

NEW BUILDING HEAD OFFICE OF THE INSURANCE COMPANY VORARLBERGER LANDESVERSICHERUNG AND WELZENBACHER HOUSE, BREGENZ

Client: Vorarlberger Landesversicherung VaG, Bregenz

Development Period: 2018 to 2022

THE PROJECT

The objective project comprises the new construction of two buildings, situated at the Bahnhof St. 31 and 35 in Bregenz. The common basement extends across an area of 65 m x 32 m and reaches up to 4.5 m under terrain level.

The head office of the insurance company holds seven storeys (height 27 m) and the adjacent Welzenbacher House three storeys. The two buildings are connected with a single-storeyed construction. For reason of monument conservation, the facade towards the Bahnhof Street and other parts of the building had to be preserved. Thus, the shallow foundations of the existing building also had to remain.

OUR FUNCTION

BGG Consult had been commissioned for this project with the geotechnical supervision of the construction. On the basis of existing and supplementary underground investigations, a geotechnical expert's report was prepared.

Subsequently, the tendering and awarding procedure of the works of the special heavy construction, the underpinning, dewatering and earth moving were attended to from a geotechnical point of view.

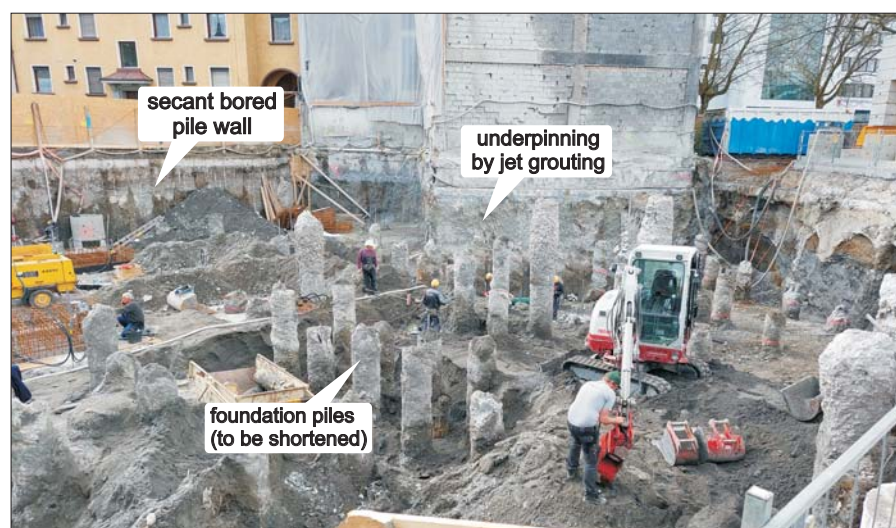
Finally, the construction was supervised in the respective field by means of site visits and the evaluation of the accompanying monitoring.

Utilisation of Miscellaneous Special Heavy Construction Techniques:

The underground consists up to a depth of 16 m of very heterogenous layers of sand, silt and clay which hold a very low, and in addition also strongly varying, bearing capacity. The groundwater level is close to the surface.

The building pit walls were prepared by secant concrete bored piles (Ø 90 cm) and secant auger bored piles (Ø 65 cm). The underpinning of the existing building and the deep lying sealing of the construction pit bottom was accomplished by the method of jet grouting. For the foundation of the building, displacement piles (Ø 50 cm) were used.

Due to the intense cooperation with the geotechnical expert in all the planning phases, the construction sequences and methods were optimized and a safe foundation ensured in this challenging underground situation.



View into the construction pit during excavation