NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

Montana's Historic Steel Truss Bridges MPS Multiple Name

This property is listed in the National Register of Historic Places in accordance with the attached nomination documentation subject to the following exceptions, exclusions, or amendments, notwithstanding the National Park Service certification included in the nomination documentation.

Signatur the Keeper

Action

Amended Items in Nomination:

Classification:

The Number of Contributing Properties Previously Listed should read: 0 [This refers only to resources within the nominated boundaries of this property not to other bridge locations associated with the MPS context.]

These clarifications were confirmed with the MT SHPO office.

DISTRIBUTION: National Register property file Nominating Authority (without nomination attachment)

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets (NPS Form 10-900a).**

1.	Name	of	Pro	perty

Historic name Little Blackfoot River Bridge

Other names/site number 24PW633, MDT No. L39311000+01001

2. Location

street & number Milepost 0 on County Road 186 near junction of US Highway 12		not for publication
--	--	---------------------

city of town Four miles southwest of Avon

State Montana code MT county Powell code 077 zip code 59713

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this \underline{x} nomination \underline{x} 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 <u>x</u> meets <u>does</u> does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

statewide local Signa TVind officia Title State or Federal agency and bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria.

Signature of commenting official

Title

Date

State or Federal agency and bureau

NOV 2 0 2009

 \boxtimes

vicinity

PHI. Office

4. National Park Service Certification

I, hereby, certify that this property is:	Signature of the Keeper	Date of Action
✔ entered in the National Register	Class	
determined eligible for the National Register	Splipm	1/4/2010
determined not eligible for the National Register	<u> </u>	
removed from the National Register		
other (explain:)		

Little Blackfoor River Bridge name of property Montana S Historic Steel Truss Bridges MPS

5. Classification					
Ownership of Property (Check as many boxes as apply) Category of Property (Check only one box) private public - Local public - State public - Federal private building(s) district site structure building(s) object Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing)		Number of Resources within Property (Do not include previously listed resources in the count.)			
				buildings sites structures Objects buildings Total	
Montana's Historic Steel T	russ Bridges		9		
6. Function or Use					
Historic Functions (Enter categories from instructions)		Current Functio (Enter categories from			
TRANSPORTATION/Road-relate	TRANSPORTATION/Road-related (vehicular) =				
Bridge		Bridge			
7. Description	·····				
Architectural Classification (Enter categories from instructions)	······	Materials (Enter categories from	n instructions)		
OTHER: Pratt pony truss		foundation: Concrete			
		walls:		<u> </u>	
		roof:			
		other: <u>Steel, Wo</u>	bod		

8. Statement of Significance

Applicable National Register Criteria Areas of Significance (Mark "x" in one or more boxes for the criteria qualifying the property (Enter categories from instructions) for National Register listing) Engineering Property is associated with events that have made a Α Х Transportation significant contribution to the broad patterns of our history. В Property is associated with the lives of persons significant in our past. Property embodies the distinctive characteristics С Х of a type, period, or method of construction or represents the work of a master, or possesses high **Period of Significance** artistic values, or represents a significant and distinguishable entity whose components lack 1914-1959 individual distinction. Property has yielded, or is likely to yield, information D important in prehistory or history. **Significant Dates** 1914, 1931 **Criteria Considerations** (Mark "x" in all the boxes that apply) **Significant Person** (Complete only if Criterion B is marked above) Property is: owed by a religious institution or used for religious purposes. Α **Cultural Affiliation** removed from its original location. B С a birthplace or grave. a cemetery. D Architect/Builder Ε a reconstructed building, object, or structure. O. E. Peppard F a commemorative property. G less than 50 years old or achieving significance within the past 50 years.

Period of Significance (justification)

The Period of significance for the Little Blackfoot River Bridge is 1914 to 1959. This includes the year the bridge was constructed (1914) and the period it served as an important crossing of the Little Blackfoot River in southwest Montana. The time span also includes the year (1931) when the original east abutment of the bridge was removed by Powell County to accommodate the new alignment of US Highway 12.

