

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

1. Name of Property

Historic name: N/A
Other name/site number: Hobbs Creek Truss Leg Bedstead Bridge (preferred); 85-LT-33

2. Location On Hobbs Creek Road, 0.6 miles west of the intersection with Solomon Road (Dickinson County line); 4.5 miles south and 2.4 miles east of the town of Gypsum. N/A not for publication

city or town Gypsum X vicinity
state code KS county Saline county code 169 zip code 67448

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this xx 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 xx meets does not meet the National Register criteria. I recommend that this property be considered significant nationally statewide xx locally. (See continuation sheet for additional comments.)

Richard S. Pankeatz DSI/PO August 27, 2004
Signature of certifying official Date

Kansas State Historical Society
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 commenting or other official Date

State or Federal agency and bureau

4. National Park Service Certification

I, ✓ hereby, certify that this property is Edson H. Beall
✓ 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] 10/12/04
Signature of Keeper Date of Action

Property Name Hobbs Creek Truss Leg Bedstead Bridge

County and State Saline, Kansas

5. Classification

Ownership of Property	Category of Property	No. of Resources within Property	
		contributing	noncontributing
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	<input type="checkbox"/>	<input type="checkbox"/> buildings
<input checked="" type="checkbox"/> public-local	<input type="checkbox"/> district	<input type="checkbox"/>	<input type="checkbox"/> sites
<input type="checkbox"/> public-State	<input type="checkbox"/> site	<input type="checkbox"/>	<input type="checkbox"/> structures
<input type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> structure	<u>1</u>	<input type="checkbox"/> objects
	<input type="checkbox"/> object	<input type="checkbox"/>	<input type="checkbox"/> objects
		<u>1</u>	<u>0</u> Total

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

No. of contributing resources previously listed in the National Register

Metal Truss Bridges in Kansas

0

6. Functions or Use

Historic Functions
(Enter categories from instructions.)

Current Functions
(Enter categories from instructions.)

TRANSPORTATION: Road-related (vehicular)

TRANSPORTATION: Road-related (vehicular)

7. Description

Architectural Classification
(Enter categories from instructions.)

Materials
(Enter categories from instructions.)

OTHER: Truss Leg Bedstead

Foundation Stone

Walls _____

Roof _____

Other Metal: Iron, Steel

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

Property Name Hobbs Creek Truss Leg Bedstead Bridge

County and State Saline, Kansas

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.)

- A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B Property is associated with the lives of persons significant in our past.
- C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D Property has yielded, or is likely to yield, information important in prehistory or history.

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

- A owned by a religious institution or used for religious purposes.
- B removed from its original location.
- C a birthplace or a grave.
- D a cemetery.
- E a reconstructed building, object, or structure.
- F a commemorative property.
- G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
Enter categories from instructions.)

Period of Significance

Significant Dates

ENGINEERING

1907

1907

TRANSPORTATION

Cultural Affiliation

N/A

Significant Person

Architect/Builder

N/A

Missouri Valley Bridge & Iron Co. (Leavenworth, Kansas)

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

Property Name Hobbs Creek Truss Leg Bedstead Bridge

County and State Saline, Kansas

9. Major Bibliographical References

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

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

Primary location of additional data:

- State Historic Preservation Office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository:

Record # _____

10. Geographical Data

Acreage of property <1 acre

UTM References

1	<u>1/4</u>	<u>6/4/0/7/4/0</u>	<u>4/2/7/7/6/6/0</u>	3	<u>/</u>	<u>/ / / / /</u>	<u>/ / / / /</u>
	Zone	Easting	Northing		Zone	Easting	Northing
2	<u>/</u>	<u>/ / / / /</u>	<u>/ / / / /</u>	4	<u>/</u>	<u>/ / / / /</u>	<u>/ / / / /</u>

