



# SERRA DE NOET SCHOOL: A SUSTAINABLE BUILDING

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The new secondary school building Serra de Noet suggests three volumes of fine lines. The first one is the classrooms and administration block, with three floors. The two others are low pieces, concentrating the rest of the functions of the program: school cafeteria, catering, dressing rooms, gym, and multipurpose room. A continuous porch connects this three pieces in a "U" shape where a multi-sports track links with an exterior playground.





A wooden panel prefabricated system, and CLT (cross laminated timber) was used for both structures, vertical and horizontal, playing an important part in the way the project has been conceived.





This system is widely known as reducing the structure and facades' environmental impact. Every cubic meter constructed with wood, implies a CO<sub>2</sub> emission reduction of two tones. In addition, the water waste is near zero. The massive wooden enclosures contribute to the hygroscopic environmental regulation and the users' comfort. This improves the users' academic achievements, and makes the spaces more pleasant for them.







The CLT structural panels are coated when necessary (due to thermic, acoustic, or fire protection reasons) and remain uncovered when possible, as can be seen in the main hall and part of the roof's interior finishes, where the wood plays the leading role.

One of the main requirements was the optimization of the construction process, which has been solved with BIM technologies. Every wooden panel of the building has been designed to avoid material loss, and improve its fitting.





