

## FRP GOES CROSS-COUNTRY WITH MOUNTAIN BIKE BRIDGES

Deep within Northeast Georgia is a 21-mile, "cross-country" mountain biking area known as the Chicopee Woods Mountain Bike Park. Each year, the park draws in generations of riders ranging from novice to advanced skill levels.

The owners of the park recently needed to replace two pedestrian bridges, as the previous ones had outlived their service lifespan.

With the design assistance of Areté Structures, LLC, and NHM Constructors, a proposal was presented to the owners of the trail which included two truss-style bridges. The designed spans were 27' and 30'. Both measured 6' in width to accommodate pedestrians and two-way bike traffic.

The owner of the trail encouraged the designers to incorporate opportunities for design freedom. However, the material choices were limited due to the remote location of the trails and space of worksites. Limited on-site fabrication access and materials delivery made Strongwell's fiber reinforced plastics a tough material to beat.

With Arete's extensive design knowledge with FRP and Strongwell's Design Manual, pieces were pre-fabricated offsite and delivered onsite for ease of final assembly. Concerns regarding the impact and presence of heavy machinery on the trail were also immediately subdued.

The superstructure truss network of the bridges was designed and fabricated with FRP along with their barriers. These designs incorporated the use of EXTREN® 6" channels and 2" x 2" x 1/4" tubes.

Within four days, work crews hand-carried each segment of the bridge and hand-bolted the segments onto existing abutments. The customer and end-user have received high praise on the new bridges from trail visitors.



## **TECHNICAL DATA**

Product: Two-Way Mountain Bike Trail Bridges

Process: Pultrusion, Fabrication

Materials EXTREN® Series 500 Structural Shapes:

& Sizes: - 6" channel

- 2" x 2" x 1/4" square tube

For: Areté Structures, LLC / NHM Constructors

User: Chicopee Woods Mountain Bike Park



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