Viaduc de Chillon (Switzerland)

Project description

The Viaduc de Chillon is an important viaduct on the A9 highway near the Swiss city of Montreux. When constructed between 1966 and 1969, the structure was designed in accordance with the standards of the day, but significant advances have been made in these standards in the intervening period – most notably in relation to seismic safety. This project involved the retrofitting of seismic isolation to the viaduct, to ensure that the structure will survive a strong earthquake. The viaduct has a length of 2100 m, and consists of two structures, side by side, with 23 spans of prefabricated concrete.

mageba scope

In order to improve the ability of the structure to withstand a serious earthquake, it was decided to retrofit seismic isolators to form the connections between the deck and the abutments and selected piers. Lead rubber bearings (LRB) were selected – a type of isolator often preferred for use in highway bridge structures due to its simplicity and its combining of the important isolation and energy dissipation functions in a single compact unit.

The project also involved adaptations to the viaduct's piers to enable hydraulic jacks to be used to lift the deck during installation works.

Highlights & facts

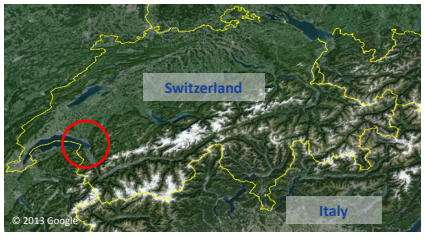
mageba products:

Type:	LASTO®LRB seismic isolators
Installation:	2013, under mageba guidance

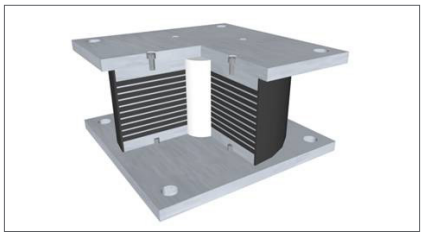
Structure:

City:	Montreux
Country:	Switzerland
Completed:	1969
Type:	RC Highway viaduct
Length:	2100 m
Contractor:	Walo Bertschinger

The viaduct is at the east end of Lake Geneva in Switzerland, near the town of Montreux



Cut-out view of a LASTO-LRB seismic isolator, showing lead core at centre



Lifting of deck at one pier using hydraulic jacks on specially constructed plinths at each side

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