



**E.T. TECHTONICS™**



*A Creative Pultrusions Product Line*

***BRIDGING THE GAP***

# FIBERGLASS ACCESS STRUCTURES BRIDGES



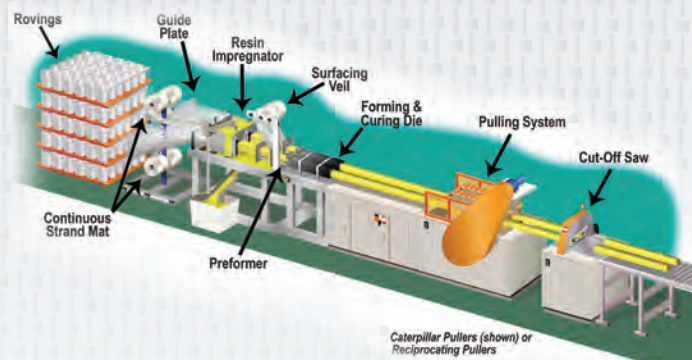
Mid-State Trail Bridge, Loysburg, Pennsylvania  
Total Span: 85' x 4'



## PULTRUDED FIBERGLASS ACCESS STRUCTURES

Our access structures are made of pultruded high-strength, lightweight fiberglass reinforced polymer (FRP) structural profiles. Pultrusion is a continuous manufacturing process utilized to make composite profiles with constant cross-sections whereby fiberglass reinforcements, in the form of roving and mats, are saturated with resin and channelled into a heated die. The profile exits the die in a solid state and in the form of the desired cross-section.

Pultruded profiles are used extensively for structural applications in which lightweight, high-strength, and corrosion resistance attributes are sought. Pultruded profiles have higher tensile strength than typical structural steel while weighing about 80% less. To learn more about the pultrusion process go to [www.creativepultrusions.com](http://www.creativepultrusions.com).



*If your access application requires a structure that is reliable, resilient, sustainable, lightweight, green, and needs very little maintenance, then an E.T. Techtonics structure is the right choice.*

## CONSIDER THE ADVANTAGES

### GREEN/SUSTAINABLE

Pultruded profiles are long-lived and exhibit a lower carbon footprint and embodied energy than steel and aluminum. The pultruded members are inert and will not leach any chemicals into the environment.

### LIGHTWEIGHT

Our structures are prefabricated in lightweight component profiles for easy transfer to limited access locations. Many of our structures are transferred and installed by trail organization volunteers.



Alberta, Canada 2015



Mtn. Creek Trail Bridge, Pennsylvania





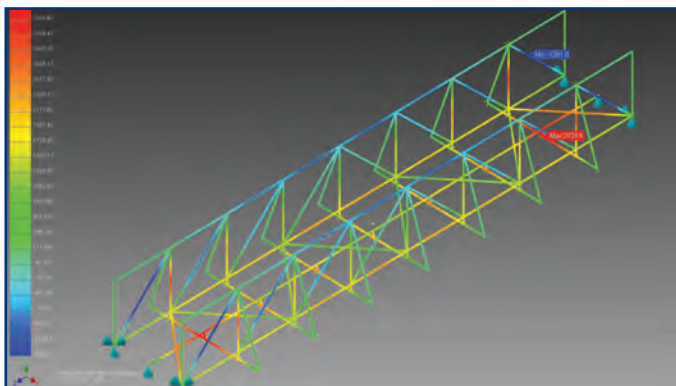
Bailey's Bay Walkway Bridge, Bermuda  
Total Span: 500' (8 bridges)

## RELIABLE/RESILIENT

Our engineering and design staff can take you step-by-step through the FRP bridge design process. All finite element analysis (FEA) and CAD drawings are performed in-house. Customer service is our trademark, as we will work closely with you from start to finish to ensure the highest project quality. With our many years of experience in the design of FRP structural systems, E.T. Techtonics structures are a great choice for your FRP bridge or other access structure.

## LOW MAINTENANCE

Our structures are designed to be aesthetically pleasing while blending into the surrounding environment. The standard olive green color blends well with local vegetation. The inherent properties of fiberglass profiles minimize the need for maintenance associated with corrosion and rot, typically associated with wood, steel and aluminum structures.



