MASS PLY BY FRERES

CASE STUDY

PORTLAND INTERNATIONAL AIRPORT TERMINAL



SPECS

Building Type: Commercial, Community/Civic

Location: Portland, OR

Architect: ZGF Architects

Sq. Footage: 1,000,000

Year completed: 2024

> **"We're proud to contribute to this project with such a sustainable product as Mass Ply."**
>
> – Tyler Freres,
> Vice President of Sales

CHALLENGE

Build a modern terminal for the Portland International Airport (PDX) using regionally sourced materials and sustainable design practices.

SOLUTION

Freres Wood supplied 400,000 square feet of Mass Ply for the terminal's mass timber roof, 75% of which was made from wildfire-salvaged wood.

RESULT

PDX's new main terminal doubles capacity, cuts energy use per square foot in half, and stands as a global model for carbon-conscious design.

PORTLAND INTERNATIONAL AIRPORT TERMINAL PUTS MASS PLY ON DISPLAY.

On August 14, 2024, Portland International Airport (PDX) opened its new main terminal under a 9-acre mass timber roof built with 400,000 square feet of Freres Mass Ply CLT. The roof's 2,425 parapet panels form an arched perimeter that evokes a canopy of branches. Below it, travelers walk among live trees and plants under 49 skylights, further complementing the terminal's biophilic design.

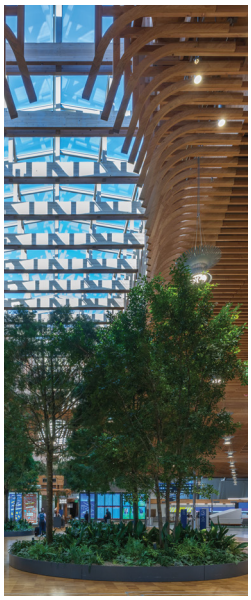
All 3.5 million board feet of wood in the terminal came from within 300 miles. Suppliers included Pacific Northwest forests, mills, and timber fabricators, along with nonprofits, tribal nations, and family-owned businesses like Freres Wood.



Photos: Matt Swain Photography

PARTNERS

ZGF ARCHITECTS
PORT OF PORTLAND
SUSTAINABLE NORTHWEST
TIMBERLAB
HOFFMAN CONSTRUCTION CO.
SKANSKA
SWINERTON





Seventy-five percent of the Mass Ply panels installed were made from wood salvaged after Oregon's 2020 Labor Day wildfires. Post-fire decay accounts for roughly three-quarters of the greenhouse gases wildfires emit, so removing damaged trees quickly helps limit those emissions. Instead of decaying in the forest, that timber now stores carbon in the roof.

More than 30,000 locals worked on the project over five years, and the finished terminal doubles PDX's previous capacity while using half the energy per square foot. Tyler Freres, VP of Sales, sees the Port of Portland's "forest-to-frame" approach as a commitment to environmental stewardship from day one. "We're proud to contribute to this project with such a sustainable product as Mass Ply," he says.

Considering Mass Ply for your next project?
Contact us today.

Visit our Project Resources page at frereswood.com/resources

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