NPS Form 10-900
(Rev. 8-86)

NR listed 4/9/90

OMB No. 1024-0018

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 of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

1. Name of Property

historic name St. Louis-San Francisco Overpass
other names/site number HAER No. AR-26

2. Location

street & number U.S. Highway 62, spanning the Spring River ☐ not for publication N/A
city, town Imboden ☐ vicinity N/A
state Arkansas code 05 county Lawrence code 075 zip code 72434

3. Classification

Ownership of Property	Category of Property	Number of Resources within Property	
		Contributing	Noncontributing
☐ private	☐ building(s)		buildings
☐ public-local	☐ district		sites
☒ public-State	☐ site	1	structures
☐ public-Federal	☒ structure		objects
	☐ object	1	Total

Name of related multiple property listing:
Historic Bridges of Arkansas

Number of contributing resources previously listed in the National Register N/A

4. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1966, 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 36 CFR Part 60. In my opinion, the property ☒ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of certifying official — Date

Arkansas Historic Preservation Program
State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ☐ See continuation sheet.

Signature of commenting or other official — Date

State or Federal agency and bureau

5. National Park Service Certification

I, hereby, certify that this property is:

☐ entered in the National Register.
☐ See continuation sheet.
☐ determined eligible for the National Register. ☐ See continuation sheet.
☐ determined not eligible for the National Register.
☐ removed from the National Register.
☐ other, (explain:) _____

Signature of the Keeper — Date of Action

6. Function or Use

Historic Functions (enter categories from instructions)	Current Functions (enter categories from instructions)
Transportation/Road-Related	Transportation/Road-Related

7. Description

Architectural Classification
(enter categories from instructions)

Other: Pratt Deck-truss with Parker pony-truss

Materials (enter categories from instructions)

foundation concrete
walls steel
roof
other

Describe present and historic physical appearance.

[X] See continuation sheet

SUMMARY

Located on U.S. Highway 62 at Imboden and spanning the Spring River and the St. Louis-San Francisco Railroad lines, the St. Louis-San Francisco Bridge has an overall length of 1050 feet, comprised of three steel Pratt deck trusses 112 feet long each, three steel Parker pony trusses 112 feet long each, and 378 feet of reinforced concrete deck girder approach spans. Traveling from the south, the three twelve foot high deck trusses follow 138 feet of approach spans. The pony trusses are next, connected with pins to rigid steel posts on the deck truss pier. All piers and abutments are reinforced concrete. The road width is 24 feet from curb-to-curb.

ELABORATION

All six trusses have eleven panels, with double bracing in the center panel, identical members, and riveted connections throughout. All web members are twelve inch I-sections, oriented with webs transverse to the direction of the bridge. The bottom chord consists of two channels with batten plates. The top chord, two channels with a continuous top plate and double lacing on the bottom, reaches a maximum height of thirteen feet in the pony truss.

The deck trusses, laid twenty feet apart, use angle sections for sway bracing and upper and lower lateral bracing. The pony trusses are only braced laterally below the road level. This bracing, like the upper lateral bracing on the deck trusses, spans two panels or three panels across the center of the span. The floor system consists of thirty inch deep I-beam floor girders at each panel point and a concrete slab deck. The sidewalk on the east side of the bridge is
supported on a triangular plate which is suspended from the chord near the road level.

The four concrete plaque posts, two on either end of the bridge, were cast according to a standard highway department design of the era. The art deco style features step backs and insets.

This bridge is currently in good condition and is being maintained by the Arkansas Highway and Transportation Department.

SUMMARY

Designed in 1936 and built in 1937 by C. F. Lytle of Sioux City, Iowa, the bridge at Imboden is an interesting example of State Highway Department bridge design in the later 1930's and may be compared with the bridge over the North Fork River (HAER NO. AR-10). Both involve the economical steel deck truss with concrete deck, though the Imboden bridge uses three pony trusses where it spans the river. The bridge at Imboden was constructed during the Arkansas Highway and Transportation Department Era: 1923-1939 and is nominated under Criteria A and C with statewide significance.

