

## TOLCARNE BEACH - CLIFF SLOPE STABILISATION NEWQUAY, CORNWALL, UNITED KINGDOM

### Suspended Drapery

#### Problem

An access road leads to Tolcarne Beach down a narrow cliff road from the top of the cliff. The shape of the road is similar to a hairpin. The road flows to a car park halfway down the cliff and then ultimately to the beach itself.

In November 2016, debris fell from the cliffs and slid down onto the beach access road. This landslide resulted in the access road being closed for public safety. After site visits and slip analysis, it was decided that the road could not be reopened without work to secure the cliff.

#### Solution

Designed by John Grimes Partnership, the works involved drilling soil nails and anchors into the bedrock, some up to six metres in length. These will then have plates screwed onto the end which, when tightened, will hold larger parts of the failing cliff in place. Smaller pieces will be caught by the standard Maccaferri polymeric rockfall netting, which will also be attached to the anchors. These can be released under control by loosening the mesh, allowing them to fall safely.

Abcas (UK) Ltd was involved in this project at Newquay, installing 3m wide rolls of Steelgrid® HR polymeric coated. Phase one of the work was completed in July 2017 and stabilised the two priority sections of the cliff. Phase two was completed before the summer of 2018. The beach reopened to the public on 27th July 2018.

Complex specialist design work, as well as significant ecological and environmental surveys, were undertaken to allow CORMAC CC to develop a permanent and versatile solution for the problem.

The solution had to be able to be safely installed without impacting the local fauna and flora, especially in the case of rare plants that could be damaged or nesting birds that could be disturbed.

To deter animals from making their home in the cliff vegetation, a temporary covering of wire mesh was placed over the cliffs while design and preliminary investigation works took place. This meant that birds would not be able to make it home for the nesting season.

Maccaferri's rockfall solution was chosen as the best solution to provide reliable long-term performance for aggressive site conditions.

**Client:** Cormac

**Designer / Consultant:** John Grimes Partnership

**Contractor:** ABCAS UK

**Products used (Qty.)**

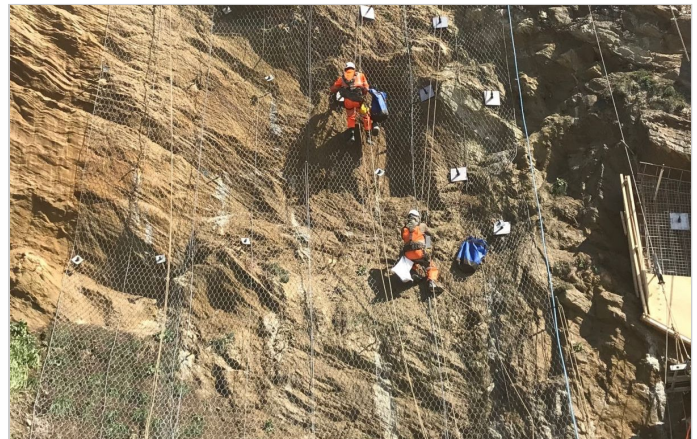
**Date of construction:** 07/2017 - 08/2018

[Google Maps](#)

[Google Earth](#)



Abcas was installing the Maccaferri solution



Securing the Steelgrid HR mesh with HR plates



Steelgrid HR secured at the crest of the cliff



View of the stabilised cliff. A coastal environment



The solution was safely installed without impacting on the local fauna and flora



View of the works in Autumn 2017