

MEAKLONG RIVERBANK PROTECTION
WAT POESOPARAM TEMPLE, BAN PONG DISTRICT, RATCHABURI PROVINCE, THAILAND

Slope Protection

Problem

Wat Poesoparam Temple is located in Ratchaburi province. Meaklong river, one of the largest river in Thailand, flows near the back of the temple. Because of this the riverbank at the back of the temple was heavily eroded and land was lost every year. In order to stop this process, the Marine Department, required a solution to protect the area along the eroded riverbank.

Solution

The solution proposed by the MD involved Galmac coated Gabions and Reno Mattresses.

Reno Mattresses allow tangential river flow velocities up to 6m/s without any substantial damage. Mattresses are also very flexible modular elements which allow high levels of deformation and settlements without compromising the lining integrity.

Reno Mattresses have shown to be a valid alternative to the traditional lining systems (rip-rap or masonry walls) both in terms of flexibility, durability and cost effectiveness.

The slope protection using Mattress was designed by MD to cover the 200m length riverbank. 1.5m height Gabion wall was installed at Reno Mattresses' toe. 1V:3H is the slope inclination.

The system was installed with a productivity rate equal to 20 m3 per man per day.

The products used are:

- Gabions 3x1x1m - Gabions 3x1x0.5m - Reno Mattresses 4x2x0.5m - Reno Mattresses 4x2x0.3m

Client: Marine department (MD)

Designer / Consultant: MD

Contractor: Chanlhong (1991)Co.,Ltd.

Products used (Qty.)

- Gabion 1746 m3
- Reno Mattress 5288 m2

Date of construction: 06/2007 - 03/2008



Reno Mattresses revetment (1)



Reno Mattresses revetment (2)



Reno Mattresses revetment (3)



Gabion Wall