



# SIKA AT WORK

## HEADLANDS INTERNATIONAL DARK SKY PARK WATERFRONT EVENT CENTER & OBSERVATORY MACKINAW CITY, MICHIGAN

GREEN ROOF SYSTEM WITH G 410 60 MIL  
ADHERED FELTBACK MEMBRANE IN WHITE

**Sarnafil**

**BUILDING TRUST**



# A FIVE STAR SARNAFIL ROOF FOR OBSERVATORY

Sometimes being kept in the dark is a good thing – especially if you are stargazing. The night skies over the northernmost point of Michigan’s Lower Peninsula, completely unscathed by light pollution, are some of the darkest skies in the country. This made it an ideal locale for the Waterfront Event Center and Observatory, constructed on the Lake Michigan shoreline in Headlands International Dark Sky Park.

The roof on the new facility had specified a green roof system over a trowel on rubber roof. “This system was sole sourced to a single manufacturer in the design specifications. Because of this fact, the cost of the green roof came in over the expected budget,” said John Galnares, project manager at Spence Brothers of Traverse City, Michigan, the construction manager on the project.

“We started looking at some alternative green roof options, and ended up choosing a hybrid tray system, which means the growth media is spread over a continuous layout of 2’ x 2’ trays. This system makes it easier to complete future roof maintenance and repairs without the risk of damaging the plants. The trays can be lifted up and moved out of the way, and then put back after the work underneath is complete. This along with the watertight Sarnafil roofing membrane created a great alternate solution - and saved the project approximately \$200,000.” He added that they also liked the Sarnafil membrane because it could handle the constant moisture of a green roof that is almost always wet.

Installing a roof on this facility, however, was hardly a dream written in the stars. The main roof area had six points connected by an interior radius and a round observatory at the end. As Craig Bloxsom, president of Bloxsom Roofing Co. of Traverse City stated, “It looked like a spider’s web.” In fact, the job looked so challenging that Bloxsom Roofing came very close to turning it down.

## A LOCATION, FAR, FAR AWAY

There were other daunting challenges to this project. “This job is in one of the most remote places in Michigan’s Lower Peninsula,” said John Galnares, project manager at Spence Brothers of Traverse City, Michigan. “You have to go down a long, winding, barely two-lane road to just get to the site. Mackinaw City is the closest nearby town. While it very busy in the summer tourist season, the wintertime is a different story. Most of the town shuts down after Labor Day which means that a quick trip to the lumber yard for supplies becomes an one hour round-trip to the next town over. Contractors had to come to the site prepared with the right tools and materials in order to avoid costly trips to pick stuff up.

Bloxsom added, “The site was 100 miles away from our office, which meant our crew would have to stay there during the installation. After tourist season there are only two places to eat – it’s pretty quiet.”

## DEALING WITH A SPIDER WEB AND MOTHER NATURE

The project involved installing three layers of Sarnatherm Polyisocyanurate roof insulation that was mechanically attached, a Vector Mapping Grid, and a 60 mil Sarnafil fully adhered membrane.

Did we mention the observatory roof rotates 360 degrees around? “The flashing on the observatory had to accommodate movement – it couldn’t be fixed,” said Craig Bloxsom. “Our project manager came up with the idea of adding a relief cut for flashing every 6 to 8 inches as well as for the membrane.”

The “spider web” configuration also required special planning. “To minimize waste, we started laying out the roof down the middle, working our way to the edges,” explained Jason Bloxsom, secretary/treasurer at

### PROJECT

Headlands International Dark Sky Park  
Waterfront Event Center and Observatory  
Mackinaw City, Michigan

### OWNER

Emmet County Parks & Recreation

### ROOFING CONTRACTOR

Bloxsom Roofing and Siding Co.  
Traverse City, Michigan

### CONSTRUCTION MANAGER

Spence Brothers  
Traverse City, Michigan

### ROOFING SYSTEM

Green Roof System with G 410 60 mil  
adhered feltback membrane in White

### PROJECT SIZE

17,900 square feet

### COMPLETED

November 2016







Bloxsom Roofing. "Everything on this project had a radius, thus requiring the 6-8 relief cut and stripping. There were also four large skylights, a 10-foot diameter chimney, and a dozen or more light pipes, all giving our roof detail specialist a work-out."

Safety was also an issue. "This roof has a significant slope with an already slippery surface due to an ice and water shield on the roof," said Craig Bloxsom. "As a result, we had our crew in safety harnesses throughout the job, so even though there were some slips here and there, there were no issues."

Fortunately, Mother Nature smiled on them and one challenge they feared – working in the early winter – didn't cause any problems. "We dodged a bullet because that November was the warmest and driest on record," Craig Bloxsom commented. "The few days we did have inclement weather we caught up on the extensive detail work."

#### A FIVE STAR INSTALLATION

Bloxsom Roofing received high praise for this work on such a difficult project. "We were very grateful to have Bloxsom on board," Galnares said. "This project would've been much more challenging without them. We do a lot of work with Bloxsom and they always do a great job – they are very reliable and always get the job done. Their installation crews are well trained and very professional."

It was this professionalism that earned Bloxsom Roofing first place in the Waterproofing Category of Sika Sarnafil's 2017 Project of the Year competition.

#### A SHINING ROOF

The Headlands Waterfront Event Center and Observatory is now offering guests star-studded views of the night sky, without any worries of roof leaks. "The roof is doing well, and we're glad we did this because it turned out to be a great project," Craig Bloxsom stated. "I would definitely use the Sarnafil roof again --- in fact, I probably have 1.5 million square feet of Sarnafil in projects coming up."

Galnares added, "This roof is very unique, and Bloxsom did a great job."

Thanks to Bloxsom's impeccable work, it's difficult to say which is the more beautiful sight: billions of visible stars in the dark night skies over the Event Center and Observatory, or the facility's roof itself.





# HEADLANDS INTERNATIONAL DARK SKY PARK WATERFRONT EVENT CENTER & OBSERVATORY



## 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.  
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