

Historic theatre redevelopment



“As when dealing with any listed building, we discovered some unconventional and unjustifiable existing building details which we had to carefully work around. The tenet of reversibility must always be observed with listed buildings.”

Roger Bareham, Associate

Overview

The client had a requirement to convert this 1920's Grade I listed former picture house into a comedy club to service the city of Bath. A tight construction deadline was imposed and several structural solutions were devised which removed the need for expensive and irreversible alterations.

Project Description

A number of significant structural interventions were required for this successful conversion, which could have been contentious from a heritage perspective if not for our considerably engineered solutions. These included:

- A 4.5m clear span opening in a loadbearing wall, in order to create an unobstructed circulation space and a vista from the main entrance through to the auditorium. Two steel box frames were used side by side, which kept member sizes to a minimum and made up the thickness of the wall.
- A new terraced auditorium floor formed in a grillage of plywood, laid on the existing subgrade. The existing sloping auditorium floor was constructed of an uncommon detail of boarding on battens on thin mass concrete sleeper strips at close centres, laid directly on the stiff clay soil. Concrete slab and polystyrene options for the new level of terraced floor were discounted due to non-reversibility, and a new piled floor would have been enormously expensive. The chosen solution of a plywood framework of crossing beams was laid on the existing floor with vertical loadbearing ply 'fins' at similar spacings to existing battens, in order to maintain loadpaths and keep weight increases to an insignificant level. This detail was amenable to providing the ramps, steps,

Project Overview

Client

Komedia
Architect: Stubbs Rich

Location

Bath

Project Value

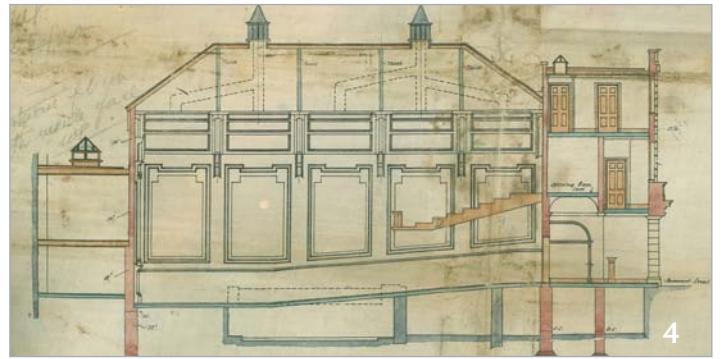
£1m

Services Provided

Structural engineering consultancy
Civil engineering consultancy

Added Value

A terraced floor was introduced over the existing sloping floor without the need for expensive piling works. All structural work was designed to minimise the impact to the existing fabric of the building.



balustrades and stage extensions required in the new auditorium, and was able to be installed by carpenters on site with few onerous requirements and minimal site supervision.

- The removal of loadbearing walls in the front foyer area to open up circulation space. Restructuring was achieved via steelwork orientated carefully to allow installation prior to demolition, thereby minimising temporary works requirements.
- A new lighting rig support. Structural steelwork was designed to be located in the roof space in order to support lighting bars. The steelwork comprised small beams fixed to the primary roof trusses with girder clamps, which did not require any site drilling or welding and is hence reversible. The steelwork was designed such that winches could be fixed directly to it, with ropes passing through small tubes extending through the ornate plaster ceiling, thereby minimising disturbance to the historic fabric of the building.

The build was completed to a very tight construction schedule, with the venue opening at the end of 2008 and quickly proving popular with audiences and performers alike.

Pictures

1. The terraced auditorium constructed over the old sloping floor.
2. The bar area with view through to the auditorium.
3. The Komedia comedy club.
4. Longitudinal section of the auditorium, from 1920.

Images: Stubbs Rich

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