Heritage Impact Assessment for the old bridge on Krysfontein and Weltevreden 826, near Richmond



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1. Introduction and Methodology

Debbie Whelan of Archaic Consulting was approached by Mr Alistair Hunter from Umgeni Water in order to provide an opinion as to the intended alteration of a small farm bridge on the farm Krysfontein and Weltevreden, near Richmond, owned by Mr Eric Burgess.

Dr Whelan visited the site on the morning of 9 October 2012 and inspected the bridge. Further to this a drawing of the intended intervention by Umgeni Water was provided, showing the extent of the proposed works. Given the nature of the project, limited archival work was carried out, and rather, recourse was made to historic maps and early aerial photographs.

2. Assessment of bridge

The bridge is a modest structure that crosses the Mkhuzane River close to the contemporary road bridge on the R56 which leads from Pietermaritzburg to Richmond at GPS co-ordinates S 29°48'28.5" and 30°20'8.5"E. The track crossing the bridge is dirt and it travels parallel with it for some distance. It is visible on the 1937 aerial photographs suggesting that the bridge was extant at the time.



Fig 1: Showing old bridge from the R56

The structure is not particularly diagnostic with regards to establishing an age of construction, nor is it easy to inspect of photograph in its entirety given the landscape and the undergrowth. However, it is strongly suspected that it formed part of the original main road to Richmond, one of the first roads in the Colony, given realignment at some time between 1930 and 1968. The structure is over 60 years of age, thus subjecting to the protection of the KwaZulu-Natal Heritage Act no 4 of 2008.

The bridge is constructed of off - shutter concrete spanning the river by means of two substantial concrete piers which project beyond the sides of the bridge (see Fig 2 below). A protective railing consisting of two rails of railway iron spans a series of shaped bollards (see Fig 3 below) some of which are unstable, and out of line possibly due to being hit by traffic in the past, or ground movement.



Fig 2: Showing shaped bridge piers (western edge)

In plan, the alignment of the railings to both sides of the bridge is similarly distorted, with any symmetry in the past obliterated (see Fig 11). As noted, this could also be due to ground movement or traffic impact (see Fig 4)



Fig 3 (left): Showing shaped bollard intersected with railway iron railings
Fig 4 (above) Dislocated bollard

¹ Topodadastral 2930CD 1960 shows an alignment adjacent to the railway line, whereas earlier maps (Map from 1930 Compilations Series and 1904 Masson Map) show the alignment crossing the railway line at this point.



Fig 5: Showing drystone abutments



Fig 6: Bridge from west - upstream





Fig 7: Eastern edge - bollard to be destroyed Fig 8: Last bollard on west edge



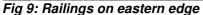




Fig 10: Bollard on eastern edge to be destroyed

Given the use of concrete, and the concomitant use of railway iron, this bridge could well be an early example of the use of concrete in the province.

The significance of the structure, despite its seclusion, is medium. Given that its origins could well have been the old main road which dates back to the early settler days of Natal Colony, this structure would form part of an historic infrastructural landscape.

Significance	Local	Regional	National	International
Architectural	Medium (of interest)	low	low	low
Historical	Medium (of interest)	low	low	low
Social	Medium (of interest)	low	low	low
Technical	Medium (of interest)	low	low	low
Scientific	low	low	low	low

3. Assessment of planned intervention by Engineers

As noted, Archaic Consulting was presented with an engineering drawing, namely that numbered 46056 prepared by Umgeni Water for proposed Richmond Pipeline (see Fig 11)

This shows the distortion of the railings in plan. However, it also notes the destruction of bollards (numbers 1, 6 and 7) and by implication, railings which form an integral part of the bridge. Furthermore, it also entails the fixing of the pipeline to the concrete piers by means of saddles bolted into the concrete. All of this can be construed as irreversibly affecting a heritage resource.

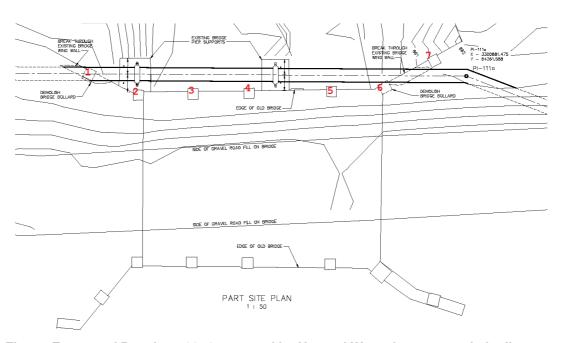


Fig 11: Excerpt of Drawing 46056 prepared by Umgeni Water for proposed pipeline



Fig 12: Yellow line - line of pipeline: orange arrow -point of attachment to pier

4. Conclusion

Although the bridge is not very visible, and not necessarily in good repair, its condition and presence is no excuse for destruction through ill - considered planning.

It is strongly recommended that the pipeline be realigned in order to avoid the destruction of the bridge bollards and railings.

Should it be possible that the pipeline can be threaded through the extant railings, this would be acceptable.

The saddle fixings to the piers are acceptable since this work is more reversible than the destruction of the railings.