

Refurbishment «Haus zum Kiel», Zürich

2013



The manor house «Haus zum Kiel» is located on Hirschengraben in Zurich and was built between the medieval city wall and the baroque redoubt. The listed building had to be refurbished.

The project

The aim of the overall renovation of the building was to create contemporary residential and commercial spaces, as well as an event room in the basement. In addition to the structural upgrades, this required adjustments to the escape routes. In addition, the annexes and outbuildings could also be converted into apartments. The existing wine cellar was converted for the event room and fitted with a new escape staircase between the buildings.

The construction method

The building with solid quarry stone walls and wooden beams showed various signs of damage to the building structure and load-bearing structure (cracks, fractures, rot) due to conversion and subsidence. In the basement in particular, the main load-bearing axis had to be strengthened. The existing column and beam system was completely replaced for this purpose. Fire protection upgrades were required in the storey ceilings.

The challenge

The relocations led to severe overloading of junctions. For this reason, the existing joist in the basement had to be replaced with a new 400 x 600 mm ash beam. In order to install these beams, a former coal chute had to be opened up and the approx. 10 m long beams installed.



Floor slab before retrofitting



Renovation measures in the wine cellar



Picture: Roger Frei



Picture: Roger Frei

Construction costs

- Construction loan approx. CHF 13 million

Services of Timbatec

- SIA Phase 31 preliminary project
- Cost estimate
- Statics and construction
- SIA Phase 32 Construction project
- SIA Phase 41 Tendering and comparison of offers
- SIA Phase 51 Execution project
- SIA Phase 52 Execution
- SIA Phase 53 Commissioning
- Specialist planning Fire protection
- Fire protection Quality assurance QSS2
- SIA Phase 11 Condition analysis
- SIA Phase 21 Structural analysis

Client

City of Zurich
8021 Zurich

Architect

Edelmann Krell
8045 Zurich

Timber construction engineer

Timbatec Holzbauingenieure (Schweiz) AG Zurich
8005 Zurich