

STEELGRID HR30 MESH WICKLOW, REPUBLIC OF IRELAND

SLOPE STABILISATION - MACRO SYSTEMS

Product: Steelgrid HR30 Mesh & Steelgrid HR System Plates

Problem

A routine rock slope stability assessment programme, by Irish Rail, was interrupted by the failure of a trackside rock slope near Wicklow. Following removal of the failed material, Irish Rail undertook an engineering, geological slope stability assessment.

It was deemed that an area of the rock slope of approx. 30 linear meters with slope heights of between 12m and 18m, was unstable and would require stabilisation.

Solution

Following the assessment, a long term stabilisation solution was developed to prevent future failures of the slope.

Project designer, Irish Rail Structures, chose a combination of Steelgrid HR30 and rock anchorages, terminated with Steelgrid HR System Anchor Plates as the preferred system for the stabilisation of the vulnerable rock slope.

Main contractor Coffey Construction engaged specialist subcontractor Cetco Contract Services to carry out the anchor and mesh installation works. With its high strength-low strain performance, Steelgrid HR benefits to the project include:

- No requirement for the overlapping of mesh panels
- No need to make depressions around the anchorages
- No need to tension mesh on the slope

Steelgrid HR30 is therefore not only cost effective, but is also rapid to install, vital characteristics on time-sensitive rail projects.

Client:

IRISH RAIL

Main contractor:

COFFEY CONSTRUCTION

Designer:

IRISH RAIL STRUCTURES

Products used:

1,500 M3 STEELGRID HR30 & HR PLATES

Date of construction

AUTUMN/WINTER 2011



After slope failure



During Remediation

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