

## A944 ON THE RIVER DON FORBESTOWN, SCOTLAND, UNITED KINGDOM

### Reinforced Soil Walls and Slope Reinforcement

#### Problem

The A944 runs through Forbestown next to the River Don. A stretch of the A944 road needed reinstatement due to the river eroding the toe of the bank thus causing a landslip undermining the road.

The suitable solution had to provide erosion protection to the toe of the embankment to ensure the structure would not be destabilised by the River Don.

The rural location of the job meant the solution needed to have a green finish, this would help in encouraging wildlife and also would be aesthetically pleasing for the natural area. The site had space restrictions due to a line of properties and services on the other side of the road.

The solution needed to be rapid to install as there was a short construction window due to celebrations that happen every year in Forbestown. The 'Lonach gathering' holds a march of Clansmen along the road, there are also highland games and also fishing for salmon.

The overall cost of the project needed to be as low as possible yet highly effective, the solution would need to reuse site-won soils.

#### Solution

With all the problem factors in mind, Maccaferri's solution was a reinforced slope using our Green Terramesh® Systems which would support the A roads destabilisation problem successfully.

The other obvious solution would be soil nailing but due to the proximity of the river, SEPA would not permit grouting. Therefore Maccaferri's reinforced soil retaining systems were required.

Maccaferri's Green Terramesh® System is an environmentally friendly modular system used to form vegetated faced soil-reinforced slopes. A globally used solution it has a design life of 120 years and the product is BBA certified.

All components are factory fitted and this system is more rapid to install than competitor reinforced soil systems.

The front face of the Green Terramesh® is home to an erosion control blanket which is seeded to establish vegetation growth.

**Client:** Aberdeenshire Council

**Designer / Consultant:** Atkins

**Contractor:** I & H Brown

**Products used (Qty.)**

**Date of construction:** 09/2012 - 09/2012

[Google Maps](#)

[Google Earth](#)



The slope before the works began. Near the River Don



Excavated ground then laid with locally sourced rock



Structural backfill laid onto the reinforcement grids—ParaGrid



Locally sourced gabion fill at the bottom of the river.



Completed Green Terramesh® slope stabilisation with the Terramesh system



The slope is vegetated fully, displaying the right landscape