

New Replacement Building for Raiffeisenbank, Gebenstorf

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The new Raiffeisenbank Wasserschloss building in Gebenstorf, designed by Merlo Architekten AG, utilizes the TS3 post-and-beam construction method: columns and wide-span, point-supported cross-laminated timber panels form the structural framework, allowing for continuous ribbon windows that create an open and bright atmosphere. The wide-span load-bearing structure allows for flexible interior design in the lobby and the office spaces above, which are distributed across the remaining three floors.

The Project

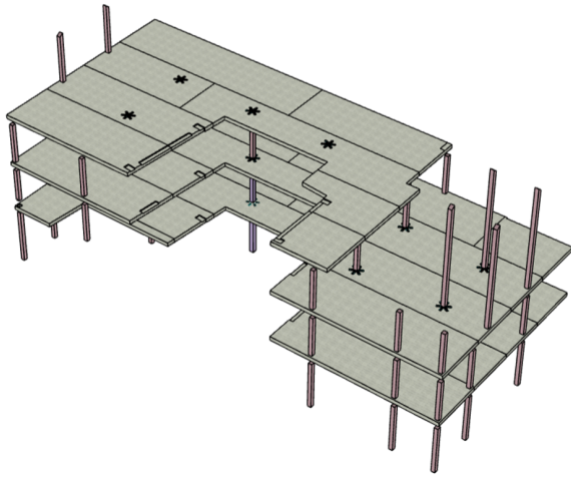
Raiffeisenbank Wasserschloss held an architectural competition to select a replacement building for its Gebenstorf location. From among several architectural proposals, Merlo Architekten AG emerged as the winner with its design for a light-filled concept. The architectural requirements placed high demands on the structural framework, which could only be achieved through a skeleton construction method. To ensure a rapid and shortened construction timeline, the architectural concept was realized as a TS3 structural framework, using skeleton construction with a column grid of 6.5 m x 5.3 m.

The Construction Method

Skeleton construction is one of the most suitable construction methods for projects of this kind. However, in timber construction, this method relies on joists. To enable joist-free construction, Vögeli Ingenieure opted for the TS3 system. A concrete service zone consisting of a stairwell, elevator shaft, and utility rooms aids in bracing. Inside, load-bearing walls are completely unnecessary. A total of 882 m² of cross-laminated timber panels were used, which are rigidly connected to one another via 240 running meters of TS3 joints.

The Challenges

Noise and traffic disruption had to be minimized as much as possible, which was ensured by the short construction time of the TS3 load-bearing structure. The interlocking of the construction of the load-bearing structure and the installation of the exterior walls was planned by Vögeli Holzbau and is part of the fabrication and assembly work, in the spirit of a just-in-time process.



Construction data

- Gross floor area: 882 m²
- Cross-laminated timber: 229 m³
- TS3 technology: 240 running meters of joints
- Column grid: 6.5 m x 5.3 m

Architecture

Merlo Architects, Inc.

Client

Raiffeisen Moated Castle, Gebenstorf

Timber engineer

Vögeli Ingenieure AG, Kleindöttingen

Timber construction

Vögeli Holzbau AG, Kleindöttingen