

SBB deconfliction of railway operations in MuttENZ accompanied by structural examinations



Plans to increase the service frequency of urban-suburban trains in metropolitan Basel to every 15 minutes required a deconfliction and expansion of railway infrastructure in MuttENZ. EBP was commissioned by Swiss Federal Railways (SBB) to act as an independent inspection agency to assure planning quality for all of the necessary structures, construction pits and temporary installations.

The scope of the deconfliction project in the densely developed area between Birs and the MuttENZ railway station will require the construction of the following: new railway lines; retaining walls and embankments; a new segment of elevated railway; pedestrian overpasses (in Hagnau); a new signal building; and a new pedestrian underpass, as well as new platforms and platform roofs at the MuttENZ railway station.

Inspection as per Swiss Federal Office of Transport guidelines

Deploying an expert team of civil and structural engineering specialists on behalf of SBB, we carried out an independent examination of the planning for all structures in accordance with guidelines issued by the Swiss Federal Office of Transport (FOT). These guidelines were devised to ensure that the load-bearing and functional capacity of engineering structures is completely verifiable at all times. Our EBP engineers will continue to oversee the project until its realization. We inspected the planning for the following:

- 360-meter section of elevated railway

Client

Swiss Federal Railways (SBB),
Infrastructure, Central Region Projects

Facts

Period	2016 - 2025
Project Country	Switzerland

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- Demolition and reconstruction of pedestrian overpass in Hagnau
- Construction of new signal building (BTG 16)
- Renovation of MuttENZ railway station, including platform roofs and an new pedestrian underpass
- Installation of retaining walls in Schanz, Birs, Hofacker, and Grenzacher
- Installation platform
- Widening of Birs bridge
- Protective structures
- Retention basin
- All trackside construction pits and temporary structures

Numerous challenges

This already challenging project was made even more challenging by the simultaneous completion of major projects in the immediate vicinity; constrained spaces; uninterrupted railway operation; risk of landslides; and generally elevated seismic activity at the project site.

Thanks to the extensive experience and in-depth knowledge of the multidisciplinary EBP team, we were able to inspect the planning and stipulate corrective measures for all of the relevant structures. The project's implementation got off to a successful start in the spring of 2020.

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