



Extension of the U5 Europaviertel metro line, Frankfurt am Main

Data and facts

Company

Type Rail and road tunnels, Turnkey construction pits

Runtime 05.2017 - 01.2025

Principal U5 Europaviertel consortium

[Project report online](#)

www.porr-group.com



Entire value chain for a complex infrastructure project from a single source

Watch our video about the project:

- [Extension of the U5 Europaviertel](#)
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Challenging work in compressed air conditions

Drill and blasting methods were used to complete the last few metres to the existing underground tunnel at Platz der Republik by July 2022. The air pressure at the construction site was increased to the same pressure as the groundwater using technically complex air locks to prevent water from penetrating the site. The PORR tunnelling division worked in 24/7 shifts to construct 11m of tunnel in the south tube and 3m in the north tube. Occupational health and safety were given top priority, so everyone had to undergo a health check-up as a precautionary measure. The work was carried out in three six-hour shifts per day. It also took another 1.5 hours to get the team in and out of the pressure chamber.

Excavating one of the deepest construction pits in Frankfurt

Excavation work for the Güterplatz underground station began below the first bracing level in August 2022. The construction pit will be around 170m long, 25m to 30m wide and excavated to a depth of 24m. The excavators are fitted with telescopic deep-reach booms to enable them to work at this depth. The works are accompanied by geotechnical monitoring. Roughly 170,000t of excavated soil have to be disposed of – an enormous logistical challenge in Frankfurt's city centre.

Impressions



Image notes

1

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Excavating one of the deepest construction pits in Frankfurt.

2

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The cutting wheel of the tunnel boring machine to extend the U5 underground line into the Europaviertel was lifted into the starting excavation pit on Europa-Allee on June 21, 2019.

3

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Wall production Güterplatz

4

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View of the Europaviertel Frankfurt with start building pit for TVM

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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