

Inverset II – Composite Steel, Segmental Bridge Deck Construction

Inverset II is a bridge erection technique used for the construction of the SanSan River Bridge near Guabito, Panama. The technique creates a pre-compressed composite steel and concrete deck that is free from aggregate segregation and is weather and traffic resistant. The bridge is 182 feet long and 28 feet wide. Deck segments are each 10 feet 1 inch wide and 28 feet long, and supported by two W14 x 22 steel beams. The thickness of the deck segments is 7 inches. Each of the 18 segments is cast upside down near the bridge. The main support for the single span bridge consists of two 7 foot 3 inch plate girders. These girders were assembled with their diaphragms at one abutment. They were then rolled across the river from one abutment to the other over two temporary supports 50 feet apart in the center of the span. With the girders supported on the temporary supports and the abutments, the deck segments were inverted and rolled into position along the top chords of the girders. With all deck segments in place, the girders were jacked up from the temporary supports until their ends were free from the abutments. The deck segments were then welded to the girders and the spaces between them were grouted to create a continuous roadway. The girders were then jacked down to seat the girders on the abutments and the temporary supports were removed. The dead weight of the structure thus pre-compressed the deck in two directions without the use of tendons.

Contact: Stanley Grossman---Not Current
Organization: Grossman & Keith Engineering Co.
Address: 10408 Green brier Place
City: Oklahoma City
State/Province: OK
Postal Code: 73159
Country: USA
Phone No: 405-601-3213
FAX:
URL:
Email: