



# 7. Description

<b>Condition</b>		<b>Check one</b>	<b>Check one</b>
<input type="checkbox"/> excellent	<input checked="" type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site
<input type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed		date _____

### Describe the present and original (if known) physical appearance

Corbett's/Eby's Mill Bridge (1871) is an early arched beam example of a bowstring bridge type. Its early date, its use of an arch beam construction method, its narrow roadway, and its simplified support system make it stand out in comparison with comparable local bowstring bridges. Its present location, on an abandoned county roadway, and its private ownership, make it a natural case for its continued preservation and study. Abutment stabilization however is critical for long term preservation.

Corbett's/Eby's Mill Bridge spans the Maquoketa River in Section 3 of Scotch Grove Township in Jones County. The bridge measures 128' long by 14'6" wide.

The iron arch beams, rectangular in section, are bolted composites of four plates. Side plates, bolted in a series using interior splicing plates and bolts, are held between the upper and lower plates by external wrap around flanges and some interior groove or bracing system. Regularly spaced pairs of bolts tie the beams together. Structural side support members pass through the arched beam. Collars on the underside of the beam allow for the tightening of the round bar terminations of these pieces.

Four plain single piece lateral braces form a through arch above the arched side beams. Paired diagonal cross bracing bars stabilize these. Paired vertical support members, star shaped in section, connect the arch beams and the lower chord. These are not lattice braced as might be expected. Small scale I beams connect the two lower chords at regular intervals. Spacing units separate the two sets of eye bars which form each chord, and accept both the vertical tension members, the cross braced round bars and the diagonal cross bracing (round iron bars) beneath the bridge. The sides of the bridge consist of eleven bays, the width of which increases as one approaches the center of the bridge. Cross braced iron bars intersect in the center of each bay. Lateral supports on each pair of vertical members consist of two bars, star shaped in section, with twisted ends, which are bolted to the underside of the arch beam, and then cross as they extend downward to their respective anchors, one to the end of each protruding I beam, and one to a point on the same beam, about one foot inside the side of the bridge. The flooring joists stand directly on the lower chords, an unusual arrangement, and the joists are stabilized by cross bridging near each end. Flooring runs longitudinally on the bridge. Nothing is presently known concerning how the arch beam is linked with the lower chord. No patent dates, roller marks, or nameplate are to be found on the structure.

The high bridge abutments consist of coursed ashlar limestone. Ice damage over time has damaged these. Concrete repair has stabilized the north abutment. That on the south has been badly eroded by the river and by the ice and threatens the bridge.

Some twenty eight surviving bowstring arch bridges have been identified in Iowa. This was not on that list, indicating the incompleteness of that preliminary survey. Within its local context, this bridge is one of a handful of surviving through and pony truss bowstrings to be found in Jones County. A number of similar bridges date from the same decade and have some similarities. This is the only bridge which is identified with the Miller Bridge Company in the county and that firm is otherwise not identified. The other bridges are as follows;

1879 Z. King Iron Bridge Company, located four miles east of the subject bridge on same river, differs in makeup of arch beams, vertical tension members have lattice ribbing, floor does not rest on lower

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- chords, lattice ribbed lateral supports form through truss, single arch of comparable length.
- 1876 Z. King Iron Bridge Company, single arch, five miles west of subject bridge, not on original site.
- 1878 Z. King Iron Bridge Company, "Lower Road" Bridge, abandoned, consists of two arches, 105' and 50', longer arch has identical lateral through truss supports, otherwise matches 1875 description above, short truss is pony truss, lateral side braces are similar to those subject bridge. Both bridge floors do not rest on lower chords.
- 1879 Z. King Iron Bridge Company, thirteen miles due south on the Wapsipinicon River, three pony spans with two stone abutments. Component parts included lattice ribbed lateral vertical members, a different arch beam assemblage (same as used in above examples). Flooring again does not rest directly upon lower chords. 1867 patent date on nameplate.

Given these local comparable examples, the subject bridge stands out due to its earlier construction (1871), its simplified lateral support system, the narrowness of its roadway allowance due to the interior lateral supports, and the means of assembling the arch beams. The subject bridge apparently originally based its flooring joists on its lower chords, since it offers insufficient lateral braces which would have supported stringers.

The bridge is well preserved in terms of the iron structure itself. The flooring is structurally deteriorated, as are the supportive abutments. The road and approaches are overgrown and are not in use (since 1958).

