



## Convict Trail Project

## January 2023 Newsletter

**Welcome to another year on the Great North Road.**

We hope 2023 brings lots of successful conservation and restoration to the Great North Road and no more storm damage.

### **A VIRTUAL WALK UP THE GNR: The Conservation of Clares Bridge**

[Contributed by Elizabeth Roberts]

Last month we looked at Clares Bridge and this month we will look at some of the conservation work that has taken place there. With the report of what is about to happen at Thomas James Bridge in this newsletter, it is totally coincidental timing that our journey up the Great North Road finds us looking at the 2003-2004 conservation of Clares Bridge. The CTP organised similar work at Clares Bridge, although it was on a much smaller scale to what is about to happen at Thomas James Bridge.

Previously, in 1999, the SE corner of the abutments had collapsed and the NPWS, as part of the restoration, removed the road fill that had washed in onto the pavement between the outer abutments and the central pier.



*[Southern abutment with decking removed]*



This revealed one of the stones near the base of the southern abutment near the area that was restored was badly crushed, tipped and had failed. The remaining fill was left in place and the abutment was propped against the central pier.

The CTP applied for, and got, a grant to conserve the stone work. Having got the grant, it became apparent that a whole lot of other work would have to occur to enable the stone abutment to be conserved. The 1960s decking had to be removed. The large concrete block that held up the 1960s decking also had to be removed. This block had been poured onto unconsolidated original filling with no piers to the bed rock, and it was exerting downward and outward pressure and causing the problems.



*[Demolition of Clares Bridge decking - lifting off the first sheet of metal decking.]*

Behind the concrete block was a blue metal and concrete wall about 30cm to 40cm high that had formed a ramp to get the road onto the 1960s decking. Getting rid of the blue-metal involved someone with a bobcat digger and tip truck. With the blue metal gone we still had to dig out the soil under the blue metal to the base of the concrete so the concrete could be cut. Out went another request to the Metropolitan weekend detainees. Before any of this could happen, the scaffolding had to be in place around the props as the first job was extract the top row of stones from the concrete that had flowed up to them. This was very difficult work. Just before the scaffolding was installation most of the washed in road base was remove by hand. With everything organised, the concrete cutter was organised and I waited for them at the Western Commissioners Track entrance. In 2004 mobile phone coverage was very hit and miss along the river and I waited and waited.

To allow vehicular access to the southern side of the bridge, a modern bridge just north of Ten Mile Hollow had to be propped but the propping barely managed to achieve little over the empty weight of the Stonemasons heavy crane lift truck. This limited the size of vehicles bringing in fill to Clares Bridge.

To remove the bridge decking, a large extendable mobile crane had to come in via Dubbo Gully with removal of, and then replacement of, the berms on the steep rises on that fire trail. Once removed, all the decking went out that way. With the decking removed more work was revealed. Back from the stones was the concrete block. It had been poured into an open bottom form work and had flowed through the open fill towards the stone wall. Before the wall could be dismantled the concrete block had to be removed, this would involve cutting it into pieces and before this could happen the area had to be prepared.



Finally they arrived. They had got lost by taking the wrong ferry. Setting up the saw was quite a process; as the stone cutter also had to bring a water tanker to supply water to keep the saw cool. They were to cut the block into pieces small enough to be lifted out by the stonemason's crane. This was the first job to be done when the stonemason returned. But the cut up concrete blocks were too heavy to go out over the bridge at Ten Mile Hollow.



With the concrete cut, the stonemason and crew returned for a fortnight and so did I. The stone work in the section to be conserved was carefully deconstructed with each stone numbered with a thick wax crayon on the top face that had first been swept. The numbered stones were stacked in rows in numerical order and the numbers recorded on a photo-shopped plan of the complete wall. As the stones came down so did the scaffolding. With the wall deconstructed and the scaffolding removed the remaining washed-in road base was removed to revealed a layer of ash on the paving between the piers. As the stones came down near the base behind the outer wall we found a heap of ashes that looked like they came from a small fire and not from a smouldering root. With the sun sinking behind the surrounding hills between 2pm and 2.30pm in mid-winter, it was easy to imagine the convicts trying to warm their hands before burying the evidence.

