

CLEAR CREEK PRATT PONY TRUSS
Spanning Clear Creek
Perkins Vicinity
Payne 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, March 2009

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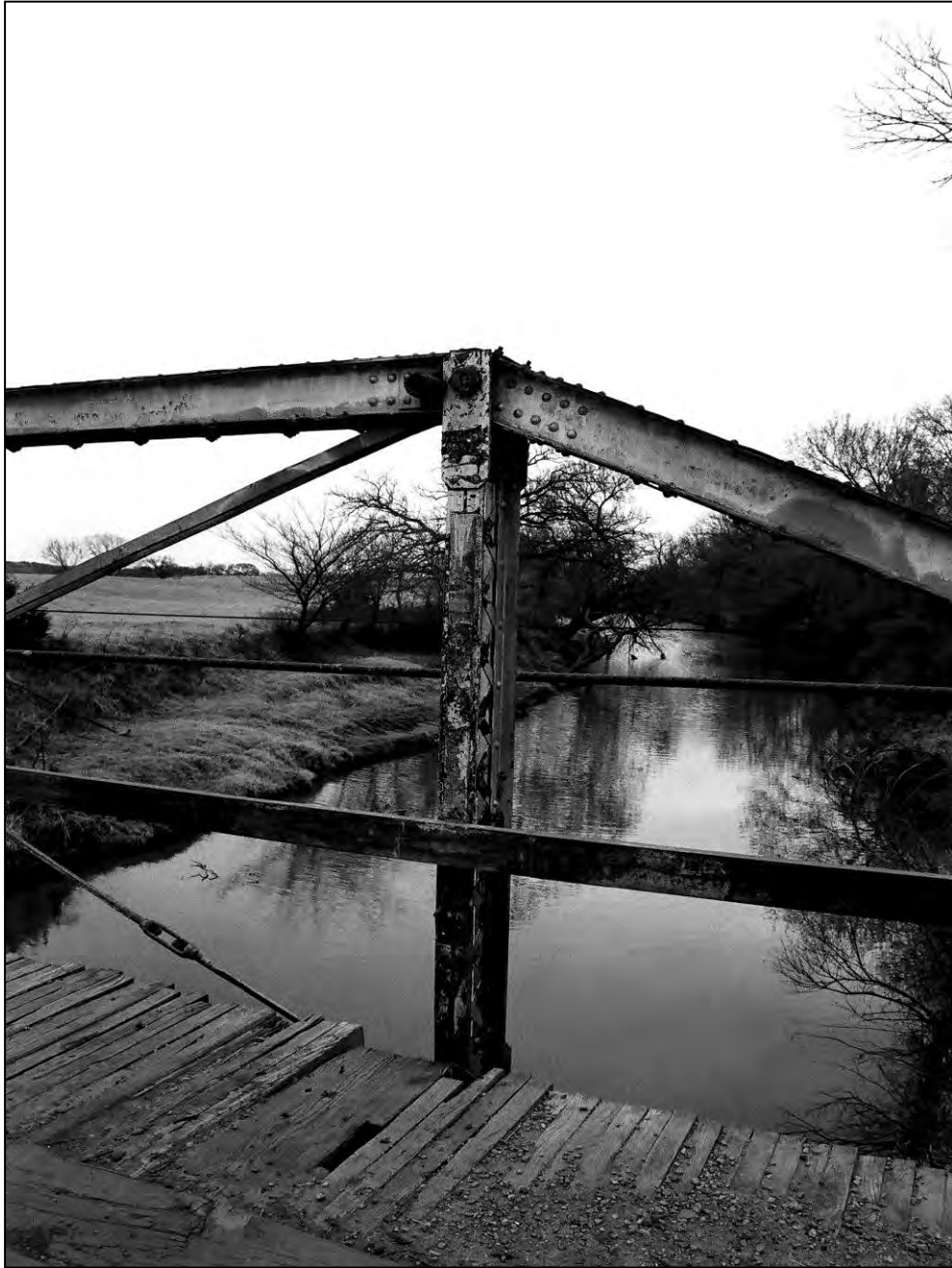
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WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN ENGINEERING RECORD

CLEAR CREEK PRATT PONY TRUSS

Location: Spanning Clear Creek, at Road E0690, in the Perkins vicinity, Payne County, Oklahoma.
UTM: 14/E652191/N3986877
Quad: Clear Creek

Legal Location: Between Sections 21 and 28, T18N, R1W

Present Owner: Payne County, Oklahoma
ODOT Structure Number 60E0690N3190004

Present Use: Vehicular Bridge

Significance: The Clear Creek Pratt Pony Truss Bridge is a one-lane vehicular bridge crossing Clear Creek along Road E0690 in the far southeast corner of Payne County, Oklahoma. The structure was built in 1905 by the Midland Bridge Company of Kansas City, Missouri. The Pratt Pony Truss exhibited on the Clear Creek Bridge was a popular type of truss used frequently by bridge builders for its structural reliability and easy assembly. Bridges constructed using the Pratt Pony Truss commonly ranged from 50 to 100 feet in length. The Clear Creek Bridge, measuring 80 feet in length, is an excellent example of a Pratt Pony Truss and a good representative example from the bridge builder. Furthermore, as a structure located in a historically rural area, the bridge demonstrates a pattern of rural development in Payne County during the early 1900s.

