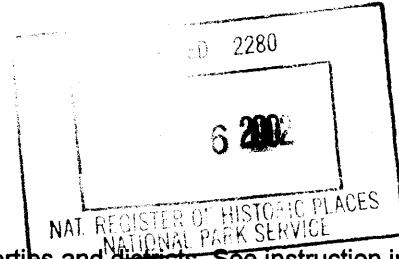


United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form



1156

This form is for use in nominating or requesting determination for individual properties and districts. See instruction in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an 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 entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Eagle River Bridge

other names/site number CDOT No. F-09-H; 5EA1608

2. Location

street & number US Highway 6 at milepost 150.24 [N/A] not for publication

city or town Eagle [X] vicinity

state Colorado code CO county Eagle code 037 zip code _____

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this [X] nomination [] 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 [X] meets [] does not meet the National Register criteria. I recommend that this property be considered significant [] nationally [] statewide [X] locally. ([] See continuation sheet for additional comments.)

Geservina Contegoglio
Signature of certifying official/Title

State Historic Preservation Officer

August 21, 2002
Date

State Historic Preservation Office, Colorado Historical Society
State or Federal agency and bureau

In my opinion, the property [] meets [] does not meet the National Register criteria. ([] See continuation sheet for additional comments.)

Signature of certifying official/Title

Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

- entered in the National Register
[] See continuation sheet.
- determined eligible for the
National Register
[] See continuation sheet.
- determined not eligible for the
National Register.
- removed from the
National Register
- other, explain
[] See continuation sheet.

Edson A. Beall
Signature of the Keeper

Date of Action

10/15/02

Eagle River Bridge
Name of Property

Eagle County, Colorado
County/State

5. Classification

Ownership of Property

(Check as many boxes as apply)

- private
- public-local
- public-State
- public-Federal

Category of Property

(Check only one box)

- building(s)
- district
- site
- structure
- object

Number of Resources within Property

(Do not count previously listed resources.)

Contributing

Noncontributing

0 0 buildings

0 0 sites

1 0 structures

0 0 objects

1 0 Total

Name of related multiple property listing.

(Enter "N/A" if property is not part of a multiple property listing.)

Highway Bridges in Colorado

Number of contributing resources previously listed in the National Register.

0

6. Function or Use

Historic Function

(Enter categories from instructions)

Road-related

Current Functions

(Enter categories from instructions)

Road-related

7. Description

Architectural Classification

(Enter categories from instructions)

Other: Steel rigid-connected Parker through
truss

Materials

(Enter categories from instructions)

foundation
walls

roof
other Steel
Concrete
Asphalt

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

Eagle River Bridge
Name of Property

Eagle County, Colorado
County/State

8. Statement of Significance

Applicable National Register Criteria

(Mark "X" in one or more boxes for the criteria qualifying the property for National Register listing.)

- A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B** Property is associated with the lives of persons significant in our past.
- C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D** Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations

(Mark "X" in all the boxes that apply.)

Property is:

- A** owned by a religious institution or used for religious purposes.
- B** removed from its original location.
- C** a birthplace or grave.
- D** a cemetery.
- E** a reconstructed building, object, or structure.
- F** a commemorative property.
- G** less than 50 years of age or achieved significance within the past 50 years.

Narrative Statement of Significance

(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographical References

Bibliography

(Cite the books, articles and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey
- # _____
- recorded by Historic American Engineering Record
- # _____

Areas of Significance

(Enter categories from instructions)

Transportation
Engineering

Periods of Significance

1933-1952

Significant Dates

N/A

Significant Person(s)

(Complete if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

Colorado Department of Highways
Virginia Bridge & Iron Company
Horner, A.S. & Switzer, C.A.

Primary location of additional data:

- State Historic Preservation Office
- Other State Agency
- Federal Agency
- Local Government
- University
- Other

Name of repository:
Colorado Historical Society
Colorado Dept. of Transportation

Eagle River Bridge
Name of Property

Eagle County, Colorado
County/State

10. Geographical Data

Acreage of Property less than one

UTM References

(Place additional UTM references on a continuation sheet.)

