

# Renovation and extension sports center, Gstaad

2018

---



Gstaad has made its sports center fit for the future. In addition to the construction of a wellness area, the wooden support structure of the indoor swimming pool was extensively renovated. Timbatec analyzed its condition and defined the renovation measures.

## The project

The Gstaad indoor swimming pool, built in 1971, is the oldest indoor swimming pool in Switzerland with a three-hinged arch supporting structure made of glulam. The pool has been a listed building for some time. The dimensions of the construction are impressive. The supporting structure consists of three-hinged arch trusses with spans of up to 34.2 meters and cross sections between 20 x 110 cm and 35 x 135 cm. But age has left its mark. Building technology, the drains as well as the building structure were partly outdated. In addition, cracks had appeared in the main supporting structure of the roof. Timbatec received the order to investigate the cracks. They were recorded and documented with a total station. It was found that certain cracks were so deep that the statics were no longer guaranteed. It was also found that the load on the main girders was too high in some areas. Crack repair was therefore necessary on the girders. The cracks were cut free, cleaned and adhesive was injected to close them.

## The construction

In order to reinforce individual trusses, lamellas made of glulam were glued on. In addition, the roof was thermally renovated. The boarding between the trusses was removed, the roof was insulated from the inside and provided with a new formwork. Timbatec was responsible for quality assurance of the refurbishment work and also for fire protection for the entire project.

## The challenge

The challenge was not to impair the appearance with its unmistakable character and to take care of the monument protection. At the same time as the refurbishment, the sports center was extended by a 1300 m<sup>2</sup> new building with a wellness area. Guests will find fitness rooms as well as saunas, a steam bath and experience showers.

[Sports Center Gstaad](#)



Impressive dimensions: supporting structure of the indoor swimming pool



Between the trusses was renewed acoustic paneling



The beam on the far left is additionally reinforced with slats



Detailed view of a rehabilitated adhesive joint

#### Construction Data

- Sanitized
- newly insulated roof area 1650 m<sup>2</sup>
- Renovated adhesive joints on arch trusses 125 m

#### Services of Timbatec

- SIA phase 31 preliminary project
- Cost estimate
- SIA Phase 32 Construction project
- Fire protection planning
- Site supervision and site inspections
- Structural analysis and design
- SIA Phase 41 Tendering and comparison of offers
- SIA Phase 51 Implementation project
- Fire protection Quality assurance QSS2
- Condition survey of supporting structure (crack detection and documentation with total station)

#### Timber Construction Engineer

Timbatec Holzbauingenieure Schweiz AG, Bern  
3012 Bern

#### Photography

Alexander Gempeler  
3000 Bern 9

#### Architect

K&L Architekten AG  
9012 St.Gallen

#### Construction management

Germann Architektur AG, 3778 Schönried

#### Timber construction

ARGE AnHaPeReuVA  
(lead company: Arnold Reuteler Holzbau AG)  
3783 Grund bei Gstaad

#### Renovation Binder

Colin Karlen charpente-menuiserie-tavillon Sàrl  
1660 Château-d'CEx