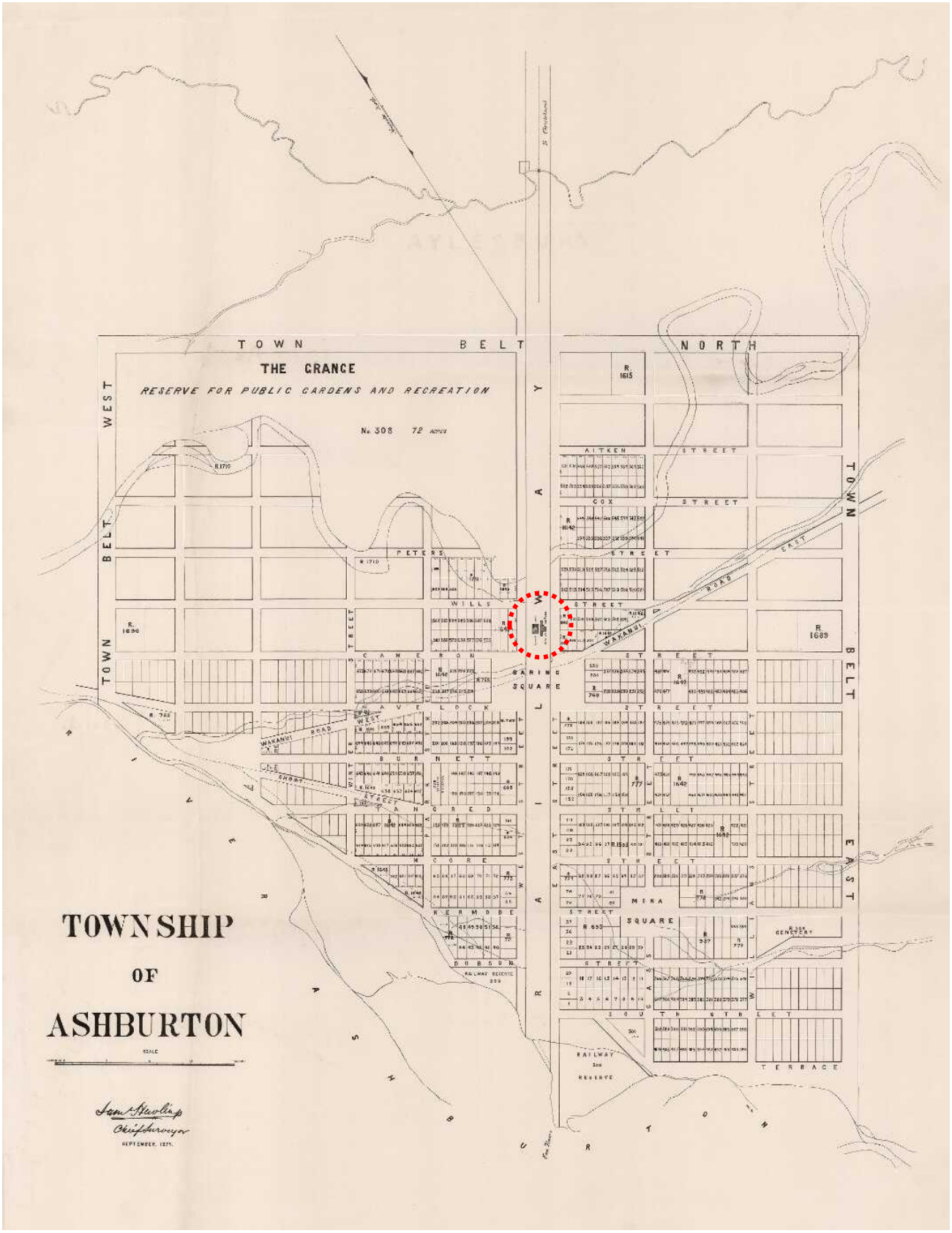


Figure 8: 1874 map of Ashburton Township, with the rail line splitting the town in two through its centre. The original Ashburton Rail Station is indicated.
Source: ATL, Chief Surveyor Sam Hewling

As the township flourished throughout the late 19th century and through the turn of the 20th century and more permanent, aesthetically pleasing structures were built, the messy railway reserve in the centre of the township became a sore point for both the citizens and the Borough Council. In 1910, the Council successfully negotiated with the Railways Department to clear and

tidy the railway reserve to either side of the tracks and plant trees to improve the amenity of the space.[13] In 1911, a new timber footbridge with a metal bowstring span was constructed to allow pedestrians to cross the tracks safely between the bisected sections of Cameron Street (Figure 9).[14]

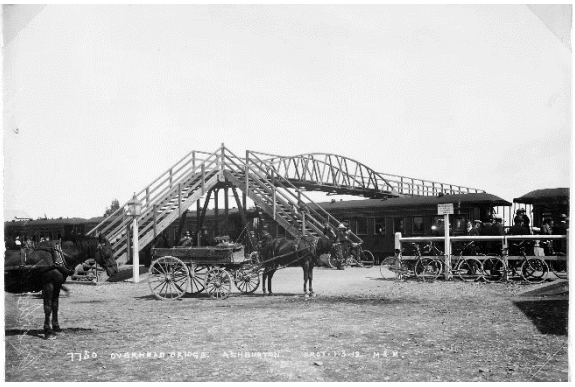


Figure 9: The first footbridge of the Ashburton Rail Station connecting the bisected sections of Cameron Street, 1912.
Source: Te Papa Archives

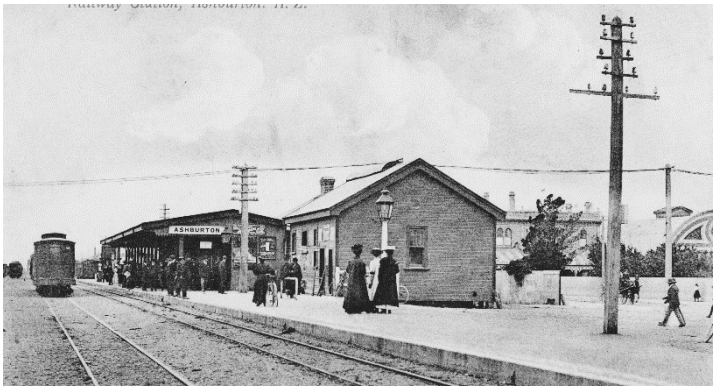


Figure 10: The original Ashburton Rail Station, 1914.
Source: Lemuel Lyes

Figure 11: The first footbridge of the Ashburton Rail Station connecting the bisected sections of Cameron Street, 1912.
Source: NZ Fotonail

Figure 12: The original Ashburton Rail Station and 1911 timber footbridge, c.1911-1917.
Source: Ashburton Museum

[13] *https://www.heritage.org.nz/the-list/details/7665*
[14] *https://www.heritage.org.nz/the-list/details/7665*

Figure 13: The first footbridge of the Ashburton Rail Station connecting the bisected sections of Cameron Street, c.1911-1917.
Source: Ashburton Museum

2.4 The New Ashburton Rail Station and Footbridge

In 1917 a new station building was commissioned to replace the 1874 buildings. Built some 15 metres north-east of the original station, it was opened on 18 June 1917 with no grand ceremony to mark the event, perhaps due to its overdue nature.[15] The new station was designed by New Zealand Railways (NZR) architect George Troup (see Section 2.6.1). At the same time, the 1911 timber footbridge was shifted from Cameron Street to Aitken Street and a new "nicely graded ramp bridge" was constructed between the bisected sections of Wills Street to serve the new station, approximately 200 metres southwest of the new station building.[16] The new footbridge was of a bowstring design, common for the time period, and constructed from metal and jarrah wood with a 25 metre wide span.[17] A northeast ramp is also visible in the 1934 map and 1950's images.

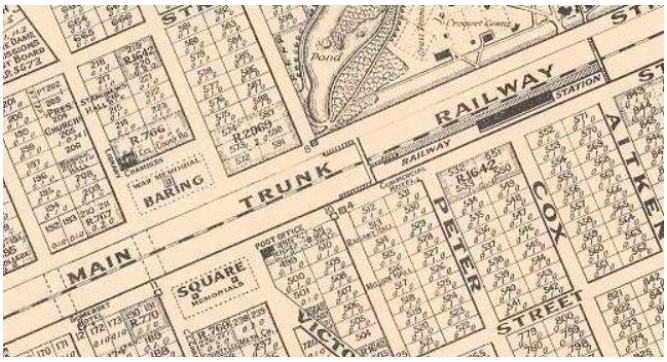


Figure 14: A 1934 map of Ashburton, with the ramped footbridge over the rail lines evident.
Source: ATL, Messrs. L Harding & LJ Poff

Figure 15: Aerial showing the footbridge and the station in 1957.
Source: ATL, ID: WA-44187

[15] *https://www.heritage.org.nz/the-list/details/7665*
[16] *https://www.heritage.org.nz/the-list/details/7665*
[17] *https://www.heritage.org.nz/the-list/details/7665*

Figure 16: Aerial showing the footbridge and the station in 1959.
Source: ATL, ID: WA-49569

Figure 17: Aerial showing the footbridge and the station in 1957.
Source: ATL, ID: WA-44187

2.5 Changes and Modifications Over Time

In 1983, the northeast ramp visible in the 1934 map and 1950's images was removed for reasons unknown. After a golden age in the early and mid-20th century, the popularity of the rail service began to decline in the 1970s and 1980s, and eventually the Ashburton Rail Station was closed and sold to private owners in 1991.[18] ONTRACK, the owner of the railway at the time, gifted the footbridge to the Ashburton District Council in the mid-2000s. In 2008 the owners applied for a Resource Consent to demolish the station building, which resulted in the formation of the Ashburton Heritage Trust who opposed the demolition.[19] Ongoing discussions were held between the owner, the Council, and the Heritage Trust but eventually the Resource Consent to demolish was granted in 2013 when all other options had been exhausted and no solution found.[20]

Figure 18: The Ashburton Rail Station, prior to demolition in 2013.
Source: PhillBee/Flickr

Figure 19: The Ashburton Rail Station, prior to demolition in 2013.
Source: PhillBee/Flickr

2.6 Persons Associated with the Place and Setting

2.6.1 George Troup (NZR Architect)

From the turn of the 20th century larger, more attractive station buildings were erected in many provincial centres, most of which were designed by NZR architect George Troup.[21] The influence of Troup was so widespread that Rail Heritage Trust of New Zealand defines 1904-1944 as the 'Troup Period' in terms of the timeline of rail in New Zealand. Troup also oversaw the development of a new Class System for rail stations with an accompanying standardised book of

[18] *https://www.heritage.org.nz/the-list/details/7665*
[19] *https://www.heritage.org.nz/the-list/details/7665*
[20] *https://www.heritage.org.nz/the-list/details/7665*
[21] *https://nzhistory.govt.nz/culture/railway-stations/station-style*

plans and details.[22] It is likely that, as with the established classes and designs for station types, Troup also established a set design for associated structures such as footbridges.

The following information regarding George Troup, NZR Architect, is sourced from James Veitch's biography (1993) in the Te Ara Encyclopedia of New Zealand:

> *George Alexander Troup was born on 25 October 1863 in London, England, and eventually went on to study at the prestigious Robert Gordon's College in Aberdeen. In 1879 he took up an apprenticeship with C. E. Calvert of Edinburgh, a licensed engineer, surveyor and architect. He also attended night classes in art and architecture at the Royal Institute, where he won a number of major prizes. He completed his apprenticeship in 1882, and in December 1883 he sailed for New Zealand on the* Fenstanton. *On arrival, Troup worked with the Survey Department in Otago and in 1886 he commenced a 39-year career with New Zealand Railways, initially as a draughtsman with the district engineer's office in Dunedin.*
>
> *In April 1888 he moved to Wellington to work at the head office of New Zealand Railways. Troup worked his way up through the New Zealand Railway Department and in 1919 became officer in charge of the architectural branch. He instituted a programme for training engineering cadets, and was involved in many major projects for the completion of the North Island main trunk line. He also planned new stations at Oamaru and Wanganui and designed the Dunedin railway station (1904). In addition, he designed the Wellington Railway Offices (1903) and in 1910 made preliminary sketches for the Wellington Railway Station, though this was eventually designed by William Gray Young. His station buildings are now regarded as a valuable part of the architectural inheritance of New Zealand. In 1907 he was elected a fellow of the Royal Institute of British Architects.*
>
> *George Troup retired from the railways in 1925 and that year was elected to the Wellington City Council. He became chairman of the Works Committee, and was responsible for the establishment of a milk treatment station, the airport at Rongotai, and a second tunnel through Mt Victoria. In 1927 he was elected Mayor and was involved in raising money for the construction of the National Art Gallery and Dominion Museum building and the War Memorial Carillon. He eventually retired in 1931 after an election defeat.*

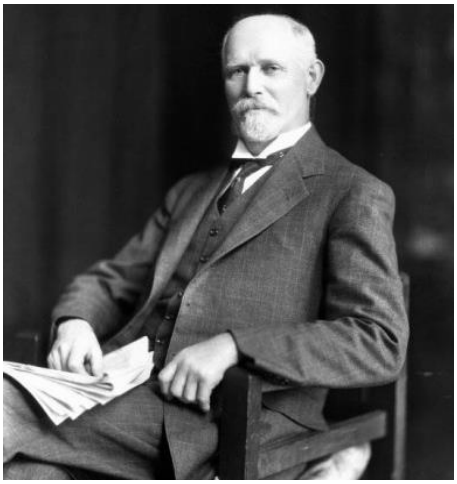


Figure 20: George Troup, 1937.
Source: Alexander Turnbull Library, Ref: 1/1-018930-F

Figure 21: The Dunedin Railway Station, designed by George Troup, pictured in 1925.
Source: Alexander Turnbull Library, Ref: 1/1-008316-G

[22] *http://www.railheritage.org.nz/Register/Category.aspx?c=21*

Troup was deeply involved in education, serving on the boards of governors of several schools. In 1931 he was appointed a CMG and in 1937 a Knight Bachelor. He had a forceful personality and 'the most direct of speech' for those he considered to be undeserving. Ill health plagued him for many years, and he died at his Kelburn home on 4 October 1941 aged 77. [23]

2.6.2 New Zealand Railways (NZR)

Until the railway network was developed in the late 19th century, New Zealand's uncompromising landscape meant overland travel was often extremely difficult. European settlers brought with them the expectation that steam trains, the wonder of the industrial age, would solve their communication problems, open up new districts to settlement and promote economic development. From the 1860s onwards, rail engineers designed a rail network that could operate across swamps and rivers, rugged mountains, and dense forests, progressively connecting otherwise isolated communities and industries to the world. By 1880, New Zealand Railways (NZR) was operating more than 1,900km of track, and carrying almost three million passengers and 830,000 tons of freight a year.

