Heritage Overlay No.: 09

Citation No.: 257

Place Djerriwarrh Bridge

Other Names of Place: Deep Creek Bridge

Location: On old Ballarat Road (disused route), across

Djerriwarrh Creek, north of the present crossing

of the Western Freeway. 1858-59 (Construction)

Existing Heritage Listings: RNE: VHR H1658

Recommended Level of Significance: STATE

Critical Dates:



Statement of Significance:

The old Ballarat Road Bridge over the Djerriwarrh Creek west of Melton, built 1858-59, is significant as a rare and highly intact example of a bridge built to accommodate gold-rush traffic, and for its unusual design and materials. The Djerriwarrh Bridge is architecturally significant at a STATE Level (AHC E1, F1). It is one of Victoria's oldest bridges of any type, and a rare intact 1850s road bridge. It is a notable and scarce example of a round or Roman arch bridge in Victoria. It is a rare sandstone masonry arch bridge in Victoria.

Consultants: David Moloney, David Rowe, Pamela Jellie (2006)

The Djerriwarrh Bridge is historically significant at a STATE Level (AHC A4, B2, D2) for its association with the internationally significant Victorian goldrush, and as a rare surviving example of a place built to accommodate 1850s gold-rush traffic. Its context of earlier tracks and fords associated with the original Portland Road has significance as rare evidence of pre gold-era transport in Victoria.

The Djerriwarrh Bridge and its cultural landscape context is scientifically significant at a STATE Level (AHC C2). The bridge retains tool marks associated with its quarrying. The related quarry, also has a high potential to provide information relating to gold-era construction practices.

The Djerriwarrh Bridge is aesthetically significant at a STATE Level (AHC D1, E1). The bridge itself is high, is constructed of an unusual bridge-building material, and has a rare and distinctive round arch. Its dramatic natural setting has been recognised as notable from the time of the goldrush.

Description:

The Djerriwarrh Bridge over Djerriwarrh Creek is a single span round (or Roman) arch bridge structure constructed of local coursed sandstone. Substantially elevated, the single arched bridge is supported by large masonry abutments articulated with slightly projecting piers. The bridge is composed of three bays, with solid sandstone retaining walls flanking the arched opening.

The bridge has is relatively intact and has a high integrity. While all capping stones are intact, most have been vandalised, with names cut into the soft stone. The original tool marks in the soft stone are also weathering away. A dedication plaque on the bridge has been removed.

On the upstream side there is evidence of early timber groin or wing walls. This may be part of a longer term problem of scouring. The gouged abutments of the bridge and base of the stream have been repaired with concrete.

The setting of the bridge, in a deep escarpment with some remnant native vegetation, is notably beautiful and dramatic.

History:

The first main road to the Ballarat diggings was the 'Portland Road', which was roughly the line of the present Melton Highway from Keilor, which passed just north of Pykes Station (later Melton), approximately along the line of Centenary Avenue, and after skirting north of a heavy box forest came down to the present crossing of Djerriwarrh Creek (or Deep Creek as it was often called).

Shortly after the 1851 announcement of the discovery of gold at Ballarat, John Chandler set off with his party. They crossed the 'very rickety bridge' (with toll) at Keilor: 'We were evidently among some of the first parties, for there was not much track to be seen...". They became lost on the Keilor Plains, arriving at 'Staughton's', who showed them the way. Arriving at the steep Djerriwarrh Creek crossing they:

"...tied a rope to the back of the dray, and all hands hung on with all their might to keep the dray from overpowering the horse. We saw several carts that had come to grief, quite smashed up at the bottom of the hill."

A few years later (c.1857) - just before the bridge was constructed – Irish barrister and writer William Kelly wrote an account of a coach trip at this crossing point. There had been a little improvement, but it remained a dangerous crossing:-

'...nor did they [the coach horses] break their stride until we came close upon the precipitous banks of Deep Creek. This is a deep water-worn gash, intersecting the great plains, very wide at the surface, and eaten down to a narrow channel, at a depth, in many places exceeding two hundred feet ... In some localities, where the banks are more shelving from the falling in of the upper strata, magnificent timber has arisen with clumps of shrubs and brushwood flourighingi under their shade, which render it charming to the lovers of natural scenery. The point at which we crossed quited answered to this description – a sort of titanic Dargle, wanting only the exercise f some landscape gardening skill to rival that sweet Wicklow retreat.

We were obliged to walk – or more properly scramble – down the quick slopes, and as Johnathon² kept his seat, he looked as if he had his feet planted against the horse's breeches, with the coadh on his head, like a huge shako.

