

PAWPAW CREEK PARKER PONY TRUSS
Spanning Pawpaw Creek
Vinita vicinity
Craig County
Oklahoma

PHOTOGRAPHS

AND

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD

Submitted to:

Oklahoma State Historic Preservation Office

800 Nazih Zuhdi Drive

Oklahoma City, Oklahoma 73105

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Anna Eddings, Photographer, December 2010

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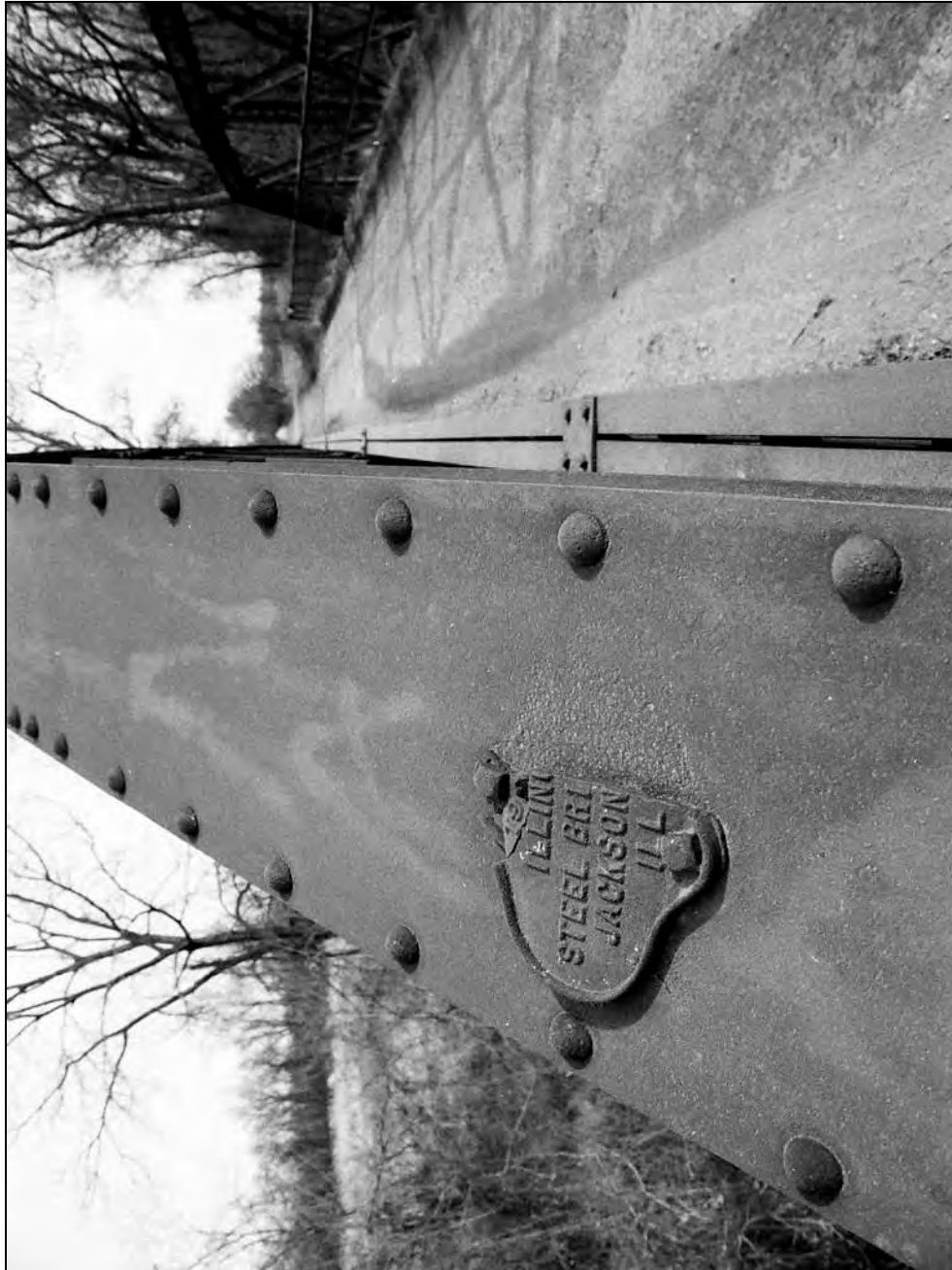
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PAWPAW CREEK PARKER PONY TRUSS
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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD

PAWPAW CREEK PARKER PONY TRUSS

Location: Spanning Pawpaw Creek, at Road E0250, in the Vinita vicinity, Craig County, Oklahoma.
UTM: 15/E300194/N300194
Quad: Vinita

Legal Location: Sections 11 and 14, T25N, R19E

Present Owner: Craig County, Oklahoma
ODOT Structure Number 18E0250N4350009

Present Use: Vehicular Bridge

Significance: The Pawpaw Creek Parker Pony Truss Bridge was constructed in 1911 by the Illinois Steel Bridge Company of Jacksonville, Illinois, as a one-lane vehicular bridge over Pawpaw Creek in Craig County, Oklahoma. The Parker truss design, a modified Pratt truss, was designed with an arched top chord that used less metal for construction. Although economical, the design was better suited for use on larger through trusses. However, for a short period, approximately 1908 through 1915, the design was used to construct small pony trusses (85 to 110 feet). The Pawpaw Creek Parker Pony Truss Bridge is a good example of its type and is a good representative example of the work done by the Illinois Steel Bridge Company. Furthermore, the structure demonstrates a pattern of rural development in Craig County during the 1910s.