___ 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 Kerry Davis, Architectural Historian and Elizabeth Rosin, Partner

organization Historic Preservation Services, LLC date March 2004

street & number 323 West Eighth Street, Suite 112 telephone (816) 221-5133

city or town Kansas City state Missouri zip code 64105

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

Name County of Saline

street & number 300 West Ash, P.O. Box 5040 telephone 785-826-6527

city or town Salina state KS zip code 67401-5040

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**NATIONAL REGISTER OF HISTORIC PLACES
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Section Number 7 Page 1

Hobbs Creek Truss Leg Bedstead Bridge
Saline County, Kansas

SUMMARY DESCRIPTION STATEMENT

LOCATION AND SETTING

The Hobbs Creek Truss Leg Bedstead Bridge is located 4.5 miles south and 2.4 miles east of the town of Gypsum on the west edge of the Flint Hills region of north-central Kansas, on the line between the south half of Section 24 and the north half of Section 25, Township 16S, Range 1W. The region is defined by rolling prairie hills with deep tree-lined creek valleys and rocky bluffs. The Hobbs Creek Truss Leg Bedstead Bridge carries Hobbs Creek Road across Hobbs Creek, a meandering branch of Gypsum Creek. The gravel roadway, flanked by cultivated fields, aligns in a shallow U-shaped curve with the Hobbs Creek Truss Leg Bedstead Bridge.

TRUSS TYPE

The Hobbs Creek Truss Leg Bedstead Bridge consists of a pin-connected pony truss,¹ measuring 60 feet 8 inches in length, flanked by timber approach spans at each end. The west approach span measures 15 feet in length. The east approach span measures 29 feet in length. The two 14.5-foot spans that form this approach are supported midway by a mortar-laid rubble stone pier. The deck is 16 feet wide. Rubble stone also forms the low, east abutment. Earth and debris cover the west abutment. The vertical end posts of the truss extend below the end floor beams to form the characteristic “legs” of the Truss Leg Bedstead design. Typically, these legs are embedded in concrete foundation pads. While this treatment is documented in several other National Register-listed Truss Leg Bedstead bridges in Kansas,² earth and debris cover the footings of the Hobbs Creek Truss Leg Bedstead Bridge, obscuring the construction method and materials of the footings.

The long vertical end posts rise from the footings and meet the horizontal top chords to form the overall rectangular shape of this truss type. The top chords and end posts consist of two channels, a cover plate, lacing bars, and stay plates; the bottom chords consist of two flat eye bars.

The web members include vertical posts that form four equivalent panels and diagonal ties that intersect within the two central panels. Angle stock and lacing bars compose the vertical posts; flat eye bars and tension rods compose the diagonal ties.

The timber deck is 16 feet wide and rises 15 feet 10 inches above the creek bed on timber stringers. Floor beams (steel I-beams) located at the base of each vertical post are connected by lower lateral bracing rods.

¹ A pony truss is also referred to as a low truss.

² Examples of bridges listed in the National Register in May 2003 include the Salt Creek Truss Leg Bedstead Bridge, Lincoln County; the North Gypsum Creek Truss Leg Bedstead Bridge, McPherson County; and the Sand Creek Truss Leg Bedstead Bridge, Norton County.

