



# MILLBRACE BRIDGE

## INTERPRETATION STRATEGY

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History Now for the Shire of Serpentine-Jarrahdale, February 2014



HistoryNow

## 1.0 INTRODUCTION

History Now has been commissioned to undertake archival research and develop an Interpretation Strategy for *Millbrace Bridge* (former Brickworks Bridge), over Beenup Brook, Byford.

The aim of the Interpretation Strategy is to reveal the cultural significance of the place in order to facilitate the themes which can be developed into interpretive media which will present the stories of previous occupation, former use and particular events through appropriate installations located within the subject site.

Interpretation is an integral part of the experience of significant heritage places. It is a key way of sharing culture and history within the local communities and with other communities, new citizens, and visitors. It is also a means of passing on the knowledge and appreciation of culture to new generations.

### 1.1 EXECUTIVE SUMMARY

- 1.1.1 *Millbrace Bridge* has sufficient cultural heritage significance to justify its inclusion in the Shire of Serpentine-Jarrahdale's Local Government Inventory.
- 1.1.2 The Bridge is an important site for understanding Byford's development. Conservation of the Bridge would be the best heritage outcome. However, if demolition is unavoidable, it is recommended that interpretive media be commissioned to allowing for an understanding the site's cultural heritage.
- 1.1.3 It is recommended that interpretative media be fully planned, approved and budgeted prior to permitting demolition of the Bridge.
- 1.1.4 Any interpretative media should be designed by a suitably qualified and experienced artist/designer, if necessary working in conjunction with a suitably qualified and experienced heritage interpretation professional.
- 1.1.5 It is recommended that any interpretive installation be organised around the three themes given below in this report. Nonetheless, interpretive media planning and implementation should be subject to community consultation and input at all key stages.
- 1.1.6 It is recommended that any interpretative media include fabric from the Bridge, and that this requirement be noted in contracts for demolition so that suitable material can be retained. Reuse of timber is, of course, subject to environmental assessment for preservatives or problematic substances.
- 1.1.7 It is recommended that any interpretive installation include recycled bricks to represent the link between the State Brickworks and the Bridge.

## 2.0 SUBJECT SITE

Millbrace Glen is located to the north of Nettleton Road, Byford, at the end of a road also known as Millbrace Glen. It has remnant evidence of the old spur line and railway bridge which formerly served the State Brickworks (1913-61).



Aerial photograph of Byford (1949, image courtesy of 'Royal Australian Navy Armament Depots' site, [users.tpg.com.au/borclaud/ranad/index.html](http://users.tpg.com.au/borclaud/ranad/index.html))

## 3.0 INTERPRETATION PLANNING

### 3.1 DEFINING INTERPRETATION

Interpretation is an interactive communication process, involving the visitor, through which heritage values and cultural significance are revealed, using a variety of techniques in order to enrich the visitor experience and enhance the enjoyment and understanding of the place.

*Sarah Murphy, National Trust of Australia (WA)*

### 3.2 WHAT IS AN INTERPRETATION PLAN?

An interpretation plan is a management tool that provides a strategy for transmitting messages about the cultural heritage values of a heritage place to visitors. It identifies the most significant themes and stories about a place and the media most suited to exploring them.

The plan also provides a framework for managing visitors, providing them with a memorable and enriching experience while also ensuring the heritage values, including significant fabric, of the place are upheld. It also helps ensure that the interpretive strategies recommended are appropriate to the place.

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*National Trust of Australia (WA), Interpretation Planning Guidelines.*

### 3.3 INTERPRETATION PRINCIPLES

This interpretation strategy is based on *Sharing our Stories: Guidelines for Heritage Interpretation*, developed by the National Trust (WA) and Museums Australia (WA), and the earlier *Interpretation Planning Guidelines*, developed by the National Trust (WA).

It is also guided by the Australia ICOMOS *Burra Charter* on conservation philosophy and the ICOMOS *Ename Charter* for interpretation of cultural heritage sites.

