Air Liquide Campus

Location : Sassenage

Architect : STUDIOS Architecture

Client : Air Liquide

Package : Wood structure, Steel structure, Concrete structure

Scope : Structural assessment, project design, construction supervision

Date : 2018 - 2021

The new Air Liquide campus in Sassenage consists of five buildings: four office buildings (three new and one renovated) and a new corporate restaurant.

The architectural approach prioritizes the use of wood in construction, both in the structure and the façade. The restaurant comprises two main volumes: the large dining hall and the kitchen and technical areas. The roof of the dining hall is supported by glued-laminated timber (GLT) beams with spans ranging from approximately 7 to 18 meters. The kitchen area is housed within a volume constructed using a reinforced concrete system.

The three new office buildings feature a timber structure with steel-braced frames supporting precast concrete floor slabs.

These office buildings are built using a post-and-beam system with three spans. A large atrium connects the levels of each building via staircases.

The structure of the new office buildings is stabilized horizontally against seismic and wind loads by a steel frame system, while all other columns are designed to carry only vertical loads.

The renovation of the existing office building involved minimal modifications to the existing structure to integrate new stairwells and an elevator.

The main challenge of the project was designing a structure in a seismic zone, despite the poor soil conditions, while adhering to the objective of using and showcasing timber construction.

T/E/S/S was involved from the design phase through to the execution monitoring of the main structure, including both the steel and timber frameworks.