ELABORATION

ROUTE 62

J. C. Murray, traffic manager of the Little Rock Chamber of Commerce commented as follows on the degree of vehicular traffic in the state of Arkansas in 1936:

> "Recent survey by the United States Bureau of Public Roads shows an average of 307,732 vehicles of all types traveling over the State Highway system every 24 hours, operating a highway mileage of 3,000,000 vehicle miles per day."[1]

The demands made on the road system, demands which were continually increasing, led Murray to note that "these highways are of such construction that transportation via motor carrier has become a great factor in the movement of passenger and commerce..."[2] Listed as one of Murray's "principal highways", Highway 62, together with Highways 63 and 61, formed "a route east and west across the northern section of the state,...from...the vicinity of Fayetteville, Ark., to the Tennessee line at Memphis"[3]

At Imboden, a small town in Lawrence County at the border with Randolph County, Route 62 intersected the St. Louis-San Francisco Railroad and the Spring River. The intersection was particularly unsuitable for such an important route. Passing from Imboden the traveler crossed the three-track system of the railroad before reaching an inadequate bridge with a wooden deck.[4] Clearly, with contemporary demands being made on the route, a modern bridging involving a coordinated overpass of the tracks and a bridging of the river was not only expedient, was imperative.

THE OLD BRIDGE

The old 760 foot bridge lay some 100 feet east and downstream from the site of the projected bridge.[5] It consisted of two main spans of 120 feet, six panel through steel trusses supported on 35-inch concrete-filled steel piers. It had eleven approach spans to the south (Imboden) side and fifteen spans to the northern approach, the latter supported on rubble masonry piers. The roadway had a deck formed of three-inch oak planks and a clear width of only eleven feet on the main spans. One of the main spans was recorded as having oak stringers.

The precise date of the construction of this old bridge was not on record. However, its details of construction clearly indicated its unsuitability to modern traffic. The Arkansas State Highway Department of the mid-1930's could only have been dissatisfied with the old structure.

FRISCO LINES

In April 1935, the Frisco Lines "heard locally" that the State Highway Department were "contemplating building a new bridge over Spring River," and the company requested that it be built, in addition, as "a viaduct crossing."[6] When plans were underway for the development of a bridge at Imboden, crossing both the tracks and the river, the Frisco Lines were eager to help the project in any way possible.

On January 16, 1936, the Frisco Lines, in reply to the State Highway Department, forwarded an "estimate of cost that railway will do at States expense in connection with this job."[7] The total expense of work was estimated at $525.00.[8] However, it was the co-operation of the company and its acceptance of the plans that manifested the railroad companies eagerness.

CROSSING RAILROAD TRACKS

Two factors concerned the bridge engineers of the State Highway Department regarding the design of the bridge, the crossing of the railroad tracks of the St. Louis-San Francisco Railroad Company and the bridging of the Spring River. The former was of interest to the Department due to the availability of Federal funds for the elimination of such crossings. The latter was of concern to them because the bridging of navigable waters required Federal approval.[9]

The elimination of the intersection of Highway 62 with the railroad tracks was a problem which concerned the engineers from the outset. It was, however, the railroad company who, on April 29, 1935, made the first representations regarding a rail overpass. They requested that "If the new bridge is built, possibly it could be carried over our tracks to afford a viaduct crossing."[10] The State Highway Department was also interested in acquiring Federal aid. Funds, administered by the Bureau of Public Roads, U. S. Department of Agriculture, were provided for such circumstances as were found at Imboden, the removal of a dangerous intersection of road and rail.[11] As route 62 crossed three tracks of the railroad, the construction of a "grade separation structure" overpassing the tracks was "considered eligible to be financed by grade crossing funds."[12]

