

# Mission Point Resort

## JOB PROFILE



## The Project

**Name:** Mission Point Resort Re-Roofing Project

**Address:** 1 Lakeshore Drive, Mackinac Island, MI

**Square Footage:** 24,295 square feet

**Completion Date:** December 7, 2019

**Project Duration:** 5 months

**Contractor:** Doyle Inc. Roofing



Located on Mackinac Island, Michigan, Mission Point Resort spans 18 acres of waterfront property on Lake Huron and was voted one of the top resort hotels in the Midwest by Travel + Leisure 2020. The entire island is a National Historic Landmark and has become famous as a summer tourist destination. One of Mackinac Island's most notable distinctions is that motor vehicles have been prohibited since 1898. Bicycles and horse-drawn carriages give the island a unique and historical vibe.

<https://www.missionpoint.com/>

## The Problems

1. Mission Point Resort's roof needed to be replaced, but the roofing system had to serve more than one purpose. A system had to be designed to not only withstand the harsh Michigan weather, but also to handle a large volume of foot traffic, bicycle traffic, and horse-drawn wagons, as motor vehicles are not permitted on the island.
2. Removing the existing roof, a 50+ year-old mixture of a built-up system, brick, and sand wouldn't be an easy task. The only way to access the island was by ferry, and removal of the roofing system would require numerous trips back and forth from the island for disposal.
3. Getting materials to the island would be tricky and would require multiple ferry trips and horse-drawn carriages to deliver the materials.
4. Michigan's average fall and early winter temperatures can range from 18°F to 35°F, not including the wind chill from Lake Huron, and beating the snow would be a factor.

## The Proposal

Mission Point Resort enlisted Doyle Inc. Roofing to install a durable roofing system that would be able to withstand foot, bicycle, and horse-drawn wagon traffic. Doyle Inc. suggested a Plaza Paver system because this system is not only visually appealing, it is also functional and durable.

This roofing system would include two layers of extruded polystyrene (XPS) insulation boards and 80-mil VersiWeld® TPO. In areas where the resort's roof had existing skylights, and due to the height variations, Doyle Inc. Roofing suggested fully adhering Versico's VersiFleece® TPO membrane with Flexible DASH Adhesive directly to the concrete deck.

## The Products

- Sunnybrook Pedestal Pavers have high compressive strength and are available in a wide range of colors and finishes.
- HP Protective Mat can be used above the membrane as a slip-sheet for crushed stone or pavers and provides added protection against membrane punctures.
- Loose-laid 80-mil VersiWeld TPO is a high-performance roofing membrane with extra thickness that offers another layer of protection against punctures.
- 60-mil VersiWeld TPO with APEEL™ Protective Film guards the TPO membrane's surface from scuffs and dirt accumulation during installation.
- 115-mil VersiFleece TPO provides all the benefits of Versico's TPO membrane and the additional polyester fleece backing offers unmatched durability and puncture resistance.
- CAV-GRIP® 3V Low-VOC Adhesive is easy to use in temperatures as low as 25°F when used as an adhesive and 15°F when used as a primer.
- Flexible DASH Adhesive is a two-component, low-rise polyurethane adhesive designed for bonding VersiFleece membranes and/or insulation to various substrates.
- 1.5" XPS Insulation Board (directly over the concrete deck)
- 3" XPS Insulation Board

## The Process

In August 2018, Joel Ross with Doyle Inc. Roofing, along with representatives from Versico Roofing Systems, began planning the removal of the existing roofing system. At the same time, they started designing the new system to meet the resort's specific needs. A 900-square-foot test section was installed in May 2019 to ensure the new system met the project's unique performance requirements.

The existing 50-year-old roof system was removed, which required 16 round-trip ferry crossings to St. Ignace. From there, the material was transported approximately 18 miles back across the Mackinaw Bridge to the designated disposal site.

Deliveries of material for the new roofing system followed a similar process and required 32 round-trip ferry crossings for everything to be delivered to Mission Point Resort's freight dock. From there, all material was loaded onto horse-drawn drays and wagons to be delivered to the installation site. This process alone took nearly 200 wagons.

"The weather played a very big role [in the installation process]. We were faced with ice, snow, freezing rain, high winds, below zero temperatures," explained Joel Ross. The main roofing section, which amounted to 23,479 square feet, was installed. Doyle Roofing began with VersiWeld 80-mil TPO loose-laid over two layers of extruded



"It's amazing to see what it looks like now, compared to before we started the project,"  
Joel Ross, Doyle Inc. Roofing.

polystyrene (XPS) insulation boards. Versico's HP Protective Mat was then installed over the 80-mil TPO. HP Protective Mat is a nominal 6-ounce, UV-resistant fabric that is used above the membrane as a slip-sheet for pavers and provides added protection against membrane punctures. Once the HP Protective Mat was in place, approximately 7,100 concrete Sunnybrook Pedestal Pavers were installed. Concrete pavers are an attractive and functional choice for plaza decks and can provide long-term strength and weatherability.

In areas surrounding the skylights, Versico's 115-mil VersiFleece TPO was fully adhered directly to the concrete deck with Flexible DASH Adhesive. This was a huge benefit for the project, as height variations existed in these areas and having the ability to adhere the membrane directly to the deck allowed the project to move forward efficiently. On the building's parapet walls, Versico's VersiWeld TPO Membrane with APEEL Protective Film was fully adhered with CAV-GRIP 3V Low-VOC Adhesive.

A majority of the project was completed in December 2019, with just a few details that were finalized in the spring. Once the project was complete, a 20-year, 55-mph wind speed Total System Warranty was issued, in addition to a Paver Overburden Warranty, ensuring that Mission Point Resort's roofing system will keep their guests dry and protected for years to come.

"We had a roof that was struggling, and now we are able to take that and turn it into the real centerpiece of Mission Point," said Mark Ware, CEO of Mission Point Resort.



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