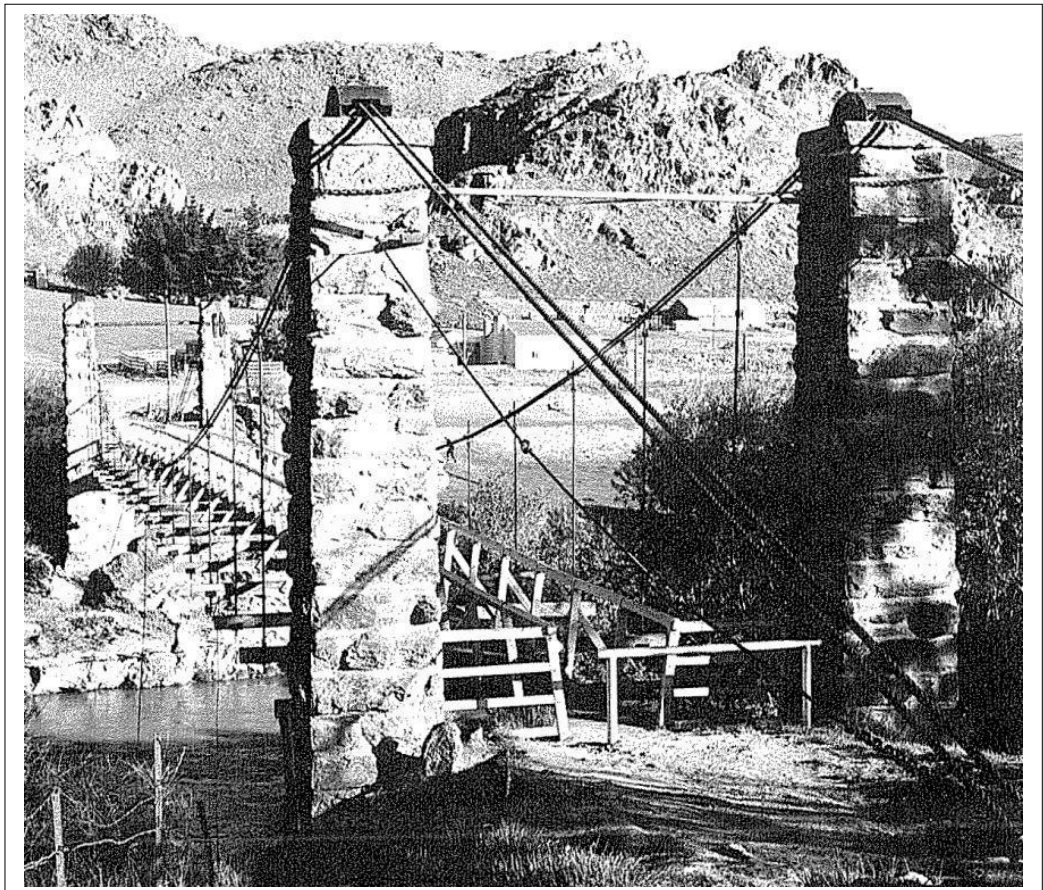


## IPENZ Engineering Heritage Record Report

# Shaky Suspension Bridge, Alexandra

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Date: Last amended 13 December 2010



Shaky Suspension Bridge. G. Thornton, *Bridging the Gap: Early Bridges in New Zealand, 1830-1939*, Auckland, 2001, p.183

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## A. General information

**Name:** Shaky Suspension Bridge

**Alternative names:** Cameron Bridge; Manuherikia River Suspension Bridge, Alexandra; Pioneer Bridge; Shakey Bridge

**Location:**

Manuherikia River

Kerry Street/Graveyard Gully Road

Alexandra

Otago

**Geo-reference:**

**Legal description:**

**Access information:** Shaky Suspension Bridge is a pedestrian bridge at the end of Kerry Street. Kerry Street intersects with Fox Street, which in turn is east of Tarbert Street/State Highway 85. Kerry Street has curb-side parking. Alternatively, there is also parking available at the south end of the bridge on Graveyard Gully Road. Vehicle access across the Manuherikia River is via Little Valley Road, and Graveyard Gully Road is the first intersection to the southwest once across the river.

**City/District Council:** Central Otago District Council

**IPENZ category:** Engineering Work

**IPENZ subcategory:** Infrastructure – Bridge

**IPENZ Engineering Heritage number:** 2339

**Date registered:** N/A

**Other IPENZ recognition:** N/A

**Other heritage recognition:**

- *New Zealand Historic Places Trust:* Shaky Bridge, Category II historic place (Record. no.2082).
- *Local Authority District Plan:* Central Otago District Plan. Schedule 19.4: Register of Heritage Buildings, Places, Sites & Objects and Notable Trees (10 July 2010), reference no.5
- *Other:* N/A

## B. Description

### Summary

Spanning the Manuherikia River at Alexandra, Shaky Suspension Bridge was constructed as a light traffic bridge between 1878 and 1879, in response to local need and pressure. This attractive structure is a characteristic Central Otago suspension bridge with schist masonry towers and a timber deck.

