Place name Albert River Road 'A' Frame Bridge | **Survey Date:**

Other name Little Albert River Crossing | **Id:** 1297

Street Albert River Road | **Last Update**

Locality Hiawatha | **Postcode**

Official Locality | **Property No**

Local Government Area Wellington Shire | **Property Info**

Precinct: Not in precinct

Easting 454200 | **Northing** 5733700

Map Binginwarri 8120-1-1

Workshop number | **Workshop votes**

Field survey number | **Community priority**

Designer | **Builder**

Ownership | **Built Date** | **Change Date**

Description 8.96km. - exact location measured from designated start of route for roads and from Spencer Street 0km mark for railways.
Deck length (m): 18.3
Deck width (m): 5.5m road
All spans: 1 main spans: 1 timber spans: 1 minor spans: 0
Max span (m): 18.3 max ti span (m): 18.3 corbel type: relieving beams: 0
Date of construction: 1933
Exists: 1 in use: yes
Other details: a-frame single span, longitudinal timber decking . Timber beams with centre cross beam of steel. Londitudinal deck with timber surface.
Detail of spans: 18.3 m

Unique surviving example of a well documented indigenous Victorian design used in Gippsland during early 1930 (possibly same bridge as reg#51 - yes, dc 6-5-1996). Part of a group of small to medium all timber bridges on Albert River Road near Hiawatha, all built during the early 1930s, possibly to standard CRB designs, worth considering as a group, or to select best examples, should be a picturesque setting also. This unique and beautiful bridge, in a pleasant tourist environment - open farmland and picturesque hills backdrop, is a must for preservatio
Once a standard CRB design.

Other dimensions: vicroads oracle dbase gives overall length and max span as 19 m and deck width as 5.4m.
Modifications: base of a frame timbers have concrete collars. Additional steel supports, beneath central steel crossbeam (obviously later - not part of original design but probably important to bridge's future).
General comments: a-frame 9.1m high. Probably same bridge as Vicroads str 5781 which Vicroads oracle dbase listed as being const.
(National Trust Register, I33)

Road bridge crossing Little Albert River. Deck length: 18.8, deck width: 5.6, area: 25, load limit: 20, spans: 2.
(Wellington Shire Timber Bridges Register)

Condition | **Integrity**

Bridge

History

Heritage Protections

Register	Reference	Zoning	Status
National Trust Register	B6838		Listed
Planning Scheme	HO10		Listed
Victorian Heritage Register	x		Recommended

National Estate

Research Required

Recommendations One of a group of bridges (Place Nos. 1297 (A Frame/protected), 1432, 1433, 1434, 1435, 1436, 1437) This bridge has been assessed by the National Trust as being of State significance.

Fieldwork priority?

Stage 1 Ranking	Assessed & protected	**Stage 2 priority**	No Action: Already include
Final Ranking	State significance	**Final Recommendation**	Amendment C26

Statement of significance Built in 1933, the Hiawatha "A frame" bridge is scientifically, historically and aesthetically significant at State level. It is the only surviving Victorian (and probably, Australian) example of its structural type, and was produced to a standard design by Victoria's Country Roads Board in the economically-depressed years of the 1930s. This is the last surviving example of an innovative type of Victorian timber bridge, specifically designed for rural Gippsland sites.

The main distinguishing feature of this type of historic Country Roads Board bridge is its pair of "A frames", one on each side of the deck, and each constructed from two large logs with their tops joined high above stream centre an their bases encased in concrete at each bank of the stream. This pair of solid-timber triangular frames are braced together by cross-stays above the vehicle passageway, and each has a strong steel-rod "hanger" suspended from its apex to support a main steel joist "cross-beam" that carries the dead weight of the bridge superstructure. It has a standard Country Roads Board longitudinal-timber deck. . (National Trust Register, B6838)

Technically, this is a very unusual bridge pattern, incorporating elements both of truss and suspension design. When in 1930 the Country Roads Board produced the prototpye of what became its standard "A frame" design, it was promoted as an economical successor to the traditional Howe-type Country Roads Board timber-truss bridge of the 1920s, although of more linited application. The use of diagonally-aligned overhead timber compression members in conjunction with vertical steel-rod tension members to provide a clear span of sixty feet, is its only real link with the traditional Howe-type timber truss that it partly superseded.
The suspension element of this design, with its heavy steel rods anchored to the apex of two tall logs forming an "A frame" on either side of the deck, and designed to carry the bridge's load and to transfer leading stresses via the overhead timber frames to abutments and bedrock, fits into a worldwide engineering preoccupation with suspension-type bridge designs during the 1930s. Rather than being suspended from an arch as in some nineteenth-century laminated-arch timber designs, th central section of the vehicle-carrying timber superstructure and deck is here suspended from massive triangular timber frames, the triangle providing both simplicity and beauty of form and an extremely strong structure.

This relatively complex small-timber-bridge design reflects the new-found mental flexibility and ingenuity of Victorian engineers of the Great Depression, forced to confront formidable construction problems with very limited resources, especially on remote and lightly-trafficked rural Developmental Roads. By 1930, the howe-type timber trusses traditionally used to bridge sixty-feet spans in Gippsland were relatively expensive to construct and maintain, and suitable high-quality bridge timbers for that design were increasingly hard to obtain. . (National Trust Register, B6838)

The Developmental Roads program was a significant venture undertaken with limited State loan funds between the two World Wars, in order to populate rural Victoria and boost primary-production revenues. This economical "A frame" bridge pattern was used exclusively on lightly trafficked Developmental roads, and played an essential transport role prior to and during World War 2. This last surviving example of an "A frame" bridge therefore represents a significant historical artefact of the 1930s.

In terms of architectural form and aesthetic appeal, the Hiawatha "A frame" bridge must rank among Victoria's most beautiful timber bridges. Its setting on a winding and remote Gippsland gravel road that is popular with summer tourists and fishermen, adds to both its beauty and its historical authenticity. . (National Trust Register, B683)

Extent of designation

Informant

Notes

Follow up

Bibliography Wellington Shire, (28/8/2001), Timber Bridges Register (No. 81166)