

# Mass Timber Moisture Monitoring and Simulation: A Marine Climate Case Study

**TECHNICAL DINNER MEETING: 05 June, 2024**

Presented by:

Brad Carmichael

Principal at 4EA Building Science



## **Synopsis of Presentation:**

Mass timber is an emerging structural technology with both environmental and architectural benefits. Aggressive moisture protection of mass timber products is generally recommended during installation but can result in significant cost and coordination challenges for builders. Field measurement of wetting and drying of mass timber on built projects is limited in North America.

This presentation will share moisture data taken during a wet winter in the Pacific Northwest during the construction of a six-story, multi-family, Cross-Laminated Timber (CLT) building. We will present a comparison of our field data to corresponding hygrothermal analysis, as well as our Moisture Protection Plan and Moisture Mitigation Plan.

## **Learning Objectives:**

1. Understanding the background of CLT and how it is currently used;
2. Understanding the analysis of moisture content readings correlated to weather conditions from this case study;
3. Understanding the significance of our findings; and
4. Learning how to strategize mass timber project assembly in wet climates for best value and outcomes.

**Meet your Presenters:**



Brad is a Principal with 4EA Building Science in Seattle. As an engineer and building scientist, Brad has been specializing in the design of durable and energy efficient building enclosures for nearly two decades. Throughout North America, Brad has consulted on a wide array of different project types and sectors, including high rises, healthcare facilities, cultural institutions, workspaces, affordable housing, and historic landmarks. Much of his current work focuses on the intersection between decarbonization and housing affordability in the built environment.

**When:**

**Wednesday June 5, 2024**

**Where:**

**2000 Powell Street Conference Center**

**Registration & Networking: 5:30 - 6:30 pm**  
**Dinner Served: 6:30 pm**  
**Presentation / Q & A: 6:45 - 8:00 pm**

**2000 Powell Street, Second Floor**  
**Emeryville CA, 94608**  
**Parking Garage is Hourly, Parking on Powell Street is Free - Subject to Availability (see highlights below)**

**Cost:**

**Registration:**  
**\$60 (IIBEC Members) / \$75 (Non-Members)**

**How to Register:**

**Online Registration at:**  
**NorcallIIBEC.org**

**Tabletop Sponsorship**  
**\$200 (Tabletop + 1 Dinner)**

*72-hour cancellation is requested for a full refund.*

**Map:**