The first half of the twentieth century was a 'golden age' for rail. By the 1920s New Zealand Railways (NZR) was carrying more than six million tons of freight and 28 million passengers a year - a remarkable achievement for a nation of just over a million people. Almost everyone travelling between major centres took the railway. Trains also delivered schoolchildren to the classroom, suburban workers to factories and offices, and thousands of day-trippers to beaches, parks, shows and racecourses. From the 1950s, rail's central role in the daily life of New Zealanders began to erode, as travellers opted to drive or fly rather than use passenger trains. Branch lines around the country were progressively closed and rail's 'golden age' came to an end.

New Zealand Railways revolutionised the way New Zealanders travelled, making longer journeys and distant destinations accessible for a great number of people. The company represented progression and future-focused industry and was a household company name.

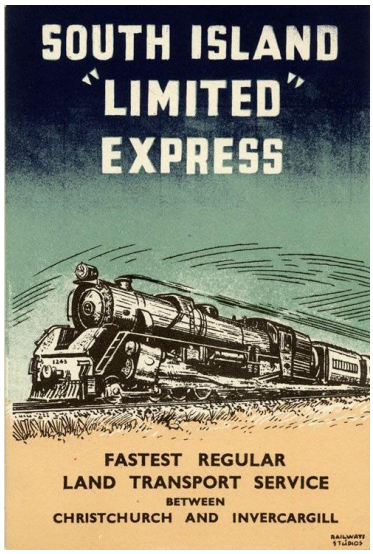


Figure 22: Poster advertising NZR destinations. Source: Archives NZ

Figure 23: NZR steam train, 1889. Source: Kiwirail.

2.7 Comparative Analysis

This section consists of a comparative analysis of the Wills Street Rail Footbridge to other bowstring footbridges in New Zealand, with a focus on rail footbridges specifically. There appear to have been two distinct types of rail footbridges in the early 20th century; a more simplistic version built between 1900-1915 with triangular bracing elements of the same width as the arch;

[23] *Veitch, James. Biography – Troup, George Alexander. Te Ara Encyclopedia of New Zealand (1993)*

and a slightly later version built between 1915-1930 and based on the Whipple patented Bowstring design which featured vertical bracing elements with tensioned diagonal wire cables (Figure 24 - Figure 26). The second Wills Street bridge constructed in 1917 belongs to the latter of these two categories, while the 1911 bridge it replaced (Figure 9) belongs to the former group. Prior to 1900, rail footbridges were constructed from timber in a primitive style with a simple deck and handrails to each side.

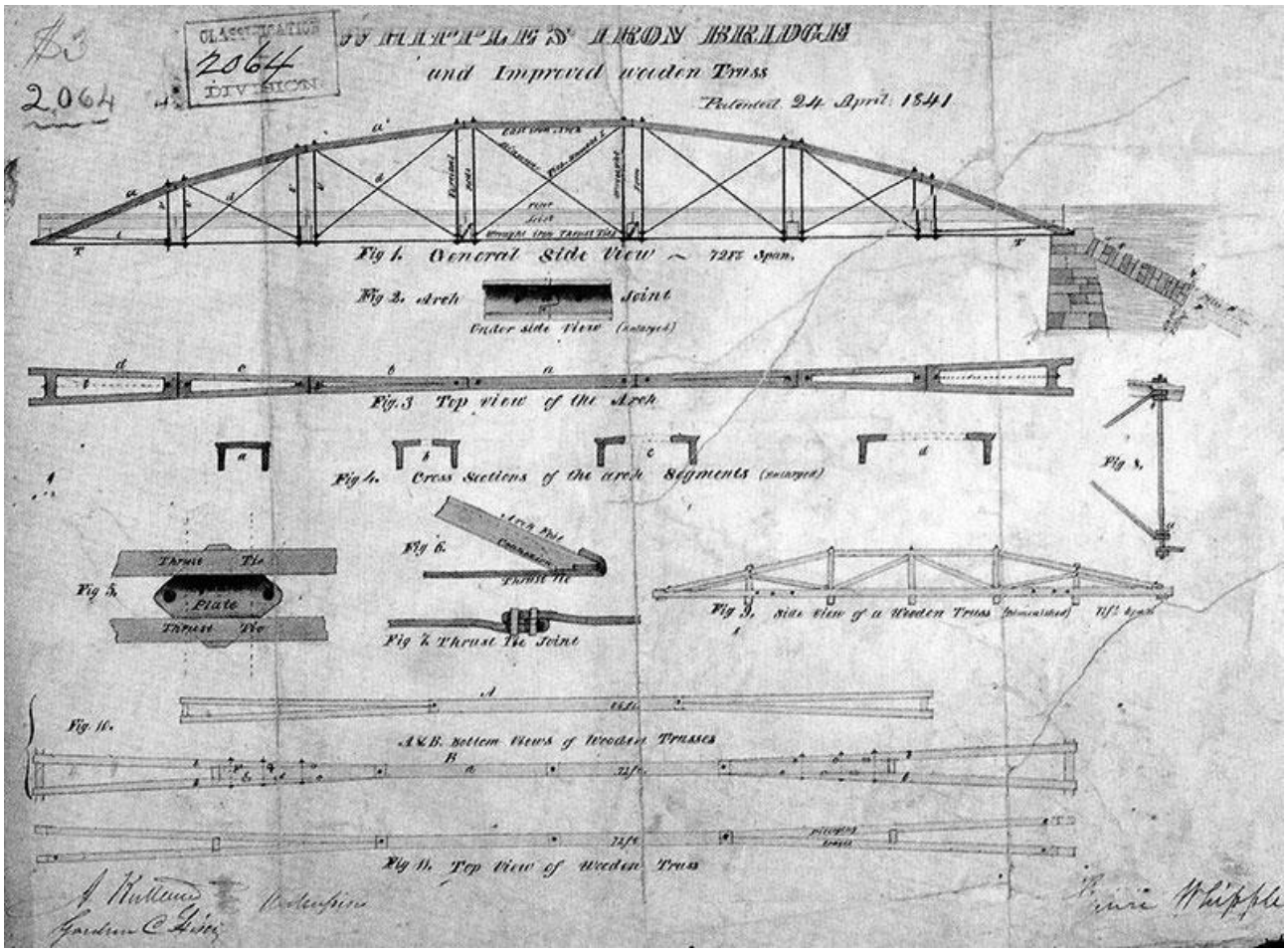


Figure 24: Drawings for the Whipple bowstring bridge design, patented in the US in 1841.
Source: Structure Magazine, https://www.structuremag.org/?p=7899

Figure 25: A Whipple bowstring truss bridge in the US, 1867.
Source: Structure Magazine, https://www.structuremag.org/?p=7899

Figure 26: A Whipple bowstring truss bridge in the US, image undated.
Source: Structure Magazine, https://www.structuremag.org/?p=7899

The group of earlier, more simplistic bowstring bridges include:

- Greymouth Rail Footbridge
- Parnell Baths Footbridge
- Frankton Rail Footbridge
- Dunedin Rail Footbridge
- Oamaru Rail Footbridge
- Paeroa/Ohinemuri Rail Footbridge
- Trentham Rail Footbridge
- New Lynn Rail Footbridge
- Woburn Rail Footbridge

Of these structures, only the Oamaru Rail Footbridge (Figure 27 and Figure 28), the Woburn Rail Footbridge (Figure 37), and the Dunedin Rail Footbridge remain standing and in their original locations, although the latter was repaired significantly after being struck by a train in 2008 (Figure 29 and Figure 30). The Ohinemuri bowstring bridge (built in 1926) was struck by a wagon in 1976 and removed, never to be reinstated (Figure 31).[24] The Frankton bowstring footbridge was demolished when the station was demolished in 1975 (Figure 32). The pedestrian double-span bowstring bridge which crossed the railway line at Parnell Baths (Figure 33), Auckland, was completely replaced by a modern structure in the 2000s.[25] The Greymouth rail footbridge (Figure 34) was dismantled in 2002 and relocated in 2010 to the Shantytown Heritage Park.[26] The Trentham rail footbridge (constructed 1906) was decommissioned in the 2010's and relocated to sit alongside the new Transmission Gully motorway (Figure 35 and Figure 36). The New Lynn Rail Footbridge is no longer standing, and it is not known when it was demolished or relocated (Figure 38).

Figure 27: The Oamaru rail footbridge.
Source: Feilding Heritage

Figure 28: The Oamaru rail footbridge.
Source: RNZ

[24] *Ohinemuri Regional History Journal 43, September 1999*
[25] *https://www.heritage.org.nz/the-list/details/7665*
[26] *https://www.heritage.org.nz/the-list/details/5014*

Figure 29: The Dunedin Rail Station footbridge after being hit by a train in 2008.
Source: Otago Daily Times

Figure 30: The double-span Dunedin rail footbridge.
Source: Flickr

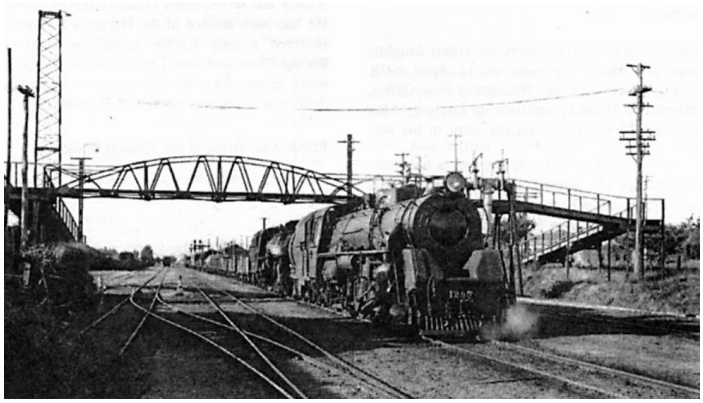


Figure 31: The Ohinemuri (Paeroa) footbridge, image undated. The bowstring bridge span was removed after being damaged and gifted to a local museum.
Source: Ohinemuri Regional History Journal 43, September 1999

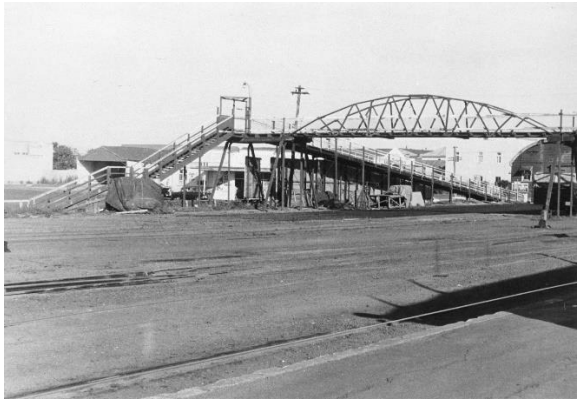


Figure 32: The Frankton Station footbridge in 1970. The station was closed in the mid-1970's and demolished, including the footbridge.
Source: Hamilton City Libraries

Figure 33: The Parnell Baths bowstring footbridge, demolished in the 2000's.
Source: ALHI, ID: 580-9417

Figure 34: The Greymouth rail footbridge, relocated in 2002
Source: ALHI, ID: 1370-634-07

Figure 35: The Trentham rail footbridge, c.2014
Source: https://themorgans.co.nz/rainbow-bridge

Figure 36: The relocated Trentham rail footbridge, 2022.
Source: NZTA

Figure 37: The Woburn rail footbridge, just visible to the right of image.
Source: Kiwirail

Figure 38: The New Lynn rail footbridge, 1970.
Source: ATL

The group of Whipple bowstring footbridges similar to the 1917 Wills Street rail footbridge is much smaller and includes:

- Papakura Rail Footbridge
- Feilding/Makino Rail Footbridge
- Helensville Rail Footbridge

Of these three structures, two have been demolished and one has been relocated. The original Helensville Rail Station footbridge (Figure 41) was demolished (or potentially relocated, though no record of this exists) at some point in time as it is no longer a part of the remaining station complex. Papakura's bowstring railway footbridge was demolished in 2009 (Figure 32). The Feilding rail footbridge, now known as the Makino footbridge, was relocated at an unknown date, and now serves as a pedestrian footbridge across the Makino creek (Figure 39 and Figure 40).

This leaves the Wills Street Rail Footbridge as the only structure of its typology remaining in its original location and still serving its original purpose more than a century later. A summary of the Wills Street rail footbridge's history published by Ashburton Museum states that the bridge is one of only seven remaining bowstring bridges nationwide, however it is not known when this article was published, and therefore if it takes into account some of the more recent demolitions of bowstring bridges which occurred. Nor does the article take into account the two differing typologies of bowstring bridges identified in the comparative analysis above.

