



VIENNA WEST - ST. PÖLTEN RAILWAY LINE, REMODELLING OF THE TULLNERBACH-PRESSBAUM STATION

Client: Austrian Railways Infrastructure AG
Development Period: 2019 to 2024

THE PROJECT

To make regional rail transport on the old Western Railway Line more attractive, the Tullnerbach-Pressbaum station was fundamentally remodelled.

The works included, in addition to the repositioning of the tracks, the construction of a new island platform with a pedestrian underpass and lifts, the renewal of the railway bridge across the L123 road, along with further road construction measures, the construction of a technical building and the expansion of the Park&Ride facility.

OUR FUNCTION

BGG Consult was entrusted with handling the geotechnical and hydrogeological aspects of this project from the beginning of the railway permitting process. Based on underground investigations in the form of core drillings, dynamic probing and exploratory pits, a geotechnical-hydrogeological report was initially prepared for the submission project.

Subsequently, the tender planning was accompanied in the specific fields and geotechnical reports were worked out for each contract section.

The construction process was then monitored from geotechnical and hydrogeological perspectives. The job title also included a hydrogeological preservation of evidence.

Underpass of the state road L123:

The old crossing located at the western end of the station, consisting of two arched culverts (road with stream and cycle-/ footpath), was completely replaced by a downwardly open frame construction. The soil cover to track level is 10 m.

For the construction without interruption of the railway operation, numerous special heavy construction measures were necessary: Initially, the temporary auxiliary bridges were deeply founded using micropiles (grouted bored piles) with lengths of up to 25 m. Excavation down to the working level for the bored piles followed within the protection of an anchored shotcrete wall (prestressed anchors and grouted bored nails). Finally, the large-diameter bored piles were installed, either tangent or intermittent. In the area of the temporary bridge, a limited working height had to be taken into account.

Due to the complexity of the described measures, an intensive geotechnical monitoring of the planning and execution process was essential for an effective realisation of the new structure.



*Construction of the underpass
of the road L123,
Phase: excavation between bored piles*