

REFERENCE PROJECT

Geotechnical: Crib wall repair

Location: Whitby Place, Kaikoura
Date: July 2018
Client: Housing New Zealand
Consultant: Jacobs

Following the November 14th, 2016 Kaikoura Earthquake a Crib Style Retaining wall at Whitby Place suffered a structural failure. Abseil Access was the *successful* tenderer to Housing New Zealand for the construction of a new retaining wall.

The section of failed crib wall required delicate removal and cutting to allow the new retaining wall to be constructed while maintaining the already narrow driveway access.

The new retaining wall was secured to the existing crib wall with 36 self drilling anchors drill through the crib and back fill into competent rock behind. Three test anchors were initially installed for suitability testing to BS 8081.

All anchors were drilled and grouted in one week using a hydraulic top hammer mounted to a 5.5t excavator.

1700m of 12mm reinforcing steel was tied in 2 layers on-site to match the profile of the desired wall. Shoring and boxing was required to support the existing face while the new wall was constructed.

A 200mm of 40mPa shotcrete was sprayed in one pass to complete the new retaining wall, anchor plates were applied and covered during the concrete application.

Run off from grouting operations and site clean up was strictly controlled as stormwater drains were present at the base of the wall.

The project was completed within budget and schedule

