

# CASE STUDY

Geogrid

Project: Remarkables Ski Area Access Road  
Date: December 2013 - May 2014  
Client: NZ Ski  
Location: Queenstown



## Tensar TriAx®

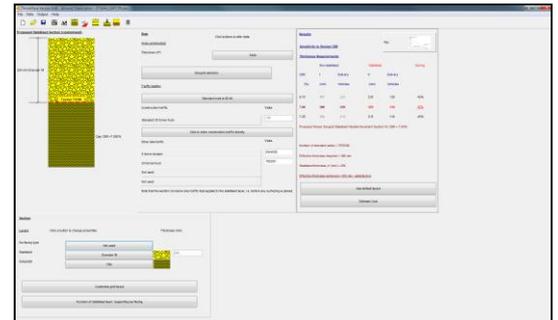
The Remarkables Ski area is located east of Queenstown and is currently undergoing a \$45 million upgrade. The realignment to the existing access road formed part of the construction works to accommodate the increased traffic now that more car park spaces had been added as well as support the construction traffic involved in the \$20 million base building development.

Geofabrics were contacted to assist in developing a mechanically stabilised pavement solution for this unpaved access road. The pavement analysis was carried out using TensarPave software in accordance with the TRL Report LR1132 design method considering the construction traffic to deliver the aggregate for the pavement and the in-service traffic such as cars and buses.

Data from extensive research into the use of Tensar geogrids in pavement stabilisation resulted in significant savings in aggregate through the incorporation of **Tensar TriAx®** geogrid into the design.

The subgrade was prepared on the new access road and car parks followed by the laying of **bidim® A19** separation layer and a layer of **Tensar TriAx® 160** geogrid. A layer of 150mm AP65 crushed gravel was then applied, shaped and rolled in with 200mm of gravel applied along the main access road. This pavement depth was thinner than the final specification however the contractor ran out of time to apply the full pavement depth before the start of the ski season. This was a bit of a risk, but it worked just fine during the ski season and this can only be attributed to the pavement support afforded by the **bidim® A19** geotextile and **Tensar TriAx® 160** geogrid.

The construction of the new base building during the summer/autumn of 2015 exposed the access road in particular to something in the order of 400 heavy materials haulage and concrete trucks with no noticeable distress to the pavement. In May the contractor applied a top up 1,000m<sup>3</sup> of AP65 gravel adding approximately another 100mm depth over the access road and car parks, again shaped and rolled in with a further 1,000m<sup>3</sup> to come next spring to finish of the pavements.



TensarPave software



Laying bidim® and Tensar TriAx®



Aerial view of the bidim® and TriAx® installation

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