

AVON RIVER RAIL BRIDGE



1896 Plans.jpg



2018 1896 section.jpg



2018 top of 1896 pier.jpg



1896 masonry pier.jpg



2018, Timber cutwaters and piers.jpg



1896 Construction of masonry piers.jpg



2018 timber piers 1888 section.jpg



1896 Girders being moved into place with trolleys.jpg



2017, 1888 section, timber piers and iron girders above.jpg



2017, Northern approach, 1888 section .jpg



2017, northern approach 1888 section.jpg

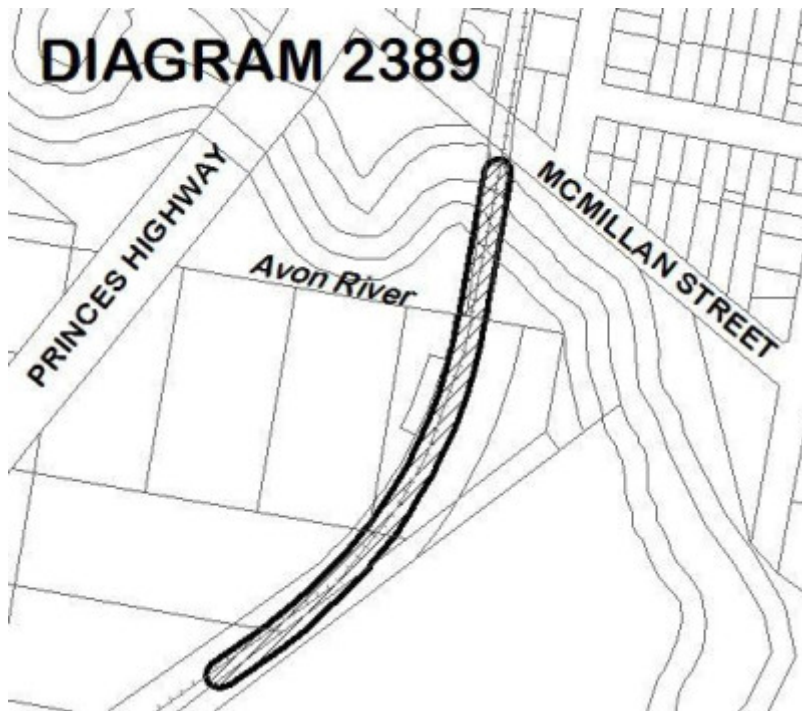


Diagram 2389.JPG

Location

AVON RIVER AND APEX PARK ROAD STRATFORD, WELLINGTON SHIRE

Municipality

WELLINGTON SHIRE

Level of significance

Registered

Victorian Heritage Register (VHR) Number

H2389

Heritage Overlay Numbers

HO353

VHR Registration

December 20, 2018

Heritage Listing

Victorian Heritage Register

Statement of Significance

Last updated on - September 7, 2022

What is significant?

The Avon River Rail Bridge including all elements.

How is it significant?

The Avon River Rail Bridge is of historical and architectural significance to the State of Victoria. It satisfies the following criterion for inclusion in the Victorian Heritage Register:

Criterion A

Importance to the course, or pattern, of Victoria's cultural history.

Criterion D

Importance in demonstrating the principal characteristics of a class of cultural places and objects.

Why is it significant?

The Avon River Rail Bridge is significant at the State level for the following reasons:

The Avon River Rail Bridge is historically significant as an important part of the railway network constructed in the 1880s to provide links between cities and towns throughout Victoria. The Gippsland line was the first railway line in Victoria constructed to promote new colonial settlement rather than responding to existing needs. The Avon River Rail Bridge allowed for the extension of the Gippsland line to Bairnsdale, connecting the region with Melbourne and expanding trade and population growth in Victoria. [Criterion A]

The Avon River Rail Bridge is significant as a notable example of a nineteenth century rail bridge. It is fine and highly intact and exhibits a large number and range of the principal characteristics of a rail bridge. The large range of characteristics is a result of the construction of the bridge in two stages with the utilisation of large-scale timber piers and cutwaters in the first stage, and finely detailed masonry piers in the second stage. The bridge remains mostly unchanged from the time of construction apart from maintenance and replacement of some elements to allow for the ongoing use of the bridge. [Criterion D]

Permit Exemptions

General Exemptions:

General exemptions apply to all places and objects included in the Victorian Heritage Register (VHR). General exemptions have been designed to allow everyday activities, maintenance and changes to your property, which don't harm its cultural heritage significance, to proceed without the need to obtain approvals under the Heritage Act 2017.

