

# School complex Chrüzacher, Bassersdorf

2017

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On the initiative of Timbatec, the new school complex in Bassersdorf ended up with even more wood than planned. Originally, only the walls of the gymnasium were to be made of wood, while the roof was to be made of concrete. Timbatec suggested that the roof should also be made of wood in order to save costs.

## The project

The initial situation As in so many communities in the large Swiss conurbations, the number of pupils in Bassersdorf has also increased recently. For this reason, the new Chrüzacher school complex for around 400 pupils was built on an agricultural open space not far from the town center. Space for Bassersdorf's youngsters The new school complex includes a primary school building with integrated kindergarten and a double gymnasium. The school building has a basement, a first floor and two upper floors with floor areas of around 1400 m<sup>2</sup>. On the first floor, in addition to four classrooms, there is an assembly hall, a small kitchen, a library and several staff rooms. The two upper floors each have twelve classrooms and group rooms.

## The construction method

The building was designed in such a way that it can be extended by an additional floor if required. The Chrüzacher school complex was built using a hybrid construction method with concrete ceilings and load-bearing exterior walls in timber frame construction. The gymnasium with a floor area of 950 m<sup>2</sup> was built above ground completely in timber construction. The hall girders made of block-bonded glulam beams, 360 x 1810 mm in size, span over 28 m. They were cantilevered by 10 cm. They were installed 10 cm above grade to directly compensate for the deformations of the dead and imposed loads. Originally, a concrete roof was planned for the gymnasium, but at Timbatec's suggestion, a wooden roof made of hollow box elements was chosen, which saved costs.



The walls and ceiling of the gym are made of wood



Schoolroom (photos of the finished school: Beat Bühler, Zurich)



Installation of roof racks for the new sports hall



Wooden elements for the new school facility under construction

#### Construction Data

- Solid and glued laminated timber 280 m<sup>3</sup>
- Wood-based panels 100 m<sup>3</sup>

#### Construction costs

- BKP 2: 21 million francs
- BKP 1-9: 28 million francs

#### 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 police

ewp AG  
8307 Effretikon

#### Holzbau

Strabag AG Holzbau  
8315 Lindau

#### GU/TU

Strabag AG  
8152 Glattbrugg

#### Architect

Horisberger Wagen Architekten GmbH  
8045 Zurich

#### Client

Municipality of Bassersdorf  
8303 Bassersdorf