

FILE

United States Department of the Interior
National Park Service

National Register of Historic Places
Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Rangeline Road Bridge
other names/site number 069-049-20029

2. Location

street & number CR 475 W. over Wabash River N/A not for publication
city or town Huntington vicinity
state Indiana code IN county Huntington code 069 zip code 46750

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36CFR Part 60. In my opinion, the property meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide locally. (See continuation sheet for additional comments.)

[Signature] 2-10-88
Signature of certifying official/Title Date

Indiana Department of Natural Resources
State or Federal agency and bureau

In my opinion, the property meets does not meet the National Register criteria. (See continuation sheet for additional comments.)

Signature of certifying official/Title Date

State or Federal agency and bureau

4. National Park Service Certification

| | | |
|---|-------------------------|----------------|
| I hereby certify that the property is: | Signature of the Keeper | Date of Action |
| <input type="checkbox"/> entered in the National Register. <input type="checkbox"/> See continuation sheet. | _____ | _____ |
| <input type="checkbox"/> determined eligible for the National Register. <input type="checkbox"/> See continuation sheet. | _____ | _____ |
| <input type="checkbox"/> determined not eligible for the National Register. | _____ | _____ |
| <input type="checkbox"/> removed from the National Register. | _____ | _____ |
| <input checked="" type="checkbox"/> other, (explain:) | _____ | _____ |

Rangeline Road Bridge
Name of Property

Huntington IN
County and State

5. Classification

Ownership of Property

Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- building
- district
- site
- structure
- object

Number of Resources within Property

(Do not include previously listed resources in the count)

| Contributing | Noncontributing | |
|--------------|-----------------|------------|
| 0 | 0 | buildings |
| 0 | 0 | sites |
| 1 | 0 | structures |
| 0 | 0 | objects |
| 1 | 0 | Total |

Name of related multiple property listing

(Enter "N/A" if property is not part of a multiple property listing.)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions

(Enter categories from instructions)

TRANSPORTATION: Road-Related (vehicular)

Current Functions

(Enter categories from instructions)

TRANSPORTATION: Road-Related (vehicular)

7. Description

Architectural Classification

(Enter categories from instructions)

OTHER: Camelback through

Materials

(Enter categories from instructions)

foundation CONCRETE; METAL: Steel

walls

roof

other METAL: Steel

WOOD

Narrative Description

(Describe the nature and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- Criteria A, B, C, D with checkboxes and descriptions of property significance.

Criteria Considerations

(Mark "x" in all the boxes that apply.)

Property is:

- Criteria A-G with checkboxes and descriptions of property characteristics.

Areas of Significance

(Enter categories from instructions)

ENGINEERING
TRANSPORTATION

Period of Significance

1913-1947

Significant Dates

1913

Significant Person

(Complete if Criterion B is marked above)

Cultural Affiliation

Architect/Builder

Lafayette Engineering Co.: Builder

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographic References

Bibliography

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- Criteria for previous documentation on file (NPS).

Primary location of additional data:

- Criteria for primary location of additional data.

Name of repository:

Rangeline Road Bridge
Name of Property

Huntington IN
County and State

10. Geographical Data

Acreage of Property <1

UTM References

(Place additional UTM references on a continuation sheet.)

| | | | | | | | |
|---|------|---------|----------|---|------|---------|----------|
| 1 | 16 | 622790 | 4526160 | 3 | | | |
| | Zone | Easting | Northing | | Zone | Easting | Northing |
| 2 | | | | 4 | | | |
| | | | | | | | |

See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Dana Kopowski, Program Assistant / Dr. James L. Cooper
organization Historic Landmarks Foundation of Indiana date 5-30-97
street & number 520 E. Colfax Ave. telephone 219/232-4534
city or town South Bend state IN zip code 46750

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

- A USGS map (7.5 or 15 minute series) indicating the property's location.
- A Sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name Huntington County Commissioners
street & number Huntington County Courthouse telephone 219/358-4822
city or town Huntington state IN zip code 46750

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

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Continuation Sheet

Section number 7 Page 1

Narrative Description

Crossing the Wabash River, the northern end of the Rangeline Road Bridge is located approximately 75 feet south of the intersection of Rangeline Road and U.S. 24 (Photo 1). The bridge is located in Huntington Township, Huntington County, Indiana.