Project Information: Historic American Engineering Record (HAER) Level II equivalent documentation was performed in December 2010 and June 2012. Tanya McDougall, Architectural Historian, conducted an on-site visit and compiled the historical information in June 2012. Photo documentation was conducted in December 2010 by Anna Eddings, an Architectural Historian with the Oklahoma Department of Transportation. Photographs for this report have been digitally reproduced following National Park Service (NPS) standards for digital images. This HAER recordation serves as mitigation for the removal of the structure from vehicular traffic.

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PART I. HISTORICAL INFORMATION

A. Physical History:

- 1. Date of Construction:** 1911
- 2. Architect/Engineer:** Not Known
- 3. Builder/Contractor/Supplier:** Illinois Steel Bridge Company
- 4. Original Plans:** Not Available
- 5. Alterations and Additions:** The Parker pony truss of the Pawpaw Creek Bridge appears unaltered; however, the columns of the two bents supporting the truss (middle span) have been encased in concrete and metal. This was likely done to provide the bridge with additional support. Furthermore, the bridge exhibits normal signs of deterioration (rusting and damage to railing) due to age and exposure.

B. Historical Context:

1. Introduction

The Pawpaw Creek Parker Pony Truss Bridge is located in northeastern Oklahoma, approximately 4 miles west of Vinita in southcentral Craig County. During the 1830s, the area now encompassed by Craig County was part of the Cherokee Nation in what was then Indian Territory (Craig County Genealogical Society 2012). The area remained sparsely populated through the mid-1860s, with agricultural activities limited to subsistence farming. In 1866, the Cherokee Nation agreed to allow other tribes to settle on their land, which resulted in the relocation of the Delaware and Shawnee

tribes to northeast Oklahoma. Many from the Shawnee Tribe settled in what became Craig County; however, during that period, most people lived east of the Grand River (Ottawa County), with only a sparse population to the west (Craig County Heritage Association 1984:2).

With extensive prairie land ideal for grazing, cattlemen from Texas were attracted to Craig County as early as the mid-1800s. Grazing leases allowed them to use the land before moving their herds north. This activity eventually led to the establishment of large ranches, which became an important factor in the area's economic stability (Craig County Genealogical Society 2012). By the 1870s, increased grazing fees and route changes¹ led many cattlemen to promote the construction of a railroad south from Kansas through Indian Territory. The first railroad was completed in 1871, by the Missouri, Kansas, and Texas Railway (MK&T). Soon after, settlement west of the Grand River increased, and towns, including Vinita, began to develop, established along the MK&T rail line in 1872. Ten years later, the St. Louis and San Francisco Railway made its way through the region, constructing a second railroad line through Vinita (Craig County Genealogical Society 2012).

By 1900, Craig County had a healthy economy, and Vinita was a growing town with several developing industries, including the production of coal, natural gas, and oil. Although these activities were present as early as the 1860s, major production operations did not start until after 1900 (Craig County Heritage Association 1984:26).² In 1907, Oklahoma was admitted to the union, and Craig County was officially formed and Vinita chosen as the county seat. At that time, Vinita was the state's twelfth largest city with a population of 3,157 (Meyer 1909:62).

After statehood, Craig County, particularly in and around Vinita, continued to expand with flourishing cattle, agricultural, and natural resource industries. To help augment this growth, county officials established a good roads district, with Vinita at the center (*Weekly Chieftain* 10 February 1911). The good roads movement, beginning prior to statehood, was a driving force in the establishment of a state highway department, which was provided for by the state constitution in 1907 (Burke 2011:7). Due to the lack of funding and personnel, however, the state highway department was unable to provide for the construction of roads and bridges, leaving the responsibility at the county level during the first few years after statehood (Oklahoma Department of Highways 1970). It was during this transitional period that the Pawpaw Creek Parker Pony Truss Bridge was constructed in Craig County.

2. Development of the Craig County, Pawpaw Creek Parker Pony Truss Bridge

The Pawpaw Creek Parker Pony Truss Bridge, constructed in 1911 by the Illinois Steel Bridge Company of Jacksonville, Illinois (as is indicated by the bridge plaque),³ is

¹ Due to a fear that Texas cattle would spread diseases to the cattle in Kansas, towns along the border began refusing the cattle to cross, forcing the trail to detour east into Missouri (Craig County Heritage Association 1984:4).

