

ROCKFALL PROTECTION AND SOIL STABILISATION WORK AT CHANDIVLI, MUMBAI

ENVIRONMENTAL/ SLOPE PROTECTION/ROCK ANCHORING

Product: DT mesh HEA Panel & Coir Mat

Problem: Major Landslide occurred in 2015 at Nahar Amrit Shakti, Chandivli. The rock of Hill region was a totally disintegrated rock and the hill was full visible fractured rock. In addition there was existence of soil as there was lot of vegetation present on the hill region.

Solution: Rock was anchored with different lengths at different heights of Hill with appropriate Grouting material. Double Twist mesh and HEA panels were layed on the hill to trap the rock if any occurrence of rock sliding over hill. Drain pipes were provided on the lower height of hill to release the water pressure percolating through hill. In addition coir mat was layed on to the sloping top region of hill to prevent soil erosion.

Client Name:	
NAHAR BUILDERS LTD	
Main Contractor Name:	
Atharva Construction	
Consultant:	
GENSTRU CONSULTANTS, PUNE	
Product Used:	
DT MESH, HEA & COIR MAT	
Construction information:	
Construction Date:	2-4-2016
Completion Date	22-7-2016



Fig:01 Anchored rock & Gabion



Fig:02 Coir Mat on slopes



Fig:03 Drilling to 15mts Depth



Fig:04 Laying of DT Mesh



Fig:05 Drilling at Various Heights

To prevent **rock fall** from the side hill slopes, double twist hexagonal PVC Coated Maccaferri netting of type 10x12 was laid along the slope and then anchored into the trench using suitable anchoring techniques. Double twist Mesh was selected over chain link mesh as it is not prone to unraveling. Their high tensile strength, punching resistance and low installation costs also helped the adoption of this system.



Fig:06 Multitasking SHOTCRETE-GABION-DRILLING

ANCHORED GABIONS were provided at the lower slope portion of the hill area for better stability. As well as **DRY-MIX SHOTCRETE** was carried out upto height of 3mts from road level so that the further erosion of hill toe will be Stopped



Fig:06 Completed Rock Anchoring and Rockfall Protection Structure

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