# 62 Cornellá sponsored housing

Avenida de la República Argentina, 21

**SPAIN** **Cornellá de Llobregat**

2021
Finished

## About

At the time of construction, it was the largest residential building in Spain built with a wood structure based on CLT panels. It is formed by 3,60x3,60 grid which creates the living spaces. The ground floor houses municipal equipment and commercial premises, the rest of the floors house dwellings.

From the first floor upwards, the structure is completely made of wood and the volume of wood used is kept to a minimum. CLT panels are only used in the floor slabs and facades. The interior structure is made of glulam beams and posts. This structure is based on a reinforced concrete slab.

Aerial view.

Entrance façade on Avenida de la República Argentina.

Corner of Avenida de la República Argentina and Calle Mossén Andreu.

Inner courtyard of the building.

## Agents involved

| | | | |
|---|---|---|---|
| Architect | Peris+Toral Arquitectes | | |
| Developer | AMB/IMPSOL | | |
| Construction company | VIAS Y CONSTRUCCIONES SA | | |
| Structural engineer | Bernuz-Fernández Arquitectos | | |
| Timber installer | Egoin/Casa Arbre | Timber manufacturer | Egoin |

## General

| | | | |
|---|---|---|---|
| 21 | Height (m) | 6 | Floors above ground |
| 11.250 | Built-up area (m2) | 1.716 | Ground floor area (m2) |
| 10.700.000 | Budget (€) | 951 | €/m2 |
| Building use | Residential | | |

## Technical data

Combination Structural system

Bracing system CLT walls

Timber products used

- CLT panels on slabs and façades
- GLT posts
- GLT beams

1 Concrete floors

5 CLT floors

0 Concrete-timber floors

Construction process from the exterior
Egoin https://n9.cl/g4p21

## Construction timing

19 Months to complete the building

9 Weeks to build the structure

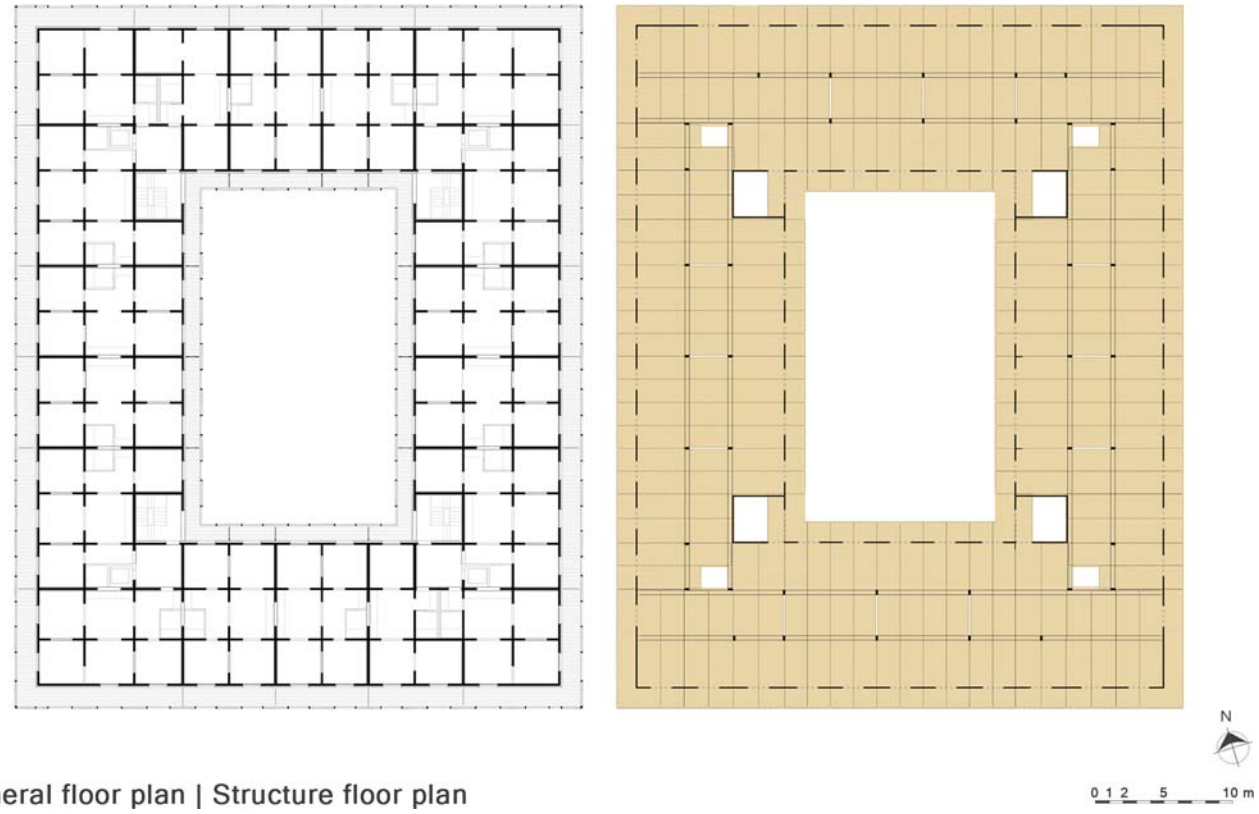
CLT panels in floors and walls and glulam beams and columns
Egoin https://n9.cl/g4p21