² In 1903, a large bed of coal was discovered west of Vinita along Cabin Creek, and the following year the Downingville Oil and Gas Company was organized in Vinita (Craig County Heritage Association 1984:26-27).

³ County Commissioner Minutes were not available at the Craig County Clerk Office in Vinita, Oklahoma.

located on Road E250, approximately 4 miles west of Vinita. Review of the 1897 and 1912 topographic maps show that Road E250 was constructed after 1898 and prior to 1912 (United States Geological Survey [USGS] 1897 and 1912). According to the 1898 plat map, prior to the development of Road E250 the area was mostly undeveloped with rolling fields to the west and agricultural land to the east. Few buildings and roads existed in the area and were more than a mile away from the bridge location. The few roads that did exist were irregular in pattern and design, and were likely developed as needed (Bureau of Land Management 1898).

With significant growth and development occurring in Craig County after statehood, road development and improvements became a priority for local officials. As a result, the county initiated the development of a good roads district in 1911, with proposed routes leading from Tulsa, Sapulpa, Bartlesville, Pawhuska, Muskogee, Claremore, and Vinita. The intent of this initiative was to promote additional growth in the area by providing better access between cities (*Weekly Chieftain* 10 February 1911). By 1912, several roads, including Road E250, were constructed west of Vinita. The new roads were positioned along section lines, replacing the previous irregular road pattern. At that time, the area west of Vinita was also becoming more populated, with buildings and structures located less than a mile from the bridge (USGS 1912).⁴ The increase in development indicates that the good roads initiative was a successful endeavor.

Although the Pawpaw Creek Parker Pony Truss Bridge exemplifies the county's growth during the period after statehood, as a Parker pony truss it also represents a specific period in bridge construction. The Parker, a modified Pratt truss (diagonal members angled inward), uses inclined members to create an arched top chord, which required the use of less steel than the Pratt. With an economical design the Parker became popular among bridge builders and was found to be well suited for larger through trusses. However, for a short period following statehood, approximately 1908 to 1915, the pony truss version of the Parker was often used for smaller structures, measuring 85 to 110 feet (King 1993).

PART II. STRUCTURAL/DESIGN INFORMATION

- A. General Description:** The Pawpaw Creek Parker Pony Truss Bridge is located on Road E250 over Pawpaw Creek, west of Vinita in Craig County, Oklahoma. The structure runs east–west between Sections 11 and 14 (Township 25N/Range19E) to accommodate the northwest–southeast drainage of Pawpaw Creek. The Pawpaw Creek Parker Pony Truss Bridge has a single Parker Pony Truss with a one-lane concrete slab deck. The structure as a whole consists of three spans, which include two approach spans and one center span. The total length of the structure is approximately 145 feet (ft) with the longest span measuring 85 ft.

The center span, which is the Parker pony truss, has an arched top chord consisting of six inclined built-up members. The six panel truss has two center panels with lateral bracing flanked by panels with inward angled diagonal members. In total, each truss wall has five vertical members made up of angles connected by V-lacing, and six diagonal members

⁴ The Millikan Refinery opened west of Vinita in 1911, providing the area with additional jobs and growth (Craig County Heritage Association 1984:4).

made up of angles connected by stay plates. The entire structure is riveted together. The railing along the truss wall is rounded at each end, extends past the truss wall, and consists of lattice bars framed by angles.

The structure is supported by a total of four riveted metal bents with lateral bracing. The bent columns are made up of four angles connected with V-lacing. However, the two bents below the Parker pony truss span have been converted to lally columns (columns encased by concrete), with the concrete casing covering the entire column. Located at each end of the bridge are concrete abutments with straight wing walls and clipped corners.

1. Character: The Parker pony truss design of the Pawpaw Creek Bridge is indicative of its rural setting and period of construction. The structure demonstrates the efforts made during early statehood to improve rural roads and encourage development.

2. Condition of Fabric: The Pawpaw Creek Parker Pony Truss Bridge shows evidence of normal deterioration due to age and exposure to the elements. Noted deterioration includes rusting and damage along the railing.

B. Site Information: The Pawpaw Creek Parker Pony Truss Bridge is located on a secondary road in a rural area. The areas northeast and southwest of the bridge are cleared agricultural fields, whereas the areas northwest and southeast have pockets of heavy vegetation.

PART III. SOURCES OF INFORMATION

A. Primary Sources:

Bureau of Land Management

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Spanning Pawpaw Creek
Vinita Vicinity
Craig County
Oklahoma

LOCATION MAP

PAWPAW CREEK PARKER PONY TRUSS
CRAIG COUNTY, OKLAHOMA
LOCATION MAP

