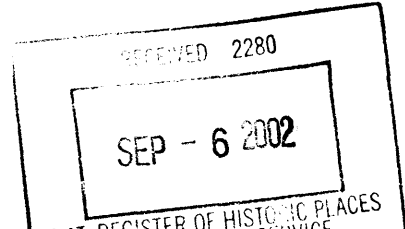


United States Department of the Interior  
National Park Service

# National Register of Historic Places Registration Form



1150

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 Dolores River Bridge

other names/site number CDOT No. K-01-C; 5MN4955

## 2. Location

street & number Colorado Highway 90 at milepost 15.22 [N/A] not for publication

city or town Bedrock [X] vicinity

state Colorado code CO county Montrose code 085 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.)

Georgina Cortez State Historic Preservation Officer August 21, 2002  
Signature of certifying official/Title 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 H. Beall Signature of the Keeper 10-15-02 Date of Action

Dolores River Bridge  
Name of Property

Montrose 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 Pennsylvania through truss

**Materials**

(Enter categories from instructions)

foundation  
walls  
roof  
other Steel  
Concrete

**Narrative Description**

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

**United States Department of the Interior  
National Park Service**

**National Register of Historic Places  
Continuation Sheet**

Dolores River Bridge  
Montrose County, Colorado  
Highway Bridges in Colorado, MPS

Section number 7 Page 1

---

**DESCRIPTION**

Location: Colorado Highway 90 at milepost 15.22, 0.4 miles east of Bedrock

Setting: Over Dolores River

Structure length: 129 feet

Structure width: 25.10 feet

Roadway width: 24 feet

Main span number: 1

Main span length: 125 feet

Superstructure: Steel, rigid-connected Pennsylvania through truss

Substructure: Concrete abutments and wingwalls

Floor/decking: Concrete deck

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

Erected: 1952

Designer: Colorado Department of Highways

Fabricator: Midwest Steel & Iron Works

Contractor: Gardner Construction Company

Alterations: None

Dolores River Bridge  
Name of Property

Montrose 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

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

Midwest Steel & Iron Works

Gardner Construction Company

### 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

**United States Department of the Interior  
National Park Service**

**National Register of Historic Places  
Continuation Sheet**

Dolores River Bridge  
Montrose County, Colorado  
Highway Bridges in Colorado, MPS

Section number 8 Page 2

---

**SIGNIFICANCE**

The 1952 Dolores River Bridge on Colorado Highway 90, 0.4 miles east of Bedrock, 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.

One of the first roads established by the Highway Commission in 1910 ran from Gunnison to Montrose and westward to the Utah state line. Designated as State Primary Road No. 20, its 140 mile length was then exceeded by only one other state road. With the designation of a state highway system in 1922, Primary Road 20 was incorporated into State Highway 6, which extended across Colorado from Holly to Montrose. At Montrose, the newly numbered highway veered northwest to Grand Junction, deviating from Primary Road 20. The original road between Montrose and Bedrock became State Highway 90. Subsequently, as a secondary state road, Highway 90 was left more-or-less unimproved during the 1920s, 1930s, and 1940s. In 1952, the Colorado Highway Department (CHD) designed a steel bridge that would span the Dolores River just east of Bedrock.

CHD contracted with the Gardner Construction Company to erect the Dolores River Bridge. Using steel components rolled by the Inland Steel Company, the Midwest Steel Company fabricated the truss in its Denver shops. Gardner built the bridge for \$73,688.54. Since its completion, the bridge has functioned in place at this isolated crossing. Built relatively late in the milieu of truss bridge construction, it is the only example of its type identified by the statewide historic bridge inventory. In essentially unaltered condition, the Dolores River Bridge is an important transportation related resource.

**Engineering**

The well preserved Dolores River Bridge is technologically noteworthy as an intact example of CHD truss design. With its name derived from extensive use in the 19th century by the Pennsylvania Railroad, the Pennsylvania truss was patented in 1875 as a refinement of the standard Pratt truss. Pennsylvania trusses featured vertical compression members and two panel diagonals in tension, like the Whipple trusses they superseded. The primary differences were in the substitution of a polygonal top chord for economy of materials and the addition of sub-struts or sub-ties. These relatively short diagonal members served to provide lateral support for the diagonals and stiffen the truss under heavy moving loads.