In recognising that interpretation and presentation are part of the overall process of cultural heritage conservation and management, there are seven principles, upon which Interpretation should be based:

## ICOMOS Interpretation Principles

### Principle 1

- Access and understanding

### Principle 2

- Information sources

### Principle 3

- Attention to setting and context

### Principle 4

- Preservation of authenticity

### Principle 5

- Planning for sustainability

### Principle 6

- Concern for inclusiveness

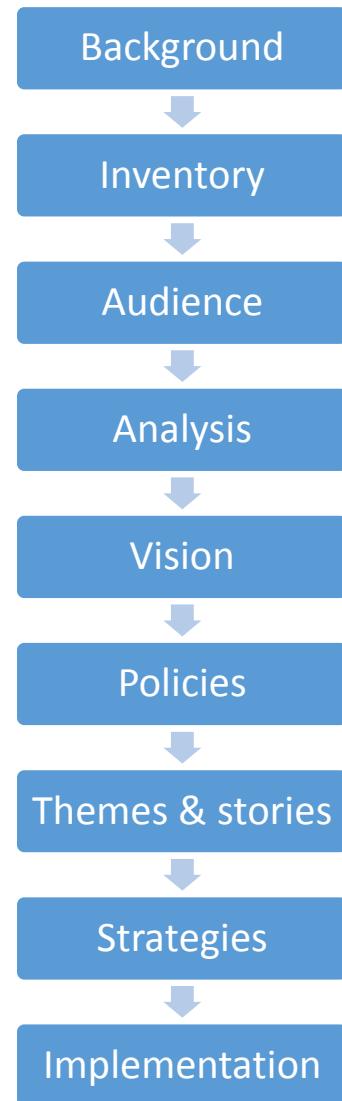
### Principle 7

- Importance of research, training, and evaluation

Following from these seven principles, the objectives are to:

1. Facilitate understanding and appreciation of cultural heritage sites and foster public awareness and engagement in the need for their protection and conservation.
2. Communicate the meaning of cultural heritage sites to a range of audiences through careful, documented recognition of significance, through accepted scientific and scholarly methods as well as from living cultural traditions.
3. Safeguard the tangible and intangible values of cultural heritage sites in their natural and cultural settings and social contexts.
4. Respect the authenticity of cultural heritage sites, by communicating the significance of their historic fabric and cultural values and protecting them from the adverse impact of intrusive interpretive infrastructure, visitor pressure, inaccurate or inappropriate interpretation.
5. Contribute to the sustainable conservation of cultural heritage sites, through promoting public understanding of, and participation in, ongoing conservation efforts, ensuring long-term maintenance of the interpretive infrastructure and regular review of its interpretive contents.
6. Encourage inclusiveness in the interpretation of cultural heritage sites, by facilitating the involvement of stakeholders and associated communities in the development and implementation of interpretive programmes.
7. Develop technical and professional guidelines for heritage interpretation and presentation, including technologies, research, and training. Such guidelines must be appropriate and sustainable in their social contexts.
8. Research, evaluation, and training.

Diagram representing the process for creating effective interpretation



## 4.0 RESOURCES

### 4.1 DOCUMENTARY SOURCES

The following resources were identified as essential for researching the general history of the Byford district:

- Byford Progress Association, 'Byford — A Pictorial History' (Byford, 2002)
- Coy, Neil J., *The Serpentine: A History of the Shire of Serpentine-Jarrahdale* (Mundijong, 1979)
- Nairn, H. E., & M. Barge, 'The History of the Byford District', (unpublished, 18 September 1970, copy held by Birtwistle Local Studies Library)
- Popham, D., *First Stage South: A History of the Armadale-Kelmscott District* (Armadale, 1980)

The following additional resources were identified as essential for an understanding of the development of the State Brickworks at Byford:

- Le Page, J. S. H., *Building a State: The Story of the Public Works Department of WA, 1829 - 1985* (Perth 1986)
- State Heritage Office assessment *Armadale State Brickworks Dustroom & Machinery Shed (fmr)* (2007)
- Various newspaper articles as identified in the Documentary Evidence given below

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No specific resources were identified leading to an understanding of the design and construction of *Millbrace Bridge*. However, the following are useful for a general understanding of rail history in Western Australia:

- *Brief history of the Western Australian Government Railways* (Perth, c.1968)
- Gunzburg, Adrian, & Jeff Austin, *Rails Through the Bush: Timber and Firewood Tramways and Railway Contractors of Western Australia* (Bassendean, 2008)

## 4.2 GRAPHICAL SOURCES

Two historic images of the State Brickworks are held by the Birtwistle Local Studies Library, Armadale. Both of these appear suitable for inclusion in an interpretive installation.

However, no historic images of *Millbrace Bridge* were located during the writing of this report. It is recommended that an advertisement be placed in local media to seek such images from long-standing residents in Byford.

