National Register of Historic Places Continuation Sheet

Section number	Page	_			
	SUPPLE	MENTARY LI	STING RECORD		
NRIS Reference	Number: 99001034				
Property Name:	Julian Dubuque Bridge	e			
County: Dubuqu Jo Davie					
Highway Bridge Multiple Name	s of Iowa MPS				
nomination docu	listed in the National F mentation subject to th the National Park Serv ACCUL Keeper	e following excice certification	eptions, exclusions	, or amendments,	
======================================	in Nomination:	======	======	======================================	==
Section 3 Certification.	nereby, entered in the b	poxes for "meet	s" and "statewide"	to indicate the SHPO'	S
Section 7 Descri The section for "other."	<u>ption</u> for Materials is, hereby	, amended to in	nclude "steel" and '	'concrete" under the it	:em
Beth Foster of th	ne Iowa State Historic I	 Preservation Of	fice was notified of	this amendment.	

National Register property file Nominating Authority (without nomination attachment)

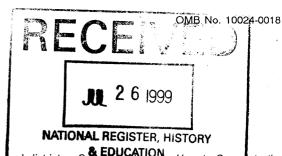
DISTRIBUTION:

NPS Form 10-900 (Oct. 1990)

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 ten No. The properties and districts of Historic Places Registration Form (National Register Bulletin 16A). Complete each ten No. The properties are properties and properties and interest of the properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each ten No. The properties are properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each ten No. The National Register Bulletin 16A). The National Register Bulletin 16A is the National Register Bulletin 16A

1. Name of Property			
historic name	Julien Dubuque Bridge		_
other names/site number			
2. Location			
street & number	U.S. Highway 20 over Mississippi River	not for pu	blication
city or town	Dubuque	_	
stateIowa/Illinois	code IA/IL county Dubuque/Jo Daviess code 061,	/085 zip code _	52001
3. State/Federal Agency C	ertification		
of Historic Places and meets property meets does nationally statewide Signature of certifying official State or Federal agency and In my opinion, the property comments.) Signature of certifying official	Keets _ does not meet the National Register criteria. (_See continuation Comparison Comparison Comparison	In my opinion, the ensidered significant and are sheet for additional ate	
4. National Park Service C			
hereby certify that the property entered in the National Formulation should be determined eligible for the See continuation should be determined eligible.	Register eet ne National Register eet	Whood 8	127/
☐ determined not eligible f☐ removed from the Nation	-		
other, (explain):			

Jo Daviess County, Illinois Dubuque County; Iowa

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		
☐ public-local	☐ district	0	0	buildings
public-State	☐ site ■ structure ☐ object	0	0	sites
public-Federal		1	0	 structures
		0	0	objects
		1	0	
Name of related muitiple pr (Enter "N/A" if property is not part o	operty listing f a multiple property listing)	Number of con in the National	tributing resources pr I Register	eviously listed
Highway Bridges of Io	owa	0		
6. Function or Use				
Historic Functions (Enter categories from instructions)		Current Functions (Enter categories from instructions)		
TRANSPORTATION/re	oad-related	TRANSPORTATION/road-related		
7. Description				
Architectural Classification (Enter categories from instructions)		Materials (Enter categories fr	om instructions)	
other: cantilevered tied arch		foundation N/	A	
		wallsN/	A	
		roofN/	A	
		other N/	A	

Narrative Description

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

Located in Dubuque, the Julien Dubuque Bridge spans Mississippi River in an urban setting that has changed little since the structure's period of significance. A description of the structure follows:

span number: 1

construction date: 1943

845.0 span length: 5760.0

construction cost: \$3,175,341.63

total length:

roadway wdt.: 29.0'

alterations:

current condition: good none

superstructure: steel cantilevered tied arch, with plate deck girder approach spans