1. 13 344270 4391400
Zone Easting Northing

2. _____
Zone Easting Northing

3. _____
Zone Easting Northing

4. _____
Zone Easting Northing

[] See continuation sheet

Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

11. Form Prepared By

name/title Office of Archaeology and Historic Preservation and Clay Fraser, principal
organization Colorado Historical Society and Fraser Design date May 21, 2002
street & number 1300 Broadway telephone 303-866-4681
city or town Denver state CO zip code 80203

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

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.

Photographs

Representative **black and white photographs** of the property.

Additional Items

(Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of SHPO or FPO.)

name Colorado Department of Transportation
street & number 4201 E. Arkansas Avenue telephone _____
city or town Denver state CO zip code 80222

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. 470 et seq).

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National Park Service

National Register of Historic Places
Continuation Sheet

Eagle River Bridge
Eagle County, Colorado
Highway Bridges in Colorado, MPS

Section number 7 Page 1

DESCRIPTION

Location: US Highway 6 at milepost 150.24, 0.7 miles east of Eagle

Setting: Over Eagle River

Structure length: 154 feet

Structure width: 25.10 feet

Roadway width: 24 feet

Main span number: 1

Main span length: 150 feet

Superstructure: Steel, rigid-connected Parker through truss

Substructure: Concrete abutments and wingwalls

Floor/decking: Concrete deck with asphalt overlay

Other features: Upper chord – 2 channels with cover plate and lacing

Lower chord – 2 channels with batten plates

Vertical and diagonal – wide flange

Floor beams and stringers – steel I-beam

Steel lattice guardrails

Colorado Highway Department bridgeplates

Erected: 1933

Designer: Colorado Department of Highways

Fabricator: Virginia Bridge & Iron Company

Contractor: A.S. Horner & C.A. Switzer

Alterations: Flex beam guardrails at approaches

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National Park Service**

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Eagle River Bridge
Eagle County, Colorado
Highway Bridges in Colorado, MPS

Section number 8 Page 2

SIGNIFICANCE

The 1933 Eagle River Bridge on US Highway 6, 0.7 miles east of Eagle, meets the registration requirements under Criterion A in the area of Transportation and under Criterion C in the area of Engineering as set forth in the *Highway Bridges in Colorado*, Multiple Property Documentation Form. The period of significance begins in 1933 with the completion of the bridge and extends through its historic use to 1952, a date fifty-years-of-age in keeping with National Register criteria.

Over its lengthy existence, the Eagle River Road has functioned in a variety of capacities: as a private toll road, county road, Denver-Grand Junction Road, State Primary Road No. 10, State Highway 4, U.S. Highway 40 South, and U.S. Highway 6. As one of the two primary routes through Colorado's central Rocky Mountains, it served as a pivotal link between Colorado's Front Range and the Western Slope. The state legislature recognized the value of this link in 1899 when it designated the route the Denver-Grand Junction Road. Later the Midland Trail Association reinforced its importance by including it as part of a transcontinental route.

When the Colorado Highway Department (CHD) upgraded the highway in the 1930s, it further bolstered the road's importance. At that time, CHD awarded the construction of the Eagle River Bridge, to Denver contractors A.S. Horner and C.A. Switzer as part of National Recovery Highway Project 240-E. As a pivotal part of this endeavor, the Eagle River Bridge is significant for its contribution to Colorado transportation

Highway 6/40S carried increasingly heavy traffic between Denver and Grand Junction for 25 years before CHD began planning for its replacement. In 1959, CHD engaged the E. Lionel Pavlo Engineering Company of New York to reconnoiter the best route for an interstate freeway west from Denver through the mountains. Pavlo's report, issued in April 1960, covered the 100 mile route between Dotsero and Empire Junction, focusing on a shorter route between Wolcott and Empire that would involve construction of a major tunnel beneath the continental divide. Construction on I-70 through the mountains followed in the 1960s and 1970s, culminating with the completion of the Vail Pass segment and the second bore of the Eisenhower Tunnel in 1979. The Eagle River Bridge continues to carry traffic on a remaining segment of US Highway 6.