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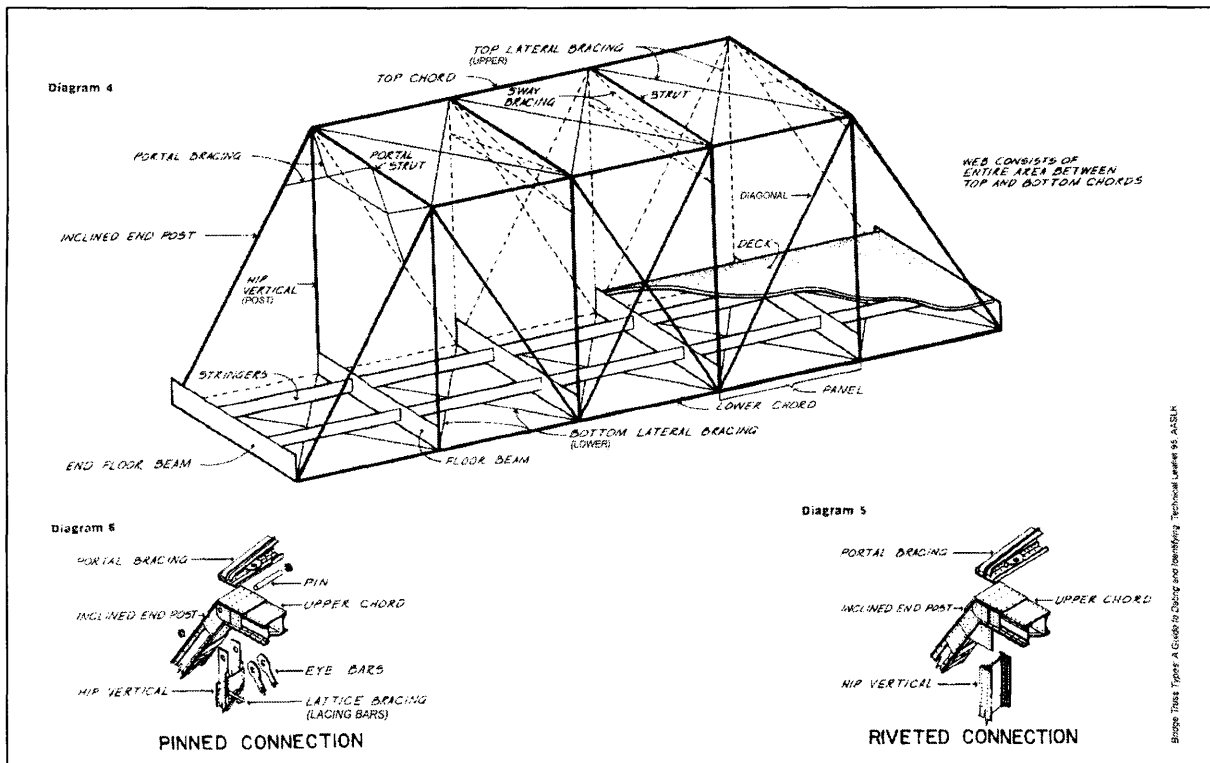
Hobbs Creek Truss Leg Bedstead Bridge
Saline County, Kansas

Intact historic metal lattice guardrails extend the length of the truss; intact historic timber guardrails secured with iron bolts flank the approach spans. Identical rectangular plaques located on the southwest and northeast vertical end posts read "BUILT BY / MO. VALLEY BRIDGE / AND IRON CO. / LEAVENWORTH / 1907 KANSAS." Letters in relief read "CAMBRIA," "J. & L. S. CO." and "ILLINOIS" on several structural components.

INTEGRITY

The Hobbs Creek Truss Leg Bedstead Bridge is an excellent example of this bridge type, which was historically popular in Kansas.³ The Hobbs Creek Truss Leg Bedstead Bridge retains a high degree of integrity. The original workmanship, materials, design, setting, and feeling of the structure are readily apparent. Furthermore, the potential for preservation of the bridge is high. Located on a lightly traveled road, it is unlikely that traffic requirements will necessitate alteration or replacement.

TRUSS TERMINOLOGY



³ Dale Nimz, *Activity III Review Initial Assessment Metal Truss Bridges* (Topeka, Kansas: Kansas State Historical Society, 1998), 6. Nimz stated there were approximately 375 extant truss leg bedstead bridges in Kansas.