Criteria Consideratons (explanation, if necessary)

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

The property is the Little Blackfoot River Bridge, a single-span, pin-connected Pratt pony truss structure and its associated abutments. Built in 1914 by Missoula, Montana contractor O. E. Peppard, the steel superstructure of the bridge has not been altered since 1931 when an approach span was removed when adjacent US Highway 12 was constructed on its existing alignment. The bridge is located in its original location and still carries local traffic across the river on a county road. The camelback trusses are an unusual feature not found on other existing Pratty pony truss bridges from the same period in Montana.

Narrative Description

The Little Blackfoot River Bridge is located in the lower Little Blackfoot valley of southwestern Montana. The bridge crosses the Little Blackfoot River about four miles southwest of Avon and ten miles east of Garrison in Powell County, Montana. The bridge is located within an area that consists of Cretaceous sedimentary sandstones and shale that slid into the area from the east on an overthrust fault about 75 million years ago. Since then, magma intrusions from the Boulder Batholith and Eocene volcanics have also created a distinctly volcanic feel to the north and west of the bridge. The Little Blackfoot River courses through a narrow valley delineated by the Garnet Range on the north and west and the Boulder Mountains on the south and east. Both ranges are rugged and covered in conifers. The valley is low and grassy with numerous wetlands. The valley is now utilized primarily for cattle grazing and hay production. Residential development is also slowly encroaching into the area because of the area's proximity to Helena and the Deer Lodge Valley.¹

The Little Blackfoot River Bridge is a single-span, pin-connected camelback Pratt pony truss structure. It is 61 feet in length and 16 feet wide with a roadway width of 15 feet. The substructure consists of two simple concrete abutments. The upper chords of the span consist of paired channel sections connected by batten plates with continuous steel plates riveted to the upper chords. The lower chords are paired forged steel eyebars. Vertical posts are paired angle sections with batten plates while the diagonals are eyebars, and eyebars with turnbuckles. The timber deck has running planks and is supported by riveted steel I-beam floor beams and eight lines of steel I-beam stringers. Added support is provided by eyebar bottom lateral braces. The deck is flanked by wood curbs and angle section guardrails bolted to the superstructure.

Integrity

Other than the periodic replacement of the timber deck, there have been no substantial changes to the Little Blackfoot River Bridge since an approach span was removed from it in the early 1930s. The bridge is a rare example of a pinconnected camelback Pratt pony truss in Montana that was constructed by one of the state's most prolific bridge-builders, O. E. Peppard. All of the structural components and features common to the design are present on the bridge and are unchanged. The bridge retains its distinctive truss configuration and the timber deck. Other than the construction of US Highway 12 (originally US 10-North) in the 1930s, the setting of the bridge site has not significantly changed. The surrounding area is still used for agricultural purposes and the Little Blackfoot River is still defined by willows and other riverine shrubs. The Little Blackfoot River Bridge retains all its essential elements of design, workmanship, and materials. It appears and functions as it did in 1914 as an important crossing of the river in western Montana.

¹ David Alt and Donald W. Hyndman, *Roadside Geology of Montana*, (Missoula: Mountain Press Publishing, 1991), 197-198.

Statement of Significance Summary Paragraph (provide a summary paragraph that includes level of significance and applicable criteria)

