

Case 3 - School Renovation Gundelfingen

Location	Gundelfingen a.d. Donau, Germany
Year of construction	1975
Year of renovation	2010 - 2011
Building owner	City of Gundelfingen a.d. Donau
Architect	Frank Lattke, lattkearchitekten

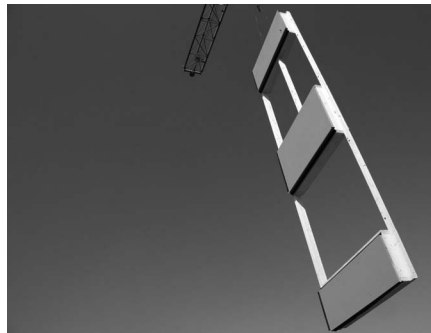
The school was retrofitted in an inhabited status mainly during holidays 2011. The old steel-glass façade was demolished and replaced by TES EnergyFacade, a prefabricated timber system. The timber frame elements were directly mounted on top of the existing structure with a dimension matching the grid (2.35 m) of the load bearing steel columns at a building height of 7.9 meters. Due to the shape of the linear windows, the glazing was

mounted at the same time, leaving the interior protected to the outside at any time.

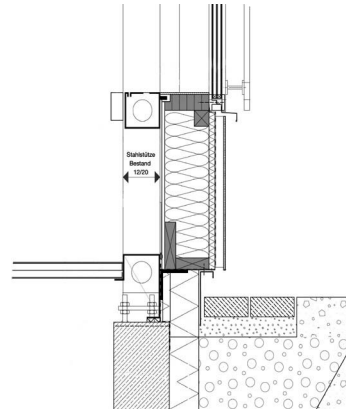
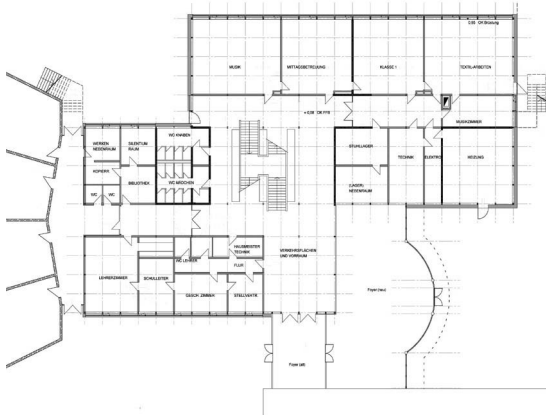
A steel-glass pyramid over the main staircase was replaced by a prefabricated timber roof construction. The 10 x 10 meter wide hat was mounted as one single piece.

The project has proven the feasibility of applying large façade elements at a maximum level of prefabrication.

Heating demand	220 before, 70 after renovation [kWh/m ² .a]
Gross floor area (GFA)	2877 m ² before and after renovation
Investment/m ² GFA	ca. 240 € (excl. VAT)



Renovation process [Frank Lattke, Peter Schweizer]



*Ground floor plan and construction detail
[Lattke Architekten]*



*School building after renovation
[Lattke Architekten]*