## Wind actions

Terrain category IV

Area in which at least 15% of the surface is covered with buildings and their average height exceeds 15 m.

Slenderness 0,5




General floor plan | Structure floor plan

## Sustainability

Pinus radiata — Wooden specie

2.100 — Wood volume (m3)

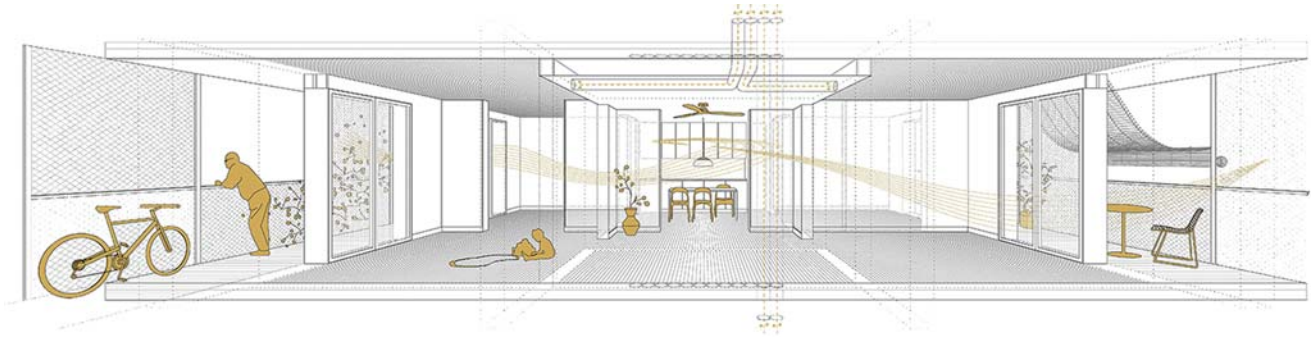
630 — Distance of transportation (km)

68% — Percentage of structure made of wood

910 — Potential CO2 benefit (t)

☐ — Special transportation needed

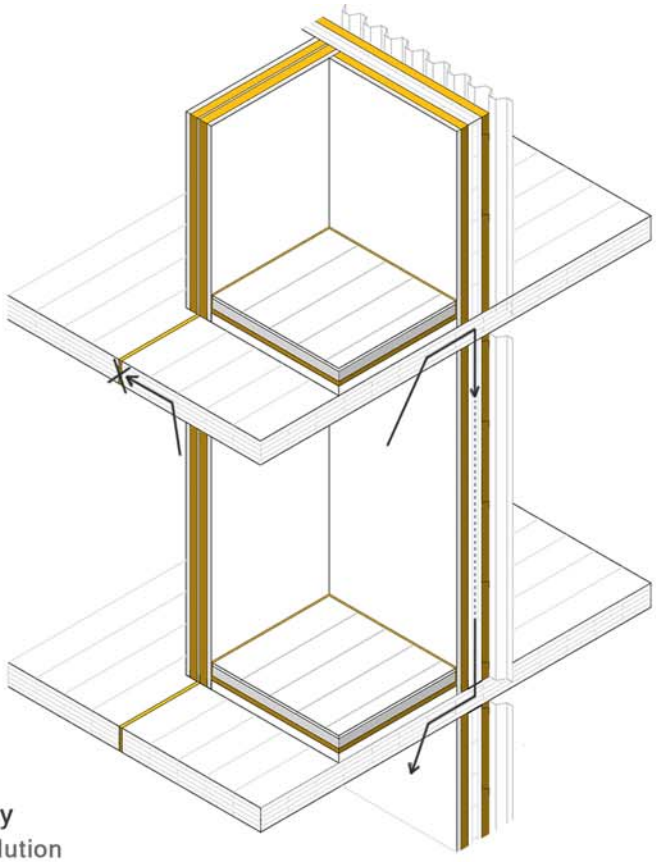
Stair core made of CLT.