substructure: concrete abutments and spill-through piers

floor/decking: concrete deck over steel stringers

other features: aluminum guardrails

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

Jo Daviess County, Illinois Dubuque County; Iowa

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)	Areas of Significance (Enter categories from instructions)
□ A Property is associated with events that have made a significant contribution to the broad patterns of our history.	ENGINEERING
□ 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.	Period of Significance 1943
□ D Property has yielded, or is likely to yield,	(The period of significance is derived
information important in prehistory or history.	from the original construction date.)
Criteria Considerations (Mark 'x' in all the boxes that apply)	Significant Dates
Property is:	1943 (construction date)
□ A owned by a religious institution or used for religious purposes.	
☐ B removed from its original location.	Significant Person (Complete if Criterion B is marked above)
☐ C a birthplace or grave.	N/A
□ D a cemetery.	Cultural Affiliation
☐ E a reconstructed building, object, or structure.	N/A
☐ F a commemorative property.	
☐ G less than 50 years of age or achieved significance within the past 50 years.	Architect/Builder designer: Ned Ashton, Iowa City IA fabricator:
	Bethlehem Steel Company, Chicago IL
Narrative Statement of Significance (Explain the significance of the property on continuation sheets.)	Bethlehem Steel Company; Fred Robers
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):	Primary location of additional data:
 □ 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 	■ State Historic Preservation Office other State agency Federal agency Local government University other name of repository:

Julien Dubuque Bridge

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ıl Data			
erty less than one acre			
references on a continuation sheet)			
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Description ies of the property)			
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nd the property on which they rest.	These boundarie	es encompass, but do i	m, any ap- not exceed,
and Du			
ed By			·
Clayton B. Fraser			
Fraserdesign	date	31 August 1994	
1269 Cleveland Avenue	telephone _	303-669-7969	
Loveland	state	Colorado zip code	80537
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eets			
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tative black and white photographs of the	e property		
or FPO for any additional items)			
the request of SHPO or FPO)			
Iowa Department of Transportation	·		· · · · · · · · · · · · · · · · · · ·
800 Lincoln Way	telephone	515-239-1251	
Ames	state	Iowa zip code	50010
	Description ies of the property) property is a rectangular-shaped party and point(s) listed above. Include substructure, approach spans and flow substructure, approach spans and flow structure includes the bridge's support of the property on which they restrictly that has been historically associated by Clayton B. Fraser Fraserdesign 1269 Cleveland Avenue Loveland Dentation Temp (7½ or 15 minute series) indicating the map for historic districts and properties has a properties of the content of the property of the property of the request of SHPO or FPO) Iowa Department of Transportation 800 Lincoln Way	references on a continuation sheet) 40 4706810	and Data Perty Less than one acre references on a continuation sheet) 40 4706810 2 15 693740 4706810 Recorption les of the property) property is a rectangular-shaped parcel measuring 33 feet by 5,760 fee by 10 to 10

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.

NPS Form 10-900-a (8-86)

OMB Approval No. 1024-0018

United States Department of the Interior National Park Service

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Dubuque, like other towns along the upper Mississippi River, prospered in the industrialized years after the end of the Civil War. As a major transportation nexus, Dubuque was one of the first cities to receive a Congressional charter to erect a railroad bridge over the Mississippi. The all-iron structure built here in 1868 by the Duluth and Dunleith Bridge Company (a subsidiary of the Illinois Central Railroad) carried a single track; like many of the other early bridges, it was dedicated strictly to rail traffic. A bridge to carry wagon traffic had actually been planned three years earlier, with the formation of the East Dubuque Bridge Company in 1865. Envisioning a pontoon bridge at the site, the company obtained Congressional approval for the project. But despite the governmental go-ahead, actual construction did not begin until two decades later. In the interim the bridge company's franchise was taken over by the Dubuque Pontoon Bridge Company, and the pontoon structure was abandoned in favor of a multiple-span truss design. Built in 1886-87, the High Bridge, as it was called, was Iowa's first Mississippi River structure built to carry wagon traffic exclusively. Dubuque's second highway bridge over the Mississippi was built in 1901-02. Located upstream from the other two spans, the structure was erected at a promontory known as Eagle Point and crossed over the river into Wisconsin's southwest corner.

