

Hotel The Chedi, Andermatt

2014



"Andermatt Swiss Alps" is a year-round vacation destination being built in the middle of the Swiss Alps. The project includes six hotels in the 4- and 5-star range, about 500 apartments in 42 buildings, 25 exclusive chalets.

The project

The innovative and sustainable Andermatt Swiss Alps project will transform the traditional Swiss mountain village into an attractive year-round destination. When completed, it will include six hotels in the 4- and 5-star range, around 500 vacation apartments in 42 buildings, 25 exclusive chalets, congress facilities as well as a swimming pool and an 18-hole golf course. In addition, the ski areas of Andermatt and Sedrun will be merged to form the attractive SkiArena Andermatt-Sedrun. In this context, the 5-star superior hotel "The Chedi Andermatt" is being built centrally in the village. For the entire hotel complex, Timbatec was commissioned to plan the façade and roof construction as well as to advise on the façade planning with regard to fire protection and construction.

The construction method

To ensure the greatest possible flexibility in attics, the architects demanded a support-free roof structure. An arched truss structure with rooftop elements spanning the roof spaces with a width of around 23 meters was now realized.

The challenge

A particular sticking point in the roof structure were the large canopies, which have a projection of up to 3 meters at the eaves and verge. This with snow loads of 12kN/m^2 plus snow overhang along the roof edges of around 8.3 kN/m^1 . Another challenge was the fire safety of the wooden façade with curtain-type wooden lattice, especially in the high-rise area of the main building.



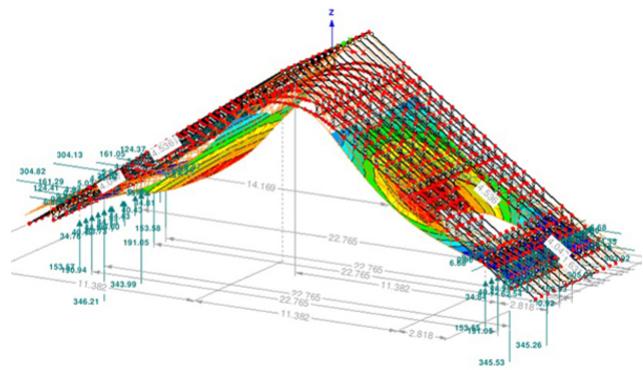
Assembly of trusses and roof elements building H3



Assembly of roof elements on the primary structure



Detail view canopy corner



Static model of the roof structure

Construction Data

- 13'000 m² Roof area
- 2150 m³ Structural timber (BSH)
- 910 m² Board material (3-layer OSB)
- 12'000 pcs fully threaded screws SFS-WRT 13x900
- 25'000 pcs rod dowels

Services of Timbatec

- SIA Phase 31 Preliminary project
- Fire protection Quality assurance QSS2
- SIA Phase 32 Construction project
- Fire protection planning
- Structural analysis and design
- SIA Phase 41 Tendering and comparison of offers
- SIA Phase 51 Implementation project
- Technical site management and site inspections

Client

Andermatt Swiss Alps
6460 Altdorf

Design Architect

Denniston Ltd
MYS-50529 Kuala Lumpur

Architect

Germann und Achermann AG
6460 Altdorf

Facade and lattice in wood

Arge RBB, Ruch AG
6460 Altdorf

Timberconstructors

Holzbautechnik Burch AG
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Timberconstruction engineers

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