

Over the St. Joseph River in Niles, Michigan

Combining QuikDeck with QuikShield to Create a Cost-effective Solution

Like many mammals, ambient cure epoxy concrete goes into hibernation when the temperatures dip. So when winter came early to the Great Lakes region in 2019—many cities recorded snowfall on Halloween that fall—the construction season was shorter than usual. Fortunately for commuters traveling on US-12 over the St. Joseph River in Niles, Michigan, the access solutions used by Atsalis Brothers Painting, based in Warren, Michigan, enabled the contractor to complete the concrete overlay before the worst of winter hit.

“We were able to expedite the Niles Bridge work because of our skilled workforce and experience with erecting suspended access solutions from BrandSafway,” said Nick Atsalakis, vice president of Atsalis Brothers. “Even though we had until May 2020 to complete the work, we got the epoxy overlay done in 2019, which made the Michigan Department of Transportation (MDOT) very happy.”

In March 2019, the MDOT awarded Atsalis Brothers a \$1.5 million contract for work on the Niles Bridge. This 480-foot-long, 100-foot-wide structure required an epoxy overlay, full paint, structural steel repair, replacement of pins and hangers, joint replacement and repairs and pier repair. Atsalis Brothers began work in late July and completed much of the work by mid-November, ahead of deadline.

“We managed access erection and coordinated activities so multiple trades could work at the same

time,” added project manager Mike Atsalakis. In addition to using BrandSafway’s QuikDeck® Suspended Access System, Atsalis Brothers used the Niles Bridge project to evaluate QuikShield®, a flexible platform supported by steel cables. When deployed in combination with QuikDeck, it can lower costs on projects with longer spans.

A History of Innovation and Hard Work

Founded in 1951 by Speros Atsalakis, Atsalis Brothers offers almost seven decades of experience in surface preparation, painting and coatings, environmental abatement and work access/platform rigging.

“We do a lot of bridge work, and we like taking on difficult jobs because we have a really experienced crew,” said Nick, one of the founder’s sons.

Atsalis Brothers’ relationship with BrandSafway extends back to the early 1990s and was further cemented through connections made at the annual coatings conference hosted by The Society for Protective Coatings (SSPC).

“BrandSafway always has a lot of good ideas, so we throw things back and forth to develop solutions,” said Nick.

With Atsalis Brothers’ history of innovation, using a product like QuikDeck was a natural fit. Starting in 2006, the company began purchasing sections of QuikDeck and today owns more than 200,000 square feet. >

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Project Summary

Project:	Niles Bridge
Location:	St. Joseph, Michigan
Start date:	July 2019
Completion date:	November 2019 phase 1; 2020 for completion
Total cost/value:	\$1.5 million
Services:	Technical consulting, supplying QuikShield for testing on project; customer owns 200,000+ sq. ft. of QuikDeck
Products:	QuikDeck and QuikShield suspended access platforms
Customer:	Atsalis Brothers Painting, Warren, Michigan
Contractor:	Atsalis Brothers Painting, Warren, Michigan



› Rigid and Flexible Platforms

A standard QuikDeck platform section measures 8 x 8 feet. (but triangles and smaller sections are available, too). To form QuikDeck, steel trusses pin to connection points on central nodes and then swing out accordion-style to form a square. A deck support rod goes down the middle of the square, and two pieces of 3/4-inch-thick, marine-grade thick marine-grade plywood are secured to the joists with deck retainer plates and/or toe boards along the outside edges of the platform.

Grade 100 chain is secured in one of four chain slots in the central node and is connected to beam clamps, pad eyes and rotating suspension point assemblies or simply looped over structural members such as I-beams and cushioned with chain softeners.

After erecting a starter platform, workers can build out future sections of QuikDeck without additional support locations, making it ideal for bridge work where easy access often stops at the abutments. The system can support loads from 25 to 75 pounds per square feet (with 25 pounds being the typical configuration), and it promotes better workflow.

The QuikShield system used on the Niles Bridge consists of 2 x 8 foot plywood decking riveted to a galvanized steel frame. Suspension brackets, located up to 16 feet apart, feature a chain slot connection similar to the design used on QuikDeck. Panels are secured to two pairs of 7/16-inch diameter wire rope tendons which terminate using swaged ends and wire rope clips. The wire rope is connected to concrete anchors or to QuikDeck nodes. Compared to corrugated metal decking, the QuikShield plywood decking provides better traction (even when wet) and creates a much more stable

platform for moving people and equipment. It can support up to 25 pounds per square foot. Once installed and tension is applied, QuikShield has a deflection of less than 1 foot in most applications.

“QuikDeck feels like you’re walking on a solid floor,” said Nick. “QuikShield has a little spring to it, but you can put a lot of weight on it. I see QuikShield as a good system for demo work, steel repair and general access, For blast and paint work, we like QuikDeck, because

the flat and almost unobstructed work surface makes it easy to erect containment barriers, which

are especially critical when working over water or handling lead paint abatement.”

› **“This combination of products helped us safely reduce our total access platform costs for the project.”**

Combining Solutions

The Niles Bridge has four concrete piers, dividing the bridge into five sections. Access for the main bridge span, located between piers two and three, used a total of 135 sections of QuikDeck. The strategy for the Niles Bridge called for using QuikDeck at each abutment and around every pier. This provided a solid platform from which work crews could erect QuikShield, as well as a tie-in point for QuikShield at the piers.

Comparing QuikDeck to QuikShield, Nick noted that, “We were able to set QuikDeck up within a day and had a large enough area for the skilled trades to start their work. We were then able to run cables out and install QuikShield on the majority of the bridge. This combination of products helped us safely reduce our total access platform costs for the project.”

QuikShield is a cost-effective rental option, and the cost benefits become even more pronounced on bridge projects with long spans of 500 feet or more. ‹