

Project Profile



Project

Corporate Headquarters of Spiegel, Inc.
Downers Grove, Illinois

Owner

Hamilton Partners, Inc.

Roofing Consultant

STR Building Resources
Chicago, IL

Roofing Contractor

American Roofing and Repair Company
West Chicago, IL

Roofing Systems

Sarnafil Décor Roof System, using 60 mil,
G410 EnergySmart Roof® membrane in light
grey

Project Size

11,900 square feet

Completed

January 2004

Distinctive Roof Calls for Beauty and Brawn

Sometimes with a roofing system, beauty is only skin deep.

Such was the case with the 11,900 square-foot standing seam metal roof that covered the cafeteria and media center at Spiegel's corporate headquarters in Downers Grove, Illinois. The building featured a very distinctive, spiral-shaped roof. Yet while the metal roof was very aesthetically pleasing, it "leaked like a sieve," according to Tony Loden, senior consultant at STR Building Resources in Chicago.

Loden, who managed the roof for building owners Hamilton Partners and Speigel, explained why the 10-year-old roof suffered premature roof failure. "The middle of the roof is bowl-shaped and about eight feet deep," he explained. "The general contractor installed a non-reinforced membrane roof in the lower valley of the roof, and then overlapped it on the slopes with ice and water shield," he said. "The two systems were incompatible. The non-reinforced membrane started shrinking up and pulling away from the walls."

The installation of the fasteners was another issue. "They put all the roofing fasteners through the ice and water shield, and instead of using slide clips they hard-clipped them to the slope," Loden stated. "When the standing seam metal roof panels expanded and contracted they created a rocking motion in the clips, which caused the fasteners to rotate." This rotation enlarged the penetrations of the fasteners, and allowed water into the building.

The roof's bowl-shaped center would collect snow and rain, so when the roof started leaking there was quite a bit of water that entered. This water was causing extensive damage to Spiegel's multi-media projectors and other expensive equipment housed in the media center, as well as to the control booth in the cafeteria. In order to prevent further equipment damage and inconvenience to its tenant, Hamilton Partners decided to replace the roof.

Sarnafil Provides Monolithic Alternative to Metal

Since the distinctive roof is visible to the tenants of the adjoining 13-story office tower, the owners wanted to be sure the

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replacement roof had the same look as the original roof and was every bit as attractive. They asked STR Building Resources to come up with design recommendations for the new roof. "We considered several different options, including EPDM, reinforced PVC, and another standing seam metal roof," Loden stated. "However, we wanted a system that was monolithic and would offer 100 percent coverage from the bottom of the roof to the outside of the edges. It was important to select the right roofing system because the building owner did not want to deal with this installation again – this was to be a one-time shot. The only system that fit the bill was Sarnafil's Décor Roof System."

Sarnafil's Décor Roof System offers the appearance of a metal roof but features the watertight integrity of a hot-air-welded membrane. The system combines Sarnafil's proven single-ply thermoplastic vinyl membrane with Décor Profiles and Battens to mimic the look of a standing seam metal roof. The Décor ribs come in ten-foot sections that are connected and permanently fused to the membrane using the Sarnafil Sarnamatic hot-air welder and a patented welding kit. The Décor system is available in six standard colors and an unlimited number of colors to meet every design need.

"We had used the Décor Roofing System on a high school in Antioch because it had the look and performance we wanted," Loden explained. "One major advantage of the system is that it provides you with the continuity of a single-ply membrane system underneath the ribs and in the flat areas. That's why we knew it was the best candidate for this roof replacement."

A Challenging Installation

To say the installation was a challenge is an understatement. "The roof has all these different angles and radiuses, so nothing repeated itself. Every day's work situation was unique," said Eric Larsen, vice president of American Roofing and Repair Company of West Chicago, installers of the replacement roof.

In addition, each sheet of roofing membrane



The Sarnafil Décor Roof System on Spiegel Inc.'s Corporate Headquarters in Downers Grove, IL

had to be laid out on a diagonal and the laps had to be a certain distance apart.

There were other issues as well. "The first layer of the insulation was mechanically fastened, and then American Roofing put the second layer on using Olybond foam adhesive," Loden said. "However, the joints between the iso boards were telegraphing through the membrane, and the building owners didn't like the appearance." To deal with their concern, American Roofing and Repair mechanically fastened both layers of the ISO and then put Dens Deck over the insulation set in Olybond. The Décor feltback G410 60 mil membrane was then adhered and the ribs were permanently fused to the Sarnafil membrane using a hot air welder.

An Award Winner

In fact, American Roofing and Repair did such an outstanding job that Sarnafil awarded them second place for their technical expertise on this installation in Sarnafil's "2004 Projects of the Year" challenge. "We've been working with Sarnafil for several years but this was our first experience with the Décor System," Larsen stated. "Yet even with all the installation challenges, it proved to be an easy roofing system to install."

Larsen also credited Sarnafil's technical representatives for their role in the installation process. "They were on site regularly with our crew and their assistance was invaluable," he said.

Larsen added that he's very happy with how the roof turned out. "Most people who look at the roof think it is a standing seam metal system," Larsen pointed out. "That's why it is such a nice system for applications like this."

Loden added, "It's a beautiful roof and has performed very well. We're very happy with it."

Fortunately, this time the beauty of the roof is combined with the brawn of a proven, watertight system.

To learn more:

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