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1-800-622-2246
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Haddad Riverfront Park - Charleston, WV, USA

Tensioned Fabric Membrane Roofing From Birdair Fits Projects of All Sizes

With over 50 years of experience, [Birdair](#) is practiced and adept at working as a key member of the client's building team to design and build custom tensile structures of any size. Birdair specializes in transforming your vision into an iconic free formed structure by designing and engineering [fabric membrane](#) into a multitude of shapes and adding a signature look to any building envelope. With the coveted [benefits](#) reduced maintenance requirements and unique aesthetics, high-performance fabric membrane from [Birdair](#) is an ideal choice for small and medium sized projects.



For example, [Haddad Riverfront Park](#) in Charleston, WV, utilizes [PTFE](#) canopies to cover the park's stage, seating and pavilion areas. The stage is designed to resemble the traditional stern-wheeler

steamboat and the steel arches that support the fabric roof and steel are inspired by the paddleboat wheel. Spectators are covered by a 35-foot by 80-foot fabric panel that reflects heat to improve occupant comfort and retracts to allow visitors to view firework displays.

First PTFE-Covered Stadium in South America Completed



As [roofing subcontractor](#) for [La Plata Stadium](#), Birdair engineered, fabricated and oversaw the installation of a 312,545 square foot tensile roof constructed from [steel cable systems](#) and [PTFE](#), a Teflon®-coated woven fiberglass membrane.

To accommodate the unconventional geometry of the Argentina stadium, the main roof structure was formed by tensioned steel cable hoops at three different levels, together with vertical columns, diagonal cables, and ridge cables.

Unlike other tensile roof systems, the stability of La Plata Stadium roof's cable structure

Another notable tensile architecture application of a smaller scale is the award-winning [Battery Park City Ferry Terminal](#) in New York City. [PTFE SHEERFILL](#) was installed to provide a durable and visually appealing roofing solution. The sweeping design of the fabric membrane is suggestive of canvas sails, while functionally the fabric provides cover in all weather conditions for patrons.



Tensile architecture is a cost-efficient option for projects of any size. Once installed, tensioned membrane structures retain their brilliance over time, with a high level of resistance to staining, soiling and moisture. Fabric membrane roofing systems also offers energy efficiency benefits by delivering high solar reflectance and low thermal emittance values, and by promoting [natural daylighting](#), which reduces reliance on electric lighting.

[Contact us](#) today to learn how to incorporate tensile architecture into your next project.

does not depend on the PTFE panels covering it. La Plata's prestressed tensegrity design resists global distortion using tension. Consequently, the deck roof is extremely stiff, in a similar way that a drum skin is stiffened.

Earn 1 AIA SD/HSW LU Credit



Birdair's continuing education course, "[Defying Gravity With Tensile Architecture](#)" is the most popular course on [TheContinuingArchitect.com](#). This 1-credit hour AIA HSW/SD learning unit explores the [benefits](#) of tensile architecture, the different types of [membrane materials](#), including [Tensotherm](#), and the [design-build process](#) that creates a tensile structure.

About Birdair

Birdair, Inc. is the leading specialty contractor of lightweight long-span roofing systems and tensile structures throughout the world, providing design-build solutions for architects and clients in all aspects of project design, engineering, installation and maintenance. Lightweight long-span roofing systems and cable structures can be attached to any building envelope and offer aesthetic and functional options to complement any exterior design. Birdair, based in Buffalo, NY, is a member of the Taiyo Kogyo Group, with operations serving North and South America and other international locations.

For more information about Birdair, call 1-800-622-2246 or visit www.birdair.com.