

SAND CREEK PRATT PONY TRUSS BRIDGE  
Spanning Sand Creek  
Bristow Vicinity  
Creek County  
Oklahoma

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

## HISTORIC AMERICAN ENGINEERING RECORD

### SAND CREEK PRATT PONY TRUSS BRIDGE

Location: Spanning Sand Creek at E0815 Road, in the Bristow vicinity, Creek County, Oklahoma.

UTM: 14/E737680/N3969769

Quad: Bristow

Present Owner: Creek County, Oklahoma

ODOT Structure Number 19E0815N3720005

Present Use: Vehicular Bridge

Significance: The Sand Creek Pratt Pony Truss Bridge was constructed in 1913 by the Kansas City Bridge Company of Kansas City, Missouri. The structure is a good example of its type. Additionally, the bridge is significant because it illustrates the development of Bristow.

Project Information: Historic American Engineering Record (HAER) Level II equivalent documentation performed in June of 2012. Heath Henry, Architectural Historian, conducted on-site recordation and compiled the historical information. During the on-site recordation, photographs following National Park Service standards for digital photography were taken of the structure and observations of existing conditions were noted. The HAER recordation serves as mitigation for the demolition of the structure.

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## **PART I. HISTORICAL INFORMATION**

### **A. Physical History:**

- 1. Date of Construction:** 1913
- 2. Architect/Engineer:** Not Known
- 3. Builder/Contractor/Supplier:** Kansas City Bridge Co. of Kansas City, Missouri
- 4. Original Plans:** No original plans were found for this structure
- 5. Alterations and Additions:** The structure remains mostly unaltered except for piling repair on the southeast corner of the span.

### **B. Historical Context:**

#### **1. Introduction**

Creek County, located in east-central Oklahoma, is named for the Creek Native American Tribe. In 1825, the Osage ceded to the United States the area that would become Indian Territory. The following year (1826), with the ratification of the Treaty of Washington, the Creeks began their journey westward to what is now Oklahoma. The Creek nation was divided between two factions prior to removal. The Lower Creeks were led by William Macintosh and the Upper Creeks were led by Opothleyahola. The Creek nation was situated between the Arkansas and Canadian river systems. The divisions within the tribe resulted in the Lower Creeks settling in the Three Forks region of the Arkansas River while the Upper Creeks settled along the North Fork, Deep Fork and Canadian River. Upon arrival, many Creek citizens began farming the rich soils and raising cattle on the abundant grasslands. Some Creek families were slave owners and engaged in plantation agriculture, while others practiced subsistence agriculture, small scale farming and ranching. After the Civil war many Creeks leased land for cattle grazing to Texas ranchers (Wilson 2011).

The Creeks succeeded in creating a unified national government in the 1840's with the establishment of the Council Hill in present day Tulsa. Unfortunately, this cooperative effort was short lived due to the Civil War and the splitting of the nation into Neutralist versus Confederate camps. After the war, in 1866, another attempt was made with the reestablished Creek National Capitol at Okmulgee. The new government was patterned after the United States legislative system. Beginning in the 1880's, factionalism within the Creek nation was again on the rise with the increased pressures for land from white settlers and the United States government. The issue of allotments resulted in violent confrontations within the Creek nation between cultural conservatives and more assimilated Creeks. In 1906, the passage of the Allotment Bill resulted in the redistribution of Creek lands to family heads. The Creek loss of approximately two million acres through allotment. Statehood, in 1907, saw the creation of Creek County with a population of 18,365 from what had formerly been land belonging to the Creek Nation (Goins, 2006).

