

HENNEAULAAN ZAVENTEM
ZAVENTEM, FLANDERS, BELGIUM**Reinforced Soil Walls and Slope Reinforcement****Problem**

The construction of part of the new Hector Hennaulaan bridge over the R0 motorway in the municipality of Zaventem, Belgium, required the construction of new access roads to the bridge. The designer adopted the solution, where the two access ramps had to be built using a reinforced soil structure. The choice of Mineral Terramesh was very well appreciated because of the ease of construction and because of the nice external finishing. Moreover, the Municipality did not want to carry any maintenance of green facings under the bridge abutments, therefore the stone facing has been very well appreciated by the public authority. on the contrary, the green facing of Green Terramesh was adopted for all other reinforced soil structures, creating a more pleasant and natural facing.

Solution

Maccaferri's Corporate Technical Department, in cooperation with the local partner TEXION, has proposed an optimised solution with has supported the main designers step by step from the first preliminary Global and Internal stability checks with Limit Equilibrium Method (LEM) analyses carried out with MacStars Software.

The design of the reinforced soil structure has been carried out following the Eurocode 7 in combination with the Belgian Annex, considering the design combinations DA 1.1 and DA 1.2. The possibility of modifying the units to follow the exact shape of the bridge has been very well appreciated by the contractor Besix.

A total amount of 1650 sqm of facing of Mineral Terramesh and 1870 sqm of Green Terramesh units were in total installed during the construction works.

Client: Werken aan de Ring**Designer / Consultant:** Smet-F&C nv**Contractor:** BESIX**Products used (Qty.)**

- Terramesh

1650 sqm MTM;

1870 sqm GTM

Date of construction: 10/2021 - 05/2023[Google Maps](#)[Google Earth](#)

Construction phase of the object GK01



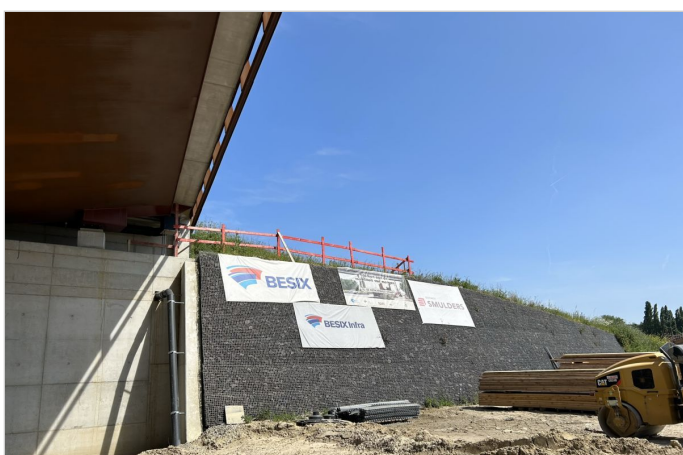
End of installation of MTM units



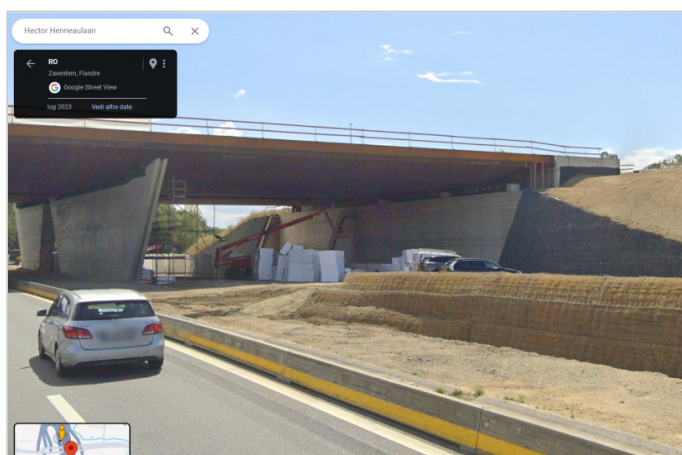
GTM before the regreening



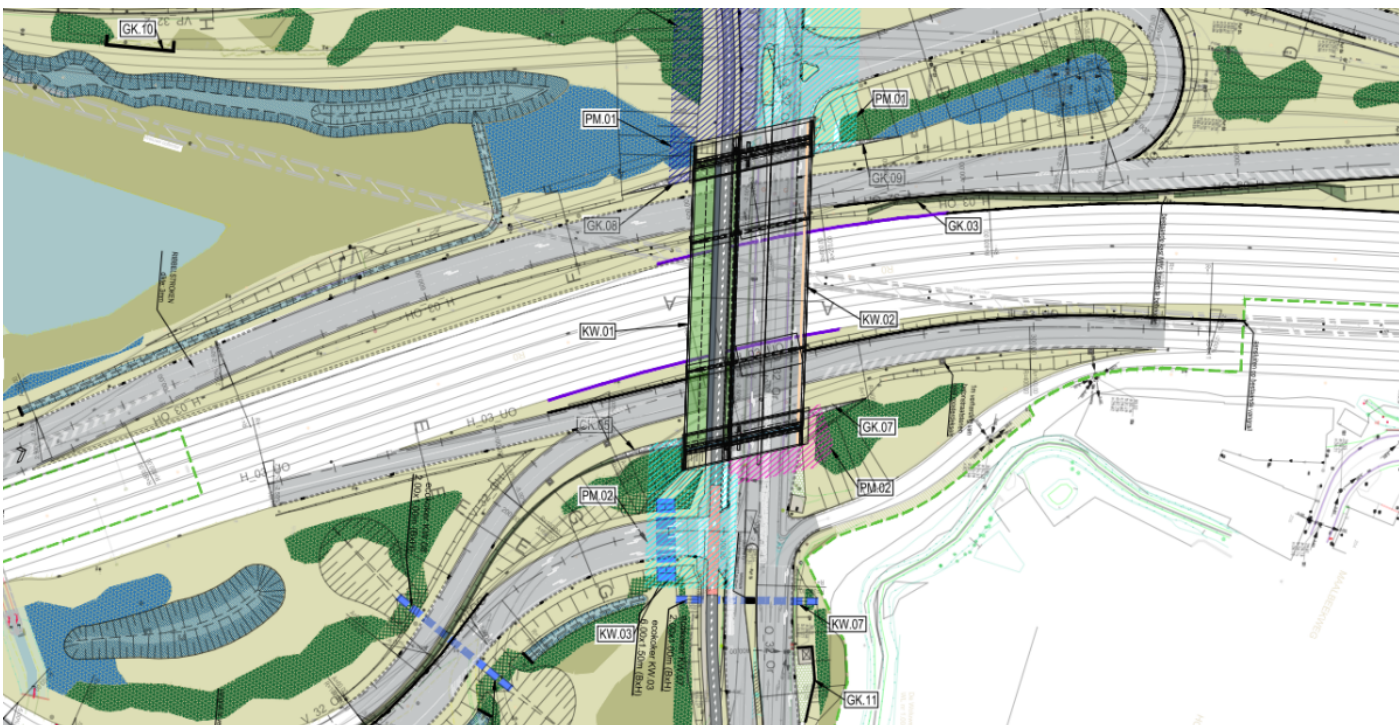
GTM after the regreening



Bridge abutment detail



Picture from Google Maps



Top view of the jobsite