

Case Study

Client HŽ Infrastruktura d.o.o
Croatian Railways Infrastructure Ltd

Project date 2013 - 2014

Project Value £64M

Project: Krizevci-Koprivnica National Border, Three New Road Bridges Over Rail Lines

The structural and civil engineering design of three new road bridges using precast-prestressed RC beams, in-situ piers and abutments. The project was located in Croatia and subject to seismic loading.

Services provided

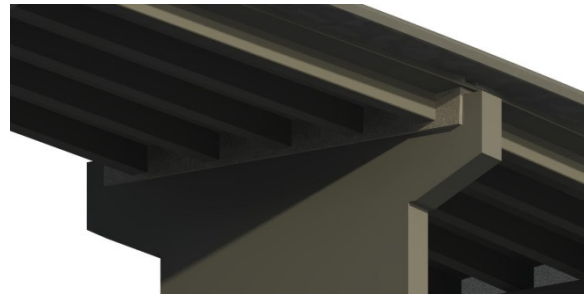
- Civil Engineering Design
- Structural Engineering Design
- Seismic Analysis and Design
- 3D Modelling

Description of project

The Krizevci-Koprivnica National Border project consisted of the construction of multiple bridge structures, stations and the laying of new track. Idom Merebrook's scope involved the design of three new road bridges passing over new or existing rail lines.

Each bridge structure consisted of a three span reinforced concrete bridge, two of which utilized prestressed reinforced concrete T-beams working in composite with an in-situ topping. The third bridge consisted of a traditional in-situ reinforced concrete design.

All three bridges were subject to seismic loading, which strongly influenced the design of the reinforcement and bearings. The central piers were also subject to accidental loading (impact from train derailment).



All three bridges were modelled using Revit. This enabled us to meet the tight deadlines and also help reduce design time. From the models we are also able to quickly produce the construction drawings.