Despite the proliferation of the automobile in the 1910s and 1920s, only one other vehicular bridge was built over the Mississippi into Iowa between 1902 and the early 1930s. This was the MacArthur Bridge [DESM01] at Burlington, a three-span, cantilevered high truss built in 1917. By the 1930s, some of the upper Mississippi's early highway bridges, such as the spans at Muscatine (1890) and Clinton (1892), were beginning to show signs of wear. As the oldest of the highway bridges into Iowa, Dubuque's High Bridge was one of those most in need of repair or replacement.

By 1936 the need for a new structure seemed clear, and Dubuque's business and political leaders began to work in earnest toward that goal. That year the city's American Legion post formulated a plan to erect a new toll bridge over the river. In April 1938 the Legion and the Dubuque Chamber of Commerce appointed a committee to organize efforts toward the construction of a new bridge. After lobbying by the committee, Iowa Senator Guy M. Gillette and Congressman William S. Jacobson introduced twin bills authorizing the City of Dubuque Bridge Commission to buy or build a bridge and collect tolls for passage over it. The bills passed both houses of Congress in June, only to be vetoed by President Roosevelt because they provided for the issuance of tax exempt bonds. Delayed but not defeated, the two representatives redrafted the proposed legislation, removing the tax exempt bond provision, and resubmitted the bill the following year. Congress once again voted its approval, and on July 18, 1939, Roosevelt signed the bill into law.

Two months later the commission contracted with the Kansas City engineering firm of Howard, Needles, Tammen and Bergendoff (HNTB) to design and supervise construction of the new bridge. Ned Ashton, the firm's chief designer, was placed in charge. He soon started the project's preliminary stages of promotion and development, beginning by estimating the

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worth of the existing High Bridge for its purchase by the bonding company. For much of the next year Ashton and a team of engineers at HNTB considered a number of alternative designs. Original estimates called for a maximum span length of from 400 to 600 feet, based on the supposition that the requirements for Dubuque would be similar to those for the Centennial Bridge at Rock Island, completed in July 1940. As chief designer for the Rock Island bridge, Ashton considered its two 540-foot tied arch spans over the river's channel to be both structurally efficient and aesthetically successful. For the Dubuque bridge, he initially proposed a similar configuration, comprised of two 600-foot, plate girder tied arches over the river's navigable channel. The structure would be located at the foot of Dodge Street, just downriver from the existing High Bridge.

When objections were received about the span length and pier placement of the proposed bridge, however, the Army Corps of Engineers stipulated an 800-foot clear span to allow adequate clearance for navigation. This forced HNTB to reconsider the bridge's configuration and location. "The great length of bridge at the Dodge street location," Ashton stated, "eliminated any further consideration of a wide modern four lane bridge on some more other more advantageous location, so [a] 24-foot roadway with one sidewalk was adopted as final. The two lane bridge was considered adequate for the present with the logic that if and when dual highways are built, then they can build the dual bridge." HNTB studied the feasibility of at least three other locations for the bridge: at Sixth Street, Third Street and Jones Street, all of which carried less stringent length requirements by the Corps of Engineers. Dodge Street was perhaps the least desirable of the four sites because of the crossing's proximity to the wharfs on the Iowa shore. But the Iowa State Highway Commission was at that time rerouting Highway 20 from the west along Dodge Street, and ISHC engineers favored the bridge site here to carry the highway across the river. In the end, the bridge commission concurred with the highway commission and selected the Dodge Street location, despite the effect it would have on the bridge's cost.

The 800-foot clear span required at this location effectively eliminated a tied arch design. The HNTB design team then considered a suspension bridge and a conventional cantilevered through truss, similar to the just-completed Mississippi River bridge HNTB had engineered at Greenville, Mississippi. Eventually, Ashton arrived at a modified version of the original tied arch design. The arches on the Rock Island Bridge were simply supported. But by cantilevering them, Ashton could increase the efficiency of the bridge and extend its span length considerably. "Since the tie, in a three span continuous tied arch truss layout, has the same effect as an extra pier in the middle of the long span and eliminates the need of special anchorages," he later stated, "and since the arched trusses are lighter and advantageous in erection as compared to the cantilever, it was agreed to try the tied arches for the final design providing only that they would cost no more than the estimates for the cantilever [Greenville-type] trusses."

