



Case Study

“Swiss Museum of Transport”, Luzern, Switzerland

Products:

2,282 m² MONTAWALL® Cassettes MK 100/600 A liner trays with acoustic perforation
336 m² MONTAWALL® Cassettes MK 80/600 A liner trays with acoustic perforation

Owner:

Swiss Museum of Transport, Luzern

Façade construction:

Gemperle AG, Hünenberg

General contractor:

Büro für Bauökonomie AG, Luzern

Architect:

ANNETTE GIGON / MIKE GUYER DIPL. ARCHITEKTEN ETH/BSA/SIA AG, Zürich

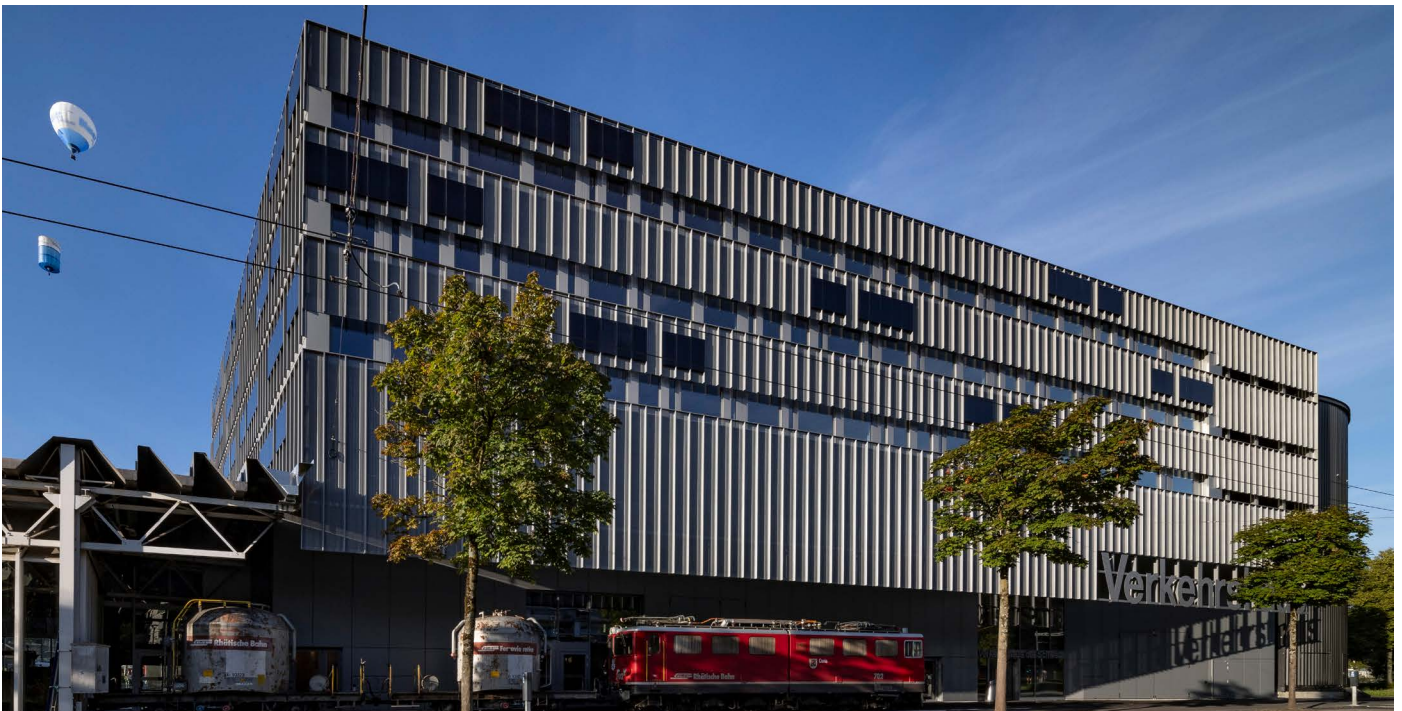
Construction time:

2022-2023

Sustainable mobility clothed in a translucent dress

Swiss Museum of Transport: new multipurpose building “House of Energy” clad with MONTAWALL®

The Swiss Museum of Transport in Lucerne has been extended by a new multipurpose building since April 2023: in the “House of Energy”, the energy transition and mobility play a major role. From the outside, the impressive new building with its anthracite façade is both timeless and practical. For visual reasons, the planners chose load-bearing MONTAWALL® liner trays as the façade cladding. Protected from the adversities of the outside world, the museum thus offers a pleasant and quiet place to obtain extensive information about sustainable mobility.



Lucerne on Lake Lucerne is home to the most visited museum in Switzerland. In order to create new space for the Swiss Museum of Transport, it was expanded to 7,985 square metres by a four-storey multipurpose building – the so-called House of Energy. The theme of the new complex was also incorporated into the structural design of the building, with each storey fulfilling a different function. In the basement there are some additional ancillary rooms as well as the energy centre of the entire property. It consists of a heat pump heating system powered by lake water which, in combination with photovoltaic systems on the roof, supplies the entire building with electricity. The ground floor is of central importance: Here, on an area of 800 square metres, there is enough space for permanent and temporary exhibitions. In addition to well-known exhibits from the fields of transport,

communication and logistics, the newly constructed building – as its name suggests – also focuses on the energy transition.

Defying the outside world

In order to meet the diverse requirements of the museum façade, the Zurich architectural office Gigon/Guyer decided to use MONTAWALL® wall cassettes from Montana Bausysteme AG in Villmergen. These are predestined for lightweight construction and are available in various designs and dimensions. Normally, wall cassettes are used as a substructure.

However, at the request of the architects, they were used as façade cladding for the House of Energy. The MONTAWALL® profiles were supplied perforated and subsequently powder-coated and then installed vertically. The perforated

surfaces allow plenty of daylight to enter at any time and cast the interior of the museum and its exhibitions in a very special light. But it also works the other way round: as dusk falls, artificial light penetrates from the inside to the outside. In this way, the museum shines in all its glory even in the darkness and points the right way to a sustainable future.

In addition, the façade meets the special requirements for the interior of a museum such as the Swiss Museum of Transport. For instance, a constant room temperature is very important. Short-term fluctuations in the indoor climate – especially the relative humidity in the room – intensify the artificial aging of organic materials and can cause irreversible damage to exhibits. A quiet environment is also important for visitors and employees.



Is it all just a façade?

From a wide range of colours, the planners chose a timeless anthracite for the façade of the House of Energy in Lucerne. With its graceful zigzag look, the façade envelops the building like a translucent dress. Square, practical, good: the resulting container look of the property also harmonises perfectly with the transport and logistics theme of the museum. The building envelope thus conveys a first impression of what visitors can discover inside the museum – without losing any of its aesthetics. In total, the Swiss Museum of Transport invested around 30 million Swiss francs in the construction of the House of

Energy. The particular focus was always on the topic of “energy transition and sustainability”, which was also taken into account when choosing the façade construction: thanks to appropriate mounting brackets, the MONTAWALL® liner trays used even offer the option to attach photovoltaic systems to the façade – in addition to those on the roof surfaces.

In this sense, the multipurpose building largely lives up to its function and message: sustainability is omnipresent.

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