Places of worship: In some circumstances, you can alter a place of worship to accommodate religious practices without a permit, but you must **notify** the Executive Director of Heritage Victoria before you start the works or activities at least 20 business days before the works or activities are to commence.

Subdivision/consolidation: Permit exemptions exist for some subdivisions and consolidations. If the subdivision or consolidation is in accordance with a planning permit granted under Part 4 of the *Planning and Environment Act 1987* and the application for the planning permit was referred to the Executive Director of Heritage Victoria as a determining referral authority, a permit is not required.

Specific exemptions may also apply to your registered place or object. If applicable, these are listed below. Specific exemptions are tailored to the conservation and management needs of an individual registered place or object and set out works and activities that are exempt from the requirements of a permit. Specific exemptions prevail if they conflict with general exemptions.

Find out more about heritage permit exemptions [here](#).

Specific Exemptions:

It should be noted that Permit Exemptions can be granted at the time of registration (under s.38 of the Heritage Act). Permit Exemptions can also be applied for and granted after registration (under s.92 of the Heritage Act).

General Condition 1

All exempted alterations are to be planned and carried out in a manner which prevents damage to the fabric of the registered place or object.

General Condition 2

Should it become apparent during further inspection or the carrying out of works that original or previously hidden or inaccessible details of the place or object are revealed which relate to the significance of the place or object, then the exemption covering such works shall cease and Heritage Victoria shall be notified as soon as possible.

General Condition 3

All works should ideally be informed by Conservation Management Plans prepared for the place. The Executive Director is not bound by any Conservation Management Plan, and permits still must be obtained for works suggested in any Conservation Management Plan.

General Condition 4

Nothing in this determination prevents the Heritage Council from amending or rescinding all or any of the permit exemptions.

General Condition 5

Nothing in this determination exempts owners or their agents from the responsibility to seek relevant planning or building permits from the relevant responsible authority, where applicable.

Specific Permit Exemptions

Generally

Maintenance

- Maintenance and repairs which allow for the safe operation of rail services to occur.
- The repair, maintenance or replacement of missing, damaged or deteriorated fabric that is beyond further maintenance, which matches the existing fabric in form, material and method of affixing, and does not involve damage to or the removal of significant fabric. NOTE: This exemption is not intended to allow for the cumulative replacement of large amounts of the fabric of an item. A permit will be required if the replacement of large amounts of fabric is necessary. If there is uncertainty about the requirement for a permit, advice should be sought from Heritage Victoria.
- Any new materials used for repair must not exacerbate the decay of existing fabric due to chemical incompatibility, obscure existing fabric or limit access to existing fabric for future maintenance. Repair must maximise protection and retention of fabric and include the conservation of existing details or elements.
- Maintenance, replacement and installation of electrical and fire services and security lighting.
- Painting of previously painted elements.
- Repairs to and replacement of railway tracks and sleepers.
- Modifications and repairs to and replacement of any electric or electronic signalling equipment.
- Removal, replacement, repairs and installation of safety barriers.

Public safety and security

- The erection of temporary security fencing, scaffolding, hoardings or surveillance systems to prevent unauthorised access or secure public safety which will not adversely affect the significant fabric of the place provided that temporary structures are removed within 30 days of erection.
- Emergency stabilisation works necessary to secure safety where a site feature has been irreparably damaged or destabilised and represents a safety risk. Urgent or emergency site works are to be undertaken by an appropriately qualified specialist such as a structural engineer, or other professional or tradesperson with appropriate heritage experience.
- The Executive Director must be notified of such works within seven days.

Signage

- Removal, installation, repair or replacement of non-commercial and non-illuminated signage provided the works do not involve the removal or destruction of any significant fabric.
- Signage must be located and be of a modest size so as not to obscure or damage significant fabric of the place. It must be able to be later removed without causing damage to the significant fabric of the place.

Landscape

Parkland is included in the extent of registration but is not of State level cultural heritage significance. The following permit exemptions are for existing landscape elements. The creation of any new landscape elements requires a permit.

- The process of gardening, including mowing, removal of dead shrubs and replanting, disease and weed control, and maintenance to care for existing plants.
- The removal of dead or dangerous trees and emergency tree works to maintain safety.
- Repairs, conservation, and maintenance to hard landscape elements, such as steps, paths, gutters, drainage and irrigation systems, edging, fences and gates.
- Management of trees in accordance with Australian Standard; Pruning of Amenity Trees AS 4373-1996.
- Management of trees in accordance with Australian Standard; Protection of Trees on Development Sites AS 4970-2009.
- Removal of plants listed as noxious weeds in the *Catchment and Land Protection Act 1994*.
- Vegetation protection and management of possums and vermin.

