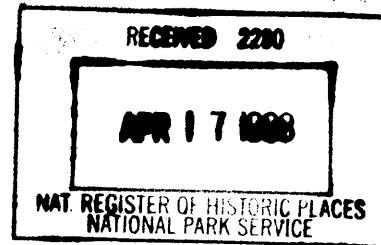


United States Department of the Interior  
National Park Service

National Register of Historic Places  
Registration Form



530

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 First Avenue Bridge

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

2. Location

street & number U.S. Highway 151 (First Avenue) over Cedar River  not for publication

city or town Cedar Rapids  vicinity

state Iowa code IA county Linn code 113 zip code 52406

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 Ohts King DSHPD 4-7-98  
Signature of certifying official/Title Date

**STATE HISTORICAL SOCIETY OF IOWA**

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 5.15.98

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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)

Table with 2 columns: Contributing, Noncontributing. Rows for buildings, sites, structures, objects, 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: concrete open spandrel arch

Materials

(Enter categories from instructions)

foundation Concrete

walls

roof

other Concrete

Narrative Description

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

Located Cedar Rapids, the First Avenue Bridge spans the Cedar River in an urban setting that has changed little since the structure's period of significance. A description of the structure follows:

span number: 6 construction date: 1920
span length: 113.0' construction cost: \$420,000.00 (original); \$920,000.00 (reconstruction)
total length: 697.0' current condition: good
roadway wdt.: 80.0' alterations: rebuilt, 1964

superstructure: concrete open spandrel arch
substructure: concrete abutments and solid concrete piers
floor/decking: asphalt-covered concrete deck
other features: aluminum railings; bridge plate (center of southeast rail): FIRST AVENUE BRIDGE / Erected 1920 / Designed by Marsh Engineering Co., Des Moines, Iowa / Built by Koss Construction Co., Des Moines, Iowa / Frank Kratoska, Superintendent; bridge plate (northeast corner): FIRST AVENUE BRIDGE / Rebuilt for the City of Cedar Rapids, Iowa, 1964 / Robert M. L. Johnson, Mayor / Council Members: Stewart E. Shank, Finance Commissioner / W. W. Stolba, Public Improvements Commissioner / Frank A. Bush, Safety Commissioner / Donald K. Gardner, Parks Commissioner / David F McGuire, Corporation Counsel / Richard H. Jensen, City Engineer / Designed by Ned L. Ashton, Consulting Engineer / Cramer & Bayse / The Des Moines Bridge Co.

Other than maintenance-related repairs and alterations noted above, the bridge remains essentially unaltered as it continues to carry vehicular traffic. The First Avenue 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

1920
(The period of significance is derived from the original construction date.)

Significant Dates

1920 (construction date)

Significant Person

(Complete if Criterion B is marked above)

N/A

Cultural Affiliation

N/A

Architect/Builder

designer: Marsh Eng. Co. (orig); Ned Ashton (recon)
fabricator: unknown
builder: Koss Construction Co.; Cramer-Bayse Co.

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 Data**

**Acreage of Property** less than one acre

**UTM References**

(Place additional UTM references on a continuation sheet)

1 15 610000 4647820  
zone easting northing

2 15 610190 4647940  
zone easting northing

**Verbal Boundary Description**

(Describe the boundaries of the property)

The nominated property is a rectangular-shaped parcel measuring 82 feet by 697 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 Jeffrey A. Hess and Michelle Crow-Dolby  
 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 Iowa Department of Transportation  
 street & number 800 Lincoln Way telephone 515-239-1251  
 city or town Ames state Iowa zip code 50010

**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 **First Avenue Bridge** Linn County; Iowa

---

The First Avenue Bridge spans Cedar River in downtown Cedar Rapids in the southern section of Linn County. According to historical markers at each end of the structure, this structure was built in 1920 for \$420,000.00 by the Des Moines-based Koss Construction Company, from plans delineated by the Marsh Engineering Company, also of Des Moines. In its original form, the bridge was a six-span, concrete arch with solid masonry spandrel walls and balustered stone guardrails. In the early 1960s, owing to the bridge's deteriorating condition, city officials commissioned consulting engineer Ned L. Ashton of Iowa City to reconstruct the arch for modern traffic loads. Ashton's remodeling plan called for demolishing all concrete work above the original arches and rebuilding the bridge as an open-spandrel structure with a wider deck and aluminum railings. Completed at a cost of \$920,000.00 by the Cramer and Bayse Company and the Des Moines Bridge Company, this rehabilitation significantly altered the bridge's historic character. The bridge continues to carry relatively heavy urban traffic.

Ned Ashton is remembered as Iowa's most distinguished bridge engineer who helped pioneer bridge reconstruction with this project. The original 697-foot arch had almost reached the state of condemnation because the concrete had begun to severely crumble. The spans were hollow and filled with clay which caused a general weakening of the entire bridge owing to its excessive weight. Ashton believed the foundations and arches could be rebuilt, saving the city a significant amount of money while producing a more modern, stronger bridge. **The Cedar Rapids Gazette** reported that "Ashton described the bridge as the only one of its type in the country." Ashton went on to explain that this was the only arch-type bridge to be rebuilt from the arches up. "This is an original rehabilitation design," Ashton added, "there is no other like it any place I know of." Ashton felt it was "one of the most beautiful (bridges) I have ever had the privilege of working on." Ashton's innovative hinged cross-rib design allowed the bridge to breathe while distributing the weight more evenly. The success of the First Avenue rehabilitation was the catalyst for all of Cedar Rapids' circa 1910 and 1920 spandrel arches to be rebuilt in the same manner. The city-wide project subsequently convinced other cities to consider rebuilding their own aging bridges instead of simply tearing them down and erecting new structures. Although the First Avenue's Bridge's structural integrity has been disturbed, Ashton was able to save the original foundations and arches, which is preferable to losing the entire bridge. Therefore, the Cedar River Bridge has gained new historical importance as the first notable concrete spandrel arch reconstruction in Iowa and possibly in the United States, and for its association with the renowned Iowa bridge engineer, Ned Ashton.

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

**National Register of Historic Places  
Continuation Sheet**

Section Number   9   Page   2   First Avenue Bridge Linn County; Iowa

---

Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 033490.

Ken Sullivan, "First Avenue Bridge—\$800,000 Wider, Stronger—Reopens Today," **Cedar Rapids Gazette**, 10 May 1964.

"When First Avenue Had a Wooden Bridge," **Cedar Rapids Gazette**, 9 February 1958.

Katherine Willhoite, "First Avenue Toll Bridge Recalled by Old Tokens," **Cedar Rapids Gazette**, 9 March 1981.

Bertha Finn, "C.R. Got First Iron Bridge 100 Years Ago," **Cedar Rapids Gazette**, 29 August 1971.

"Ashton House and the Engineer Who Built It," Marshall McKusick, December 1986.

"New Bridges Founded on Old," **Civil Engineering**, Vol. 38, No.11 (November 1968), 44-48.

Field inspection by Charlene K. Roise, 29 September 1991.