Problem
An off-ramp from the R1 expressway towards Nitra will be built within the construction of the Lehota interchange. The newly constructed road passes through an excavated cut beneath the R1 expressway, where it then connects to the existing I/51 road to Nitra. The wall is designed as a gravity retaining wall made of gabions.

Solution
This structure is located on the cadastral territory of the villages of Lužianky and Mlynárovce. The retaining wall is designed in parallel to the axis of the R1 expressway off-ramp towards Nitra. The gabions are constructed of double twist hexagonal steel wire mesh with a Galmac surface finish (Zn-Al5%-MN alloy). The gabions are made of 2.7 mm diameter wire while the facing of the wall is made of 3.9 mm diameter steel wire. The inclination of the facing of the wall is 10:1.

Wall height is variable. The maximum height is 7.25 m, the total length of the wall is 174 m. The wall is built on opened base of 0.5 up to a wall height of 3.0 m or 1 m for a wall height in excess of 4 m. The total surface area of the wall is 782 m².

During construction Date: June 2011

Client:
GRANVIA, a. s.

Main contractor:
Granvia Construction, s.r.o.

Consultant:
DOPRAVOPROJEKT a.s.

Used product:
Gabion wall - volume of the wall : 3 485 m³

Construction info:
Construction start date: January 2011
Construction end date: October 2011
MACCAFERRI CENTRAL EUROPE s.r.o.
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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.

VZOROVÝ PRIEČNÝ REZ
1:100

Typical cross-section

After construction

Date: October 2011