Figure 39: The Fielding rail footbridge being relocated, image undated
Source: Feilding Heritage

Figure 40: The relocated Fielding rail footbridge, now known as the Makino footbridge.
Source: Feilding Heritage

Figure 41: The original Helensville rail footbridge, image undated. The bridge is no longer standing, its demolition date is unknown.
Source: http://www.helensvillerail.org.nz/about.php

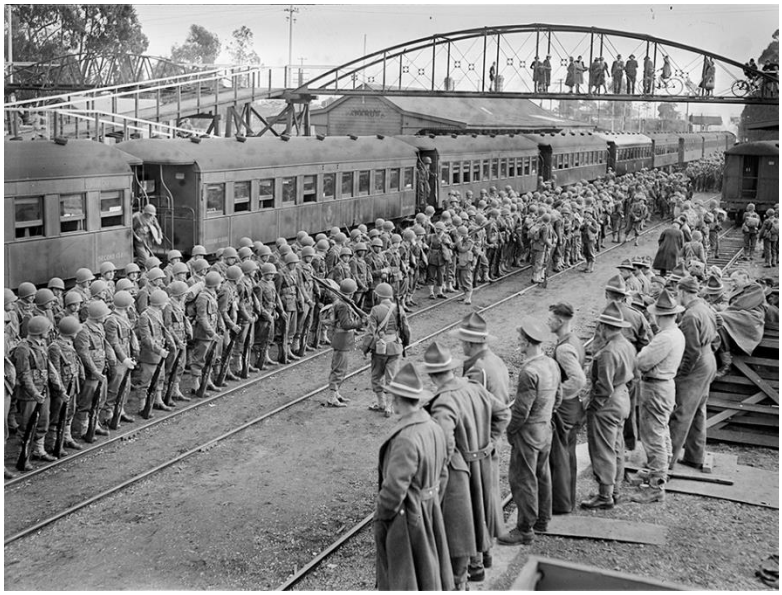


Figure 42: American troops at Papakura station, c.1940.
Source: ALHI, ID: 1370-682-15

Figure 43: The Papakura footbridge bowstring span being demolished in 2009.
Source: Papakura Courier

2.8 Chronology of Events

2.8.1 Timeline

The table below provides a timeline of key events relating to the Wills Street Rail Footbridge.

Table 1: Chronology of Events

1850's	*Canterbury Plains began to be settled by pastoralists.*
1860's	*Ashburton township became established on the north side of the Ashburton River.*
1874	*The South Island Main Trunk Line reaches Ashburton, and the township is split in two by the rail tracks. A Rail Station is also established.*
1911	*A timber footbridge is constructed between he bisected sections of Cameron Street to allow passengers to cross the rail lines safely.*
1917	*A new Ashburton Rail Station is completed, replacing the 1874 building. The 1911 footbridge is relocated to Aitken Street, and a new timber and metal footbridge constructed between the bisected sections of Wills Street, 200 metres south of the new station.*
1974	*The original 1911 footbridge, which was relocated when the 1917 footbridge was built, is demolished.*[27]
1983	*The northeast ramp of the bridge is removed.*[28]
1991	*The Ashburton Rail Station is decommissioned and sold to private owners.*
2000's	*The Wills Street footbridge is gifted to the Ashburton District Council.*
2008	*The owner of the Ashburton Rail Station applies for a resource consent to demolish the structure.*
2013	*After extensive negotiations with the Ashburton District Council and the Ashburton Heritage Trust, the resource consent is granted, and the Ashburton Rail Station is demolished.*

[27] *https://ashburtonmuseum.wordpress.com/2018/12/16/our-overbridge/*
[28] *https://www.heritage.org.nz/the-list/details/7665*

3 Understanding the Place: Physical Evidence

3.1 Description of the Bridge and Setting

The Wills Street rail footbridge sits between State Highway 1 (West Street) and East Street in Ashburton, crossing the rail lines that sit between the two busy roads. The rail lines stretch to the north (Figure 45) and south (Figure 44) of the structure, with a planted reserve to either side of the rail lines (Figure 47) established in 1910. On the eastern side of the rail lines, there is a blue plaque explaining the historic significance of the bridge, donated by Historic Places Aotearoa in 2017 (Figure 46). Approximately 300 metres northeast of the bridge is a goods shed (Figure 48 and Figure 49) which is the only other remaining element of the 1917 Ashburton Rail Station complex, which was demolished in 2013.

Figure 44: Looking south from the bridge.

Figure 45: Looking north from the bridge.

Figure 46: The blue plaque on the eastern side of the bridge, donated by Historic Places Aotearoa.

Figure 47: The planted reserve on the eastern side of the rail lines, established in 1910.

Figure 48: Goods shed associated with the 1917 Ashburton Rail Station, located approximately 300m north of the Wills Street footbridge.

Figure 49: Goods shed associated with the 1917 Ashburton Rail Station, located approximately 300m north of the Wills Street footbridge.

The rail footbridge itself consists of a number of components including the cast iron arched span in the centre of the bridge, the two sections of footbridge to either side of it, the substructure and support system, and the timber deck.

The cast iron span is approximately 25 metres in length and 1.5 metres wide and has two arched trusses which sit on either side of the timber deck structure with horizontal bracing beams between the two arches at their highest points (Figure 50 and Figure 51). The arched trusses feature vertical support members with thin diagonal tierods between each vertical member, held centrally by a circular tensile structure connector (Figure 52). Thin horizontal wires have been installed across the length of the bridge, drilled through the vertical members, presumably in an attempt to improve the safety of pedestrians. A number of padlocks have been secured onto the horizontal wires, likely inspired by the Pont des Arts (also known as the Love Lock Bridge) bridge in Paris (Figure 54 and Figure 55). The timber handrail of the adjacent footbridge sections joins directly onto the cast iron structure (Figure 53).

Figure 50: The Wills Street railway bridge, looking south.

Figure 51: The Wills Street railway bridge, looking east across the deck.

Figure 52: The diagonal tierods with central circular tensile connector in one of the trusses of the bridge.

Figure 53: Where the timber handrail meets the ironwork of the bridge.

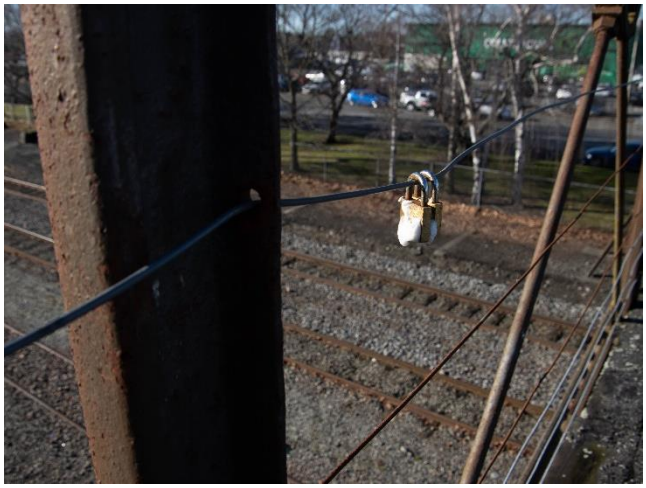


Figure 54: Padlocks attached to the horizontal wires on the bridge.

Figure 55: Padlocks attached to the horizontal wires on the bridge.

The timber footbridges sit to either side of the cast iron span. They each have three segments – a short section at the same height as the bridge span, a gently sloping segment which leads to the corner, and a steeply sloping section which sits at 90 degrees to the bridge (Figure 57). These footbridges feature a concrete ramp where the steeply sloping section meets the ground (Figure 59). The footbridge has metal balusters which support a timber handrail above. As with the cast iron span, horizontal wires have been installed between the balusters, drilled through the vertical members.

Figure 56: The adjoining footbridge of the Wills Street railway bridge on the western side, looking south.

Figure 57: The steeply sloping section of footbridge on the western side of the rail lines.

Figure 58: The adjoining footbridge of the Wills Street railway bridge on the western side, where the ramp turns at a right angle to meet the bridge.

Figure 59: The beginning of the steeply sloping ramp on the western side of the rail lines, with concrete ramp.

The footbridges are supported by a variety of elements, including steel supports (Figure 60 and Figure 66) and timber trusses on concrete foundations (Figure 67). The deck of the bridge is constructed from timber (Figure 64 and Figure 65) and covered in a bituminous surface (Figure 61). It is evident that there have been some repair and strengthening components added over time, including metal tie rods (Figure 70) and timber inserts (Figure 71).

Figure 60: The adjoining footbridge of the Wills Street railway bridge on the eastern side.

Figure 61: The timber deck structure with asphalt surface.

Figure 62: The adjoining footbridge of the Wills Street railway bridge on the eastern side, looking south.

Figure 63: The adjoining footbridge of the Wills Street railway bridge on the eastern side, looking south from ground level.

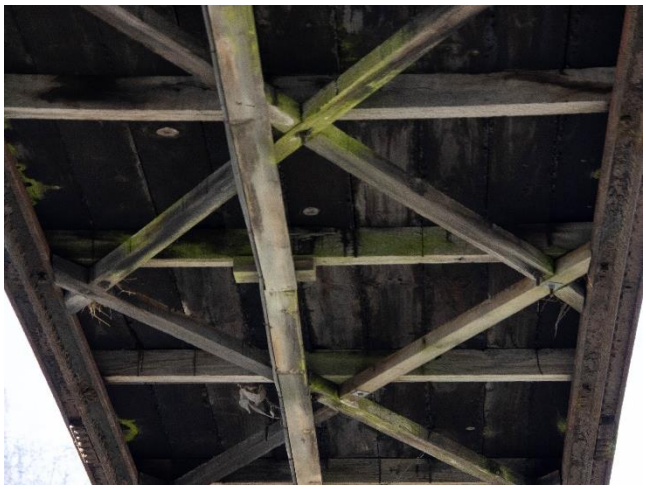


Figure 64: The substructure of the bridge, constructed from timber.

Figure 65: The substructure of the bridge, constructed from timber.

Figure 66: The substructure of the bridge, with metal supports.

Figure 67: Timber supports on concrete foundations to the ramped footbridges to either side of the main bridge span.

Figure 68: Where the timber section of the footbridge meets the concrete ramp at the base of either ramped footbridge.

Figure 69: Where the metal supports meet the timber structure of the bridge.

Figure 70: Metal tie rod to the underside of the timber bridge structure.

Figure 71: One of many timber inserts visible in the bridge structure, marked with 'SH09'.

3.2 Forms of Fabric Deterioration Observed

3.2.1 Corrosion

Appropriate applied coatings that are maintained in good condition will protect iron. As these coatings begin to break down, and the ironwork is exposed, it can react with oxygen to form the hydrated oxides known as rust. Rust, in turn, tends to hold water, encouraging further corrosion. Rust has as much as seven times the volume of metallic iron. It forces joints or laminated sections apart; and produces an enormous expansion force which can severely damage structures into which the metal is embedded.

The Wills Street rail footbridge has a number of ferrous elements, including the substructure supports which hold the bridge up, the cast iron trusses, and balusters to the timber footbridges which are held in place with ferrous brackets. In addition to this, there are metal tie rods installed to the substructure of the bridge. Corrosion is widespread to all ferrous elements of the structure (Figure 72 - Figure 75).

Figure 72: Corrosion to the cast iron elements of the bridge span is visible to the entire structure.

Figure 73: Corrosion to the cast iron elements of the bridge span is visible to the entire structure.

Figure 74: Corrosion to the metal supports across the entire structure is visible under a layer of flaking paint.

Figure 75: Corrosion to the metal handrail balusters and brackets is evident across the entire structure.

3.2.2 Cracking

Cracks are individual fissures or fractures, or a network of intersecting fracture systems that are visible to the naked eye.[29] Cracks may be structural or non-structural, but are always symptomatic of movement, the causes of which can be many and varied.

The concrete bases at the end of each ramp and concrete foundations below the timber trusses of the structure have a number of cracks (Figure 76 and Figure 77).

Figure 76: Cracks to the concrete ramp base on the eastern side of the bridge.

Figure 77: Cracks to the concrete foundations which sit below the timber trusses underneath the ramped section of the footbridge.

[29] *ICOMOS Illustrated Glossary on Stone Deterioration Patterns. ICOMOS International Scientific Committee for Stone (ISCS) 2008, p 10*

3.2.3 Deposit

A deposit is an accumulation of material of external origin on that is partially adhered to the surface of the structure,[30] for example:

- animal droppings;
- mortar droppings;
- paint splashes;
- dust and dirt.

Bird droppings are of particular concern as they are acidic and can cause deterioration in most materials. Dust and dirt are also concerning as they can cause permanent staining. Inappropriate cleaning techniques may also cause damage. Deposits from paint and other applied materials are the most common type of deposit on the structure (Figure 80 and Figure 81), though there are also numerous areas where bird droppings are visible underneath nests (Figure 78 and Figure 79).

Figure 78: Bird droppings to the underside of the bridge structure.

Figure 79: One of multiple bird nests in the structure.

Figure 80: Paint running down the metal balusters on the footbridge from when the handrail was painted.

Figure 81: Runoff from the bituminous layer added to the deck surface when installed.

3.2.4 Microbiological Growth

Micro-organisms such as algae, moss, lichen that are attached or in close proximity to a historic structure can trap moisture against the surface of the fabric and their roots may cause damage by spreading around or into the pores of stone, brick, or concrete.

The following types of microorganism were found at the Wills Street rail footbridge:

[30] *ICOMOS Illustrated Glossary on Stone Deterioration Patterns. ICOMOS International Scientific Committee for Stone (ISCS) 2008, p 20*

- Algae: microscopic vegetal organisms that form green, red, brown, or black veil like zones.
- Lichens: rounded crusty or bushy patches, often having a leathery appearance, commonly grey, yellow, orange, green or black.
- Mosses: small, soft, green cushions that often grow on the concrete surface, in open cavities or cracks, and in any place that is frequently wet and generally shady.[31]

Figure 82: Algae growth to the underside of the bridge.

Figure 83: Algae growth to the underside of the bridge.

Figure 84: Algae growth to the underside of the bridge.

Figure 85: Algae growth to the underside of the bridge.

Figure 86: Lichen growth to the bridge substructure.

Figure 87: Lichen growth to the bridge deck.

[31] *ICOMOS ISCS (2008) pp 64-74*

Figure 88: Lichen growth to the ferrous elements of the bridge.

Figure 89: Lichen growth to the ferrous elements of the bridge.

Figure 90: Lichen growth to the timber deck of the bridge.

Figure 91: Lichen and moss growth to the timber deck of the bridge.

Figure 92: Lichen and moss growth to the bridge deck.

Figure 93: Lichen and moss growth to the timber supports of the bridge.

3.2.5 Past Repairs

Past repairs can cause damage to significant fabric if they have been poorly made or made in incompatible materials. There are many examples of previous repairs to the Wills Street rail footbridge (Figure 94 - Figure 97). Where there is evidence of deterioration of or around past repairs this should be addressed with a new appropriate repair.

Figure 94: Timber strengthening to metal support, with metal cable ties.

Figure 95: Previous repairs where various timber inserts (some marked with 'SH09') have been spliced into the existing structure and screwed into place.

