

# Wehntalerstrasse 52, Zürich

2021



The replacement building at Wehntalerstrasse 52 in Zurich-Unterstrass is erected. With the use of clay panels, sheep's wool insulation, flexible walls and TS3 technology, the timber construction is highly interesting from an ecological and technical point of view.

## The project

The 5-story apartment building on Wehntalerstrasse was constructed with TS3 CLT panels. Thanks to the biaxial load-bearing timber slabs, the cantilevered balconies and oriels on all sides could be efficiently and easily executed in pure timber construction.

The ceilings span around the concrete staircase core to the exterior walls, so that no load-bearing components are required inside the building. The interior walls, as well as the building services, were designed so that individual rooms can be easily swapped between apartments.

## The construction

The basement, as well as the staircase core, was made of concrete. The entire rest of the building was constructed in pure wood. The massive wooden ceilings with TS3 technology span from the core to the outer walls. The exterior walls are built in timber frame construction. A hollow box element was used under the greened flat roof. All slabs are designed as discs and are braced over the concrete core.

## The challenge

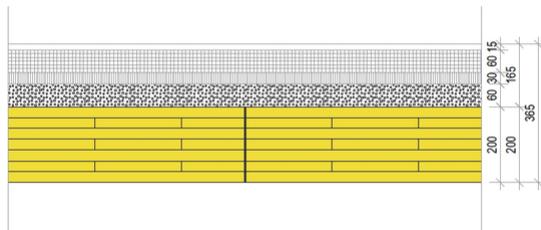
The building has cantilevered structural elements (balconies and bay windows) on all four facades. Thanks to the TS3 technology, wooden slabs supported in two axes, this challenge could be solved very easily and efficiently.



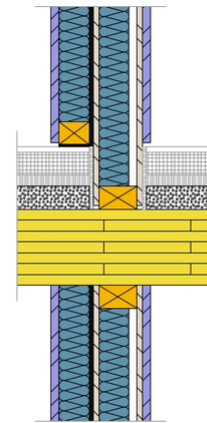
Passage to the balcony



Living space



Ceilings made of CLT panels grouted with TS3 technology, with fill, impact sound insulation and underlay floor



Connection apartment partition wall to ceiling. These were planned so that they can be converted into an internal room partition without major intervention

### Construction Data

- CLT boards/ 3-layer boards 160 m<sup>3</sup>
- BSH / solid wood 35 m<sup>3</sup>
- Wood-based panels 15 m<sup>3</sup>

### Construction costs

- BKP214 CHF 670,000.-

### Services of Timbatec

- SIA Phase 31 Preliminary design
- SIA Phase 32 Construction project
- SIA Phase 41 Tendering and comparison of offers
- SIA Phase 51 Implementation project
- SIA Phase 52 Execution
- SIA Phase 53 Commissioning
- Structural analysis and design
- Planning of building physics
- Fire protection planning
- Fire protection Quality assurance QSS2
- cost estimation
- Technical site management and site inspections

### Client

Beatrice Rasper Wellmann + Caspar Wellmann  
8057 Zurich

### Architect

Wellmann Architekten AG  
8004 Zurich

### Timber construction engineer

Timbatec Holzbauingenieure (Schweiz) AG Zurich  
8005 Zurich

### Photography

Wellmann Architekten AG  
8004 Zurich