

Innovations in Wood: Emory Point



Mixed-use complex used wood to save money and speed construction

PROJECT:
Emory Point

LOCATION:
Atlanta, Georgia

COMPLETED:
First phase completed fall 2012

BUILDING AND OCCUPANCY:
Mixed-use apartment complex

ARCHITECTS:
Cooper Carry
The Preston Partnership

STRUCTURAL ENGINEERS:
Ellinwood + Machado LLC
Pruitt Eberly Stone, Inc.

CONTRACTOR:
Fortune-Johnson Contracting

OWNER:
Emory University

DEVELOPER:
Cousins Properties, Inc.
Gables Residential, Inc.

Community Solution

Walk to work. Some consider it the ultimate environmental solution. By building 'pedestrian communities' adjacent to large employers, developers are giving people the opportunity to reduce commute times and potentially take hundreds of cars off the road.

And when those projects are built quickly and affordably using wood, the environmental and other benefits continue to add up. Emory Point's developer realized significant cost savings and met an aggressive construction schedule by using wood framing to build the four- and five-story buildings in this \$60-million project.

Mixed-use Urban Infill

Emory Point is a vibrant, mixed-use urban infill development located in the historic Druid Hills neighborhood of Atlanta. The complex provides retail and residential living options to employees working at the adjacent global headquarters of the U.S. Centers for Disease Control (CDC), Emory Healthcare, Emory University and a number of other schools.

Originally planned as a condominium development in 2006, the 315,000-square-foot project was put on hold but revived as apartments when the economy began to improve. Emory Point's first phase consists of three buildings with 443 luxury apartments and 80,000 square feet of retail and restaurants.



*Illustration: Fortune-Johnson
General Contractors
Photo: Gables Residential*

The entire development has the potential for nine buildings altogether; three are complete and four are currently in schematic design. Of the three recently completed, one is five stories of Type III-A wood frame over slab-on-grade. The other two structures are four stories of Type V-A wood frame over a one-story Type I-A post-tensioned concrete podium.

All three buildings use pre-engineered wood-plated trusses for floor and roof structures. Oriented strand board (OSB) and gypsum shear walls over 2x4 Southern Yellow Pine wall studs provided lateral stability in each.

Speedy Schedule

Construction started in July 2011 and Phase I was completed in the fall of 2012. Jared Ford of Fortune-Johnson Contracting told *Construction Today* that his firm planned to compress a 24-month construction schedule into 18 months contractually, with the intention of eliminating an additional two months from the contract time for the project.

“Scale and an aggressive schedule were two of our biggest hurdles,” agreed Brad Ellinwood, project engineer from Ellinwood + Machado. “Cost and construction timing were the key drivers for choosing wood for the project.”

Greg Miller, principal at Cooper Carry, said the fact that they used wood allowed the contractor to meet the speedy schedule. “The wood-framed portions of the project were framed in place, one floor per week. Our portion of the project had two buildings with four stories each, and the wood framing for both buildings was erected in just eight weeks. This helped the contractor meet their goals and certainly saved money in carrying costs for the developer.”

Cost Savings

Framing costs were also a key consideration in the decision to use wood. While the team considered metal studs, cast-in-place concrete, and other systems, wood was the easy choice.

“Cost for the structural frame portion only of the building was about \$14 per square foot,” said Ellinwood. “In comparison, a 7-inch post-tensioned concrete slab and frame would have cost \$22 per square foot. So, the wood-framing option yielded about 35 percent savings in the structure.”

Structural Considerations

David Goodman, project architect from Cooper Carry, said they used Type III instead of Type V construction in their portion of the project because of height requirements. “There is roughly 27 feet of fall from one building to the other. In addition, we wanted to have increased interior clear height for retail, which would help accelerate the leasing.”

The project was originally designed as high-end condominiums, which typically have higher floor-to-floor height. The decision to keep the higher heights was driven by the client, who “wanted

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more than typical market-rate apartments,” said Goodman. “So, we designed the structure to meet 11-foot floor-to-floor specs. We are increasing it even further to 11-foot 8-inches for Phase II so that we can have 10-foot interior ceilings.”

Erik Swerdlow, project manager with Pruitt Eberly Stone, structural engineers for two of the buildings, noted that in some areas they had to use more studs to meet the increased height requirements, and yet still showed a 35 percent savings.

“We spanned the floor trusses from demising wall to demising wall, but the roof trusses bear on the exterior wall so the perimeter had to be fire rated,” said Swerdlow. “The contractor wanted to use 2x4 studs throughout the project. We would normally use 2x6 on the exterior walls due to deflection limits but we were still able to make it work with multiple 2x4s.”

Wood Makes the Point

From the outside, Emory Point may look like a straightforward project, but a number of factors help it stand out. Wood facilitated quick installation, which allowed leases to be signed more quickly. And the environmental benefits of the wood structure, already recognized with EarthCraft certification, further emphasize the overall ecological benefits of this mixed-use development. Among them is Emory Point’s contribution to a new ‘pedestrian community.’ A study by Cousins Properties found that less than five percent of the nearly 40,000 employees working within a two-mile radius of the development actually lived in the area. The cost savings realized from using wood framing allowed the developer to finally proceed with the project, which had been shelved, and now more people will have the option of walking to work.

Photos: (Top) Gables Residential; (Bottom) Aerial Photography Inc.