Figure 96: Different bolts are visible haphazardly installed across the structure.

Figure 97: Timber inserts, some marked with 'SH09', inserted into the structure.

3.2.6 Staining

Staining generally refers to the discolouration of fabric caused by the build-up of environmental pollutants and their reaction with the substrate. Staining is exacerbated by the movement of moisture across and within the fabric.

On the Wills Street rail footbridge, the entire underside of the bridge features staining to the which has been caused or exacerbated by water (rain) runoff (Figure 98 and Figure 99).

Figure 98: Staining to the underside of the bridge associated with excess water.

Figure 99: Staining to the underside of the bridge associated with excess water.

3.2.7 Vandalism

The Wills Street rail footbridge has numerous graffiti marks, though all have been applied using various marking fluids as opposed to marks etched into the fabric itself (Figure 100 - Figure 103). Specific cleaning techniques should be recommended in the Cyclical Maintenance Plan which will remove the graffiti without damaging the heritage fabric.

Figure 100: Graffiti damage to the metal supports.

Figure 101: Graffiti damage to the timber handrail.

Figure 102: Graffiti damage to the cast iron trusses.

Figure 103: Graffiti damage to the metal balusters.

4 Assessment of Significance

4.1 Significance Criteria

Identifying and assessing heritage values can be a complex process. At present there is no legislative procedure or established common methodology for assessing the heritage significance of a place in New Zealand; however, there are a variety of precedents and guidelines. Those precedents and guidelines that are considered to be particularly relevant to the New Zealand context, or are considered to be respected international precedents, are outlined below.

4.1.1 ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value (Revised 2010)

The ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value, Revised 2010 (ICOMOS NZ Charter) sets out principles to guide the conservation of places of cultural heritage value in New Zealand.

Under the ICOMOS NZ Charter, a place is considered to have cultural heritage significance where it possesses:

> *"... aesthetic, archaeological, architectural, commemorative, functional, historical, landscape, monumental, scientific, social, spiritual, symbolic, technological, traditional, or other tangible or intangible values, associated with human activity."*[32]
>
> Article 2 of the ICOMOS NZ Charter states that, in assessing the significance of a place, all aspects of cultural heritage value should be considered and understood, even where these values differ or conflict. The ICOMOS NZ Charter identifies authenticity and integrity as crucial aspects of cultural heritage value

4.1.2 Resource Management Act (1991)

The purpose of the Resource Management Act 1991 (RMA) is to promote sustainable management of natural and physical resources in New Zealand, which includes historic heritage. The RMA requires local authorities to identify and protect historic heritage within their jurisdiction, where historic heritage is defined as:

a) those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, deriving from any of the following qualities:

(i) archaeological;

(ii) architectural;

(iii) cultural;

(iv) historic;

(v) scientific;

(vi) technological.[33]

[32] *ICOMOS NZ Charter (2010)*

[33] *RMA 1991 section 2. And includes:*

(i) *historic sites, structures, places, and areas; and*

(ii) *archaeological sites; and*

(iii) *sites of significance to Māori, including wāhi tapu; and surroundings associated with the natural and physical resources*

4.1.3 Ashburton District Plan

The RMA requires all territorial authorities to prepare a district plan to assist them in carrying out their functions in order to achieve the sustainable management purpose of the RMA.[34] One of these functions is the identification of historic heritage resources, and the protection of these resources from inappropriate subdivision, use, and development.[35]

Scheduled items are classified into one of two categories within the ADP. Within either of the categories, different levels of protection are afforded to the particular heritage item. The ADP outlines the categories as follows:

Group A

These heritage items are considered to be of national or regional significance, and include NZHPT registered Category I historic places. These places are of special or outstanding value or representative value and the loss of these items would be a matter of national or regional significance and of interest to the wider community. The Council wishes to provide for their long-term conservation and protection.

Group B

These heritage items are places of historical or cultural heritage significance or value to the District. The ongoing conservation and protection of these items is highly desirable. They include all NZHPT registered Category II historic places and other places of heritage significance and value at a District level. The loss of these items would be a significant matter, at least in respect of a District and regional community of interest.

The ADP lists the following criteria for the assessment of historic heritage items:

- *[whether the item] is identified on the NZHPT register of historic places as a Category I or II historic place, historic area, wāhi tapu or wāhi tapu historic area;*
- *[whether the item] has an historic association with a person or event of note, has strong public association for any reason, or provides a focus of community or local identity or sense of place;*
- *[whether the item] has value as a local landmark over a length of time;*
- *reflects past skills, style or workmanship which would make it of educational, historical or architectural value;*
- *[whether the item] has the potential to provide scientific information about the history of the area;*
- *[whether the item] is unique or rare, or a work of art;*
- *[whether the item] retains integrity or significant features from its time of construction or later periods when important alterations were carried out;*
- *[whether the item] forms part of a precinct or area of historic heritage value;*
- *[whether the item] is representative of its class in relation to design, type, technology, use, or similar;*
- *[whether the item] contributes to the distinctive characteristics of a way of life, philosophy, religion or other belief and/or is held in high esteem by a particular group or community;*
- *[whether the item] is of importance to the Takata Whenua, and the appropriateness of making this information available to the general public;*

[34] *RMA 1991 Section 72*
[35] *RMA 1991 Section 6*

- *[whether the item] has the potential to contribute information about the human history of the area or provides archaeological information.*

4.1.4 HNZPT Sustainable Management of Historic Heritage Guidelines Series

HNZPT has published the Sustainable Management of Historic Heritage Guidance Series that aims to assist stakeholders in the protection and conservation of listed historic places. The series includes 24 Information Sheets with easily accessible key information. *Information Sheet 2: Assessment Criteria to Assist in the Identification of Historic Heritage Values* provides the criteria promoted by HNZPT for to identify and assess historic heritage values as follows:

Historic Values

- *People*
- *Events*
- *Patterns*

Cultural Values

- *Identity*
- *Public Esteem*
- *Commemorative*
- *Education*
- *Tangata Whenua*
- *Statutory Recognition*

Physical Values

- *Archaeological Information*[36]
- *Architecture*
- *Technology and Engineering*
- *Scientific*
- *Rarity*
- *Representativeness*
- *Integrity*
- *Vulnerability*
- *Context or Group Value*

4.2 Assessment of Cultural Heritage Significance

This section provides an assessment of heritage significance for the Wills Street Rail Footbridge, based on the criteria set down in the documents outlined in Section 4.1 above. They have been combined into six categories.

4.2.1 Architectural and Aesthetic Value

The place demonstrates or is a good example of a particular architectural style, period, form, scale, use of materials and ornamentation; demonstrates a high level of craftsmanship or workmanship; retains significant features, authenticity and integrity in design and materials; is unique, unusual, uncommon, or rare at a local, regional, or national level.

The Wills Street Rail Footbridge has high architectural and aesthetic value as the only NZR commissioned Whipple-patented bowstring footbridge remaining in its original location and still being used for its original purpose. As outlined in Section 2.7, only three other bridges of the

[36] The Heritage New Zealand Pouhere Taonga Act 2014 defines an archaeological site as any place that:

i. *was associated with human activity that occurred before 1900 or is the site of the wreck of any vessel where the wreck occurred before 1900; and*

ii. *provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand.*

same typology were able to be identified and all three of these structures have either been demolished or decommissioned and relocated. This makes the Wills Street footbridge unique at a national level. The Whipple bowstring bridge design was patented in the United States in 1841, and the design was adopted by NZR in the early 20th century for pedestrian footbridges, replacing an earlier typology of bowstring bridges which was more primitive. The Whipple design features a curving arch, supported by vertical bracing elements along the length of the bridge, and tensioned diagonal tierods in each bay meeting at a circular tensile structure connector. The result is an elegant structure, which gives an air of grandeur to a structural typology which, prior to 1900, consisted of plain horizontal bridges with primitive timber decks and handrails. The delicate design of the cast iron elements demonstrates high value through the use of materials and ornamentation. The footbridge also has high authenticity and integrity – apart from the removal of one of the original ramps, the bridge appears to be unchanged since its construction in 1917 more than a century ago. The footbridge is an architectural legacy of the renowned Troup era of railway expansion in the early 20th century.

4.2.2 Contextual Value

The place forms part of a wider historic landscape, townscape or setting; acts as a landmark.

The Wills Street Rail Footbridge has some contextual value for its position across the 1874 rail lines that were constructed as part of the pioneering South Island Main Trunk Line. However, the demolition of the associated 1917 Ashburton Rail Station has resulted in a significant loss of contextual value. The footbridge remains a well-recognised icon of the golden age of the New Zealand railways era, and can be considered a local landmark.

4.2.3 Cultural and Social Value

The place is of importance to tangata whenua; associated with community identity; held in high public esteem; holds symbolic or commemorative value; is the focus of spiritual, political, national, or other cultural sentiment; could contribute to people's awareness, understanding and appreciation of New Zealand's history and cultures through education.

The place has high cultural and social value as a well-recognised and valued infrastructure element and local icon. The bridge contributes to a shared sense of community identity as a longstanding embodiment of the railway establishment which turned the township into a thriving destination along the South Island Main Trunk rail line. The place is held in high public esteem as a historic icon of the area, demonstrated by public backlash when the associated 1917 station building was demolished in 2013. The footbridge contributes to people's awareness, understanding, and appreciation of New Zealand's railway history.

4.2.4 Historic Value

The place reflects important or representative aspects of local, regional, or national history; is associated with a particular event, individual, group, institution, or idea of importance; is representative of social patterns, processes, themes, or phases of activity.

The Wills Street rail footbridge has high historic significance for its association with George Troup and the New Zealand Railways Company. The footbridge was constructed in 1917 as part of the new Ashburton Rail Station complex and belongs to an era described as a 'golden age' for railways in New Zealand. The bridge replaced an earlier 1911 footbridge, demonstrating a typical practice of updating aged infrastructure. The bridge has continuously served the public as a safe crossing point over the historic rail lines, established in 1874, between the two bisected sections of Wills Street, for more than a century. With the demolition of the associated Ashburton Rail Station in 2013, the footbridge is the only remaining element of the 1917 complex.

4.2.5 Scientific Value

The place has the potential to reveal or enhance scientific information about the history of the region and/or understanding of the past; the place has inherent environmental or ecological values.

The scientific value of the site is unknown. The ArchSite database shows that there are no formally recorded archaeological sites where the footbridge is located, however the rail line was laid in 1874 and therefore has the potential to enhance scientific understanding of the place prior to 1900.

4.2.6 Technological Value

The place demonstrates innovative or important methods of construction or design; contains unusual construction materials; is it an early example of the use of a particular construction technique; or has the potential to contribute information about technological or engineering history.

The Wills Street footbridge has high technological value for its Whipple-patented bowstring design, first established in the United States in the 1840's. The design was adopted by NZR as the preferred type of pedestrian bridge for rail complexes from approximately 1915-1930. The use of iron and jarrah wood in the construction of the bridge is of significance due to the durability of the materials – the bridge has stood for more than a century, though is now in poor condition.

4.3 Statement of Overall Significance

Overall, the 1917 Wills Street rail footbridge in Ashburton has high heritage significance. The structure has high architectural value as a nationally unique example of the NZR adopted Whipple bowstring design, being the only one of its typology in its original location and serving its original purpose. The structure has high aesthetic value as a graceful interpretation of a structure typology which, prior to 1900, consisted of primitive and utilitarian timber bridges. The footbridge also has high authenticity and integrity – apart from the removal of one of the original ramps, the bridge appears to be unchanged since its construction in 1917 more than a century ago. The footbridge is an architectural legacy of the renowned Troup era of railway expansion in the early 20th century. The footbridge has high historic value for its association with renowned Railways architect George Troup and the pioneering NZR scheme which revolutionised transport across New Zealand, especially in isolated areas such as the Canterbury Plains. The place has high cultural and social value as a well-recognised local icon, held in high esteem by the public as an active infrastructure element and landmark which has served the community continuously for more than a century. The Wills Street rail footbridge has high technological value for its Whipple bowstring design and use of durable materials such as cast iron and jarrah wood which have stood strong for more than a century. The structure has some contextual value for its location over the 1874 rail lines of the historic South Island Main Trunk Line, though the demolition of the associated 1917 Ashburton Rail Station has caused a significant loss of contextual value to the place. Scientifically, the value of the site is unknown - further archaeological assessment is required, though the area is known to have been occupied prior to 1900.

4.4 Assessment of Fabric Significance

Each individual element of the Wills Street rail footbridge has various levels of significance associated with that feature's authenticity as well as the historic, cultural, architectural, technological, contextual, and archaeological significance described above. The table in Section 4.4.3 outlines the degree of authenticity and significance for each element.

4.4.1 Degree of Authenticity

The ICOMOS NZ Charter defines 'authenticity' as the credibility or truthfulness of the surviving evidence and knowledge of the cultural heritage value of a place. The assessment of authenticity in Section 4.4.3, is based on the identification and analysis of the evidence and knowledge gathered for this Conservation Management Plan.

Levels of authenticity of the Wills Street rail footbridge are assessed using the following scale:

Exceptional Authenticity (A)

The element is known to be original and/or provides exceptionally credible or truthful evidence of cultural heritage values through form, fabric, technology, use or setting.

High Authenticity (B)

The element is known to be historic and/or contributes to credible or truthful evidence of cultural heritage values through form, fabric, technology, use or setting.

Some Authenticity (C)

The element is recent fabric and/or makes a limited contribution to evidence of cultural heritage values of the structure in its form, fabric, technology, use or setting.

Little or No Authenticity (N)

The element is recent fabric and/or makes no contribution to evidence of cultural heritage values of the structure in its form, fabric, technology, use or setting.

4.4.2 Degree of Significance

Degrees of significance of features of the Wills Street rail footbridge are assessed using the following scale:

High

Makes an essential and fundamental contribution to the overall significance of the place and must be retained.

Moderate

Makes an important contribution to the overall significance of the place and must be retained where possible and practicable.

Some

Makes a minor contribution to the overall significance of the place.

