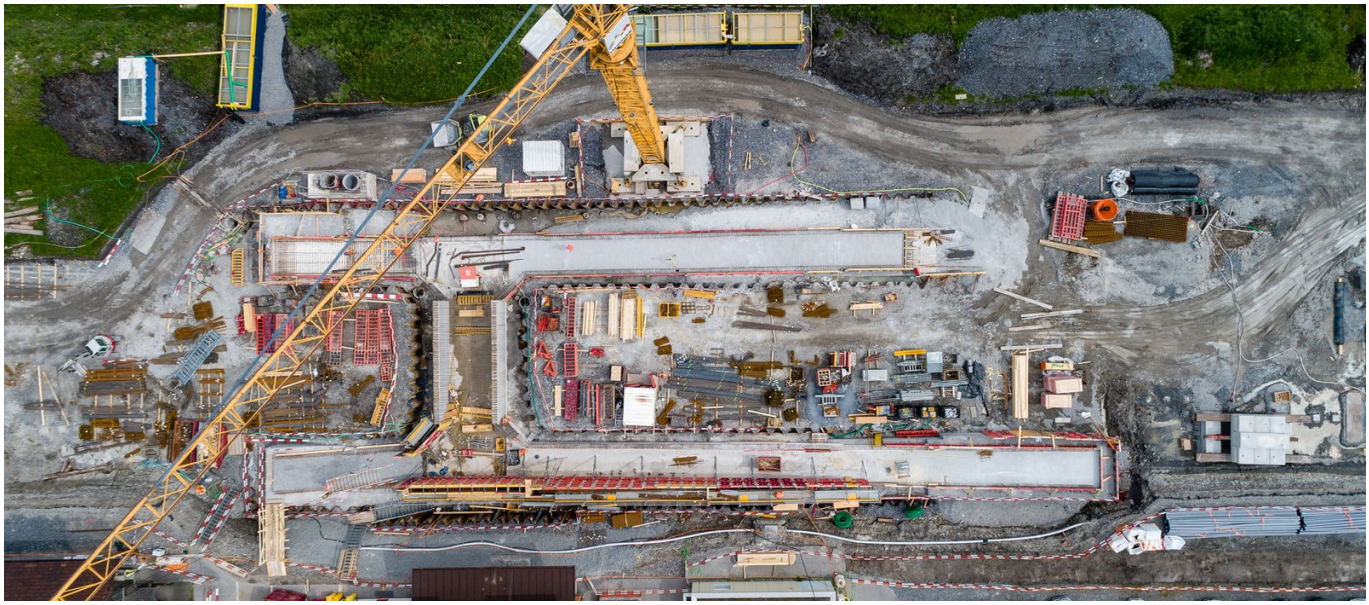
Reference

STEP AS25 Rüthi – Oberriet, system adjustments









SHORT DESCRIPTION

The project "STEP AS25, Rüthi SG – Oberriet, plant modifications" essentially comprises a 2,100 m long double track extension for the SBB.

THE PROJECT

For this purpose, the existing embankments will be removed, a deep foundation with concrete rubble columns will be constructed and then the geogrid-reinforced embankment including the roadway will be rebuilt. In the course of this work, various engineering structures will be renewed in the project perimeter and the Rüthi railroad station will be converted into a crossing station.

The project is being carried out by a consortium under the leadership of Implenia (40% share).

SERVICES IN DETAIL

Implenia in construction

Task

Crossing station Rüthi SG for the suburban railroad, Km 28.5 - 31.6

- New construction of complete station incl. ground improvement (vibrating stop columns)
- Passenger underpass with ramps and stairs on both sides
- K+R facility (Kiss and Ride)
- House and outside platform P55
- Railroad engineering building
- Complete railroad technology
- Watercourse relocations
- Various pavement renewals on the existing track

Double track Oberriet - Oberriet North, Km 35.3 - 38.2

- Replacement of the Aubach bridge
- New underpass Wisenstrasse
- New construction of small animal culvert Hilpertstrasse
- New culvert Tieflöchligraben
- Replacement of Dürrenbach bridge
- New culvert Pfählmadgraben
- New construction of double-track extension with partial ground improvement (vibro-stop columns)
- Various adjustments to roads and level crossings
- Railroad engineering building
- Complete railroad technology
- Various pavement renewals on the existing track

Services rendered

- Construction site equipment
- Earthworks
- Civil engineering works in the railroad area, track construction
- Special civil engineering (excavation pit closures, bored piles, vibro-tamping)
- General concrete construction incl. sealing work
- Bridge construction
- General civil engineering and pipeline construction
- Road and path construction
- Hydraulic engineering
- Metalwork
- Cable work
- Assembly and installation works traction current
- Assembly and installation work of technical equipment (electrical)
- Track construction works

CHALLENGES

The technical challenge is mainly due to the geological conditions in the project perimeter. The substructure will be realized by widening the embankment and backfilling the existing embankment with subsoil improvement in some areas where the subsoil is very sensitive to settlement. The area-by-area ground improvement in the very settlement-sensitive

construction areas affects the entire project perimeter of Rüthi SG and the Oberriet Nord double track extension from approx. railroad kilometer 36.0 to the end of the project at approx. railroad kilometer 38.2. Approx. 154 km of concrete vibrating columns (BRS) including preliminary tests for quality assurance are being carried out.

The work is mainly scheduled during an 8-month total closure in 2023 (end of February to October) of the section from Rüthi SG to Oberriet.

Another challenge is the "GU+" contract model, in which the consortium realizes the construction project as general contractor including the execution planning.

FACTS

Location	Rüthi – Oberriet , Switzerland
Status	Under construction
Construction volume (value of our services)	100 M CHF
Start of construction	June 2022
Completion	May 2024
Building owner	SBB AG Infrastruktur, Ausbau- und Erneuerungsprojekte
Planning	AFRY Schweiz AG

SERVICES

- Road construction
- Earthworks
- Track construction
- Special Foundations
- Bridge construction
- Civil engineering
- Rail transport infrastructure
- Infrastructure