PROJECT REPORT

Sustainable pile foundation

Housing project in the water city of Limmer

Data and facts

Company	PORR Spezialtiefbau Planung GmbH, PORR Spezialtiefbau GmbH
Type	Foundations
Runtime	11.2024 - 02.2025
Principal	BöCon GmbH, Seelze

Project report online

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PROJECT REPORT

Sustainable pile foundations for ecological housing project in the water city of Limmer

The subsoil required different settlement depths and pile dimensions

Wasserstadt Limmer is a large-scale urban development project on the 23-hectare former Continental AG factory site in the Linden-Limmer district of Hanover. The site is located on a peninsula between the Hanover-Linden branch canal and the connecting canal to the Leine. Once all construction phases are complete, up to 6,500 people will live in this diverse and nature-oriented quarter. On an area of 4,525 square metres, the JAWA building consortium is constructing three modern three- and four-storey buildings with a total of 53 socially acceptable and environmentally friendly flats at affordable prices. A central square serves as a meeting place for residents.

The first few metres of the subsoil consist of silty soil without sufficient load-bearing capacity. Therefore, pile foundations up to a depth of twelve metres were necessary to transfer the loads. As the horizon and the composition of the load-bearing layers varied greatly, different setting depths and pile dimensions were planned. In total, the PORR special civil engineering team produced 173 atlas piles with a diameter of 41/51 centimetres for the helical pile shaft as well as 86 atlas piles with diameters of 46/56 centimetres.

Sustainable pile system complements ecological construction concept

Due to their reduced concrete consumption and full soil displacement, the slim Atlas Screw piles are part of PORR special civil engineering's Greenpile® technology. The ready-mixed concrete was transported from a concrete plant three kilometres away. Last but not least, the low-noise, vibration-free construction of the foundation was an important aspect in the selection of the method, as the adjacent new buildings are already inhabited.

Impressions

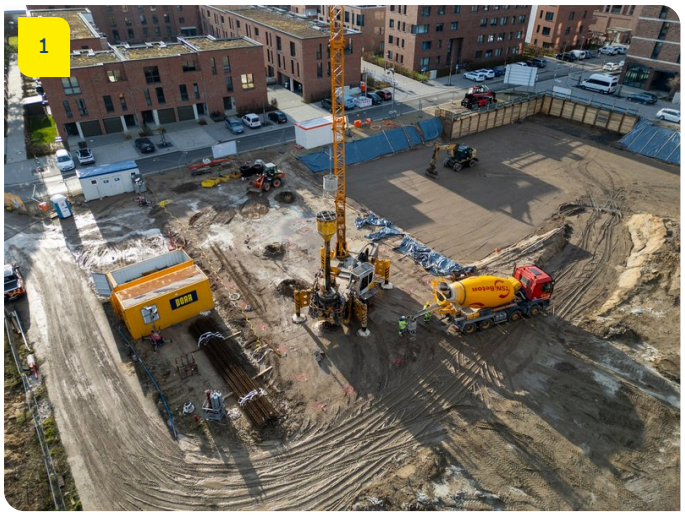

Image notes

1

PORR Spezialtiefbau Limmer 1

The last undeveloped lot in Wasserstadt Limmer is being built on.

2

PORR Spezialtiefbau Limmer 3

The atlas piles will be approx. 11 metres long. Due to full displacement, no soil will be removed during production.

3

PORR Spezialtiefbau Limmer 4

The atlas pile impresses with its quiet and vibration-free installation.

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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