BUILDING COMPLEX PERRON, SALZBURG

Client: Ing. Hans BODNER Baugesellschaft mbH & Co KG
Development Period: 2013 to 2017

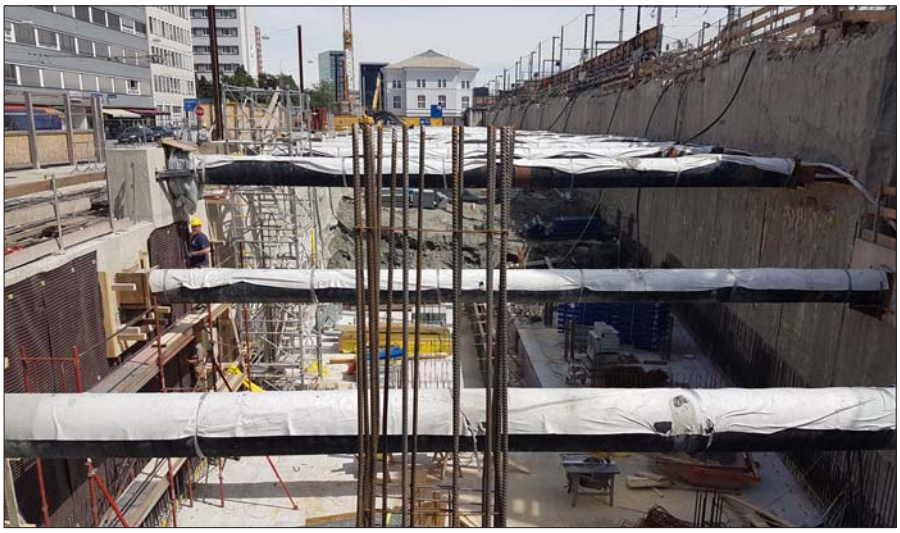
THE PROJECT

The ultra-modern building complex "PERRON" with a combined hotel, office and residential use is located in the immediate vicinity of the Salzburg main railway station.
The project extends over a length of 150 m and a width of 20 m between the Rainer Street and the station area. The building is divided into a longer section with five upper floors towards the north and a high-rise building with 15 storeys at the southern end of the building. Across the whole are, two basement levels are implemented.

OUR FUNCTION

For this project, BGG Consult has been commissioned with the geotechnical evaluation of the temporary building pit support system and the dewatering measures regarding the matters relevant for the railways.
The services comprised first the evaluation according to § 31a of the Railway Act. Subsequently, the construction pit support system, the underpinning of a lift belonging to the railway and the dewatering measures were scrutinised from a geotechnical point of view. Additionally, a monitoring programme, including a safety management plan, was worked out and attended to.
During construction, the works of the support system were supervised, assessed and controlled. Furthermore, measurements were conducted in the diaphragm wall inclinometres.

Building Pit Support System:
The building was founded by means of diaphragm walls, which served at the same time as the building pit support system. Towards the railway area, the diaphragm wall was built from the level of the railway platforms (four metres above street level). Therefore, a height of over 12 m had to be secured.
The underground in the relevant depth consists of the typical "Salzburg Sea Clay", a silt-clay mixture and silty fine sand respectively, which is very susceptible to deformation.
In order to minimise the settlements at the railway area, the upper bracing of the building pit support system has been prestressed. Furthermore, bracing bars were placed below the bottom plate immediately after the step-by-step excavation.
Because of these measures, the construction works could be carried out without disturbance of the railway service.



View into the building pit