

The wave wall

Kristiansand, NO



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Project details

Architecture	ALA Architects Ltd., SMS ARCHITECTS
Project type	Art and culture
Construction type	Free Form
Services	Timber construction
Construction	2010
Locality	Kristiansand
Country	Norway

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An opera house in Norway

Kilden Performing Arts Center is located in Kristiansand, Norway. The opera house and theatre was designed by Finland's ALA Architects. The centre is intended to be the home of Kristiansand Symphony Orchestra and several local theatre groups in four different halls. The building features a concert hall for an audience of 1,200, a theatre for 700 spectators, a stage for experimental art and a multi-purpose hall. The development phase – headed by Trebyggeriet – took place over five years. Initially planned as a steel construction, the facade was eventually completed in timber. The timber facade extends from the floor in the interior of the centre via the glazed facade to the exterior. Particular challenges included the different interfaces, different climatic zones and heavy loads. Thanks to prefabricated facade elements and curved glue-laminated timber beams, the facade was assembled quickly and efficiently. The key to the seamless progress of the project was a detailed 3D model. A computer model and sample facade element were prepared in Switzerland in the run-up to the project and impressed the client and general contractor. The facade is a timber construction kit with a total of 14,309 individual components. The form of the 126 elements (62 in the interior and 64 outside the building) is defined by 1,769 curved glue-laminated timber beams. The curved parts are connected to the elements via 292 straight glue-laminated timber beams and anchored to the steel girders of the primary structure with 895 bolts. A total of 12,248 oak boards affixed with 123,166 screws keep out the elements.

Specific Contact



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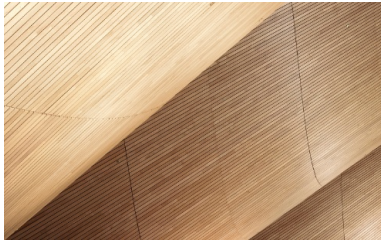
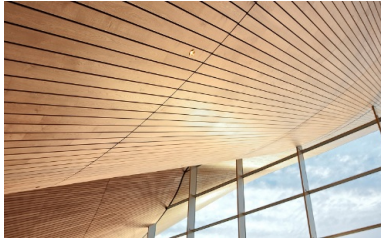
Sweeping free-form roof construction



Side view of roof construction with connection to the glass facade

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Close-up of the ceiling construction

Sweeping ceiling construction