Creek County is located in East-central Oklahoma and has 969.77 miles of land and water. Located within the Sandstone Physiographic region it is drained by several major rivers and tributaries of the Arkansas River. The Cimarron River, Deep Fork and Little Deep Fork meander through Creek County creating a well-watered landscape very well suited for agriculture. Creek County's economy has been primarily based on agriculture, raising livestock and the petroleum industry. The early 20<sup>th</sup> Century saw a boom in agricultural production. Cotton and corn were two of the most profitable crops for the county. From statehood in 1907, through the 1920's, cotton remained a popular crop. At the height of production, Creek County ginned over 22,500 bales of cotton. The boll weevil outbreak and Great Depression began the decline of the cotton industry in Creek County and Oklahoma. Corn, as well, was an important crop and in 1907 the county produced over 484,978 bushels of corn. Over the course of the century, both cotton and corn were eclipsed by acreage devoted to wheat production (Goins, 2006).

The other industry that has dominated Creek County is petroleum. The discovery and development of the Glen Pool Oil Field began an era of rapid economic and community development with the creation of boom towns such as Mounds and Kiefer. The process continued after 1912 with the Cushing Drumright fields and the establishment of Oilton, Shamrock and Drumright. By 1915, the Cushing Field was producing more than 8 million barrels a month.

The combined economic impact of cotton and oil resulted in the development of Bristow as a trade center within Creek County (Wilson 2011). The success of these industries was responsible for the eventual construction of the Sand Creek Bridge to meet the transportation needs for a growing commercial hub. The city of Bristow was known as "The Woodland Queen" and established in 1898 along the St. Louis and Oklahoma City Railroad, a line designed to connect Sapulpa to Oklahoma City and later renamed the St. Louis and San Francisco Railway. The town was platted and surveyed in 1901 and was designated the county seat in 1907 at statehood. In 1908, Sapulpa challenged Bristow for designation of county seat and a special election was held with disputed results. Ultimately, a second election in 1912 awarded Sapulpa the county seat (Wilson 2011). This setback did not slow Bristow's growth. The discovery of oil and gas fields around 1914 and 1915 resulted in the rapid growth of the local economy and population which lasted through the 1920's. At statehood, Bristow's population was recorded at 1,134. It experienced steady growth. Between 1910 and 1930 Bristow's population more than doubled from 1,134 to 3,460 residents. An estimated 31,000 people lived in the surrounding area around Bristow in 1920(Wilson 2011). This population boom and the need to have better access to agricultural and oil and gas resources east of town resulted in the need for a bridge across Sand Creek that provided better access to the railhead in Bristow.

## **2. Development of the Sand Creek Pratt Truss Bridge**

The Sand Creek Pratt Truss Bridge was constructed in 1913. The bridge is located in central Creek County just east of Bristow on 8<sup>th</sup> Street. 8<sup>th</sup> Street becomes E0815 Road as it

continues eastward crossing the bridge. A 1916 topographic map of the area shows the area east of Bristow to be relatively undeveloped aside from an oil tank farm a mile to the north of the bridge. E0815 is depicted as a light duty road running east-west over Sand Creek (U.S. Geological Survey [USGS] 1916). The road was part of a system of light duty and unimproved roads established to provide access to more populated communities to the east, such as Sapulpa. Additionally, the road provided farmers and oilfield workers access to Bristow's railhead, cotton gins and oil tank farm.

