



Mercer Mass Timber Building Solutions

CLT/Steel Hybrid

March 2024

Framed System

CLT/Steel Hybrid

Cross-laminated timber slabs are a competitive solution for steel frame structures, achieving seamless integration with the steel erection. Unlike concrete on metal deck slabs, there is no curing time, resulting in schedule savings while also offsetting the carbon footprint from the steel frame. Additional schedule and cost savings as well as added value can be achieved if the CLT ceilings are exposed.

Key Value Drivers

Cost & Value

- Increased market value and reduced costs if CLT is left exposed
- CLT can achieve fire resistance up to 2 hrs, dispensing the need for ceilings¹

Schedule & Site Improvements

- Schedule savings due to no curing
- Off-site BIM coordination CLT /Steel leads to a virtual clash-free install, minimizing the risk of site delays
- 4D BIM and just in time CLT delivery fully coordinated with the steel erection

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.)



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

Technical Services

Technical Offerings: Design-Assist, Estimating/Preconstruction

Project Delivery: Logistics and Procurement

Fabrication: Shop Drawings, CNC Machining, and 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)

