

Case History

Comforting DOUM & MAADID neighbourhoods – RABAT (MOROCCO)

Date

February 2020

Quantity

1000 m² of facing of Block AFIWALL solution

Products

NOTEX PVA C 150/30 - 90 000 m²
BETOATLAS Blocks - 1 000 m²
SOMTUBE FTF – 12 000 m²

Contractor

SGTM

Project Designer

SETEC Maroc

Project Owner

Rabat Région Aménagement

Problematic

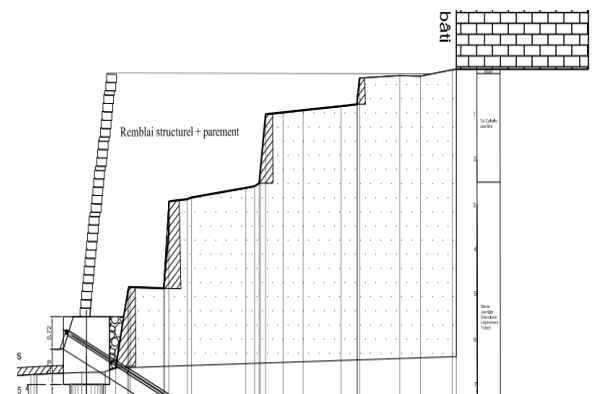
The neighbourhoods of DOUM and MAADID are working-class neighbourhoods built on high-risk embankments whose stability was no longer verified. In order to secure these slopes, a major campaign of reinforcement has been launched by the city, supervised by SETEC and a regional geotechnical office study (TEAM Morocco). This project made intervene several geotechnical solutions such as MSE wall, anchors, and piles.

Solution(s)

AFITEXINOV intervened to propose its Block AFIWALL solution in the project to secure unstable slopes. If deep reinforcement was provided by anchors in combination with stabilizing piles, a reinforced foot stop was necessary to increase the safety factor. This foot stop is provided by the geosynthetic-reinforced MSE wall, which has the following characteristics:

- BETOATLAS concrete blocks for better landscape integration and long-term vegetation.
- Drainage of the MSE Wall by drainage geocomposite SOMTUBE FTF.
- Strengthening of the massif by large mesh coated geogrid NOTEX PVA C, allowing installation damage measured on site according to BS8006 and ISO TR 20 432.

The design of the MSE Wall was carried out by AFITEXINOV and STABCONCEPT and validated by the project study office (TEAM Morocco) as well as an external design office mandated by AFITEXINOV (Georoute).



Profile of the Project



Installation damage campaign on site supervised by AFITEXINOV

Description of the solution

The Block AFIWALL® solution is used as part of the dressing and reinforcement of steep slopes such as retaining walls, tiered walls, vertical walls, slope consolidation, bridge abutments or noise-cancelling embankments.

This solution consists in three products:

1. NOTEX® C reinforcement geogrid in the case of an aggressive granular fill at the installation or NOTEX® GX in most conventional cases.
2. a drainage geocomposite such as SOMETUBE® FTF to avoid water infiltration in the embankment.
3. BETOATLAS® concrete blocks.

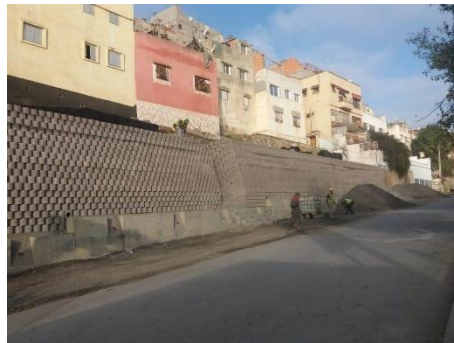


Schematic of the solution

Site evolution



Layout of the grids, blocks and drainage geocomposite



Latest pictures of the project

Advantages of the solution

This solution allows:

1. The construction of a complete retaining wall without a specific lifting machinery.
2. Reuse the soil in-situ as technical embankment.
3. A controlled aesthetic.

Contact

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