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The problem was, no one had ever built a continuous tied-arch bridge of this magnitude. In fact, in the United States, only one other bridge of this type had ever been erected: a three-span highway bridge over the Meramec River near St. Louis. Consisting of a 264-foot tied arch center span, flanked on both sides by 192-foot anchor spans, the Meramec River structure had itself been patterned by the Missouri Highway Department after a bridge over the St. Lawrence River near Montreal. The critical difference between this configuration and other, simply supported tied arches was the continuity between the arch and its flanking spans. The two bridge types generally resembled each other with their arched forms, but the calculations involved in analyzing their stress patterns were entirely different. "The continuity of the trusses and the action of the arch tie produce a structure which is threefold indeterminate," engineer Howard Mullins explained about the Meramec River Bridge in Engineering News-Record. "A condition of single redundancy was also produced by the double intersection diagonals at the center of the arch truss. These double diagonals were used to permit a pleasing truss outline."

Ashton and the HNTB design team studied the Missouri bridge closely and compared the theoretical cost of a similar, but much larger, structure at Dubuque with the cost of a comparable cantilevered through truss. The plate girder arch ribs of Ashton's original design were dropped in favor of Meramec-type spandrel braced ribs comprised of two trussed chords. As a result, the revised plan for Dubuque much more closely resembled the Missouri precedent than Ashton's earlier tied arch bridge at Rock Island. The primary difference in appearance between the Dubuque and Meramec bridges - and a minor difference, at that - was the composition of their arch rib trusses. The Meramec River structure used a Warren truss configuration for the anchor spans and a Pratt truss for the arch itself. The Dubuque bridge used Warren trusses throughout.

HTNB developed the design throughout 1940 and into 1941. With the design work yet to be finalized in late March 1941, the Dubuque Bridge Commission solicited bids to build both the superstructure and substructure. Proposals were received a month later and contracts for the work subsequently awarded in mid-May. The Bethlehem Steel Company was contracted to fabricate and erect the superstructure for \$1,588,618.00; an \$831,895.00 contract for the substructure was awarded jointly to the Fred J. Robers Construction Company of Burlington, Wisconsin, and the La Crosse [La Cross] Dredging Corporation of Minneapolis.

The substructure contractors began excavating on June 18th. By early autumn, Bethlehem Steel had begun to erect the superstructure. Erection of the tied arch began simultaneously on both sides of the river early in 1942. On the Iowa shore, a bridge crew assembled the anchor span over traditional timber falseworks and then began extending the cantilevered arms of the main span from the concrete pier. The east side of the bridge over the river's channel was built using a novel balancing process, in which steel for the anchor span - delivered by barge - was assembled at the same time as steel for the cantilevered span, using only the concrete pier and a single temporary pile bent for support. In October 1942 the delicate-

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ly balanced construction reached a critical stage: after the anchor span had been extended to the next pier but before the closure of the main span. At that point the slender concrete pier carried almost 3.3 million pounds of material and equipment in a carefully choreographed operation. Later that year as the two halves of the main span were almost joined, the steel-workers had to compensate for some 43 inches of cantilever deflection, "by pulling down the outer ends of the spans until the central portion is back up to grade and then the two halves are joined by moving one half horizontally on rollers until it matches the other side," according to Ashton. After the main span was coupled, the suspenders were added and the floor system assembled.

When construction began, the bridge commission had proclaimed that the new structure would be completed by September 1942. But with the United States' entry into World War II in late 1941, this optimistic goal was soon abandoned. Materials delays and labor shortages held up the bridge's completion by about a year. At one point, Bethlehem Steel was forced to pull its force of steelworkers from the job for several weeks to build a munitions plant. But because the bridge was on a defense system highway, materials and labor for the project were assured. Although not fully completed until April 1944, the Julien Dubuque Bridge began to carry traffic in late August 1943. On August 31st several dignitaries gathered in a ceremony - kept brief due to the war - to dedicate and formally open the bridge to traffic.