Between 1913 and 1914 the Bristow community began a campaign for local road improvement. Local citizens and surrounding farmers organized to improve roads (*Illustrated History of Bristow*). This effort was led by an enthusiastic booster named Col. Frank who worked to have the Bristow-Sapulpa Road designated a state highway. Locals donated money and volunteered one to two days a month to engage in roadwork (*Bristow Record* Aug 14, 1914). Road improvements were an issue of increasing importance due to the growing population and popularity of the automobile. In 1911, Commissioner Suggs reported that Oklahoma had 9000 automobiles travelling on 79,883 miles of road with only 499 miles of improved roadways (Goins 2006). In 1913, the County Commissioners of Creek County approved an ambitious bridge construction program that authorized the building of seven bridges in Creek County (CCC Proceedings, Aug 7, 1913: Vol. 2:345). The bidding process resulted in the Kansas City Bridge Company receiving the contract to construct all seven bridges (CCC Proceedings, September 6, 1913: Vol. 2:353). One route of particular concern was a Bristow-Sapulpa road. Several newspaper articles from the period published in the *Bristow Record* discuss the progress being made on the Bristow-Sapulpa Road including the then recent construction of a Sand Creek Bridge. The importance of this road to farmers in surrounding region is evidenced in these articles "Good Roads mean better farmers and better farms," (*Bristow Record*, Aug. 1914). Jim Chapman a local rancher that resides just east of the Sand Creek Bridge recalled his grandfather's description of "tons of cotton travelling across that bridge bound for the Bristow gins." (Interview: Jim Chapman, June 2012) Mr. Chapman's grandfather is also mentioned in a 1914 *Bristow Record* article concerning his involvement in improving part of the Bristow-Sapulpa road towards Wyatt School. At its height, Bristow had seven cotton gins. Two of these were located on 8<sup>th</sup> street along the Frisco Right of way (Interview: George Krumme, June 2012). The Bristow-Sapulpa road that crosses the Sand Creek bridge was also known as the "Nimmo Highway" named after a local farmer and booster, Mr. Nimmo. Local boosters, including Col. Frank, tried to convince the state to designate the "Nimmo Highway" as Rural Route 1 in the hopes of making it a part of the "Ozark Trail," (*Bristow Record*, May 1914). In 1913, the Ozark Trails Association was founded by boosters from a four state region and had the stated goal of building roads to connect Missouri, Kansas, Oklahoma and Arkansas. This organization preceded the Federal Highway system and relied on donations and annual dues to assist communities in road improvements and upkeep.

Although there were oil and gas discoveries in the area surrounding Bristow contemporaneous to the construction of the Sand Creek Bridge in 1913, it appears that the bridge construction and general road improvements were driven by farming concerns. A

1916 USGS topography map shows a track branching to the north leading to an oil tank farm approximately one mile north of the bridge on the east bank of Sand Creek. George Krumme, owner of Krumme Oil Co. stated that “The Slick Oil Co. Tank Farm was constructed sometime between 1914 and 1915 and was not a factor in the bridge’s construction.” (Interview: George Krumme June 2012)

The Sand Creek Pratt Pony Truss Bridge was constructed in 1913 by the Kansas City Bridge Company as evidenced by a damaged nameplate on the northwest inclined endpost that reads:

BUILT BY  
KANSAS CITY BRIDGE CO.  
KANSAS CITY MO  
1913

The Kansas City Bridge Company also constructed the Little Deep Fork Bridge located two miles southwest of Bristow on Route 66. The Little Deep Fork Bridge is NRHP listed. The Sand Creek Bridge was constructed as a Pratt Pony Truss, which was a popular design used by bridge companies throughout the U.S. These types of bridges were popular because they could be shipped modularly and assembled onsite (King,1993).

The construction of the Sand Creek Bridge was spurred by the general boosterism, farming concerns and the desire for road improvements that swept the nation and Oklahoma in the early 1900’s due to increased automobile ownership. The Sand Creek Bridge continues to be used as a vehicular bridge. It is representative of the booming Oklahoma economy of the early 1900’s that was tied to the cotton and oil markets.

## **PART II. STRUCTURAL/DESIGN INFORMATION**

### **A. GENERAL DESCRIPTION:**

The Sand Creek Pratt Pony Truss Bridge is a one lane vehicular bridge supporting E0815 Rd. The structure runs east-west to accommodate the south-flowing drainage of Sand Creek.

The structure consists of one main span with two approach spans. The decking is wood plank with blacktop overlay. The spans are supported by a total of four steel columnar piers. Two piers are placed at both the east and west ends of the bridge. The total length of the structure is 105 feet (ft) and the total width is 14.5 feet(ft). The truss consists of two panels, inclined end posts, and vertical and diagonal members. The end posts and top chord consist of two channels with V-lacing. The eight diagonal and six vertical members consist of angles connected by stay plates. The structural system is riveted together with plates located at each connection. The original railing appears intact and consists of two channels running parallel along the truss.