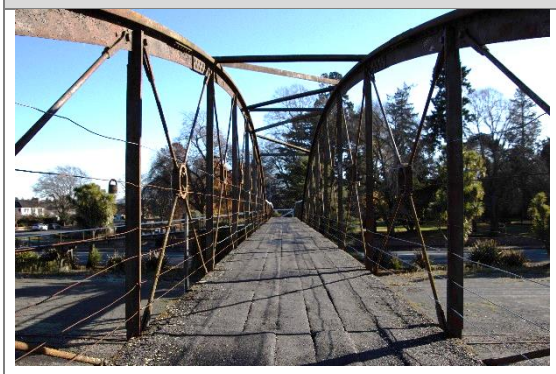
Neutral/Intrusive

Limited significance or detracts from the overall heritage significance of the place or obscures fabric of greater heritage value.

4.4.3 Assessment of Built Fabric Significance

Table 2: Assessment of the Authenticity and Significance of Built Heritage Fabric

Fabric	Authenticity	Significance	Comments
Cast Iron Trusses 	A	Exceptional	The cast iron trusses are original elements of the bridge and are its most identifiable feature. The trusses remain largely unmodified since construction, except for the "safety" wires that have been strung along each side, connecting to the footbridges at each end.
Timber Deck	B	High	The timber deck is likely an original

Fabric	Authenticity	Significance	Comments
			element of the bridge, however, has likely been resealed a number of times and patched with replacement strips of timber where required.
Eastern Footbridge Deck 	B	High	The deck of the eastern footbridge is constructed from timber with a bituminous surface which has likely been relaid numerous times. Most of the deck timber is original, but some sections have been replaced over time.
Eastern Footbridge Supporting Structure  	B	High	The supporting structure of the eastern footbridge is made of up metal supports at its tallest point where it meets the main span of the bridge, and timber trusses supported on concrete blocks where the ramp descends to meet the ground. The majority of the metal and timber supports appear to be original fabric, though repairs and replacements have been made over time where required. The timber replacement fabric has been marked with its previous location (e.g. 'SH09').
Eastern Footbridge Balustrade	B	High	The balustrade of the eastern footbridge is made up of a combination of timber and metal balusters, with horizontal wire

Fabric	Authenticity	Significance	Comments
			threaded between the vertical supports and a timber handrail to the top of the structure. The metal and timber balusters, and timber handrail, appear to be original, but some fabric has been replaced over time when required. The horizontal wire threaded between the vertical supports is a later addition to the structure.
Western Footbridge Deck 	B	High	The deck of the western footbridge is constructed from timber with a bituminous surface which has likely been relaid numerous times. Most of the deck timber is original, but some sections have been replaced over time.
Western Footbridge Supporting Structure  	B	High	The supporting structure of the western footbridge is made of up metal supports at its tallest point where it meets the main span of the bridge, and timber trusses supported on concrete blocks where the ramp descends to meet the ground. The majority of the metal and timber supports appear to be original fabric, though repairs and replacements have been made over time where required. The timber replacement fabric has been marked with its previous location (e.g. 'SH09').

Fabric	Authenticity	Significance	Comments
Western Footbridge Balustrade 	B	High	The balustrade of the western footbridge is made up of a combination of timber and metal balusters, with horizontal wire threaded between the vertical supports and a timber handrail to the top of the structure. The metal and timber balusters, and timber handrail, appear to be original, but some fabric has been replaced over time when required. The horizontal wire threaded between the vertical supports is a later addition to the structure.
Reserve 	B	High	The reserve to either side of the rail line was planted in 1910 when the Borough Council agreed to improve the 'messy' area. The trees which were planted then are still in evidence today and contribute to the context surrounding the rail footbridge.

5 Development of a Conservation Policy

This Conservation Management Plan is a policy document for a place of significant cultural heritage value. It is relevant for practitioners involved in any future refurbishment, maintenance, and conservation of heritage fabric relating to the Wills Street rail footbridge. Copies of this document must also be submitted with future applications for resource consent or other statutory procedures.

5.1 Statutory Compliance

The following statutory documents apply to the Wills Street Rail Footbridge at the time of preparing this Conservation Management Plan:

- Resource Management Act (RMA) 1991
- Canterbury Regional Policy Statement
- Local Government Act 2002
- Ashburton District Plan
- Heritage New Zealand Pouhere Taonga Act 2014

5.2 Non-Statutory Guidelines

In addition to the statutory documents detailed above, non-statutory guidelines prepared by established heritage conservation organisations provide good direction on how places of cultural heritage value should be managed. Those that are particularly relevant are listed below:

- ICOMOS NZ Charter for the Conservation of Places of Cultural Heritage Value 2020
- HNZPT Archaeological Guidelines Series
- HNZPT Sustainable Management of Historic Heritage Guidance Series
- Te Tiriti o Waitangi Principles

5.3 Threats

A key aspect of the management of heritage places is the management of threats, in conjunction with maximising any opportunities. Poorly informed decisions risk the integrity and authenticity of heritage structures, compromising their significance. Threats to the place are outlined in this section and are rated against a risk matrix in Table 3.

Table 3: Risk Matrix

		Impact				
		Insignificant	Minor	Moderate	Major	Extreme
Likelihood	Almost Certain	Medium	High	High	Very High	Very High
	Likely	Medium	Medium	High	Very High	Very High
	Possible	Low	Medium	High	High	Very High
	Unlikely	Low	Low	Medium	High	High
	Very Unlikely	Low	Low	Medium	Medium	High

5.3.1 Environmental Conditions – High Risk

Local environmental conditions, including the presence of pollution, water, wind, and temperature fluctuations, can adversely affect the condition of heritage structures.

5.3.1.1 Extreme Weather Events – High Risk

Extreme weather events associated with anthropogenic climate change are becoming more common. High winds, rainfall, and flooding associated with these events pose a threat to all places, including the Wills Street rail footbridge.

5.3.1.2 Organic Growth – Very High Risk

Moss, lichens, and plant material evident on the footbridge may appear innocuous; however, they can cause permanent staining, trap moisture, and cause or exacerbate deterioration of materials. This is a particular issue in shady and damp areas, where the conditions for growth are ideal for some mosses and lichens. These issues can be addressed as part of general maintenance.

5.3.1.3 Airborne Pollutants – High Risk

As the Wills Street footbridge sits above active rail lines, the fabric of the structure is at high risk from staining and deterioration that can be caused by airborne pollutants. These airborne pollutants can cause staining and deposits to accumulate on surfaces, which can cause damage. This can also be addressed as part of routine maintenance.

5.3.2 Maintenance – High Risk

5.3.2.1 Poor or No Maintenance – High Risk

Lack of maintenance is one of the most common causes of deterioration in heritage structures. A maintenance plan is vital to ensuring that issues are identified and remediated early, thereby reducing the likelihood of damage or loss of original fabric and historic integrity.

5.3.2.2 Inappropriate Cleaning – High Risk

Cleaning the bridge is critical to its ongoing maintenance. However, if the cleaning is too abrasive, uses the wrong type of chemicals, or is carried out using the wrong equipment, the fabric of the bridge will be damaged, and this damage may be irreparable.

5.3.2.3 Inappropriate Repair – High Risk

Poorly specified or inappropriate repairs are as much, if not more, of a threat to heritage structures as a lack of maintenance. Remedial works are to be carried out in accordance with the policies and recommendations of this Conservation Management Plan. Like-for-like material replacement is desirable, and will require careful specification, detailing and construction monitoring.

5.3.3 Seismic Event – Moderate Risk

New Zealand is currently divided into three seismic risk zones - high, medium, and low. Ashburton is located in an area of medium seismic risk and is therefore considered to be at moderate risk of damage as a result of a seismic event.

No recent seismic assessment of the bridge has been completed.

5.3.4 Fire – Moderate Risk

Damage caused by fire is the greatest worldwide threat to heritage places. This is especially the case in New Zealand, where the majority of our historic buildings are partially or entirely constructed in timber. Fire may be caused by natural events, arson, electrical faults, repair works, accidents, or carelessness. The damage caused by fire can be substantial, resulting in partial or complete destruction. The ramps and the deck of the Wills Street rail footbridge are constructed from timber, and therefore the risk of the structure being fire damaged is moderate.

5.3.5 Financial – High Risk

Often in the case of heritage structures there is a lack of funds to carry out repairs and maintenance. In recognising the local, regional, and potentially national value of the Wills Street rail footbridge, ongoing financial support should be sought from available sources for upkeep of the place.

5.3.6 Use – Medium Risk

5.3.6.1 Current Use – Low Risk

The Wills Street rail footbridge currently publicly accessible and serves as an active infrastructure element. This exposes the fabric of the place to potential damage, including general wear-and-tear, accidental mechanical damage, or deliberate vandalism. However, these forms of damage can be managed with regular monitoring of the bridge, and enhanced monitoring during and after large events.

5.3.6.2 Change of Use – Medium Risk

The conservation of a place is generally facilitated by that place serving a useful purpose. Should the bridge be evaluated as no longer "fit for purpose", there is a risk that it will fall into disuse which will ultimately lead to deterioration and, likely, demolition of some elements within the place. This may be averted by a change of use; however, there is also a risk that this would have negative impacts on heritage values and would require careful consideration.

5.3.7 Vandalism – High Risk

As a well-used and publicly accessible structure, the Wills Street rail footbridge is a likely target for vandalism – already many examples of graffiti are evident on the structure. Installation of appropriate lighting and security cameras to deter would-be vandals is recommended.

5.3.8 Wildlife and Pests – Moderate Risk

The Wills Street rail footbridge is vulnerable to damage caused by wildlife, particularly by birds sitting atop the structure and leaving deposits on the fabric of the bridge. Regular removal of such deposits should be addressed as part of a maintenance plan for the place.

6 Conservation Policy

The following conservation policy statements have been developed for anticipated as well as unforeseen future works to the Wills Street rail footbridge. They should be considered particularly where physical change to the place is contemplated. Policies for the wider setting of the place have been identified below where relevant.

The statements below include general conservation best practice and are specific for implementation. The policy statements are written in italics, with supporting commentary, where deemed appropriate, below each statement.

Policy 1: Conservation Practice

All work carried out to the Wills Street rail footbridge and its wider setting shall be in accordance with the ICOMOS NZ Charter for the Conservation of Places of Cultural Heritage Value.

The ICOMOS NZ Charter has been developed based on internationally accepted conservation principles to guide communities, organisations and individuals in the conservation and management of cultural heritage places. It has been formally adopted by HNZPT, and also by the Department of Conservation. A copy of the Charter is provided in Appendix 1.

In addition, other established documents such as *The Illustrated Burra Charter: Good Practice for Heritage Places* (2004) may be considered.

Policy 2: Statutory Compliance

All work carried out to the Wills Street rail footbridge shall be in accordance with national and local legislation; in particular, the Heritage New Zealand Pouhere Taonga Act (2014) and the Ashburton District Plan.

The rail lines below the Wills Street rail footbridge can be dated back to pre-1900. Therefore, an Archaeological Authority from HNZPT will likely be required for any works to, or impacting on, the area generally, particularly where that work will involve breaking ground.

The Wills Street rail footbridge is scheduled as a Category A heritage item by the Ashburton District Council. Any development of the place must comply with the policies, objectives, and rules in Section 12.7 of the Ashburton District Plan.

Policy 3: Adoption and Review of this Conservation Management Plan

The cultural heritage significance of the Wills Street rail footbridge shall be retained. Conservation, as an essential component in safeguarding the value of the place, should be integrated into all management procedures concerning the place and its setting. Provision for a ten-yearly review of this Conservation Management Plan should be made.

This CMP should be adopted immediately.

Draft guidance from HNZPT recommends a ten-yearly review of Conservation Management Plans to evaluate their relevance, the implementation of recommendations, and the extent to which a place may have changed; and to update the legislative context, the conservation policies, and the recommendations where relevant.[37]

Generally, a review will build on the existing document and the records that have been kept; and will include a physical inspection as well as desktop assessment.

In addition to the ten-yearly review, the Conservation Management Plan will need to be reviewed whenever:

[37] *Maclean (2016) p32*

- a major change to the place, or its setting, is proposed;
- new information is discovered;
- the place is impacted by a natural disaster or damaging event;
- the plan has been prepared with a limited scope or specifically to address a certain situation due to limited resources

Policy 4: Values

All aspects of cultural heritage significance shall be considered without placing emphasis on any one value at the expense of others.

The Wills Street rail footbridge has high overall heritage value. This include architectural, contextual, and technological values that are tangible; and historic and cultural values that are intangible, and these must be considered equally when planning any intervention to the place or its setting.

Policy 5: Knowledge, Skills and Techniques

All aspects of conservation to the Wills Street rail footbridge shall be carried out by suitably trained and recognised people and make use of the specialised skills that can contribute to the study and care of a place. While traditional techniques and materials are preferred, modern techniques and materials that offer conservation benefits may be considered in accordance with other Conservation Policies.

All works to the Wills Street rail footbridge should be planned and specified on the advice or under the supervision of appropriately qualified conservation architects, landscape architects, engineers specialising in historic buildings and structures, and/or other conservation professionals; and carried out by appropriately experienced tradespeople.

While traditional techniques and materials are preferred, modern techniques and materials that offer conservation benefits may be considered.

Policy 6: Research & Documentation

Planning for any work to the Wills Street rail footbridge will be based on adequate and reliable information being obtained and critically analysed. All findings of research, physical investigations and assessment shall be recorded and appropriately archived. All new work relating to the structure and its setting shall be appropriately documented, and these documents added to the archive as and when work is carried out. Records shall be kept and made accessible to statutory stakeholders.

Sourcing and storing information gathered about the Wills Street rail footbridge through documentary research, and physical investigation, including site-based assessments and materials testing, is vital to planning for future conservation of the place and its setting.

A record of all works carried out on or in relation to the place and surrounding area should be maintained. This should include records of research, photographs, test results, reports, drawings, specifications, and details of any maintenance work.

Prior to undertaking any intervention, the areas that will be affected should be recorded to the greatest possible extent by way of photographs and measured survey drawings. Once these are complete, any interventions proposed in accordance with Policy 8 below should be documented with drawings and written specifications as appropriate, and a heritage effects assessment prepared. Material samples may be taken and analysed, and the results recorded. Physical works carried out should then be fully documented by way of photographs and written records in accordance with HNZPTs ASG1 (2018) at a minimum. Any changes to the proposed repair methodology should be recorded in writing and on drawings throughout the process. Once complete, as built drawings and an amended as built specification should be prepared. All of the above information should be compiled into a single report and stored, along with high definition

digital copies of the photographs, in at least two different archives; for example, HNZPT and CCC archives. The information should remain accessible to anyone who will be carrying out ongoing maintenance of the place in the future.