Project Information: Historic American Engineering Record (HAER) Level II equivalent documentation was performed in March 2009 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 March 2009 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:** 1905
- 2. Architect/Engineer:** Not Known
- 3. Builder/Contractor/Supplier:** Built by the Midland Bridge Company of Kansas City, Missouri.
- 4. Original Plans:** Not Available
- 5. Alterations and Additions:** Since its construction in 1905, the Clear Creek Pratt Pony Truss Bridge has undergone several repairs. Noted repairs include the addition of welded plates to the bridge's southeast hip vertical member and center vertical member on the south truss wall. In addition, reinforcing metal bars were added to the turnbuckle on the north truss wall. Due to age and exposure, the structure as a whole also exhibits deterioration of its metal components and wood deck.

B. Historical Context:

1. Introduction

The Clear Creek Pratt Pony Truss Bridge is located over Clear Creek in the far southwest corner of Payne County, Oklahoma, approximately .2 miles north of the Cimarron River. The area encompassed by what is now Payne County was formed

after the opening of the “Unassigned Lands” in 1889.¹ The land was opened for settlement on April 22, 1889, when the initial land run into the Oklahoma District was held. Participating in the land run were approximately 55,000 non-Native American settlers, many of whom claimed land near waterways and/or established railroad lines. The surge of new settlers into the district pushed Congress to pass the Organic Act of 1890, which established the district boundaries and created seven counties, including Payne County, then known as County Six. Oklahoma’s territorial capital was located in Guthrie, Logan County, and remained there through statehood in 1907. The state capital was moved in 1910 to Oklahoma City, Oklahoma County, where it remains today (Wilson 2012).

After the opening of the unassigned lands and creation of the Oklahoma District, Payne County quickly filled with new settlers. Soon after, towns began to develop in all parts of the county. The two largest cities in the county at that time were Perkins and Stillwater, the later chosen as the county seat. In 1900, Payne County had a population of 19,419 and an economy primarily based in agriculture (Department of Commerce and Labor 1907:8). The principal crops grown were cotton, corn, and wheat. By 1902, there were two major rail lines in Payne County, both operated by the Atchison, Topeka, and Santa Fe Railway. The development of these rail lines prompted the establishment of new towns, particularly along the railroad, and provided smaller existing communities with access to larger markets (Newsom 2012).

Through the early 1900s, Payne County sustained an agriculturally based economy and in 1902 had an increased population of 22,081 (*Stillwater Gazette* 30 June 1905). As the county continued to grow so did the demands on the public roadways. Roads in the county and throughout the Oklahoma District, however, were little more than cleared dirt paths maintained by local citizens (Burke 2011:4). Through the early twentieth century, good-roads associations were created in many cities throughout Oklahoma, advocating for road improvements. In 1904, the Good Roads Association of Payne County was established in Stillwater. The group quickly began promoting the development of a “uniform system of improved roads for the county, state, and nation” (*Stillwater Gazette* 8 December 1904).

The advocacy for the development of better roads was well received both socially and politically. It was commonly recognized that the development of good roads was a necessary factor in the continued economic growth of towns, cities, and emerging industries (Burke 2011:7; King 1993). However, during that period, it was the responsibility of the county officials to ensure the construction and maintenance of good roads,² but shortfalls in the county’s budget often hindered or delayed road

¹ During the U.S. Civil War (1861–1865), the Creek, Choctaw, Cherokee, Chickasaw, and Seminole tribes signed treaties with the Confederacy; however, members of each tribe are also known to have fought for Union forces (Pennington 2012). Nonetheless, after the war, the tribes were viewed as Confederate supporters and lost portions of their land in the Reconstruction Treaties of 1866. The lands ceded by the tribes were later dubbed “Unassigned Lands” due to the lack of assignment to a tribe in Indian Territory.

² In 1907, the Oklahoma constitution provided for the establishment of a state highway department (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. It was not until the 1920s that changes in federal law mandated that state highway departments directly supervise plans and contracts for construction projects (Burke 2011:18; Oklahoma Department of Highways 1970).

projects. Between 1903 and 1905, the Payne County Commissioners Board delayed the construction of more than 31 bridge projects due to the lack of funding (Payne County Commissioners [PCC] 1903:Commissioners Minutes [CM] 2:341; *Stillwater Gazette* 3 July 1905). It was during this financially unstable period that the Clear Creek Pratt Pony Truss Bridge was constructed in Payne County.

