

Bicycle bridge over the Töss, Wülflingen

1992



During a flood in the 1960s, the old footbridge at the confluence of the Eulach and the Töss was destroyed. This was not replaced at first. It was not until residents of the adjacent neighborhoods submitted a petition for a new pedestrian footbridge in 1989 that the project planning for a new footbridge was taken in hand.

The project

From a number of variants in covered and uncovered construction, a waisted truss bridge with inclined struts was chosen for execution. The preliminary studies and the preliminary project including structural analysis, design and cost estimate were part of an internship that Stefan Zöllig completed at the engineering office Menig in St. Gallen. The scenic surroundings required great care in the construction and design of the new footbridge.

The construction

The Töss Bridge is a truss bridge with a length of 48.00 m and a width of 3.00 to 3.80 m. The deck is made of transversely prestressed planks 6 x 3 cm. The waisted deck consists of transversely prestressed planks 6 x 10 cm. It rests on double-guided transverse beams suspended from steel round bars. The struts are double-guided. They run from the support joint below the deck to the axles every 4.70 m at the truss. In addition to the stiffening deck slab, the following wind bracing is also used: the primary wind bracing made of parabolically laid, prestressed spiral wire ropes (\varnothing 25 mm) the secondary wind bracing in sawn timber as St. Andrew's crosses. All components are made of pressure impregnated white fir.



Montage 1



Montage 2



The new construction



Bearing connection

Construction Data

- Lanyard
- galvanized approx. 900 kg steel Fe 360 galvanized
- approx. 1800 kg hardwood (oak) 2 m³
- Glulam 40 m³
- Sawn timber FKII 51 m³

Timber construction contractor

Boss Holzbau AG
3600 Thun

Owner

GEBAWO Cooperative for Building and Living
3600 Thun

Construction management

Müller + Messerli Architekten
3600 Thun

Architect

Metron Architekten
5200 Brugg

Timber construction engineer

Stefan Zöllig c/o Boss Holzbau AG
3600 Thun