Maintenance records should be kept and added to the archived information regularly.

Policy 7: Setting

The setting of the Wills Street rail footbridge is integral to the heritage significance of the items and should therefore be conserved. Site conditions that threaten the place should be addressed with the appropriate level of urgency. There is a need to protect the setting from potential loss of integrity and definition. In particular there is a need to recognise the tangata whenua heritage of the place as a significant part of the setting.

The Wills Street rail footbridge should not be considered in isolation but relative to its relationship with the 1874 rail lines that the structure spans and the plantings to either side of the rail reserve which were established in 1910. Every effort must be made to ensure the setting is a compatible one. Any adjacent land use or development must complement and respect the footbridge and its setting in terms of design, proportions, scale, and materials and must not undermine its integrity or setting, or negatively affect the heritage significance and acquired aesthetic qualities.

Policy 8: Physical Intervention into Built Fabric

Planning for any and all interventions impacting on the built fabric of the Wills Street rail footbridge will focus on effective treatment or repair as this will prevent the unnecessary destruction of fabric that contributes to the significance of the place.

It is acknowledged that, as long as the footbridge continues to be publicly accessible, physical interventions into built fabric must also take account of material performance, resilience, and safety requirements. This policy is intended to ensure that the starting principle for all works will be to disturb or remove as little as possible, even if it may subsequently be established that compromises are required in order to maintain utility and protect life safety.

With a place of significant cultural heritage value, such as the Wills Street rail footbridge, the objective should always be to do the minimum necessary for treatment and repair to existing fabric as this will prevent the unnecessary destruction of fabric that contributes to the place's significance. Equally, items which are intrusive to the place, and detract from its established heritage values, should be removed accordingly. All intervention should be informed by the significance of the fabric as assessed in Sections 4.4.3.

Policy 8A: Repair

Repair means to make good decayed or damaged fabric. Repair works to built fabric of the Wills Street rail footbridge shall utilise materials that are the same as, or similar to, the original fabric. Alternative materials may be considered only where they are compatible with existing materials, will not compromise the heritage value of the place, and can be shown to improve overall stability or life expectancy. Records of repair works shall be kept. Repair works should be undertaken as soon as is practicable in order to avoid further damage to the fabric.

"Repair" refers to activities that will strengthen existing structure fabric that is currently in place and is salvageable or requires minor alterations in order to maintain stability. Care should be taken to repair buildings or structures with materials that are the same as the original, provided that these are not causing or accelerating deterioration.

All work should be recorded in accordance with Policy 6 and carried out under the advice of, and by, appropriately experienced professionals in accordance with Policy 5.

Policy 8B: Reinstatement

Reinstatement means to put existing but disarticulated components of a place back together and into their former position. Reinstatement works to fabric of the Wills Street rail footbridge shall be carried out only if the heritage value of the place is recovered or revealed by the process. All reassembly and reinstatement shall be carried out by appropriately experienced professionals. Records of reinstatement shall be kept.

Any subsequent future reinstatement or reassembly – for example, if dislocated materials are salvaged following a natural disaster - should be carried out in accordance with this Policy.

All work should be recorded in accordance with Policy 6 and carried out under the advice of, and by, appropriately experienced professionals in accordance with Policy 5.

Policy 8C: Reconstruction and Replacement

Reconstruction is distinguished from repair and reinstatement by the introduction of new materials. Periodic reconstruction or replacement of built fabric to the Wills Street rail footbridge is a necessary part of retaining its function as an actively used footbridge. Where the fabric contributes to the heritage significance of the place, reconstruction or replacement in like-for-like materials is preferable.

All reconstruction and replacement works should be designed and undertaken in such a way as to avoid damaging, distorting, or obscuring significant historic fabric that remains intact.

A method of identifying introduced materials should be established. For example, this may be done by inscribing any new materials used with the date of their installation. Any inscriptions should be carefully considered and discreet, yet easily located.

Policy 8D: Removal or Demolition

Intentional removal or demolition of built fabric that contributes to the heritage significance of the Wills Street rail footbridge is unacceptable.

It is acceptable to remove fabric that does not contribute to the heritage significance of the place; however, this should only be undertaken on the advice of appropriately experienced professionals in accordance with Policy 5.

Policy 9: Decay or Deterioration

Causes of decay or deterioration shall be assessed, monitored, and recorded prior to undertaking work designed to stop their effects and inhibit their recurrence.

This policy refers to decay and deterioration that is either natural or man-made, immediate, and obvious, or protracted and obscured. Assessing, monitoring, recording, and addressing decay or deterioration in the physical fabric of the Wills Street rail footbridge can be incorporated into regular maintenance (refer Policy 12).

Policy 10: Damage

Damage to fabric of the Wills Street rail footbridge may occur as a result of natural disasters including flooding, storms, and earthquakes. Any damage that occurs needs to be addressed promptly so as to avoid any associated health and safety issues or ongoing deterioration. This may be by way of repair or temporary stabilisation. Temporary stabilisation must not cause further damage to the fabric of the structure, or negatively impact on its heritage values. Damage shall be addressed in accordance with Policy 8.

Where damage is severe, temporary stabilisation should be implemented until like-for-like replacement can be carried out. Alternatives to like-for-like replacement may be considered only

if like-for-like replacement is demonstrably prohibitive to restoring what remains of the building or structure (in accordance with Policy 8).

All work should be recorded in accordance with Policy 6 and carried out under the advice of, and by, appropriately experienced professionals in accordance with Policy 5.

Policy 11: Current and Future Use

The Wills Street rail footbridge should be kept in its current use as an actively used footbridge, as this is critical to its heritage significance.

The Wills Street rail footbridge has continuously served the Ashburton community as an active rail crossing for more than a century, and this contributes to both the tangible and intangible values of the place. The deteriorating condition of some elements of the footbridge means that interventions may be necessary to ensure that it can remain in safe use. Further interventions may be required in future to allow the place to continue this historic use and/or to ensure that there is no risk of future disuse and associated deterioration. Such interventions should always be carried out in accordance with the other Policies of this Plan, particularly Policy 8.

It has been discussed that some form of lighting be introduced to the bridge. This would allow the bridge to continue to function as an active pedestrian link in a safer manner than its current use where the bridge is not illuminated in hours of darkness and is therefore supported. The installation of lighting should follow the Policies established in this plan, particularly Policy 15.

Policy 12: Maintenance of Built Heritage Fabric

Maintenance is fundamental to conservation and is necessary to retain cultural heritage significance. A maintenance plan for the Wills Street rail footbridge should be prepared to accepted conservation building industry and property management standards. The work specified may be funded in annual business plans to avoid accruing deferred maintenance. All maintenance inspections should involve, or be reviewed by, an appropriately qualified heritage professional.

Maintenance is an important process in the conservation of heritage items. A cyclical maintenance programme for the Wills Street rail footbridge should include actions which effectively maintain the existing built heritage fabric of the place. Inspections should be carried out by a suitably qualified maintenance contractor.

Regular inspections will reveal the need for any catch-up maintenance. Such inspections should include a checklist of issues that impact on heritage fabric. Cyclical and catch-up maintenance should be closely coordinated with the Policies of this Plan. Guidelines should be updated regularly, particularly as philosophy and technology changes.

All work should be carried out in accordance with the Policies of this Plan.

The Maintenance Plan for the Wills Street rail footbridge is attached in Appendix 2.

Policy 13: Disaster Management

A Disaster Management Plan for the Wills Street rail footbridge should be prepared, maintained, and managed to ensure the safety of all those present on site in the event of an emergency. This plan should also offer procedures for minimising damage to the fabric of the footbridge.

The Disaster Management Plan should address all types of natural and anthropogenic disaster including severe weather events, earthquake, and fire. It should be prepared in accordance with international best practice, including the World Heritage Centre of UNESCO, ICCROM, ICOMOS, IUCN publication *Managing Disaster Risks for World Heritage* (2010), the ICCROM publication *A*

Guide to Risk Management of Cultural Heritage (2016), and the UNESCO-PRAXIS report on *Heritage, Disaster Response and Resilience* (2021).

Policy 14: Interpretation

Interpretation actively enhances public understanding of places of cultural heritage value and their conservation. Acceptable types and positioning of interpretive material around the Wills Street rail footbridge should be determined. This should be carried out in consultation with, and provide for, people for whom the place and its setting have special associations and meanings. It is important that interpretive devices are designed to maximise the quality of visitor understanding while encouraging respect for the place.

The addition of new interpretive material within, or to an area in the immediate vicinity of the Wills Street rail footbridge might enhance public understanding of the significance of the place. The introduction of any addition of interpretive material must not detract from the heritage values of the place. This could include acknowledgement of items which have been lost or recovered in the history of the place.

Policy 15: Introduction of New Fabric

The introduction of new fabric to the Wills Street rail footbridge should respect existing fabric. New fabric should not detract or obscure existing heritage fabric and should positively contribute to the place as a whole.

As described in Policy 11, the Wills Street rail footbridge should be kept in its current use as an actively used pedestrian footbridge, as this is critical to its heritage significance. To allow this, the introduction of new fabric such as deck surfaces, lighting, and code-compliant handrails, may be required.

Policy 16: Demolition

Intentional demolition of the Wills Street rail footbridge, in whole or in part, is unacceptable.

Demolition of the Wills Street rail footbridge should not be permitted as it will result in the destruction of the heritage significances associated with the fabric of the structure, as well as being detrimental to the cultural heritage significances of the setting and a tangible loss to the wider area.

Policy 17: Relocation

Relocation of the Wills Street rail footbridge is unacceptable except if it is in imminent danger of significant damage or destruction, and only where all other means of retaining the structure in its current location have been exhausted.

Bibliography and References

Bowron, G. and Harris, J. (1994) *Guidelines for the Preparation of Conservation Plans.* Wellington: New Zealand Historic Places Trust

Clark, K. (ed) (1999) *Conservation Plans in Action: Proceedings of the Oxford Conference.* London: English Heritage

Hayward, J. (2012) *Principles of the Treaty of Waitangi – Ngā Mātāpono o te Tiriti*, Te Ara - the Encyclopedia of New Zealand

Heritage New Zealand Pouhere Taonga (2007a) *Sustainable Management of Historic Heritage Guidance Series, Guide No.4: Preparing a Heritage Impact Assessment*

Heritage New Zealand Pouhere Taonga (2007b) *Sustainable Management of Historic Heritage Guidance Series, Information Sheet 2: Assessment Criteria to Assist in the Identification of Historic Heritage Values*

Heritage New Zealand Pouhere Taonga (2007c) *Sustainable Management of Historic Heritage Guidance Series, Information Sheet 12: Alterations and Additions to Historic Buildings*

ICCROM (2016) *A Guide to Risk Management of Cultural Heritage*. URL: https://www.iccrom.org/publication/guide-risk-management

ICOMOS New Zealand (2010) *ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value, Revised 2010.*

Kerr, J. S. (2013) *The Conservation Plan – A Guide to the Preparation of Conservation Plans for Places of European Significance (7th Edition).* Sydney: National Trust

Marquis-Kyle, P. and Walker, M. (2004) *The Illustrated Burra Charter: Good Practice for Heritage Places.* Burwood: Australia ICOMOS Inc.

McCraig, I. and Ridout, B. (2012) *Practical Building Conservation*, Historic England

Thornton, Geoffrey G. Thornton (2001) *Bridging the Gap: Early Bridges in New Zealand*

UNESCO-PRAXIS (2021) *Heritage, Disaster Response and Resilience*. URL: https://reliefweb.int/report/world/heritage-disaster-response-and-resilience

Unpublished Documents

Maclean, C (2016) *Guidance for Preparing Conservation Plans.* Unpublished Draft for Comment, Heritage New Zealand Pouhere Taonga

General Resources

ArchSite

BRANZ

Christchurch City Council

Ashburton District Plan

Digital NZ

Google Earth

Heritage New Zealand Pouhere Taonga (HNZPT)

Kā Huru Manu (Ngāi Tahu Atlas)

QuickMaps

Ministry for Culture and Heritage

NZ History

NZ Places

Papers Past

Te Ara Encyclopaedia

Appendix 1
ICOMOS NZ Charter

ICOMOS New Zealand Charter

for the Conservation of Places of Cultural Heritage Value

Revised 2010

Preamble

New Zealand retains a unique assemblage of **places** of **cultural heritage value** relating to its indigenous and more recent peoples. These areas, **cultural landscapes** and features, buildings and **structures**, gardens, archaeological sites, traditional sites, monuments, and sacred **places** are treasures of distinctive value that have accrued meanings over time. New Zealand shares a general responsibility with the rest of humanity to safeguard its cultural heritage **places** for present and future generations. More specifically, the people of New Zealand have particular ways of perceiving, relating to, and conserving their cultural heritage **places**.

Following the spirit of the International Charter for the Conservation and Restoration of Monuments and Sites (the Venice Charter - 1964), this charter sets out principles to guide the **conservation** of **places** of **cultural heritage value** in New Zealand. It is a statement of professional principles for members of ICOMOS New Zealand.

This charter is also intended to guide all those involved in the various aspects of **conservation** work, including owners, guardians, managers, developers, planners, architects, engineers, craftspeople and those in the construction trades, heritage practitioners and advisors, and local and central government authorities. It offers guidance for communities, organisations, and individuals involved with the **conservation** and management of cultural heritage **places**.

This charter should be made an integral part of statutory or regulatory heritage management policies or plans, and should provide support for decision makers in statutory or regulatory processes.

Each article of this charter must be read in the light of all the others. Words in bold in the text are defined in the definitions section of this charter.

This revised charter was adopted by the New Zealand National Committee of the International Council on Monuments and Sites at its meeting on 4 September 2010.

Purpose of conservation

1. The purpose of conservation

The purpose of **conservation** is to care for **places** of **cultural heritage value**.

