

Armantrout Bridge
(Clinton County Bridge No. 45)
Spanning Kilmore Creek on County Road 130 W
Frankfort vicinity
Clinton County
Indiana

HAER NO. IN-86 HAER
IND
12-FRANK.V.
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Great Lakes System Support Office
Midwest Field Area
Department of the Interior
1709 Jackson St.
Omaha, Nebraska 68102

HISTORIC AMERICAN ENGINEERING RECORD
ARMANTROUT BRIDGE
(CLINTON COUNTY BRIDGE NO. 45) HAER NO. IN-86

HAER
IND
12-FRANK. V,
1-

Location: Spanning Kilmore Creek on County Road
130 West
In Clinton County, Indiana approximately
0.5 mile north of County Road 300 North
and 4 miles north of Frankfort, Indiana.
Frankfort vicinity
Clinton County
Indiana

UTM: 16.539760.4465000
Quad: Frankfort, Indiana

Date of Construction: 1897

Construction Company: Lafayette Bridge Company

Present Owner: Clinton County

Present Use: Vehicular and pedestrian traffic

Significance: Built by a prolific Indiana firm, this
bridge retains its original members
including decoratively latticed portals
and guardrails.

Project Information: This documentation was undertaken on May 22,
1995, in accordance with the Memorandum of
Agreement by the Clinton County Board of
Commissioners, the Indiana Department of
Transportation and the Federal Highway
Administration as a mitigative measure prior to the
demolition and replacement of the bridge.

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The Armantrout Bridge spans Kilmore Creek which flows through the northern portion of Clinton County in an east to west direction. Riparian woods and agricultural land borders the majority of this waterway throughout the county. A lack of significant relief makes the land along this waterway conducive to farming activities, which is typical of many waterways in Clinton County.

The Armantrout Bridge is a single span, pin-connected Pratt through truss. The bridge was built in 1897 by the Lafayette Bridge Company of Lafayette, Indiana. The bridge is seated upon cut stone abutments and wingwalls with concrete caps. Intermediate verticals of laced channels subdivide the 122 feet, 6 inch span into most of its seven panels. Eyebars provide the diagonals, pairs of which stretch toward center span from the top panel point to the bottom of the 2nd, 3rd, 5th and 6th panels. A cylindrical eyebar with a turnbuckle counters the others in the 3rd and 5th panels and pairs cross the 4th or central panel. U-bolted to the lower pins, I-floor beams carry the asphalt deck with its 16 feet, 1 inch clear roadway width. The vertical clearance is 18 feet, 6 inches.

The existing bridge plaques identify the construction year and company:

1897
LAFAYETTE BRIDGE CO.
BUILDERS
LAFAYETTE, IND.

Available recreational activities at this historic property include sightseeing (looking at and away from the bridge), fishing, hunting and trapping. No historic photographs of the bridge were found.

Events leading to the construction of this bridge were discovered in minutes from Board of Commissioners meetings from 1896 to 1897. A petition, signed by I.A. Rhodes, and others, was presented to the Commissioners during their June, 1896 meeting. The petition was tabled for further discussion until the July 27, 1896 meeting. The Commissioners appointed Charles E. Boulden to serve as engineer for the design of plans and specifications for the Armantrout Bridge. Mr. Boulden was also directed to notify a minimum of six (6) responsible bridge manufacturers for bids to construct the Armantrout Bridge. Pursuant to a legal notice posted for 30 days, the Commissioners received and opened bids, on August 29, 1896, from ten (10) companies requesting to be selected for part or all of the construction of the bridge. On the same day, it was ordered that Mr. Boulden be given the sum of two (\$2.00) dollars for the preliminary survey of the Armantrout Bridge.

On November 10, 1896, Mr. John A. Ross was selected to construct the substructure and the Lafayette Bridge Company to construct the superstructure. Mr. Boulden was appointed the engineer and superintendent of all construction. An agreement was signed by all parties involved in the construction of the Armantrout Bridge on November 10, 1896. A stipulation was included in each Agreement that both companies would complete the entire project on or before November 1, 1897.

