



CASE STUDY

MILLWORK MADE IN A FACTORY

THE NV | PORTLAND, OREGON

9Wood and ZGF Architects Partnered on a Wood Grille Ceiling that Looks Like Custom Millwork

Close coordination between ZGF Architects, Seattle, Washington, and ceiling manufacturer 9Wood led to innovative ceilings in the lobby of a Portland condominium building known as The NV.

The lobby features a 4,325 sq. ft., multi-elevation, crosspiece backer wood grille ceiling. It looks like custom millwork but, in fact, it's comprised of 643 prefabricated wood grille panels and 15 pieces of trim.

"The interior is expansive. It's a deep space," said Andrea Bellon, the project interior designer at ZGF Architects. "One device to keep it feeling airy was to use a wood trellis inside."

CHALLENGES RESOLVED

Was the trellis-like ceiling system easy to fabricate and install? In the end, yes. But, there were

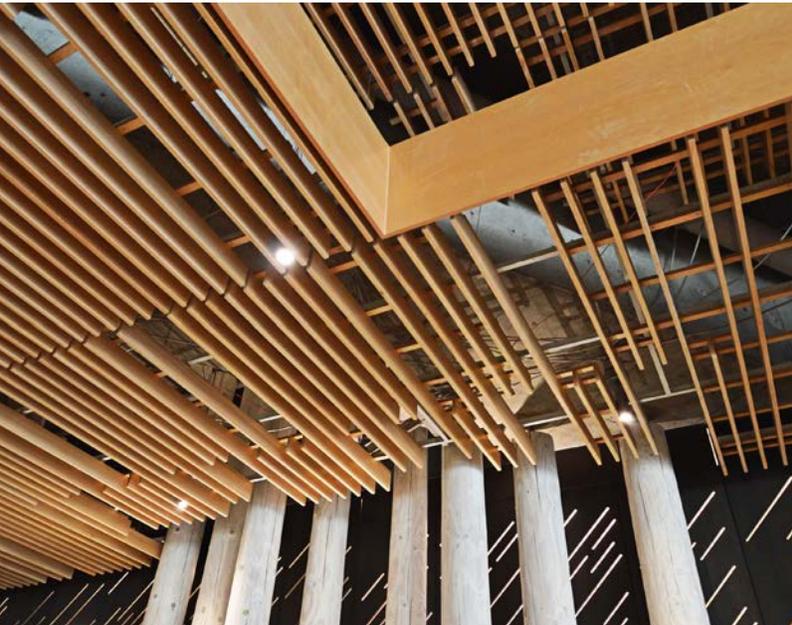
challenges that needed to be accounted for along the way. 9Wood and ZGF's team worked closely on the design to deliver ceilings that have a custom look to them.

However, site conditions and coordination with other construction trades created some installation challenges. Here's how ceiling contractor, Anning-Johnson, resolved them.

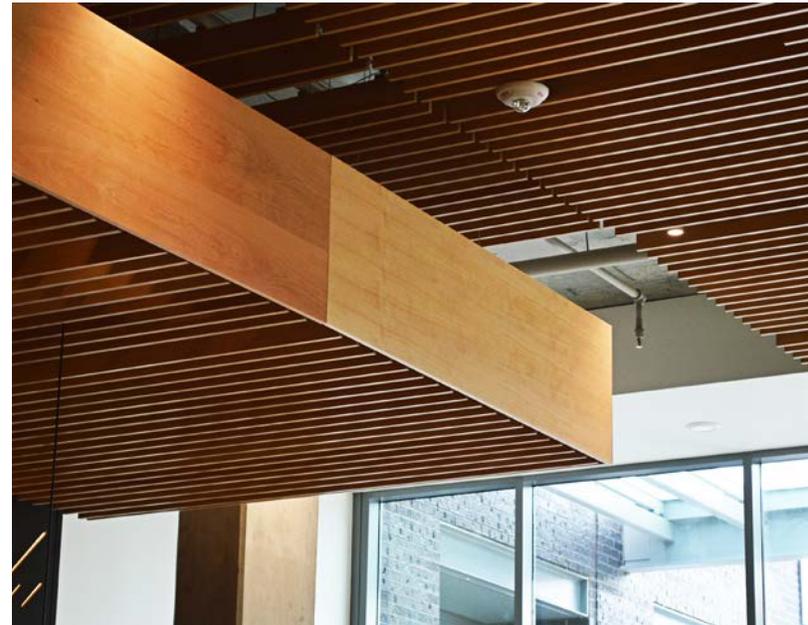
1. Delay. Once the ceiling design was completed and the ceiling panels delivered, Anning-Johnson faced a four-month delay related to a redesign of items on the building's first floor.

