

Project Profile



Project

Wentzville Law Enforcement Center
Wentzville, Missouri

Owner

City of Wentzville

Roofing Contractor

Bi-State Roof Systems, Inc.
Valley Park, Missouri

Roofing Consultant

J & S Roof Technologies, Inc.
St. Louis, Missouri

Roofing System

Décor Roof System using 60 mil
Sarnafil® G410 feltback membrane
in custom royal blue

Project Size

24,000 square feet

Completed

September 2010

Décor Roof System Protects Men in Blue from the Elements

When the Wentzville (Missouri) Law Enforcement Center was built in 2002, its goal was to “serve and protect” the police force and other inhabitants from the elements. However, the sloping shingled roof of the building did not live up to this expectation, and instead “leaked whenever the wind blew water up underneath the shingles,” explained Rob Clemens, service supervisor for the City of Wentzville. “We had problems with the roof from the very beginning.”

The original specifications for the roof called for a standing seam metal roof or a roof with that appearance, but the City decided to go with asphalt shingles as a cost-cutting measure, which immediately proved to be a mistake. “Shingles should not have been installed on the 2/12 pitch on the back side of the roof,” remarked David Steinkuhler, project manager with Bi-State Roof Systems, Inc. of Valley Park, Missouri. “The roof flattened out where there were dormers, creating places where water would sit and back-up on the shingles.”

In addition, the roof was a very visible element in the appearance of the Law

Enforcement Center, and “the lack of the real architectural appeal of the shingle roof bothered the city administration and police officials,” Steinkuhler stated. “They wanted to ‘correct’ this when they replaced the roof.”

Décor Roof System to the Rescue

Roof consultants J & S Roof Technologies, Inc. of St. Louis were involved in the process of selecting a new roof system for the building, and thought the Décor system might be the perfect solution. The Décor Roof System combines the Sarnafil G410 thermoplastic single-ply roofing membrane with Décor profiles and/or battens to give the appearance of a standing seam metal roof. Sika Sarnafil is one of the few companies to offer warranty coverage for the hot-air welded ribs that give the roof the appearance of metal.

“While I hadn’t used the Décor system before, I knew that Sika Sarnafil has the best PVC membrane on the market, so that gave me a lot of confidence,” said Jim Diehl, vice president at J & S Roof Technologies, Inc.

“The Décor system was less expensive than other systems, including a standing seam metal roof,” Steinkuhler pointed out. “When

Sika®

Sarnafil®

Sika Sarnafil said they could produce the membrane in any color, that pretty much decided it.” (The City of Wentzville wanted a royal blue color to represent the “police blue” associated with law enforcement officials.)

Installation Proves to be a Difficult Case

Removing the existing roof materials and getting it into the dumpster was one of the first challenges facing Bi-State. The Law Enforcement Center had an irrigation system for its lawn and landscaping, and so did not want any equipment or roofing supplies to be placed on the front lawn. To deal with the logistical issue of moving supplies from the staging area to the roof Bi-State used a Lull forklift with a reach of 40 feet, and built a special box at the end of the Lull to receive the removed roofing material and then transport it to the dumpster.

Keeping the new roof materials within reasonable reach was another challenge. Because the front of the building has a 7/12 pitch and is the most visible part of the roof, Bi-State placed the new materials that were going to be used that day on the back side slope, which has a 2/12 pitch.

Bi-State then devised a method to move the new materials from the back, over the ridge and down the steep slope of the front with the use of ropes, fence boarding, and toe boards. According to Steinkuhler, the crew at the top would prepare the material and then slide it down the steep slope to a “bumper fence” where the crew members would secure the material and install it.

Installation of the membrane required another special set of procedures. “The goal was to install all membrane sheets full length from the gutter line to the ridge,” Steinkuhler stated. “This was done to avoid



butt joints that can detract from the project's appearance.”

To accomplish this, the crew members at the top would cut the rolls to fit full length, bring the cut section to the ridge and unroll it from the ridge to the gutter, which allowed adjustment and fitting. “At this point the ‘ridge crew’ would adhere the first five feet. Then the gutter end of the roll would be brought back up to the ridge, folding back over itself,” Steinkuhler explained. “The ‘steep slope’ crew members would take over and apply adhesive to the primed gypsum roof board and the ‘ridge crew’ members would release the membrane down into the fresh adhesive. This process was repeated until they reached the gutter, and then a metal roller would press the membrane in place.” The Décor profiles were then installed on top of the membrane.

“The Sika Sarnafil representatives were very helpful in lining out the profiles and showing us where to start,” Steinkuhler stated. “The result is a roof with a very straight and clean appearance.”

Other challenges Bi-State faced were dealing with existing walls that had to be rebuilt and working with the EIFS system which had step flashing. Yet despite, these unexpected hurdles, Bi-State “did very good work” according to Clemens, and was awarded Third Place in Sika Sarnafil's 2010 Contractor Project of the Year, Steep Slope Category.

Décor Roof System Does Building Justice

Today the roof is being saluted for its performance and appearance. “We recently had one of the worst winters in years, and because of the higher quality of the roofing material the roof is performing very well,” Clemens said. “And everyone loves the appearance of the roof.”

“The City of Wentzville was very impressed with the roof and said it was exactly what they were looking for,” Steinkuhler remarked.

Added Diehl, “The Décor system solved a lot of problems – especially those problems caused by using a shingle roof on a low sloped roof that wasn't designed for shingles. This new roof is not only watertight but is much more beautiful than the previous roof.”



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