

REFERENCE PROJECT

Geotechnical Slope Stabilisation Works

Location: Main Road, Tawa, Wellington
Date: December 2018
Client: Wellington City Council
Consultant: Engeo (Wellington Office)

A slip above the Main Road in Tawa posed a threat to traffic. Abseil Access was awarded the project to install 53 rock bolts with a reinforced rockfall mesh to prevent further erosion.

A purpose-built scaffold was constructed to work with a traffic deviation so as to reduce traffic disruption to a minimum. Access to the scaffold was possible from a track above as well as from the main road.

Two production anchor tests were conducted for Suitability confirmation and loaded up to 150kN following BS8081.

Galvanised 25mm Williams anchor bars were used for the main rock anchors. The anchors were installed on the slip and into rock at 2.5m high by 3m wide spacing and up to 6m deep with 100mm diameter holes. Two A-frame drill rigs were used for the upper anchors, and the scaffold supported a drill rig for the lower 2 anchor rows. Coring was required through existing shotcrete in some areas. Drainage through the shotcrete face was achieved using 3 sub-horizontal PVC drains at 3m centers. A timber water stop wall was installed along the top of the site to divert rain water away from the slip face. Hydroseeding was applied to promote vegetation growth and reduce erosion.

The area was covered with a layer of Geofabrics erosion control mesh (MacMatR) reinforced with perimeter and diagonal 16mm galvanized wire ropes.

The works were completed on time within the 6 week timeframe. and conformed with all the Engineers specifications and quality requirements.