The Rangeline Road Bridge, a Camelback through-truss was constructed in 1913 by the LaFayette Engineering Company of LaFayette, Indiana. Each of the two steel and pinned spans of the Rangeline Road Bridge extend 128 feet in eight panels of 16 feet (Photo 2). The Rangeline Road Bridge is unique to Indiana Camelbacks. Typically, Camelback trusses incorporate five slopes along their upper perimeter from endpost to endpost. After the incline of the endposts, most surviving Camelbacks have their panels divided evenly among the three remaining slopes. For the Rangeline Road Bridge, however, the LaFayette Engineering Company placed the four most central panels under the top chord sections running parallel to the lower chord. Only the next-to-the-end panels of a span rest under an inclined section of the top chord (Photo 3).

The trusses are 21-feet deep at midspan. The endposts and top chord are fabricated from a pair of 10-inch channels riveted together with a 5/16-inch cover plate above and lacing bars below (Photo 4). Each lower chord section consists of a pair of 4-inch high by 13/16-inch thick die-forged eyebars bypassing the hip vertical but otherwise pinned at each panel point to the truss webbing (Photo 5). The whole structure sits upon concrete abutments and a pier with triangular cutwaters (Photos 6, 7).

Also very substantial are the truss webb members. The five interior verticals were each made from a pair of 6-inch channels riveted together with lacing bars (Photo 8). Suspended from the top chord-endpost pin, the hip vertical consists of a pair of 2-inch wide by 3/4-inch thick bars pinned below to a 3-foot stretch of laced channels which are not pinned to the lower chord (which is usually the case) (Photo 9). Two die-forged eyebars provide diagonals for all except the endpost panels. The first two sets are the heaviest at 3-inch wide by 3/4 inch thick. The two central panels use a lighter pair of 2-inch by 5/8-inch bars as diagonals as well as an adjustable 1/4-inch square rod as a counter (Photo 10).

The trusses are well braced. Two pairs of angles riveted together at their ends with battens and laced at the center provide struts between the top chords. They in turn, are supplemented by the knee braces of angles attached to the verticals and the struts (Photo 11).

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Narrative Description

Adjustable rods passing diagonally across the trusses between panel points also operate as lateral or wind braces above (Photo 12).

The floor beams consist of 24-inch rolled I's riveted at their ends to angles, inserted between the channels of the verticals below their lower pins, and then bolted to a set of adjoining angles (Photo 13). Eight 10-inch I-beam stringers span the panel longitudinally and support a timber deck (Photo 14).

The Rangeline Road Bridge currently carries a galvanized replacement rail. The bridge appears to be intact and of original construction except for the wooden deck and the railings. The bridge is still heavily used and remains an important crossing for vehicular traffic.

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Section number 8 Page 1

Narrative Statement of Significance

The Rangeline Road Bridge is eligible for inclusion in the National Register of Historic Places under criterion C for Engineering and under criterion A for Transportation. Rated "outstanding" in the Huntington County Historic Sites and Structures Inventory, the bridge is one of only three metal truss bridges remaining in the county. The design features an unusual truss pattern unlike the typical Camelback design. The LaFayette Bridge Company, an important bridge company in the northern and central portion of Indiana, was the designer while the Central States Bridge Company, another important Indiana firm, probably fabricated the trusses. In addition, the site of the bridge on the Wabash river is a significant one to Huntington County.

The site of the Rangeline Road Bridge was once a gathering place for Native Americans and later, their Euroamerican conquerors. When the Wabash and Erie Canal was developed, this site included a portion of it. At least two bridges existed in the same location before the Rangeline Road Bridge was constructed. In 1863 a covered bridge was built by James M. Bratton, Esq. and came to be known as the Red Bridge because of the red paint which was applied to it. By 1906 the Red Bridge had been closed for nearly four years due to serious disrepair. The Huntington County Commissioners sought to have a new metal truss bridge built. But when proposals for a new bridge were submitted, Daniel Luten and E.H. Lee of the National Concrete Company were awarded the contract to build concrete arches for much less than a metal truss structure would cost. Luten's design called for a pair of 105-foot asymmetrical arches with 19-foot openings at the crown, all seated "on hard pan" and buttressed at the south end against the cut-stone abutment of the old covered bridge. The reincarnated Red Bridge was completed in late summer of 1907. In 1913 a disastrous flood played havoc on several bridges throughout Indiana and Ohio, but the damage to the Red Bridge was the most significant. As four young men were crossing the bridge they saw a large log heading towards the bridge. The log struck the bridge just as they had crossed to the other side. The force of the log was too great for the concrete structure and it was washed away.