*[Ramp onto the bridge deck on concrete that carried the deck's stone abutment.]*

Each stone was lifted out and back again with a soft sling and cleaned with a nylon brush before being numbered on top. Although not proven at the time, the stones were re-laid on a small bed of dry stone dust. As we deconstructed the wall each stone was sitting on a small layer of 'dirt' that had to be brushed off before numbering. A number of years later it was discovered in deconstructing a section of Ramsays Leap that the convicts did lay the stones with a layer of stone dust and this was what we were seeing as dirt.

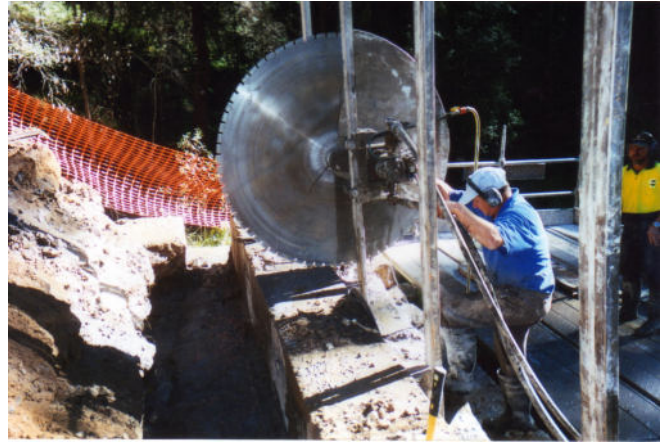
As the wall was being taken down, it was found there were a number of additional stones that, although appearing sound on the external surface, were too badly cracked or crushed to be reinstated. With the wall deconstructed, the stonemason Ken Fletcher (then living at Wollombi) and his crew took a home break, while he sourced and cut replacement blocks. One block, one of the corbels, went off site to be repaired. Another stone was pinned on site after I having obtained slacked lime and pozzolan powder and a long stainless steel rod to use as a pin. With everything in place, the stonemasons returned and the reconstruction commenced. As the wall went up again so did the scaffolding. As we neared the top in one row there was an approximately a 8cm gap between our work and the previous



reconstruction so one of the unusable stones left from the previous reconstruction was repurposed and cut to fit the gap.



*Installing the scaffolding*



*Concrete cutting saw at work.*

To do this work the stonemason and his crew of young men camped out at Ten Mile Hollow in mid-winter only going home at weekends. By the end of the first week at least one of the young men had run out of food.

For the first fortnight I stayed in a dormitory at the Wat. The row of rooms was built of green  $\frac{1}{2}$ -round pine logs that on drying had shrunk to leave gaps between the logs. On the inside the building was lined with fibro. The fibro kept out the wind but not the cold. The electric light in the room I was allocated did not function properly producing barely a single candle power to light a room with four double bunks. The dormitories were at least 100 meters from the raised chemical toilets, but they had back doors onto a grassed area, so after a week of squatting under the stars I brought my own heavy bucket. It was so cold in that room I used to take the next day's clothes to bed with me at night so they were warm enough to put on the next morning. A hot water bottle was essential and the Wat had a cupboard full for mid-year residents.



*The southern abutment of Clares Bridge restored.*

When I stayed there, there were no priests in residence; just a manager-cum-caretaker and two or three long term residents who paid board by maintaining the place and lighting

the wood-fired boiler for hot showers. The stonemason and crew paid a donation to have hot showers as the only facility at Ten Mile Hollow were toilets.

The second fortnight after asking if I could change to a room where the light worked I was put in one of the houses. Much better and much warmer.

As per the Burra Charter, all new material was identifiable and dated. When we were finishing there was a gap between the top of our work and that organized by the NPWS so Ken cut three stone to fit and was going to put his and his crews names on them. I turned round to find he had added Elizabeth as well.

This work was not completed without the assistance and work of numerous people.

- Paul Budde and Reg Norris [engineer] of the CTP who hassled Gosford Council.
- Gosford City Council who took down and removed the metal bridge and supplied timber to prop the Ten Mile Hollow Bridge.
- The crane driver who ventured so far into the bush on a very steep fire trail.
- Jim Alexander, bridge engineer who supervised the propping of the bridge at Ten Mile Hollow, and a NPWS person who assisted.
- A nameless crew of Metropolitan midweek or weekend detainees and their supervisor who supplied the muscle to put the timbers props in place at the 10 Mile Hollow Bridge and later another crew returned to dig out the soil so the concrete could be cut.
- Noi Sittoules, the then manager-cum-caretaker of the Wat, and his voluntary executive, who allowed me to stay at the Wat.
- The digger operator and the concrete sawyer and his mate with the water tanker.
- Sarah Brooks and Tony Horwood of NPWS arranged for Ken and crew to be able to camp at Ten Mile Hollow.
- Bill Jordon who supplied lots of advice and suggestions and organized and supervised the offsite repair of the corbel and sent me to Barry Cooper of Westox who supplied the slacked lime and pozzalan
- The most acknowledgement must go to Ken Fletcher and his crew for their work well beyond what is normally expected from a stonemason and who willingly camped out in mid-winter. It was an experience I do not think anyone involved will forget especially not Ken and crew and myself.