As a key junction town in Central Otago, in the 1870s people in Alexandra and surrounding district campaigned hard for a bridge to replace their existing and potentially hazardous Manuherikia River ferry services and ford. A bridge at this point was a local priority because when the river was in flood all connection to the settlements east of the Manuherikia and Clutha Rivers was interrupted.

Consequently, Vincent County Engineer, Leslie Duncan Macgeorge (1854-1939), designed 60 metre (m) bridge, which was constructed by Grant and McKellar. With the advent of a road/rail bridge close by in the early twentieth century the bridge was threatened with demolition. Local people then rallied around the structure to save it, as they did again in the early 1950s, by which time its dilapidated state had earned it the name Shaky Bridge. Now used by pedestrians only, Shaky Bridge underwent a significant restoration project which was completed in 1952 and was called Pioneer Bridge, although the former nickname has stuck.

Shaky Suspension Bridge is a handsome and popular local landmark, and has some engineering importance as an example of the vernacular form of late nineteenth century bridges in Central Otago, which notable engineer Macgeorge excelled in designing.

## Historical narrative

Initially part of the Central Otago goldfields, and therefore subject to special laws and regulation, Alexandra was later withdrawn from this and became a municipality in 1867.<sup>1</sup> By this time Alexandra was an important junction town at the confluence of the Clutha and Manuherikia Rivers, with people relying on punt and ferry services to navigate the Manuherikia River. In the mid-1870s the closest bridge to Alexandra was across the Clutha River, some 10 kilometres away at Clyde.<sup>2</sup>

By the mid-1870s there was growing demand for a light traffic bridge across the Manuherikia River and when Vincent Pyke, the Member of Parliament for the area visited Alexandra in 1876, he was approached about it.<sup>3</sup> The public pressure paid off and the newly established Vincent County Council called for tenders in mid-1877 for a bridge designed by the County Engineer, Leslie Duncan Macgeorge (1854-1939).<sup>4</sup> However, to much local displeasure this was only for a foot and packhorse bridge. Local people continued lobbying for a traffic bridge and eventually the initial contract was cancelled with new tenders being called, this time for a light traffic bridge.<sup>5</sup> There was a delay in proceedings however, because the successful contractor for the initial bridge, Jeremiah Drummey (b.1833), refused to break the contract without compensation. In the end he was compensated after the Borough Council interceded in the affair.<sup>6</sup>

Macgeorge's bridge, sited about one kilometre upstream of the Manuherikia River confluence with the Clutha, was built by Grant and McKellar, who won the contract in May 1878.<sup>7</sup> Their tender price of £975 was also contributed to by the Alexandra Borough Council, whose £250 was mostly raised through public subscriptions.<sup>8</sup> With the public satisfied by the altered plans, and the funding becoming available, construction of the bridge was able to start in June 1878.<sup>9</sup> However, progress was slow, a fact facetiously noted by a local newspaper in February 1879 when it stated that "faint hopes are beginning to be felt that the present generation may yet see that

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<sup>1</sup> C. Moore, *The Dunstan*, Dunedin, 1953, pp.49-50

<sup>2</sup> G. Thornton, *Bridging the Gap: Early Bridges in New Zealand, 1830-1939*, Auckland, 2001, p.186

<sup>3</sup> *Tuapeka Times*, 25 November 1876, p.2; J. McCraw, *The Golden Junction: episodes in Alexandra's history*, Dunedin, c.2002, p.47

<sup>4</sup> *Tuapeka Times*, 4 August 1877, p.3

<sup>5</sup> *Tuapeka Times*, 11 August 1877, p.3; *Tuapeka Times*, 5 December 1877, p.3

<sup>6</sup> McCraw, p.47; *Tuapeka Times*, 26 December 1877, p.3

<sup>7</sup> Thornton, p.182

<sup>8</sup> McCraw, p.47

<sup>9</sup> *Tuapeka Times*, 29 June 1878, p.3

structure completed.”<sup>10</sup> The structure was finished in early May 1879 but, unusually, it was almost a year before it was able to be used to its full potential because a delay in creating the approaches meant it was dangerous for wheeled traffic.<sup>11</sup>

By the early twentieth century a lack of maintenance meant that the bridge was dilapidated. It was also in serious danger of being demolished when in 1906 a railway bridge, adapted to also take road traffic, made the earlier structure redundant. While the County Council were keen to demolish it, local people stuck by the structure they had lobbied hard to have constructed. Petitions were organised and a delegation sent before the Council to make a case for the bridge. It was at a Council meeting that the structure was sold for £1 to one of its advocates, Lewis Cameron, on the condition that it was closed to vehicle traffic.<sup>12</sup>

Now in private ownership, through a lack of maintenance the structure gradually became derelict and earned the name, Shaky Bridge (early references are spelt ‘Shakey’). However, in the mid-twentieth century local people rallied around the bridge, raising money and implementing a restoration project which was completed in 1952.<sup>13</sup> The bridge continues to be used for pedestrian traffic and is a popular landmark in Alexandra.