NAVIGABLE WATERS

The crossing of the Spring River was a minor problem which arose after the preliminary designs were submitted to the Bureau of Public Roads for approval. In reply to the query regarding the eligibility of the overpass for Federal funds, "it was noted that the project involves the construction of a bridge over the Spring River and it is not known whether this stream is a navigable water of the United States at the proposed point of construction."[13] The Bureau further suggested that the approval of the project be upon the condition that before the project agreement is submitted for execution the record will be supplemented by satisfactory evidence showing that the plans and locations of the bridge...have been approved by the Secretary of War and the Chief of Engineers."[14]

The erection of a bridge across the Spring River was dependent upon whether it was considered a "navigable water" or not. If it was so considered, a decision which had to be made by the War Department, it required the prior approval of that Department and the Chief of Engineers before it could be constructed legally.[15] However, the War Department, on January 21, 1936, informed the Bureau that "..this stream is not a navigable water of the United States at the proposed point of construction."[16] Further approval was not, therefore, required.

CONTRACT AND LETTING

The bridge contract provided for a bridge of nine reinforced concrete girder spans, four I-beam spans and three truss spans with a concrete deck throughout.[17] Two further projects were required to be undertaken in conjunction with the construction of the bridge, the removal of the old bridge and the cleaning of the channel on the site of the projected bridge.[18]

A special provision was made for the "complete removal of existing 726 foot bridge."[19] Here the work was to include

> "...the removal of all substructure including abutments, bents, wings, piers and all other materials and obstructions to the ground surface."[20]

The second special provision was made for the excavation of a sand bank obstructing the site of the new bridge. This clearance was to consist of "the removing and satisfactory disposal of all materials taken from the existing island"[21]

It has not been ascertained if the letting of the contract included the special provisions outlined above. However, the only contractor recorded in the entire project was C. F. Lytle of Iowa. Lytle, on May 15, 1936, received the contract for the erection of the bridge with a total contract price of $178,856.27.[22]

Lytle was not a regular contractor with the Arkansas State Highway Department. Consequently that Department requested references and recommendations from the Iowa State Highway Commission. The Commission responded enthusiastically as follows:

> "We can recommend C. F. Lytle Construction Company, Sioux City as competent to satisfactorily perform any contract awarded them.[23]

C. F. LYTLE

Working from his own company, C. F. Lytle Construction Company, of Iowa, Charles F. Lytle was one of the most dynamic construction entrepreneurs in Iowa.[24] From the turn of the century he was "involved with construction work of all kinds" and, in the early days of his company he "...built practically all of the paved county roads of Woodburg (Iowa)".[25] Founded through his individual efforts, the Lytle Investment Corporation, incorporated in Iowa in 1915 and developed in association with Lytle's extensive construction work, had an authorized capital of $1,000,000 by 1923.[26]

The C. F. Lytle Company was described in 1944 as "one of the oldest construction firms in the midwest." By then it had worked on a variety of river contracts, including dams.[27] Its later work ranged from oil exploration to bomber base construction, to a dam on the Rio Grande.[28]

> "The C. F. Lytle Company has put the stamp of Sioux City construction on some of the nations major dam and highway projects."[29]

ENDNOTES

1. Murray, J. C., "State's Fine Transportation Facilities." Arkansas Centennial 1836-1936. Arkansas Democrat, Little Rock, 1936, p. 64.

2. ibid.

3. ibid.

4. See below "The Old Bridge".

5. "Removal of Old Bridge", Special Provisions, Job No. 10187, February, 1936. AHTD Microfilm Files.

6. Murray, J. C. loc. cit. p.66.

7. HAER Report AR-6: "Lincoln Avenue Viaduct." Historic American Engineering Record, 1988.

8. ibid.

9. HAER Report AR-8: "Black River Bridge." Historic American Engineering Record, 1988.

10. Barry to Garver, April 29, 1935. AHTD Microfilm Files.

11. C. W. Boyle, Solicitor, to Thomas H. MacDonald, Chief, Bureau of Public Roads, January 11, 1936, AHTD Microfilm Files.