There were snug cabins, with trim little gardens, on a small plateau just above the level of the winter floods, seemingly occupied by sawyers and their families, but who, as we ascertained, drove a retiring trade in liquid refreshments, prescribed as necessary before encountering the ascent on the opposite side'.³

Incidences of destroyed wagons and horse teams continued until the time the bridge was built.⁴

A study undertaken for VicRoads in 1994 identified two historical archaeological sites in the area, on the west side of the creek: a 'Wayside Inn' beside the 'old coach road' (which is clearly visible from the eastern side of the creek), and a house site.⁵ The whole Djerriwarrh Creek valley was public land, later designated a 'farmers common'.⁶

Local belief is that the original ford crossing, the 'old bullock track' (after which a nearby road has recently been named) was situated approximately 400 metres upstream of the present (old) bridge, over a stone ford.⁷ An early map, predating the goldrush, shows the crossing as a track fording the stream three times at a horseshoe bend. Vines estimates that the original line approaching the stream followed a spur just south of the existing highway, turned north at the final drop to the first of the fords (now disturbed) which was situated between the old and the new bridges. The second ford was just upstream of the 1858-59 bridge, from which the track headed north-west to the third ford 'which is still visible in its original position, marked

Consultants: David Moloney, David Rowe, Pamela Jellie (2006)

¹ Chandler, John, *Forty Years in the Wilderness* (edited, Michael Canon), Loch Haven, Main Ridge, 1990, pp.37-39

² The taciturn American coach driver.

³ William Kelly, *Life in Victoria, or Victoria in 1853 and Victoria in 1858* (Lowden, Kilmore, 1977), p.138-139

⁴ Cameron, op cit, pp. 14, 17

⁵ Vines, G, 'The Djerriwarrh Survey: Western Freeway – Melton to Bacchus Marsh section Heritage and Archaeological Survey' (Living Museum of the West, December 1994), pp.62-64 ⁶ ibid p 20

⁷ Jeff Robinson, pers.conv. 19/5/2002; Judith Bilszta, research notes.

by flanking red gum trees'. Having crossed the creek the road then followed an easy gradient up the south side of a gully, the tracks of which are known locally as the 'old coach road'.8

On the Melton side of the creek history has recorded two sites. The Ben Nevis Hotel was erected by Ewen McKinnon ⁹ atop the escarpment. A toll gate was erected on the Melton side of the bridge in April 1861; the house and gate were burnt down in 1870. ¹⁰ Archaeological evidence at the top of the escarpment – a scatter of handmade bricks and a hollow where some bottles were found – may be related to one of these sites, more likely the hotel. ¹¹

Land to the north of bridge once used for the growing of vines, which are thought to have failed through the lack of water. Land to the south of bridge was at one stage used as cherry orchards.¹²

The whole area of the road crossing has been designated as a site of historical and archaeological significance.¹³

As traffic on the Ballarat Road increased, and roads deteriorated under the wheels of drays and bullock wagons, road and bridge construction became essential. The Djerriwarrh Creek crossing was a particular hazard because of the steep descents. As a result it is one of only very few gold-era bridges to have been constructed in Victoria, and one of even fewer to survive.

A contract for bridge was let on the 20th October 1858 by newly created Department of Roads and Bridges of the Board of Lands and Works. The contract price was £2,583, and the successful contractor Robert Barbour.¹⁴ Sandstone for construction of the bridge was quarried on site; the quarry hole was on the western side of the creek. Workers camped in tents beside site in bed of the creek. The bridge was completed on 31 March 1859.¹⁵

While the opening of the Geelong to Ballarat railway c.1862 would have decreased traffic on the road, the route was still well patronised, and in 1873 Cobb & Co. line put on a new coach to carry 25 passengers, to complement its massive 'Leviathan' coach of 1860, with a capacity of 100 passengers. At least until the opening of the direct Melbourne to Ballarat railway in 1889 the bridge provided a vital link on the busy coach road between Ballarat and the railway station at 'Keilor Road' (Sydenham). Hotels in the Melton Shire benefited from the through traffic, providing stabling and victuals.

In 1960 the bridge was by-passed by a reinforced concrete bridge. In 1963 it was restored by the Country Roads Board. 17

The bridge's Djerriwarrh Creek setting is also of natural significance. There is an interesting mix of native plants – including Fragrant Saltbush, Saloop and Scruby Saltbush found in the

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⁸ Vines, *op cit*, p.31, and Figure 9 (CPO Map K1: 'Plan of the Proposed Line of Road from the Kororoit Creek to the Pentland Hills, 1847')

⁹ National Trust File – Melton and District Historical Society. The property was later bought by Harkness from McKinnon's estate.

¹⁰ Bacchus Marsh and Melton Express 1870 (M&DHS record)

¹¹ This is Site No.258 of Stage One of the present Melton Heritage Study.

¹² Geoffrey Camm (compiler) Bacchus Marsh: An Anecdotal History (Hargreen Publishing, 1986)

¹³ Vines, *op cit*, Figure 35.

¹⁴ Government Gazette 1858

¹⁵ Geoffrey Camm (compiler), Bacchus Marsh – An Anecdotal History, 1986

¹⁶ Macdonald, op cit, p.6; Pollitt, op cit, pp.56-58

¹⁷ Vines, *op cit*, p.39

area. Bull Mallee growing along the creek is part of the former Long Forest, ¹⁸ now protected under the Flora and Fauna Guarantee Act and on Register of National Estate. The road cutting on the north side of the highway east of the bridge is significant because it gives clear exposure of bedrocks that underlie the volcanic plain:- it exposes shales overlain by Werribee Formation sediments and newer volcanic basalts. ¹⁹

Thematic Context / Comparative Analysis:

Melton Historical Themes: Transport.