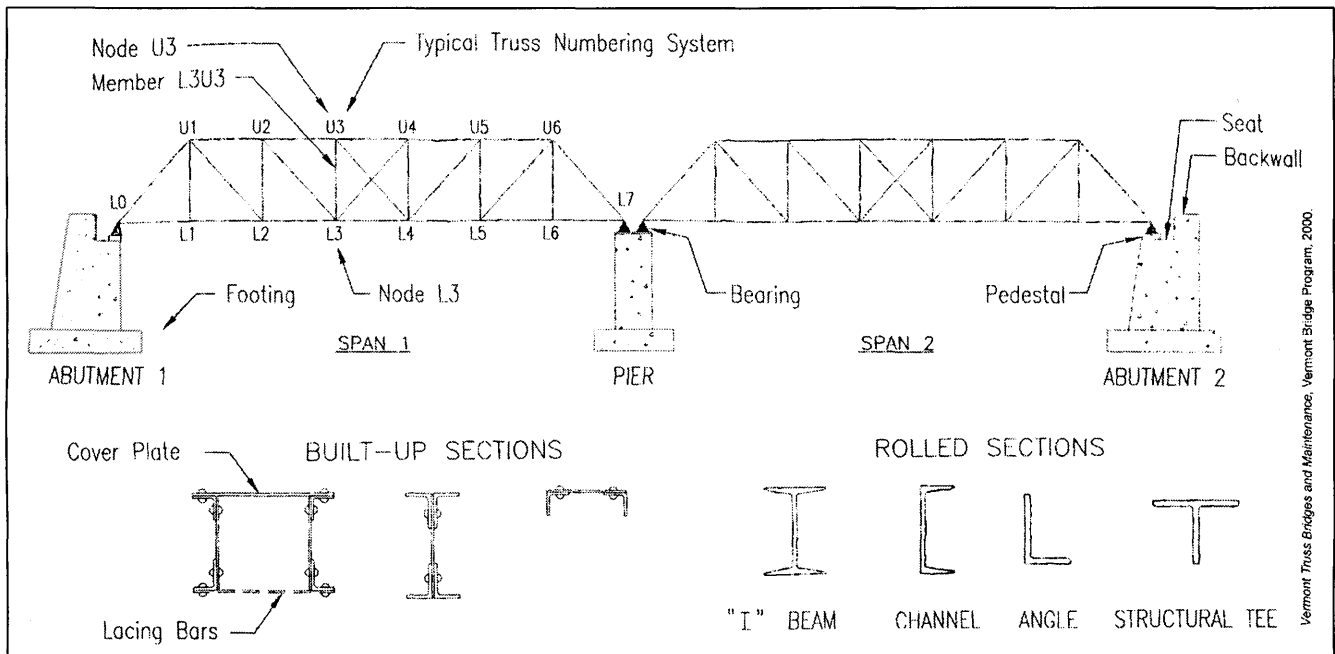
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Hobbs Creek Truss Leg Bedstead Bridge
Saline County, Kansas

TRUSS TERMINOLOGY (cont.)



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Hobbs Creek Truss Leg Bedstead Bridge
Saline County, Kansas

STATEMENT OF SIGNIFICANCE

The Hobbs Creek Truss Leg Bedstead Bridge is significant under National Register Criterion C in the areas of ENGINEERING and TRANSPORTATION. As defined by the *Multiple Property Documentation Form for Metal Truss Bridges in Kansas*, it is an excellent example of the Truss Leg Bedstead bridge type. Built in 1907, the Hobbs Creek Truss Leg Bedstead Bridge represents a common bridge solution applied to a relatively long span. Its pin-connected structure, timber deck, and stone abutments illustrate standard bridge-building technology during the period of significance. As no historic name identifies this bridge, the preferred name "Hobbs Creek Truss Leg Bedstead Bridge" has been assigned. This describes the location, design, and function of the structure.

The need for all-weather crossings of rivers and streams corresponded to the growth of the market economy across Kansas during the late nineteenth and early twentieth centuries. Bridges provided farmers easy access to markets and could make the difference between growth and stagnation for the many small, young communities across the state.⁴ Proximity to a bridge often secured a town's economic stability and contributed to a local sense of modernity.

Prior to the 1930s, the railroad was the primary means of long-distance travel and there was little need for roads to extend more than a few dozen miles. With little stimulus for improving roads that would cross multiple jurisdictions, road construction and maintenance remained local concerns. County commissioners often carried the burden of selecting bridge locations, which was often a contentious process. Although the Good Roads Movement began in the late 1800s, it was not until the meteoric rise in popularity and availability of the automobile during the mid-to-late 1920s that this initiative truly manifested itself in rural Kansas.