12. C. E. Swain, District Engineer, Bureau of Public Roads to W. W. Zass, Chief Engineer, State Highway Commission, November 13, 1935. AHTD Microfilm Files.

13. Boyle to MacDonald, January 11, 1936, AHTD Microfilm Files.

14. ibid.

15. HAER Report AR-8" "Black River Bridge." Historic American Engineering Record, 1988.

16. Boyle to MacDonald, January 21, 1936, AHTD Microfilm Files.

17. Bridge 1984, Card Index AHTD.

18. "Channel Excavation and Removal of Existing Bridge": Special Provisions, Job No. 10187, February 10, 1936, AHTD Microfilm Files.

19. ibid.

20. ibid.

21. ibid.

22. Bridge 1984, Card Index AHTD.

23. Iowa State Highway Commission to N. B. Garver, May 6, 1936, AHTD Microfilm Files.

24. Sioux City Tribune, Sioux City, Iowa: August 7, 1938; January 20, 1944; December 23, 1945; December 14, 1957; February 2, 1958.

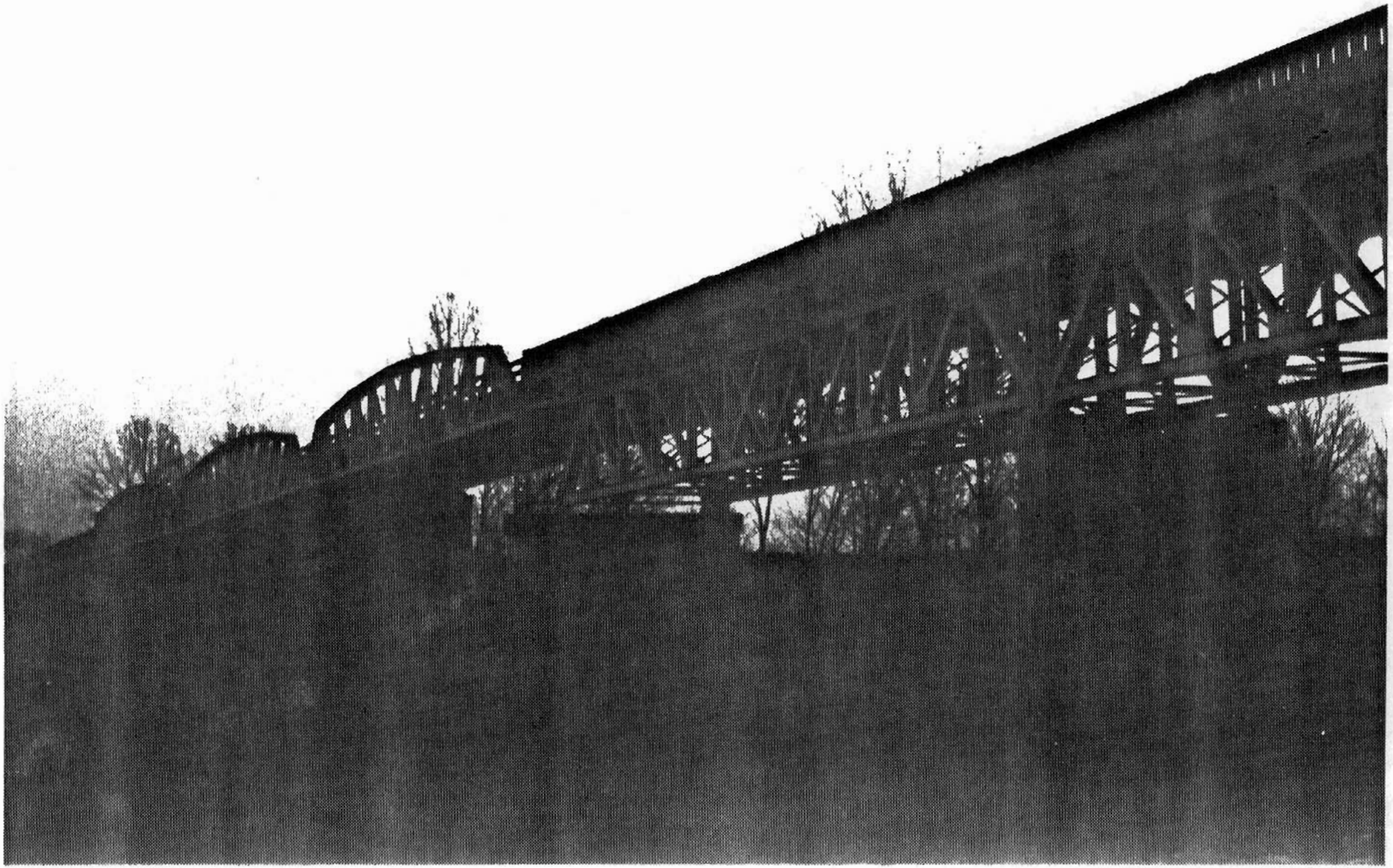
25. Three Quarters of a Century of Progress, Sioux City, Iowa, p. 189.