A number of images of the State Brickworks are held by the State Library of Western Australia. Although only a sample of these have been examined during the writing of this report, it is possible that some of these will be suitable for inclusion in an interpretive installation.

As noted above, it may be possible to secure copies of photographs of employees of the State Brickworks following an advertisement.

Geological plans of the deposits around the Brickworks are held by the State Library of Western Australia. It may be possible to adapt these for use in an interpretive installation.

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## 4.3 FURTHER RESEARCH

The historical research in this report forms a framework and starting point for the development and implementation of the interpretive media. However, during the planning of any specific installation it is possible that further and more specific research will need to be undertaken to gain a greater understanding of the storylines that have been identified to be told on-site.

This information should be reviewed and reflected in the interpretive proposals as they are investigated in more detail.

During the preparation of final content and graphics, the design team will need to acquire historic resources in formats appropriate for presentation, including high-resolution scans of photographs, maps, plans and newspaper articles, video footage and audio clips, as well as relevant permissions.

## 5.0 AUDIENCE PROFILE

It has not been possible to undertake a study of contemporary users of the site during the production of this report. Nonetheless, the following is a likely profile of a reserve located at the edge of an increasingly urban townsite. The site will probably host a number of audiences that the interpretation needs to address. These are as follows:

- residential (those residents who live within walking distance of the site)
- visitors (people visiting local residents)
- family (those attracted to the site because of the public space)
- community (particular events held in the public space)
- recreational (walkers, runners, and cyclists)
- tourism (international, interstate, and metropolitan visitors)

## 6.0 MESSAGES & STORYLINES

The principle aim of interpretation is to convey to the various audiences an understanding of the place's significance.

### 6.1 STATEMENT OF SIGNIFICANCE

*Millbrace Bridge, Byford* (1913), a timber cross-braced rail bridge over Beenyup Brook, has cultural heritage significance for the following reasons:

- the Bridge has historic value for its association with the State Brickworks, a major source of bricks for Western Australia, which furthered development of the State from 1915 to 1961;
- the Bridge has aesthetic value as a representative example of a small timber bridge from the early 20th century; and,
- the Bridge has research value as it has potential to contain subsurface archaeological remains.

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### 6.2 ABORIGINAL HERITAGE VALUES

A search of the Department of Aboriginal Affairs Heritage Inquiry System did not reveal any registered or identified sites at the location surrounding *Millbrace Bridge*. However, this should be taken as guidance only and it may be appropriate to undertake consultation with relevant stakeholders to determine if any suitable Aboriginal narratives would be beneficially interpreted at the site.

### 6.3 KEY THEMES AND MESSAGES

Each of the key themes is underpinned by a number of stories. The following are the storylines associated with the place and define the content that will be developed in the strategy.

THEME	STORYLINE / SIGNIFICANCE
<b>Primary theme</b>  Historical	The importance of the State Brickworks in the development of Byford.
	The importance of the Brickworks' products in the development of Western Australia in the first half of the 20th century.
	Individual places in Western Australia have been constructed from Byford bricks.
	State industries were controversial in 1913, and remain controversial today.
<b>Secondary theme</b>  Transport	The role of <i>Millbrace Bridge</i> as a critical link between the South-West Line and the State Brickworks.
	The need for rail transport to move the Brickworks products around the State.
<b>Tertiary theme</b>  Social/personal	Although it is usually vital to add a personal theme to a story, no accounts of working at the State Brickworks, or on the branch line, have been located during the writing of this report.
	It is recommended that an advertisement be placed to seek photographs of workers and/or accounts of employment at the Brickworks. These could then be included in the interpretation.

## 7.0 DOCUMENTARY EVIDENCE

Manufacture of bricks in the Byford district appears to have started earlier than commercial production.<sup>1</sup> Handmade bricks were made from a deposit of shale at Cardup, probably on an *ad hoc* basis local buildings.<sup>2</sup> In 1898, it was reported that shale from Cardup Estate had been shipped to Victoria to produce sample bricks and tiles.<sup>3</sup>

Cardup Brickworks was started by the Bunning Bros. and the Millard Bros., either in the very late 1890s or by 1900 at the latest.<sup>4</sup> Although they employed a number of men who camped in the area, the works would be shut down when there was a lack of orders.<sup>5</sup> So there was little encouragement for these men to think about settling in the area.<sup>6</sup>

