

# Project report special civil engineering

#### Data and facts

Company	PORR Spezialtiefbau GmbH
Туре	Turnkey construction pits, Underpinning
Runtime	09.2022 - 03.2023
Principal	Monheimer Kulturwerke GmbH

Project report online

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## Challenging excavation work in a historical structure

with a base area of 1,600 m² and a depth of 6.2 m for the large event hall, which will protrude as a cube from the centre of the historic bottling hall. The construction pits for two further new buildings have a footprint of 680 and 920 m². In the northern extension, facing the adjacent Rhine, there will be a restaurant with an outdoor terrace on the ground floor as well as a roof-top bar at a height of 12 metres. The southern extension will house conference rooms and the building infrastructure.

To secure the existing buildings, the Team constructed 7,000 m³ of DSV shoring wall under restricted height and DSV underpinning as well as 3,700 m of temporary strand anchors for tieback. In addition, 2,800 m of micro piles were installed to secure the buildings close to the river against possible floating. The special civil engineering work required the utmost care, because of course effects on the stability of the old buildings and deformations had to be excluded in any case. Old foundations and supports as well as sometimes extremely thin walls demanded all the skills of the construction site teams.

## **Impressions**









#### Image notes

1

DSV work for Kulturraffinerie K714, Monheim

A comprehensive renovation of the six-aisled brick building, whose origins date back to 1914.

2

DSV work for Kulturraffinerie K714, Monheim

A comprehensive renovation of the six-aisled brick building, whose origins date back to 1914.

3

DSV work for Kulturraffinerie K714, Monheim

The main excavation pit with a floor area of 1,600 m<sup>2</sup> and a depth of 6.2 metres.

4

DSV work for Kulturraffinerie K714, Monheim

2800 m of micropiles serve as buoyancy protection for the building.

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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