# OHIO DEPARTMENT OF TRANSPORTATION HISTORIC BRIDGE SURVEY REPORT

12/29/2010





SFN #: 3132021 County: HAMILTON Municipality:

NR Rec: Eligible Previous Inventory/Date: FIRST INVENTORY, 1981 Status: Reserve

ODOT District: 08 Owner: COUNTY Lat/Long: /

Location: .4 MILE EAST OF ADDYSTON UTM: 16.700790.4332870

Feature On: CR 209 (CLEVES-WARSAW ROAD - B-0050)

Feature Intersected: MUDDY CREEK

Type: THRU TRUSS Design: CAMELBACK (RIVETED)

Material: STEEL

Railing Type: METAL PANEL RAILINGS

# Spans: 1 Overall Length: 244 ft. Out to Out Width: 28.7 ft. Roadway Width: 24 ft.

Year Built: 1923 Alteration (Date): 1970 Source: ODOT Inspection Files

Designer/Builder OHIO STATE HWY DEPT?

## Setting/Context:

The bridge carries a 2 lane road over a stream in a sparsely developed, rural setting.

#### **Physical Description:**

The 1 span, 244'-long, rivet-connected Camelback thru truss bridge has built-up chords and rolled I-section web members. The middle panels are subdivided. The bridge has built-up upper lateral and sublateral crossbracing and trussed portal bracing. There is a cantilevered sidewalk to one side with metal-panel pipe railings. The floorbeams are built up and support stringers and a corrugated steel deck.

# Integrity:

Rehabilitated in 1970. Recent deck repairs.

## **Summary of Significance:**

There has been no significant change in the bridge's status since the prior inventory. The 1923 rivet-connected Camelback thru truss bridge is a complete example of its type/design with standard details, including the use of rolled sections, typical of the 1920s to 1950s. This is the oldest surviving examples designed by the state highway department using these standard details. It is technologically significant.

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 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)

#### **OHIO DEPARTMENT OF TRANSPORTATIO**

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Notes:

Added to reserve pool 1995. Scheduled for replacement in 2012.

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)?