

Covered Bridge
Near Springdale
Leavenworth County
Kansas

HABS. No. KANS-13

HABS
KANS
52-5001 N.
1.

PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Buildings Survey
National Park Service
Eastern Office, Division of Design and Construction
120 South Third Street
Philadelphia 6, Pennsylvania

HISTORIC AMERICAN BUILDINGS SURVEY

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COVERED BRIDGE

Street Address or Location: Near Springdale, Leavenworth County, Kansas

Present Owner: Kansas State Highway Department

Present Use: Highway bridge

Brief Statement of Significance: This sole surviving covered bridge of Kansas, which dates from c. 1859, has some interesting structural features.

PART I: HISTORICAL INFORMATION

A. Physical History

1. Original and subsequent owners: Kansas State Highway Department.
2. Date of erection: c. 1859 (per Davis, Aubrey R., The Evolution of Covered Bridge Construction, typescript, Lawrence, Kansas, 1958 in possession of the author, 718 East 67th Street, Kansas City, Mo., pp. 25-27)
3. Architect, builder, suppliers etc.: Built under the direction of Colonel Albert Sidney Johnston, with John O'Brien as construction superintendent.
4. Original plans, construction etc.: The timbers were sawn from white oak trees near the site. The cost of the structure was reported to be \$1,500.00. (Ibid., p. 26)
5. Notes on alterations and additions: The bridge was repaired in 1946. At that time a new roof, new siding and new (concrete) bases were placed around the piers. (Ibid., p. 27)
6. Important old views and references: None

B. Historical Events Connected with the Structure: None

C. Likely Sources Not Yet Investigated: Records of the Kansas State Highway Department; also Leavenworth County Historical Society, Leavenworth, Kansas.

Prepared by J. C. Hoffmeyer date 7/58

PART II. ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: This bridge has some interesting structural features, including cast iron timber connectors, triangular base plates and steel tie rods.
2. Condition of fabric: The bridge is in excellent condition and is well maintained.

B. Technical Description of the Bridge:

"Howe trusses were set upon native stone piers. The span (inside dimension between the piers) was 119' 2" (one hundred nineteen feet, two inches). The thickness of the top of each abutment is five feet nine inches (5'9"). A pad consisting of two (2) 8" x 10" (eight by ten) planks each 8' 3" (eight feet three inches) long form a base on which the stringers lie. The pads are far enough under the bridge that they are adequately protected from the weather. The stringers are approximately 31' (thirty one feet) above the water level, and flood waters have never been reported as high as the stringers.

"Steel trusses, 47' (forty seven feet) and 41' (forty one feet) long approach each pier before the entrance of the wooden bridge is gained.

"Each truss is 22' (twenty two feet) high, with each chord formed of three timbers: two 5" x 12" (five inches by twelve inches) and one 11" x 12" (eleven inches by twelve inches). The timbers are butted together with joints staggered. Iron bolts 28" o.c. (twenty eight inches on center) form the fastening with cast iron connectors added every 5' (five feet). Web members of timber utilize 6" x 8" (six inch by eight inch) and 6" x 6" (six inch by six inch) timbers, with vertical steel rods as added tension members. Triangular iron anchor plates connected between top and bottom chords by the steel rods compress the wooden web members. In one of the members several treenails can be seen. (probably from an earlier construction).

"Top cross bracing is provided by diagonal 5" x 6" (five inch by six inch) timbers with their ends placed 10' o.c. (ten feet on center). These 12" (twelve inch) great X's forming the braces are secured at the ends by triangular iron anchor plates and tie rods similar to those used in the wall trusses. Joists supporting the roadway are 4" x 10" (four inches by ten inches) 24" o.c. (twenty four inches on center), while the planks forming the roadway are 3" x 10" (three inches by ten inches). These planks are nailed to the joists. The vertical tongue and groove siding is painted red and the siding extends into the interior of the bridge 4' 10" (four feet, ten inches) to insure protection. No windows or

exterior walkways are used. The portal is 14' (fourteen feet) wide and to the top of the arch it measures 18' 9" (eighteen feet nine inches) high."

The above is quoted from Davis, Aubrey R., "The Evolution of Covered Bridge Construction," a term paper written for History of Architecture, University of Kansas, 1958 (original in possession of author, 718 East 67th Street, Kansas City, Mo.), pp. 25-27.

C. Site:

1. General setting and orientation: The bridge spans Stranger Creek about a mile from the main highway K-92. The entrance from the highway faces north and is gained by a dirt road.

Prepared by J.P. Noffsinger date 7/58