Extension to primary school building, Aeschi bei Spiez

2019

The primary school building in the Lower Simmental of the Canton of Bern has reached the limits of its capacity. Wood from the community's own forests could be used for the extension.

The project

The primary school building in Aeschi bei Spiez was extended by a new three-story building in timber construction. The new part of the schoolhouse contains classrooms, group rooms, workrooms and space for a kindergarten. The three floors above ground were built entirely in wood. The base and basement levels were concreted. During the construction of the building, thought was already given to the future: the interior walls are non-load-bearing and thus allow maximum flexibility of use. In addition, all components are dimensioned in such a way that the school building can be extended by one floor at a later date. For this purpose, the forces are largely transferred via the wooden columns that are clamped at the bottom and run through the entire height of the building.

The construction

The extension building cleverly combines the solid wood and frame construction methods: All load-bearing walls and the floor slabs are made of glulam in solid wood construction. The interior walls are non-load-bearing frame structures. Largely knot-free fir boards were used for the facades.

The challenge

Due to the use of the community's own timber, the planning took place very early: Already at the time of cutting the trees, Timbatec had to provide a rough work planning. This ensured that the correct cross-sections could be obtained from the trees in the municipal forest. Another exciting aspect of this project was the fire protection solutions: The vertical escape routes are designed as encapsulated wooden structures.

Interior view of the schoolroom

Schoolroom with view to the mountains

Bearing of the beams on the supports

Elastic bound dry fill

Construction Data
- Glued laminated timber 630 m^3
- three-layer boards 900 m^2
- Gypsum fiberboards 1050 m^2

Construction costs
- BKP 1-9: 8 million CHF
- BKP 2: 6.792 million CHF
- BKP 214: 1.396 mio. CHF

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
- Statics and construction
- Fire protection Quality assurance QSS2
- Site supervision and site inspections

Architect
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Timber construction
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