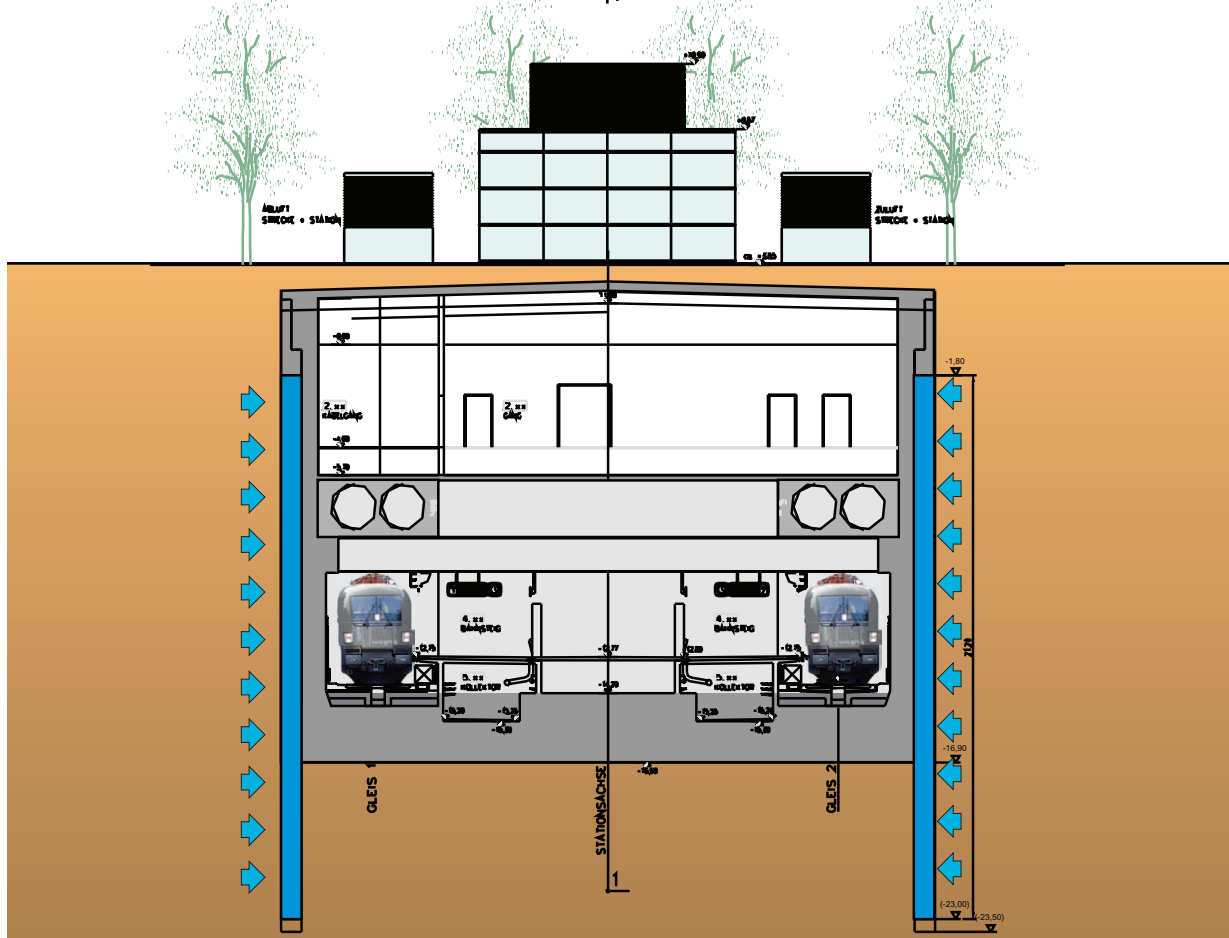


UNDERGROUND RAILWAY STATION U2/3 PRATERSTERN

Use of ground-source cooling energy for new stretch of the U2 line



Use of geothermal energy for underground railways

The station buildings, station and line tunnels which are to be constructed as part of the “U2 extension” project provide favourable conditions for extracting energy from the ground. Heat can be absorbed from or returned to the ground and to the groundwater by means of absorber units to cover the heating and cooling requirements of the stations.

The possibilities for using this energy are as follows:

- Heating and cooling of station buildings
- Heating and cooling of shops in the area of the station
- Surface and stair heating to keep these areas free of ice
- Supplies to third party users

Client

Wiener Linien GmbH
Abtlg.: Bautechnische Angelegenheiten der U-Bahn, Obere Augartenstrasse 74, 1020 Wien-A

Project Partners

Technische Universität Wien
Institut für Grunbau und Bodenmechanik
Karlsplatz 13/221, 1040 Wien-A
IC Consulanten
Kaiserstr. 45, 1070 Wien-A

enercret – Installation at U2/3 Praterstern Station

The diaphragm walls with an overall length of 306m and a depth of 24m plus the ground slab of the station building are to be used for the purpose of cooling the station building. 7.350 m² diaphragm wall equipped with piping 3.700 m² ground slab equipped with piping

Heating capacity 154 kW

Cooling capacity 92 kW