The Little Blackfoot River Bridge is eligible for listing on the National Register of Historic Places under Criteria A and C. The bridge is eligible under Criterion A because of its association with Powell County's efforts to provide an extensive and modern infrastructure for its residents in the years proceeding the US's involvement in World War I. To accomplish that goal, the county commissioners and voters approved the issuance of bonds to fund the program, participated in bridge pools, and, in the process, obtained a network of modern steel truss bridges that could best serve the goals desired by the commissioners. The Little Blackfoot River Bridge was just one component of the county's extensive transportation system. It is eligible for the National Register under Criterion C as an excellent example of an intact pin-connected camelback Pratt pony truss structure. Pin-connected Pratt trusses were commonly built by the counties throughout Montana from 1892 until 1915 because it best suited the needs placed on it by users, was inexpensive, and easy to construct. All of the features and structural components associated with this bridge type are intact and unchanged. There have been no alterations or other changes made to this structure since its construction in 1914. A timber approach span was removed by the Montana Highway Department about 1931, but it did not impact the function or appearance of the truss span. It is a representative example of the type of bridges designed and built by Montana's counties in the years before World War I.

Engineering Significance

The Little Blackfoot River Bridge is an excellent example of a simple pin-connected Pratt pony truss structure. From 1888 to 1915, pin-connections were standard to steel truss bridges built in Montana. The pin connections streamlined the fabrication process for eastern bridge manufacturers and simplified the erection process on-site. The bridges arrived at the construction sites as, essentially, a very large steel model kit that had already been manufactured to conditions of the crossing site. Indeed, the majority of the construction time for these types of bridges involved the construction of the concrete foundation and not the actual erection of the structural steel. The construction of this type of bridge followed a specific pattern: the counties awarded a contract to one of the myriad private bridge companies operating in Montana during the late 19th and early 20th centuries. The company, in turn, ordered a steel bridge to the courty's specifications, assembled it in the factory, dissembled it, and shipped it to the bridge site where it was erected by the bridge firm for the county. The pin-connections facilitated this process and made the construction of substantial steel bridges a common and relatively inexpensive action for Montana counties before 1915. Beginning in 1915, the process was changed to include the state oversight of the bidding process and bridges were riveted structures designed by the state highway department. The Little Blackfoot River Bridge is representative of the process between 1888 and 1915 and is one of only a few camelback Pratt pony truss bridges in Montana.

Narrative Statement of Significance (provide at least one paragraph for each area of significance)

The Little Blackfoot River Bridge can be listed in the National Register of Historic Places under Criterion A for its association with the development of Powell County during the Homestead Boom of 1909-1918 and the expansion of the county's infrastructure to accommodate its new residents. Beginning in 1911, the Powell County Board of Commissioners advertised bond sales every two years to the county's voters for the improvement of roads and the construction of new bridges. The County Commissioner Proceedings indicate that the bond sales passed overwhelmingly up to the United States' entry into World War I in April 1917. Thereafter drought, economic depression, and an exodus of residents from the county contributed to a decline in the county's ability to maintain its infrastructure. The Little Blackfoot River Bridge, however, is characteristic of the county's "golden age" of bridge construction (it was one of four steel truss bridges built by Powell County in 1914). The bridge is also representative of the method utilized by Montana counties to build substantial bridges between 1888 and 1915 and the County Commissioner Proceedings suggest that bridge pooling was actively conducted in the county during the first two decades of the 20th century.

The Little Blackfoot River Bridge is also an excellent example of a rare pin-connected camelback Pratt pony truss structure. The design of the structure contains elements common to all pin-connected pony truss bridges built in Montana from about 1892 until 1915 when the State Highway Commission standardized bridge designs in Montana. These include paired eyebar lower chords, diagonals, counters, and bottom lateral braces. The upper chords are also standard to pin-connected bridges built during this period. Unusual features include steel I-beam stringers (suggesting that the bridge was on the main route between Helena and the Deer Lodge Valley) and the camelback upper chords. There have not been any substantial modifications to the bridge (other than routine maintenance) since 1931 when the approach span was removed to accommodate a new roadway on a different alignment. All of the original components of the bridge are intact

and still functioning in their original capacity. The bridge is an excellent example of the type and is eligible for the National Register under Criterion C.

