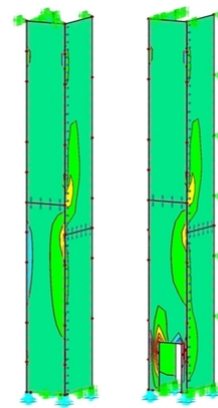
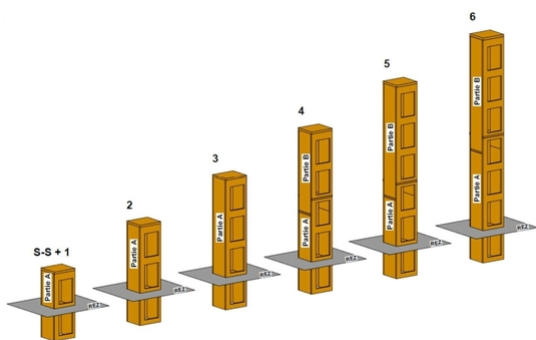


# Development of an elevator shaft module made of cross laminated timber



In order to be able to build elevator shafts from cross-laminated timber in the future, a modular concept was developed. The high-performance wooden elevator modules are easy to produce and assemble. This makes them accessible to the broad mass of Swiss woodworkers.

## The project

### Basic principles and research approach

Commercially available elevator elements in the application areas of new construction, renovation as well as extension of buildings served as the basis for the development of the module concept. The concept is divided into the following sub-areas: - Dimension of the construction, - structural characteristics, - possible effects on the module, - as well as any fire protection and building physics factors.

Consequently, structural calculations were performed and possible superstructures and details were created.

## The construction method

### Results and conclusion

These calculations resulted

in a design manual which is used for comparative analyses with the conventional building material concrete. In addition, a comprehensive construction as well as detail catalog was created. In the future, this will offer woodworkers the possibility of quickly and easily creating an elevator shaft module in CLT and providing a competing product to the concrete shafts used up to now. Title Thesis: Développement d'un module de cage d'ascenseur en bois lamellé-croisé pour la construction, rénovation et l'extension de bâtiments. Form of work: Thesis at the BFH AHB Author: Florian Fritschi