



StoraEnso

Kyrkfjärden School

Ingå, Finland

Kyrkfjärden School is a Swedish-language school in Inkoo, Finland, situated next to the Inkoo River. The school's design thoughtfully integrates with the landscape, positioning the building transversely against the slope leading to the river. This careful placement ensures minimal disruption to the natural surroundings and maintains a small scale towards the museum road. The main entrance is on the north side and the student entrance is on the south.

The two-storey building, completed in 2023, spans 3,153 m² with a volume of 16,120 m³. It accommodates 180–200 students, including a preschool group, six general education groups, and one basic education small group. The school also offers morning and afternoon activities for grades 0 to 2.

Inside, the school features a central kitchen, handicraft teaching facilities, and a gymnasium that doubles as a stage for music teaching. The gymnasium's transfer stand allows for events hosting up to 350 people. The general education facilities are spread over two levels, with younger students on the ground floor and older students on the second floor. The dining room, the heart of the building, boasts large windows offering views of the church and the sea.

The solid cross-laminated timber (CLT) frame of the building provides numerous benefits, including improved indoor air quality, fire resistance, and ecological advantages. The wooden surfaces are prominently visible throughout the building, enhancing the aesthetic and well-being of the users. Only one side of the partitions is clad for sound insulation purposes.

Kyrkfjärden School is not just a place of learning but a testament to modern, sustainable architecture that respects and enhances its natural and historical surroundings.

Construction

The building features stilted foundations and a concrete, ventilated subfloor. The load-bearing exterior and stairwell walls are primarily visible CLT wooden elements. The intermediate floor is a CLT concrete composite structure on steel beams, while the upper floor has load-bearing CLT slabs and wooden roof brackets. The façade is clad with triangular batten cladding.

The project involved demolishing one building before and another after the new construction. [Sylva™ CLT Floor, Walls, and Roof](#) elements were transported on a semi-trailer flatbed with tarpaulins and an escort car due to their overwidth (345 cm). This off-site construction method streamlined the process, ensuring precision and reducing on-site waste. The school was built under a weather protection tent.

Fire safety

The fire class of the building was deliberately increased from P2 to P1 so that the building could be built without a sprinkler system. This lowered the 'maintenance costs, and at the same time enabled the solid wood CLT elements and other wood surfaces to be left visible. (Source Sweco).

Wooden structures can be seen on the inner surfaces, lobbies, and stair railings facing the outer walls of the classrooms. The floor of the main stairs and music hall is parquet, and the rest of the premises have textile tiles that feel comfortable underfoot, because Kyrkfjärden is a school where children do not wear shoes inside only socks.

Wood has also been used as façade cladding, under which CLT elements protected by windproof plasterboard are hidden. The presence of wood improves indoor air quality and increases the well-being of users in everyday school work.



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Sylva Services

This project leveraged Stora Enso's [Sylva Services](#), with the preapplication of [End Grain Sealer](#) at the mill. This preparation ensured that the elements were ready for immediate installation upon arrival on-site, enhancing the durability and longevity of the timber components.

Sustainability

The Sylva kit generated 54 tonnes of greenhouse gases (CO₂e) to manufacture and 13 tonnes of CO₂e to transport. Compared to the 776.48 tonnes of carbon dioxide that the trees removed while they were growing and will store in the building, this is a small fraction. Choosing Sylva CLT elements instead of non-renewables avoided 1,164.72 tonnes of greenhouse gases. (Source: Stora Enso Carbon Calculator [EPD](#) | [NTM](#) | [SLU](#))

Carbon calculator: try out our carbon calculator to see what the size of your carbon footprint would be for [your project here](#).

Learn more about the advantages with mass timber [download whitepaper](#)

General

Delivery year

2023

Building type

Education

Area (m²)

3,153



Photo credit: INKOO - AFKS © Hannu Rytky

Products

Products and Services

[Sylva™ CLT Floors and Roofs](#),
[Sylva™ CLT Walls](#), [End Grain Sealer](#), [Sylva360™](#)

Product quality

NVI

Product volume (m³)

1,019



Photo credit: Mats Vuorenjuuri. Puurakentajat Group



StoraEnso

Team

Developer

Municipality of Inkoo

Structural Engineer

SWECO Tampere

Main contractor

Oy Rakennuspartio

Architect

AFKS Arkkitehdit Oy

MEP Designer

Granlund Ltd

Specialist Timber Subcontractor

Puurakentajat Rakennus Oy

Others

**Total construction
development duration
(months)**

22