# 8. Significance

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400–1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
<input type="checkbox"/> 1500–1599	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> literature	<input type="checkbox"/> sculpture
<input type="checkbox"/> 1600–1699	<input type="checkbox"/> architecture	<input type="checkbox"/> education	<input type="checkbox"/> military	<input type="checkbox"/> social/ humanitarian
<input type="checkbox"/> 1700–1799	<input type="checkbox"/> art	<input type="checkbox"/> engineering	<input type="checkbox"/> music	<input type="checkbox"/> theater
<input checked="" type="checkbox"/> 1800–1899	<input type="checkbox"/> commerce	<input type="checkbox"/> exploration/settlement	<input type="checkbox"/> philosophy	<input checked="" type="checkbox"/> transportation
<input type="checkbox"/> 1900–	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input type="checkbox"/> other (specify)
		<input type="checkbox"/> invention		

**Specific dates** 1871 **Builder/Architect** Miller, Jamison Bridge Co., Cleveland, O.

**Statement of Significance (in one paragraph)**

Corbett's/Eby's Mill Bridge (1871) is an early arched beam example of a bowstring bridge type. Its arch beam construction method, and its simplified support system make it stand out in comparison with comparable local bowstring bridges. Its present location, on an abandoned county roadway, and its private ownership, make it a natural case for its continued preservation and study.

The Maquoketa River flows to the southeast in a series of sharp bends through Scotch Grove Township below the town of Monticello in Jones County. A long term grist and sawmill site was established on that water power by James S. Applegate in 1858. John Corbett joined the firm, obtained ownership by 1868 and added the sawmill, enlarged the waterwheel and built a blacksmith shop as well. In 1870 he petitioned the Jones County Board of Supervisors to place an iron bridge on the road which crossed the river above his millpond.

The Supervisors responded favorably and appropriated \$3,000 for a bridge at Corbett's Mill, two thirds of the cost to be borne by the county, the remainder by local subscription. On 19 January 1871 a committee was appointed to inspect the proposed site and to select a contractor. On 20 April a Mr. Jones, representing Miller, Jamison & Company of Cleveland Ohio, presented the Supervisors with plans and cost information. Two bridges were ordered from company, both measured 128' in length. The bridges were delivered by rail. The bridge at Monticello was assembled by crews sent by the company, and by 16 November it was announced that Corbett's Mill Bridge would be completed by the following week. The bridge lacks a name plate, and patent or roller markings of any kind.

The bridge continued to be identified with the nearby millsite. The mill passed to Samuel Ely in 1875 and remained in that family's hands until 1913. The original bridge was located on a loop road which apparently was first established so as to circle behind the millpond above the dam. A newer road simply cut off this loop, thereby isolating the bridge. The county road (X73) bypassed the bridge in 1958 and the bridge passed to private ownership. It currently adjoins a privately owned public picnic area which is on the east river bank.

# 9. Major Bibliographical References

Refer to Continuation Sheet 9-2

# 10. Geographical Data

Acreeage of nominated property less than one acre

Quadrangle name Scotch Grove

Quadrangle scale 1/24,000

### UTM References

A 

1	15	4	6	10	2	13	10	4	6	7	8	5	9	10
Zone		Easting				Northing								

B 

Zone		Easting				Northing								

C 

Zone		Easting				Northing								

D 

Zone		Easting				Northing								

E 

Zone		Easting				Northing								

F 

Zone		Easting				Northing								

G 

Zone		Easting				Northing								

H 

Zone		Easting				Northing								

### Verbal boundary description and justification

Refer to Continuation Sheet 10-2. Parcel contains only bridge.

### List all states and counties for properties overlapping state or county boundaries

state n/a code county code

state code county code

# 11. Form Prepared By

name/title James E. Jacobsen, National Register Coordinator

organization Iowa HPO date 13 February 1985

street & number E. 12th & Grand Ave. telephone 515-281-4137

city or town Des Moines state Iowa 50319

# 12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

national  state  local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature *Adrian D. Anderson*

title Executive Director Iowa State Historical Department date 28 February 1985

### For NPS use only

I hereby certify that this property is included in the National Register

Entered in 1985  
National Register

*J. Delores Byer* date 4-11-85  
Keeper of the National Register

Attest: \_\_\_\_\_ date \_\_\_\_\_

Chief of Registration

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The Ohio Historic Bridge Inventory Evaluation, and Preservation Plan. Ohio Department of Transportation, 1983, p. 221.

The History of Jones County Iowa, Chicago; Western Publishing Company, 1879, p. 349.

Monticello Express, 19 January, 20 April, 19 October, 16 November 1871 (Board of Supervisors Minutes).

Eby, Raymond. "History of grist and sawmill goes back to mid-1800's; Eby's Mill is now Just a name." Jones County Historical Review, Vol. 2, Number 4, 1976, pp. 1-2.

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Continuation sheet Geographical Data

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Starting at the northeast corner of the NW $\frac{1}{4}$  of SW $\frac{1}{4}$  of Section 3, Township 85 North, Range 2 West, go 163 feet north to corner post. Taking an angle of 41 20" to the south-southwest go 1340 feet to an intersecting fence. At this point add 3 30' to the line of sight to the west. Continue 270' to the northeast corner of the northernmost stone abutment.

The line of sight bisects the northeast and southwest corners of a rectangle which includes abutments and bridge. This rectangle measures 31' in width and 158' in length. Each end of the rectangle is 15' from and parallel to the respective ends of the bridge proper.

