

AMASYA HIGHWAY SLOPE PROTECTION PROJECT AMASYA , BLACK SEA, TURKEY

Slope Protection

Problem

Amasya is located in the Northern part of Turkey near the Black Sea. In this mountainous region, the Amasya highway is cut through various slopes on several parts of the route. Due to the mainly fine material the slopes are consisting of, rainfall and humid climate are affecting the slope stability drastically. Although global stability problems were not detected, small ranged surficial material slides were observed on several occasions by the highway ministry. Due to these circumstances, slope material sliding onto the highway was an permanent endangerment for the route safety and forced the authorities to close lanes from time to time during cleaning works.

Solution

In accordance with the site visit of our technical team and the request made by the authorities the installation of Macmat R1 in combination with surface anchors has been advised as rockfall protection system with respect to the technical and economic conditions of the project.

Macmat R1 is a high performance geomat made from the extrusion of a polypropylene geomat in combination with Double-Twisted Wire Mesh (Mesh Size: 8x10 and Wire Diameter 2.7mm).

The installation of the rockfall protection system has being carried out in cooperation with a professional mountain crew. The first part of the project has been finished in 2019. Since the beginning of 2020, Macmat R1 is being installed in a second area, as well.

Client: HIGHWAY AUTHORITIES

Designer / Consultant: MACCAFERRI TURKEY

Contractor: STY CONSTRUCTION

Products used (Qty.)

- MacMat R 40,000 sqm

Date of construction: 06/2019 - 06/2020

[Google Maps](#)

[Google Earth](#)

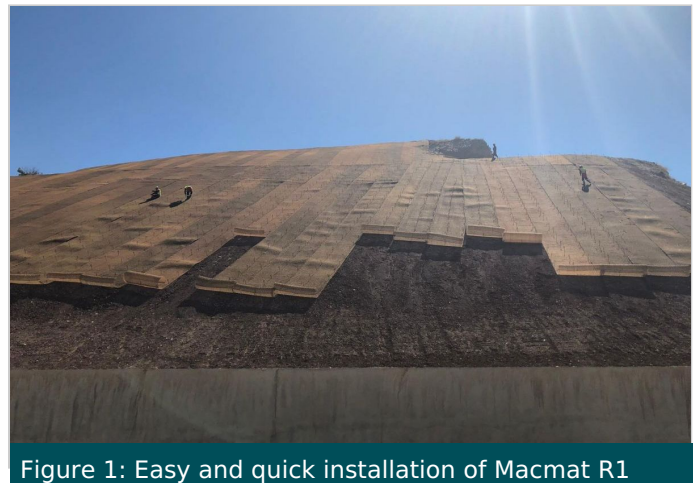


Figure 1: Easy and quick installation of Macmat R1

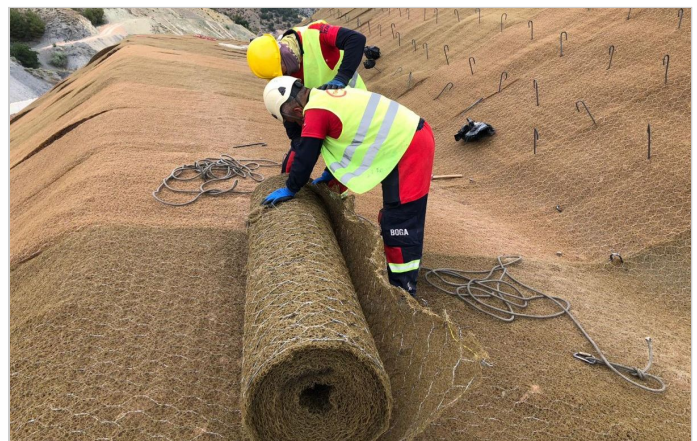


Figure 2: Unloading and installation of Macmat R1



Figure 3: Quick installation of Surface Anchorages



Figure 4: Highway slopes covered with Macmat R1

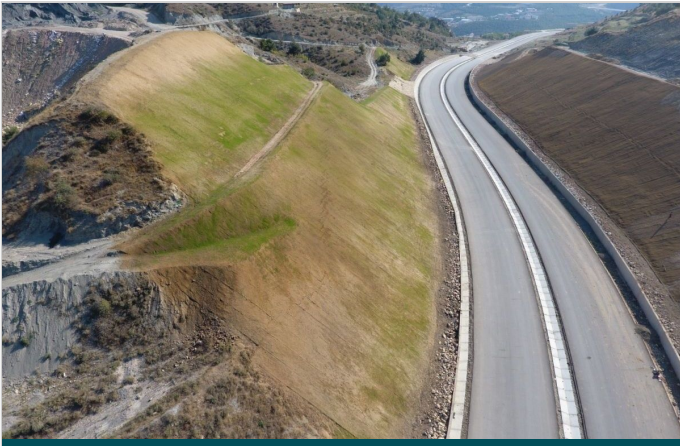


Figure 5: Vegetation on Macmat R1 installation



Figure 6: Vegetation on the Macmat R1 System