Engineering

The Eagle River Bridge is also important as an intact example of CHD standard truss design, with the addition of flex beam guardrails at its approaches the only alteration of note. The department erected numerous Parker trusses from 1922 to 1945 at highway river crossings throughout the state, ranging in span length from 125 feet to 200 feet. Attrition of these long-span bridges has been severe, and only eight Parker through trusses remain in place on

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Eagle River Bridge
Eagle County, Colorado
Highway Bridges in Colorado, MPS

Section number 8 Page 3

Colorado's highways. In essentially unaltered condition, the Eagle River Bridge remains as one the few surviving examples of what was once a mainstay structural type.

In the early 1930s, when the Highway Department began planning a major reconstruction of the highway through Eagle County, work between Dotsero and Wolcott was undertaken in five sections between 1933 and 1935. The easternmost leg entailed some 6 3/4 miles of roadwork from the eastern edge of the town of Eagle to a point about two miles west of Wolcott. In addition to roadwork, the project involved construction of a variety of flumes, guard fences, wire fences, box and pipe culverts, a two-span steel stringer bridge over Castle Creek, and two major structures over the Eagle River.

The Parker truss that CHD delineated for the Eagle River Bridge extended 150 feet between the bearing pins and carried a 24 foot wide roadway. It was subdivided into eight 18 foot 9 inch panels, the tallest of which stood 25 feet 10 inches from chord to chord. The upper chords and inclined endposts consisted of two back-to-back 12 inch steel channels, covered by a continuous 3/8 inch steel plate on top and joined by bar lacing underneath. The verticals were 10 inch wide flanges, as were the diagonals in the outermost panels. The interior panel diagonals consisted of two 3x4-inch angles with batten plates. These were braced laterally by a laced two angle member that extended horizontally across the central four panels. The lower chords were made up of two back-to-back 12 inch channels with batten plates. All of these web members were field riveted using 3/8 inch steel gusset plates.

To brace the two webs laterally, overhead struts extended 16 feet above the roadway at the panel points. The interior struts consisted of two back-to-back pairs of 3x5-inch angles, joined by bar lacing and braced underneath by latticed panels. The portal struts were heavily gusseted, steel angle lattices, with the lower chords angled downward toward the endposts to form integral kneebraces. Wide flange floor beams, 27 inches deep, were riveted to the verticals at the panel points; these supported six lines of 16 inch wide flange stringers, on which the concrete slab deck rested. This 8 inch thick deck was cambered 3 3/8 inches from end to center. It was flanked on each side by an integrally poured concrete curb and steel lattice guardrail with steel plate hub rail. Concrete bulkheads with recessed rectangular panels framed the guardrails at both ends. The truss carried standard CHD bronze bridge plates on its bulkheads and cast iron plates on its endposts.

The truss was simply supported on its four corners by heavy cast steel bearing shoes, fixed on one end and rocking on the other, which were anchor-bolted to massive, reinforced concrete abutments. Like the truss itself, the abutments were designed using CHD standards, but the site-specific soil conditions dictated an individual substructural design.

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Eagle River Bridge
Eagle County, Colorado
Highway Bridges in Colorado, MPS