Developmental history/additional historic context information (if appropriate)

On January 14, 1914, the County Commissioners authorized the County Clerk to advertise for the construction of two steel bridges in Powell County. One of the advertisements was for "a bridge across the Little Blackfoot River upon the county road four miles southwest of Avon." The advertisement specified a 61-foot steel span with a 24-foot timber approach span for a structure with a total length of 84 feet. The commissioners received bids from nine companies with proposals ranging from a high of \$2,719 submitted by the Central States Bridge Company to a low bid of \$2,540 from the Missoula-based O. E. Peppard Company of Missoula. The commissioners awarded the project to Peppard on January 30, 1914. At a special meeting of the county commissioners held on May 8, 1914, they formally accepted the bridge from Peppard. It is not known when the timber approach span was removed, but it may have occurred in 1931 when the Montana Highway Department completed its first highway improvement project through the area between Avon and Garrison.²

O. E. Peppard

Obert E. Peppard was one of the most prolific of the Montana-based private bridge contractors operating in the state in the late 19th and early 20th centuries. Born in Lansing, Michigan in December 1855, Peppard was the son of a bridge builder. In the 1870s, the family relocated to Red Field, Iowa, where Obert learned the trade from his father. In 1881, he set out for

Alaska, working his way across the country at a variety of construction jobs. By 1882, he was the supervisor of bridges and buildings for the Northern Pacific Railroad's Missoula Division in Montana. During his tenure with the railroad, Peppard oversaw the construction of several bridges on the railroad's Philipsburg and Bitterroot branch lines.³

By 1889, however, Peppard had decided to go into the bridge business for himself. That year, he obtained contracts from Powell County to construct two bridges across the Clark Fork River at Gold Creek and Deer Lodge (both bridges were demolished by 1982). Over the next three decades, Peppard built bridges in western Montana, including the first Higgins Avenue Bridge in Missoula about 1892 and nearly every vehicular bridge across the Bitterroot and Blackfoot rivers. Between 1907 and 1917, when he closed his bridge-building business, Peppard built at least 27 bridges in the Treasure State.⁴

Increasingly strict quality and economic controls by the Montana State Highway Commission and a downturn in the economy of many of the eastern Montana counties where he was most active, compelled Peppard to close his bridgebuilding business in 1917. Instead, he and his son went into the farm implement business and opened stores in Missoula and Spokane, Washington. Unfortunately, in 1920, Montana and much of the West was struck by a severe economic depression that resulted in the abandonment of 20 percent of Montana's 55,000 farms. Peppard subsequently closed his farm implement business and lived for the rest of his life on the income derived from his apartment building property in Missoula. When Obert E. Peppard died on September 25, 1929, the *Daily Missoulian* praised him as "one of the best known bridge builders and contractors of western Montana."⁵

² Commissioners' Journal: Powell County, Book 3, 38-40, 51, 53; *Report of State Highway Commission of Montana for the Biennium Ending December 1932*, (Helena: State Highway Commission, 1932), 26.

³ Fredric Quivik, *Historic Bridges in Montana*, (Washington DC: National Park Service, 1982), 39, 41; "O.E. Peppard Passes After a Short Illness," *The Daily Missoulian*, September 26, 1929.

⁴ Quivik, *Historic Bridges*, 39, 41; "O. E. Peppard Passes."

⁵ Quivik, *Historic Bridges*, 39, 41; "O.E. Peppard Passes;" Michael P. Malone, Richard B. Roeder, and William L. Lang, *Montana: A History of Two Centuries*, Rev. ed. (Seattle: University of Washington Press, 1991), 281, 283.

