

ISTANBUL - ŞİLE - AĞVA ROAD PROJECT İSTANBUL, MARMARA, TURKEY

Simple Drapery

Problem

At the sections between Km: 16+500 - 26+950 and Km: 37+000 - 84+800 of the Kuzey Marmara Road Project which is connecting Agva and Istanbul, unstable slopes and rock fall events resulted from the excavation works for the base construction of the V4 Viaduct. Especially for the ongoing works on the viaduct, the rockfall potential of the slopes threatened the health and safety of the site workers. During a site visit of our technical team, rock volumes with the range of 0.25-0.3 m³ were detected. With the aim to protect the site workers during the further construction period, a temporary solution was considered.

Solution

As a consequence of the above mentioned situation, it has been found necessary to protect the slope with a double-twisted wire mesh in a simple drapery system. In the case of rockfall, the energy of the rocks will be decreased and the falling rock material will be guided to the toe of the slope without threatening neither the construction workers nor the viaduct construction.

As per the volume of the potentially risky rock materials and the therefore composing maximal energy, a double-twisted wire mesh with a 6x8 mesh size produced from a 2.7mm, galvanized steel wire was installed. For a better connectivity between mesh and slope the mesh was mounted on the slope with one slope anchor each 25-30 m².

For the complete project site, a total of 12.900 m² Wire Mesh has been utilized.

Client: KARAYOLLARI GENEL MÜDÜRLÜĞÜ

Designer / Consultant: MACCAFERRI TURKEY

Contractor: MAKYOL - KALYON - CENGİZ ADİ ORTAKLIĞI

Products used (Qty.)

- DT Mesh 12.900 m²

Date of construction: 06/2015 - 10/2015



Istanbul - Şile - Agva Road V4 Viaduct Slopes



V4 Viaduct Rockfall Protection Measures



Simple Drapery System



Simple Drapery System



V4 Viaduct Rockfall Protection Measures

