

WATERPROOFING CASE STUDY Charmouth Tunnel, Dorset

NEWTON TUNNEL WATERPROOFING

Road Tunnel Upgraded To 2012 Olympic Sporting Venue

History

Charmouth Tunnel was constructed in 1831 and was until 1991 used as a road tunnel forming part of the A35. Purchased in 2004 by Clist Properties Ltd, the tunnel was the subject of an ongoing planning dispute. However after many meetings and some legal work a use was approved for the disused tunnel.

The use in question is a training facility for Target sports including archery and shooting, and it will be used as a practice facility for the 2012 Olympics. Additional facilities include a café and shop.

Problem

The tunnel suffered from severe damp and water penetration into and through the tunnel. The tunnel is covered by 8 metres of soil.

Solution

Following many months of research and discussions the decision was made to use a membrane which would resolve the damp issues. Clist Properties needed a very high level of technical support as the project was on a budget, and the only way in which they could make it achievable was to carry out much of the work themselves and they needed help.

Newton 508 and 508 Mesh were used to drain water that was entering the structure from above and prevent the associated mineral deposit stalactites forming. The products are ideally suited to this type and shape of structure as the water drains naturally behind the membrane following the arch shape down to specially formed floor gullies at the base of the walls which run the length of the structure. Water then discharges naturally to the open elevation at the low end of the tunnel.

Richard Clist commented “We finally decided to meet with four suppliers of membrane and for us the level of service and support that we received from Toby Champion of John Newton was as good as it was ever going to get. We have been delighted with the product support and genuine interest that we have received in our project and would strongly recommend that any one looking for a cavity membrane product saves themselves the time of researching that market and go directly to John Newton”



Charmouth Tunnel suffered from severe damp



Newton 508 Mesh being applied to the walls



The tunnel is now fully protected from damp and is being transformed into a training facility