Canton of Zurich housing project wins architectural award

We worked together with the Esch Sintzel architectural firm to complete the planning for a residential project comprising 30 new apartments at the Kuppe site in Horgen, a municipality in the canton of Zurich. Our contribution included construction-engineering services for the site's wood-frame buildings. The project was awarded the prestigious Architectural Prize of the Canton of Zurich for the year 2022, as well as a special award known as "The Green Lion" for holistic solutions that promote ecological sustainability.

The Switzerland-based Trift AG intends to develop a new four-site district in the municipality of Horgen for around 400 residents and more than 300 workplaces. One of the four sites, the Kuppe site, stands out with its spectacular location on a plateau overlooking Lake Zurich, sloping steeply down to the lake and with a magnificent panoramic view.
This site was reserved for the development of five two-story units comprising 30 apartments. With the explicit aim of meeting the specifications of the 2000-Watt Society, the focus was on wood-frame construction from the outset. The entire load-bearing structure is made wood from the foundation upwards. With the apartments on the ground and upper floors nested inside each other, developing the load-bearing system proved to be challenging, especially since the static and structural-physical issues were intermingled.

Client

Trift AG

Facts

Period	2015 - 2020
Project Country	Switzerland

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The project team paid special attention to finding an optimal basement layout. Since there is no underground parking on the site itself – this will be centrally located on a neighboring site – and because the buildings only have two floors, there is no need to build a basement for the entire building in terms of usable space. Indeed, a scaled-down basement would help to significantly reduce the project`s total embodied energy. On the other hand, basements have the advantage of making deep foundations and piling unnecessary. The team ultimately went with a scaled-down basement corresponding to only around half of the floor space and a shallow foundation, while the “floating” part of the first floor is supported on the basement via concrete ribs embedded in the soil.
Working in concert with the planning team from the architecture firms Esch Sintzel and BGS & Partner, we provided comprehensive civil engineering services for the timber structure, reinforced concrete structure, foundation and excavation.
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