Tradition gave way to innovation when Barry McCarron took specifications that resulted in his discovery of the practical virtues of area separation walls. McCarron utilized the wall system at Penny Layne, a recently completed 136-unit townhouse project in Red Bank, NJ.


According to McCarron, “Penny Layne was an approved, partially completed project that we purchased from a bank. In order to comply with the conditions of the original township approval, we had to construct buildings that fit on the site plan. We’ve always specified masonry walls, but we chose to work with this product because of its flexibility. It allowed us to maximize the size of our townhomes and also meet the site plan requirements.”

The system allows considerable cost savings because its final assembly, consisting of special fire resistant gypsumboard and lightweight steel framing, weighs only 10 pounds per square foot—about 75 percent less than masonry walls.

Increasingly, builders and architects of apartments, condominiums and townhouses are specifying area separation walls instead of concrete block. The selection of products for the Penny Layne project was made jointly by McCarron and Tom Wittemann, the project architect. A principal of Philadelphia-based Feinberg + Wittemann, P.C., Wittemann recommended USG Area Separation Walls for the project not only because it “is quicker and easier to install, but because it had the fire rating and structural performance to meet our needs.”

Completed townhouses of Hovnanian Company’s 136-unit Penny Layne townhome development in Red Bank, NJ utilized an innovative area separation wall system to provide needed fire protection between adjoining units.

Replacing a Personal Favorite

Wittemann’s architectural firm, which specializes in 75 percent residential work and about 25 percent commercial projects, had historically specified concrete block but made the switch several years ago. “Concrete block had been our personal favorite for a number of years, but since we’ve been using area separation walls, we’ve been very satisfied,” he said.

The non-load-bearing gypsum drywall assemblies serve as fire walls, party walls or townhouse separation walls. The solid type
Hovnanian crews install area separation walls on Penny Layne building. The walls install quickly and cost-effectively, in all types of weather and comply with all three model building codes.

The separation wall utilizes independently framed interior gypsum panel surfaces on both sides of the fire or party wall. The cavity type wall features integral interior gypsum panel surfaces for commonly shared party walls between apartments.

Both types are lightweight, sound insulating and weather resistant. The water-resistant gypsum board permits installation in all kinds of weather, including freezing temperatures. In addition, the Design U336 assembly design is the only system of its type on the market that can claim tested structural performance under fire up to four stories (44 feet).

**Two-Hour Fire Protection**

Wittemann specified USG Area Separation Walls at Penny Layne from the finished first floor to the roof also because it met the building code requirements for a two-hour separation between units. The walls are remarkable developments for constructing common walls with fire-restrictive protection for adjacent properties. Their unique system for meeting the two-hour fire protection and structural independence code is a system of breakaway clips that secure the non-load-bearing walls to adjacent structural framing at each vertical intersection.

The water-resistant gypsum board permits installation of the area separation walls in all kinds of weather, including freezing temperatures.

When exposed to fire, the aluminum angle clips break away (the metal softens at about 1,000°F), permitting a fire-damaged structure to fail while the fire barrier remains intact.

**A Clean, Efficient Attic Installation**

Because of its success at Penny Layne, McCarron said that Hovnanian was beginning to use area separation walls in several new townhouse projects underway in New Jersey. At Glenbrooke, a 430-unit townhouse development in Bridgewater, McCarron and Wittemann teamed up to install area separation walls in the buildings’ attics.

Rather than create trusses with additional layers of drywall, area separation walls were used to separate all attic spaces. “This was a much more efficient way of providing code-required fire separation walls between townhouse units/McCarron offered. “Our framers are now comfortable installing the system, and it is more efficient than the systems we used in the past.”

Wittemann specified area separation walls for Glenbrooke’s attic primarily for the ease of installation. “If we were to use masonry, it would have to be cut along the roof rake (the slope), a difficult and time-consuming process,” he said. “By using area separation walls, we were able to cut it very quickly and precisely to match the roof slope, again saving time and costs.”

Similar in design and scope, both Penny Layne and Glenbrooke are townhouse units built as slab on grade. The single-family
The final assembly weighs 75 percent less than masonry walls.

townhouses range from 1,400 square feet to 2,000 square feet and offer attached garages. The units at Glenbrooke are 24 feet wide. Those at Penny Layne are 22 or 24 feet wide. The narrower models created the need for the added space that area separation walls allow.

**Acoustical Privacy**

McCarron also noted that the sound insulating factors closely match those of masonry walls. “The difference between the two products is very slight,” he maintained.

**Flexible Installation**

No matter how inexpensive a product is, the installation crew must be able to install the product correctly and quickly. Unlike cement block, the system can be installed in all types of weather, including below-freezing conditions. The system can also be installed by carpenters. No blocklayers are needed.

“We discovered that the system offers outstanding installation flexibility, beyond cost savings,” McCarron concluded. “In fact, because of its efficiency and ease of installation, we’re now using it more and more on our other developments.”