Fire suppression duties

Fire suppression and fire-fighting duties provided the works do not adversely affect heritage fabric.

Weed and vermin control

Weed and vermin control activities provided the works do not adversely affect heritage fabric.

Theme

3. Connecting Victorians by transport and communications 6. Building towns cities and the garden state

| | |
|-------------------------|--------------------|
| Construction dates | 1888, |
| Heritage Act Categories | Registered place, |
| Other Names | AVON RIVER BRIDGE, |
| Hermes Number | 201733 |

History

Establishment of Stratford

The first runs in the Gippsland area were established in the 1840s following Angus McMillan's exploration of a route to the coast from the Monaro Plains (now in southern New South Wales). McMillan established a station on the Avon River and in 1842 the Stratford run was established by William Odell Raymond. By 1844 there were forty stations in the area. Raymond opened a number of businesses including a blacksmith and hotel near where the stock route forded the Avon River and the township of Stratford was officially surveyed in 1854. In 1865, the Avon Shire was proclaimed, with Stratford as the centre of local government. The surrounding land was primarily used for cattle and sheep grazing, and crops including hops, tobacco, maize and flax were planted in the late nineteenth century. A failed attempt to establish a sugar beet industry was attempted in 1896 with a processing factory to be serviced by the new railway station proposed for nearby Maffra. Other industries such as tanneries and a flour mill, were also developed at Stratford.

Victoria's rail system

Rail systems in Victoria were privately owned until 1856 when the colonial government established Victorian Railways. Construction of a rail network linking regional towns to Melbourne commenced and increased significantly in the 1880s in response to an increasing population. Between 1882 and 1892 line mileage in Victoria almost doubled.

The Avon River Rail Bridge

The Avon River Rail Bridge was constructed in 1888 as part of the Gippsland line which was the first line constructed to encourage the development of new country for settlement rather than to meet existing needs. The line was completed to Sale in 1878 and an additional branch to Maffra was constructed in the 1880s to serve the rich farming and timber producing areas in the region. In 1888, the branches were extended to reconnect south of Stratford, pass across the newly constructed Avon River Rail Bridge and continue on to Bairnsdale.

The southern western approach was by a long, curved timber viaduct across the river flats which connected to a bridge of iron girders supported on timber piers. By this time, logging and agricultural development in the region had impacted on the flow and course of the Avon River. The river regularly flooded and vegetation clearance, swamp draining and bushfires contributed to substantial erosion. In 1891 the bridge was damaged by flooding and the course of the river was substantially and permanently altered. The original bridge was left raised above a dry river bed and the southern edge of the river bank under the viaduct was significantly eroded. After a number of unsuccessful attempts to re-route the river back to its original course the Victorian Railway Department decided to extend the bridge across the new river course using steel girders on brick and concrete piers.

The extension was built in 1896 and was designed by Archibald Fram. Construction was supervised by engineer L H Chase. The new section measured 300 ft (91.4 metres) in length and comprised a superstructure of steel girders and longitudinal timber planking supported by four brick piers.

The foundations of the 1896 piers were constructed with wrought iron oval curbs with a cutting edge. The soil from the centre of the curbs was extracted, allowing the curbs to sink and eventually settle on a bed of strong clay. The centres were filled with concrete and the brick piers were built on top to a height of 18 ft (5.5 metres) and surmounted with concrete imposts above decorative brickwork. The steel superstructure was manufactured and delivered by Mephan Ferguson and consisted of two pairs of plate girders, each 110 ft (33.5 metres) and a pair of hanging girders of different lengths to accommodate the curvature of the bridge. A system of trolleys was designed by Chase to move the girders into place above the existing wooden bridge. They were then lowered and fixed into place and the earlier wooden structure was removed.

The construction of the bridge extension had to be completed without any disruption to the railway traffic. Work commenced at 3.30pm on a Saturday afternoon and the structure was completed by 11am the following Monday. The new line was laid and completed just before the next train was due to arrive.

L H Chase, the engineer in charge of the extension to the Avon River Rail Bridge, provided an account of the construction of the bridge extension to the Victorian Institute of Engineers. Discussions by his peers recorded at the end of the article described it as a 'very nice operation requiring very careful arrangements'; 'renewing bridges without interrupting the traffic, arose now and then' and 'the Railway Department are to be congratulated upon having accomplished the work without any hitch or trouble', suggesting that the project was of interest but not out of the ordinary.

