



Tensor Case Study Ref 286

Temporary Causeway Cape Preston Karratha, Australia 2009



Tensor biaxial geogrid installation

Tensor Case Study

BENEFITS TO CLIENT

Assured solution for the construction of a temporary causeway over mud flats.

THE PROBLEM

To gain access to the location of the new port facilities, the construction of a temporary causeway was required across the mangrove mud flats.

THE SOLUTION

After extensive discussions, a design solution was agreed upon so that the 3.2km temporary causeway could be constructed. The temporary causeway had a footprint width of 14m and was constructed using a base layer of Tensor biaxial geogrid, augmented by a geotextile separator.

PROJECT DESCRIPTION

Austeel was granted environmental approval by the federal government for a new Iron Ore mine to operate in the Pilbara region of north western Australia. The mine's location is approximately 67kms south west of the Karratha townsite.

China Metallurgical Group Corp (MCC) were awarded the contract to develop the \$1.98 billion mine which included the construction of the magnetite mine, desalination plant, thermal power plant and port facilities. The Tensar distributor was contacted by Geosite Geotechnical consultants to assist in finding a practicable solution for the construction of the temporary causeway.



Construction of the temporary causeway

Tensar biaxial geogrids were installed directly on the tidal mud flats. One of the key selection parameters was the flexural stiffness of the geogrid: the so-called 'snow shoe effect' enabled safe initial access for the installer.

CONTRACT DETAILS

Consultant:
Geosite
Geotechnical

Main Contractor:
China Metallurgical Group
Corp (MCC)

Sub Contractor:
Thiess Contractors

Client:
China Metallurgical Group
Corp (MCC)



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