

# Extension Lämmerenhütte, Gemmi

2017

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The Lämmerenhütte of the SAC was extended by five meters. The building material was flown to the hut by helicopter.

## The project

The Lämmerenhütte above Leukerbad is one of the most frequented accommodations of the Swiss Alpine Club SAC. In the past 25 years, the number of overnight stays has practically doubled to around 7800, and the operation of the hut reached its limits. Therefore, the responsible SAC section decided to extend the hut by five meters. Among other things, this allowed the beds to be widened, more small rooms to be installed and the comfort in the hut to be generally improved. The requirements of the construction project were demanding, because the hut has to bear enormous snow loads and withstand fierce winds. In addition, all the building materials had to be flown to the hut by helicopter.

## The construction

For the extension of the SAC shelter, the existing constructions and materials were adopted... Concrete and quarry stone were chosen for the base floor, and a wooden construction with an outer larch formwork and an inner formwork of spruce and fir was chosen for the ground floor, upper floor and attic.

## The challenge

The Lämmerenhütte has to withstand a lot. On the one hand, the accommodation, which is located at over 2500 meters above sea level, must be able to withstand high wind speeds. On the other, it must be able to bear large snow loads, namely one ton per square meter. For this purpose, foot purlins made of ash wood were used instead of spruce wood. High-quality Kerto beams were integrated into the wall for bracing. Another challenge: All the building material had to be transported by helicopter, as there is no passable road to the hut. The elements for the extension were therefore not allowed to weigh more than 900 kilos. A restriction for the planners, since a solid wood girder quickly weighs a ton.



Extra strong: the roof must be able to carry enormous amounts of snow



All the elements for the expansion came by helicopter.



The Lämmeren hut before the extension



and after the extension

### Construction Data

- Timber frame construction exterior walls 120 m<sup>2</sup>
- Timber frame construction interior walls 35 m<sup>2</sup>
- Floor slabs lignature surface element 160 m<sup>2</sup>
- Roof construction rafter roof 80 m<sup>2</sup>

### Construction costs

- BKP 1-9: 2.5 Mio.
- BKP 2: 2.4 Mio.
- BKP 214: 0.4 Mio.

### Services of Timbatec

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

### Photography

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### Owner

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