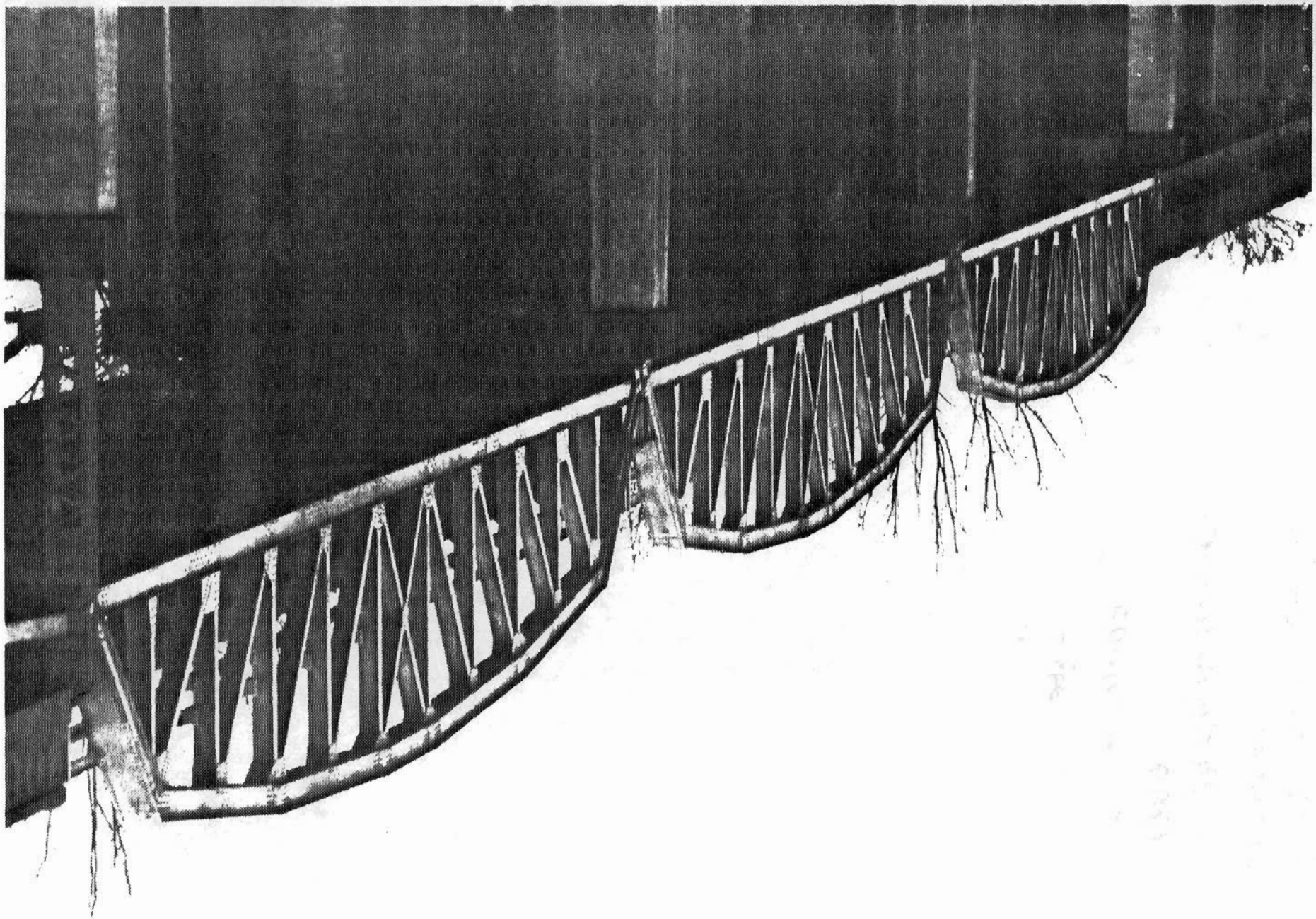
26. ibid.

