Bridge strengthening „R.N.7“ in Pontcharra-sur-Turdine FR

Repair of a destroyed longitudinal reinforcement due to vehicle impact

Project

The French motorway bridge R.N.7 spans the main road R.D.27 through Pontcharra-sur-Turdine with a span of about 11m.

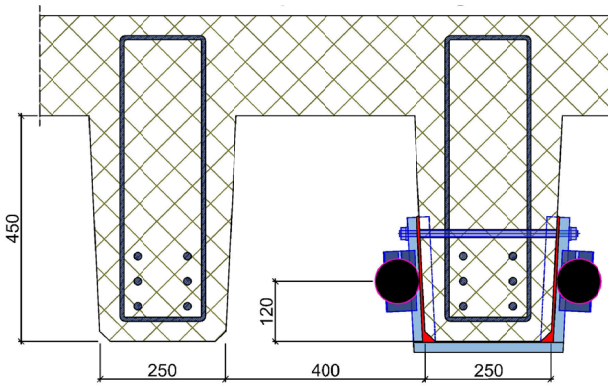
The bridge of prestressed prefabricated elements was damaged at the bottom due to the impact of a vehicle. The fourth beam away from the edge was torn open, whereby the longitudinal reinforcement and the stirrup reinforcement were damaged.

For strengthening, only the lateral space of 40cm was available between the girders. In order not to affect the traffic, the whole work was carried out at night.

Solution

For repair, the shear resistance was restored with SIKA-Wrap and the damaged prestressing cables replaced by two StressHead-CarboStress systems. Due to the limited space between the beams and not to further damage the remaining longitudinal reinforcement in the beams, a special anchorage was developed. With this anchor with a shear bar, the force could be introduced superficially into the concrete without getting in conflict with the existing reinforcement. Only small concrete work had to be done.

During and after the completion of the work, the bridge was monitored and controlled by CEREMA.



Facts

Object:	Pontcharra-sur-Turdine
Country:	France
Construction year:	1993 - 1994
Strengthening year:	September 2018
Strengthening system:	StressHead-CarboStress
Number of systems:	2

Involved parties

Owner:	DIR CE, Lyon
Contracotr:	Eiffage Génie Civil, Vélizy-Villacoublay F

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