

Brenner Base Tunnel – Exploration Drifts Innsbruck – Ahrental and Wolf – Vibration Measurements

Client:

BBT SE

Country:

Austria, Tyrol /Italy

Duration:

from 2009 to 2024

Services:

Vibration monitoring during construction

Project objectives

The Brenner base tunnel is a central element of the new high-capacity axis for the Berlin-Palermo railway line and is meant primarily for goods transport. The exploratory tunnels are being excavated for the purposes of geological and hydrogeological prospecting and exploration. This preliminary research will help to minimise construction costs and risks.

Project description

The environmental impact assessment of the Brenner base tunnel resulted in the requirement for continuous vibration monitoring during the construction of the exploratory tunnels. This involved the placement of monitoring devices in residential buildings and in various installations. Data were transferred by remote data link to a central data base and could be accessed by the project team via an Internet platform.

Project data

Base tunnel:

Length from Tulfes portal (Innsbruck bypass) to Franzensfeste: 62.7 km

and from Innsbruck portal to Franzensfeste: 55 km

Longitudinal grade: 0.4% – 0.67%

Project specifics

A web-based data base had to be programmed specifically for the project. This data base displayed all monitoring data – including concluded measurements – for the client, designers and contractors. Some measurements had to be performed under very difficult conditions.

Services

Vibration monitoring, reporting, consulting of the client regarding vibrations, public information.





Data sheet

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13x09257

Contact data of the client	Brenner Basistunnel BBT SE Contact person Mag. Werner Zimmerhofer Address Grabenweg 3, 6020 Innsbruck, Österreich Phone/fax 0043 - 512 4030 – 335 / -110 E-Mail werner.zimmerhofer@bbt-se.com
Contractor	iC consulenten Ziviltechniker GesmbH 95%
Name of partners	IFS Ziviltechniker, Innsbruck 5%
Duration of assignment	From November 2009 to December 2015
Services	Vibration monitoring, reporting, consulting of the client regarding vibrations, public information
Project phases in which iC participated	Project preparation 01/2008 - 03/2009 Planning 01/2008 - 03/2009 Preparation of project execution 01/2008 - 03/2009 Execution of works 01/2008 - 03/2009 Project completion 01/2008 - 03/2009
Contract value (consortium)	€ 0,00
Contract value iC	€ 241.558,00 (21/1/2011)
Project costs	Construction costs € net 63.227.727,56 (Contract sum, contract B0054, as of 21/01/2010) Erection costs (construction costs plus design costs) € net Total costs € net
Number of staff involved in the project or staff months	3 staff months

The client confirms the professional and correct performance of the services.