2. Development of the Payne County, Clear Creek Pratt Pony Truss Bridge

The Clear Creek Pratt Pony Truss Bridge is located on Road E0690, between Sections 21 and 28, Township 18N, Range 1W, in the far southwest corner of Payne County, Oklahoma. The bridge crosses Clear Creek, a northern tributary of the Cimarron River. In 1873, the area was unsettled and roads had not yet been established (Bureau of Land Management 1873). After 1889, when the unassigned lands were opened to non-Native Americans, the town of Clarkson was established on Section 23, Township 18N, Range 1W (approximately 2.5 miles east of the bridge's location). By 1893, a uniform system of roads (roads located on the section lines) was established, including Road E0690, which extended from the town of Clarkson, west for approximately 6 miles. At that time, a few structures were located along the road; however, it is unclear if a bridge was located over Clear Creek (United States Geological Survey [USGS] 1893).

In 1902, the Atchison, Topeka, and Santa Fe Railway began operating a rail line that ran along the south side of the Cimarron River. Soon after, the towns of Pleasant Valley and Coyle developed on the rail line, south of Clarkson. After that point, growth in Clarkson was stunted and in 1903, the town's postal service was rerouted south to Coyle (*Guthrie Daily Leader* 26 February 1903). The area west of Clarkson remained rural; however, some growth occurred between 1893 and 1907, including the development of farms and rural churches and schools (George A. Ogle and Company 1907; USGS 1893).

As development between towns and the need to move goods to larger markets and railroad depots increased, so also did the need for better public roads. However, approval from the Payne County Commissioners Board to construct roads and bridges was often delayed due to the lack of funding. In 1902, the county's Commissioners Board issued a "continuation for investigation" regarding the location of the Clear Creek Bridge (PCC 1902:CM 2:266). The following year, the Commissioners Board issued a continuation on all bridge petitions due to the lack of funds in 1902 and the demand for bridges being so numerous. In order to determine "where bridges were most needed and where they would be of greatest public utility and benefit," the board chose to personally inspect each bridge location (PCC 1903:CM 2:341). This process was continued in 1904 and 1905, but according to the bridge plate, the Clear Creek Pratt Pony Truss Bridge was constructed in 1905 by the Midland Bridge Company of Kansas City, Missouri³ (PCC 1904:CM 2:457; PCC 1905: CM 2:521).

As a bridge constructed in the early 1900s prior to statehood, the Pratt Pony Truss design of the structure is also indicative of its period of construction. The Pratt Pony Truss design (inward angled diagonal members) was considered a reliable and uncomplicated type of structure to construct by bridge builders. This popular design was commonly used for structures ranging from 50 to 100 feet in length. The Pratt

³The Midland Bridge Company is also known to have constructed the Cimarron River Bridge at Perkins in 1903 (PCC 1903:CM 2:347).

Pony Truss is attributed to improving early roads, particularly in rural areas (King 1993). The Clear Creek Bridge, measuring 80 feet in length, is an excellent example of its type and of the type of construction done by the Midland Bridge Company.

PART II. STRUCTURAL/DESIGN INFORMATION

- A. General Description:** The Clear Creek Pratt Pony Truss Bridge carries Road E0690 over Clear Creek, a tributary of the Cimarron River, in the far southeast corner of Payne County Oklahoma. The structure runs east–west to accommodate the north–south drainage of Clear Creek. This single-span bridge exhibits a one-lane wood plank deck and a single Pratt Pony Truss. The structure as a whole measures 80 feet (ft) in length and 15.9 ft in width.

The bridge’s single Pratt Pony Truss is a common truss design and typical for rural bridge construction. As a pony truss, the structure has two parallel truss walls, each with two built-up inclined endposts and top chord connected with V-lacing. The web of the truss walls have four panels divided by three built-up vertical members connected with V-lacing. Within each of the two center panels are crossing diagonal members forming an X. The diagonal members are pin-connected and consist of inward angled paired rods and an outward angled rod with turnbuckles. The railing for this structure consists of a single channel that runs along the truss wall and past the endposts.

The one-lane wood plank deck consists of wood floor planks running perpendicular to the bridge with two transverse rows of wood planks on top. Supporting the wood deck is a series of metal floor beams and stringers with lateral bracing. The structure as a whole is supported by wood framed abutments located at each end of the bridge deck.

- 1. Character:** The Pratt pony truss design of the structure is indicative of its rural setting and period of construction. The structure demonstrates the efforts made by Payne County prior to statehood to improve rural roads and encourage local development.
 - 2. Condition of Fabric:** Since its construction, the Clear Creek Pratt Pony Truss Bridge has undergone repairs such as the addition of welded plates to the bridge’s southeast hip vertical member and south vertical member along the south truss wall, and the addition of metal bars to the turnbuckle on the north truss wall. In addition, the structure as a whole exhibits deterioration of its metal components and wood deck due to age and exposure.
- B. Site Information:** The Clear Creek Pratt Pony Truss Bridge is located on a secondary road in a rural area. The landscape immediately surrounding the structure is undeveloped with cultivated fields in all directions. No other structures are located near the bridge.

PART III. SOURCES OF INFORMATION

A. Primary Sources:

Bureau of Land Management

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2012 "Guthrie." <http://digital.library.okstate.edu/encyclopedia/entries/G/GU003.html>. (accessed October 9, 2012).

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LOCATION MAP

CLEAR CREEK PRATT PONY TRUSS
PAYNE COUNTY, OKLAHOMA
LOCATION MAP

