

## TWO-TRACK EXTENSION OF THE POTTENDORF RAILWAY LINE, VIENNA SECTION

Client: ÖBB-Infrastruktur AG (Austrian Railways Infrastructure AG)

Development Period: 1998 to 2011

### THE PROJECT

The Pottendorf Railway Linie runs from the station Vienna Meidling via Wampersdorf to Wiener Neustadt. It constitutes an important supplementary route for the Southern Railway Line in the section between Vienna and Wiener Neustadt. Due to the dynamic settlement development, the Pottendorf Railway Line is of increasing significance for the short-distance traffic. Therefore, the one-track section between Vienna and Wampersdorf will be extended to a two-track line.

Along the objective segment between the station Vienna Meidling and Hennersdorf, 12 bridges had to be built, beside the additional track with a length of 9 km. Additionally, the project comprised the modification of the Donaulände Railway Line over a length of 5 km, the establishment of the loop line Inzersdorf East (connection of the Pottendorf Line with the Donaulände Line from South to East) and a straightening of the existing loop line Inzersdorf West.

### OUR FUNCTION

BGG Consult has been commissioned for this project with consulting in the fields of geotechnics and hydrogeology. In preparation of the documents for the application for building permit, subsoil explorations have been supervised in both sections. In the area of the Inzersdorf Terminal, the results of previous investigations could be used.

Based on these, expert's reports regarding geotechnics and hydrogeology were compiled for the submission documents. The consulting continued during tendering phase, and detailed geotechnical expert's reports were prepared for each contract section.

During construction, a geotechnical supervision on site was carried out. Furthermore, the scope of work included the checking of the detailed project from a geotechnical point of view and the planning and dimensioning of construction pit securing measures.

#### *Construction next to operating railway line:*

All works had to be carried out without interruption of the railway operation. For this reason, the bridges were built in several phases directly beside operating tracks. The securing of the construction pits therefore needed special attention. Because the subsoil situation excluded sheet pile walls due to hard soil layers, the securing was partly accomplished by means of shotcrete and soil nailing. Together with an intensive geotechnical supervision during construction, the bridges were established safely and economically.



*Shotcrete wall with soil nails in the area of the underpass Neilreichgasse*