

## CAN THE RICHMOND BRIDGE BE CONSERVED?

The bridge across the Coal River at Richmond in Tasmania is the oldest surviving bridge in Australia. It was built using convict labour, and stone obtained near Richmond. Its foundation stone was laid in 1823 and it was opened in 1825.

The Richmond Bridge is listed in the Register of the National Estate and in the Tasmanian Heritage Register. It figures prominently in pamphlets and brochures designed to attract tourists to Tasmania issued by the Tasmanian Government.

The bridge is made up of six arches. Three of the bases of these arches stand in the river. In 1883 the lower half of each of these three bases was cased with stone, and to stop water seeping through the road surface and forcing out grouting in the arches, improvements were made to the drainage on the bridge and the arches were re-grouted. Since then the level of the roadway on the bridge has been raised, the part of it designated for vehicular traffic has been tarred, and from time to time the faces of the structure have been re-grouted.

There are stone parapets on the sides of top part of the bridge. They enclose two footpaths and two lanes for vehicular traffic. The footpaths are narrow - significantly narrower than would now be provided on a bridge that is to carry both pedestrians and vehicles. Each of the lanes for vehicular traffic is narrower than would now be provided on a two-lane bridge.

Sections of the parapets of the Richmond Bridge have had to be rebuilt a number of times to repair damage to them caused by drivers losing control of their vehicles when crossing the bridge at unsafe speeds. In February 1987 a two-metre section, in April 1988 a five-metre, and in October 1999 a six-metre section of the downstream parapet had to be rebuilt. In April 2001 about three metres of the upstream parapet were demolished and had to be rebuilt while in 2003 a car crashing into that parapet dislodged some stones in it so part of it had to be knocked down and rebuilt. In August 2005 a car crashed into the downstream parapet, but this accident only scarred the surface of the parapet.

Whenever the bridge's parapets were damaged, the stones that had been dislodged were retrieved and those that were not badly damaged were used to rebuild the demolished section. Any gaps were filled with stones obtained locally. A significantly large part of each of the parapets of the Richmond Bridge has been rebuilt to repair damage caused by cars crashing into them.

After the first accident that demolished part of the bridge's parapets a chicane was erected at the eastern end of the bridge in the hope it would slow down vehicles driving across it from the east to the west. It has absolutely failed to serve that purpose. Nothing has been done to try to slow down vehicles crossing the bridge from the west to the east.

There is a 30 kph speed limit on the Richmond Bridge. Nothing has been done to try to enforce it. According to an article published in *The Mercury*, the Hobart newspaper, on 25 July 2001, a report prepared for the Clarence City Council, which is the Council responsible for Richmond, had shown that many vehicles were being driven across the bridge at over 30 kph each day and that more than half of these vehicles were being driven across it at speeds of over 50 kph. This would still be the case. Most vehicles are driven across the bridge at speeds in excess of 30 kph; many at speeds in excess of 50 kph.

The road on which the Richmond Bridge is situated is a C-class road that links Richmond with a highway that leads northwards to the east coast of Tasmania and southwards to the Tasman Peninsula, where Port Arthur is situated. The Clarence City Council is responsible for the road, but the Tasmanian Government is responsible for the bridge. Its Department of Infrastructure, Energy and Resources manages the bridge, but it also determines what signs can be erected on the parts of the road for which the Clarence City Council is responsible. Large signs on the approaches to the bridge which clearly show that the speed limit on it is 30 kph might possibly help slow down vehicles crossing the bridge. It is not clear, however, if the Clarence City Council has ever asked for such signs to be erected, though it is obviously aware that many vehicles cross the bridge at speeds of over 30 kph.

The footpaths on the bridge are so narrow that pedestrians, many of whom are tourists inspecting the bridge, have to walk across it in a single file. As pointed out above, the lanes for vehicular traffic are also narrow. Many of the commercial vehicles that drive across the bridge are large trucks; some of the passenger vehicles are mobile homes and some are cars hauling caravans. These vehicles are quite wide. A combination of narrow footpaths, narrow traffic lanes, wide vehicles, and vehicles crossing the bridge at speeds in excess of 30 kph, might be considered to constitute a recipe for an accident involving a pedestrian on the Richmond Bridge – not probably a tourist inspecting the bridge. To avert such a possibility, and make it safe for tourists to inspect the Richmond Bridge, the footpaths on the bridge would have to be widened, but if they were, there would only be enough room for a single lane of traffic on the bridge.

There is a load limit of 25 tonnes on the bridge. There is a sign on the road that leads to the Richmond Bridge about a kilometre from its eastern end indicating that vehicles of over 25 tonnes are not to cross the bridge and are to follow a diversion. (Doing so would add over 10 km to their journey.) There is another sign about 100 metres from the eastern end of the bridge indicating that the load limit is 25 tonnes. There is a sign less than 50 metres from the western end of the bridge indicating the load limit on it is 25 tonnes.

Nothing is being done to enforce the 25 tonnes load limit on the Richmond Bridge. A realistic assessment of how it could be, would show it cannot be.

One of the recommendations in the *Richmond Bridge Conservation Plan* published in April 1997 was that the load limit on the bridge should be reduced to 15 tonnes, i.e., by 40 per cent. This recommendation has never been adopted.

Efforts made by some Richmond residents over a number of years have failed to get the Tasmanian Government to do anything to ensure the Richmond Bridge is protected and will be conserved. After part of the bridge's downstream parapet was demolished in October 1999, the Coal River Valley Historical Society organised a public meeting at which calls were made for the Tasmanian Government to institute measures to protect the Richmond Bridge. As a result, a State Government "Working Group" was set up to examine "preservation options". It must have decided that nothing more than what was being done needed to be done. After another accident demolished part of the upstream parapet in April 2001, the Mayor of the Clarence City Council called for the Tasmanian Government to take action to protect the Richmond Bridge pointing out that "nothing has been done [hitherto] except talk". (*The Mercury*, 26 July 2001)

Following the accident that demolished part of one of the parapets of the Richmond Bridge in April 2001, questions were asked in the House of Assembly - the lower house in the Tasmanian Parliament - about what was being done to protect and conserve the bridge. When answering them the then Minister for Infrastructure, Energy and Resources, the Hon. Paul Lennon, acknowledged that the Richmond Bridge was of heritage significance, but made clear he was not willing to reduce the load limit on the bridge because doing so could, he claimed, have an adverse impact on the number of tourists visiting Richmond in that it would prevent tourist coaches driving across the bridge, which they needed to do in order to park. "The parking is on the other side of the bridge", he stated in the House of Assembly on 4 October 2001. In fact it was not, never had been, and still is not. All but a few of the coaches that bring tourists to Richmond come from Hobart, park in the centre of the town, and return to Hobart from there; very few tourist coaches are driven across the Richmond Bridge. Reducing the load limit on the bridge to 15 tonnes would not have the adverse impact on the number of tourists visiting Richmond that the minister believed it would, particularly as most tourist coaches when laden weigh slightly less than 15 tonnes.

In a letter to the then Leader of the Opposition in the House of Assembly dated 16 July 2001, the then Minister for Infrastructure, Energy and Resources explained that though the Richmond Bridge was on a council road, in recognition of its heritage significance, it had been declared a State responsibility, as had a number of other bridges of heritage significance that were on council roads. These historic bridges "continue to carry traffic on the classified road system", he explained. He failed to make clear that the Richmond Bridge had far more heritage significance than other bridges on council roads in that it was the oldest surviving bridge in Australia.

