REINFORCED SOIL STRUCTURES
Product: Terramesh® System

Problem
Reinforced walls are proposed at km 9.205 - 9.297 and km 9.574 - 9.758 between the motorway and the branches of the Levoča interchange. A reinforced embankment is also proposed along the V3 branch of the Levoča interchange at km 9.205 - 9.297 with a reinforced wall proposed along the motorway at km 9.574 - 9.758. The reinforced wall along the V2 branch is connected to the support for structure 211-00b, constructed of pre-cast components anchored with a geogrid to the adjacent embankment along the main route.

Solution
The walls were constructed using the modular system TERRAMESH, which is formed with gabion facing elements with integrated reinforcement. The system is made of hexagonal double twist steel wire mesh. The steel wire is protected with Galma coating (ZN+5%, AL + MN) with subsequent application of grey RAL 7037 plastic coating. Wire diameter ∅2.7 (internal) /3.7 (external) mm, type of mesh 8x10, according to STN EN 10223-3 standard. The system is comprised of a single block that combines a reinforcement function while ensuring the stability of the entire slope.

The facing elements are 3.0 x 1.0 x 0.8 m in size with reinforcement in the form of a horizontal panel made of dual twist hexagonal steel wire mesh type 8 x 10 horizontal panels form a 3 - 6 m long reinforcement (anchor) in the embankment slope.

Where height is more than 6.0 m, external stability is secured using single-axis Paragrid geogrids.

Client:
NATIONAL MOTORWAY AUTHORITY

Main Contractor:
Združenie Eurovia - SMS - D1 Jánovce-Jablonov, II.úsek

Consultant:
VALBEK spol. s r.o.

Used product:
Terramesh® System - face area: 850 m²

Construction info:
Construction start date: September 2013
Construction end date: June 2014
MACCAFERRI CENTRAL EUROPE s.r.o.
Štverník 662, 906 13 Brezová pod Bradlom
Commercial-technical office: Kopčianska 15, 851 01 Bratislava
Tel.: 02/ 202 400 56, e-mail: office@maccaferri.sk, www.maccaferri.sk

MACCAFERRI CENTRAL EUROPE s.r.o. has implemented and applies a quality management system pursuant to the standard EN ISO 9001:2008 certified by TSÚS CERTICOM.

Typical cross-section

Date: March 2014