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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 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 Red Cloud Bridge
other name/site number Republican River Bridge; NEHBS Number WT00-187

2. Location

street & number State Highway 281 over Republican River N/A not for publication
city, town 2 miles south of Red Cloud X vicinity
state NE county Webster code 181 zip code 68970

3. Classification

Ownership of Property	State of Nebraska	Number of Resources within Property	
Category of Property	structure	Contributing	Noncontributing
		0	0 buildings
		0	0 sites
		1	0 structures
		0	0 objects
		1	0 Total

Number of contributing resources previously listed in the National Register: 0

Name of related multiple property listing: Highway Bridges in Nebraska, 1870-1942

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.

Bob Pascher DST/PO
Signature of certifying official
Nebraska State Historical Society
State or Federal agency and bureau
Date 5/6/92

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

Signature of commenting or other official

State or Federal agency and bureau
Date

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:)

Alonzo Byrum
Signature of the Keeper
6/29/92
Date of Action

6. Function or Use

Historic Function (enter categories from instructions)

TRANSPORTATION/road-related

Current Function (enter categories from instructions)

TRANSPORTATION/road-related

7. Description

Architectural Classification (enter categories from instructions)

OTHER /rigid-connected Warren pony/through truss

Materials (enter categories from instructions)

foundation	N/A
walls	N/A
roof	N/A
other	N/A

Describe present and historic physical appearance.

Located two miles south of Red Cloud, the Red Cloud Bridge spans Republican River in a rural Webster County setting that has changed little since the structure's period of significance. Other than maintenance-related repairs, the bridge remains essentially unaltered as it continues to carry vehicular traffic. The Red Cloud Bridge today retains a high degree of integrity of location, design, setting, materials, workmanship, feeling and association. A description of the structure follows:

span number:	3	construction date:	1935
span length:	200.0'	construction cost:	\$83,087.95
total length:	644.0'	current condition:	excellent
roadway wdt.:	23.8'	alterations:	none

superstructure: steel, rigid-connected continuous Warren pony/through truss
substructure: concrete abutments and wingwalls; concrete piers with slanted cutwaters on both faces
floor/decking: concrete deck over I-beam stringers
other features: upper chord: back-to-back channels with cover plate and double lacing; lower chord: face-to-face channels with top and bottom double lacing; vertical: wide flange; diagonal: wide flange; sway bracing at piers: overhead lateral struts composed of web plate with angle stiffeners; top lateral at piers: cross-braced members composed of four angles tied with lacing; floor beam: I-beam; bottom lateral: cross-braced angle sections; railing: angle rails on angle posts; capacity plate: **Capacity, 20 Tons, E 3-1, 1935.**

8. Statement of Significance

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

	statewide
Applicable National Register Criteria	C
Criteria Considerations (Exceptions)	N/A
Areas of Significance	Engineering
Period of Significance	1935 (The period of significance is derived from the original construction date.)
Significant Dates	1935
Cultural Affiliation	N/A
Significant Person	N/A
Architect/Builder (Designer)	Nebraska Highway Department
(Fabricator)	Omaha Steel Works, Omaha NE
(Builder)	Omaha Steel Works, Omaha NE

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

The Nebraska Highway Department designed the Red Cloud Bridge in 1935, after spring floods weakened the old structure. "While the floods of May and June 1935, did not wash the old Red Cloud bridge away," explained the state engineer, "it did change the banks of the river to such an extent that it was deemed most expedient to construct a new bridge with longer spans and at a changed location, so as to straighten the alignment of U.S. Highway No. 281. The old bridge had a narrow 16-foot roadway, which is now considered inadequate for a highway of such importance." The fact that the entire project was to be paid for with federal emergency flood relief funds also undoubtedly encouraged the state to build a new bridge. Although the highway department generally constructed simple truss spans, it instead delineated a continuous truss for the Red Cloud Bridge. The channel spans are comprised of three continuous pony trusses - a 200-foot central span and 160-foot ends - flanked by deck girder approaches. To provide sway bracing, overhead lateral struts connect the upper chords of both webs at the bridge piers. The four main piers are constructed of concrete with up- and downstream cutwaters. The piers rest on concrete-filled tubes driven to bedrock. The approach span abutments consist of steel piles encased in concrete, with flared, sloped wingwalls. Highway department engineers took great pains to ensure that the bridge was seated properly to avoid undue stresses at the bearing points, weighing each truss with hydraulic jacks before the concrete deck was poured. The Omaha Structural Steel Works served as contractor and fabricator for the project, and completed the structure for \$83,087.95. The bridge has carried relatively heavy vehicular traffic since, in essentially unaltered condition.

The Red Cloud Bridge is technologically significant as a rare experimental design by the state highway department. Representing a highly unusual foray into continuous truss engineering, the Red Cloud Bridge is unique in Nebraska and is one of the state's most important vehicular spans.

For further contextual information regarding bridge building in Nebraska, registration requirements, and property types, see related multiple property listing "Highway Bridges in Nebraska, 1870 - 1942."

9. Major Bibliographical References

Nebraska Department of Roads, Structure Inventory and Appraisal: Structure Number S281 00423; **Twenty-First Biennial Report of the Department of Roads and Irrigation**, 1935-1936, pp. 49, 74-75, 120, 125-127, 131, 140; State of Nebraska, Department of Roads and Irrigation, Bureau of Roads and Bridges, "640' Multiple Span Bridge," 4 October 1935, plan number ER-3-1, located in Bridge Division, Nebraska Department of Roads, Lincoln, Nebraska; field inspection by Jeffrey A. Hess, 22 July 1989.

___ See continuation sheet

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 (specify repository):

10. Geographical Data

Acreage of Property less than one acre
Cadastral Reference S11/12, T1N, R11W
USGS Quadrangle Red Cloud, Nebraska - Kansas (7.5 Minute Series, 1974)
UTM References zone 14 easting 541050 northing 4434640

___ See continuation sheet

Verbal Boundary Description

The nominated property is a rectangular shaped parcel measuring 644 feet by 25.8 feet, which is centered on the UTM point listed above. Included within this rectangular parcel are the bridge's superstructure, substructure, floor system, and approach spans.

___ See continuation sheet

Boundary Justification

The nominated structure includes the bridge's superstructure, substructure, floor system, any approach spans and the property on which they rest. These boundaries encompass, but do not exceed, all of the property that has been historically associated with this bridge.

___ See continuation sheet

11. Form Prepared By

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