

DESIGN AND BUILD OF ROCK STABILIZATION AND WADI INTERCEPTORS FOR G NEOM CITY, GULF OF AQABA, SAUDI ARABIA

Dynamic Barriers

Problem

The Red Sea Project, announced by the crown prince in 2017, is one of the world's most ambitious tourism and hospitality ventures. This ultra-luxury destination is being developed around a hidden natural treasure and aims to set new standards for sustainable development while positioning Saudi Arabia on the global tourism map. Once complete, visitors will experience the wonders and rich cultural heritage of the untouched Red Sea coast, including over 90 pristine islands between Umluj and Al-Wajh. The project encompasses unspoiled islands and a nature reserve featuring regional flora and fauna. A key challenge involves managing the steep rock slopes in the area, which could become unstable during construction, requiring solutions to protect workers and future visitors from potential geo-hazards.

Solution

To ensure the necessary protection for workers and future visitors, Maccaferri Middle East provided M/s. BATCO with a range of rockfall mitigation solutions, including rockfall barriers with a capacity of 5000 KJ. These high-capacity barriers are a special type that do not require anchor supports for the foundation posts, making them ideal for challenging site conditions where drilling for anchors is difficult. The barrier posts are fixed using cables, as specified in their certification. This solution is particularly well-suited for the complex geological conditions of the project site. The EPFM 5000 barriers were installed at three specific locations within the project: WP 61, WP 63, and WP 93. Maccaferri's dynamic rockfall barriers have undergone rigorous testing and are fully certified in accordance with the European Test and Approval Guideline 27 (ETAG 27) from the European Organization for Technical Approvals (EOTA). These barriers provide an effective and reliable solution for mitigating rockfall hazards, ensuring safety throughout both the construction phase and for future operations.

Client: M/s. NEOM

Designer / Consultant: M/s. AECOM

Contractor: M/s. BATCO

Products used (Qty.)

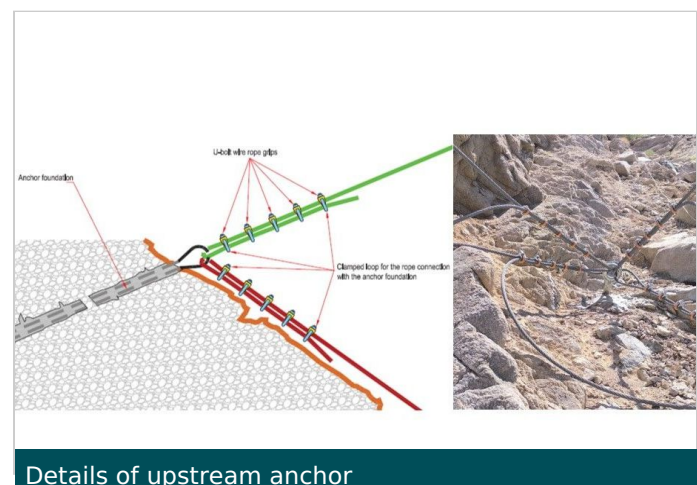
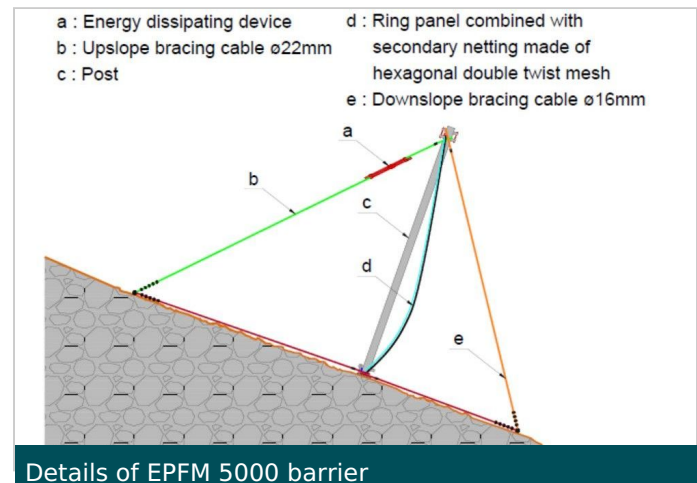
- Rockfall Barriers

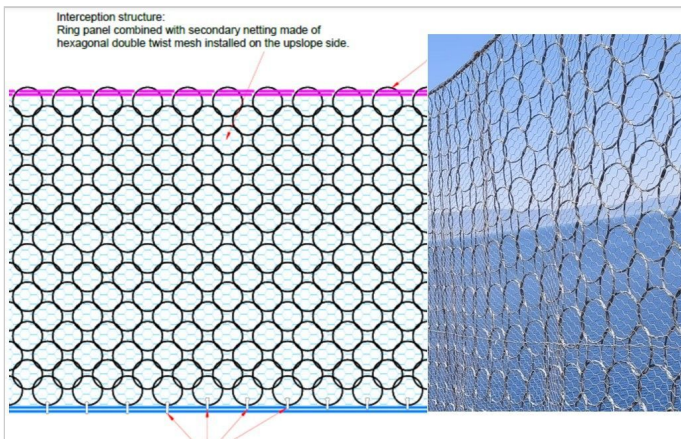
EPFM 5000 :
1,400 m2

Date of construction: 03/2024 - 10/2024

[Google Maps](#)

[Google Earth](#)





Details of interception nets



Base plate kept in level using micro-pile



Close view of the complex terrain



Installed EPFM 5000 barrier



Completed rockfall protection barrier in one of the locations of the project