

HATTA WADIS DEVELOPMENT LEEM POND

HATTA, DUBAI, U.A.E.

Waterproofing of Reservoirs, Lakes and Channels

Problem

As part of Hatta comprehensive development plan launched by His Highness Sheikh Mohammed Bin Rashid Al Maktoum, Ruler of Dubai; the Dubai Municipality is required to develop Leem Pond to sustain water in all seasons which will enhance its scenic value to boost tourism in Hatta. It is intended to feed the Leem pond from ground water and compensate for evaporation losses through periodic pumping.

The project would involve the typical civil works like excavation, filling, concreting, ducts etc but the main scope of the contractor would be lining and bank stabilization of Leem pond. Since the overall object of the project is to improve the Hatta Wadi tourism, the required scheme of protection and lining must be environmentally friendly and natural such that the new development works will easily integrate with the existing natural surroundings.

Solution

Being the pioneer for hydraulic works with double twisted wire mesh and geosynthetic products, the contractor approached Maccaferri Middle East to propose a suitable lining solution for the pond. During the subsequent meetings with Dubai Municipality, the technical benefits of Polimac coated gabions and mattresses were identified and chosen as the pond bank lining system. The same material must be used also for creation of the small islands at the middle of the pond. The gabion solution allows the use of local stone fill which gives an immediate integration with the wadi surrounding. Also, the beige colour geomembrane would complement this requirement.

Maccaferri was involved in design, supply and site assistance of the project. The installation began in December 2019 and completed in February 2020.

Client: Dubai Municipality

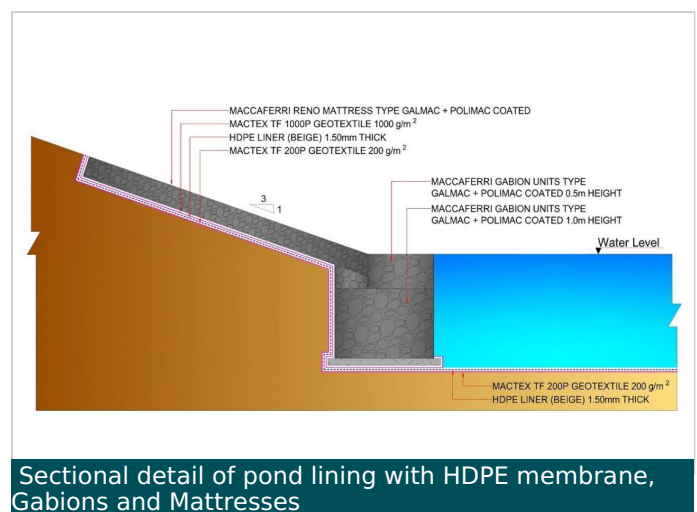
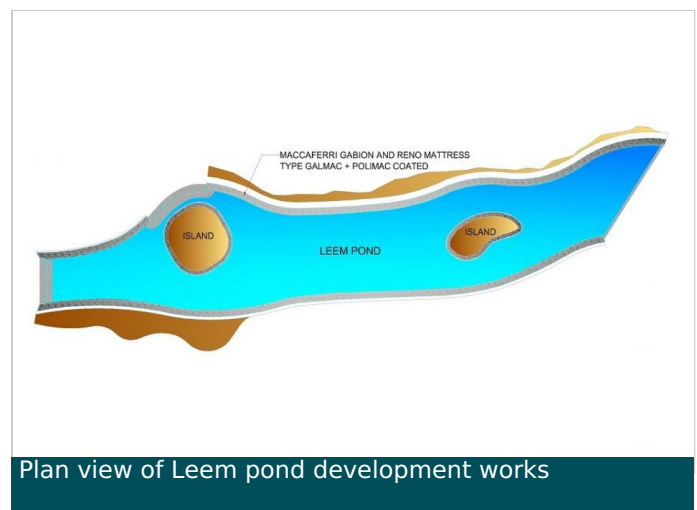
Designer / Consultant: Dubai Municipality

Contractor: DBB Contracting LLC

Products used (Qty.)

- Gabion	4,000 m ³
- Reno Mattress	4,400 m ²
- MacTex Non-woven Geotextile	45,000 m ²

Date of construction: 12/2019 - 02/2020





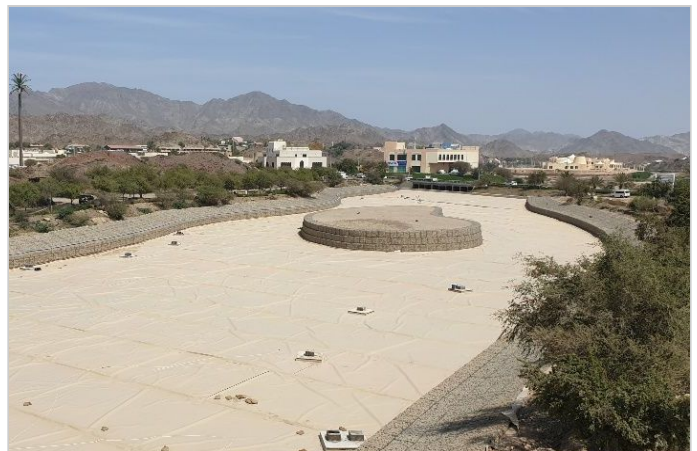
During construction: Beige colour HDPE geomembrane lining layer installation



During construction: Polimac coated gabion mattress installation on side slopes



During construction: aerial view of ongoing works



Completed project: pond close view



Completed project: pond close view

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