

Replacement new barn, Aathal

2022



From an old barn was built a new apartment house with wood from the forest of the builder. The result is an all-wood house for four families.

The Project

A barn in Ottenhausen was replaced by a new building. The existing building was protected as a local monument. For the new building, therefore, the building dimensions and the appearance (materialization) had to be taken over. The client had moon wood cut in his own forest in order to build a solid wood house for him and three other families. In accordance with the barn, the house has several entrances. Each apartment has a separate outside access. The room heights within the apartments are different. This is also a reference to the barn, where the floor heights were adapted to the purpose. So now in the new building the living and dining rooms are higher than usual.

The construction

The exterior walls are solid wood panels without glue and without metal parts (Appenzeller wood). The interior walls are partly timber frame construction, partly also Appenzeller wood. The ceilings are exposed solid wood ceilings made of horizontal glulam. Above the building is a rafter roof made of elements.

The challenge

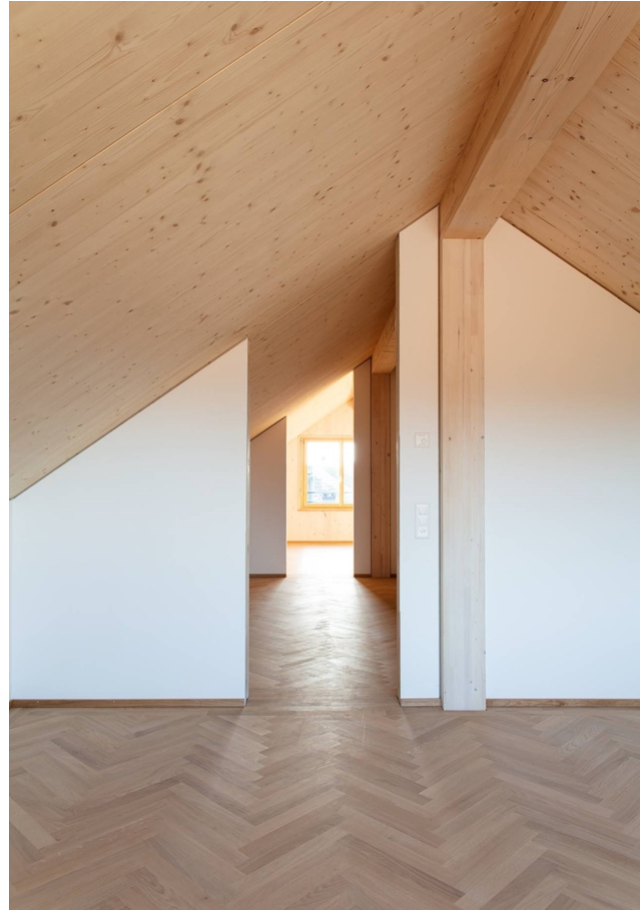
The fire protection distances to the neighboring building are undercut. Therefore, a facade was formed with non-combustible slate panels and the facade of the neighboring building was retrofitted with a non-combustible panel.



Fire protection facade to the neighboring house



Interior view living room



Interior view attic

Construction Data

- Solid wood exterior wall (Appenzeller wood) 50 m³
- Solid wood ceiling glulam 50 m³
- Beam ceiling 140 m²
- Useful area 540 m²

Construction costs

- BKP 217: 940'000 CHF

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
- Technical planning building physics
- Fire protection planning
- Statics and construction
- Fire protection Quality assurance QSS2
- Cost estimation

Architect

Cugini + Frey Architektur GmbH
8004 Zürich

Timber construction engineer

Timbatec Holzbauingenieure (Schweiz) AG Zürich
8005 Zürich

Timber construction

Jampen Holzbau
8335 Hittnau

Photography

David Schlatter