CEFOR - STIB training centre in Haren

Rues des Jardins Potagers et de Verdun, Haren (BE)

A complete architectural, stability, building engineering services and energy mission

Owner
STIB - Société des Transports intercommunaux de Bruxelles

Architect
Canevas

Cost of the works
€ 6,4 M excl. vat of which
€ 2,88 M for the architecture,
€ 1,26 M for the structure and
€ 2,26 M for the building engineering services

Studies
2020 - ...

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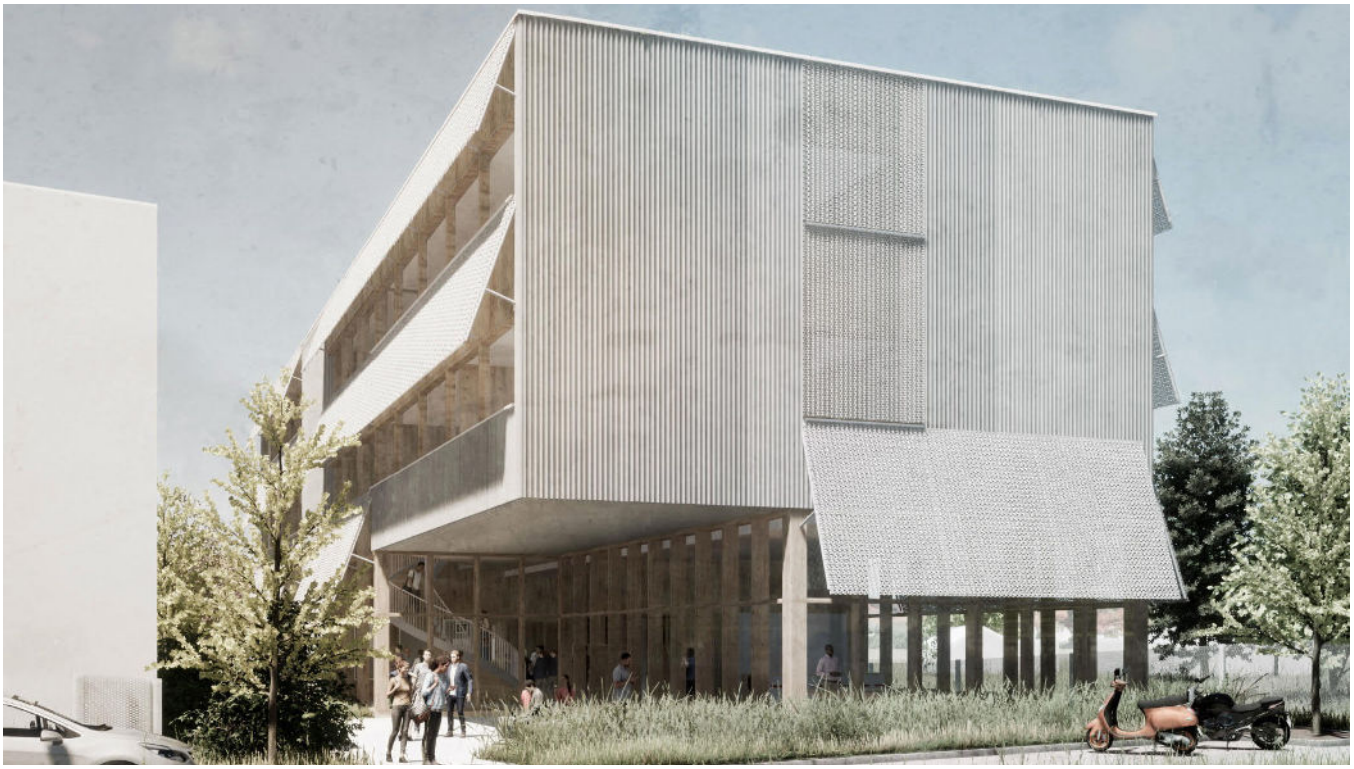


