# **Extension Landi, Plaffeien**

#### 2020



The sales area of Landi Plaffeien in the canton of Fribourg was doubled with the extension and conversion project - to around 600 square meters. Timbatec planned the timber construction work of the 2.9 million Swiss franc project.

## The project

The Landi Plaffeien is to become an agricultural store where farmers can find products for their business. Inside the store, the floor space will be completely redistributed. The access road and parking spaces will also be arranged differently. This required extensive remodeling of the existing store. In addition, the storage area on the upper floor was enlarged and the existing building was extended by 7.35 meters with a truss bay. A second load-bearing axis was added to the old exterior wall to transfer the loads from the extension.

## The construction

The existing building with the typical large canopies is a cripple hipped roof construction. The wooden structure is erected above the concrete slab first floor. For the extension, the trusses were extended with laterally attached tongs.

## The challenge

In the area of the old canopy, the building was partially closed. A new exterior wall in line with the old eaves must now support the roof. To ensure the load-bearing capacity of the old truss axes, new struts had to be inserted, with a steel part at the base of the struts to transfer the forces.





Extension sale green area



Strut connection top

#### **Construction Data**

- Glulam 50m<sup>3</sup>
- OSB boards 940m<sup>2</sup>

#### **Services of Timbatec**

- SIA Phase 11 Condition analysis
- SIA Phase 21 Structural analysis
- SIA Phase 31 Preliminary design
- SIA Phase 32 Construction project
- SIA Phase 51 Implementation project
- SIA Phase 52 Execution
- Statics and construction
- Measurement with tachymeter



Extension gable side



Strut connection bottom

Architect Mäder + Luder Architekten AG 1719 Zumholz

Client Landi Sense - Oberland, Landi Plaffeien 1716 Plaffeien

Timber**construction engineer** Timbatec Holzbauingenieure Schweiz AG 3012 Bern

Timber**construction** Zumwald und Neuhaus AG 1719 Zumholz

Construction management Mäder + Luder Architekten AG 1719 Zumholz

