



# Technical Assistance to Connectivity in the Western Balkans EuropeAid/13785/IH/SER/MULTI

Technical Assistance for the review/update of the main design and for the preparation of tender documentation for the Project: Republika Srpska Railway Route Rehabilitation Project on European Railway Corridor Vc – route Šamac-Kostajnica

This sub-project is still ongoing. The description that follows is for information purposes only and subject to the sub-project's completion.

The **purpose** of CONNECTA's assignment was to provide comprehensive and reliable inputs for future design-build tender documents and related Works contract(s) for a railway section on Corridor Vc, route Šamac - Kostajnica (exclusive) (56km). The end beneficiary for this sub-project is Public Enterprise Railways of Republika Srpska (JP Željeznice Republike Srpske - ŽRS). The lead International Financing Institution (IFI) interacting with CONNECTA was the EBRD.

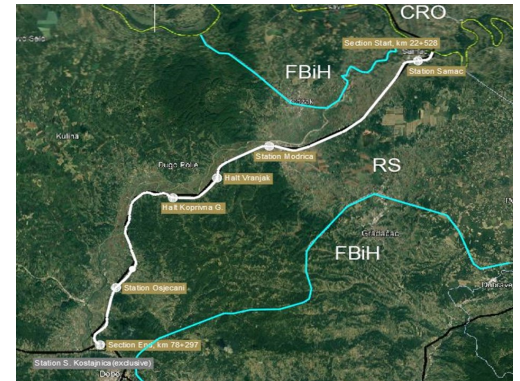
The technical assistance provided included the following:

- Update of existing technical documentation for overhaul and upgrade of railway sections Šamac - Kostajnica (exclusive);
- Technical parts of tender documentation (Employer's/Performance Requirements, Schedule of Prices (supported with bills of quantities (BoQ) and drawings) for future design-build Works' contract(s);
- "Designer's cost estimates" for the scope included in the above-mentioned documentation; and
- Site investigation works.

The specific **tasks** were:

- Task 1 Inception;
- Task 2 Site investigation works, i.e. new topography, supplementary geotechnical investigation works, investigation of existing bridges;
- Task 3 Update (including optimisation) of the existing main design including outputs needed for obtaining the urban and technical and location conditions by ŽRS;
- "Preliminary Costs Estimates" and designer's cost estimates based on the bills of quantities included in the updated main design; and

- Task 5 Draft technical parts for future Works tender documents.



Project overview map

## Results achieved by the TA:

- Topographical surveys performed by airborne LIDAR scanning, followed by production of ortho-photo imagery;
- Detail engineering geological investigation and mapping;
- Detail hydro geological field recording and mapping;
- Concrete sampling and reinforcement testing on bridges;
- Update with contemporary design parameters and standards, construction methods and traffic forecasts;
- Review of changes to adjacent or crossing infrastructure introduced subsequent to the preparation of the existing design (e.g. other roads, utilities, flood protection structures);
- Update of design and requirements for technical specifications for interoperability (TSI);
- Preparation of BoQ adjusted to reflect amended physical scope, amended quality standards and market prices; and
- Preparation of drawings, Employers' Requirements and Schedule of Payments for inclusion in the tender dossier for the Works.

## BOSNIA & HERZEGOVINA

### Partners:

- European Bank for Reconstruction and Development (EBRD)
- European Investment Bank (EIB)
- JP Željeznice Republike Srpske (ŽRS)

### Budget of Technical Assistance:

- Euro 661,000

### EU contribution:

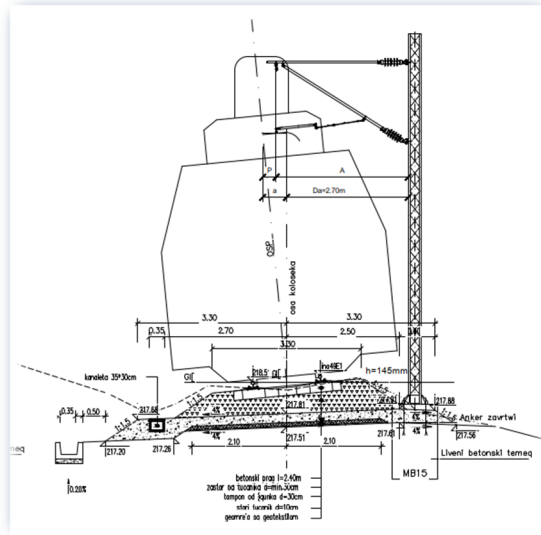
- As above (100%)

### Technical Assistance provided by:

- CONNECTA (Technical Assistance to Connectivity in the Western Balkans)

Transport

<sup>1</sup> EU contribution concerns only Technical Assistance services for project development



Typical cross section

## Key recommendations - further actions:

- End beneficiary to implement all measures proposed in Employer's Requirements;
- Contractor to follow all requirements defined in General and Particular conditions.

## Benefits expected due to Technical Assistance:

- Compliance of the technical solutions with the TSIs;
- Upgrade of design speed to 120 km/h;
- Better planning of safety measures;
- Sustainable electrification solutions for the catenary for speed up to 160 km/h;
- New equipment installed for Traction sub-Stations and Sectioning Facilities;
- Signalling & Telecommunication subsystem fully compliant with TSI and for speed up to 160 km/h; and
- Use of EU best practices and directives as well as of adopted IFI manuals for tender preparation.

## Impacts anticipated:

- Better understanding of the latest know-how;
- Improved quality of procurement;
- Introducing new technology solutions for modernisation of railways;
- Outlining the importance of a resilient railway network; and
- Improvement of current practices.