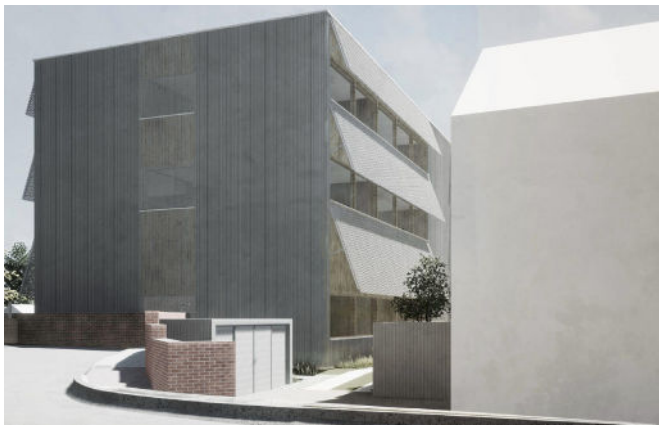
As part of the metro North project, the STIB is required to move its current bus and tram training centre (CEFOR) to a new building.

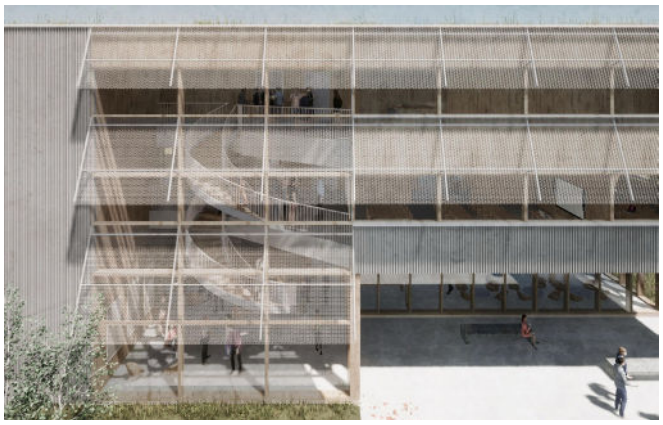
The project with a net surface area of 1500 m² looks like this:

The ground floor provides a reception and orientation area for users, absorbs the flow of people at peak times and distributes people to the various areas of the building. The first floor is used by students, while the top floor is occupied only by the building's staff. The basement is entirely technical: it houses the boiler room, the low-voltage switchboard, and the machinery room.

The presence of a large drain crossing the plot from west to east necessitated the creation of a wide porch with a clear height of 4.5 metres. A lattice structure inserted into the façade supports this large overhang.

The entire above-ground structure of the building, including the latticework, uses glulam and CLT elements, and a few metal beams. The timber structure is visible. Thanks to the lightness of the timber structure, the foundations are limited to a locally reinforced slab, despite the poor quality of the foundation soil. A thickened zone acts as a counterweight to stabilise the overhang of the main structure.





CEFOR - STIB/MIVB training centre in Haren

Rues des Jardins Potagers et de Verdun, Haren (BE)

Complete architecture, stability, building engineering services and energy mission

Owner
STIB - Société des Transports intercommunaux de Bruxelles

Architect
Canevas

Cost of the works
€ 6,4 M excl. vat of which
€ 2,88 M for the architecture,
€ 1,26 M for the structure and
€ 2,26 M for the building engineering services

Studies
2020 - ...