In general, such **places**:

(i) have lasting values and can be appreciated in their own right;
(ii) inform us about the past and the cultures of those who came before us;
(iii) provide tangible evidence of the continuity between past, present, and future;
(iv) underpin and reinforce community identity and relationships to ancestors and the land; and
(v) provide a measure against which the achievements of the present can be compared.

It is the purpose of **conservation** to retain and reveal such values, and to support the ongoing meanings and functions of **places** of **cultural heritage value,** in the interests of present and future generations.

Conservation principles

2. Understanding cultural heritage value

Conservation of a **place** should be based on an understanding and appreciation of all aspects of its **cultural heritage value**, both **tangible** and **intangible**. All available forms of knowledge and evidence provide the means of understanding a **place** and its **cultural heritage value** and cultural **heritage significance**. **Cultural heritage value** should be understood through consultation with **connected people**, systematic documentary and oral research, physical investigation and **recording** of the **place**, and other relevant methods.

All relevant **cultural heritage values** should be recognised, respected, and, where appropriate, revealed, including values which differ, conflict, or compete.

The policy for managing all aspects of a **place**, including its **conservation** and its **use**, and the implementation of the policy, must be based on an understanding of its **cultural heritage value**.

3. Indigenous cultural heritage

The indigenous cultural heritage of **tangata whenua** relates to **whanau**, **hapu**, and **iwi** groups. It shapes identity and enhances well-being, and it has particular cultural meanings and values for the present, and associations with those who have gone before. Indigenous cultural heritage brings with it responsibilities of guardianship and the practical application and passing on of associated knowledge, traditional skills, and practices.

The Treaty of Waitangi is the founding document of our nation. Article 2 of the Treaty recognises and guarantees the protection of **tino rangatiratanga**, and so empowers **kaitiakitanga** as customary trusteeship to be exercised by **tangata whenua**. This customary trusteeship is exercised over their **taonga**, such as sacred and traditional **places**, built heritage, traditional practices, and other cultural heritage resources. This obligation extends beyond current legal ownership wherever such cultural heritage exists.

Particular **matauranga**, or knowledge of cultural heritage meaning, value, and practice, is associated with **places**. **Matauranga** is sustained and transmitted through oral, written, and physical forms determined by **tangata whenua**. The **conservation** of such **places** is therefore conditional on decisions made in associated **tangata whenua** communities, and should proceed only in this context. In particular, protocols of access, authority, ritual, and practice are determined at a local level and should be respected.

4. Planning for conservation

Conservation should be subject to prior documented assessment and planning.

All **conservation** work should be based on a **conservation plan** which identifies the **cultural heritage value** and **cultural heritage significance** of the **place**, the **conservation** policies, and the extent of the recommended works.

The **conservation plan** should give the highest priority to the **authenticity** and **integrity** of the **place**.

Other guiding documents such as, but not limited to, management plans, cyclical **maintenance** plans, specifications for **conservation** work, interpretation plans, risk mitigation plans, or emergency plans should be guided by a **conservation plan**.

5. Respect for surviving evidence and knowledge

Conservation maintains and reveals the **authenticity** and **integrity** of a **place**, and involves the least possible loss of **fabric** or evidence of **cultural heritage value**. Respect for all forms of knowledge and existing evidence, of both **tangible** and **intangible values,** is essential to the **authenticity** and **integrity** of the **place**.

Conservation recognises the evidence of time and the contributions of all periods. The **conservation** of a **place** should identify and respect all aspects of its **cultural heritage value** without unwarranted emphasis on any one value at the expense of others.

The removal or obscuring of any physical evidence of any period or activity should be minimised, and should be explicitly justified where it does occur. The **fabric** of a particular period or activity may be obscured or removed if assessment shows that its removal would not diminish the **cultural heritage value** of the **place.**

In **conservation**, evidence of the functions and intangible meanings of **places** of **cultural heritage value** should be respected.

6. Minimum intervention

Work undertaken at a **place** of **cultural heritage value** should involve the least degree of **intervention** consistent with **conservation** and the principles of this charter.

Intervention should be the minimum necessary to ensure the retention of **tangible** and **intangible values** and the continuation of **uses** integral to those values. The removal of **fabric** or the alteration of features and spaces that have **cultural heritage value** should be avoided.

7. Physical investigation

Physical investigation of a **place** provides primary evidence that cannot be gained from any other source. Physical investigation should be carried out according to currently accepted professional standards, and should be documented through systematic **recording**.

Invasive investigation of **fabric** of any period should be carried out only where knowledge may be significantly extended, or where it is necessary to establish the existence of **fabric** of **cultural heritage value**, or where it is necessary for **conservation** work, or where such **fabric** is about to be damaged or destroyed or made inaccessible. The extent of invasive investigation should minimise the disturbance of significant **fabric**.

8. Use

The **conservation** of a **place** of **cultural heritage value** is usually facilitated by the **place** serving a useful purpose.

Where the **use** of a **place** is integral to its **cultural heritage value**, that **use** should be retained.

Where a change of **use** is proposed, the new **use** should be compatible with the **cultural heritage value** of the **place**, and should have little or no adverse effect on the **cultural heritage value**.

9. Setting

Where the **setting** of a **place** is integral to its **cultural heritage value**, that **setting** should be conserved with the **place** itself. If the **setting** no longer contributes to the **cultural heritage value** of the **place**, and if **reconstruction** of the **setting** can be justified, any **reconstruction** of the **setting** should be based on an understanding of all aspects of the **cultural heritage value** of the **place**.

10. Relocation

The on-going association of a **structure** or feature of **cultural heritage value** with its location, site, curtilage, and **setting** is essential to its **authenticity** and **integrity**. Therefore, a **structure** or feature of **cultural heritage value** should remain on its original site.

Relocation of a **structure** or feature of **cultural heritage value**, where its removal is required in order to clear its site for a different purpose or construction, or where its removal is required to enable its **use** on a different site, is not a desirable outcome and is not a **conservation** process.

In exceptional circumstances, a **structure** of **cultural heritage value** may be relocated if its current site is in imminent danger, and if all other means of retaining the **structure** in its current location have been exhausted. In this event, the new location should provide a **setting** compatible with the **cultural heritage value** of the **structure**.

11. Documentation and archiving

The **cultural heritage value** and **cultural heritage significance** of a **place**, and all aspects of its **conservation**, should be fully documented to ensure that this information is available to present and future generations.

Documentation includes information about all changes to the **place** and any decisions made during the **conservation** process.

Documentation should be carried out to archival standards to maximise the longevity of the record, and should be placed in an appropriate archival repository.

Documentation should be made available to **connected people** and other interested parties. Where reasons for confidentiality exist, such as security, privacy, or cultural appropriateness, some information may not always be publicly accessible.

12. Recording

Evidence provided by the **fabric** of a **place** should be identified and understood through systematic research, **recording**, and analysis.

Recording is an essential part of the physical investigation of a **place**. It informs and guides the **conservation** process and its planning. Systematic **recording** should occur prior to, during, and following any **intervention**. It should include the **recording** of new evidence revealed, and any **fabric** obscured or removed.

Recording of the changes to a **place** should continue throughout its life.

13. Fixtures, fittings, and contents

Fixtures, fittings, and **contents** that are integral to the **cultural heritage value** of a **place** should be retained and conserved with the **place**. Such fixtures, fittings, and **contents** may include carving, painting, weaving, stained glass, wallpaper, surface decoration, works of art, equipment and machinery, furniture, and personal belongings.

Conservation of any such material should involve specialist **conservation** expertise appropriate to the material. Where it is necessary to remove any such material, it should be recorded, retained, and protected, until such time as it can be reinstated**.**

Conservation processes and practice

14. Conservation plans

A **conservation plan**, based on the principles of this charter, should:

(i) be based on a comprehensive understanding of the **cultural heritage value** of the **place** and assessment of its **cultural heritage significance**;

(ii) include an assessment of the **fabric** of the **place**, and its condition;

(iii) give the highest priority to the **authenticity** and **integrity** of the **place**;

(iv) include the entirety of the **place**, including the **setting**;

(v) be prepared by objective professionals in appropriate disciplines;

(vi) consider the needs, abilities, and resources of **connected people**;

(vii) not be influenced by prior expectations of change or development;

(viii) specify **conservation** policies to guide decision making and to guide any work to be undertaken;

(ix) make recommendations for the **conservation** of the **place;** and

(x) be regularly revised and kept up to date.

15. Conservation projects

Conservation projects should include the following:

(i) consultation with interested parties and **connected people**, continuing throughout the project;

(ii) opportunities for interested parties and **connected people** to contribute to and participate in the project;

(iii) research into documentary and oral history, using all relevant sources and repositories of knowledge;

(iv) physical investigation of the **place** as appropriate;

(v) use of all appropriate methods of **recording**, such as written, drawn, and photographic;

(vi) the preparation of a **conservation plan** which meets the principles of this charter;

(vii) guidance on appropriate **use** of the **place**;

(viii) the implementation of any planned **conservation** work;

(ix) the **documentation** of the **conservation** work as it proceeds; and

(x) where appropriate, the deposit of all records in an archival repository.

A **conservation** project must not be commenced until any required statutory authorisation has been granted.

16. Professional, trade, and craft skills

All aspects of **conservation** work should be planned, directed, supervised, and undertaken by people with appropriate **conservation** training and experience directly relevant to the project.

All **conservation** disciplines, arts, crafts, trades, and traditional skills and practices that are relevant to the project should be applied and promoted.

17. Degrees of intervention for conservation purposes

Following research, **recording**, assessment, and planning, **intervention** for **conservation** purposes may include, in increasing degrees of **intervention**:

(i) **preservation**, through **stabilisation, maintenance**, or **repair**;
(ii) **restoration**, through **reassembly**, **reinstatement**, or removal;
(iii) **reconstruction**; and
(iv) **adaptation**.

In many **conservation** projects a range of processes may be utilised. Where appropriate, **conservation** processes may be applied to individual parts or components of a **place** of **cultural heritage value**.

The extent of any **intervention** for **conservation** purposes should be guided by the **cultural heritage value** of a **place** and the policies for its management as identified in a **conservation plan**. Any **intervention** which would reduce or compromise **cultural heritage value** is undesirable and should not occur.

Preference should be given to the least degree of **intervention**, consistent with this charter.

Re-creation, meaning the conjectural **reconstruction** of a **structure** or **place**; replication, meaning to make a copy of an existing or former **structure** or **place**; or the construction of generalised representations of typical features or **structures**, are not **conservation** processes and are outside the scope of this charter.

18. Preservation

Preservation of a **place** involves as little **intervention** as possible, to ensure its long-term survival and the continuation of its **cultural heritage value**.

Preservation processes should not obscure or remove the patina of age, particularly where it contributes to the **authenticity** and **integrity** of the **place,** or where it contributes to the structural stability of materials.

i. Stabilisation

Processes of decay should be slowed by providing treatment or support.

ii. Maintenance

A **place** of **cultural heritage value** should be maintained regularly. **Maintenance** should be carried out according to a plan or work programme.

iii. Repair

Repair of a **place** of **cultural heritage value** should utilise matching or similar materials. Where it is necessary to employ new materials, they should be distinguishable by experts, and should be documented.

Traditional methods and materials should be given preference in **conservation** work.

Repair of a technically higher standard than that achieved with the existing materials or construction practices may be justified only where the stability or life expectancy of the site or material is increased, where the new material is compatible with the old, and where the **cultural heritage value** is not diminished.

19. Restoration

The process of **restoration** typically involves **reassembly** and **reinstatement,** and may involve the removal of accretions that detract from the **cultural heritage value** of a **place**.

Restoration is based on respect for existing **fabric,** and on the identification and analysis of all available evidence, so that the **cultural heritage value** of a **place** is recovered or revealed. **Restoration** should be carried out only if the **cultural heritage value** of the **place** is recovered or revealed by the process.

Restoration does not involve conjecture.

i. Reassembly and reinstatement

Reassembly uses existing material and, through the process of **reinstatement**, returns it to its former position. **Reassembly** is more likely to involve work on part of a **place** rather than the whole **place**.

ii. Removal

Occasionally, existing **fabric** may need to be permanently removed from a **place**. This may be for reasons of advanced decay, or loss of structural **integrity**, or because particular **fabric** has been identified in a **conservation plan** as detracting from the **cultural heritage value** of the **place**.

The **fabric** removed should be systematically **recorded** before and during its removal. In some cases it may be appropriate to store, on a long-term basis, material of evidential value that has been removed.

20. Reconstruction

Reconstruction is distinguished from **restoration** by the introduction of new material to replace material that has been lost.

Reconstruction is appropriate if it is essential to the function, **integrity**, **intangible value**, or understanding of a **place**, if sufficient physical and documentary evidence exists to minimise conjecture, and if surviving **cultural heritage value** is preserved.

Reconstructed elements should not usually constitute the majority of a **place** or **structure**.

21. Adaptation

The **conservation** of a **place** of **cultural heritage value** is usually facilitated by the **place** serving a useful purpose. Proposals for **adaptation** of a **place** may arise from maintaining its continuing **use**, or from a proposed change of **use**.

Alterations and additions may be acceptable where they are necessary for a **compatible use** of the **place**. Any change should be the minimum necessary, should be substantially reversible, and should have little or no adverse effect on the **cultural heritage value** of the **place**.

Any alterations or additions should be compatible with the original form and **fabric** of the **place,** and should avoid inappropriate or incompatible contrasts of form, scale, mass, colour, and material. **Adaptation** should not dominate or substantially obscure the original form and **fabric**, and should not adversely affect the **setting** of a **place** of **cultural heritage value**. New work should complement the original form and **fabric**.

22. Non-intervention

In some circumstances, assessment of the **cultural heritage value** of a **place** may show that it is not desirable to undertake any **conservation intervention** at that time. This approach may be appropriate where undisturbed constancy of **intangible values,** such as the spiritual associations of a sacred **place,** may be more important than its physical attributes.

23. Interpretation

Interpretation actively enhances public understanding of all aspects of **places** of **cultural heritage value** and their **conservation**. Relevant cultural protocols are integral to that understanding, and should be identified and observed.

Where appropriate, interpretation should assist the understanding of **tangible** and **intangible values** of a **place** which may not be readily perceived, such as the sequence of construction and change, and the meanings and associations of the **place** for **connected people**.

