

Defence Housing Authority - Defence Mall - Rawalpindi - Islamabad

Islamabad - Pakistan



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TYPE OF PROJECT	YEAR OF CONSTRUCTION	CLIENT	CONTRACTOR	DESIGNER
Mass Gravity Retaining Walls	2023	Pakistani Army	Housing Department Of Pakistani Army	Maccaferri

PROD. RELATED
MACWALL (4,500 M2)

Challenge

The highway road towards Pakistan Army Base in Islamabad required the construction of a Mechanically Stabilised Earth (MSE) wall along one of its ramps. This ramp serves as the elevated access to a new roads which is expected to significantly improve traffic flow in the area. The retaining wall was originally designed in tiers to allow for future landscaping and plantation works on each sides, which will enhance the visual appeal of the structure. An important aspect of the design was the requirement for the facing of the MSE wall to be grey in colour, matching the surrounding sand

to ensure a natural, seamless blend with the environment. This focus on aesthetics was critical for maintaining the visual harmony of the infrastructure with its surroundings. The MSE wall not only serves a functional purpose by providing support for the elevated ramp but also contributes to the overall appearance of the site. This project successfully combines structural integrity with thoughtful design, addressing both the technical and visual requirements of the area.



During Construction

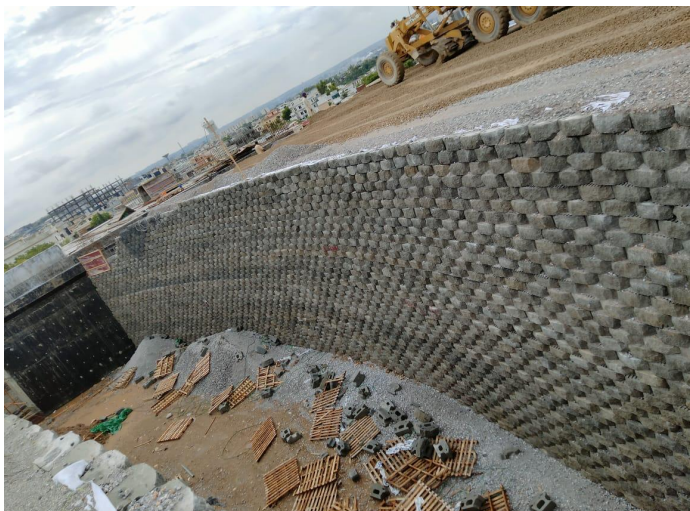


During Construction

Solution

Maccaferri's MacWall system was selected as the preferred type of MSE wall for the project due to its superior technocommercial advantages and architectural appeal. The MacWall system consists of Key-stone segmental concrete blocks, which were dry cast in a beige colour to blend seamlessly with the surrounding sand, minimizing visual impact. Additionally, the system includes BBA-certified Paragrid geogrid soil reinforcement, and a mechanical connection using fiberglass pins. One of the unique

aspects of this project was that it involved a false bridge abutment. The girder of the bridge was supported by columns that were cleverly concealed within the MacWall ramp, which enhanced the overall aesthetics of the finished structure. Maccaferri Middle East played a key role in the project, being responsible for the design, supply, and construction assistance for the MacWall MSE wall system, ensuring both functional performance and architectural integration. The combination of technical strength and aesthetic



During Construction



After Construction



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