Little Blackfoor River Bridge	Powell County, Montana
name of property	County and State
Montana's Historic Steel Truss Bridges MPS	
9. Major Bibliographical References	
Bibliography (Cite the books, articles, and other sources used in preparin	ng this form on one or more continuation sheets)
(see Continuation Pages)	
Previous documentation on file (NPS):	Primary location of additional data:
preliminary determination of individual listing (36 CFR 67 has been	State Historic Preservation Office
requested	X_Other State agency
previously listed in the National Register	Federal agency
previously determined eligible by the National Register designated a National Historic Landmark	Local government University
recorded by Historic American Buildings Survey #	Other
recorded by Historic American Engineering Record #	Name of repository: Montana Department of Transportation
Historic Resources Survey Number (if assigned):	

10. Geographical Data

Acreage of Property 1

(do not include previously listed resource acreage)

UTM References

(Place additional UTM references on a continuation sheet)

1	12	372520	5158870	3			
	Zone	Easting	Northing		Zone	Easting	Northing
~							
2	Zone	Easting	Northing	4	Zone	Easting	Northing
	Zone	Casung	Noranny		Zune	Lasung	norumy

Verbal Boundary Description (describe the boundaries of the property)

The boundary for the Little Blackfoot River Bridge measures 61 x 25 feet. The boundary encompasses the bridge and its approaches on both sides of the Little Blackfoot River. The boundary is centered on the bridge.

Boundary Justification (explain why the boundaries were selected)

Boundaries for the Little Blackfoot River Bridge are drawn to encompass the single span of the bridge, its immediate approaches and that portion of the Little Blackfoot River spanned by the bridge. The width is increased beyond the measurements of the structure to include the abutments.

11. Form Prepared By		·····
name/title Jon Axline/Historian		
organization Montana Department of Transportation	date Septembe	er 20, 2009
street & number 2701 Prospect Avenue	telephone (400	6) 444-6258
city or town Helena	state MT	zip code 59620-1001
e-mail jaxline@mt.gov		

Additional Documentation

Submit the following items with the completed form:

• 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. Key all photographs to this map.

- Continuation Sheets
- Additional items: (Check with the SHPO or FPO for any additional items)

Photographs:

Submit clear and descriptive black and white photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. **Name of Property:**

City or Vicinity:

County:

State:

Photographer:

Date Photographed:

Description of Photograph(s) and number:

1 of ____.

(See Continuation pages)

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.). Estimated Burden Statement: Public reporting burden for this form is estimated to average 18 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, PO Box 37127, Washington, DC 20013-7127; and the Office of

Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

National Register of Historic Places Continuation Sheet

Name of Property Little Blackfoot River Bridge

County and State Powell County, Montana

Name of multiple property listing (if applicable) Montana's Historic Steel Truss Bridges

Section number 9 Page 1

Bibliography

- Alt, David and Donald W. Hyndman. Roadside Geology of Montana. (Missoula: Mountain Press Publishing, 1991).
- Axline, Jon. Conveniences Sorely Needed: Montana's Historic Highway Bridges, 1860-1956. (Helena: Montana Historical Society, 2005).
- Bridge Inspection File No. 39311000+01001. Montana Department of Transportation, Helena.
- Commissioners' Journal: Powell County. Book 3. Clerk and Recorders Office. Powell County Courthouse. Deer Lodge, Montana.
- Courchene, Dorene, ed. *Powell County: Where It All Began.* (Deer Lodge: Powell County Museum and Arts Foundation, 1989).
- Malone, Michael P., Richard B. Roeder, and William L. Lang. *Montana: A History of Two Centuries*. Rev. ed. (Seattle: University of Washington, 1991).
- "O. E. Peppard Passes After Short Illness. The Daily Missoulian, 29 September, 1929.
- Quivik, Fredric L. Historic Bridges in Montana. (Washington, DC: Department of the Interior, 1982).
- Report of State Highway Commission of Montana for Biennium Ending December 1932. (Helena: State Highway Commission, 1932).

