

CASE STUDY

AMERICAN SAMOA HR30 MESH

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INTRODUCTION

Along the South East coast road of Tutuila Island in American Samoa, sections of the roadway were prone to periodic rockfalls due to steep volcanic bluffs towering above the route. To ensure road safety and long-term slope stability, a project was initiated between October 2018 and March 2019 to stabilise four high-risk bluff sites reaching up to 60 metres in height.

PROCESS

The stabilisation solution was designed by a New Zealand-based geotechnical consultancy and involved the installation of a passive drape system using Geofabrics HR30 wire rope reinforced double twist mesh. The mesh was custom-manufactured in extra-long lengths to suit the individual bluff profiles, totalling a surface area of 10,000m². Without access to tall cranes or helicopter support, the project team manually hauled the heavy mesh rolls to the top of each site. Installation included securing a top support cable with 32mm anchor bars, drilled 2.5m into volcanic rock at 2.5m intervals using 80mm diameter holes.

OUTCOME

Despite the challenges posed by extreme tropical weather conditions, the team successfully completed the project within a six-month period. The stabilisation works significantly reduced rockfall hazards and improved long-term road safety along the vital coastal corridor.

