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FRP Vehicle Bridge Decks

Summit County Bridge October 2006

Composite Advantage installed a 4,000 square foot Fiber Reinforced Polymer (FRP) vehicular bridge deck in Summit County, Ohio near Akron. The composite deck was constructed of fiberglass fabrics and TYCOR® fiber reinforced foam core and infused with vinyl ester resin. A comprehensive static and fatigue test program was conducted.

Bridge Profile

Owner	Summit County, Ohio
Manufacturer	Composite Advantage
Fabrication Method	Molded Sandwich Deck
Deck Dimensions	118 feet by 34 feet
Deck Depth	7.7 inches
Total Square Footage	4,012 square feet
Required Loading	HS25
Superstructure	Steel Beam
Beam Spacing	7 feet
Deck to Beam Connection	Bolted shear studs
Skew	55 degree skew at ends of bridge
Wear Surface	Asphalt overlay
Guard Rail	Mounted to exterior beams
Installation	Seventeen composite panels, weighing 6000 pounds each, were installed in one day. On the second day, the deck was connected to the beams. Panel joints were laminated on the third day and the joints covered with splice plates.



Bridge deck performance has been flawless.

Seventeen composite deck panels were placed in one day.