The structure has a 16 foot wide timber deck with blacktop overlay, 4 metal stringers, and 7 floor beams. The structure is supported by columnar steel piers approximately 20 feet in height with an approximate diameter of 5 feet.

1. **Character:** The Pratt Truss design was developed and patented by Caleb and Thomas Willis Pratt in 1844. The Pratt Pony Truss design was widely used in Oklahoma in the pre-World War I era and was popular because of its ease of construction and can be found commonly in bridges that range from 50 to 100 feet in length.
2. **Condition of Fabric:** The Sand Creek Pratt Pony Truss Bridge shows signs of deterioration due to age and the elements. Deterioration includes cracked road bed, bent and warped guardrails and a replaced footing on the southeast pier.

**B. Site Information:** The Sand Creek Pratt Pony Truss Bridge is located on a secondary road, approximately .5 miles east of Bristow. The landscape immediately surrounding the bridge is covered in native vegetation following the creek bank. To the east lies open cattle pasture. No other structures or buildings are located near the bridge.

### **PART III. SOURCES OF INFORMATION**

#### **A. Primary Sources:**

##### *Bristow Record* [Bristow, Oklahoma]

- 1914 "Sapulpa Bristow Road to be Marked and Made Faster." 29 May:1. Bristow, Oklahoma.
- 1914 "Other Men Figuring on Making Bristow-Sapulpa Road." 14 August:1. Bristow, Oklahoma.
- 1914 "Col. Frank Still Progressing on His Sapulpa-Bristow Road." 28 August:4 Bristow, Oklahoma.

##### Creek County Clerk (CCC)

- 1913 Creek County Commission Proceedings. Vol. 2:345. Creek County Court House, Sapulpa, Oklahoma
- 1913 Creek County Commission Proceedings. Vol. 2:53. Creek County Court House, Sapulpa, Oklahoma
- 1913 Creek County Commission Proceedings. Vol. 2:477. Creek County Court House, Sapulpa, Oklahoma

##### Interviews:

- 2012 Chapman, Jim in Bristow, Oklahoma via telephone. (25 June 2012)
- 2012 Krumme, George of Krumme Oil Co. in Bristow, Oklahoma via telephone. (25 June 2012)

##### Oklahoma Department of Transportation

- 2011 Bridge Inspection Report NBI No. 00279, Structure no.: 19E0815N372000005, Local ID 180

##### Purdy, C.H.

1900-26 Personal Diary, Bristow Public Library.

##### U.S. Geological Survey (USGS)

- 1902 Indian Territory, 1:500,000. Map obtained from American Geographical Society Library Map Collection, <http://collections.libuwm.edu>. (Accessed June 15, 2012)/u/?agdm.551.
- 1916 Bristow, Oklahoma. Bristow Quadrangle, 1:62,500. Map obtained from McCasland Map Collection, Oklahoma State University Library, [luna.library.okstate.edu](http://luna.library.okstate.edu). (Accessed June 15, 2012)



B. Secondary Sources

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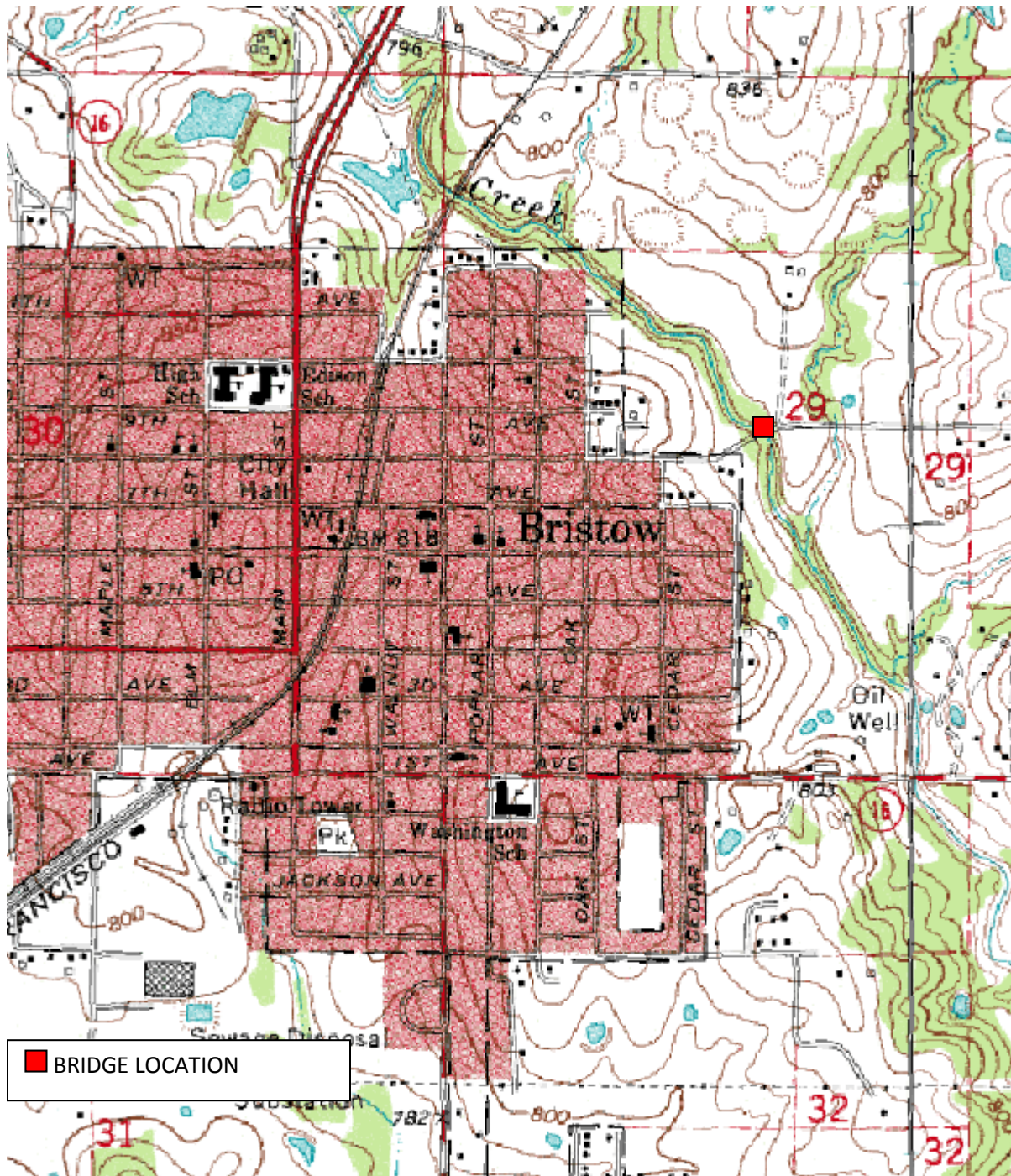
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- 2011 "Creek County." <http://digital.library.okstate.edu/encyclopedia/entries/c/cr008.html> (Accessed June 20, 2012)
- 2011 "Bristow." <http://digital.library.okstate.edu/encyclopedia/entries/b/br017.html>. (Accessed June 20, 2012)

SAND CREEK PRATT PONY TRUSS  
CREEK COUNTY, OKLAHOMA  
LOCATION MAP



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Heath Henry, Photographer, June 2012

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5. SPAN AND EAST PIERS FROM CREEK BED, LOOKING NORTH
6. NW PIER DETAIL, LOOKING SE
7. PANEL DETAIL, LOOKING SOUTH
8. GUSSETT PLATE DETAIL, LOOKING SOUTH
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