National Register of Historic Places Continuation Sheet

Name of Property Little Blackfoot River Bridge

County and State Powell County, Montana

Name of multiple property listing (if applicable) Montana's Historic Steel Truss Bridges

Section number 10 Page 1



Location of Little Blackfoot River Bridge (T10N R9W S36, Luke Mountain 7.5' quadrangle, 1989)

National Register of Historic Places Continuation Sheet

Name of Property Little Blackfoot River Bridge

County and State Powell County, Montana

Name of multiple property listing (if applicable) Montana's Historic Steel Truss Bridges

Photographs Page 1

Name: County and State: Photographer: Date of Photograph: Location of original negative: Description and view of camera: Photograph:	Little Blackfoot River Bridge (24PW633) Powell County, Montana Jon Axline May 2009 Montana Department of Transportation. Helena, Montana. Little Blackfoot River Bridge. South profile of truss span. View to the north. 0001
Name: County and State: Photographer: Date of Photograph: Location of original negative: Description and view of camera: Photograph:	Little Blackfoot River Bridge (24PW633) Powell County, Montana Jon Axline May 2009 Montana Department of Transportation. Helena, Montana. Little Blackfoot River Bridge. East portal. View to the west. 0002
Name: County and State: Photographer: Date of Photograph: Location of original negative: Description and view of camera: Photograph:	Little Blackfoot River Bridge (24PW633) Powell County, Montana Jon Axline May 2009 Montana Department of Transportation. Helena, Montana. Little Blackfoot River Bridge. North profile of truss span and west portal. View to the East-southeast. 0003
Name: County and State: Photographer: Date of Photograph: Location of original negative: Description and view of camera: Photograph:	Little Blackfoot River Bridge (24PW633) Powell County, Montana Jon Axline May 2009 Montana Department of Transportation. Helena, Montana. Little Blackfoot River Bridge. Detail of upper chord and pin-connection. View to the north. 0004
Name: County and State: Photographer: Date of Photograph: Location of original negative: Description and view of camera: Photograph:	Little Blackfoot River Bridge (24PW633) Powell County, Montana Jon Axline May 2009 Montana Department of Transportation. Helena, Montana. Little Blackfoot River Bridge. Detail of dedication plate: "Built by O.E. Peppard. Missoula, Montana. 1914." View to the west. 0005

NPS Form 10-900-a (Rev. 8/2002)

OMB No. 1024-0018

(Expires 5-31-2012)

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Name of Property Little Blackfoot River Bridge

County and State Powell County, Montana

Name of multiple property listing (if applicable) Montana's Historic Steel Truss Bridges

Photographs

Page 2



Photograph 0001. Little Blackfoot River Bridge. South profile of truss span. View to the north.

National Register of Historic Places Continuation Sheet

Name of Property Little Blackfoot River Bridge

County and State Powell County, Montana

Name of multiple property listing (if applicable) Montana's Historic Steel Truss Bridges

Photographs

Page 3



Photograph 0002. Little Blackfoot River Bridge. East portal. View to west.

NPS Form 10-900-a (Rev. 8/2002)

United States Department of the Interior National Park Service

National Register of Historic Places Continuation Sheet

Name of Property Little Blackfoot River Bridge

County and State Powell County, Montana

Name of multiple property listing (if applicable) Montana's Historic Steel Truss Bridges

Photographs

Page 4



Photograph 0003. Little Blackfoot River Bridge. North profile of truss span and west portal. View to the Eastsoutheast.

National Register of Historic Places Continuation Sheet

Name of Property Little Blackfoot River Bridge

County and State Powell County, Montana

Name of multiple property listing (if applicable) Montana's Historic Steel Truss Bridges

Photographs

Page 5



Photograph 0004. Little Blackfoot River Bridge. Detail of upper chord and pin-connection. View to the north.

National Register of Historic Places Continuation Sheet

Name of Property Little Blackfoot River Bridge

County and State Powell County, Montana

Name of multiple property listing (if applicable) Montana's Historic Steel Truss Bridges

Photographs

Page 6



Photograph 0005. Little Blackfoot River Bridge. Detail of dedication plate: "Built by O.E. Peppard. Missoula, Montana. 1914." View to the west.