Some alterations and replacement of elements of the Avon River Rail Bridge has occurred, including the replacement of a section of the timber viaduct with an earthen embankment in the 1920s, replacement of one of the brick piers in 1937 and replacement of timber elements such as beams. Apart from a period of closure between 1993 and 1999 the Avon River Rail Bridge has been in continuous use since its construction. As part of the Regional Rail Revival Gippsland, Rail Projects Australia is constructing a new rail bridge to allow for increased train speed. The new bridge will be located to the west of the existing bridge. The existing bridge will remain in place but will not be used for rail services.

KEY REFERENCES USED TO PREPARE ASSESSMENT

AJM Joint Venture (2018) *Avon River Rail Bridge - Cultural Heritage Significance Assessment*.

The Argus, Wednesday 9 May 1888, pg 5 *Opening of Country Railway Lines*.

Australian Dictionary of Biographies, Mephan Ferguson <http://adb.anu.edu.au/biography/ferguson-mephan-3511> (retrieved 18 August 2018).

Australian Dictionary of Biographies, Angus McMillan <http://adb.anu.edu.au/biography/mcmillan-angus-2416> (retrieved 18 August 2018).

Chase, L H (1900) *Extension of the iron railway bridge over the Avon river at Stratford (Paper & Discussion)* in *Various Papers and Discussions of the Victorian Institute of Engineers vol. II 1892-1899* <https://digitised-collections.unimelb.edu.au/handle/11343/24249> (retrieved 18 August 2018).

Context 2005a Wellington Shire Heritage Study: Stage 1, Volume 2: Environmental History. Report to the Wellington Shire.

Context 2005b Wellington Shire Heritage Study: Stage 1. Volume 1: Study methods and results. Report to the Centre for Gippsland Studies and Wellington Shire.

Heritage Intelligence (2016) Wellington Shire Heritage Study: Stage 2.

Assessment Against Criteria

Criterion

The Avon River Rail Bridge is of historical and architectural significance to the State of Victoria. It satisfies the following criterion for inclusion in the Victorian Heritage Register:

Criterion A

Importance to the course, or pattern, of Victoria's cultural history.

Criterion D

Importance in demonstrating the principal characteristics of a class of cultural places and objects.

Why is it significant?

The Avon River Rail Bridge is significant at the State level for the following reasons:

The Avon River Rail Bridge is historically significant as an important part of the railway network constructed in the 1880s to provide links between cities and towns throughout Victoria. The Gippsland line was the first railway line

in Victoria constructed to promote new colonial settlement rather than responding to existing needs. The Avon River Rail Bridge allowed for the extension of the Gippsland line to Bairnsdale, connecting the region with Melbourne and expanding trade and population growth in Victoria. [

Criterion A]

The Avon River Rail Bridge is significant as a notable example of a nineteenth century rail bridge. It is fine and highly intact and exhibits a large number and range of the principal characteristics of a rail bridge. The large range of characteristics is a result of the construction of the bridge in two stages with the utilisation of large-scale timber piers and cutwaters in the first stage, and finely detailed masonry piers in the second stage. The bridge remains mostly unchanged from the time of construction apart from maintenance and replacement of some elements to allow for the ongoing use of the bridge. [

Criterion D]

Extent of Registration

NOTICE OF REGISTRATION

As Executive Director for the purpose of the **Heritage Act 2017**, I give notice under section 53 that the Victorian Heritage Register is amended by including a place in the Heritage Register:

Number: H2389

Category: Registered Place

Place: Avon River Rail Bridge

Location: Avon River, Stratford

Municipality: Wellington Shire

All of the place shown hatched on Diagram 2389 encompassing parts of Crown Allotments 2007, 2012 and 2017 Township of Stratford, part of Crown Allotment 2007 Parish of Nuntin, parts of Crown Allotments 1A and 1B Section 3 Parish of Nuntin, and parts of Lots 1, 2, 3 and 4 on Title Plan 448230 representing a buffer of 12 metres on either side of the centreline of the railway and from the abutments of the bridge.

Dated 20 December 2018

STEVEN AVERY

Executive Director

[*Victoria Government Gazette* G 51 20 December 2018 2865]

This place/object may be included in the Victorian Heritage Register pursuant to the Heritage Act 2017. Check the Victorian Heritage Database, selecting 'Heritage Victoria' as the place source.

For further details about Heritage Overlay places, contact the relevant local council or go to Planning Schemes Online <http://planningschemes.dpcd.vic.gov.au/>