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BIBLIOGRAPHY

- Bartlett, F.L. "The History of Road Building in Colorado." *Colorado Highways* 5:3, March 1926.
- Beebe, Lucius M., and Clegg, Charles. *Hear the Train Blow*. New York: E.P. Dutton & Company, 1952.
- Colorado Department of Transportation, Structure Inventory and Appraisal: Structure No. F-09-H. Located at CDOT, Denver, CO.
- Colorado Highway Department. Bridge Kardex File. Located at CDOT Bridge Division, Denver, CO.
- Colorado Highway Department. Construction drawings for Eagle River Bridge. August 1933.
- Colorado Highway Department. Correspondence and reports for National Recovery Highway Project No. 240-E. Located at Colorado Department of Transportation Bridge Division Record Center, Denver, CO.
- Colorado State I-highway Commission. *Proceedings*. Located at Colorado Department of Transportation Archives, Denver, CO.
- Du Bois, R.S. "Buttes Bridge Open to Traffic." *Colorado Highways* 2:2, February 1923.
- Du Bois, R.S. "Las Animas Bridge Open to Travel." *Colorado Highways* 1:9, December 1922.
- Eagle County Commissioners' Record. Located at Eagle County Clerk's Office, Eagle, CO.
- Eleventh Biennial Report of the State Engineer to the Governor of Colorado 1901-1902*. Denver: Smith-Brooks Printing Company, 1902.
- Fifteenth Biennial Report of the State Engineer to the Governor of Colorado 1909-1910*. Denver: Smith-Brooks Printing Company, 1911.
- Fourteenth Biennial Report of the State Engineer to the Governor of Colorado 1907-1908*. Denver: Smith-Brooks Printing Company, 1909.
- Fourth Biennial Report of the State Highway Commission*. Denver: Smith-Brooks Printing Company, 1917.
- Fraser, Clayton B. "Eagle River Bridge, 5EA1608," Historic Bridge Inventory, 31 March 2000.

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Eagle County, Colorado
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Fraser, Clayton B. Field inspection February 2000.

Griswold, Wesley S. *A Work of Giants. Building the First Transcontinental Railroad.* New York: McGraw-Hill Book Company, 1962.

Hokanson, Drake. *The Lincoln Highway: Main Street Across America.* Iowa City: University of Iowa Press, 1988.

"Improved Roads Help Farmers." *Colorado Highways* 1:4, July 1922.

Keck, C.M. "The Midland Highway." *Colorado Highways* 3:9, March 1924.

Means, John S. "Road Construction of Different Types During Recent Years." *Colorado Highways* 1:6, September 1922.

"Mountain Roads Inspected by Commissioner." *Colorado Highways Bulletin* 2:10, Oct. 1919.

"Ocean-to-Ocean Cement Highways Are Urged." *Colorado Highways Bulletin* 2:4, April 1919.

Ormes, Robert M. *Railroads and the Rockies.* Denver: Sage Books, 1963.

"Prospects for Lincoln Highway Are Better." *Colorado Highways Bulletin* 2:8, August 1919.

"Rigid Standards Needed in Good Bridge Construction." *Colorado Highways Bulletin* 1:2, July 1918.

Second Biennial Report of the State Highway Commission. Denver: Smith-Brooks Printing Company, 1912. Denver: Smith-Brooks Printing Company, 1901.

Third Biennial Report of the State Highway Commission. Denver: Smith-Brooks Printing Company, 1915.

Thirteenth Biennial Report of the State Engineer to the Governor of Colorado 1905-1906. Denver: Smith-Brooks Printing Co., 1907.

Waddell, J.A.L. *Bridge Engineering.* New York: John Wiley and Sons, 1916.

Wiley, Marion C. *The High Road.* Denver: Colorado Highway Department, 1976.

Wilson, O. Meredith. *The Denver and Rio Grande Project, 1870-1901: A History of the First Thirty Years of the Denver and Rio Grande Railroad.* Salt Lake City: Howe Bros., 1982.

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Eagle River Bridge
Eagle County, Colorado
Highway Bridges in Colorado, MPS

Section number 10 Page 6

GEOGRAPHICAL DATA

VERBAL BOUNDARY DESCRIPTION

The bridge is located on US Highway 6 at milepost 150.24. The boundaries of this nomination consist of a rectangle of land 10 feet out in each direction from the footprint of the bridge.

BOUNDARY JUSTIFICATION

The nomination includes all the land directly and historically associated with the bridge.

PHOTOGRAPH LOG

The following information pertains to photograph numbers 1-2:

Name of Property: Eagle River Bridge
Location: Eagle County, Colorado
Photographer: Clayton Fraser
Date of Photographs: September 1998
Negatives: Colorado Department of Transportation

Photo No. Photographic Information

- 1 View to northwest through bridge
- 2 View to southwest of roadway

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Eagle River Bridge
Eagle County, Colorado
Highway Bridges in Colorado, MPS

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USGS TOPOGRAPHIC MAP
Eagle Quadrangle, Colorado
7.5 Minute Series

