

TERRAMESH WALL SYSTEM IN NANDGAON NANDGAON, MAHARASHTRA, INDIA

Reinforced Soil Walls and Slope Reinforcement

Problem

During the construction of Nandgaon Railway Overbridge, the client, Maharashtra State Road Development Corporation (MSRDC) and the client, Technogem Consultants Limited had considered different options of reinforced soil wall system for the construction of closing wall and approach walls.

The project site was located 2km away from Nandgaon Railway Station in Nashik. The maximum height of the wall required was 10.5 m and the client, contractor and consultant preferred to provide an innovative solution which is simple to construct. The native soil was having relatively good characteristics.

Solution

Terramesh with gabion facia was adopted as a solution. It was the first of its kind for the client, Maharashtra State Road Development Corporation Limited.

Terramesh was selected over other types of reinforced soil wall systems due to its flexibility, speed in construction, environmental friendliness and cost effectiveness.

The speed obtained was 20 cubic m/day for a crew of 10 people. The type of Terramesh was 10x12, 2.7mm PVC coated. As the in-situ soil was relatively good and the same soil was used as structural fill.

The structure is functioning very well as per the expectations. The whole construction finished in the year 2005.

Advantages of Terramesh system:

- 1) Quick to install with high constructability/very "buildable" solution- no external formwork required.
- 2) Cost effective.
- 3) Can accommodate large differential settlements.
- 4) No creep.
- 5) Environmental friendly.
- 6) Free draining facia.

Client: Maharashtra State Road Development Corp (MSRDC)

Designer / Consultant: Maccaferri (Designer) / Technogem Consultants

Contractor: M/s J. Kumar & Company, Mumbai

Products used (Qty.)

- Terramesh 450 sqm

Date of construction: 09/2004 - 03/2005



Photo 1: During construction



Photo 2: During construction



Photo 3: During construction



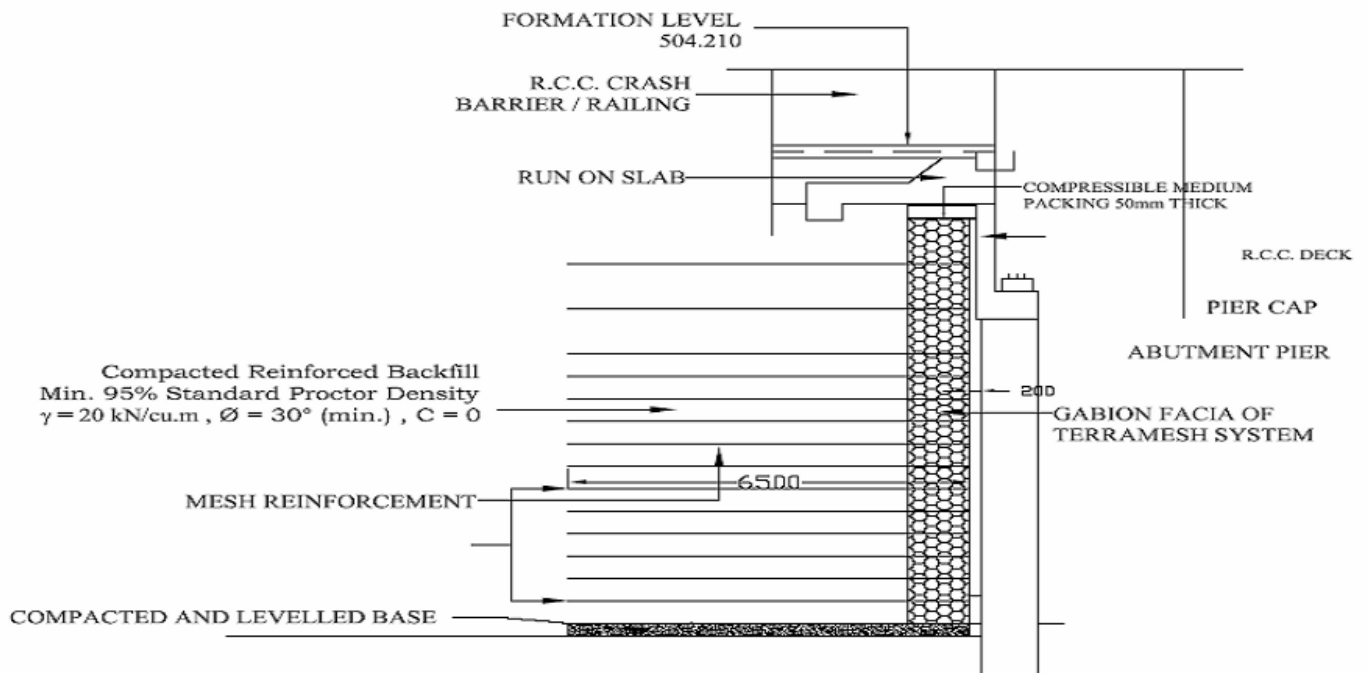
Photo 4: During Construction



Photo 5: Completed structure



Photo 6: Completed structure



Typical section at the junction of the closing wall and abutment pier