

# Burgunderstrasse, Bern

2020

---



In Bern Bümpliz, the parish of Bern built a new apartment building with eight affordable rental apartments. The building is made entirely of wood - including the staircase, elevator shaft and escape stairs.

## The project

Program requirements called for affordable housing. The answer was a compactly structured building primarily made of cross-laminated timber panels. This allows the proportions between volume, surface and building component connections to be optimized. Non-heated areas such as balconies are added to the main volume as self-supporting components. The equivalent and homogeneous materialization creates a unity, which in its depth effect of light and shadow creates the reference to the garden space. The consistent grid is the spatial expression of the prefabricated wooden building. The layout of the apartments, characterized by the wooden building structure, is designed in such a way that the internal access functions practically without loss of space.

## The construction

The apartment building is a solid wood structure and has a lot of visible wood surfaces. Timbatec defined each processing of the wood panels in the 3-D factory planning before work began on the construction site. The panel makers milled the slots and holes for power cables, lamps and sockets at the factory. The cables for the installations are routed in the dry-bonded chippings. Subsequent slitting of the slabs for the installation of electrical cables is thus neither permissible nor necessary.

## The challenge

The consistent avoidance of concrete called for innovative solutions, especially for the stairwell and the elevator shaft. Encapsulated structures made of cross-laminated timber are the solutions. Thanks to the use of oak wood, concrete and steel could also be dispensed with for the escape staircase.



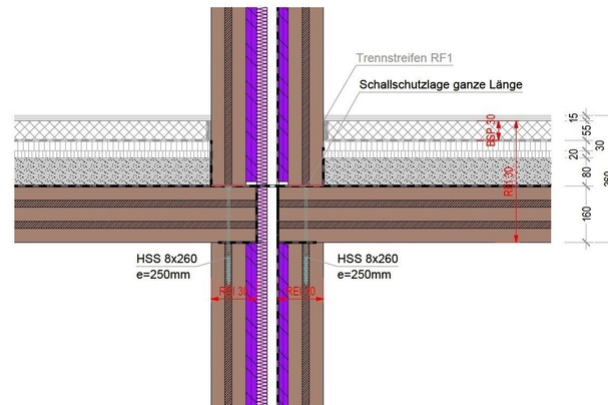
Downstand beam with milled steel plate



Staircase and elevator shaft in wooden construction



Wooden stairs



Detail floor transition

### Construction Data

- 295 m<sup>3</sup> Cross laminated timber

### Services of Timbatec

- SIA Phase 32 Construction project
- SIA Phase 51 Implementation project
- SIA Phase 52 Execution
- Sound insulation measurements

### Architect

Büro 21 GmbH, 3600 Bern

### Client

Catholic Church Bern Region, 3012 Bern

### Timberconstruction engineer

Timbatec Holzbauingenieure Schweiz AG 3012 Bern

### Timberconstruction

GLB 3550 Langnau i.E.

### Civil engineer

Mange + Müller AG 3006 Bern

### Photography

Nils Sandmeier 2500 Biel