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<sup>10</sup> *Tuapeka Times*, 22 February 1879, p.3

<sup>11</sup> *Tuapeka Times*, 30 April 1879, p.4; *Tuapeka Times*, 14 May 1879, p.3; McCraw, p.48

<sup>12</sup> McCraw, p.49

<sup>13</sup> Moore, p.92

## Social narrative

Bridges were of great importance to settlements around New Zealand because they were a way to mitigate the high drowning death toll by eliminating the need to ford or ferry across potentially dangerous waterways.<sup>14</sup> Indeed, around the time that Alexandra's Manuherikia River bridge was being constructed, G. Cameron, presumably a relative of Lewis Cameron who later purchased the suspension bridge, was reportedly nearly killed while fording the river:

There have been several narrow escapes, one which occurred recently to Mr G. Cameron, nearly having a fatal termination. Mr Cameron was attempting to ford the river on horseback during a freshet, when both horse and rider were swept away with the current, and it was with difficulty that they succeeded on reaching the shore.<sup>15</sup>

When in flood the Manuherikia River also cut off communication on its eastern side, and also from the Clutha River, which is why local people saw it as a matter of great import to have a bridge constructed.<sup>16</sup> The completion of, what would later become known as, Shaky Suspension Bridge in 1879 was the result of many years of campaigning by locals for a bridge over the Manuherikia River for precisely these reasons, as was its retention when threatened with demolition in the early twentieth century.

Over its life Shaky Bridge has not only become valued for its functional purpose, but also because it is a point of interest and a landmark within Alexandra. This motivated a major restoration project in the mid-twentieth century and has ensured its continued maintenance.

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<sup>14</sup> Thornton, p.15

<sup>15</sup> *Tuapeka Times*, 29 June 1878, p.3

<sup>16</sup> *Tuapeka Times*, 25 November 1876, p.2

## Physical narrative

Shaky Suspension Bridge is a handsome single span structure stretching across the Manuherikia River at Alexandra, between schist masonry towers located on either side of the river bank. At the time of its construction, between 1878 and 1879, the bridge was described as “a light and airy structure, and [one which] is certainly a credit to the Engineer who designed it...”<sup>17</sup>

The schist stone for the towers would have been quarried in the vicinity. The square towers are approximately eight metres tall and carry the suspension bridge’s cables, which have vertical iron rods supporting the deck structure. The cables consist of twin wire ropes, each being 120 millimetres in diameter.

There was no stiffening truss included in the design because the timber transoms (spaced three metres apart), the longitudinal beams and decking, and the handrails, all combine to form the equivalent. The deck is 60m long and the original timber came from Wanaka sawmills. However, this was replaced during the restoration project which was completed in 1952. The project led to the removal of the dilapidated and dangerous superstructure and the installation of a new deck to make the bridge once again safe for pedestrian use. A small plaque commemorating the restoration of the bridge is attached to one of the towers.

### *Key physical dates*

1878-79	Constructed
1952	Restoration complete

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<sup>17</sup> *Tuapeka Times*, 19 April 1879, p.3



### C. Assessment of significance

Shaky Suspension Bridge has some engineering significance as one of a group of suspension bridges designed by notable Vincent County Engineer, Leslie Duncan Macgeorge. These, and other similar local bridges, became a vernacular type in Central Otago in the late nineteenth century, being suspension bridges with characteristic schist masonry towers. This structure also has local social significance as a key means of traversing the potentially dangerous river, and because the community has advocated strongly for the Shaky Suspension Bridge, and has continued to value it.

Therefore, Shaky Suspension Bridge is of sufficient engineering heritage significance to merit inclusion on the IPENZ Engineering Heritage Record.

## D. Supporting information

### List of supporting documents

NZHPT registration information for Shaky Bridge available at:

<http://www.historic.org.nz/TheRegister/RegisterSearch/RegisterResults.aspx?RID=2082> (accessed 16 November 2010)

### Bibliography

McCraw, J., *The Golden Junction: episodes in Alexandra's history*, Dunedin, c.2002

Moore, C., *The Dunstan*, Dunedin, 1953

Thornton, G., *Bridging the Gap: Early Bridges in New Zealand, 1830-1939*, Auckland, 2001

### Electronic sources

McKinnon, Malcolm, 'Otago places - Clutha River/Mata-Au', Te Ara - the Encyclopedia of New Zealand, URL: <http://www.TeAra.govt.nz/en/otago-places/12> (updated 19 August 2009)

Available from Papers Past, <http://paperspast.natlib.govt.nz/cgi-bin/paperspast>:

*Tuapeka Times*, 25 November 1876, 4 August 1877, 11 August 1877, 5 December 1877, 26 December 1877, 29 June 1878, 22 February 1879, 19 April 1879, 30 April 1879, 14 May 1879