

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

JUL 25 1988

**National Register of Historic Places  
Registration Form**

**NATIONAL  
REGISTER**

This form is for use in nominating or requesting determinations of eligibility for individual properties or districts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, styles, materials, and areas of significance, enter only the categories and subcategories listed in the instructions. For additional space use continuation sheets (Form 10-900a). Type all entries.

**1. Name of Property**

historic name Miller Ree Creek Bridge  
other names/site number State DOT Structure No. 30-154-258

**2. Location**

street & number West edge of Miller, South Dakota N/A not for publication  
city, town Miller N/A vicinity  
state South Dakota code SD county Hand code SD 059 zip code 57362

**3. Classification**

<b>Ownership of Property</b>	<b>Category of Property</b>	<b>Number of Resources within Property</b>	
<input type="checkbox"/> private	<input type="checkbox"/> building(s)	<b>Contributing</b>	<b>Noncontributing</b>
<input checked="" type="checkbox"/> public-local	<input type="checkbox"/> district	_____	_____ buildings
<input type="checkbox"/> public-State	<input type="checkbox"/> site	<u>1</u>	_____ sites
<input type="checkbox"/> public-Federal	<input checked="" type="checkbox"/> structure	_____	_____ structures
	<input type="checkbox"/> object	<u>1</u>	_____ objects
			<u>0</u> Total

Name of related multiple property listing:  
N/A

Number of contributing resources previously listed in the National Register 0

**4. State/Federal Agency Certification**

As the designated authority under the National Historic Preservation Act of 1966, 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.  See continuation sheet.

[Signature] 7/20/88  
Signature of certifying official Date  
South Dakota SHPO  
State or Federal agency and bureau

In my opinion, the property  meets  does not meet the National Register criteria.  See continuation sheet.

\_\_\_\_\_  
Signature of commenting or other official Date  
\_\_\_\_\_  
State or Federal agency and bureau

**5. National Park Service Certification**

I, hereby, certify that this 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:)

[Signature] 8/25/88  
\_\_\_\_\_  
Signature of the Keeper Date of Action

**6. Function or Use**

Historic Functions (enter categories from instructions)

Transporation/ Road-related  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Current Functions (enter categories from instructions)

Transportation/ Road-related  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**7. Description**

Architectural Classification

(enter categories from instructions)

Other: March Rainbow Arch Bridge  
\_\_\_\_\_  
\_\_\_\_\_

Materials (enter categories from instructions)

foundation N/A  
walls N/A  
\_\_\_\_\_  
roof N/A  
other Concrete  
\_\_\_\_\_  
\_\_\_\_\_

Describe present and historic physical appearance.

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

**National Register of Historic Places  
Continuation Sheet**

Section number 7 Page 1

---

Miller Ree Creek Bridge

Constructed in 1914, the Miller Ree Creek Bridge is a single-span concrete Marsh rainbow arch bridge located on the west edge of Miller in the sparse, open plains of Hand County, South Dakota. The structure carries a county road over Ree Creek, a tributary in the immense James River basin. Owned and maintained by the Hand County highway department, it is in good condition and provides access between the western half of the county and the City of Miller.

The bridge consists of two parallel reinforced concrete semi-circular arches, from which the floor system is suspended by four pairs of reinforced concrete hangers. These arches are attached to the front of concrete abutments below the level of the floor. Dimensions of the structure are 42 feet in length and 22 feet in width. The deck rises 10 feet above the floor of the non-navigable Ree Creek. A "pigeon-hole" reinforced concrete railing runs along each side of the bridge below the arches.

**8. Statement of Significance**

Certifying official has considered the significance of this property in relation to other properties:

nationally     statewide     locally

Applicable National Register Criteria     A     B     C     D

Criteria Considerations (Exceptions)     A     B     C     D     E     F     G

Areas of Significance (enter categories from instructions)

Engineering  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Period of Significance

1914  
\_\_\_\_\_  
\_\_\_\_\_

Significant Dates

1914  
\_\_\_\_\_  
\_\_\_\_\_

Cultural Affiliation

N/A  
\_\_\_\_\_  
\_\_\_\_\_

Significant Person

N/A  
\_\_\_\_\_

Architect/Builder

Iowa Bridge Company  
\_\_\_\_\_  
\_\_\_\_\_

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

See continuation sheet

**9. Major Bibliographical References**

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 # \_\_\_\_\_

See continuation sheet

Primary location of additional data:

- State historic preservation office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository:  
South Dakota Department of Transportation

**10. Geographical Data**

Acreage of property Less than one acre

UTM References

A 

1	4	5	0	0	1	4	0	4	9	2	9	1	0	0
Zone		Easting						Northing						

C 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

B 

Zone		Easting						Northing						

D 

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Quad.: Miller, Scale: 1:24000.