Like most truss types in this country, the Pennsylvania was pioneered by the railroads and later used to carry vehicular traffic. Pennsylvania trusses were never commonly used in Colorado, with CHD primarily utilizing single-paneled Parker trusses for its long span standards. This through truss in Montrose County was an exception to this trend. For the

**United States Department of the Interior**  
National Park Service

**National Register of Historic Places**  
**Continuation Sheet**

Dolores River Bridge  
Montrose County, Colorado  
Highway Bridges in Colorado, MPS

Section number 8 Page 3

---

Dolores River Bridge CHD engineers delineated a rigid-connected Pennsylvania through truss, supported by reinforced concrete abutments with angled wingwalls. The truss extended 125 feet between the bearing pins and carried a 24 foot wide roadway. It was subdivided into six 20 foot 10 inch panels. 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, diagonals, and sub-struts were 10 inch wide flanges, braced laterally by a laced two angle member that extended horizontally across two of the central 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 were riveted to the verticals. At the panel points, these supported wide flange stringers, on which the concrete slab deck rested. This 8 inch thick deck was flanked on each side by an integrally poured concrete curb and steel lattice guardrail with steel plate hub rail. The truss was simply supported on its four corners by heavy cast steel bearing shoes, fixed on one end and rocking on the other, that were anchor bolted to the abutments.

**United States Department of the Interior  
National Park Service**

**National Register of Historic Places  
Continuation Sheet**

Dolores River Bridge  
Montrose County, Colorado  
Highway Bridges in Colorado, MPS

Section number 9 Page 4

---

**BIBLIOGRAPHY**

Colorado Department of Transportation, Structure Inventory and Appraisal: Structure No. K-1-C. Located at CDOT, Denver, CO.

Colorado Highway Department. Bridge Kardex File. Located at CDOT Bridge Division, Denver, CO.

*First Biennial Report of the State Highway Commission 1910-1911.* Denver: Smith-Brooks Printing Company, 1911.

Fraser, Clayton B. Field inspection September 1998.

Fraser, Clayton B. "Dolores River Bridge, 5MN4955," Historic Bridge Inventory, 31 March 2000.

Maloney, J.E. "Standard Bridge Plans." *Colorado Highways Bulletin* 2:11, November 1919.

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

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

Dolores River Bridge  
Name of Property

Montrose County, Colorado  
County/State

## 10. Geographical Data

Acreeage of Property less than one

### UTM References

(Place additional UTM references on a continuation sheet.)

1. 12 684160 4242930  
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.)



**United States Department of the Interior  
National Park Service**

**National Register of Historic Places  
Continuation Sheet**

02001150

Dolores River Bridge  
Montrose County/ Colorado  
Highway Bridges in Colorado MPS

Section number 10 Page 1

This additional documentation corrects an erroneous UTM reference contained in the original nomination. The boundary justification remains unchanged.

**UTM References**

1.	12	684850	4242190	✓
	Zone	Easting	Northing	

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

Regina Cortez Deputy State Historic Preservation Officer April 29 2003  
Signature of certifying official/Title Date

Office of Archaeology and Historic Preservation, 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

**United States Department of the Interior  
National Park Service**

**National Register of Historic Places  
Continuation Sheet**

Dolores River Bridge  
Montrose County, Colorado  
Highway Bridges in Colorado, MPS

Section number 10 Page 5

---

**GEOGRAPHICAL DATA**

**VERBAL BOUNDARY DESCRIPTION**

The bridge is located on Colorado Highway 90 at milepost 15.22. 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: Dolores River Bridge  
Location: Montrose County, Colorado  
Photographer: Clayton Fraser  
Date of Photographs: September 1998  
Negatives: Colorado Department of Transportation

**Photo No.**                      **Photographic Information**

---

- 1    View to east of roadway
- 2    View to north through bridge

United States Department of the Interior  
National Park Service

National Register of Historic Places  
Continuation Sheet

Dolores River Bridge  
Montrose County, Colorado  
Highway Bridges in Colorado, MPS

Section number \_\_\_ Page 6

USGS TOPOGRAPHIC MAP  
Paradox Quadrangle, Colorado  
7.5 Minute Series

