



Mercer Mass Timber Building Solutions

CLT/CFS Hybrid

March 2024

Loadbearing System

CLT/CFS Hybrid

A hybrid mass timber and steel solution for multifamily, student housing, or hospitality building results in schedule acceleration, cost savings, and significant sustainability impact.

Key Value Drivers

Cost & Value

- Up to 10% project cost savings over concrete or structural steel building
- Up to 50% reduction in structure weight results in lighter foundation, lateral systems reductions, build in challenging soil conditions
- Potential for higher rental value and faster lease due to aesthetic and sustainability attributes
- Reduced carrying costs and interest reserves requirements for developers because of time savings

Schedule & Site Improvements

- Up to 20% faster than concrete building
- Reduced on-site staging, noise traffic, and site install team size
- Reduced risk in construction phased derived from off-site prefabricated approach that reduces productivity variability and on-site delays

Product Differentiation

- **Biophilia:** Human response to wood leads to increased productivity and reduced stress when users are in environments that utilize natural materials
- **Sustainability:** Sustainably sourced CLT expends 70% less carbon than the equivalent volume of concrete
- **Design Features:** Exposed natural materials in the units, with CLT ceiling left exposed
- **Structural:** High strength/stiffness CLT diaphragms that work well with approved lateral load resisting systems (BRBs, RC shear walls, etc.)

Technical Services

Technical Offerings: Design-Assist, Estimating/Preconstruction

Project Delivery: 4D BIM Planning, Logistics, Just-in-Time Delivery

Fabrication: Shop Drawings, CNC Machining, CLT Panel Prefab

Installation: Full Erection, Logistics Planning & Sequencing, Lift/Bracing Engineering, Site Supervision/Consultation, and 4D Construction Scheduling

Mass Timber Product Portfolio

Layup: 3, 5, 7 and 9-ply **Sizing:** Up to 12'x60'

Species: Spruce-Pine-Fir (SPF), Douglas-Fir-Larch (DF-L), Southern Yellow Pine (SYP)

Visual Grade: Architectural Appearance (AA), Industrial Appearance (IA)

CLT Grade: 1.4V 875 = V2, 1.4V 750 ≥ V3, 1.8M ≥ E1

GLT Grade (Manufactured): 24F-V8, 20F-V7, 16F-V6 (DF-L)

GLT Grade (Fabricated): 24F, 20F, 16F (DF-L, SPF, SYP)



For more information about our technical services or any product within the Mercer Mass Timber product portfolio, please contact us at clt@mercerint.com or visit mercermasstimber.com.