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 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 | Beaver Creek Bri | dge | | | | | _ |
|---|---|---|--|------------|------------|------------------|--|
| other names/site number | | | | | <u> </u> | | _ |
| 2. Location | | | ······ | | | · | - <u></u> |
| street & number 180th | | | | | |] not for pu | ublication |
| city or town | 4.5 miles northw | vest of Schl | eswig | Creek | | vicinity | |
| state Iowa | _ code <u>IA</u> co | ounty Craw | ford | code _ | 047 | _ zip code | 51461 |
| 3. State/Federal Agency C | ertification | | | | | | |
| Signature of certifying offician State or Federal agency and | s not meet the National Re locally. (See continu //////////////////////////////////// | egister criteria. uation sheet for DGHY | recommend that this additional comments.) | 5- | be conside | ered significant | |
| comments.) Signature of certifying officia | I/Title | | | | Date | | |
| State or Federal agency and | bureau | <u></u> | | | | | |
| 4. National Park Service C | Certification | | Λ |) <i>į</i> | \cap | n | |
| I hereby certify that the prop entered in the National I See continuation sho | Register | <i>U</i> | elson V | ¥. J | Gea | | <u>6-25-</u> 94 |
| ☐ determined eligible for th ☐ See continuation sho | | - | | | | | |
| determined not eligible f removed from the Nation other, (explain): | | iter - - | ······ | | | | ······································ |

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OMB No. 10024-0018

799

Beaver Creek Bridge

| 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 | Noncontributing | | | |
| public-local | | 0 | 0 | buildings | | |
| public-State | □ site | 0 | 0 | sites | | |
| public-Federal | ■ structure □ object | 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 contributing resources previously lister in the National Register | | | | |
| Highway Bridges of Iowa | | 0 | | | | |
| 6. Function or Use | | <u>*************************************</u> | | | | |
| Historic Functions (Enter categories from instructions) | | Current Functl (Enter categories fr | | | | |
| TRANSPORTATION/road-related | | TRANSPORTATION/road-related | | | | |
| | | | 1. 3. Mar 1999 | · · · · · · · · · · · · · · · · · · · | | |
| | | | | | | |
| 7. Description | | | | | | |
| Architectural Classification (Enter categories from instructions) | | Materials (Enter categories fr | om instructions) | | | |
| other: bowstring pony arch-truss | | foundationTi | mber | | | |
| | | walls | | | | |
| | | roof | ·. | | | |
| | | other St | eel | | | |

Narrative Description

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

Located 4.5 miles northwest of Schleswig, the Beaver Creek Bridge spans Beaver 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: | 1946 |
|---------------|--------|--------------------|---------|
| span length: | 77.0' | construction cost: | unknown |
| total length: | 134.0' | current condition: | fair |
| roadway wdt.: | 18.0' | alterations: | none |

- superstructure: steel, 14-panel, rigid-connected bowstring pony arch-truss, with 1 steel stringer approach span on each end
- substructure: timber pile bent abutments and piers, with timber backwalls
- floor/decking: asphalt-covered 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 Beaver Creek 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.

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

Areas of Significance (Enter categories from instructions)

inter categories from instructions)

ENGINEERING

Period of Significance

1946

(The period of significance is derived

from the original construction date.)

Significant Dates

1946 (construction date)

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

| designer: H. Gene McKeown and Associates |
|--|
| fabricator: Des Moines Steel Company, Des Moines IA |
| ^{builder:} county work force |
| |

Primary location of additional data:

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

Beaver Creek Bridge

Crawford County; Iowa

10. Geographical Data

Acreage of Property less than one acre

UTM References

(Place additional UTM references on a continuation sheet)

1 <u>15 292340 4674480</u> zone easting northing

2 _

zone easting northing

Verbai Boundary Description

(Describe the boundaries of the property)

The nominated property is a rectangular-shaped parcel measuring 20 feet by 134 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 | 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 Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map (7½ or 15 minute series) indicating the property's location

A 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 | Crawford County | | | | | |
| street & number | P.O. Box 458 | | telephone | 712-263-2 | 2449 | |
| city or town | Denison | | state | Iowa | zip code _ | 51442 |

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 Beaver Creek 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 smallprofile 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 Beaver Creek northwest of Schleswig 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 Beaver Creek 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 Beaver Creek Bridge Crawford County; Iowa

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure No. 130550.

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.