

## Woodskot: Student housing using Cross Laminated Timber (CLT), an innovative material in new construction projects

An impressive mix of conserved buildings and new constructions around a large landscaped garden, to obtain a hundred or so student housing with common areas and 8 social housing units. This is the project designed by [ÁRTER Architects](#) in Brussels.

The project will be developed in between rue Camusel and rue de la Senne, in this area there will be a main building of 6 levels with a patio surrounded by outside corridors that will give access to the rooms and common spaces. The old part of the building will be maintained and restored.



The facade of the new part will be built in harmony with the existing structures respecting the neoclassical architectural language.

The new construction will be dedicated to student housing: 74 collective student rooms (14 m<sup>2</sup> with private bathrooms and access to communal kitchens), 17 individual student rooms (25-30 m<sup>2</sup> with bathrooms and private

kitchenette), as well as a large common relaxation room (cinema corner, billiards, etc.) and bike parking.

On the neighbouring plot located in rue de la Senne, 8 social housing (with parking in the basement) will be provided, without any communication between the two sections



### The aim of the project:

Social inclusion together with technical improvements. Thanks to the proposed intervention, the right-of-way and the waterproofing rate decrease from 97% in the existing situation to 50% in the projected situation. As well as The diversity of student and social housing will be a positive aspect for the revitalization of the neighborhood

### The advantages of building in CLT

The choice to build in CLT is a choice of sustainability, avant-garde and innovative. The advantages of CLT are indisputable:

- Shortened construction timeframe, which allows faster delivery to the occupants, which is dry with prefabricated elements that greatly limit the assembly time of the woodwork, up to 3 times faster than a traditional work;
- Very low ecological footprint; if it does not consume carbon, it is stored in the wood itself and a very small amount of gray energy is consumed;
- Healthier living environment, the project uses mainly natural materials;
- Safety standards as good as traditional materials with excellent fire stability and optimized airtightness;
- Lighter foundations thanks to the low weight of the material.



### The technology:

The material consists of planks (or lamellas) of sawn, glued, and layered wood, where each layer is oriented perpendicular to the previous. By joining layers of wood at perpendicular angles, structural rigidity for the panel is obtained in both directions, similar to plywood but with thicker components. In this way, the panel has great tensile and compressive strength.



It's a sustainable material because it's composed of wood, a renewable resource (usually from reforestation), and doesn't require the burning of fossil fuels during its production. It has been used for infrastructure and support in large construction sites, as forms for concreting bridges, or even as bases for tractors in unstable terrain during the construction of dams. Its potential for small constructions has been noted because of its

interesting appearance and structural strength.

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