



**CASE STUDY:**

# **INDUSTRIAL SUBDIVISION**

**CHRISTCHURCH, NEW ZEALAND  
MAY 2019**

## **TENSAR TRIAX®**

The Tensar TriAx geogrid is the most advanced geogrid in today's market and the result of 30 years continual innovation and development. It outperforms conventional biaxial geogrids and substantially reduces construction time and costs.

The Tensar TriAx geogrid is based on one of the most efficient, stable structural forms – the triangle. Where biaxial geogrids have inbuilt strength in two directions, with the TriAx it's multi-directional, providing greater stability and increasing bearing capacity.

Tensar TriAx geogrid with its improved rib geometry and junction efficiency, greatly improves aggregate interlock and confinement – leading to improved structural performance of the mechanically stabilised layer.

The Roydvale site was an old shingle quarry which was infilled with construction waste and later turned into a mini golf course and driving range. The site has now been turned into ten commercial lots.

Due to the unknown geotechnical aspects of this site a gravel raft was designed below the pavement to mitigate differential settlement. The gravel raft consisted of:

- bidim A29 geotextile at the base
- Tensar TriAx190L geogrid on top of the bidim
- 200 mm of compacted pit run
- Another layer of Tensar TriAx190L geogrid
- A final layer of 200 mm compacted pit run.

Geofabrics provided technical data to the designer to ensure the best selection of reinforcement was used for this application.

Installation of the Tensar TriAx190L followed standard installation guidelines with the minimum overlap of 300 mm.

The land and pavement took approximately two months to complete.

The original specification called for Tensar TriAx160 and AP65 or AP40. The design changed to the larger aggregate and reinforcement which created commercial savings for the client.