

Reference Project

Geotechnical Slope Stabilisation

Active Mesh and Anchors for Rockfall Mitigation on the Johnsonville Line

Location	Johnsonville line between tunnels 1 & 2 Wellington
Date	November 2019 to February 2020
Client	Kiwirail
Consultant	Aurecon

The Johnsonville line cuts up through the Ngaio gorge through 5 tunnels. Over the past 15 years, Abseil Access has helped Kiwirail reduce rockfall on various sections of the line and over the tunnel portals. T1-2 area 1 is the 6th project and the works were completed with minimal disruption to the commuters

The work included:

- De-vege and rock scaling on specific line closure days
- Working with Aurecon to design a constructible solution
- Drilling 75mm holes and installation of 32mm and 25mm diameter glass-reinforced plastic (GRP) anchors using a cliff face A-frame drill rig
- Installation of Geofabrics double twist PVC coated mesh
- Working under an active rail line with safety stop boards and rail protection

All access was established from the top of the site reducing the need for hi-rail vehicles and rail closures. GRP bars reduced the electrical hazard risk around the high voltage catenary as well as eliminating corrosion issues. The netting was installed first to reduce the chances of rockfall during the drilling phase.