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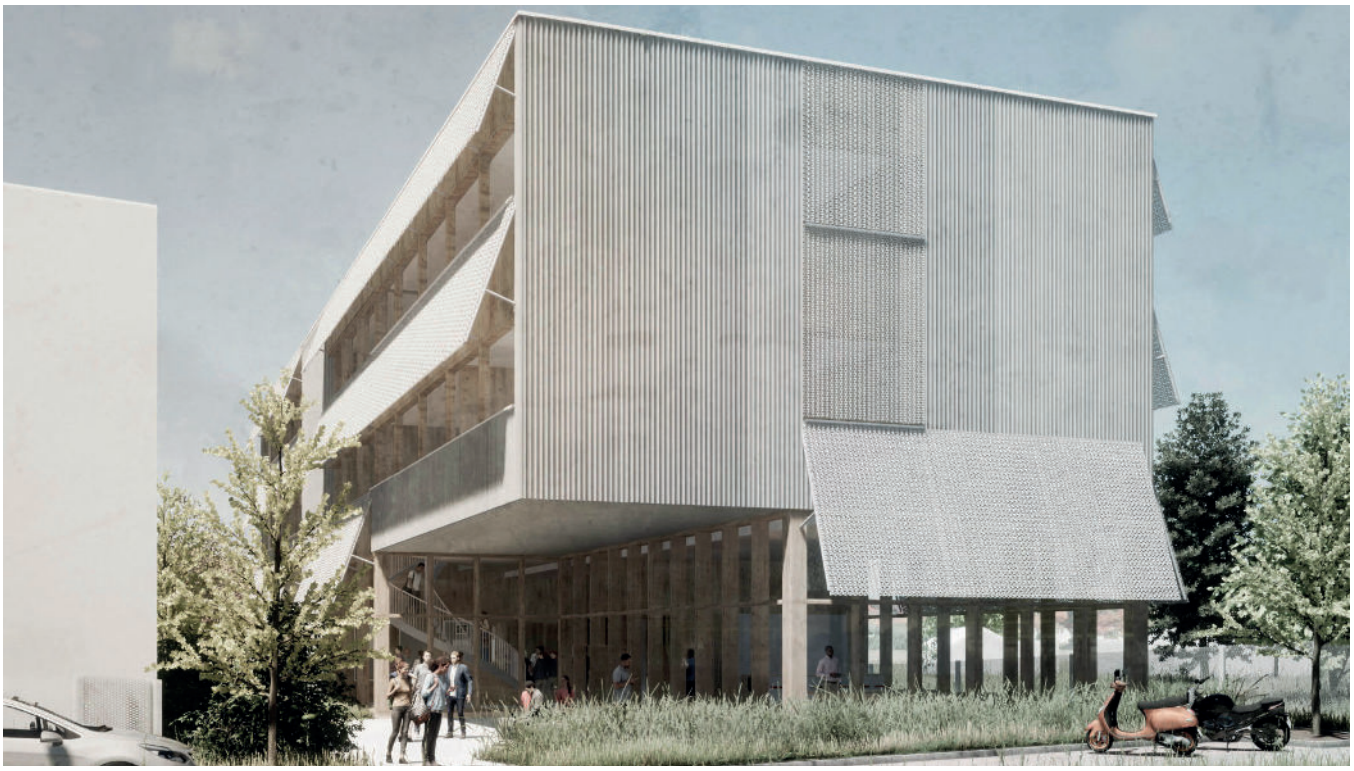

As part of the North metro project, the STIB/MVIB is forced to move its current bus and tram training centre (CEFOR) to a new building.

Technical details of this project with a net surface area of 1,500 m².

The heating and air-conditioning system is based on a centralised system using condensing boilers for heating and a unit for producing chilled water coupled to a cooling tower for air-conditioning.

Heating
- Production is provided by two condensing boilers, optimising efficiency by recovering the latent heat of the fumes.

Air-conditioning
- Cold is produced by an ice water unit, generating water at a low temperature.

End facilities
- Dynamic beams provide heating and air conditioning for the premises.
- The blown air creates an induction effect that increases heat exchange and improves cooling and/or heating.

Ventilation
- A ventilation unit with a wheel-driven energy recovery system ensures that the building is ventilated while minimising heat loss.
- The use of the wheel also allows some of the moisture to be transferred, improving interior comfort.

Regulation and Management
- Centralised regulation system for energy optimisation.
- Power adjusted according to external conditions and the needs of the premises.
- Management of the networks' starting temperatures to guarantee optimal comfort.
- This system provides efficient air conditioning and heating, with optimised energy management thanks to high-performance equipment and dynamic beams

Sanitary facilities
- The collection of rainwater ensures the supply of the cooling tower and the supply of various sanitary facilities.

Electricity
- A 315 KVA HV cabin powers the building, supplying electricity to the various switchboards, vital circuits, the lift and the STIB/MIVB driving simulators.
- The functional, decorative and safety lighting is equipped with LED sources, with a dimming system using a natural light sensor to adjust the level of lighting in the classrooms and workspaces. The structured cabling is 6A S/FTP. The electrical installations also include generalised fire detection, access control, intrusion detection, video surveillance and
- video door entry.