



GEOFABRICS CASE STUDY



HIGH-STRENGTH GEOTEXTILE DELIVERS STABILITY ON ALBION PARK RAIL BYPASS

PRODUCTS USED

Mirafi® PET High Strength Woven Geotextile

- A high strength woven geotextile made from high tenacity polyester yarns with high long-term strength properties
- High long term design strength with low creep effects
- Enables optimum embankment height over a minimum area and steeper side slopes
- Increase in construction speed with no loss of stability
- Custom roll lengths can be manufactured to facilitate ease of installation and reduce wastage on site
- Complies with all ANZ road authority requirements including certificate of conformance requirements

MIRAFI® is a registered trademark of Solmax.

PROJECT DESCRIPTION

In 2019, Roads and Maritime Services (RMS), New South Wales, planned the construction of a bypass between Yallah and Oak Flats to circumvent the Albion Park Rail suburb. Funded by the NSW Government, the \$630 million project aimed to complete the link between Sydney and Bomaderry. The 9.8 kilometre extension of the Princes Motorway was designed to remove heavy vehicles from suburban streets, improve freight and local traffic flow, and reduce travel times by up to 30 percent.

The project includes the construction of 13 bridges, with all bridge approaches requiring stable embankments to support heavy traffic and ensure long-term performance. Challenging subgrade conditions and the need for accelerated construction required advanced engineering solutions to maintain stability and durability throughout the project.

OUR SOLUTION

In total, 142,500 m² of Mirafi PET high strength woven geotextile, 450,000 m² of Bidim® Green non-woven geotextile, and 250,000 lineal metres of Alidrain® prefabricated vertical drain geocomposite were installed. Mirafi PET geotextiles are made from high-tenacity polyester yarns, providing excellent stress and strain behavior with minimal creep and long-term performance, ensuring the stability of embankments and bridge approaches. The use of longer, custom-sized rolls facilitated efficient installation, reduced handling time, and minimised project delays.

Geofabrics worked closely with the project engineers to finalise the supply schedule, ensuring timely delivery and providing Quality Assurance certificates to meet RMS specifications. By using a combination of geosynthetics, the project successfully accelerated construction while maintaining high-quality standards. The Yallah–Oak Flats Bypass, estimated for completion in 2022, will improve traffic efficiency for freight, locals, and tourists, increase overall road capacity, and significantly reduce heavy vehicle congestion in residential areas, saving up to 30 percent of travel time.



Traffic cut by
30%

142,500 m²
of **Mirafi PET**
installed



Visit **geofabrics.co** or call 1300 60 60 20 (AU)
or **geofabrics.co.nz** or call 0800 60 60 20 (NZ)

GEOFABRICS[®]
Sustainable solutions

IMPORTANT NOTICE - DISCLAIMER - The information contained in this brochure is general in nature. In particular the content of this brochure does not take account of specific conditions that may be present at your site. For full disclaimer and further information regarding installation visit geofabrics.co/disclaimer
© Copyright held by Geofabrics Australasia Pty Ltd. All rights are reserved and no part of this publication may be copied without prior permission. Published November 2025.

