

## Reference Project

## Bridge Construction

**This 90m long suspension bridge complements the busy LOTR Rivendell bush walk circuit**

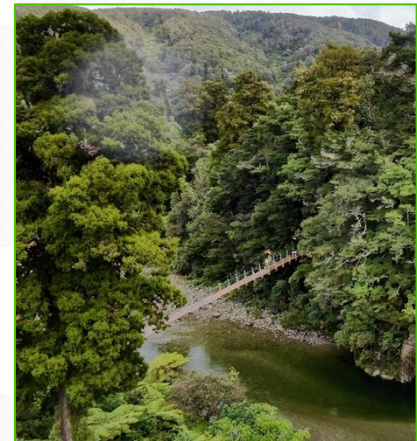
<b>Location</b>	Hutt River at Pukuratahi Forks, Kaitoke Regional park
<b>Date</b>	June 2021
<b>Client</b>	Greater Wellington Regional Council
<b>Consultant</b>	Malcolm Nielsen MNCE



The LOTR Rivendell setting is one of the most visited sites in Greater Wellington. The crossing of the Hutt River gorge and associated ancient bush circuit is a popular walk and photo opportunity for international visitors. Critically this bridge needed to cater for all physical abilities and large groups as well as being a show piece for New Zealand.

### The work included:

- Design and engineering of the bridge with a load capacity of 25 person groups.
- Width of 1200mm and suitable for pedestrians passing both directions and meeting the NZ HB8630.
- 90m deck at an incline greater than 7.5 degrees required to meet wheelchair access standard NZS 4121:2001
- Aesthetic design and integration into the environment.



Abseil Access won the tender to build this unique structure working alongside the Greater Wellington track team. The existing bridge had to be removed and the new bridge installed with minimal damage to the tall ancient native rimu and Kahikatea.

Main cable anchors are attached to 20T concrete blocks that were poured using helicopters. The 8m towers were flown into site and lowered carefully between the tall trees.

The bridge deck is made up of 60m of cable suspended decking accessed by 30m of inclined ramp. All sections were over 1 in 12 and required flat rest sections and accessibility handrail for wheelchair access to meet the NZS 4121:2001. This was the first suspended deck in NZ to incorporate this feature.

The team built the structure over 2 months during winter and committed to camping at the location.

