NPS Form 10-900 (Oct. 1990)

United States Department of the Interior National Park Service

# 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 *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 parative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

and narrative items on continuation	sneets (NPS Form	10-900a). Use a ty	pewriter, word prod	essor, or comp	uter, to c	omplete all items	i <b>.</b>
1. Name of Property							
historic name	Nishnabotna	River Bridge	2				
other names/site number							_
2. Location							
street & number	County Road M16 over Nishnabotna River				not for publication		
city or town	4.2 miles so	uthwest of H	enderson			■ vicinity	
stateIowa	code <u>IA</u>	countyM	ills	code _	129	zip code	51541
3. State/Federal Agency Co	ertification						
signature of certifying official.  In my opinion, the property comments.)	_ locally. ( See  // Title L SOCIETY OF IC	continuation sheet	for additional comm	nents.) 4-7-9	Date		
State or Federal agency and	bureau						
4. National Park Service C	ertification						
I hereby certify that the propentered in the National F  See continuation she  determined eligible for the See continuation she	Register eet ne National Regi eet		Galson ———	n 131		5.	15-96
☐ determined not eligible for removed from the Nation		Hegister					
other, (explain):							

Ownership of Property (Check as many boxes as apply)  Category of Property (Check only one box)		Number of Resources within Property (Do not include previously listed resources in the count)				
private	☐ building(s)	Contributing	<b>,</b>			
■ public-local	☐ district	0	Noncontributing 0	buildings		
public-State public-Federal	☐ site ■ structure ☐ object	0	0	sites		
		1	0	structure		
		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)		Number of coning the in the National	tributing resources pr Register	eviously liste		
Highway Bridges of Iowa		0				
6. Function or Use						
Historic Functions (Enter categories from instructions)		Current Functi (Enter categories fr				
TRANSPORTATION/road-related		TRANSPORTATION/road-related				
7. Description						
Architectural Classification (Enter categories from instructions)		Materials (Enter categories from instructions)				
other: riveted Warren pony truss		foundation	Concrete			
		walls				
		other	Steel			

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

Located 4.2 miles southwest of Henderson, the Nishnabotna River Bridge spans Nishnabotna River in a rural Mills County setting that has changed little since the structure's period of significance. A description of the structure follows:

construction date: 1929-30 span number: 2 100.0 construction cost: \$30,900.00 span length:

284.0' current condition: good total length: roadway wdt.: 20.0' none alterations:

superstructure: steel, 6-panel, rigid-connected Warren pony truss with polygonal upper chords, skewed

substructure: concrete abutments, wingwalls and piers

floor/decking: concrete deck over steel stringers

other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord:

2 channels with batten plates; vertical: wide flange; diagonal: wide flange; lateral bracing: 1 angle; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

Other than maintenance-related repairs and alterations noted above, the bridge remains essentially unaltered as it continues to carry vehicular traffic. The Nishnabotna River Bridge today retains a high degree of integrity of location, design, setting, materials, workmanship, feeling and association.

#### 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

#### Primary location of additional data:

- State Historic Preservation Office
- □ other State agency
- ☐ Federal agency
- ☐ Local government
- ☐ University
- ☐ other

name of repository:

Nishnabotna	a River Bridge	Mills County; I	lowa		
10. Geographic	al Data				
. Acreage of Prop	erty less than one acre				
UTM References (Place additional UTM	l references on a continuation sheet)				
1 15 2916 zone easting	80 4551400 northing	2zone easting	northing		
Verbal Boundary (Describe the bounda		-			
The nominated centered on the	property is a rectangular-shaped pe UTM point(s) listed above. Include substructure, approach spans and fl	ed within this re			
The nominated proach spans a	cation  Industries were selected)  I structure includes the bridge's supend the property on which they rest.  Perty that has been historically associa	These boundarie	es encompas	loor systems, but do	n, any ap- not exceed,
11. Form Prepa	red By				
name/title	Clayton B. Fraser				
organization	Fraserdesign	date	31 August	1994	
street & number	1269 Cleveland Avenue	telephone	303-669-7969		
city or town	Loveland	state	Colorado	_ zip code	80537
Additional Docur					
ŭ	tems with the completed form:				
Continuation She	eets				
	map (7½ or 15 minute series) indicating the map for historic districts and properties h			s resources	
Photographs Represen	tative <b>black and white photographs</b> of th	e property			
Additional items (Check with the SHPC	or FPO for any additional items)				
Property Owner					
(Complete this item at	the request of SHPO or FPO)				
name/title	Mills County				

street & number 418 Sharp Street telephone 712-527-4873

city or town Glenwood state Iowa zip code 51534

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.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 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, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

United States Department of the Interior National Park Service

### National Register of Historic Places Continuation Sheet

Section Number 8 Page 1 Nishnabotna River Bridge Mills County; Iowa

Located southwest of Henderson in northwestern Mills County, this rigid-connected pony truss carries a paved county road (once a part of a state highway) over the Nishnabotna River. The bridge is comprised of two skewed trusses, each configured as a Warren pony with polygonal upper chords. The trusses are supported by concrete abutments and piers, and they are approached by steel stringer approach spans on both ends. The Nishnabotna River Bridge was designed by engineers for the Iowa State Highway Commission in the summer of 1929. The bridge's skewed orientation and relatively long span length prompted ISHC to produce a special design for the trusses, rather than rely on its standard plans. On August 20, 1929, the state highway commission contracted with the McCormack Construction Company of Lohrville, Iowa, to construct the bridge for \$30,900.00. Using steel rolled by Inland, McCormack completed the bridge the following year. It has since functioned in place, without substantial alteration.

Although at least one Iowa bridge company employed polygonal-chorded Warren trusses on a limited basis in the early 1910s, this inherently long-span structural type never found much favor among the counties. As a result, relatively few such trusses were built in the state between 1910 and 1913 - the year that the state highway commission began issuing standard plans for bridges. ISHC's standard pony trusses ranged in span length between 35 and 100 feet, all featuring straight-chorded Warren configurations. The sloped upper chords of the Nishnabotna River Bridge are an anomaly, apparently an attempt by ISHC to develop a more materially conservant structural type for its long-span ponies. It is not known whether the Nishnabotna River Bridge was the first example of this truss type, or whether others were ever built, but this bridge is today distinguished as the only example of its kind by ISHC remaining in the state. It is thus technologically noteworthy as a well-preserved example of an uncommon structural type.

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

Section Number 9 Page 2 Nishnabotna River Bridge Mills County; Iowa

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure No. 246630.

Iowa State Highway Commission, Weekly Letting Report 17:35, page 3.

Field inspection by Clayton Fraser, 9 December 1992.