Mr. John A. Ross was given \$3,330.00 to begin the necessary substructure work. The remainder of the contracts were paid for on November 22, 1897. The total final costs for the Armantrout Bridge totaled \$12,176.37 for the substructure work (paid to John A. Ross) and \$2,036.37 for the superstructure work (paid to the Lafayette Bridge Company).

The Lafayette Bridge Company was founded by Wallace Marshall and G. W. Bringham with a capital stock of \$20,000 in 1889. Within a few years, Marshall was President, Samuel Murdock served as Vice President and Everett B. Vawter became Secretary and Treasurer.

All of the firm's officers thought of themselves as engineers, however, only Samuel Murdock had an engineering degree from Notre Dame. Situated in Lafayette, Indiana, very little of the firm's scientific expertise, ironically, owed anything to Purdue, the hometown University located in Lafayette. Most of the company's leaders were, like Everett Vawter, self-taught.

The firm's self-made men operated more as entrepreneurs than as engineers. By 1891, the bridge company had built an extensive plant along the belt railroad in Lafayette and installed \$12,000 of the latest machinery in it.

A sixty-five item agreement form and contract reflect a number of the company's common practices and assumptions around 1895. Although it guaranteed a different strength for each metal, the Lafayette Bridge Company assumed that in most cases the firm would decide whether to use wrought iron or steel in a truss, except for the portals where it always expected to use wrought iron. The company specified the size and spacing of rivet or pin holes and of the rivets and pins, guaranteed quality control of members, and assumed that trusses would be pinned or bolted together. Since the agreement and contract forms left no room to specify a truss type, the company must not have regarded this as a major variable in its negotiations with local officials. The Lafayette firm usually shipped

fabricated members to the railway station nearest to the bridge's location, and the county or city then transported the members to the site, where the firm expected to erect the trusses upon a substructure which someone else had prepared.

The Lafayette Bridge Company built enough bridges to attract the attention of U.S. Steel magnates, who bought out the Hoosier owners and integrated the company in to the American Bridge Company in 1900. Most of the Lafayette bridge builders served their new bosses for a few years. By 1903, Wallace Marshall and Frank S. Moore resigned their duties with the American Bridge Company to form the Lafayette Engineering Company. Everett Vawter soon left his role with the American Bridge Company to become president of the new Lafayette Engineering Company.

This new company issued only enough stock to design and erect bridge superstructures and substructures but not enough to manufacture trusses as they once had. The designs were updates of the Lafayette Bridge Company's patterns. Construction inspection of other company's designs were also included in their list of services. However, by the early 1920's, the Lafayette Engineering Company, started by those gentlemen that originated the prolific Lafayette Bridge Company, left the ranks of Hoosier bridge designers as well as fabricators.

The original name for the bridge was the Armantrout Bridge. This name was used due to a ford of Kilmore Creek, located at this site, which was named Armantrout Ford. No local property owner by the name of Armantrout was ever listed in the Commissioners records, however, bridges usually were named for the nearest farmer. A numbering system was later given to each Clinton County bridge and the Armantrout Bridge became Clinton County Bridge 45. It retains this number designation today.

No records were found which described any special conditions or technology in the construction of the Armantrout Bridge. Machinery and tools were probably similar to those used by other bridge manufacturers of that time.

No significant events or persons are known to be connected with this bridge. The bridge was constructed as part of a highway improvement project. Local and regional economic and social conditions were not significantly affected by the construction of any one bridge in this part of the county. However, collectively, the bridges spanning Kilmore Creek and other nearby waterways provided shorter travel distances, thus, decreasing trip time and costs for travelers, farmers and later, motorists, in the central and northern portion of Clinton County.

