

LP® FlameBlock® Fire-Rated OSB Sheathing Provides Ease of Installation and Time-Saving Solution in Townhome Area Separation Walls



Habitat for Humanity Cuts Down on Construction Time with LP® FlameBlock® Fire-Rated OSB Sheathing

SUMMARY

Habitat for Humanity of New Castle County in Delaware is a 501(c)(3) nonprofit organization that raises money locally and relies solely on local support to create simple, decent and affordable housing for the New Castle County community.

In March 2015, Habitat for Humanity of New Castle County broke ground on Walnut Ridge in Wilmington, Delaware. Walnut Ridge would consist of nine units in total, including a four-pack and a five-pack of single-family attached townhomes. LP® FlameBlock® Fire-Rated OSB Sheathing was used on all nine townhomes as a code-compliant component of a U350 2-hour partition wall assembly.

OBJECTIVES

Director of Construction and Real Estate for Habitat for Humanity of New Castle County Sean Allen oversees all local builds. LP FlameBlock sheathing had been recommended to him by John Connell, his trusted dealer at Grubb Lumber, who had seen the product successfully used in townhomes in New Jersey.

According to Connell, "Volunteers with no building experience are not able to construct the traditional shaft wall assemblies. Trained framers need to drop in the plywood from a second story, which a volunteer is not equipped to do. I recommended LP FlameBlock because the U350 assembly can be built by laying all the materials on the ground and then standing them up for easy installation."

Because the Habitat for Humanity townhomes are built by volunteers, Allen was intrigued to hear that the U350 assembly was a lighter, simpler solution than the traditional assembly using shaft wall liner (listed as a U375 assembly).

"Our volunteers range from people who have never touched a hammer to semi-professional framers," said Allen. "The typical party wall uses a heavier material.

"I would say the assemblies were built probably a month or two faster than a shaft wall assembly. If this job had production builders on staff, I can see how this product would greatly affect the cost of a build because of time and labor savings."

Sean Allen, Director of Construction and Real Estate for Habitat for Humanity of New Castle County

In Brief

LOCATION

Wilmington, Delaware

PROJECT SUMMARY

LP® FlameBlock® Fire-Rated OSB Sheathing was used on two sets of attached townhomes built by Habitat for Humanity of New Castle County.

PROJECT OBJECTIVES

- The architect wanted to use a material that would pass local fire codes for partition walls in order to keep construction schedules on track
- The director of the local Habitat for Humanity wanted to use a wall assembly that could be constructed by volunteers under the guidance of trained framers
- The dealer wanted to recommend a product that could be used to safely construct partition walls on the ground, which could then be seamlessly installed into place

SOLUTION

By using LP FlameBlock sheathing as a code-compliant component of a U350 2-hour partition wall assembly, Habitat for Humanity of New Castle County discovered a simple and safe assembly solution that their volunteers could quickly construct.



Because we are using volunteers, the party walls were becoming especially cumbersome and posing safety issues.”



Allen chose to have LP FlameBlock sheathing installed as a part of the code-compliant U350 assembly in hopes that it would simplify the assembly process for his volunteers. He also wanted to avoid any safety hazards that a traditional shaft assembly wall may pose due to the complexity of the construction.

IMPLEMENTATION

In total, approximately 270 sheets of LP FlameBlock sheathing were used throughout the nine townhomes. The site supervisors were able to easily instruct the volunteers on how to install the U350 assembly using LP FlameBlock sheathing.

Because the LP FlameBlock U350 assembly eliminates the heavy, one-inch-thick gypsum and associated hardware that is typically required in an assembly using a shaft wall liner, the volunteers were able to build the assemblies much faster.

“I would say the assemblies were built probably a month or two faster than a shaft wall assembly,” said Allen. “If this job had production builders on staff, I can see how this product would greatly affect the cost of a build because of time and labor savings.”

The architect on the job was Gary Seward of Architectural Alliance. He was responsible for developing the construction drawings and getting the LP FlameBlock assembly approved by the city building officials.

“Through the standard details within the manufacturer specifications and corresponding UL information, creating permit drawings and coordinating with the plan reviewer was very simple even though they were unfamiliar with the product,” said Seward.

Although the U350 assembly is not as common in New Castle County, the codes officials saw that was a UL listed assembly for partition walls and had no problem approving it.

OUTCOME

The nine townhomes at Walnut Ridge are set to be complete in April 2017. Over 2,015 volunteer hours have been committed to the project.

“I heard a lot of feedback about the ease of installation from the site supervisors,” said Allen. “Everyone was happy with the results.”

Allen now plans to use LP FlameBlock sheathing in a U350 assembly in another upcoming townhome project for Habitat for Humanity. “I would recommend this product for any townhome build,” he says.

Seward was also new to the product, but he was impressed with its performance.

