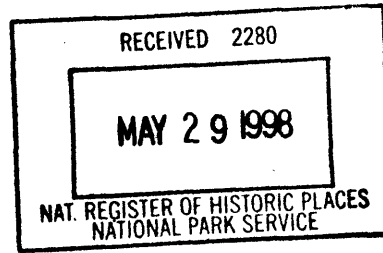


United States Department of the Interior  
National Park Service



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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 East Soldier River Bridge

other names/site number \_\_\_\_\_

2. Location

street & number 120th Street over East Soldier River  not for publication

city or town 2.5 miles southwest of Charter Oak  vicinity

state Iowa code IA county Crawford code 047 zip code 51439

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 Oriskany DSHPO 5-16-98  
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):

Isaac 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 2.5 miles southwest of Charter Oak, the East Soldier River Bridge spans the East Soldier River 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: unknown              construction cost: unknown  
 total length: unknown              current condition: fair  
 roadway wdt.: unknown              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 East Soldier River 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.)

**Areas of Significance**

(Enter categories from instructions)

ENGINEERING

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**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/Builder**

designer:

H. Gene McKeown and Associates

fabricator:

Des Moines Steel Company, Des Moines IA

builder:

county work force

**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 Data**Acreage of Property less than one acre**UTM References**

(Place additional UTM references on a continuation sheet)

1 15 282080 4659330  
zone easting northing2 \_\_\_\_\_  
zone easting northing**Verbal Boundary Description**

(Describe the boundaries of the property)

The nominated property is a rectangular-shaped parcel of unknown measurements, 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. Fraserorganization Fraserdesign date 31 August 1994street & number 1269 Cleveland Avenue telephone 303-669-7969city 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 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 Crawford Countystreet & number P.O. Box 458 telephone 712-263-2449city 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**

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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 bow-string 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 the East Soldier River southwest of Charter Oak 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 East Soldier River 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   East Soldier River Bridge Crawford County; Iowa

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Iowa Department of Transportation, Structure Inventory and Appraisal: Structure No. 129750.

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.