

# BUILDING PROJECT LEADERSHIP IN SUSTAINABILITY CARBON PERFORMANCE

## SMU CONNEXION

### Green Mark Platinum (Zero Energy)

#### Project Team:

- Developer: Singapore Management University
- Architect: MKPL Architects Pte Ltd
- ESD: Web Earth Pte Ltd
- M&E: Meinhardt (Singapore) Pte Ltd
- C&S: Meinhardt (Singapore) Pte Ltd
- Builder: Singapore Engineering Pte Ltd
- WELL Consultant: Aurecon

SMU Connexion is a vibrant and dynamic learning facility that reflects SMU's spirit of innovation, sustainability, and collaboration. Through the adoption of innovative strategies such as Design for Manufacturing and Assembly (DfMA), the building's embodied carbon levels and construction time were greatly reduced. The nine-month reduction in construction duration helped to greatly reduce carbon emissions which otherwise would have been generated by construction activity both onsite and offsite.

The building's superstructure comprises an innovative hybrid of steel and cross-laminated timber (CLT) slab system, the first of its kind in Singapore which greatly reduces the embodied carbon of the building due to a 70% reduction in the use of concrete. This contributed to improved productivity and construction safety as well. The building has adopted passive and active design systems to achieve 50.7% total energy savings per year, and the installed PV system generated enough energy to offset the building's net energy balance to zero, making it one of the few certified Net Zero Energy Buildings in Singapore.

