

## EROSION PROTECTION AT ROAD NO 5004 BAWAN, MUANG DISTRICT, SONGKLA PROVINCE, THAILAND

ENVIROMENTAL /HYDRAULIC & EROSION CONTROL /SLOPE PROTECTION/  
**Product:** PVC Gabion & PVC Reno Mattress

### Problem

Road No. 5004 which is located next to the Gulf of Thailand has been under constant treat of coastal and marine erosion since 2005. Recently in some locations, up to 70% of the pavement has been seriously damaged by the slow and progressive erosion. The embankment of the road is slowly disappearing with time due to redistribution of sediment by waves. The client, Department of Rural Road was given the task not only to reconstruct the embankment but also to reclaim part of the failed embankment so that the extended area can be used as recreational area. Since it is a rural road, the client was looking for cheaper and simple structure for erosion protection.

### Solution

The client designed retaining wall using Maccaferri Gabion as gravity wall with the assistance Siam Gabion technical team. The gravity wall was designed to support 3m high embankment. Maccaferri Reno Mattress was proposed at the base of the retaining wall and to be extended 4m to the sea as scour protection. Gabion retaining wall was proposed because of its flexible nature, economically viable and simple installation. A 220g/m<sup>2</sup> non woven filter fabric was used as filter fabric to prevent erosion of fill material at the back of the gravity wall. The wall was constructed 5m away from the road for recreational purpose. After completion, not only the structure performs well, it was observed that sediment starts to pile up at the foot of the gravity wall.



Before construction

Date: Oct 2006

Client name:

DEPARTMENT OF RURAL ROAD, THAILAND

Main contractor name:

EUNG THONG KEE PART. LTD.

Consultant:

DEPARTMENT OF RURAL ROAD, THAILAND

Product used:

4,600 NUMBERS - GABION

3,800 NUMBERS - RENO MATTRESS

Construction info

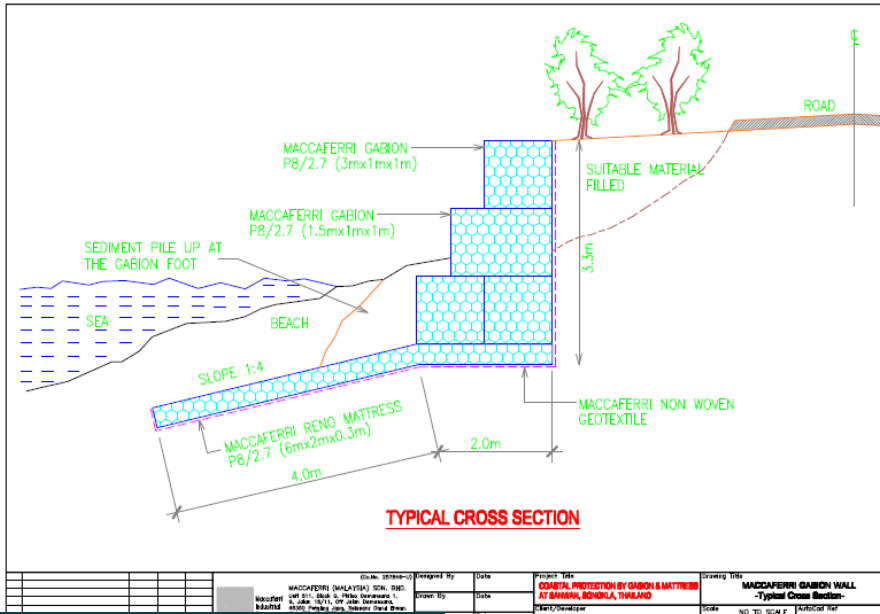
Construction date: OCTOBER 2006

Construction end: NA



During construction

Date: Oct 2006



Project section



Date: Oct 2006

## Maccaferri Asia

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