

STRONGWELL

APPLICATION PROFILE



COMPOSOLITE® BRIDGE "DRAWS" ATTENTION IN BARBADOS

An all-composite single leaf bascule bridge installed in Bridgetown, Barbados, was built using Strongwell's COMPOSOLITE® building panel system, EXTREN® structural shapes and a custom heavy-duty building panel. The bridge superstructure itself is made entirely of COMPOSOLITE® system components and custom building panels, while various sizes of EXTREN® square tubes were used to create an attractive architectural railing system.

The Chamberlain Bridge measures 29 feet (8.86m) wide, 38.5 feet (11.7m) long and about 3 feet (1m) deep. The bridge was fabricated by Strongwell and shipped in four sections that were assembled on-site using adhesive and COMPOSOLITE® toggles and 3-way connectors.

The lift bridge is mainly used by pedestrians in this tourist destination, but it is designed to support vehicular traffic. Strongwell's pultruded composite materials were selected to replace a dangerously obsolete steel structure mainly because of the excellent strength-to-weight ratio of the pultruded parts. Heavier materials would have required the city to rebuild the lifting mechanism and other materials were not strong enough. The composite materials also offered the benefits of corrosion resistance, low maintenance and high aesthetic appeal.

The Chamberlain Bridge is an excellent example of how composites can be used to replace steel in vehicular superstructures, especially in corrosive saltwater environments.

TECHNICAL DATA

Product:	Fiberglass Bascule Bridge
Process:	Pultrusion, Fiberglass Fabrication
Materials:	COMPOSOLITE® Fiberglass reinforced polymer building panel system EXTREN® 525 series fire retardant fiberglass reinforced polyester 316 Stainless steel fasteners
Sizes:	Various COMPOSOLITE® panels, 3-way connectors and roadway panel EXTREN® sizes: 6" x 1/4" Angles 3" x 1/4" Square Tubes 2" x 1/4" Square Tubes 1-3/4" x 1/4" Square Tubes Various Plate sizes
For:	Faber Maunsell Engineering
User:	Bridgetown, Barbados

STRONGWELL

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FIBERGLASS BASCULE BRIDGE