



# SIKA AT WORK

## HILLSBOROUGH COUNTY JAIL - ORIENT ROAD LOCATION TAMPA, FLORIDA

RhinoBond® Roof System USING 60 MIL  
Sarnafil® S327 EnergySmart Roof® MEMBRANE IN WHITE

**Sarnafil**

**BUILDING TRUST**



# ORIENT ROAD JAIL SECURED BY SARNAFIL RHINOBOND ROOF

Installing a 417,700-square-foot roof on a building with 500 residents is always difficult. Add the fact that this is high security jail with 152 separate roof sections, extensive security and a 12-foot fence with razor wire surrounding it and you have an installation that would challenge even the most experienced of roofing contractors. But Service Works of Tampa, Florida, had a secret weapon that would make the job easier: The Sarnafil RhinoBond roofing system.

## A TRIED AND TRUE SYSTEM

The Sarnafil RhinoBond system uses Sarnafil's proven PVC roof membrane, which is attached using RhinoBond's advanced induction welding technology. RhinoBond secures the membrane directly to specially coated plates that are used to secure the insulation to the deck, all without penetrating the roofing membrane. The result is a roofing system with improved wind performance that requires 25 to 50 percent fewer fasteners and plates.

In addition, since the fastening points are spread out across the roof deck in a grid pattern rather than concentrated in the seams of the membrane, the wind uplift load is distributed more evenly. The result is less point loading on each fastener, enabling the system to achieve higher wind ratings with fewer fasteners.

"We're a proponent of RhinoBond because of the flexibility it offers with fastener placement, and the Sarnafil membrane is one of the premium roofing products on the market," remarked William Cowart, vice president at Construction Moisture Consulting, Inc. of Tampa.

Garry Tipton, project manager at Service Works, said that the wind uplift ratings and the structural concrete deck on the roof made RhinoBond the right choice, although it turned out there was another benefit that made RhinoBond a good option. "Using RhinoBond on a project of this size really opened our eyes to the system's labor savings," he stated. "The crews find it more comfortable to install and now we try to turn everything over to a RhinoBond system."

Tipton was also pleased with the decision to use the Sarnafil membrane. "We have had tremendous success with Sarnafil," he commented. "It is our membrane of choice."

## SAFETY AND SECURITY WARRANTED

As might be expected, the Service Works crews were subjected to an extensive background check to obtain proper clearance to work on the project. In addition, Service Works had to store anything that might be a hazard to prisoners, such as knives, blades and tools, in a mobile warehouse. "These items were inventoried every day, and a guard was assigned to supervise this," Tipton explained. "Even a broken tool had to be returned so it could be accounted for." Jail guards also were on the roof 100 percent of the time to ensure that there was no unauthorized contact with inmates. "The jail workers were great to work with," said Jr. Garza, general superintendent at Service Works.

The roof installation was done in sections, and one of the first major challenges, due to the perimeter security fence, was transporting and loading the materials to the site. In order to load the heavy recovery

## PROJECT

Hillsborough County Jail - Orient Road  
Location  
Tampa, Florida

## OWNER

Hillsborough County

## ROOFING CONTRACTOR

Service Works Commercial Roofing, Inc.  
Tampa, Florida

## ROOFING CONSULTANT

Construction Moisture Consulting, Inc.  
Tampa, Florida

## ROOFING SYSTEM

RhinoBond Roof System using 60 mil  
Sarnafil S327 EnergySmart Roof  
membrane in White

## PROJECT SIZE

417,700 square feet

## COMPLETED

October, 2015







board, a 220 ton all-terrain crane was used. After the interior sections were stocked, smaller cranes were used to reach the outside perimeter roof sections. Hand carts could not be used to move materials because of the multiple roof levels. "It could take up to three days to load just one phase of the roof," Garza remarked. "That's a full 10-hour day with 10-12 workers unloading three to four truckloads of material."

Safety was another concern. "Our in-house safety director developed and implemented a comprehensive OSHA safety plan," Tipton stated. "We invested in a parapet wall attachment safety rail system, and all our crews were harnessed for all perimeter attachments."

The project also included more than seven miles of vertical base flashings, and five miles of Sarnaclad fabricated metal edge flashing. Over 6,000 Sarnacorners, 420 Sarnaclad overflow scuppers and 750 pipe penetration flashings were also used. Sarnatred V walkway pads were installed on all expected roof traffic areas.

#### A TEAM-BASED WORK PROGRAM

Everyone involved in the project agreed that teamwork played a major role in this installation. "Cooperation between the owner, contractor and Sika was crucial to the success of this project," Cowart remarked. "Whenever details arose that were unique to the project, the Sika field tech representative documented the conditions and Sika technical services provided custom details in a timely manner, which was quite helpful."

"The jail allowed us to have the roof sections inspected as they were completed, and the Sika inspector was tremendous," Tipton stated. "He was extremely thorough, but if you know what he wants and how he wants it, then it is a home run at the end of the project."

"Service Works performed great and worked hard," said Angel Varela, director, Detention Maintenance Bureau at the Department of Detention Services at the Hillsborough County Sheriff's Office. "They were like the Energizer Bunny and had tremendous output."

Cowart added, "Service Works' workmanship was outstanding. They were very diligent and accommodating to the client, which made my job easy."

It was this workmanship and attention to detail that earned Service Works first place in the Low Slope Category of Sika Sarnafil's 2015 Project of the Year competition.

#### ROOF EXHIBITING GOOD BEHAVIOR

The completed roof has weathered strong rains and winds without issue. "We've experienced storms that have delivered two to five inches of rain and the roof is performing great," Cowart said. "I would definitely use the Sarnafil RhinoBond system again. It is a good system, good membrane, and Sika has a great reputation."

"The roof is doing great," Varela added. "It will probably outlast me!"

Thanks to Service Works and the Sarnafil RhinoBond system, this high security facility now boasts an equally secure and long-lasting roof



# HILLSBOROUGH COUNTY JAIL - ORIENT ROAD LOCATION



## WHO WE ARE

The commercial roofing industry has relied on thermoplastic single-ply membranes from Sika for more than 50 years to achieve sustainable roofing and waterproofing solutions.

Sika is a globally active specialty chemicals company. Sika supplies the building and construction industry as well as manufacturing industries (automotive, bus, truck, rail, solar and wind power plants, facades). Sika is a leader in processing materials used in sealing, bonding, damping, reinforcing and protecting load-bearing structures. Sika's product lines feature high-quality concrete admixtures, specialty mortars, sealants and adhesives, damping and reinforcing materials, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

Our most current General Sales Conditions shall apply.

Please consult the Product Data Sheet prior to any use and processing.  
ISO 14001: 2004-Compliant

ENERGY STAR® for roofing products is only valid in the United States

ENERGY STAR is a trademark of the U.S. EPA.

LEED® is a trademark of the U.S. Green Building Council.

Green Globes® is a trademark of the Green Building Initiative



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