In 1911, John Scaddan's Labor Party was elected to power in Western Australia. From 1912 he began his controversial policy of 'state socialism', creating a number of government-owned industries. These included sawmills, dairies, shipping services, hotels, abattoirs and butchers shops, farm implement works, quarrying and brickmaking.<sup>7</sup> There was controversy about competing with private enterprise, but it was argued government-owned industries were in the public interest given the weak State economy.<sup>8</sup>

State Brickworks were seen as a way of reducing the cost of building materials for workers' homes.<sup>9</sup> In January 1913, preliminary reports circulated that Beenup (as Byford was known at the time) was to one of the sites selected for this industry:<sup>10</sup>

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<sup>1</sup> Some research on the site undertaken by Kristy Bizzaca for State Heritage Office assessment *Armadale State Brickworks Dustroom & Machinery Shed (fmr)* (2007).

<sup>2</sup> Popham, D., *First Stage South: A History of the Armadale-Kelmscott District* (Armadale, 1980), p. 91

<sup>3</sup> 'News and Notes', *West Australian*, 4 Feb. 1898, p. 4

<sup>4</sup> Coy, Neil J., *The Serpentine: A History of the Shire of Serpentine-Jarrahdale* (Mundijong, 1979), pp. 174-75

<sup>5</sup> Byford Progress Association, 'Byford — A Pictorial History' (Byford, 2002), p. 25

<sup>6</sup> Nairn, H. E., & M. Barge, 'The History of the Byford District', (unpublished, 18 September 1970, copy held by Birtwistle Local Studies Library, Box 8 [ARM])

<sup>7</sup> Robertson, R., 'Scaddan, John (1876-1934)', *Australian Dictionary of Biography*, [adb.anu.edu.au/biography/scaddan-john-8348/text14651](http://adb.anu.edu.au/biography/scaddan-john-8348/text14651) (accessed 11 Oct. 2013)

<sup>8</sup> Le Page, J. S. H., *Building a State: The Story of the Public Works Department of WA, 1829 - 1985* (Perth 1986), pp. 385-86; Black, D., 'Party Politics in turmoil 1911-1924', in Stannage, C. T., (ed.), *A New History of Western Australia* (UWA Press, 1981), p. 383

<sup>9</sup> Black, 'Party Politics', p. 383

<sup>10</sup> Popham, *First Stage South*, pp. 91-92, 109

In view of the trouble in the building trade, it may be interesting to state that the Public Works Department is making arrangements for the early establishment of State brickworks. A manager was appointed some time ago, and he has been engaged in working out the details. There is good reason to believe that the Government contemplates purchasing Shelley's paddock at Beenup, where it is said there is excellent clay.<sup>11</sup>

Effort began on the Brickworks in 1913, including installation of a Hoffman kiln, and the site was operational by 1915. A spur line from the South-Western Line was constructed to the State Brickworks. This required the construction of a railway bridge at Millbrace Glen in Byford,<sup>12</sup> one of two such bridges across Beenup Brook. It was reported that it cost £4,400 to resume the essential land and construct the line.<sup>13</sup>

Brickmaking began with 50 men producing 250,000 cherry red, wire-cut bricks a fortnight. Many of the men lived in single men's quarters near the site, returning home by train each Friday night and back to Byford ready for work on the Sunday night train from Perth.<sup>14</sup>

In the first full financial year 6,732,350 red bricks were made. The majority of these—approximately 5 million—were sold to various State Government Departments.<sup>15</sup>

Beenup residents anticipated that employees of the Brickworks would establish homes in the area. Although this never happened in the numbers expected, the new industry did increase sales of land in the town.

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The building industry, as with other industries, was affected by World War I, largely due to economic recession.<sup>16</sup> The production rate of the State Brickworks was greater than demand, which led to intermittent operation of the site.<sup>17</sup>

After the War, demand for bricks increased, and by June 1922 the Brickworks had been able to repay the losses incurred during WWI.<sup>18</sup> Another kiln was constructed in 1923, doubling the work force to 100 men. Byford's skyline was now dominated by a two large chimneys.<sup>19</sup>

<sup>11</sup> 'State Brickworks', *Sunday Times*, 12 Jan. 1913, p. 1

<sup>12</sup> Le Page, *Building a State*, p. 388; 'The State Brick Works at Beenup', *Western Mail*, 19 Dec. 1913, p. 34; 'State Brickworks at Beenup', *Sunday Times*, 15 Jun. 1913, p. 6. No original plans for the bridge have been located during the writing of this report.

<sup>13</sup> 'The State Brickworks', *Sunday Times*, 15 February 1914, p. 7.