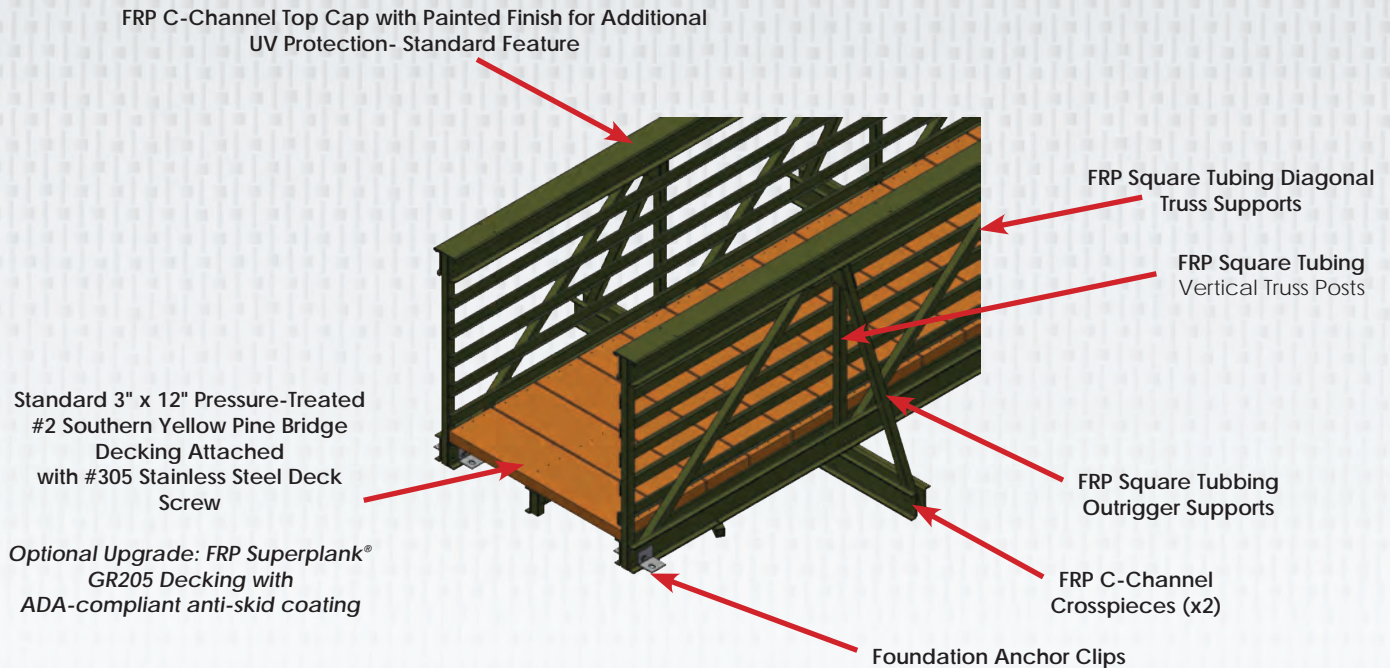
RISA® 3D Frame Analysis Plot



Sugarite State Park, New Mexico



## FIBERGLASS BRIDGES



### TYPICAL DIMENSIONS

Span Length: 5' to 100'  
Span Width: 2' to 10'

### TYPICAL DESIGN LOADS - PEDESTRIAN, EQUESTRIAN, LIGHT VEHICLE

60 to 100 psf uniform live load or 10,000 lb. vehicle

### STANDARD BRIDGE FEATURES

**Fiberglass Trusses:** One or two diagonals (spans over 20' may be spliced for shipment and/or logistics to remote access locations)

**Hardware:** A307 or A325 galvanized steel bolts, anchor clips (typically 304 grade stainless steel)

**Color:** Creative Pultrusions, Inc. Series 1500 Olive Green

**Deck:** Pedestrian/equestrian/vehicle - 3" x 12" pressure-treated wood (No. 2 Southern Yellow Pine)

**Rails:** ADA-compliant safety rails.

**Height:** 42" truss pedestrian and bicycle; 54" truss equestrian

**Shipping:** Typically shipped unassembled by common carrier

**Installation:** Complete assembly instructions provided, including a video

### ACCESSORIES

**Handrails:** Round fiberglass rails with aluminum standoffs





## OPTIONAL FEATURES

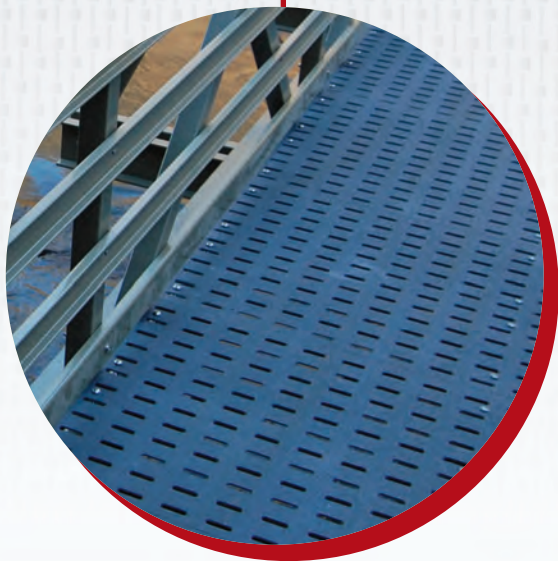
**Hardware:** 316 stainless steel hardware for harsh environments (recommended for coastal applications)

**Color:** Custom colors available (additional costs apply)

**Deck:** Fiberglass, composite wood, or plastic lumber



Optional Brown Color



Optional FRP Decking (with or without slots)