The range of choices for bridge designs and companies was vast. Many of the larger bridge companies sold metal truss bridges through mail order catalogues. County commissioners could simply specify the span, clearance needs, and truss type (if there was a preference), then choose the lowest bidder from the numerous competing companies that had salesmen in the field.

By the late nineteenth century, fabrication of iron and steel was widespread. The speed of construction and the relatively low cost of metal truss bridge parts ensured their popularity over labor-intensive masonry bridges and short-lived timber bridges. Toward the end of the nineteenth century, the quality, quantity, and cost of steel improved to such a degree that it virtually replaced wrought iron for bridge construction by 1910.⁵

⁴ Larry Jochims, *Metal Truss Bridges in Kansas 1861-1939*, National Register of Historic Places Multiple Property Documentation Form (Topeka, Kansas: Kansas State Historical Society, 1989), E.

⁵ Ibid, F.

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Hobbs Creek Truss Leg Bedstead Bridge
Saline County, Kansas

Most metal trusses were constructed of built-up members composed of mass-produced, standard-shaped channel, plate, and angle stock purchased from one or more of the numerous steel companies nationwide. The bridge companies preassembled trusses in their factories then simply shipped them to the bridge site for installation. Installation involved grading approaches, constructing abutments and piers, erecting preassembled floor and truss members, and placing deck material.

Before 1900, generally all panel point connections – the locations at which structural bridge elements intersect – were made with the use of a pin. This technique was so widespread that it became one of the distinctive features of American bridge construction in the nineteenth century.⁶ However, subsequent advancements in pneumatic riveting techniques greatly improved rivet installation quality, enabling more reliable panel point connections. With the increased portability of this construction technology, the more rigid riveting technique rapidly surpassed pin-connected bridge construction during the first years of the twentieth century. The pin-connected construction of the Hobbs Creek Truss Leg Bedstead Bridge is a relatively late example of this once standard technique.

The Hobbs Creek Truss Leg Bedstead Bridge is a classic example of this truss design. The Truss Leg Bedstead is a variation of the Pratt truss. Patented in 1844, the Pratt truss incorporates vertical members in compression and diagonal members in tension, a design that reduces the required length of compression members, helping to prevent bending or buckling. It became the most common bridge truss type of the late nineteenth and early twentieth centuries and spawned numerous variations including Parker, Camelback, Truss Leg Bedstead, Baltimore, Lenticular, and Pennsylvania trusses.⁷

The Truss Leg Bedstead is a Pratt pony truss with vertical end posts that extend below the end floor beams and are embedded into foundation pads or abutments, thus forming the namesake “legs” of the design. This variation of the standard Pratt truss design was intended for short spans between 30 and 100 feet. The Truss Leg Bedstead bridge type was widespread and continued to be constructed into the twentieth century in Kansas, indicating the appeal of its simplicity and economical construction. In 1998, approximately 375 Truss Leg Bedstead bridges, including the Hobbs Creek Truss Leg Bedstead Bridge, existed throughout the state of Kansas.⁸

⁶ Ibid, F.

⁷ T. Allan Comp and Donald Jackson, *Bridge Truss Types: A Guide to Dating and Identifying*, technical leaflet no. 95 (Nashville, Tennessee: American Association for State and Local History, 1977), 8.

⁸ Nimz, 6.

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Hobbs Creek Truss Leg Bedstead Bridge
Saline County, Kansas

STRUCTURE HISTORY

Located in the rich valley of Gypsum Creek, European settlement in the area surrounding the Hobbs Creek Truss Leg Bedstead Bridge began in the mid-to-late 1860s. Organized in 1871, by 1884, Gypsum Township boasted a population of five hundred residents that supported two post towns and four schools. In the mid-1880s, the announcement that the Missouri Pacific Railroad would construct a new line through the township and the region's reputation for its "unusual fertility" attracted a "rapidly increasing number of settlers."⁹ As a result, in 1885, local residents formed and platted the town of Gypsum, naming it for the deposits of gypsum ore located in the area. Within a year, the town boasted a lumber company, a hotel, a grist mill, a bank, and two newspapers. The town secured a railroad depot in 1887 and incorporated that year with a population of three hundred residents.