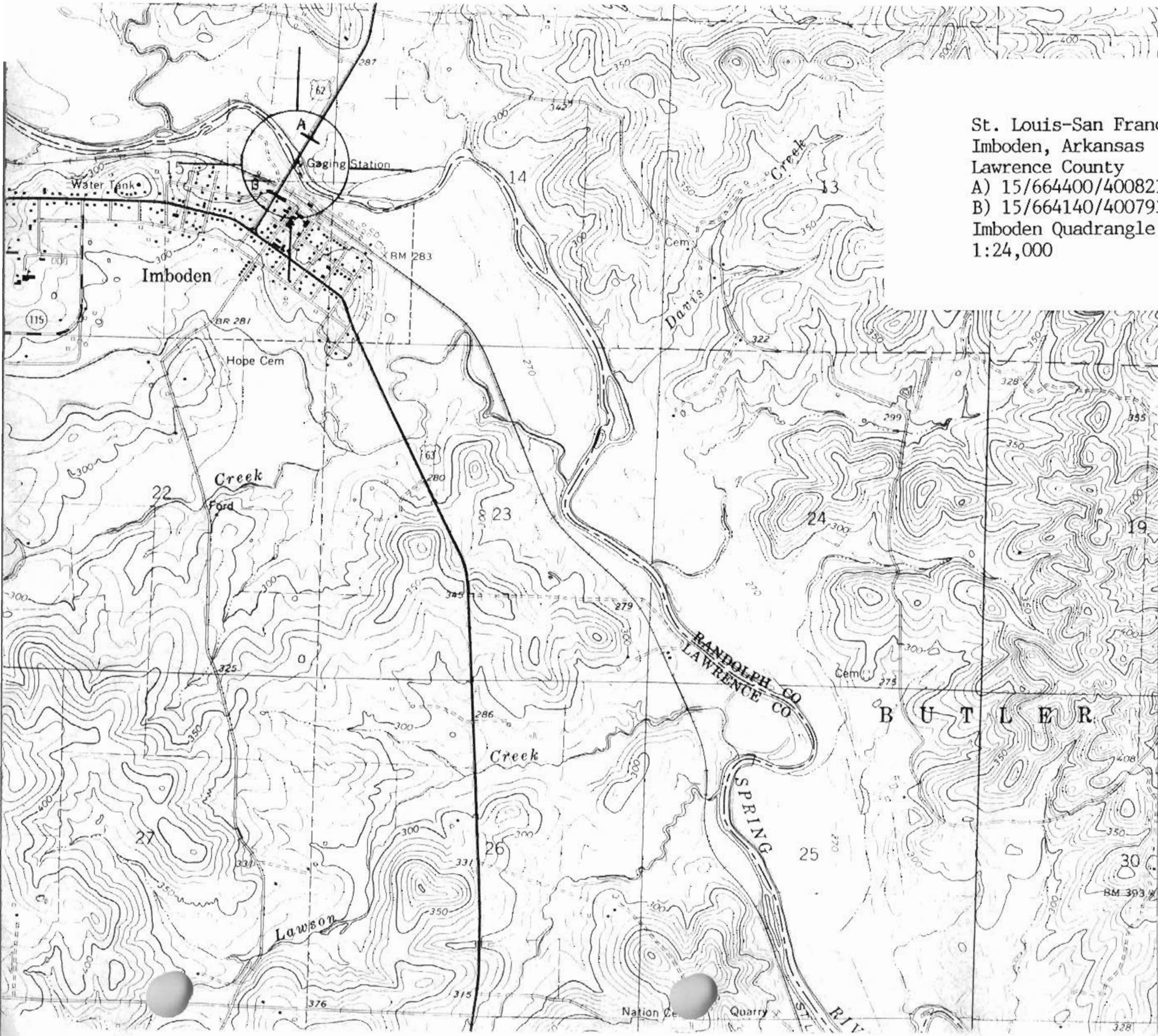
27. Sioux City Tribune, "Reveal Lytle Firm Change", December 14, 1957, p. 1.

