

Poca Truss Bridge History

The Poca Truss Bridge carries County Route 13 over the Pocatalico River in Roane County. It was built in 1914, by Canton Bridge Company of Canton, Ohio. No original plans were found for the bridge. The bridge is eligible under Criterion C of the National Register of Historic Places for its engineering significance and association with a nationally recognized bridge builder. The bridge is listed on the 1990 Final List of Historic Bridges.

Metal truss bridges expanded on the technology used in wooden truss bridges. Metal became popular to support the weight of heavier trains. Metal truss bridges were first built using wrought iron and later using steel. Early designs used pin connections but were later replaced for sturdier rivet connections. On a through truss design the truss rests on the bottom chords and there is lateral bracing between the top chords. The Pratt Truss bridge design was common in West Virginia and was patented in 1844 by Thomas and Caleb Pratt. The design placed verticals in compression and diagonals in tension. This design spurred metal bridges to overtake timber bridges (KCI, 2015).

The Poca Truss Bridge is a simple span pin connected steel Pratt through truss. The abutments are cut stone, but abutment two has a concrete cap. The bridge is 14' x 156' and is a single lane. The deck consists of 2" x 4" laminated timber fastened to the floorsystem with nailing clips. The railing consists of 2 1/2" x 2 x 3/16" angles and 1" x 13/16" lacing. Vertical clearance for the bridge is 14'9". A bridge plate is located on both ends of the bridge above the portals. There are posted weight limits on the bridge. Average Daily Traffic (ADT) for 2013 is 50 Vehicles Per Day (VPD) with a projected 2033 ADT of 65 VPD. Main members were replaced in 1996 and portions of the deck were replaced in 2004, 2005, and 2006. The structure is in poor condition and the concrete and truss members show heavy deterioration. Poca Truss Bridge is scheduled to be replaced in 2017.



Location: County Route 13 over the Pocatalico River in Roane County

Type: Simple Span Pin Connected Steel Pratt Through Truss

Year constructed: 1914

Length: 156 feet

Contractor: Canton Bridge Co. of Canton, Ohio

what **Historical Services Unit** does

- Research and Write History Reports
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- Complete Historic Documentations for Specific Historic Properties
- Historic Turnpike Research and Analysis
- Coordinate with Federal, State, and Local Resource Agencies
- Conduct Public Workshops for Specific Bridge and Highway Projects

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