Hopefully anyone reading this who will be affected by the closure of Thomas James Bridge will understand why it will take so long. What we were involved in was only about 1/20<sup>th</sup> or less the size of what has to happen at Thomas James

## **Thomas James Bridge and land slippage at Wisemans Ferry**

[Contributed by CTP Board Member Rob Cunneen who, on 15 December 2022, attended a Zoom meeting facilitated by Hawkesbury Council concerning the reconstruction of the Thomas James Bridge. This is his report. ]

The full meeting can be viewed at <https://youtu.be/FBW8REe559E>.

Elizabeth Richardson, the General Manager of Hawkesbury Council, opened the meeting, and then handed over to Will Bart, Council's engineer, to explain the work proposed. He divided it into two separate projects: The reconstruction of Thomas James Bridge; and the clearing and securing of the landslide on the southern approach to the bridge. But he hoped that all the work would be handled by the same contractor.

The boundary dividing Hawkesbury Shire from the Central Coast runs along the middle of the Great North Road, but by agreement between the two responsible councils, Hawkesbury will manage both projects.

RECONSTRUCTION OF THOMAS JAMES BRIDGE, step by step:

- The road closed and the bridge deck removed.



- On the southern approach, the bridge stones photographed, labelled and removed, for later reassembly.
- On the southern approach, all backfill excavated and removed down to bedrock, to provide a firm footing for the repairs. All heritage items discovered in the process to be preserved and recorded. The depth of excavation will range from 1 metre up to 7 metres in places. A temporary retaining wall is to be constructed, to shore up the loose material during excavation.
- New concrete foundations poured and a reinforced concrete retaining wall constructed in 2 metre 'lifts' or stages. As the wall progresses in height (in some places 8 metres high), it will be backfilled with 'structural fill', and proper drainage installed (as poor drainage caused the collapse of the wall in the first place).
- The bridge deck replaced and one lane of traffic opened 'at the earliest opportunity'.
- The sandstone wall rebuilt as a façade in front of the concrete wall.

A less drastic option was considered, that of driving concrete piles through the existing fill to stabilize the road. This was done to good effect on the opposite side of the river some years ago. But it was feared that the road on this side, would not support the weight of the piling rig.

#### DEALING WITH THE LANDSLIDE TO THE SOUTH OF THE BRIDGE:

Three solutions were considered, but the first solution was selected, as the others were too costly:

- Constructing a 'berm' (from gabions) and a rockfall fence on the uphill side of the road with weldmesh type fencing. (My note: such a berm and fence was built at Thredbo after the disaster there)
- A viaduct built out from the hillside on pylons.
- A long bunker or inverted bridge over the road to shelter it from future landslides.

#### THE ANTICIPATED SCHEDULE FOR THE WORK:

- Heritage approvals should be received some time in January. This process was made easier due to the bridge 'not having a heritage listing'.
- Funding hopefully signed off by Transport New South Wales.
- 2 month tender process and work commencing in March or April 2023, at which time, the road will be closed.
- Anticipated time till completion would be about 12 months, but of course this is educated guesswork based on the completion time for previous work at Greens Road.

### **CTP Research Working Bee:**

When: Wednesday 1 February 10am to 12 noon

Where: HSHS Museum in Kenley Park Kenley, Normanhurst.

Getting there by car: You can only enter Kenley Road when heading north towards Hornsby on Pennant Hill Road. Parking is available in Kenley Road.

Getting there by train: A short walk alongside the railway line from Normanhurst Station via a pedestrian right of way off Huddard Ave to Kenley Road and the Museum.

Research Focus: We will be working on the Pick Vol 11 which has the theme "By-ways and tracks associated with the Great North Road". Bring your ideas with you.

**And in closing ....** We hope to see lots of you at our first research meeting in 2023. It is a chance to look at and use the research files held in the Hornsby Shire Historical Society collection which now includes many of the CTP files.