



A SUPERIOR TRAIL DESERVES LIKEWISE MATERIALS

Over the years, structural FRP products have become more prevalently used by the engineering community in the design of new and refurbishment builds of pedestrian bridges.

Basis of design, life cycle analyses, and engineering resources have shown that composites are a cost effective and durable choice for the pedestrian bridge market.

As a result, Areté Structures has installed dozens of bridge structures with various resin matrices throughout the country.

Recently, Strongwell provided material to Areté Structures for a pedestrian bridge project near Gran Marais, Minnesota.

Located within this area is the Superior Hiking Trail. The contiguous trail travels through a combination of public and private lands from Wisconsin to Ontario, Canada.

A private nonprofit association worked with the United States Forestry Service to replace an older bridge with failing abutments (the ground substructure of a bridge providing vertical and horizontal support).

Both vested parties desired a structure designed with long term durability. Areté Structures sister company, Areté Engineers, designed an FRP bridge measuring 50' in length and 4' in width.

The structural supporting members for this truss-style bridge are all EXTREN[®] 500 Series. The flooring material used was SAFPLANK[®], an interlocking decking system with a nonskid coating.

The ADA-compliant bridge has 42" high railings with a mid-rail safety channel. The excellent strength-to-weight ratio of fiberglass

provides impressive design load capabilities with its diagonal truss and diagonal horizontal cross bracing. This bridge is capable of handling of up to 90 PSF for live pedestrian loads, 35 PSF for wind loads, and 40 PSF for snow loads.

Volunteers, friends of the organization, and hikers have been complimentary of the new bridge and its promising capabilities to ensure decades of safe accessibility with uninterrupted use. ●

TECHNICAL DATA

Product:	Hiking Trail Bridge
Process:	Pultrusion, Fabrication
Materials & Sizes:	<ul style="list-style-type: none">• EXTREN[®] Series 500 Structural Shapes• SAFPLANK[®] Interlocking Decking System
For:	Areté Structures
User:	Public



Bristol Location
400 Commonwealth Ave.
Bristol, VA 24201 USA
(276) 645-8000
www.strongwell.com