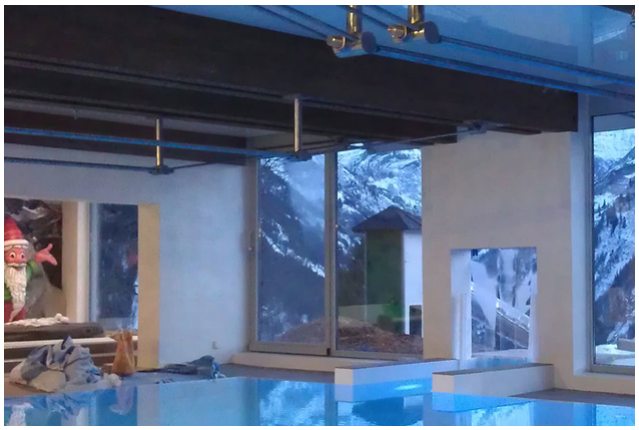
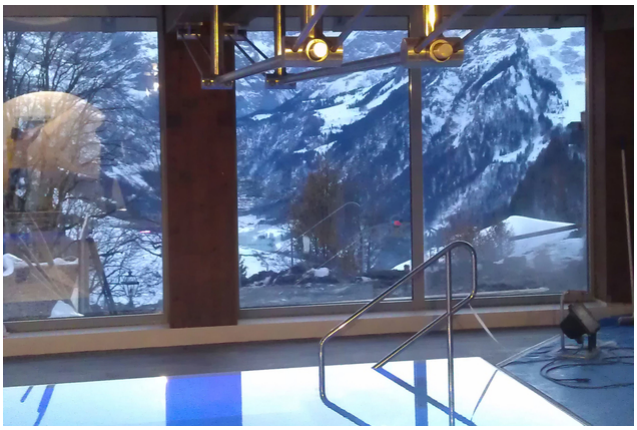
Renovation indoor swimming pool fairy tale hotel, Braunwald

2013





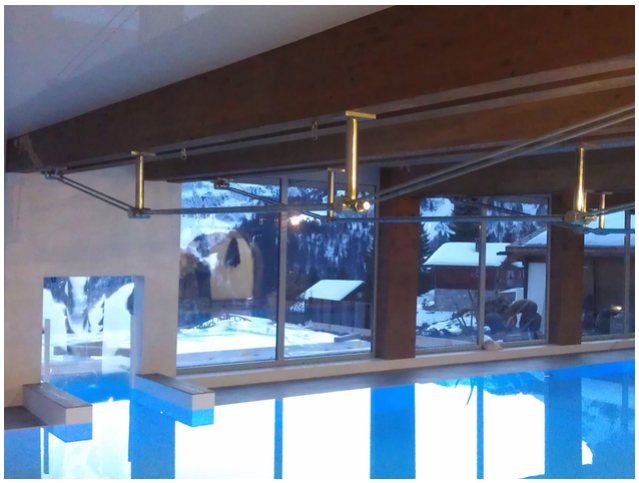
As part of a roof structure refurbishment in the attached indoor swimming pool of the fairy tale hotel Bellevue in Braunwald, the task was to find an aesthetic solution for beams that were (originally) too small in size. The solution presented itself in the form of a steel substructure made of authentic chrome steel.

The project

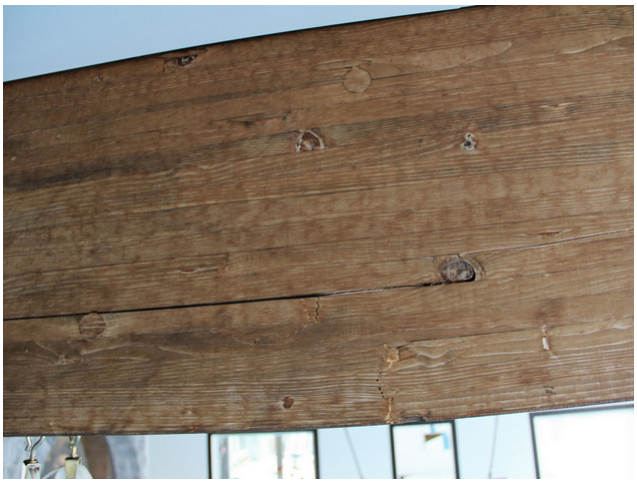
The fairy-tale Bellevue Hotel in Braunwald has an attached indoor swimming pool. Its roof structure was realized from five pairs of twin girders in glulam. The single-span girders span around 10 meters. Due to an overload, two of these girders suffered a bending failure. Along the edge of the pool, the room height had to be maintained, and sufficient space was available above the pool.

The construction method

As part of the refurbishment, both the broken girders and four of the remaining girders (which were too small) were strengthened. The focus was on aesthetics. The solution was to use a steel substructure. Due to the aggressive swimming pool climate, high-quality, authentic chrome steel was used. All tie rods, connecting parts and fasteners are also made of this material. Ribbed CORRFIX tie rods were glued in place to introduce the tensile forces into the glulam beams.



Interior view



Failure of glulam beams

Construction Data
- Chrome-nickel-molybdenum steel (1.4529)

Services of Timbatec
- SIA phase 31 preliminary project
- Cost estimate
- SIA Phase 32 Construction project
- Structural analysis and design
- SIA Phase 52 Execution

Timber construction engineer
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