

# AMATA: ATMOSPHERIC CO2 CAPTURE PROJECT

*Posted on September 23, 2017 by content*



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New technology allows for the use of wooden structures in taller buildings

The Project for the construction of a wooden high rise is an initiative by AMATA and is signed by Triptyque: Atmospheric CO2 capture project.




Frequently called the capital of steel and concrete, the city of São Paulo is soon to become home to a building totally made of Brazilian wood, 100% certified both inof its origin and trajectory. The initiative originated with AMATA, a Brazilian forest management company. The project is signed by



the Triptyque Architecture company and is to be built on a lot measuring 1,025 m<sup>2</sup> in the Vila Madalena neighborhood. The total floor area will be 4,700 m<sup>2</sup>. Based on a mixed-use concept and 13 stories high, the project allows for many different uses, including coworking, coliving and a restaurant. The building will house both common and private spaces, interacting with the city, where one can live in tune with a new environmental consciousness.

"Wood frame buildings are an efficient solution and may serve as a boost toward a change in the environmental consciousness of our societies because, as we replace non-renewable resources with natural raw materials, we also help create a cleaner chain of production and we add value to certified forests. This can reduce the pressure for deforestation," says Dario Guarita Neto, cofounder and CEO at AMATA.

Each 1m<sup>3</sup> of reforested wood has absorbed one metric ton of atmospheric CO<sub>2</sub> from the environment, helping meet the proposal signed by Brazil during the 21st Climate Conference (COP 21) in Paris in December 2015, promising to replant 12 million hectares of forest and reduce greenhouse gas emissions by 43% by 2030. This is one of the solutions to help solve a lasting problem with the construction industry: today it is responsible for almost half of the world's carbon emissions.

The structure of the AMATA Building will be made of CLT, a high-tech product made of multiple layers of massive wood laid down in two different directions. Once put together, they become panels that can be used as structure for high-rise buildings, with the full use of the wood's structural properties. Every 40 hours the forests of AMATA grow by an amount equivalent to a ten-storey-high CLT building.

## AMATA BUILDING

The AMATA Building offers innovative solutions not only in its material, wood, but also in its design, incorporating reduced construction time, durability and architectural possibilities.

The building is the naturalization of architecture put to practice, offering a total sensory experience, the metaphor of an inhabitable urban forest, the visible and invisible wood, the use of vegetation as well as the landscape. With its stepped silhouette it will blend in perfectly into Vila Madalena's uneven topography, creating an architecturally interesting point for visitors. The wooden building represents the seed of a new inexhaustible construction paradigm.





**Plans** 

**Sections**

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## **WoodRise 2017**

[WoodRise](#) is the first international congress to discuss high-rise wooden buildings. It will take place from the 12<sup>th</sup> through the 15<sup>th</sup> of September in the French city of Bordeaux and aims at mobilizing the leaders of innovative enterprises, architects, engineers, politicians and designers towards transforming certified wood construction into a viable large-scale solution for the reduction of CO<sub>2</sub> emissions, proposing a new alternative for the construction matrix, which is currently responsible for nearly half the world's carbon emissions.

This is a tendency that is gaining ground in many different countries, which are beginning to value the architectural achievements possible with wood as well as its beauty, high structural, mechanic, acoustic and thermal performances, resistance to fire and environmental sustainability. Given such meaningful potentials, three of the international wood-construction players – the FCBA, from France; FPInnovations, from Canada; and the Building Research Institute, from Japan – have joined efforts to organize the first world congress dedicated to presenting and discussing projects of 6 to 20-storey high buildings made of wood, as well as the construction of sustainable cities for an ecological transition.

Brazil is now part of this group. AMATA, Triptyque, the Coalizão Brasil Clima Florestas e Agricultura (Brazil Coalition for Climate, Forests and Agriculture), the IBA, the IPT and ABNT will all take part in the first congress of high-rise wood construction: WoodRise.

