



# Deutsche Bahn rail upgrade, Oldenburg-Wilhelmshaven

## Data and facts

Company	PORR Spezialtiefbau GmbH
Type	Foundations
Runtime	02.2021 - 05.2022
Principal	PFA 1 Bau in consortium / Client: DB Netz AG

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# Soil stabilisation with jet-grouted columns

operations calls for strict adherence to schedules as well as outstanding planning. Strictly prescribed rail shutdown periods require several crews to work both day and night shifts, seven days a week, in order to successfully execute the construction. High equipment standards and personnel capacities are essential to the project. As a consequence, wear on the equipment used during such intensive daily efforts is extreme. Owing to the extremely short execution time frame, time cannot be allowed for repairs, and so replacement equipment has to be available on the site. PORR is eminently pre-qualified for rail works: excavators and drilling equipment must not be disturbed by rail traffic on the adjacent line, a distance of 30cm to the overhead line must be maintained and the construction area is strictly defined by the required minimum distance, including aerial distance, from the adjacent line.

Where the minimum distance from the nearest operational rail line cannot be ensured due to the required location of the jet grouted columns, additional night rail closures will be implemented. In this scenario, rail traffic will be discontinued on the neighbouring line for approximately four hours. This consideration, in addition to the essential pilgrim step rolling and hardening times required during manufacture, calls for extremely precise construction process planning. Daily schedule adaptations are required in response to the latest construction progress. The small, precisely defined construction site is hemmed in by operating rail lines to either side, severely limiting the space available for the necessary staff and equipment. Overhead cabling restricts the clearance height to 6m, adding an extra level of complication to manoeuvres on the construction site. In addition, the constant variation between the manufacture of full and half columns requires correctly adjusted drilling equipment and high levels of technical know-how from the operators. With years of experience and great expertise, the PORR team is ideally suited for this challenging construction project.

## Impressions



## Image notes

1

Deutsche Bahn rail upgrade, Oldenburg-Wilhelmshaven

The retaining walls of the railway embankment are relieved.

2

Deutsche Bahn rail upgrade, Oldenburg-Wilhelmshaven

Jet grouting structures solidify the soft ground.

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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