

■ CITY-TUNNEL LEIPZIG
Leipzig, Germany



Client:	DEGES German Unity Motorway Planning and Construction Company for Deutsche Bahn	Duration:	2004 – 2013
Assignment:	Site supervision, site management, design verification, claim management, project controlling	Construction costs:	967 M€
		Fee:	3,0 M€
		In cooperation	

Description:

The tunnel offers a connection within the city between the station "Bayerischer Bahnhof" and the main station. This will be a huge improvement for the travelling times for most of the connections to Leipzig. Passenger share up to 45 minutes of travel time because of the tunnel and the new connections. The inner-city succession of trains is down to five minutes only.

The two single track tunnel tubes with a total length of approximately 1,440 m and an inner diameter of 9 m were excavated by usage of slurry mode tunnel boring machine.

The inner precasted shell was erected with reinforced concrete tubing segments (thickness of 40 cm). The vertical cover was between 8 and 16 m. In addition to the cover and cut construction for the ramps and the stations "MDR" and "Bayrischer Bahnhof", the three underground stations with approximately 140 m length were built in cut-and-cover construction method using diaphragm walls. The design of the stations was planned by four different architects and was built in distinct materials.

In order to save the old buildings all constructions were executed without lowering the ground water table. Special attention was given to stay within the settlement predictions in order to prevent damages to heritage buildings. As special measurements compensation grouting, high pressure injections and ground freezing were used.