CASE STUDY

Geogrid

Project: Margaret Mahy Family Playground
Date: January 2015
Client: CERA (Canterbury Earthquake Recovery Authority)
Location: Christchurch CBD

GEOFABRICS®

Tensar Uniaxial Geogrid

In 2013, 6,000 incredible Canterbury children put forward their ideas and visions for an amazing playground as part of the BNZ Amazing Place Playground Competition. The winning entry in the Year 6 category was based on the stories of New Zealand author Margaret Mahy.

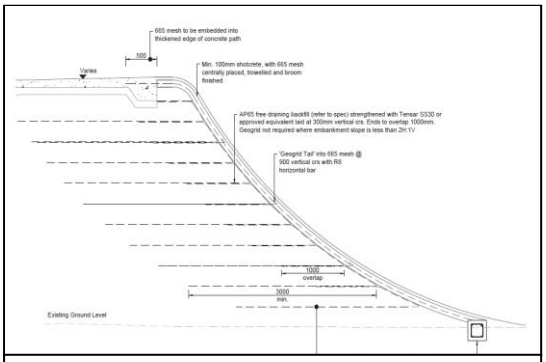
This playground is an amazing place that's full of the newest and coolest playground equipment around, including a 4-metre-wide slide, double flying fox, water cannons, splash pad, sand play, dunes, climbing web and a story arc.

The playground is believed to be one of the largest in the Southern Hemisphere. It has been designed with input from the city's school children to reflect Canterbury's four main habitat types with a forest zone, a peninsula zone, a plains zone and a wetlands area.

City Care John Fillmore Contracting Joint Venture were awarded the contract. Geofabrics New Zealand Ltd were invited to submit an offer to supply the geogrid and geotextile for the geogrid reinforced soil mound that incorporates the slides, tunnels and other climbing equipment. After reviewing the original geogrid specification for reinforcement of the soil slopes, **Tensar RE520 Uniaxial geogrid** was submitted on the basis that this geogrid has a higher design strength and is more suited for this application. The narrower roll widths at 1.3m offers easier construction for this site with its many small radiuses when compared to the original 4m wide biaxial geogrid rolls specified.

2730m^2 of **Tensar RE520** geogrid and 4500m^2 of **bidim® A29** were supplied to this project. Construction of the soil reinforced mound took less than 4 weeks. A steel mesh was then laid and tied into the **Tensar RE520** geogrid followed by 100mm of shotcrete. The surface was finished with a 40mm layer of polyurethane rubber.

The project was completed on time and opened to the public for Christmas 2015. The public use of the playground has been a great success for all ages, not just children.



Cross Section: Reinforced Soil Mound


Tensar uniaxial geogrid installed


Completed mound