CONNECTION DONAULÄNDE RAILWAY LINE - DONAUUFER RAILWAY LINE, VIENNA

Client: ÖBB-Infrastruktur Bau AG (Austrian Railways Infrastructure Construction AG)
Development Period: 2003 to 2009

THE PROJECT

In the southeast part of Vienna, the connection between the Donaulände Railway Line and the Donauufer Railway Line, which is disrupted since World War II, was re-established.
The heart piece of this section with a length of 8 km is the projected double span bridge across the Danube Canal and the Freudenau port, which features a total length of 170 m. Additionally, numerous bridges had to be built or adapted. Furthermore, the station Albern was rebuilt and several private railway connections integrated.

OUR FUNCTION

For this project, BGG was commissioned with the geotechnical and hydrogeological consulting during all phases of planning and construction.
Firstly, subsoil exploration works and laboratory tests were determined, coordinated and evaluated.
Based on these, an expert's report with regard to geotechnics and hydrogeology has been worked out for the application of the construction permission. During detailed planning and tendering, BGG was heavily involved in the determination of the foundations as well as the securing and dewatering of construction pits. The dewatering needed special attention because of the vicinity of surface water bodies.

Bridge across Danube Canal and Port:
The bridge across the Danube Canal and the Freudenau port features spans of 93 m and 77 m respectively. The resulting high loads have to be transferred into the underground by means of deep foundation elements (bored piles).
In the area of the abutments, the subsoil consists of gravel down to 25 m below top ground surface. Subsequently, the Tertiary with a high bearing capacity sets in. Based on the detailed subsoil investigations and laboratory tests, BGG determined characteristic values for the pile dimensioning, for which an integration into the Tertiary was not necessary. In this way an economic and stable foundation could be ensured.

View from the south at the bridge across the Danube Canal and the Freudenau Port (Computer graphic by architect A. Wimmer, Vienna)