

# Refurbishment multi-purpose hall HUM2, Payern

2022

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In the 1970s, the army had a great need for new multi-purpose buildings and had two types of halls developed for this purpose. These buildings are getting on in years and are being renovated and strengthened against earthquakes.

## The project

Today, the real estate portfolio of armasuisse Immobilien includes 30 multi-purpose halls of type 71 and seven halls of type 76. These multi-purpose halls were built between 1969 and 1992 and in some cases show signs of age which now have to be renovated. A baseline report shows that various halls no longer meet today's specifications for earthquake safety. In the course of the renovation work, the halls will be structurally strengthened. The weapons range in Payerne has several multi-purpose halls. A complete renovation was planned by Haller Gut Architekten AG in 2016. Timbatec was allowed to accompany this renovation as a timber construction engineer and was able to apply its experience to the renovation of the second multi-purpose hall on the same armoury.

## The construction method

The infill panels between the steel frames were removed and replaced by prefabricated wooden elements. They stiffen the hall so that it meets today's static requirements. On the inside, the steel girders remain visible, which shapes the hall space through the grid of filigree steel frames. This is how all the elements were planned around the existing steel frame. The outer façade is characterised by the vertically mounted wooden formwork.

## The challenge

The wall panels as well as the roof were made of prefabricated elements with 3-layer panels of spruce wood, which are perforated to improve the acoustics. The atmosphere of the multi-purpose hall is characterised by the warm colour of the wood. The new windows created interesting diagonal views and spatial references.



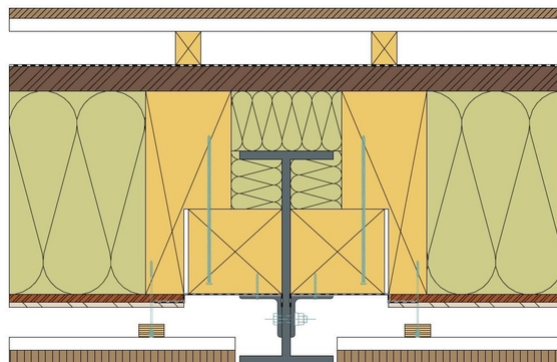
Gymnasium before renovation



Gymnasium after renovation



Interior view after renovation



Construction detail facade

#### Construction Data

- 470m<sup>3</sup> studs and laths
  - External formwork
  - Acoustic and lignature elements and wood fiber insulation.
- All Swiss wood.

#### Services of Timbatec

- SIA Phase 21 structural review
- 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

#### Client

Armasuisse Immobilier  
1006 Lausanne

#### Architect

LZA Architectes SA  
1700 Fribourg

#### Timber construction engineer

Timbatec Holzbauingenieure (Schweiz) AG Bern  
3012 Bern

#### Timber construction

Gutknecht Holzbau AG  
3280 Murten