Any interpretation should respect the **cultural heritage value** of a **place**. Interpretation methods should be appropriate to the **place**. Physical **interventions** for interpretation purposes should not detract from the experience of the **place,** and should not have an adverse effect on its **tangible** or **intangible values**.

24. Risk mitigation

Places of **cultural heritage value** may be vulnerable to natural disasters such as flood, storm, or earthquake; or to humanly induced threats and risks such as those arising from earthworks, subdivision and development, buildings works, or wilful damage or neglect. In order to safeguard **cultural heritage value**, planning for risk mitigation and emergency management is necessary.

Potential risks to any **place** of **cultural heritage value** should be assessed. Where appropriate, a risk mitigation plan, an emergency plan, and/or a protection plan should be prepared, and implemented as far as possible, with reference to a conservation plan.

Definitions

For the purposes of this charter:

Adaptation means the process(es) of modifying a **place** for a **compatible use** while retaining its **cultural heritage value. Adaptation** processes include alteration and addition.

Authenticity means the credibility or truthfulness of the surviving evidence and knowledge of the **cultural heritage value** of a **place.** Relevant evidence includes form and design, substance and **fabric**, technology and craftsmanship, location and surroundings, context and **setting**, **use** and function, traditions, spiritual essence, and sense of place, and includes **tangible** and **intangible values.** Assessment of **authenticity** is based on identification and analysis of relevant evidence and knowledge, and respect for its cultural context.

Compatible use means a **use** which is consistent with the **cultural heritage value** of a **place,** and which has little or no adverse impact on its **authenticity** and **integrity.**

Connected people means any groups, organisations, or individuals having a sense of association with or responsibility for a **place** of **cultural heritage value.**

Conservation means all the processes of understanding and caring for a **place** so as to safeguard its **cultural heritage value**. **Conservation** is based on respect for the existing **fabric**, associations, meanings, and **use** of the **place**. It requires a cautious approach of doing as much work as necessary but as little as possible, and retaining **authenticity** and **integrity**, to ensure that the **place** and its values are passed on to future generations.

Conservation plan means an objective report which documents the history, **fabric,** and **cultural heritage value** of a **place**, assesses its **cultural heritage significance,** describes the condition of the **place**, outlines **conservation** policies for managing the **place**, and makes recommendations for the **conservation** of the **place**.

Contents means moveable objects, collections, chattels, documents, works of art, and ephemera that are not fixed or fitted to a **place,** and which have been assessed as being integral to its **cultural heritage value**.

Cultural heritage significance means the **cultural heritage value** of a **place** relative to other similar or comparable **places**, recognising the particular cultural context of the **place**.

Cultural heritage value/s means possessing aesthetic, archaeological, architectural, commemorative, functional, historical, landscape, monumental, scientific, social, spiritual, symbolic, technological, traditional, or other **tangible** or **intangible values,** associated with human activity.

Cultural landscapes means an area possessing **cultural heritage value** arising from the relationships between people and the environment. **Cultural landscapes** may have been designed, such as gardens, or may have evolved from human settlement and land use over time, resulting in a diversity of distinctive landscapes in different areas. Associative **cultural landscapes**, such as sacred mountains, may lack **tangible** cultural elements but may have strong **intangible** cultural or spiritual associations.

Documentation means collecting, **recording**, keeping, and managing information about a **place** and its **cultural heritage value**, including information about its history, **fabric,** and meaning; information about decisions taken; and information about physical changes and **interventions** made to the **place**.

Fabric means all the physical material of a **place**, including subsurface material, **structures**, and interior and exterior surfaces including the patina of age; and including fixtures and fittings, and gardens and plantings.

Hapu means a section of a large tribe of the **tangata whenua**.

Intangible value means the abstract **cultural heritage value** of the meanings or associations of a **place**, including commemorative, historical, social, spiritual, symbolic, or traditional values.

Integrity means the wholeness or intactness of a **place**, including its meaning and sense of **place**, and all the **tangible** and **intangible** attributes and elements necessary to express its **cultural heritage value**.

Intervention means any activity that causes disturbance of or alteration to a **place** or its **fabric**. **Intervention** includes archaeological excavation, invasive investigation of built **structures,** and any **intervention** for **conservation** purposes.

Iwi means a tribe of the **tangata whenua**.

Kaitiakitanga means the duty of customary trusteeship, stewardship, guardianship, and protection of land, resources, or **taonga.**

Maintenance means regular and on-going protective care of a **place** to prevent deterioration and to retain its **cultural heritage value**.

Matauranga means traditional or cultural knowledge of the **tangata whenua**.

Non-intervention means to choose not to undertake any activity that causes disturbance of or alteration to a **place** or its **fabric**.

Place means any land having **cultural heritage value** in New Zealand, including areas; **cultural landscapes**; buildings, **structures,** and monuments; groups of buildings, **structures,** or monuments; gardens and plantings; archaeological sites and features; traditional sites; sacred **places**; townscapes and streetscapes; and settlements. **Place** may also include land covered by water, and any body of water. **Place** includes the **setting** of any such **place**.

Preservation means to maintain a **place** with as little change as possible.

Reassembly means to put existing but disarticulated parts of a **structure** back together.

Reconstruction means to build again as closely as possible to a documented earlier form, using new materials.

Recording means the process of capturing information and creating an archival record of the **fabric** and **setting** of a **place**, including its configuration, condition, **use**, and change over time.

Reinstatement means to put material components of a **place**, including the products of **reassembly**, back in position.

Repair means to make good decayed or damaged **fabric** using identical, closely similar, or otherwise appropriate material.

Restoration means to return a **place** to a known earlier form, by **reassembly** and **reinstatement**, and/or by removal of elements that detract from its **cultural heritage value**.

Setting means the area around and/or adjacent to a **place** of **cultural heritage value** that is integral to its function, meaning, and relationships. **Setting** includes the **structures**, outbuildings, features, gardens, curtilage, airspace, and accessways forming the spatial context of the **place** or used

in association with the **place**. **Setting** also includes **cultural landscapes**, townscapes, and streetscapes; perspectives, views, and viewshafts to and from a **place**; and relationships with other **places** which contribute to the **cultural heritage value** of the **place**. **Setting** may extend beyond the area defined by legal title, and may include a buffer zone necessary for the long-term protection of the **cultural heritage value** of the **place**.

Stabilisation means the arrest or slowing of the processes of decay.

Structure means any building, standing remains, equipment, device, or other facility made by people and which is fixed to the land.

Tangata whenua means generally the original indigenous inhabitants of the land; and means specifically the people exercising **kaitiakitanga** over particular land, resources, or **taonga**.

Tangible value means the physically observable **cultural heritage value** of a **place**, including archaeological, architectural, landscape, monumental, scientific, or technological values.

Taonga means anything highly prized for its cultural, economic, historical, spiritual, or traditional value, including land and natural and cultural resources.

Tino rangatiratanga means the exercise of full chieftainship, authority, and responsibility.

Use means the functions of a **place**, and the activities and practices that may occur at the **place**. The functions, activities, and practices may in themselves be of **cultural heritage value**.

Whanau means an extended family which is part of a **hapu** or **iwi**.

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This revised text replaces the 1993 and 1995 versions and should be referenced as the *ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value* (ICOMOS New Zealand Charter 2010).

This revision incorporates changes in conservation philosophy and best practice since 1993 and is the only version of the ICOMOS New Zealand Charter approved by ICOMOS New Zealand (Inc.) for use.

Copies of this charter may be obtained from
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Appendix 2
Maintenance Plan

Wills Street Rail Footbridge: Outline Maintenance Plan

Task	Recommended Immediate Works	Urgency	Recommended Regular Maintenance Works	Frequency
Cast Iron Span and Ferrous Elements				
Treating Corrosion	Considering the wide-spread nature of the corrosion to the cast-iron span due to deferred maintenance, it is recommended that the cast iron trusses be disassembled, the parts carefully labelled for reinstatement, and transported off-site to a secure location for corrosion treatment by specialist metal conservators. The area for storage must be dry, and the components must not be stacked to avoid bending of elements under pressure. Other ferrous elements may be treated insitu if it is too difficult to remove them, particularly the structural supports. Appropriate environmental protection must be put in place for any materials treated in situ. Tests should be conducted on the existing paint system to the cast-iron. If the tests show that the existing paint system can be painted over (where it is well adhered), the surface should be cleaned (see below) and areas of corrosion removed, before being repainted in an appropriate coating (ideally a three-layer system using polyurethane paint) and colour. Where corrosion is severe, it may be necessary to fill or piece-in new iron. If the tests indicate that the existing coating cannot be painted over then the cast-iron should be stripped (to British Standard BS EN	High	A 2 yearly inspection of the structure should be conducted to identify any areas of corrosion. Should corrosion be identified, specialised metals conservators should be engaged to treat the area in-situ. The cast-iron should be repainted regularly to ensure the protective coating does not allow moisture to come into contact with the cast-iron substrate.	2 Yearly

Task	Recommended Immediate Works	Urgency	Recommended Regular Maintenance Works	Frequency
	ISO 8501-3:2007, level Sa2.5 – very thorough grit blasting)[1], and any cavities which can act as moisture traps filled, before repainting in an appropriate coating (ideally a three-layer system using polyurethane paint) and colour. Where corrosion is severe, it may be necessary to piece-in new iron. Care should be taken if the initial tests show the presence of lead in the existing paint coatings. Once the corrosion has been successfully treated and the elements repainted, the bridge can be reassembled on site. The components must be tracked at all times to ensure they are correctly reassembled.			
Cleaning	In accordance with the treatment of corrosion methodology above, the cast-iron elements of the bridge should be cleaned at the same opportunity when it is dismantled and taken off-site. It is recommended that a combination of both acid cleaners (2-5% phosphoric acid to remove rust), and high-pressure steam cleaning (to remove oils, waxes, and grease) is used. This process includes the removal of microbiological growth to the cast-iron.	High	Every two years the cast-iron trusses should be cleaned in-situ using a superheated water cleaning equipment (ThermaTech or similar) to remove all dirt, deposits, graffiti, and microbiological growth, and biocide reapplied. It will be necessary to ensure that appropriate temporary protection is put in place during cleaning to prevent runoff entering the environment.	2 Yearly / As Required
Replacement of Fixings	N/A	N/A	A 2 yearly inspection of the structure should be conducted to identify any fixings for replacement. Any replacement of dowels, bolts, or other fixings to the cast iron span of	2 Yearly / As required

[1] *Conservation Basics, Metals, Page 181*

Task	Recommended Immediate Works	Urgency	Recommended Regular Maintenance Works	Frequency
			the bridge should be carried out by a specialised metals conservator.	
Timber Deck, Substructure, and Footbridges				
Replacement of Decayed Timber Members	Identify sections of timber which have decayed (including transoms and plan bracing elements) and replace with like-for-like hardwood, or a suitable alternative timber, treated to H3.1. Replacement fabric should be discreetly date stamped for easy identification as a later addition. If applicable, replacement timber elements should be coated in a consistent paint system and colour with other elements of the same typology.		Inspect the bridge for decayed timber members and treat, or replace, accordingly.	2 Yearly / After Severe Weather Event
Cleaning	The existing asphalt seal to the timber deck and footbridges should be removed and the condition of the timber below it assessed. Rotten timber should be replaced in accordance with 'Replacement of Decayed Timber Members' as above. Once all rotten timber has been replaced, the timber should be coated in a protective paint system which limits moisture ingress and is grit impregnated for pedestrian safety. This paint system should not block the joints on the decking boards as this leads to poor drainage. The bridge is exposed to significant moisture through the heavy frosts which occur in the region during the winter months which result in the deck surface being almost permanently wet during winter.	High	Every two years the timber deck and substructure structure should be cleaned in-situ using a superheated water cleaning equipment (ThermaTech or similar) to remove all dirt, deposits, graffiti, and microbiological growth, and biocide reapplied. It will be necessary to ensure that appropriate temporary protection is put in place during cleaning to prevent runoff entering the environment.	2 Yearly / As required

Task	Recommended Immediate Works	Urgency	Recommended Regular Maintenance Works	Frequency
Inappropriate Repairs	N/A	N/A	Inspect all previous repairs to ensure they are functioning properly and not causing further damage to the structure. Where damage is evident, replace the repair by piecing in new like-for-like material.	2 Yearly / As Required
Cracks	N/A	N/A	There are some distinguishable cracks in the concrete supporting the timber footbridges. These do not pose an immediate threat to the overall integrity of structure, but should be measured and photographed thoroughly, and be regularly checked for any increases in size. Crack monitors may be installed, subject to engineers' recommendations. If any other object directly impacts the concrete bases, or if there is an earthquake or other form of movement that may affect the structure, then cracks should be inspected.	Immediately, then yearly and/or after impact or natural disaster
Poor Drainage	The bridge is suffering from poor drainage which is resulting in the formation of microbiological growth, especially to the timber deck structure and substructure. This issue will be resolved (at least in part) by the removal of the bituminous coating that has been applied to the bridge deck, particularly to the flat areas, as water will once again be able to move freely through the deck.	High	Inspect the bridge for areas of ponding, or excess moisture exposure, especially after severe weather events.	2 Yearly / After Severe Weather Event
General				
Condition Monitoring and Reporting			Cyclical inspection and review of the condition of the structure should be undertaken. Measurements and photographs of all forms of deterioration should be reported on after	Yearly and/or after impact or natural disaster

Task	Recommended Immediate Works	Urgency	Recommended Regular Maintenance Works	Frequency
			each inspection, and compared to the previous results to assess rates of decay. The need for any localised repairs should be identified as part of the inspection, specified by a conservation architect or relevant material conservator, and carried out by an experienced contractor. Previous repairs should be reviewed to ensure that they are functioning properly and not causing any further damage.	
Future Repairs Generally			Depending on the nature of deterioration and damage to the structure, it may be necessary to carry out more substantial repairs. Such repairs should be specified and monitored by a conservation architect and carried out by an experienced contractor. All replacement or new fabric should be numbered and documented in accordance with the existing recording system.	As required
Setting				
Vegetation Maintenance	N/A		Maintain vegetation growth generally to prevent damage to historic fabric.	Monthly

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