



# Munich

## General restoration of the Ludwig Bridges

### Data and facts

Company	PORR GmbH & Co. KGaA
Type	Bridge construction
Runtime	06.2020 - 01.2024
Principal	Landeshauptstadt München – Building Division, Department of Civil Engineering

[Project report online](#)

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# PORR renovates structures on historic Isar river crossing

The Department of Civil Engineering, representing the Buildings Division of Landeshauptstadt München, was thoroughly satisfied with both the quality of the work and the adherence to schedule of the PORR team, which was made up of members from Germany and Austria. PORR Hochbau Oberösterreich and PORR Tiefbau Tirol supported the main contractor ZNL Saaldorf-Surheim by carrying out concrete renovation and asphaltting works.

## Expertise and sensitivity required

The inner and outer parts of the Ludwig Bridges are separated by Museum Island. The steel and concrete arched bridges, built in 1934 and 1935, are arranged in series and clad in natural stone. Reports of damage were becoming more frequent during regular construction inspections, which is why it was necessary to carry out general renovation work to ensure the bridge would remain useable for decades to come.

In phase 1 the cross reinforcement on the underside of the outer part of the Ludwig Bridges were strengthened piece by piece in a pilgering process. Working just a few metres from the often flooded Isar was a particular challenge.

The second phase of construction followed, with cross reinforcement of the vaulted ceilings of the footpath underpasses, and restoration or renovation of the road slabs. The existing structure had to be cut away, removed and rebuilt piece by piece in order to ensure the bridges remained structurally stable at all times.

The third phase of construction revolved entirely around strengthening the crown hinges. Extensive tests carried out during the construction work confirmed that the hinges were structurally sound. This meant that the complete renovation of the hinges originally planned, an extensive and technical undertaking, was not necessary. The only work necessary to reinforce the hinges was a minimally invasive procedure to strengthen the tensile gap reinforcement using innovative concrete screws.

## Impressions



## Image notes

1

General restoration of the Ludwig Bridges in Munich

The reconstruction measures on the Ludwig bridges were carried out while road traffic continued to flow.

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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