

Reference Project

Bridge Construction

Oraka Stream 46m suspension bridge

Location	Oraka Stream, Tirau.
Date	December 2021
Client	South Waikato District Council
Consultant	Abseil Access design team

Abseil Access was awarded the tender for the design and construction of a suspension bridge over the Oraka Stream for access from the Lower Domain to the Tirau Upper Domain Project. The project includes walking paths, a multi use field, and a dog exercise area, all located where SH1 and SH5 intersect, between Tirau and Rotorua. The Tirau Domain Action Group with the support of the Raukawa Charitable Trust, has been instrumental in this project.

The work included:

- Design and engineering of the bridge with a load capacity of 2 kPa - the equivalent of 135 persons.
- High flood clearance of over 4m above the stream bed, with the bridge extending far up the banks for additional clearance
- 6 number 200 SED driven piles under each of the towers
- Deck width of 1900mm suitable for cyclists passing in both directions, and meeting the user group 2: Short Stop Travelers as well as the NZ cycle trail code grade 2 (easy) requirements
- Resource and Building Consents
- Peer review by council appointed independent engineers
- Load testing

Abseil Access proposed the use of a suspension bridge of a design that is attractive and remains sympathetic to the rural character of the reserve, whilst also ensuring no waterway restrictions, and reducing any environmental impact to the minimum. The bridge team worked very hard to complete the bridge in 6 weeks - just before Christmas on the 20 December.

