### Fiber Reinforced Polymer (FRP) Panels Background Information

#### Introduction

Fiber Reinforced Polymer (FRP) panels are a composite material consisting of a fiber and resin blend. FRP has been used in bridge construction since the mid-1990s. Some of the advantages of FRP include light weight, corrosion resistance, low maintenance costs, and ease of installation. FRP can be manufactured in a variety of shapes, colours and anti-slip surfaces.



Grating with anti-slip solid top

#### **Case Studies**

#### Sky Walk Bridge over the Columbia River in Trail, B.C. (2016)

The Columbia River Skywalk is one of the longest suspension bridges of its kind in North America at 1000 ft. landing to landing. The walkway, which is also bike-friendly, is 12 ft. wide and is made from a composite material. The bridge is part of The Great Trail (formerly the Trans Canada Trail).





Columbia River Skywalk Suspension Bridge

## Minto Heritage (Road) Bridges, Ottawa (2015 & 2016)

The 1900 -1902 vintage ornamental Minto Bridges are three bridges that connect two small islands to the shores on either side of the Rideau River. The City of Ottawa rehabilitated two of

the three Minto Bridges in 2015 and 2016 using fourteen pre-fabricated FRP deck panels capable of supporting vehicle traffic.





Placing the FRP deck panels

# Rails to Trails Conservancy – Conversion of Rail Trestle in Pennsylvania, USA H&BT Trestle Bridge (2014)

This previous railway trestle on the abandoned H&BT rail line in Pennsylvania had FRP deck panels adapted to its steel stringers. The 107 m long, 4 m wide structure spans a gorge, providing safe access to the region's natural attractions. Fifteen FRP deck panels took three days to install. A colorant was used to match the deck surface to the application. The bridge and trail opened to the public in November 2014.