As built, the Dubuque bridge has an overall length of 5,760 feet. Extending 1,539 feet, the spans over the river's channel are comprised of the 845-foot cantilevered arch, flanked by two 347-foot anchor spans. The bridge's deck carries two 12-foot traffic lanes and a single 5-foot sidewalk, and is situated some 50 feet above the high water mark. To reach this height from the river-level connecting highways requires extensive steel girder viaducts on both sides. Made up of variable-depth, plate deck girders with spans ranging from 43 feet to 187 feet, these viaducts total 40 spans: 17 on the Iowa side with an overall length of 1,448 feet, and 23 on the Illinois side with an overall length of 2,757 feet. The immense superstructure of the main spans consumed 3,850,100 pounds of silicon steel and 4,583,975 pounds of carbon steel. Some 6,410,492 pounds of structural steel were used in the girder spans. The substructure required 34,087 cubic yards of concrete, 2,463,500 pounds of reinforcing steel and 2,909 timber piles.

The 845-foot channel span of the Julien Dubuque Bridge is distinguished as the second-longest span over the Mississippi River at the time of its completion. It is also the longest continuous tied arch in the world and only the second example of its type in the United States, preceded only by the Meramec River Bridge. As he considered the design alternatives in 1940, Ned Ashton had wanted "a bridge that would be architecturally beautiful as well as economical." The Julien Dubuque Bridge reflects his dual concerns. The meticulous planning by HNTB and Bethlehem Steel and the novel procedures used in erecting the tremendous structure were the subject of extensive discussion within the engineering community at the

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time, and the bridge has since been regarded widely as among the world's most technologically noteworthy spans. With its single symmetrical arch supported high above the water by slender concrete piers, the bridge forms one of the most graceful spans erected over the Mississippi River. In recognition of this, the American Institute of Steel Construction designated the Julien Dubuque Bridge as the most beautiful bridge in its class for 1943.

The aggregate cost for the structure was reported as \$3,175,341.63. Funding was provided by a revenue bond issue and by the U.S. Bureau of Public Roads, through the Iowa State Highway Commission and the Illinois Department of Highways. It was originally estimated that a toll charge would be needed for 25 years before the bonds could be retired. The bond loan, however, was later refinanced at a lower interest rate, and toll revenues in the post-war period greatly exceeded projections. As a result, the bridge commission was able to retire the bonds almost 14 years ahead of schedule. Tolls were charged for the last time on December 27, 1954. When the City of Dubuque Bridge Commission was dissolved seven months later, management of the structure was taken over jointly by the states of Iowa and Illinois. The bridge has remained a free crossing since that time.

The Julien Dubuque Bridge has carried vehicular traffic, largely unaltered, since its opening in 1943. By early 1990, however, the nearly-fifty-year-old structure was beginning to show signs of age. To rectify this, the Iowa Department of Transportation has planned a major rehabilitation of the structure. Included in the proposed work are a new deck, guardrails, and replacement of some of the approach spans on the Iowa side of the river. Plans also call for removing the sidewalk and increasing the roadway width from 24 to 28 feet. A new sidewalk will be cantilevered outside the truss's south web. When completed, the rehabilitation is expected to ensure the bridge's serviceability for many more years, while at the same time preserving its structural integrity.

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Iowa Department of Transportation, Structure Inventory and Appraisal: Structure Number 023880.

Fraserdesign, "Julien Dubuque Bridge," documentation produced under contract with the Iowa Department of Transportation, July 1991.

The History of Dubuque County, Iowa (Chicago: Western Historical Company, 1880).

"A Three-Span Continuous Truss Bridge With the Middle Span a Tied Arch," Engineering News-Record, 25 February 1943, pages 43-47.

Ned L. Ashton, "The Design of a 1540-Foot, Three Span Continuous Tied Arch Truss," The Transit, 48 (April 1944): cover, pages 5-11, 14-17, 20, 22.

Balog, Louis. "Mississippi River Bridge at Dubuque, Iowa," American Society of Civil Engineers - Proceedings, 75 (May 1949): pages 692-702.

