



SAPPORO TRAM CANOPIES - 12.056

Program

Concept development and complete structural design.

Concept

Three tram canopies were designed and built as a part of the tram construction in the city Sapporo. The existing tramways were renovated to construct a closed loop which gives more convenience and liveliness to the shopping street in front of the main station. The new tramways have reserved space for tram cars in traffic roads. The new tram canopies measure 3m high, 3m wide for a length of 25 and 27.5m respectively. The architectural challenge was to ensure smooth flows from the pedestrian paths to the tram rails, with protection against wind and snow. It was resolved through the plan arrangement of the canopy that prompts pedestrians to walk into the interior space. The interior spaces are supported by three side walls, along the 27.5m length, that are positioned close to the tram way at the edges and to the pedestrian way in the middle. They are provided with large glazed apertures in between the walls which protect against wind and create high spatial quality. Use of customized steel sandwich panels as a structure ensure clarity and a seamless appearance while accommodating the necessary technical facilities. In this way, the canopies have achieve a sculptural form with simplicity and presence.

Specific features

Each canopy comprises of sandwich-structured components made of 6mm thickness SS400 steel. It varies in depth from 250mm to 300mm for both the wall and the roof part, with internal transverse stiffeners. The sandwich components are fabricated from sheets of steel panels that were plug-welded, finished with grinding, forming closed boxes. This components allows the walls and the roofs to perform as a continuous rigid structure. The panels were arranged to have equivalent stiffness to comply with the seismic criteria in the Japanese codes.

Distinctions

Japan Good Design Award 2017

Study: 2012-2015
 Execution: 2016 - 2016
 Architect: Ney & Partners Japan



Client: Sapporo
City
Sapporo, Japan

Length: 27 m
State: Completed
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