MACCAFERRI

CASE HISTORY

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ALABANG-SUSANA HEIGHTS EXPRESSWAY WIDENING PROJECT

MUNTINLUPA CITY, NCR - SOUTH, PHILIPPINES

Soil Nailing

Problem

The project is located in Muntinlupa City, adjacent to the Countryhomes Subdivision and directly beneath the South Luzon Expressway (SLEX). This area, densely populated and highly vulnerable, faced a growing geotechnical threat due to the ongoing expansion of the expressway. Construction activities triggered noticeable ground movement, raising concerns over slope instability. Without appropriate intervention, the site posed a serious risk of slope failure or landslide, potentially endangering the lives of residents, damaging homes, and disrupting vital infrastructure.

To mitigate these threats and ensure the safety of the community, a comprehensive slope stabilization system was developed and implemented. The solution focused on soil nailing technology, enhanced by a suite of high-performance geotechnical products, each selected to meet the challenging site conditions and proximity to critical infrastructure.

Solution

The first key element, HEA Panels (High Energy Absorption Panels), was used for its exceptional strength and impact resistance. These panels are especially suited for high-risk zones near expressways, offering reliable structural support to the slope. Complementing this were DT Nets (Double Twisted Nets), which provided effective surface erosion and rockfall control. Their flexibility and durability made them ideal for conforming to the slope's terrain while protecting against surface degradation.
To further reinforce the slope, MacMat R1 822G0, a steel-reinforced geomat, was applied. This product integrates a three-dimensional erosion control mat with steel wire mesh, significantly improving the slope's resistance to erosion and enhancing overall integrity when used in conjunction with soil nails.

Together, these solutions formed an integrated protection system. The slope's stability was restored, the threat of landslide mitigated, and the safety of the Country homes Subdivision residents safeguarded. Additionally, the infrastructure upgrade of SLEX was able to continue without further geotechnical complications, demonstrating a successful balance between development and community protection.

Client: Active Geoanchor Inc.
Designer / Consultant: Pertconsult International
Contractor: Active Geoanchor Inc.
Products used (Qty.)

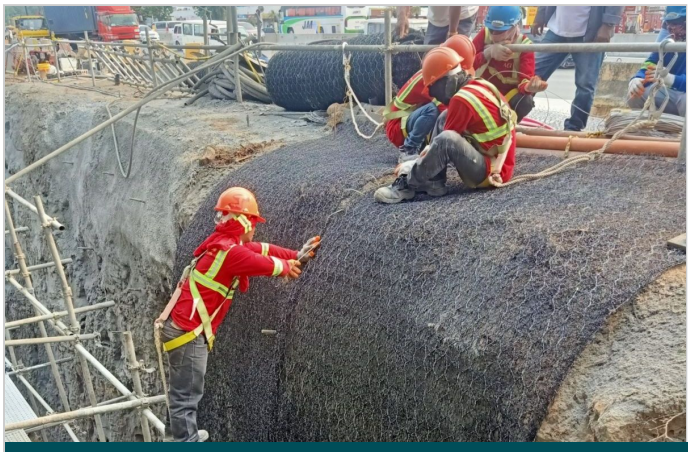
- Panels	HEA PANEL PANROPE - 22 Rolls
- MacMat R	MacMat R1 8122G0 - 5 Rolls
- Netting	Double Twisted Nets - 3 Rolls

Date of construction: 06/2023 - 06/2024

Google Maps Google Earth



During Construction



During Construction



During Construction



Project Completed



Project Completed

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