**Sloped End:** Truss sloped at each end and capped full length (ideal for ATV and equestrian traffic)

**Shipping:** Fully assembled, partially assembled, or in component parts



Optional Sloped End



Component Parts (most common)



Fully Assembled





**E.T. Techtonics has been a leader in the development of environmentally friendly fiberglass bridges. In our county parks we have over 160 miles of beautiful natural surface trails open to hikers, equestrians and mountain bikers that have a large number of bridges. The design of these bridges makes them the perfect fit for remote locations. Each piece can be hand carried into the site."**

**B. Turnbull**  
**Natural Surface Trails Construction Manager**

## ***LIMITED ACCESS IS OUR SPECIALTY- NO SITE IS TOO REMOTE!***

Our lightweight prefabricated bridges can be assembled and installed in a variety of ways depending on your site location. Bridges can be shipped to you fully assembled, partially assembled, or in component parts for remote access carry-in.

### **FULLY ASSEMBLED INSTALLATION**



The truss bridge will be delivered to the nearest point accessible by truck. A crane or helicopter will be required to unload and place the bridge onto the prepared foundation. The lightweight attribute of the E.T. Techtonics fiberglass truss bridge allows smaller lifting equipment to be used. The Creative Pultrusions' design team will provide the pick weight and picking points of your bridge. In most cases, decking will be shipped loose to minimize lifting weight. This installation method should be performed by professional picking and rigging crews. Depending on location, shipping cost will be higher.

### **PARTIALLY ASSEMBLED INSTALLATION**



Individual trusses are assembled, but all connecting crosspieces, bracing and deck are shipped separately. This saves assembly time on site, but more helpers are needed to unload and move the fiberglass trusses. Carts can sometimes be used to roll the trusses to the job site. This method is not suitable for moving the trusses long distances or over rough terrain.





## PREFABRICATED COMPONENTS INSTALLATION



*Depending on span length, bridges can be installed by park maintenance crews, volunteers, or local contractors. Short spans up to 40' can usually be built by as few as two or three workers in less than a day.*

*Creative Pultrusions' bridge design team will provide written instructions, installation prints, and a how-to video prior to your bridge shipping.*

*For more details on installation, visit our website at [www.ettechtonics.com](http://www.ettechtonics.com).*

This is our most common form of shipment and installation. Fiberglass bridge components can be unloaded by as few as two workers, usually at the trail head or a nearby designated staging area. Because no equipment is required to unload, bridge arrival does not need to be coordinated with the bridge assembly. When you are ready for assembly, volunteers, park crews, or contractors typically carry the FRP bridge components to the bridge installation site. No site is too remote. We often have components carried several miles or more on park trails. Once everything is at the bridge site, the bridge is easily assembled using standard hand tools.



## CPI/E.T. TECHTONICS HISTORY

Creative Pultrusions, Inc., (CPI) is the world leader in pultrusion manufacturing and fabrication. Our commitment to become "Best in Class" has transformed CPI into a world-renowned pultruder that specializes in pultruding structural profiles and systems. Our ISO 9001:2015 quality management system is based on a strong commitment to continuous improvement in products, service, operations and client satisfaction. It all adds up to the kind of manufacturing experience you would expect from a world-class pultruder that never settles for status quo. CPI can take your project from concept to production. Our staff of talented engineers combined with over 46 years of pultrusion and design experience makes CPI the right choice to service your trail bridge needs!

E.T. Techtonics, Inc., has been at the forefront in the research, design and construction of fiber reinforced polymer (FRP) bridges and building systems, since its beginning in 1987. Originally located in Philadelphia, PA, the company is recognized as an international leader in the design of FRP bridges and boardwalks. To date, over 900 pedestrian bridges and walkway systems have been engineered and installed using the E.T. Techtonics, Inc. fiberglass bridge systems.

During the past twenty years, E.T. Techtonics, Inc., developed reliable design procedures and specifications for FRP pedestrian, equestrian, bicycle and light vehicle bridge structures as well as utility catwalks and platforms. The company also acquired invaluable construction expertise erecting and providing on-site supervision for many of its bridge structures. This led to the development of reliable field procedures for the assembly and installation of FRP structures.

In early 2016, E.T. Techtonics, Inc., was acquired by their long time manufacturing partner CPI. Today, E.T. Techtonics exists as a CPI product line that is fully owned and operated by CPI. The E.T. Techtonics access systems sales, engineering, and design group resides at the corporate headquarters of CPI in Alum Bank, PA.

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[www.creativepultrusions.com](http://www.creativepultrusions.com) • [www.ettechtonics.com](http://www.ettechtonics.com)



**E.T. TECHTONICS™**



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PLEASE SCAN WITH PHONE

For additional information about E.T. Techtonics fiberglass bridges,  
Email: [contact@ettechtonics.com](mailto:contact@ettechtonics.com)  
or visit our website at [www.ettechtonics.com](http://www.ettechtonics.com)