2. De facto general contracting. When work got started, the ceiling contractor buckled down to coordinate other trades.

"Every two days, we'd micro-schedule the sequences of where everyone would work," said



"The manufacturer created a ceiling that looks site built, but it's panelized," the manufacturer's rep said. "It allowed the acoustical subcontractor to function like a finished millworker."



The wood grille ceiling has solid, clear Western Hemlock wood members with flat grain on the primary faces and vertical grain on the secondary faces. Matching fascia trims are veneer on fire-rated substrate.



Luke Glass, Anning-Johnson project manager.
"Through planning and sequencing, we ended up beating the GC's anticipated finish date for this ceiling."

3. Sprinkler coordination. The sprinkler system attached directly to the ceiling grid to help prevent the sprinkler apparatus from moving laterally. It meant ensuring the system was set properly.

"The slats in the ceiling were so narrow that if the sprinkler heads were off by even a ¼ inch, it would have been obvious," Glass said. "The tolerances were pretty extreme on this job."

4. Lighting coordination. Can lights, pendants, sculptural lights, and fire alarms had to be integrated with the ceilings. Their exact locations had to be determined so that crews could field cut the ceiling panels to line them up with the wood grilles.

"We worked hand in hand with the electricians," Glass said. "We set one row at a time, staggering our work, to make sure the lighting all fit."

5. Modifications. Several wood grille panels near structural beams had to be field cut. "We mitered a 45 across some slats," Glass said. "We had to do

The wood grille ceiling is 4,325 sq. ft. in size. It's composed of only seven unique panel types and 104 lineal feet of trim.

Project

The NV, Portland, Oregon

Architect

ZGF Architects, Seattle,
Washington

Ceiling Contractor

Anning-Johnson, Portland, Oregon

Ceiling System

4,325 sq. ft., multi-elevation,
crosspiece backer wood grille
ceiling from 9Wood



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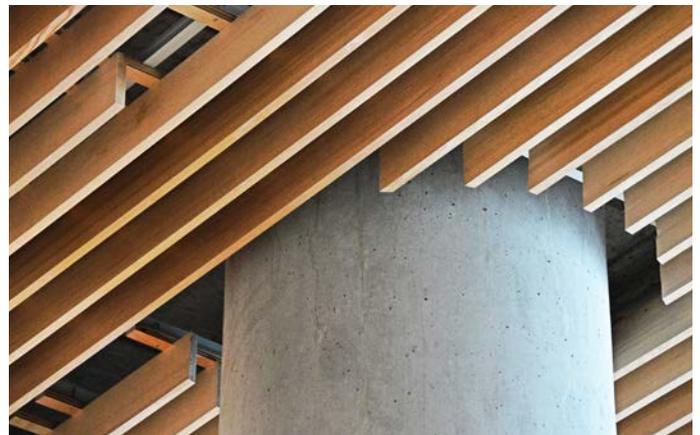
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it without creating hazards for our guys as they worked over and around the other trades."

EFFECTIVE ENGINEERING

Because ZGF and 9Wood worked early on, 9Wood was able to panelize a complicated design intent in as few component pieces as possible.

This made it easy for the ceiling contractor to install an ornate system ahead of schedule. Pre-construction collaboration and factory engineering turned the acoustical ceiling contractor effectively into a millworker.



"We mitered a 45 across some slats," the ceiling contractor said about work near concrete beams. "We brought in our specialists."



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