

Restoration and widening of the Herstal viaducts

greisch

On the E40 highway in Herstal (BE)

Complete mission (feasibility, preliminary design, detailed design, tender documents and works supervision), health & safety coordination

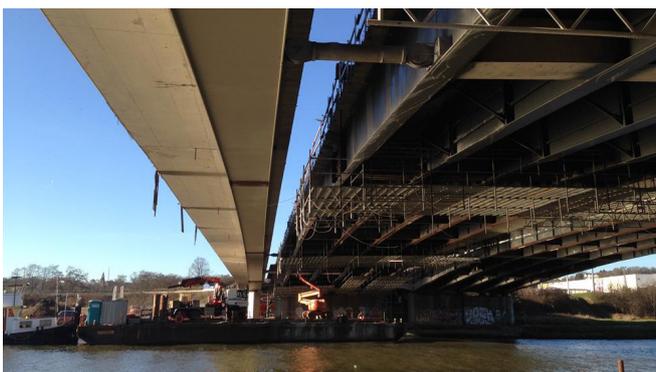
Owner
SOFICO with SPW as delegate

Cost of the works
€ 25,5 M excl. vat

Studies
2012 - 2017

Execution
2014 - 2017

OA CS



Since 1960, the bridge structures OA26, 26_bis and 27 crossing the river Meuse, the Chertal industrial site and the Albert canal, located on the highway Brussels - Aachen, have increased national and international motorway traffic. In addition to the crossing of the Meuse valley at Herstal, the viaducts are also part of the motorway interchange between the E40 and the E25 highways.

The works aim at rehabilitating the viaducts and roads following the deterioration caused by the large traffic, and to widen them to secure the interchange.

The structures to be reinforced are of the following types: reinforced concrete girder deck, prestressed concrete girder deck and composite steel concrete deck. The spans of the viaducts are:

- viaduct upon the Albert canal: 50 m - 85 m - 50 m,
- crossing of the Meuse: 65 m - 110 m - 65 m,
- crossing the Arcelor zone: 8 isostatic spans of 24 m.

They had various degradations, mainly due to leakage defects or damage to the expansion joints, leading to uncontrolled rainwater flows.

Different kinds of repair have therefore been carried out, in particular:

- the replacement of the expansion joints and bearings,
- recharging of the concrete slab,
- repair of the concrete of the piers,
- reinforcement for the transverse shear forces of the prestressed concrete girders with additional external prestressed stirrups,
- suppression of the cantilever...

In order to improve the fluidity of the traffic on this axis, a traffic lane is added, with the widening of one of the two decks, thanks to the construction of a new deck alongside the existing one. This deck initially operated autonomously, before being connected to the existing structure over the full length.