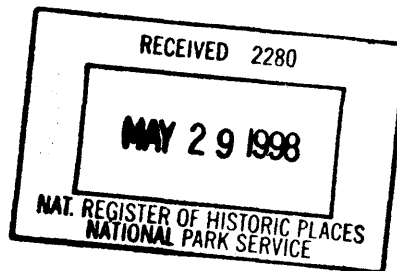


**United States Department of the Interior
National Park Service**

**National Register of Historic Places
Registration Form**



797

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 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 Buck Grove Bridge

other names/site number _____

2. Location

street & number Buck Creek Avenue over Buck Creek not for publication

city or town southeast corner of Buck Grove vicinity

state Iowa code IA county Crawford code 047 zip code 51520

3. State/Federal Agency Certification

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.)

Patricia O'Neil King DSHPG 5-6-98
 Signature of certifying official/Title Date

 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):

Edson H. Beall 6-25-98

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 include previously listed resources in the count)

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 of Iowa

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions)

TRANSPORTATION/road-related

Current Functions
(Enter categories from instructions)

TRANSPORTATION/road-related

7. Description

Architectural Classification
(Enter categories from instructions)

other: bowstring pony arch-truss

Materials
(Enter categories from instructions)

foundation Timber
walls _____
roof _____
other Steel

Narrative Description

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

Located in the southeast corner of Buck Grove, the Buck Grove Bridge spans Buck Creek in a rural Crawford County setting that has changed little since the structure's period of significance. A description of the structure follows:

span number: 1 construction date: c1945
span length: 70.0' construction cost: unknown
total length: 70.0' current condition: fair
roadway wdt.: 16.0' alterations: none

superstructure: steel, 14-panel, rigid-connected bowstring pony arch-truss
substructure: timber pile bent piers with timber backwalls
floor/decking: timber deck over steel stringers
other features: arch rib: 2 angle; lower chord: 2 angles; vertical: 2 angles with 2-angle outriders;
diagonal: 1 angle; lateral bracing: round rod with threaded ends; floor beam: I-beam;
no guardrails

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

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.

Areas of Significance

(Enter categories from instructions)

ENGINEERING

Period of Significance

c1945

(The period of significance is derived from the original construction date.)

Significant Dates

c1945 (construction date)

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Bullder

designer:

H. Gene McKeown and Associates

fabricator:

Des Moines Steel Company, Des Moines IA

builder:

county work force

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 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

Primary location of additional data:

- State Historic Preservation Office
other State agency
Federal agency
Local government
University
other
name of repository:

10. Geographical DataAcreage of Property less than one acre**UTM References**

(Place additional UTM references on a continuation sheet)

1	<u>15</u>	<u>302600</u>	<u>4642730</u>	2	<u> </u>	<u> </u>	<u> </u>
	zone	easting	northing		zone	easting	northing

Verbal Boundary Description

(Describe the boundaries of the property)

The nominated property is a rectangular-shaped parcel measuring 18 feet by 70 feet, which is centered on the UTM point(s) listed above. Included within this rectangular parcel are the bridge's superstructure, substructure, approach spans and floor system.

Boundary Justification

(Explain why the boundaries were selected)

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 the bridge.

11. Form Prepared By

name/title	<u>Clayton B. Fraser</u>		
organization	<u>Fraserdesign</u>	date	<u>31 August 1994</u>
street & number	<u>1269 Cleveland Avenue</u>	telephone	<u>303-669-7969</u>
city or town	<u>Loveland</u>	state	<u>Colorado</u> zip code <u>80537</u>

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets**Maps**A **USGS map** (7½ or 15 minute series) indicating the property's locationA **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/title	<u>Crawford County</u>		
street & number	<u>P.O. Box 458</u>	telephone	<u>712-263-2449</u>
city or town	<u>Denison</u>	state	<u>Iowa</u> zip code <u>51442</u>

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 Buck Grove Bridge Crawford County; Iowa

During World War II the War Department developed a "Priorities Critical List" of materials deemed essential to the war effort. As a component of almost every major piece of war materiel, steel was, of course, included on the list, making the construction of steel bridges problematic for Iowa's counties. In response, most of the counties reverted to timber construction for their small-scale bridges, and timber pile bridges outnumbered all other types by a substantial margin in the 1940s. Crawford County, too, relied on timber construction, until heavy flooding in May 1945 washed out 27 bridges and culverts in the county. The county board of supervisors resolved to build new bridges using emergency funds, purchasing several steel superstructures from the Des Moines Steel Company as replacement spans. Apparently designed by Council Bluffs civil engineer H. Gene McKeown, these structures featured a bowstring arch-truss configuration, with the upper chord in compression and the lower chord in tension to resist the springing action of the curved upper chord (although the all-riveted construction made this action structurally indeterminate). The trusses employed only small-profile steel angles for the web members. They employed angled gusset plates to which the vertical and diagonal members were riveted to the chords. Each web was fabricated in the shop in two halves and field-bolted at the site by a county work force. The trusses were carried by relatively simple bearing shoes, and angle outriders provided lateral support for the truss webs. This span over Buck Creek in the town of Buck Grove was one of several such hybrid trusses built by Crawford County during the war years. Comprised of the riveted truss, supported by a timber substructure, the Buck Grove Bridge remains in unaltered condition today. It, like the five other, almost identical spans that remain in Crawford County, is a noteworthy example of wartime bridge construction in Iowa.

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

**National Register of Historic Places
Continuation Sheet**

Section Number 9 Page 2 Buck Grove Bridge Crawford County; Iowa

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure No. 126675.

Crawford County Board of Supervisors' Minutes, Book T: page 175 (7 May 1945), located at Crawford County Courthouse, Denison IA.

Correspondence among Lowell J. Soike, Iowa State Historic Preservation Office; David L. Cook, Iowa Department of Transportation; and H. Dale Wight, Crawford County Engineer (5 April 1985, 9 April 1985, 13 June 1985, 9 July 1985, 22 July 1985, 29 July 1985, 6 August 1985).

Field inspection by Richard Collier, 28 January 1991.