See continuation sheet

Verbal Boundary Description

The nominated property includes only the bridge, which measures 42 feet by 22 feet, and its abutments. It is located west of Miller, South Dakota, in the Southeast Quarter of the Southwest Quarter of Section 10, Township 112 North, Range 68 West, 5th Principal Meridian, in Hand County, South Dakota.

See continuation sheet

Boundary Justification

The nominated property is bounded so as to exclude Ree Creek, the county road on either side of the approach to the bridge, and any private land along the creek.

See continuation sheet

**11. Form Prepared By**

name/title Jim Nelson, Senior Engineer (with technical assistance by John Rau, SHPO staff)  
 organization South Dakota Dept. of Transportation date June 1, 1988  
 street & number 700 East Broadway Ave. telephone 605-773-3267/ Rau: 605-677-5314  
 city or town Pierre state South Dakota zip code 57501

**United States Department of the Interior  
National Park Service****National Register of Historic Places  
Continuation Sheet**Section number 8 Page 1 Miller Ree Creek Bridge

---

Under Criterion C of the National Register Criteria, the Miller Ree Creek Bridge is significant in the area of engineering, because it is the oldest and the best-preserved example of only three surviving Marsh rainbow arch bridges in the state. Under the South Dakota Historical Preservation Plan, the property relates to the historic context labeled: V. Depression and Rebuilding, G. New Transportation Facilities and the Impact of the Automobile.

This structure type was patented by James B. Marsh in August of 1912. It consists of a steel latticework frame forming two parallel four-angle arches that are covered with concrete. The angles of the arches are hidden in the concrete which is formed into two semi-elliptical arches. The floor of the bridge is suspended from the arches by reinforced concrete hangers riveted to the arches and the floor stringers. A characteristic of the Marsh rainbow arch system is that temperature changes are allowed to cause movements in the arches and floor system independent of each other. This is accomplished by providing expansion plates between the floor slab and the arches. The floor slab is also allowed to move freely over the abutments. During the 1920s, Marsh's design and variations of it were popular in eastern and midwestern states for short-span highway bridges. However, the structure type was used seldom in South Dakota, where Pratt steel pony trusses were predominant.

Named for George H. Hand, a pioneer resident and active statesman of Dakota Territory, Hand County was created in 1873 and organized in 1882. It is located in the flat plain, just east of the Missouri River breaks, known as Ree Heights. A number of small streams flow across this plain into the James River, which eventually empties into the Missouri River. Miller, the county seat, was founded by Henry Miller in 1880 along Ree Creek near the center of the county. The area has remained primarily rural from first settlement into the present day.

To secure better transportation facilities for area residents, the Miller Ree Creek Bridge was constructed by the county in 1914. It was erected by the Iowa Bridge Company of Des Moines, Iowa. Now owned by the City of Miller, it is a small but well-preserved example of the rare Marsh rainbow arch type and continues to carry a moderate load of local traffic.

The period of significance of the nominated property does not extend beyond its date of construction in 1914.

United States Department of the Interior  
National Park Service

National Register of Historic Places  
Continuation Sheet

Section number 9 Page 1 Miller Ree Creek Bridge

---

Bridge Replacement-- Rainbow Arch Bridge-- Hettinger County Mott, North Dakota: Project No. BR0-5-021 ( ) 900-- Environmental Impact Statement/ Section 4(f) Statement. U. S. Department of Transportation, Federal Highway Administration; and North Dakota Highway Department, August, 1980.

Heidepriem, Scott N. Bring On the Pioneers: History of Hand County. Pierre, SD: State Publishing Co., 1984. Passim.

The Ohio Historic Bridge Inventory: Evaluation and Preservation Plan. Columbus, OH: Ohio Department of transportation, 1983. pp.160-168, 242, 258, 262.

South Dakota Department of Transportation. "SD Inventory and Appraisal Sheet." Structure No. 30-154-258.

United States Department of the Interior  
National Park Service

National Register of Historic Places  
Continuation Sheet

Section number Photos Page 1 Miller Ree Creek Bridge

---

PHOTO DOCUMENTATION

1.  
Miller Ree Creek Bridge  
Miller, Hand County, South Dakota  
James Nelson  
May 1988  
Neg.: South Dakota Historical Preservation Center  
Camera facing north  
Photo # 1

2.  
Miller Ree Creek Bridge  
Miller, Hand County, South Dakota  
James Nelson  
May 1988  
Neg.: South Dakota Historical Preservation Center  
Camera facing east  
Photo # 2

3.  
Miller Ree Creek Bridge  
Miller, Hand County, South Dakota  
James Nelson  
May 1988  
Neg.: South Dakota Historical Preservation Center  
Detail of deck hangers, camera facing south  
Photo # 3

4.  
Miller Ree Creek Bridge  
Miller, Hand County, South Dakota  
James Nelson  
May 1988  
Neg.: South Dakota Historical Preservation Center  
Construction plaque, Camera facing north  
Photo # 4