28. Sioux City Tribune, "Lytle Firm's Major Jobs Span Globe," February 2, 1958, p. 13.

29. ibid.







St. Louis-San Francisco Overpass
Imboden, Arkansas
Lawrence County
A) 15/664400/4008215
B) 15/664140/4007930
Imboden Quadrangle
1:24,000

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

☐ nationally ☒ statewide ☐ locally

Applicable National Register Criteria ☒ A ☐ B ☒ C ☐ D

Criteria Considerations (Exceptions) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

Areas of Significance (enter categories from instructions)	Period of Significance	Significant Dates
Transportation	1937-1939	1937
Engineering		

Cultural Affiliation
N/A

Significant Person
N/A

Architect/Builder
Architect: Arkansas Highway & Transportation
Builder: C.F. Lytle Construction Company

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

☒ See continuation sheet

9. Major Bibliographical References

See Historic Bridges of Arkansas, Multiple Property Nomination, Section H.

☐ See continuation sheet

Previous documentation on file (NPS):
- ☐ preliminary determination of individual listing (36 CFR 67) has been requested
- ☐ previously listed in the National Register
- ☐ previously determined eligible by the National Register
- ☐ designated a National Historic Landmark
- ☐ recorded by Historic American Buildings Survey # _____
- ☒ recorded by Historic American Engineering Record # HAER No. AR-26

Primary location of additional data:
- ☒ State historic preservation office
- ☐ Other State agency
- ☒ Federal agency
- ☐ Local government
- ☐ University
- ☐ Other

Specify repository: U.S. Library of Congress

10. Geographical Data

Acreage of property Less than one acre

UTM References

	Zone	Easting	Northing
A	15	664400	4008215
B	15	661410	4107930
C			
D			

☐ See continuation sheet

Verbal Boundary Description

Beginning at a point approximately 700 feet north of the intersection of U.S. Highways 62 and 63, the boundary of the St. Louis-San Francisco Overpass starts here at the south abutment, then continues north across the bridge for approximately 1050 feet, where it terminates at the north abutment. .

☐ See continuation sheet

Boundary Justification

The boundary includes the main spans, approach spans, piers and abutments that are historically associated with this property.

☐ See continuation sheet

11. Form Prepared By

name/title Text by Sean O'Reilly & Corinne Smith; edited by Michael Swanda, Survey Coordinator.
organization Arkansas Historic Preservation Program date February 5, 1990
street & number 225 East Markham Street telephone (501) 371-2763
city or town Little Rock state Arkansas zip code 72201