

Apartment house Zwinghof, Neerach

2017



Instead of an old farmhouse in the Zurich Unterland, two residential buildings in timber construction were built. The four residential units find space within the former Vumentrie. The Zwinghof in Neerach thus retains its original character.

The project

The Zwinghof in Neerach had not been used as a farm for some time. Therefore, the owner, Axenstein Park AG, had the barn and the residential house replaced by new buildings made of wood. The two new houses have the same appearance as the original buildings. Instead of the barn, three apartments were built side by side. The apartments in the volume of the former barn extend over three floors, some of them with rooms spanning several floors, which are accessed via the inner staircase. The first floor is used for living: here are located the living and dining rooms and the kitchen. The bedrooms are located on the upper floor and in the roof.

The construction

Starting with the concrete floor slab, the new residential units are made of wood. The walls are made of cross-laminated timber, the ceilings and the roof of hollow box elements. The bracing to transfer the forces of wind and earthquakes into the ground is provided by the timber walls. The new Zwinghof buildings are just over 11 meters high and belong to the category of medium-high buildings in terms of fire protection. They must therefore be designed for a fire resistance of 60 minutes. The individual parts of the building were separated from each other by fire walls.

The challenge

The space of the three residential units in the volume of the former barn is limited. For the timber construction engineers, the challenge was to accommodate all the required applications in this confined space and also to be able to meet the requirements in terms of fire protection.



The wooden formwork has been painted with an oxide oil glaze



Plenty of air thanks to rooms spanning several floors



A staircase made entirely of wood



From the kitchen on the slightly elevated first floor, there is direct access to the outdoors (pictures Roger Frei, Architekturfotografie)

Construction Data

- Structural timber 90 m³
- hollow box elements 450 m²
- Three-layer boards 1000 m²

Services of Timbatec

- SIA phase 31 preliminary project
- Cost estimate
- SIA Phase 32 Construction project
- Fire protection planning
- Technical site management and site inspections
- Structural analysis and design
- SIA Phase 41 Tendering and comparison of offers
- SIA Phase 51 Implementation project

Timber construction engineer

Timbatec Holzbauingenieure Schweiz AG, Zurich
8006 Zurich

Client

Axenstein Park AG
8173 Neerach

Architect

Nicole Deiss Architekten GmbH
8049 Zurich

Construction Management

Stettler Architektur & Baumanagement GmbH
8003 Zurich