

A465 Heads of the Valley road

Gilwern to Brynmawr, South Wales

The A465 is a key strategic corridor connecting the M4 in South Wales to England. A study in the 1990s identified that improvement of the road was critical to the social and economic regeneration of the Heads of the Valleys area.



The project

The improvements involved the widening of the road to dual carriageway to improve safety on some stretches where there had been a number of fatal accidents.

The challenge

Phi was approached by Costain to provide design advice for retaining structures alongside the road and the most appropriate solutions to overcome significant geotechnical challenges. Due to the local topography, reinforcement was needed to cut into and extend existing embankments along the route.

The solution

The installation of 24 Textomur reinforced soil structures totalling 24,250m² in length. The Textomur was installed at angles from 60-70 degrees and involved the use of steel mesh facing cages and geogrid reinforcement. The largest structure was 10,250m²: the highest 14m and the longest 950m. More than 300,000m² of fill was placed and compacted.

Project facts

Owner(s)

Welsh Government

Keller business unit(s)

Phi Group

Main contractor(s)

Costain

Solutions

Slope stabilisation

Markets

Infrastructure

Techniques

Gabions