Typical of small towns throughout Kansas, Gypsum served as a trading and shipping point for the surrounding rural community. Settlement and commercial growth continued, spurred by the construction of a Missouri Pacific branch line leading southwest from Gypsum to Bridgeport and Lindsborg in 1890. Railroad access ensured steady commercial activity in the city of Gypsum and boosted agricultural commerce throughout Gypsum Township into the twentieth century. By 1903, the township supported five schools and two churches and offered rural mail delivery.

Fords and bridges that provided area farmers with access to local markets were critical to the survival of the regional economy. Illustrating the significance of these crossings, the Hobbs Creek Truss Leg Bedstead Bridge was one of at least seven bridges of this type constructed between circa 1900 and 1915 in Gypsum Township. With its high degree of integrity, it is an excellent surviving example of this group of bridges and clearly illustrates the context for steel truss bridge construction in rural communities throughout Kansas.

Missouri Valley Bridge Company

The Missouri Valley Bridge Company of Leavenworth, Kansas, a prolific Kansas bridge builder, built the Hobbs Creek Truss Leg Bedstead Bridge in 1907. Markings on the structural members indicate that the Missouri Valley Bridge Company purchased stock metal produced by the Cambria Steel Company of

⁹ "Gypsum — Past and Present," *Gypsum Advocate*, 4 June 1936. Saline County Clippings, Volume 3, 17-154. Topeka, Kansas: Kansas State Historical Society Archives.

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Hobbs Creek Truss Leg Bedstead Bridge
Saline County, Kansas

Johnstown, Pennsylvania; the Jones & Laughlin Steel Company of Pittsburgh, Pennsylvania; and the Illinois Steel Company of Gary, Indiana. No additional history about the bridge is presently known.¹⁰

In 1874, Edwin I. Farnsworth and D. W. Eaves of the Wrought Iron Bridge Company (Canton, Ohio) founded the Missouri Valley Bridge Company in an effort to manufacture and sell bridges locally rather than import them from eastern firms. By 1904, the company incorporated as the Missouri Valley Bridge and Iron Company and built everything from bridges to boats. Their most notable project was the construction of the piers for the San Francisco Bay Bridge in 1936.¹¹

¹⁰ Review of Saline County Road and Bridge records, Kansas Department of Transportation records, and Kansas State Historical Society archives revealed no further construction history specific to the Hobbs Creek Truss Leg Bedstead Bridge.

¹¹ Jochims, E3.

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Hobbs Creek Truss Leg Bedstead Bridge
Saline County, Kansas

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Hobbs Creek Truss Leg Bedstead Bridge
Saline County, Kansas

GEOGRAPHICAL DATA

VERBAL BOUNDARY DESCRIPTION

Located on the east-west section line between the south half of Section 24 and the north half of Section 25, Township 16S, Range 1W, the Hobbs Creek Truss Leg Bedstead Bridge encompasses an area measuring approximately 104.5 feet by 16 feet. The northwest corner of this area corresponds to the northwest corner of the bridge.

BOUNDARY JUSTIFICATION

The boundary includes the truss, deck, abutments, and associated approaches that represent the significant features associated with the bridge structure.

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Hobbs Creek Truss Leg Bedstead Bridge
Saline County, Kansas

PHOTOGRAPH LOG

Photographer: Kerry Davis
Date of Photographs: March 2004
Location of Original Negatives: Kansas State Historical Society, Topeka, Kansas

Photograph Number	Camera View
1.	View NW, bridge truss and understructure
2.	View E, bridge truss and roadway
3.	View SW, bridge truss and east approach span
4.	View NE, east approach span and stone pier
5.	View NW, bridge truss and understructure
6.	View SE, bridge builder's plaque

