

LÅNGBRODALSSKOLAN IN STOCKHOLM

A BUILDING THAT FINDS ITS EXPRESSION IN ARCHITECTURE



PROJECTREPORT



TITANIUM ZINC: RESTRAINED AND YET INDEPENDENT

Stockholm is home to one of the oldest schools, the Långbrodalsskolan, built in 1915, an impressive brick building in brick-red colour and a striking protruding main portal with a clock face set into the gable that reliably echoes the chime of the school bell. The school, which is known by the esteemed name „the castle“ by pupils, school management and parents, continues to enjoy great popularity. As the need for more classrooms steadily increased, a decision was made to build an extension about 10 years ago.

The challenges for this were great. Nowadays, school buildings have much to accomplish and have to take into account completely different requirements and needs than in former times, when the focus was on the juxtaposition of classrooms. But today, the school has become a second home for the young pupils, where they learn, eat and play together. Furthermore, the location and thus the old building played an essential role in the design of the extension.

The architectural office Niras Arkitekter from Stockholm was commissioned with the new construction. With their urban planning approach, they were able to leave the old building with its special appeal and integrate the extension into the surrounding school landscape at an appropriate distance. Today, an elongated, classic gable-roofed building stands next to the „castle“. Following the roofs of the existing building, the architects also chose a 45-degree sloping roof pitch in a newly interpreted design for their extension: the structure is encased in a filigree skin of RHEINZINK titanium zinc – the counterpart to the heavy construction of the old building in brick – restrained and yet unique.

The new school building is 82 m long and has two floors

as well as a fully finished attic. Inside, the new building reflects today's contemporary social trend in terms of school architecture: the light-flooded entrance is located in the centre, which is used as a large, flexible space for assemblies and events. Spacious corridors with integrated break-out areas, places of retreat and meeting spaces for spontaneous gatherings as well as generous views and vistas give the pupils an atmosphere they can identify with. Behind the square windows of different sizes are the classrooms, which offer even smaller learning spaces next door for individual learning opportunities. For the interiors, the architects chose natural materials – limestone, maple wood, leather and metal – materials that will continue to have an impact and be robust in the future. Accents using textiles such as wool and linen were added in some of the rooms. The material concept is finalised by the natural pastel shades of purple, green and blue.

ECOLOGICAL, ECONOMIC AND SOCIAL SUSTAINABILITY

To create a visual stimulus for the pupils, the architects systematically followed through with the façade design. The roof and façade surfaces were finished in RHEINZINK-prePATINA graphite-grey. The panels were produced in advance at the factory in a pre-weathering process with the effect that the desired appearance in uniform colour is given from the beginning of the installation. A filigree, vertical design with panels of different widths between 180 mm and 430 mm in a classic installation technique was used: the 2,500 m² façade area was executed as an angled standing seam system, the 3,000 m² roof area as a double standing seam system. Only the gable ends are not clad. The city of Stockholm makes use of

these areas for artistic presentations in public space. The roofing was installed on an unventilated roof structure. The substructure for the RHEINZINK double standing seam roofing consists of wood-based panels with a combination of a bituminous roof sheeting and AIR-Z structural mat as a separating layer. For fire safety reasons, the façade surfaces were constructed with trapezoidal steel profiles instead of wood as the substructure.

According to Nidas Arkitekter, school architecture is a combination of good architecture, the fulfilment of functional requirements, attention to detail that contributes to greater well-being, as well as an environment in which young people can concentrate. Their ambition of sustainable architecture encompasses a holistic view, taking into account ecological, economic and social aspects. Particularly in school architecture, it is important to present the children and young adults with exemplary practices. The new impulses from Långbrodalskolan, which find expression in the architecture, can be felt far into its surroundings: after the new building opened in autumn 2017, it was soon voted Building of the Year by the citizens of Stockholm.

A second home for every student





***The ambition of
sustainable architecture
encompasses a holistic
view***

CONSTRUCTION PANEL:

Client
Bygg R1

Architect/Planner
NIRAS Arkitekter
Stockholm
Sweden

Contractor
Carlsson Plåt
Iggesund
Sweden

Technical Specifications
Roof: 3,000 m² Double Standing Seam
RHEINZINK-prePATINA graphite-grey
Facade: 2,500 m² Angled Standing Seam System
RHEINZINK-prePATINA graphite-grey

Copyright Images
RHEINZINK

