

Office building oN5, Vancouver

2021



oN5 is the first TS3 building in North America. The oN5 office building pays homage to the beauty, structural performance and sustainability of solid wood.

The Project

The oN5 project uses advanced building technologies designed to improve the efficiency and long-term performance of the structure. TS3 is not the only innovation used in this building. For the ceiling elements, layers are added on top of the CLT to improve the acoustics as well as the vibration behavior. In addition, the building uses an innovative and elastic connection system that absorbs seismic energy and realigns the structures after a possible earthquake. The CLT wall and slab elements are left visible in the interior, highlighting the natural beauty of the solid wood, which has a positive impact on the well-being of the occupants. The mixed-use four-story commercial building with an area of 840 m² will provide space for small manufacturing operations and a range of stores.

The construction method

The wall, slab and roof elements serve as the building's primary structural system, which is supplemented by a concrete base. A total of 32 CLT elements were delivered by truck from Kattera's CLT factory in Spokane Valley, in Washington. The use of advanced logistics software allowed for just-in-time delivery, enabling precise installation on this tight urban site. The lightweight nature of the prefabricated solid wood building elements allows them to be lifted into place quickly and efficiently.

The challenges

oN5 is TS3's first project in North America. Naikon employees were already trained directly on site in 2019. Before the start of construction, the knowledge was refreshed again during an online training.

Construction Data

- Number of floors: 2 + 1 roof
- Gross floor area: 761m²
- CLT: 43.5 m³
- TS3 technology: 280 linear meters of joints

Building Owner

Equilibrium, Vancouver

General Contractor

Naikoon Contracting Ltd., Vancouver