

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 Carns State Aid Bridge
other name/site number Niobrara River Bridge; NEHBS Number RO00-72

2. Location

street & number county road over the Niobrara River N/A not for publication
city, town 10.8 miles northeast of Bassett X vicinity
state NE county Rock / Keya Paha code 149/103 zip code 68714

3. Classification

Ownership of Property	Rock County	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 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.

[Signature] 5/6/92
Signature of certifying official Date
Nebraska State Historical Society
State or Federal agency and bureau

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

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] 6/29/92
Signature of the Keeper 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 /concrete arch; Parker & Pratt through trusses

Materials (enter categories from instructions)

foundation N/A

walls N/A

roof N/A

other N/A

Describe present and historic physical appearance.

Located 10.8 miles northeast of Bassett, the Carns State Aid Bridge spans the Niobrara River in a rural setting that has changed little since the structure's period of significance. The bridge underwent extensive alteration in 1963 with the addition of two salvaged trusses and the removal of one of the original concrete arch spans. Despite this, the remaining part of the concrete arch bridge remains essentially unaltered as it continues to carry vehicular traffic. A description of the structure follows:

span number: 5; 2

span length: 54.0'; 175.0'

total length: 527.0'

roadway wdt.: 14.0'

construction date: 1912-13 (concrete arches); 1963 (trusses moved)

construction cost: \$23,045.00

current condition: good

alterations: trusses added and one concrete arch span removed

superstructure: reinforced concrete filled spandrel arch; steel, pinned Parker and Pratt through trusses
substructure: concrete abutments and piers with iron-edge cutwaters; steel pile bents
floor/decking: concrete deck over earth fill (arches); timber deck over steel stringers (trusses)
other features: arches: plain spandrels with slight corbel at roadway; concrete pillar and beam guardrails; flared concrete cutwaters with iron edges
trusses: upper chord: 2 channels with cover plates and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; 1 round eyebar with turnbuckle; lateral bracing: round bar with threaded ends; strut: 4 angles with lacing, 2 angles, braced (Pratt); floor beam: I-beam field bolted to vertical; guardrail: gas pipe, concrete post and rail (arch).

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)	B
Areas of Significance	Engineering
Period of Significance	1912-13 (The period of significance is derived from the original construction date.)
Significant Dates	1912-13
Cultural Affiliation	N/A
Significant Person	N/A
Architect/Builder (Designer)	Nebraska State Engineer
(Builder)	Lincoln Construction Company, Lincoln NE

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

In the early 1900s, the commissioners of Rock, Keya Paha and Brown Counties met frequently to discuss the status of Niobrara River bridges that linked their counties. Among those often discussed was the structure near the small crossroads settlement of Carns. After frequent repairs, the Carns Bridge was finally wrecked by ice in the winter of 1910. That April the Brown and Keya Paha boards resolved unanimously that "the best and lasting benefits to the people of both counties would be the building and erection of a new steel bridge." The old bridge, meanwhile, was condemned and closed to traffic. Subsequently, in July 1911, plans for two 160-foot steel spans, presented by the Western Bridge and Construction Company, were approved by the State Engineer and adopted for the crossing. But at the August 28th bid opening, all bids were rejected, because, as reported by the State Engineer, "it was evident there had been no competition in the bidding." The project was stalled until the following May, when the Lincoln Construction Company was awarded a contract to build both the Carns and McCulley State Aid Bridges. (The McCulley Bridge - removed in the early 1980s - carried State Highway 7 across the Niobrara.) Plans for the steel trusses at Carns were abandoned in favor of a concrete structure composed of six 54-foot spans. Both bridges were completed in the summer of 1913; total cost of the Carns Bridge, \$23,045.00. But the structure ultimately proved too narrow for the broad Niobrara River, and in 1962 one of the bridge's six spans, along with several hundred feet of south approach, washed out. This span was replaced, and the bridge extended, by the addition of two steel through trusses, including a Parker truss obtained from the Schuyler State Aid Bridge over the Platte River between Colfax and Butler counties.

This latter construction substantially altered the appearance of the bridge. Nevertheless, the Carns State Aid Bridge is technologically significant as the oldest remaining structure built under the state aid bridge program in Nebraska and as an excellent, early example of concrete arch construction in the state. For these reasons, Criteria Consideration B has been applied. Significant under Criterion C, the trusses added in 1963, in their present configuration with the concrete arch, still retain the essential technological features that make them a good representative example of their type, period and method of construction.

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 C007522105; Nebraska State Board of Irrigation, **Ninth Biennial Report**, 1910-12, pages 59, 60, 68, 69; Nebraska State Board of Irrigation, **Tenth Biennial Report**, 1912-14, pages 235, 238; Keya Paha County Commissioners' Record 2: 28 February 1907 (page 142), 12 August 1907 (page 170), 23 January 1908 (page 191), 2 April 1910 (pages 283-285), 13 May 1910 (page 289), 17 June 1911 (pages 333-334), 19 June 1911 (pages 334-335), 30 June 1911 (page 337), 22 July 1911 (page 340), 30 August 1911 (page 349), 7 May 1912 (page 363), 10 July 1912 (pages 372-273), 6 August 1912 (page 375), 30 April 1913 (page 397), located at Keya Paha County Courthouse, Springview, Nebraska; Aivars G. Ronis, "Nebraska State Aid Bridges: 1911-1936," typewritten report by Nebraska Department of Roads, 1971, revised September 1978, n.p.; field inspection by Clayton Fraser, 8 August 1990.

___ 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

Acraage of Property less than one acre
Cadastral Reference S24, T32N, R19W
USGS Quadrangle Carns (7.5 Minute Series, 1949)
UTM References zone 14 easting 460620 northing 4731120

___ See continuation sheet

Verbal Boundary Description

The nominated property is a rectangular shaped parcel measuring 527 feet by 16 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

name/title	Clayton B. Fraser, Principal, and Carl W. McWilliams, Research Historian				
organization	Fraserdesign and Hess, Roise and Company	date	30 June 1991		
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