

**HUDAYRIYAT MOUNTAIN BIKE TRAIL
AL HUDAYRIYAT, ABU DHABI, U.A.E.**

Reinforced Soil Walls and Slope Reinforcement

Problem

Once completed, the new mountain biking facility developed by Modon Properties on Hudayriyat Island will offer 15 km of uninterrupted trails and is expected to strengthen Abu Dhabi’s position as a leading cycling hub in the UAE. The project involves the construction of artificial mounds and hills that resemble a natural mountain bike trail. To complement the varying topographical experience in the project, different structures such as earth mounds, underpasses, overpasses, etc., were needed. The height of overpasses reached up to 5 meters in some cases, necessitating high retaining structures.

Solution

Maccaferri’s MacWall system, being more cost-effective and time-efficient than conventional concrete walls, was chosen as the preferred type of retaining wall for the project. The MacWall System is an MSEW (Mechanically Stabilized Earth Wall) Modular Block System, incorporating Keystone Blocks and Paragrid geogrid for soil reinforcement. Due to the MacWall System's rapid installation process, the contractor successfully completed the job in just two short months. Maccaferri Middle East was involved in the design, supply, and construction assistance for the scope of the MacWall MSE wall systems, which were used in a total of six overpass bridges within the project.

Client: MODON

Designer / Consultant: ICON

Contractor: Hilalco

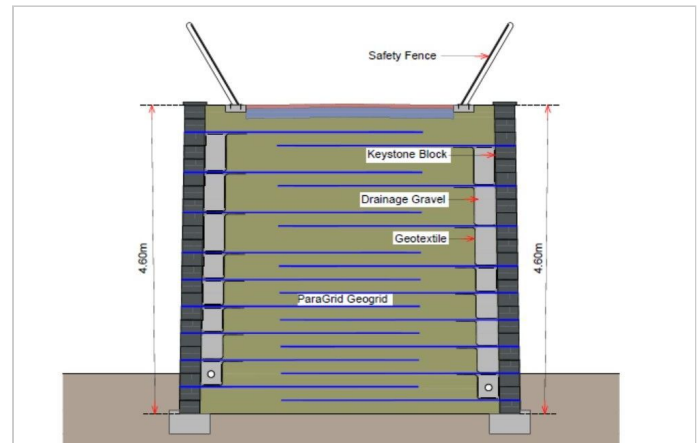
Products used (Qty.)

- Macwall MacWall Face Area : 900 m2
- MonoAxial GeoGrids Paragrid Geogrid : 6,750 m2

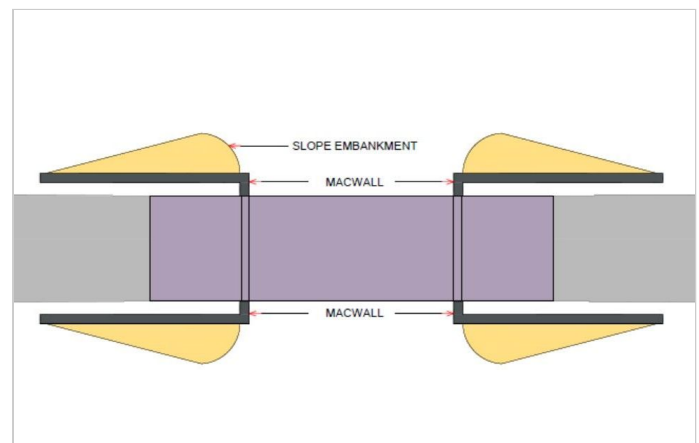
Date of construction: 04/2023 - 06/2023

[Google Maps](#)

[Google Earth](#)



General section of MacWall MSE wall



General plan view of bridge abutment



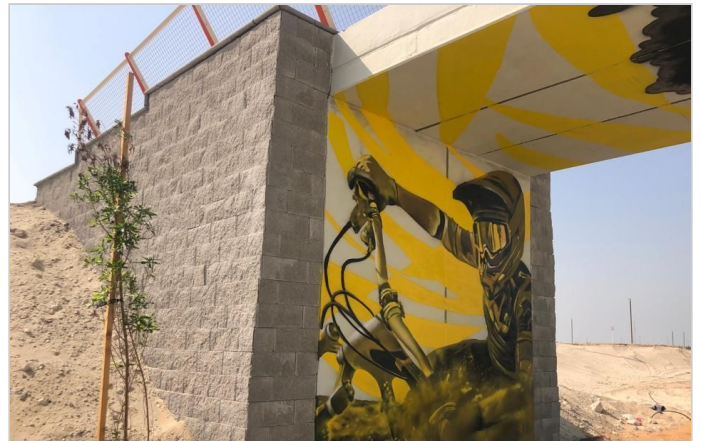
Completed MacWall (Bridge no. 2)



Completed MacWall (Bridge no. 3)



Completed MacWall (Bridge no. 4)



Completed MacWall (Bridge no. 5)



Completed MacWall (Bridge no. 6)