Known comparable examples:

The citations of the AHC and Heritage Victoria state that the bridge is:

'An early surviving bridge distinctive for its single arched design and construction in sandstone. This structure is representative of a number of such bridges single arched bridges constructed in Victoria and forms an important part of the approach to the important townscape of Bacchus Marsh and in the landscape of the river valley.'²⁰

There are no comparable examples in terms of age, design, height, materials or setting in the Shire of Melton. The bluestone bridge carrying the Melton Highway over the Kororoit Creek also has a single round arch span, is on a gold-fields route, and may also be very early, but is much lower, and has been compromised by a new deck. There are few similar bridges elsewhere in Victoria, most surviving early bridges having been built of bluestone and being considerably later.

Firstly, it is one of only very few intact road bridges from the 1850s. Most of the surviving bridges of this era (generally meaning stone arch bridges) were built as part railway projects - the Flinders Street to St Kilda railway, and the Melbourne to Mount Alexander railway: the Dorcas, Banks and Parks Streets South Melbourne (1857), and the Macedon Street bridge at Sunbury (c.1859). Other mainly small road over railway masonry arch bridges were built in the early 1860s as construction of the Bendigo and Ballarat railways proceeded. These railway bridges were built to an exceptional standard of design and workmanship.

The only intact non-railway road bridge known to predate the Djerriwarrh Creek bridge is Youl's bridge at Woolsthorpe (1856).²¹ This is thought to have been built to provide access to the port of Warrnambool primarily for wool growers, but also diggers. Other surviving road bridges opened at the same time are those at Batesford over the Moorabool River (1859), and Avenel, over Hughes Creek (c.1859).

There were also some beam road bridges built in the 1850s, such as McMillans Bridge over the Little Woady Yallock Creek, but all known examples have had their girders replaced, and only the original (usually modified) masonry abutments survive. The earliest surviving metal girder and stone abutment bridges were again built as part of railways, such as the Hotham Road bridge at Ripponlea (c.1860), and the bridges built on the Bendigo line in the early 1860s.

¹⁸ Bacchus Marsh Heritage Guide 2003

¹⁹ loc cii

²⁰ Victorian Heritage Register and Register of the National Estate citations.

²¹ There has not yet been a comprehensive typological survey of Victoria's masonry arch bridges so much of the comparative information on arch bridges in this section is based on Colin O'Connor's *Spanning Two Centuries* and other publications emanating from his Australia wide bridge study for the AHC. It is also based on National Trust and other heritage studies of bridges.

Secondly, the bridge is a rare surviving non-bluestone arch bridge in Victoria, other known examples being Avenel (1859, sandstone), Harcourt (road over rail, 1862, granite), Waurn Ponds (1869, limestone), Newtown at Beechworth (1874, granite).

Thirdly, it is a scarce round, or 'Roman', arch road bridge, and the first of these bridges that is known to have been built. Interestingly, another bridge in Melton Shire, carring the Melton Highway over the Kororoit Creek, also has a round arch (bluestone), and may also have been built very early (contract let 1859). The other known major examples are: Corkscrew Bridge near Aitkens Gap (1862), Blampied (1883, the only known example of a road bridge with more than one round arch), and at Little River (for which O'Connor does not provide details).

Several notable examples of round arch railway bridges were being built at the same time for the Mount Alexander railway: Harpers Creek Sunbury (c.1859) and Sunbury Creek Sunbury (c.1859). The very distinctive round arches on these bridges are enhanced by their very high settings, and multiple spans. Other known railway round arch bridges were built at Riddells Creek, Harcourt, and Moorabool.

The most comparable bridge in terms of its important goldfields origins is the 'Corkscrew Bridge', which carried the Mount Alexander Road over a branch of the Kororoit Creek on the Gisborne side of Aitkens Gap. This also had a single round arch, but was built in 1862, in bluestone, and is much lower.

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Condition:										
Good/Fair										

Substantially Intact

Integrity:

Recommendations:

Recommended for inclusion in the Melton Planning Scheme Heritage Overlay. (The place is already included in the Victorian Heritage Register, but without a full citation).

Recommended Heritage Overlay Schedule Controls:

External Paint Controls: Yes
Internal Alteration Controls: No
Tree Controls: No
Outbuildings and/or Fences: No

Other Recommendations:

- A Conservation Management Plan for the whole crossing area, including fords, quarry, and archaeological sites, would assist the preservation of this important gold-rush road place.
- It would be useful to provide interpretation of the bridge, and also signs advising that vandalism including cutting of the soft sandstone is not permitted.
- Possible conservation treatments or strategies to slow or prevent weathering of the tool marks should be considered.