In their promise to build a stronger, more durable bridge, the Huntington County Commissioners went back to their preference for a metal truss bridge. They appropriated \$15,000 for the new structure which was twice as much as they had spent on the reincarnated Red Bridge. This was also due in part to their desire to secure more waterway clearance. In 1913 the LaFayette Engineering Company was awarded the contract to build a metal truss bridge for \$14,100. For Rangeline Road they designed a Camelback through-truss in a conservative manner in order to provide the County Commissioners with a feeling of security. The two trusses of the structure spanned at least 256-feet with each span measuring 128-feet long. The LaFayette Engineering Company designed the trusses and constructed the concrete pier and abutments but the Central Bridge Company of Indianapolis is believed to have fabricated the trusses.

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Section number 8 Page 2

Narrative Statement of Significance

The LaFayette Engineering Company's design of the Rangeline Road Bridge was unique and different from other Camelbacks in that the typical Camelback design has three inclining slopes on each end of a truss and then their panels are divided evenly among two or three remaining slopes. For the Rangeline Road Bridge there are only two inclining slopes on each end with the four most central panels under the top chord sections. There are only a total of five slopes on the Rangeline Road Bridge whereas most have eight or nine slopes.

The LaFayette Engineering Company was formed out of the LaFayette Bridge Company. In 1889, Wallace Marshall and G.W. Bingham organized the LaFayette Bridge Company. They specialized in building standard trusses which they sold throughout central and western Indiana. The LaFayette Bridge Company had become very successful and attracted the interest of the U.S. steel magnates who bought out the company in 1900 and integrated the LaFayette Bridge Company into the American Bridge Company. Marshall Wallace and some of his men went to work for the American plant. Concerned for the loss of local control, six local men organized the LaFayette Engineering Company and within a few years most of the original leaders of the LaFayette Bridge Company became part of the new company. The officers and directors issued \$30,100 worth of stock which was enough for the company to design and erect bridge superstructures and to build substructures but not enough to manufacture trusses. In many cases they managed the construction of another company's design. The LaFayette Engineering Company worked for nearly two decades on designing and constructing several metal and concrete bridges in Indiana, but by the early 1920's they had left the ranks of bridge designers as well as fabricators.

Of the twelve highway bridges known or believed to have been built in Huntington County before 1930 and listed in Iron Monuments to Distant Posterity: Indiana's Metal Bridges, 1870-1930 in 1987, only three remained on the Indiana Department of Transportation's listing of bridges at the end of 1995. Of the three surviving bridges, the Hamilton Road bridge is on the county line and Allen County has assumed responsibility for it. Also, two older metal truss highway bridges remain, The Rangeline Road Bridge and the Station Road Bridge in Jackson Twp. In Huntington County the loss of metal truss bridges has reached 75%. This percentage is well above the average for demolition on a state-wide basis.

Given the highest rating of "outstanding" in the 1997 publication of the Huntington County Sites and Structures Inventory, the Rangeline Road Bridge deserves recognition for its unusual Camelback through-truss design as well as its importance in providing transportation at a key location on the

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Narrative Statement of Significance

Wabash River. The Rangeline Road Bridge is the only known Camelback survivor from the earlier or later part of the LaFayette tradition. Camelback through-trusses have become threatened and are endangered in Indiana. Thirty-three highway Camelbacks existed in 1987 and only nineteen had survived by the end of 1995. The site of the Rangeline Road Bridge is rich with history and serves as a reminder of human accomplishments as well as failures.

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Section number 9 Page 1

Bibliography

Cooper, James L. Iron Monuments to Distant Posterity: Indiana's Metal Bridges, 1870 - 1930
Indianapolis: Technical Publishing Services, 1987.

Cooper, James L. Range Line Road's Colorful Spans: (Huntington #123), April 1997.

Indiana Historic Sites and Structures Inventory: Huntington County Interim Report, 2nd Edition,
March, 1997.

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Section number 10 Page 1

Verbal Boundary Description

The Rangeline Road Bridge over the Wabash River, located in Huntington Township, Huntington County, Indiana, in the Reserve of 10 sections, the northern end of which bridge is located at a point on Rangeline Road approximately 75 feet south of the intersection of Rangeline Road with U.S. 24. The boundary includes the bridge itself, its historic abutments and pier, and its approaches to the north and south of Rangeline Road.

Boundary Justification

The boundary includes the bridge itself, its historic abutments and its pier.

