

Case History

WATER TREATMENT PLANT PLATFORM ZBATIMI (ALBANIA)

Date

August 2020

Quantity

153 000 m²

Owner

KASTRATI Shpk

Product(s)

NOTEX C 150x30
NOTEX C 110x30

Designer

Infraconsult Shpk

Contractors

Garden Line Shpk

Context & Problematic

KRONE Water treatment Plant in Qaffe Molle Albania is located inside mountainous region with many challenges regarding availability of proper building areas.

The factory is requesting an extension of their area for new equipment and parking in a very steep zone but the only one available in connection with public roads access. Since the location is in a very touristic location, the impact on the environment must be minimal

Solution(s)

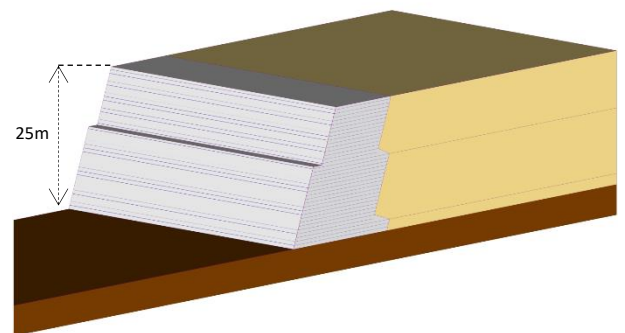
The aim of the project is to create a platform large enough to hold the new equipment, small office, and parking area by land reclamation of the surrounding slopes. To minimize the environmental impact and reduce the fill material, a retaining wall solution was chosen with geosynthetic reinforcement as a perimetral support.

A green solution, providing vegetation on the wall faces, made the construction less intrusive for the environment.

The location provided easy access to good drain properties material for back fill.

Some excavations have been made to remove the vegetal layer and level the perimetral area for the reinforced structure to be lay down. Since the back fill it is a good, drained material no supplementary drainage composites were used.

Facing was made with prepared galvanized metal wire mesh of 6 mm panels of 2.5 m width, preserving the inclination and wall alignment.



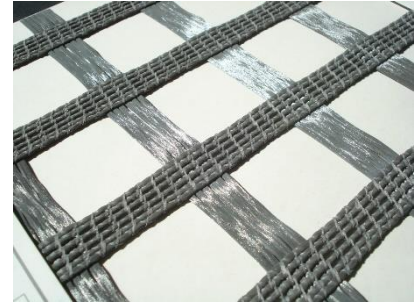
Profile of the project



Aerial view of the retaining wall

Description of the product

Solution agreed was reinforcement with NOTEX C in 4 grades (150x30, 110x30, 80x30, 55x30) optimizing the cost, each 50 cm thickness. Because the maximal height reached 25 m, one berm was implemented at 12 m, by continuing the top half retreat by 2.5 m.



NOTEX C PET

Site evolution



Site evolution

Advantages

- Geogrids manufactured for a 100 years' service lifetime
- Sparing- and environment-friendly solution, providing durable vegetation on the wall facing
- Reducing the volume of back fill used makes it an eco-friendly solution.