The Minister acknowledged in his letter that there had been a recommendation in the *Richmond Bridge Conservation Plan*, which had been published in April 1997, that the load limit on the bridge should be reduced from 25 tones to 15 tones, and that part of the cost of preparing the plan had been met using Commonwealth Government funds provided under the National Estates Grants Program. If the recommendation, which was based "on a computer analysis [made] using software from the United Kingdom" had been adopted, it would have had, the minister stated, "a significant impact on tourism in Richmond as it would have precluded the estimated 1,000 tourist coaches that visit Richmond each year from crossing the bridge", which they needed to do in order to park. They did not. The decision that the 25 tonnes limit should be

retained had been based on faulty information.

The Department of Infrastructure, Energy and Resource's view was, the minister explained, that "the appropriate course of action" was to retain the 25 tonnes load limit "with ongoing monitoring". There was, he stated, no evidence that vehicles of over 25 tonnes regularly cross the Richmond Bridge, as had been claimed. A survey made in March-April 2000 had identified "only three crossings by semitrailers" and as the technique used to make the survey did "not measure vehicle masses ... there is no evidence that these [three] vehicles exceeded the posted speed limit", the minister stated. There is, however, no evidence that they did not, or that no other vehicles, i.e., trucks other than semi-trailers, "which exceeded the posted speed limit" crossed the Richmond Bridge during the survey period. The claims that vehicles of over 25 tonnes were crossing the Richmond Bridge could have been correct.

The Richmond Bridge was built to carry pedestrians, persons riding horses, and horse-drawn vehicles. It now has to carry a far larger number of vehicles that are far heavier than those it was designed to carry. There must surely come a time when the volume and weight of traffic on the Richmond Bridge will pose a threat to its structural integrity of far more significance than the threats to its parapets. "Ongoing monitoring" did not prevent the accidents that have demolished parts of the bridge's parapets. If all that is meant by "ongoing monitoring" is an occasional examination of the structure, it will not prevent more significant damage to the bridge. Richmond residents who are able to observe day by day the type of vehicles that are driven across the Richmond Bridge think it might be only a matter of time before a heavy vehicle being driven across the bridge causes significant damage to its structure.

The Australian Heritage Commission, which was responsible for administering the Register of the National Estate, was of the view that heavy traffic needed to be diverted from the Richmond Bridge to protect it and to ensure its conservation, and that to enable that to be done, a second crossing of the Coal River needed to be built. It made its view clear to the Department of Infrastructure, Energy and Resources some years ago.

According to the *Richmond Cultural Resources Management Plan 2001* (Vol. 2, p.189), the cost of the preparation of which was partly funded by the Australian Heritage Commission, the failure to enforce the speed and load limits on the Richmond Bridge could cause its "structural failure", and to obviate this risk a second crossing of the Coal River would be needed. (Several years ago the Tasmanian Government decided one was needed but it has never been built.) In his July 2001 letter the minister stated that "it is important that the bridge continues to carry vehicular traffic to justify the expenditure of State road funds on its conservation", and he made clear in a statement to the House of Assembly in October 2001 that State Government road funds would not be provided to build a second crossing of the Coal River to enable vehicular traffic to be diverted from the Richmond Bridge. That is still the case.

Allowing the Richmond Bridge to continue to be used in the way it is could result in it having to be repaired to such an extent that its heritage significance is significantly impaired. This could reduce its appeal as a tourist attraction. The Tasmanian Government does not seem to recognize the likely costs of its failure to protect the

oldest surviving bridge in Australia and to ensure it will be conserved.

Conserving the Richmond Bridge presents an unusual problem insofar as a new structure, viz., a second crossing of the Coal River, will have to be built to enable traffic to be diverted from the bridge. Funds cannot be provided to build the required bypass under the relevant Commonwealth Government road programme because the road on which the Richmond Bridge is sited is not a major highway, while, as the Tasmanian Government is responsible for the Richmond Bridge, funds cannot be provided under the Commonwealth Government's heritage programme. The Tasmanian Government is not willing to finance the cost of building a second crossing of the Coal River from its "road funds". The Richmond Bridge can only be conserved if this Gordian-knot type problem can be expeditiously solved.