Perspective section of a model house

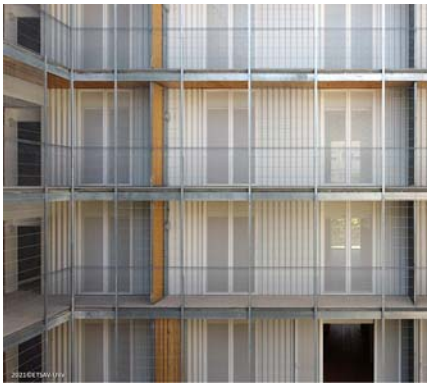
General cross section

0 1 2 5 10 m

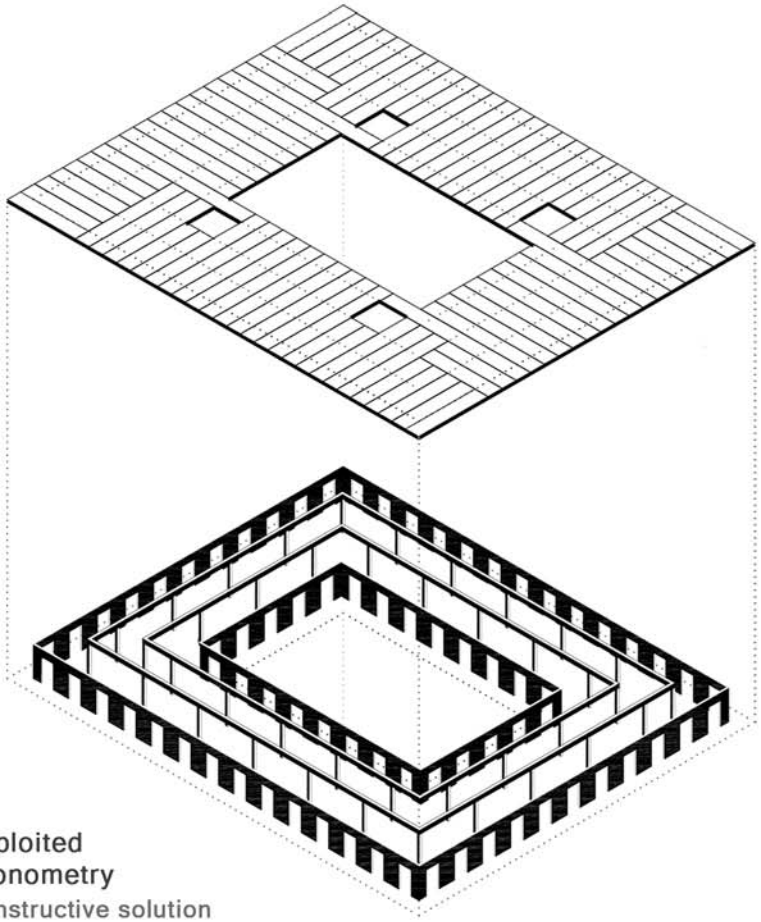


Sectional axonometry
Acoustic solution

Inner courtyard from a corridor



Inner façade



Exploited axonometry
Constructive solution

## References:

- Peris+Toral Arquitectes. https://n9.cl/690ba [24.03.21]. Online survey on 19.05.21. Interview on 19.07.21 and during the XV BEAU in Valladolid on 06.10.21.

- Visit to the building on 19.07.21.

- Casa Arbre https://n9.cl/4prhi [24.03.21].

- Egoin https://n9.cl/g4p21 [24.03.21].