<sup>14</sup> Coy, *Serpentine*, pp. 181-83

<sup>15</sup> Le Page, *Building a State*, p. 388

<sup>16</sup> Le Page, *Building a State*, p. 389; Seddon, G. & Ravine, D., *A City and its Setting*, (Fremantle, 1986), pp. 169-76

<sup>17</sup> Le Page, *Building a State*, p. 389

<sup>18</sup> Le Page, *Building a State*, pp. 389, 467

<sup>19</sup> Coy, *Serpentine*, pp. 181-83

In the interwar years, Byford began to produce ‘fancy’ bricks. Many of these designs were used by the Architectural Division of the Public Works Department for public buildings, and the ‘fancies’ became well known State Brickworks products.<sup>20</sup>

Around 1937, management of the Brickworks was taken over by State Saw Mills, possibly to allow the paired industries to operate more efficiently.<sup>21</sup>

World War II meant the building industry suffered a downturn in spending and a loss of manpower. By 1944, the State Brickworks was the only metropolitan brick manufacturer still in operation.<sup>22</sup>

The post-WWII period brought about significant changes, as a result of rapid expansion due to the reconstruction, immigration policies and the industrial and mineral boom of the 1950s to the 1970s.<sup>23</sup>

Shortages in building supplies played havoc with government projects and housing programs in the 1940s and early 1950s.<sup>24</sup> The Public Works Department (PWD) reported: ‘Since April 1946, building costs have increased by approximately 118 per cent’.<sup>25</sup>

With a commitment to reducing costs of materials and increasing supplies, the PWD was determined to construct a second, up-to-date, brickworks at Armadale.<sup>26</sup> By this time, the buildings, plant and kilns at Byford were in a state of disrepair, so it was intended that the Armadale State Brickworks would replace the earlier site.<sup>27</sup>

Byford Brickworks closed in 1961, and the spur line was taken up. In 1965 the Stationmaster at Byford was retired because the rail traffic was drastically reduced.<sup>28</sup>

In April 2000, *Millbrace Bridge* was entered in the Shire of Serpentine-Jarrahdale’s Local Government Inventory. In 2003, the Bridge was closed and fenced off, as it was deemed unsafe.

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<sup>20</sup> Le Page, *Building a State*, p. 389

<sup>21</sup> State Brick Works Annual Report & Balance Sheet for twelve months ended 30 June 1938, in AN 172/3, Acc. 1060, Item 3, SRO

<sup>22</sup> State Brick Works Annual Report & Balance Sheet for twelve months ended 30 June 1944, in AN 172/3, Acc. 1060, Item 3, SRO; Le Page, op. cit., p. 467

<sup>23</sup> Seddon & Ravine, *City and its Setting*, p. 187; Alexander, I., ‘The Central Area’, in Gentilli, J., (ed), *Western Landscapes* (UWA Press, 1979), p. 412

<sup>24</sup> PWD Annual Report, 1950/1951, pp. 8-9, in *Votes & Proceedings*, 1951, Vol. 2

<sup>25</sup> PWD Annual Report, 1950/1951, p. 9

<sup>26</sup> PWD Annual Report, 1949/1950, p. 14, in *Votes & Proceedings*, 1951, Vol. 2

<sup>27</sup> State Brickworks Western Australia, Annual Report, Year ended 30 June 1955, p. 2, AN 172/3, Acc. 1060, Item 3, SRO

<sup>28</sup> Coy, *Serpentine*, pp. 181-83

In November 2011, Ian Maitland Consulting was commissioned by the Shire of Serpentine-Jarrahdale to undertake a structural engineering report on the Bridge. Initial cost estimates for the restoration work identified in this report was approximately \$200,000.<sup>29</sup>

Ian Maitland's report was followed in 2013 by a report from Interala Engineering, who concluded that the cost of repairing the bridge would in the order of \$500,000 (ex GST), a significant increase on cost estimated by Ian Maitland. The increase was due to a requirement to replace a significant portion of the existing timbers to ensure the bridge remains structurally sound for a 25 year design life.<sup>30</sup>

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<sup>29</sup> Minutes, Shire of Serpentine Jarrahdale Ordinary Council Meeting, 22 July 2013

<sup>30</sup> Correspondence, Interala Engineering to Shire of Serpentine Jarrahdale, 17 April 2013



View of a Hoffman Kiln and stack (132ft high) with 'State Brickworks' painted on it (c.1913, City of Armadale Library MPH19)



