



Garden high-rise in Switzerland.  
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Allplan in practice

## A HIGH-RISE BLOSSOMS THANKS TO PRECAST EFFICIENT AND PRECISE PRECAST DESIGN MADE EASY

In the Swiss municipality of Risch-Rotkreuz in the canton of Zug, the Zug Estates Group is transforming a former industrial area into modern living space. In line with the company's philosophy, the Suurstoffi site also focuses on sustainability in construction and subsequent use. An impressive office and residential building within the site is the 70-meter-high „Aglaya garden high-rise building“.

The green high-rise was named after the Greek goddess Aglaya, one of the three Graces. The name is also reflected in the façade of the building, which features rounded shapes and greened exterior surfaces. Aglaya houses 85 high-quality apartments as well as 1.800 m<sup>2</sup> of office space.

One of the special features of the 70-meter-high tower is its intensively greened façade, which attracts all eyes from spring to fall with its splendor of plants. The key to this are large plant troughs made of prefabricated concrete elements that also serve as part of the façade. These balconies can be seen as vertical gardens, with the help of which nature grows harmoniously into the living space. During the design of the greenery, particular attention was paid to only select native plants. In line with the Zug Estates Group's philosophy of sustainability, the sensor-controlled automatic irrigation system uses rainwater collected from the roof.



Image left: Plant troughs made of precast.

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Image right:  
770-meter-high tower with its intensively greened façade.

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## TROUGH FOR PLANTING DELIVERED ON TIME AND IN PERFECT QUALITY

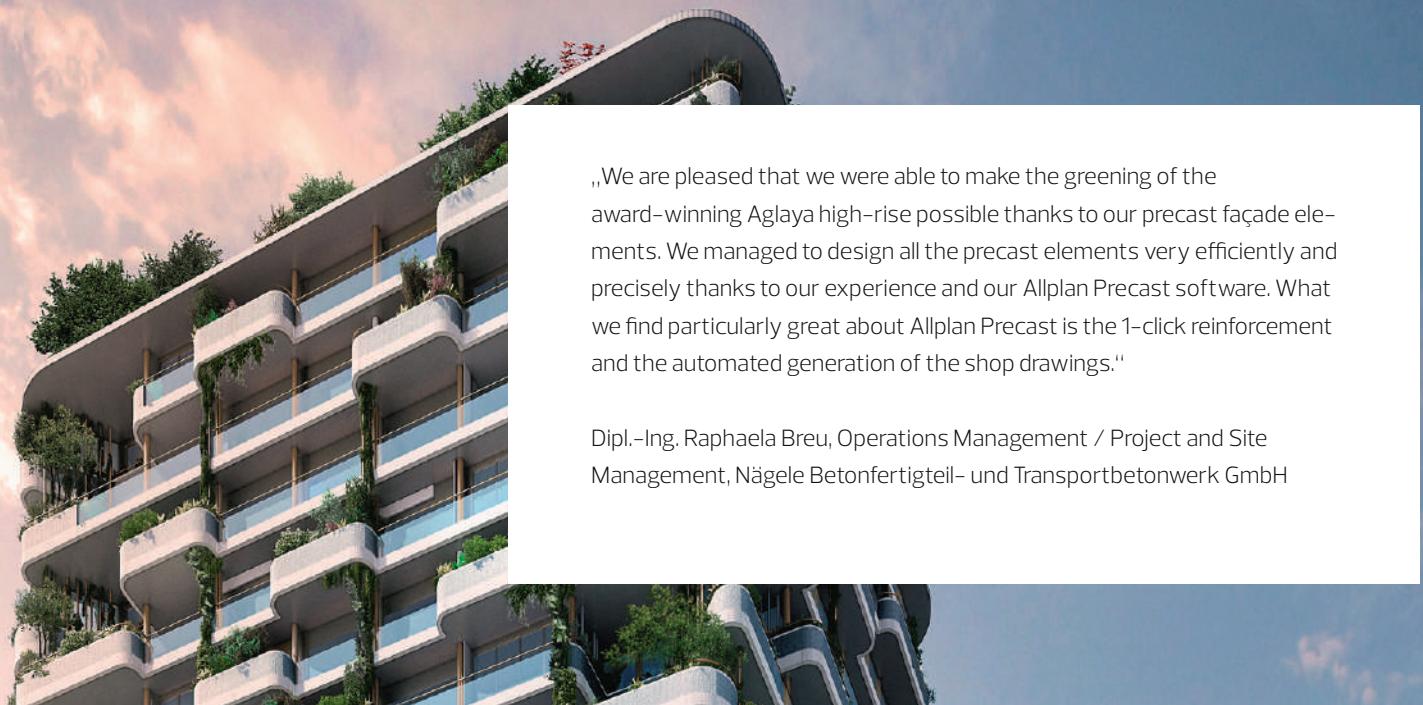
The company Nägele, based in Vorarlberg, Austria, was responsible for the troughs and all prefabricated parts of the high-rise garden building. The company is part of the Bodner Group and took care of the entirety of the 1,770 precast elements.

For the garden tower, Nägele's design team created a total of 824 plans. Production itself took place on the company's own fully automated circulation plant in Röthis. Just six months after the order was placed, the company was able to deliver the first precast elements for the Aglaya high-rise building in the Suurstoffi area.

Nägele is proud to have delivered all precast elements in the highest quality and on time. By using Allplan Precast, the company managed to save approximately 206 working-hours through automated processes. This corresponds to an increase in efficiency of around five working weeks

### PROJECT INFORMATION AT A GLANCE

- Focus: Precast construction
- Precast construction software: Allplan Precast
- Precast design: Nägele Betonfertigteil- und Transportbetonwerk GmbH
- Number of precast elements planned and produced: 1,770
- Number of generated plans: 824
- Precast project lead time: approx. 6 months from order to start of delivery
- Time saved through automated processes in Allplan Precast: approx. 206 working hours



„We are pleased that we were able to make the greening of the award-winning Aglaya high-rise possible thanks to our precast façade elements. We managed to design all the precast elements very efficiently and precisely thanks to our experience and our Allplan Precast software. What we find particularly great about Allplan Precast is the 1-click reinforcement and the automated generation of the shop drawings.“

Dipl.-Ing. Raphaela Breu, Operations Management / Project and Site Management, Nägele Betonfertigteil- und Transportbetonwerk GmbH

## NÄGELE BETONFERTIGTEIL- UND TRANSPORTBETONWERK GMBH

Nägele Betonfertigteil- und Transportbetonwerk is located in Vorarlberg, Austria and is a subsidiary of the Bodner Group. What began over 100 years ago as a simple master masonry business is now one of the most modern production plants for sophisticated precast concrete parts weighing up to 40 tons.

Nägele's range of services covers all construction phases, from in-depth consulting to the production of all modules and assembly by well-coordinated teams. The company's key success factors are many years of know-how, meticulous planning, exact cost estimation, and the use of the best materials and state-of-the-art equipment.

## ABOUT THE COMPANY

ALLPLAN is a global provider of BIM design software for the AEC industry. True to our "Design to Build" claim, we cover the entire process from the first concept to final detailed design for the construction site and for prefabrication. Allplan users create deliverables of the highest quality and level of detail thanks to lean workflows. ALLPLAN offers powerful integrated cloud technology to

support interdisciplinary collaboration on building and civil engineering projects. Around the world over 500 dedicated employees continue to write the ALLPLAN success story. Headquartered in Munich, Germany, ALLPLAN is part of the Nemetschek Group which is a pioneer for digital transformation in the construction sector.

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