



BGW and VBG Prevention Centre, Hafencity, Hamburg

Data and facts

Company	PORR Spezialtiefbau GmbH
Type	Turnkey construction pits, Sealing slabs, Foundations
Runtime	04.2019 - 12.2020
Principal	Berufsgenossenschaft für Gesundheitsdienst und Wohlfahrtspflege (BGW) / Verwaltungs-Berufsgenossenschaft (VBG)

[Project report online](#)

Construction pit with spectacular views of the Elbe bridges and the Port of Hamburg

construction in this area requires specialist expertise, experience and meticulous planning. In the case of the construction pit created for the BGW and VBG Prevention Centre, execution planning was carried out in-house by PORR Spezialteifbau Planung GmbH. The 3D plans of the construction pit with anchor-collision checks significantly improved the cost-effectiveness of the pile foundation construction.

Location necessitated stable pit lining with minimal deformation

The construction pit was established in close consultation with Hamburger Hochbahn, the company that operates the city's underground railway system. Due to the site's location immediately adjacent to a U-Bahn line, any vibrations, deformation, settlement or back-anchoring against the U-Bahn station were entirely out of the question. Consequently, at the eastern side of the site adjacent to the Elbbrücken U-Bahn station and in the lower section towards the Elbe, the construction pit was secured with an extremely stable and deformation-resistant reinforced concrete bored pile wall (approx. 1,950m²). Instead of back-anchoring with grouted anchors, the bored pile wall was reinforced internally with inclined tube struts. In addition, boring holds to remove debris made it possible to overcome numerous obstacles, such as old sheet-pile walls and remains of past foundations. The floor of the construction pit below the groundwater level was sealed using the jet-grouting method.

Impressions

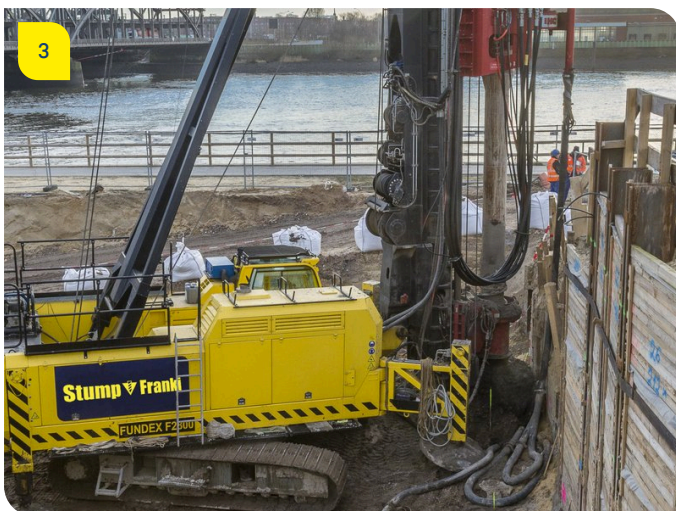


Image notes

1

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Finished excavation pit with a view of the Elbbrücken underground station.

2

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Securing the bored pile wall to the underground station with inclined supports to the inside.

3

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Production of partial displacement bored piles directly in front of the retaining wall.

4

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Drilling equipment in the construction pits with a view of the Elbe and the Elbphilharmonie concert hall.

Do you have questions about the project or would you like to learn more? Feel free to contact us for further information.

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