BIBLIOGRAPHY

Bridge Nameplate

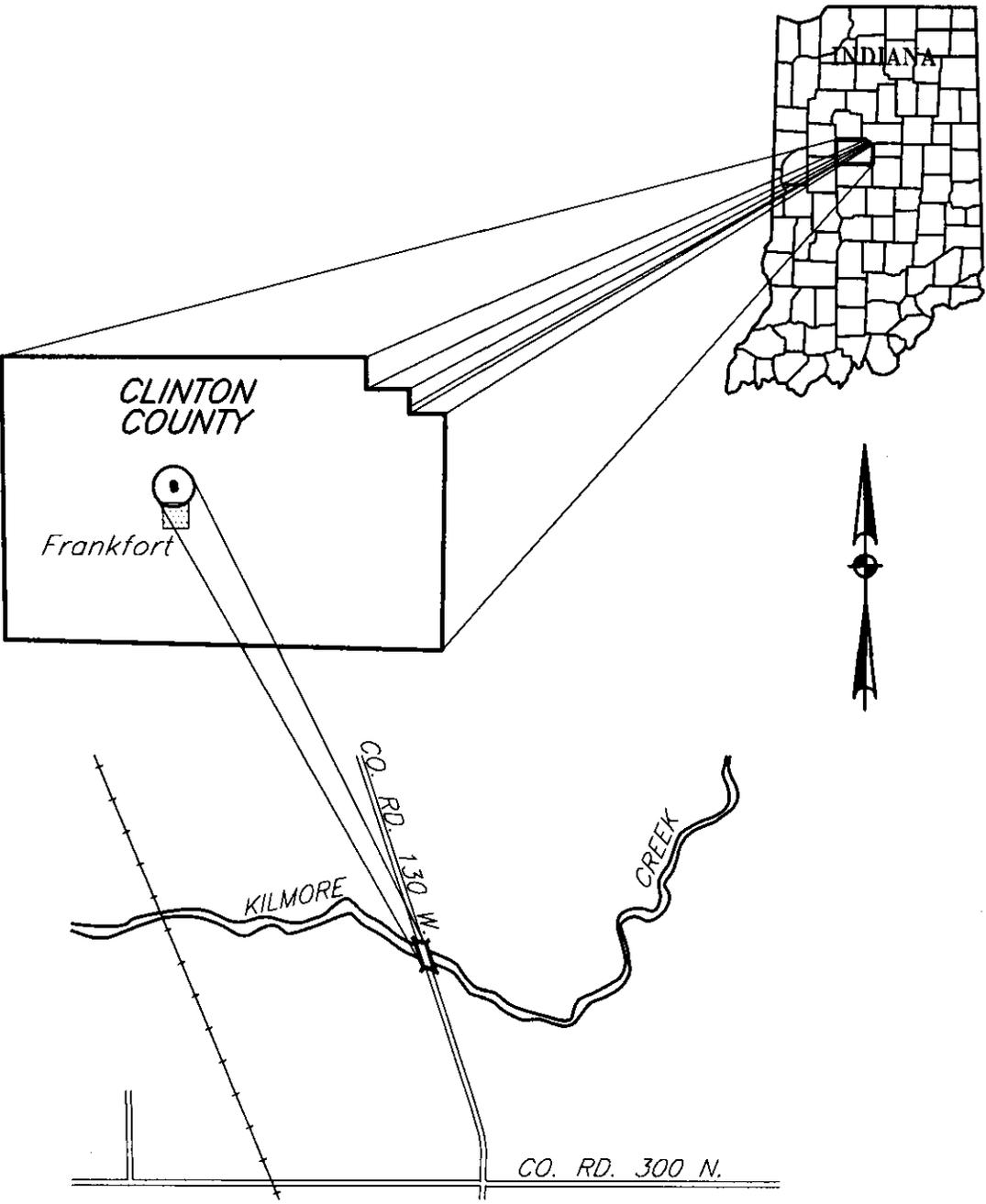
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125 Courthouse Square
Frankfort, Indiana 46041

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ARMANTROUT BRIDGE
CLINTON COUNTY BRIDGE 45
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SITE
LOCATION MAP

Scale: 1"=2000'