

OHIO DEPARTMENT OF TRANSPORTATION
HISTORIC BRIDGE SURVEY REPORT

6/9/2011



SFN #: 7000243 County: RICHLAND Municipality: BELLVILLE
NR Rec: Eligible Previous Inventory/Date: FIRST INVENTORY, 1981 Status: Reserve

ODOT District: 03 Owner: STATE Lat/Long: 40.372400 / 82.304200
Location: 5.32 MILES N OF KNOX CO UTM:
Feature On: SR 13 (MAIN STREET)
Feature Intersected: CLEAR FORK CREEK
Type: THRU TRUSS Design: PARKER (RIVETED)
Material: STEEL
Railing Type: METAL PANEL RAILINGS
Spans: 1 Overall Length: 146 ft. Out to Out Width: 34.9 ft. Roadway Width: 30 ft.
Year Built: 1938 Alteration (Date): 1977, 1999 Source: ODOT Inspection Files
Designer/Builder OHIO STATE HIGHWAY DEPT/MT VERNON BRIDGE CO

Setting/Context:

The bridge carries a 2 lane highway and sidewalks over a stream in a setting of mixed-use 20th-century development in Bellville.

Physical Description:

The skewed, 1 span, 146'-long, riveted Parker thru truss bridge has built-up chords and rolled I section web members. There is slightly arched upper lateral bracing at the five interior panel points of the five panel bridge. The end posts are vertical, not sloped, as is characteristic of most Parker trusses of this period. The gusset plates have been shaped to have curvilinear edges, rather than straight edges, giving them a "webbed" appearance. The bridge has rolled floorbeams, stringer, and a concrete deck. The cantilevered sidewalks are supported on built-up brackets and finished with standard decorative metal-panel railings. The stone-faced U-shaped wingwalls are completed by random ashlar parapets.

Integrity:

The bridge was rehabilitated in 1999.

Summary of Significance:

The Parker thru truss was fabricated by the Mt. Vernon Bridge Co. for the state highway department in 1938. It is an exceptionally well-proportioned, although technologically late, example of the bridge type/design. It has nice aesthetic detailing, including the gusset plates, lateral bracing, and ashlar wingwalls. It speaks well of the bridge bureau's attention to design under the leadership of D. H. Overman. There is a similar pony truss in Pickaway County on SR 56 (6501567). The bridge was rehabilitated in 1999, which included replacing the deck and painting. The project does not appear to have diminished the integrity or the ability of the bridge to convey its significance. The prior inventory included the bridge in the reserve pool. It is recommended eligible.

Camelback and Parker trusses are members of the Pratt-family of trusses with sloped top chords Technologically, Camelback and Parker trusses differ only in the number of top chord slopes (Camelbacks have exactly five slopes, and Parkers have more than five slopes.) The sloped-chord trusses provide the greatest depth at midspan where it is needed to accommodate the stresses, meaning that less material is needed in their construction as compared to a parallel chord truss of similar span, but fabrication is made more difficult due to the varying lengths of the members. The sloped-chord trusses are often associated with longer spans where the savings in material is great enough to be worth the additional fabrication costs. The practice of sloping the top chords dates to at least the 1840s and appeared

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early in the development of metal trusses. As with other truss designs, pin connections were used from the 1870s to 1900s, and mostly phased out during the 1910s. Rivet connections were being used by the early 1900s and were prevalent from the 1910s to 1940s. Standardized rivet-connected Camelback and Parker designs were used by many state highway departments, including the Ohio State Highway Department. There are 23 trusses (8 Camelback, 15 Parker) in the Ohio inventory (Phase 1A, 2008).

Reviewed By/ Date: JPH (2/08)

Notes:

Field checked, 7/99. Reconstructed 1999.

For Eligible Bridge:

Level of Significance: Moderate

Justification:

The bridge is one of over 40 extant riveted thru truss bridges of all designs built between 1904 and 1959. This example is representative of the population and has moderate significance. There are also many riveted thru truss bridges servicing the many rail lines in the state.

In Management Plan (2009)? No