

Divadlo Jiřího Myrona

08.03.2019 / Česko / Lukáš Cibulka

Building construction



Factbox

Client: Národní divadlo Moravskoslezské (Nationales Mährisch-Schlesisches Theater)

Contractor: PORR a.s.

Architect: Dipl.-Ing. arch. Jiří Stejskalík

Contract Type: Generalunternehmerleistungen

Project Type: Building construction . Revitalisation

Scope: Extensive redesign of the National Moravian-Silesian Theatre building complex

Contract Volume: CZK 161 million (6.15 million euros)

Construction Start: 10/2017

Construction End: 11/2018

Theater revitalization with surprises

In Ostrava, the third-largest city in Czechia, PORR revitalized a theater complex comprising three buildings in poor structural condition while operations continued.

More than 155 amendments were necessary to ensure the proper execution of the contract. Numerous structures that were supposed to be preserved had to be demolished and replaced due to their poor technical condition.

General

The renovation of the Moravian-Silesian National Theater in Ostrava included not only the theater building itself, but also the Malá scéna (Small Stage) and an administration building. The listed facades of all three buildings had to be renovated. In the Divadlo Jiřího Myrona theater, the foyer was also redesigned and all floor structures, including the marble flooring, were replaced. The demolition and reconstruction of the staircase has created theater buffets and new sanitary facilities on each floor. The theater café and ballroom were also completely redesigned, creating additional space for ticket sales and a shopping arcade with direct access to the theater café.

The Malá scéna, a building that until recently housed an insurance company, was remodelled to include a small stage for around 60 people, a bar and sanitary facilities. The offices on the upper floor were also remodelled.

Finally, in addition to a comprehensive rehabilitation of the offices, the administration building was also extended to include several new rooms. These include a ballet hall and an orchestra rehearsal room on the previously unused top floor.



The redesigned Malá scéna, for which PORR also supplied the stage technology and all audiovisual equipment, offers space for 60 visitors.
Source: PORRa

The original order volume was CZK 137 million. However, as the work progressed, it quickly became apparent that neither the price nor the originally envisaged deadline could be met. With a total of 155 change

requests required for proper completion, the price rose to CZK 161 million and the handover had to be postponed to the end of November 2018.



The complete revitalisation was very challenging in terms of construction. There were constant surprises and changes to the plans.

Lukáš Cibulka
Project Manager, PORR a.s.

Lots of challenges

Even when the contract was awarded, it was clear that PORR had a tough nut to crack with this project. The revitalisation took place during ongoing theatre operations. This required detailed planning of the construction stages and execution. Areas where work was being carried out were completely separated from theatre operations. New steel support structures were erected in the small theatre, the ballet hall and

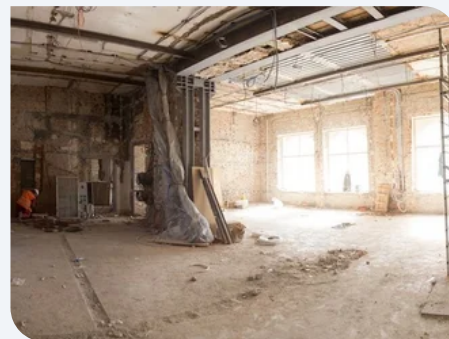
the orchestra rehearsal room, which required major interventions in the load-bearing structures. Only then could the existing brickwork and in-situ concrete structures such as walls, ceilings and beams be demolished. All work was carried out under the constant supervision of the structural engineer. Due to the condition of the old building, regular adjustments and new plans were made.

Sophisticated construction logistics

The entire logistics, transport to and from the construction site as well as the assembly processes also presented the PORR construction site team with challenges. The steel girder for the ballet hall alone was 9.5 metres long and could not be divided. The steel support structures weighed 50 tonnes and the demolition material weighed 2,000 tonnes. A micropile platform had to be dismantled and reassembled in the

basement because it did not fit through a door that was just under 1 metre wide. The demolition of an entire storey and the construction of a new portal in the Kleine Szene at a height of 6 metres were particularly challenging. This required a steel structure consisting of four steel girders, each 10 metres long. The foundations were anchored into the block foundations outside the building.

Gallery



Poor building fabric

A new ticket office, a shopping arcade and a café were added to the main building. A ballroom was built directly above the café in place of the former ballet hall. The existing structures, which were supposed to be retained, presented a difficulty. However, the poor structural condition made this impossible in many cases. Time and again, parts

had to be demolished and replaced with new, functional structures. A mural from the 1920s was discovered behind a suspended ceiling in the theatre café. Here, too, restoration was impossible due to the poor condition of these frescoes, which is why they were conserved. The team erected a new steel structure for the suspended ceiling.

8.000 m²

Gross floor area

2.500 m²

Facade area

Technical data

Plot area	2.500 m ²
Bored piles	Mikropfahlgründung
Steel incorporated	50 t
Concrete incorporated	30 m ³
In-situ concrete/reinforced concrete incorporated	35 m ³

More than just construction work



The new construction of the ballet hall and the orchestra rehearsal room in the administration building not only required comprehensive protection of the existing and demolished structures, but also numerous fire protection measures. To meet the acoustic requirements, PORR installed special wall and ceiling sound insulation panelling. In addition, some of the wooden ceiling's load-bearing beams had to be renovated or replaced to ensure stability for the new dry floor structures. In the building services area, new pipes were laid for the sanitary facilities, ventilation and heating, as well as high- and low-current cable lines including end elements, distributors and units.

In addition to the structural work, PORR was also responsible for the audiovisual systems, stage technology and the entire lighting in the Kleine Szene. The bar, which was built to replace the old ticket office, has a special feature. An ingenious construction lifts the tables to the ceiling at the touch of a button so that the area can be used as a dance floor.

Unavoidable delays

The revitalisation of the façade proved to be particularly tricky. For this reason, PORR commissioned a specialised company right at the start of the construction work, which worked closely with the National Institute for the Preservation of Monuments (NPÚ) to draw up a new specification

for the façade renovation and define the required materials. Specifications such as the mandatory use of Romanesque cement resulted in far-reaching changes to the scope of work, which led to a significant price increase and postponement of the deadline.

Conclusion

On 1 September, PORR handed over the revitalised theatre building, the new small scene and the theatre bar to the client for use. The other rooms were handed over at the end of November. Even though new difficulties and challenges arose time and again during the course of the project due to the poor building fabric, resulting in numerous changes to the plans, PORR was able to impress not only the client but also the theatre-goers with the extensive revitalisation of the theatre complex.



In the main building, the foyer was redesigned and all floor structures, including the marble flooring, were replaced. Source: PORR