

# CASE STUDY

Double Twist Mesh

Project: Bryants Bridge Dropout Repair SH57  
Date: January 2007  
Client: NZTA  
Location: Palmerston North



## Green Terramesh

Bryants bridge is located on SH57, the main route between the Manawatu Gorge and Shannon. A major weather event occurred in November 2006 causing damage to the northern end of Byrants bridge. Subsequent heavy rain in January 2007 caused the collapse of one of the bridge approach lanes. An urgent engineering solution was required to prevent total loss of the road.

The solution for this site had to be cost effective, quick and easy to construct and having a proven history of performance. **Green Terramesh** was chosen as it met these criteria and was able to be constructed over a short period without closing down the one remaining lanes on this busy highway. AP40 granular backfill was selected for ease of placement and compaction.

The design considered a mix of **Tensar RE** geogrid grades located at each 0.6m vertical lift of the **Green Terramesh** facing units. **Enkadrain**, a geocomposite drain, was used up against the cut face at the rear of the reinforced soil zone to cut off the path of groundwater. Subsoil collector drains located at the base of the cut slope ensured any excess groundwater collected by the **Enkadrain** was quickly removed away from the structure.

The final **Green Terramesh** structure was 11m in height and 25m in length. After receiving onsite training from Geofabrics the contractor was able to develop a construction methodology which included the use of 2 Geofabrics supplied pneumatic lacing tools. Working day and night shifts they completed the structure within 5 days. This high level of performance by the contractor ensured that the traffic disruption was kept to a minimum providing a great result to the client and road users.



Site prior to Construction



Construction of Green Terramesh structure



Completed Green Terramesh structure at Bryants Bridge

The information contained herein is general in nature. In particular, the content herein does not take account of specific conditions that may be present at your site. Site conditions may alter the performance and longevity of the product. Actual dimensions and performance may vary. This document should not be used for construction purposes and in all cases, we recommend that advice be obtained from a suitably qualified consulting engineer or industry specialist before proceeding with installation. © Copyright held by Geofabrics New Zealand Ltd. All rights are reserved and no part of this publication may be copied without prior permission.

QUALITY - SUPPORT - EXPERTISE

[GEOFABRICS.CO.NZ](http://GEOFABRICS.CO.NZ)