R.N. Bergendoff and Josef Sorkin, "Mississippi River Bridge at Dubuque, Iowa," American Society of Civil Engineers - Proceedings, 73 (June 1947): pages 761-782.

"Bridge Deck Paved With Pumped Concrete On Plywood Forms," Construction Methods, April 1943, pages 52-53, 133-134, 136.

"Cantilever Methods Erect Three-Span Continuous Truss Bridge With Tied Arch Middle Span," Construction Methods, March 1943, pages 48-51, 114, 118, 121, 124, 126, 128, 130.

Richard FitzGerald, "Bridges Are His Business," The Iowa Alumni Review, December 1958, pages 12-17.

"Julien Dubuque Bridge Given A.I.S.C. Award For Beauty," Wood Preserving News, 27 (March 1949): pages 30-31.

"Pump Delivers Concrete For Dubuque Bridge Deck," [Bombay] Indian Concrete Journal, 17 (October 1943): pages 301-302.

"Sand Fill Reduces Weight of Bridge Pier," Engineering News-Record, 27 August 1942, pages 60-62.

"Substructure Complete for Mississippi River Bridge at Dubuque," Engineering News-Record, 8 January 1942, page 3.

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"Tied Arches To Span the Mississippi," Engineering News-Record, March 1940, pages 366-370.

Dubuque Telegraph-Herald: "New Bridge to East Dubuque Proposed" (3 March 1935); "Bridge Plans with New Highway 20" (27 April 1937); "U.S. Senate Passes Bill for Free Bridge at Dubuque" (27 May 1938); "President Vetoes Bill" (27 June 1938); "House of Representatives Passes Bill Setting up Commission" (6 July 1939); "Bridge Bill Signed - Commission Holds Meeting and Organizes" (19 July 1939); "10 Companies Expected to Bid on Bridge" (28 March 1941); "Preliminary Work on Bridge Starts" (22 April 1941); "\$831,895 Bid Low On Bridge" (14 May 1941); "Contract Awarded for Substructure" (15 May 1941); "Bridge Pact Is Awarded Here" (15 May 1941); "Dubuque Bridge Commission Asks For Hearing" (6 November 1941); "New Bridge Across Mississippi River Begins to Take Shape Here" (15 March 1942); "Informal Program Opens Bridge" (29 August 1943); "Bridge to Be Free For Fifteen Hours" (29 August 1943); "Span Location Due to Highway 20 Change" (29 August 1943); "Many Obstacles Licked to Make Span Reality" (29 August 1943); "War to Delay Paying Off Bridge Bonds" (29 August 1943); "Cost of New Bridge Totals More Than Three Millions" (29 August 1943); "Dismantling Is No Small Task" (29 August 1943); "Bridge Story Dates Listed - Chronological History of Julien Dubuque Span" (29 August 1943); "Ellwanger Family Linked to Two Bridges" (29 August 1943); "Wagon Bridge Once Dubuque's Ambition" (29 August 1943); "Plenty of Material Used In Construction of Span" (29 August "Brief Ceremony Opens Julien Dubuque Bridge Linking Iowa, Illinois" (31 August "New Span Now Open For Use" (31 August 1943); 1943); "New Span Now Open For Use" (31 August 1943); "Story of Accomplishment - Many Obstacles Cleared Before Success Insured" (26 December 1954); "Bridge Traffic Nearly Double That of 1943" (26 December 1954); "Tolls Gone, Also Jobs" (26 December 1954); "Chronological History of Julien Dubuque Bridge" (26 December 1954); "Some Favored Fixing Up Old Dubuque Span" (26 December 1954); "Plan Changes On Approach At E. Dubuque" (26 December 1954); "A Free Bridge" (26 December 1954); "Ellwanger Family Connected With Bridge Work Since 1880" (26 December 1954); "Rain Dampens Bridge-Freeing Ceremony" (27 December 1954); "Bridge Group to Go Out Of Business on June 30" (23 June 1955); "Planner Recalls First Days of Dubuque Bridge" (5 September 1976)

Field inspection by Clayton Fraser, July 1991.