Byford State Brickworks (c.1939, City of Armadale Library BBPH1-13)



Exhibition of products of the State Brickworks, corner of Irwin & Hay Streets, Perth (c.1937, SLWA, 217560PD)



*Millbrace Bridge and surrounds (History Now, January 2014)*

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*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*

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*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*

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*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*

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*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*



*Millbrace Bridge and surrounds (History Now, January 2014)*

## 8.0 INTERPRETATION STRATEGIES

### 8.1 INFORMATIVE SIGNAGE

The most didactic delivery of stories is through informative signage. This signage can convey messages and storylines through detailed text and photographs, maps, plans or other graphic content.

The scale and type of signage can vary to engage the audience at different levels, and is dependent on the context in which it is placed as well as its content. This approach is common in interpretation, although can be used routinely where more ‘imaginative’ solutions would have a greater impact.

At its most simple, just a name and a construction date can convey that the place is considered a heritage site and invite the visitor to explore more depth through other media: e.g. guidebooks, tour leaflet, guided tour, mobile phone app, or just searching the Internet for details.

Interpretive signage can be described as self-sufficient, since it provides a high-quality interpretive experience without needing staff or maintenance on a day-to-day basis. They offer a single, usually simple, message available to many visitors, at the visitors’ convenience, 24 hours a day.

Quality interpretive signage enhances visitor perceptions of a site. By drawing attention to an area’s unique history and identity, interpretive signs can become destinations in their own right. However, they are vulnerable to damage by weather and vandalism.

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### 8.2 INTERPRETIVE ARTWORKS

Artworks are sometimes an appropriate method by which to deliver stories, although care must be taken to ensure that the art does not compromise the fabric or the identified heritage values of the place. Interpretive art works should complement the site, not become the focus of attention.

Although many artworks are sculptural, but interpretation can also be two-dimensional (i.e. a mural) where this is both appropriate and does not significantly impact the heritage values of a wall.

Artworks can give the audience a challenging and engaging experience that is often hard to match with other interpretation media.

### 8.3 AUDIO & DIGITAL INTERPRETATION

Audio and digital interpretation incorporated into the public realm can enhance the immersive aspect of the interpretive experience.

Digital interpretation can include the use of smartphones to hear an audio track, or provide information from websites or a mobile app.

The use of audio and digital interpretation is assisted by the fact that many visitors will have their own smartphone, but will still require supplementary on-site interpretation both for those visitors who either lack the appropriate technology (or who do not wish to use it), and to direct visitors to an appropriate website or app to access the digital content.

### 8.4 EXAMPLE INTERPRETIVE INSTALLATION

The following is provided as an example only. The design of any interpretive installation should be commissioned from an appropriately qualified professional, and only implemented following the Shire's normal community consultative processes.

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1. Simple wooden steps could be constructed from the recycled timber leading to an interpretive panel which gives the history of the brickworks, its associated branch line, and *Millbrace Bridge*, together with images which best support the text.
2. It can be drawn to the visitor's attention that s/he is standing on remnants of the former Bridge.
3. The installation would either be located as close as possible to the site of the Bridge, or at a location which enables a clear view of the site of the Bridge.
4. A few small textual sheets (probably engraved metal) could be incorporated into the steps, with provocative quotations or simple facts which can then be contextualised by information provided by the information included on the interpretive panel at the top of the steps.
5. It will be necessary to research any implications or requirements for universal access to such an installation, and alternative interpretation provided for mobility-restricted visitors if this is appropriate for the site.

## 9.0 ENVIRONMENTAL ISSUES

The following is provided for guidance only, and should not be relied upon as authoritative. Expert advice should be taken before any timber from *Millbrace Bridge* is recycled for an interpretive installation.

1. Timber removed from the Bridge should be assessed for the presence of preservatives and problematic substances. A minimum of one, but preferably two or more of the following methods should be used:
  - visual assessment, if practical;
  - examination of original purchase specifications and past maintenance records;
  - assessment of historic in-service preservative treatments and practices;
  - targeted sampling and analysis.
2. Components of the Bridge identified as potentially suitable for recycling should be stockpiled.
3. Any timber containing, or coated with, problematic substances not identifiable by visual assessment should be clearly identified as such, and separated from the recycling stockpile. Testing would need to be conducted to determine the nature of the substances sighted.
4. Expert opinion should be obtained in the event of any uncertainty.