

# Apartment building Maihofstrasse 8, Luzern

2023



The shingle facade on the seven-storey wooden building in the heart of the city of Lucerne is an eye-catcher. Fire tests allow the continuous larch cladding without disturbing aprons or fire bars.

## The project

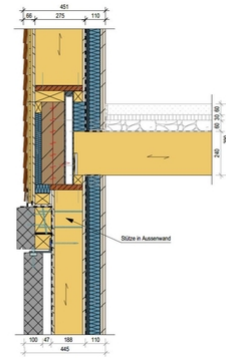
The new building on Maihofstrasse with its seven storeys is located below the high-rise limit. Nevertheless, measures must be taken for combustible facade envelopes from three storeys upwards so that a fire does not spread over more than two storeys. At present, there are still no basics (e.g. from Lignum) on the state of the art for shingle facades that specify the construction principles for fire protection. The measures must therefore be derived from proven construction principles of similar timber facades as well as from past experience, for example fires on shingled buildings or fire tests.

## The construction method

The first replacement building in an inner-city location in pure timber construction was erected within 4 weeks. The building is supported by the central core and the fire walls, the street and courtyard facades are designed as flexible skeleton structures. There are three 2.5 room flats on each of the five floors, the top ones being duplexes.

## The challenge

Shingle facades are particularly aesthetic when they envelop the entire building without being interrupted by aprons and fire bars. It then remained to be assessed whether a fire would spread outside at an unacceptably fast rate or "self-climbing". Fire tests show that the shingle facade is safe.



#### Construction Data

- 650 m<sup>2</sup> small apartments
- 95 m<sup>2</sup> commercial

#### Construction costs

- 5.8 Mio. francs

#### 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

#### Client

Tobias Schär  
6004 Luzern

#### Architect

Fangan GmbH  
8045 Zürich

#### Timber construction

Kost Holzbau AG  
6403 Küssnacht am Rigi

#### Civil engineer

PlusStatik GmbH  
6032 Emmen

#### Photography

burkart.lu Fotografie  
6003 Luzern