REWS) 5 1 SE
 1:24 000
 0 4000 5000 6000 7000 FEET
 0 1 KILOMETER
 1 MILE
 EVAL 10 FEET
 AN SEA LEVEL

ONAL MAP ACCURACY STANDARDS
 SURVEY, WASHINGTON, D. C. 20242
 RESOURCES, INDIANAPOLIS, INDIANA 46204
 S AND SYMBOLS IS AVAILABLE ON REQUEST



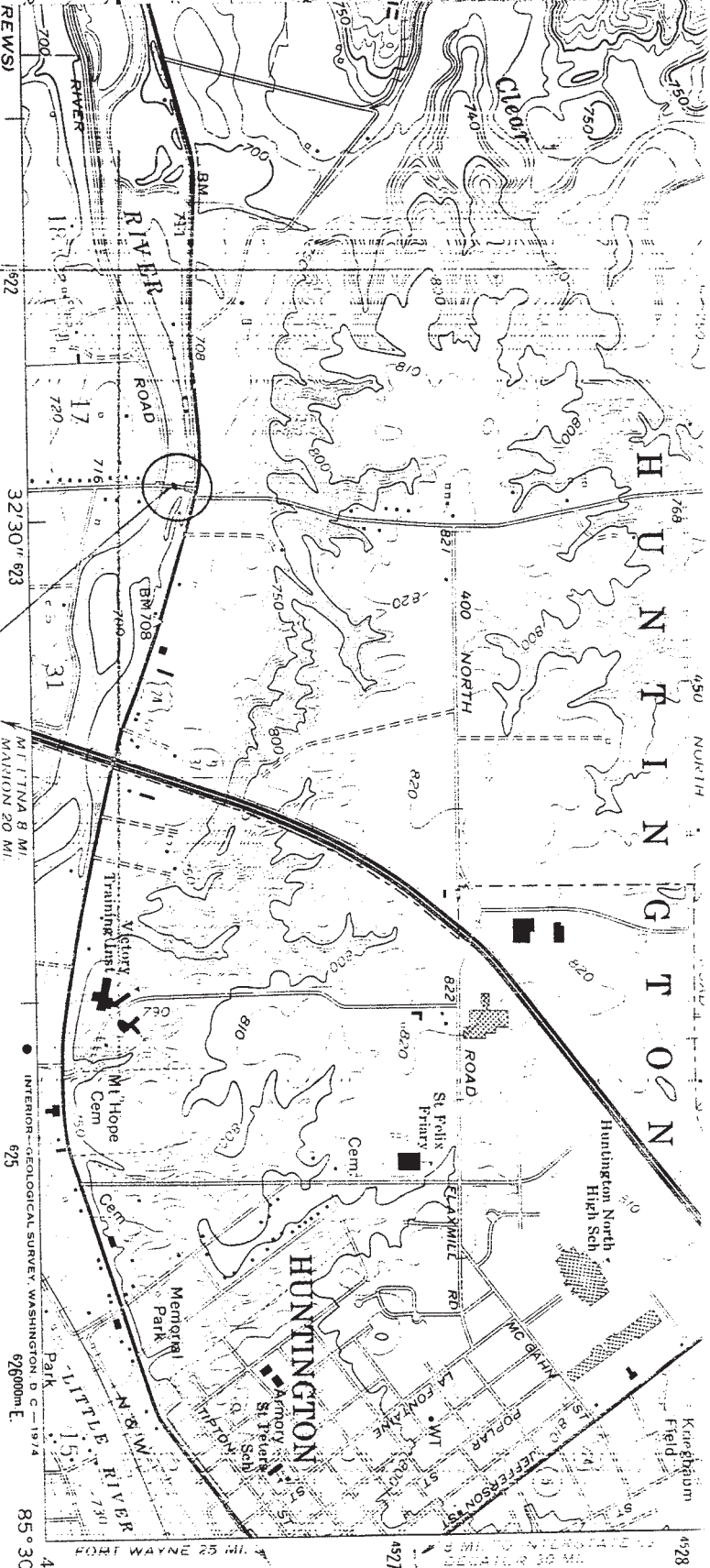
- ROAD CLASSIFICATION
 Primary highway, hard surface
 Secondary highway, hard surface
 Unimproved road
 Interstate Route
 U. S. Route
 State Route

AMS 3865 1 NE...SERIES V851

1972

BIPPUS, IND.
 N4052.5—W85307.5

MAJENICA
 3865 1V SW



E 622 790
 N 4526100

Huntington Co.
 Bridge
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