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# CARTER COUNTY

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INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*CART01	G 712A1	Van Buren Bridge	<b>12-200' riveted Parker and Pratt through truss w/rivet Warren pony truss approach spans</b> 1924 M.E. Gillioz, Monett MO

EXCLUDED:

Pratt pony truss  
115001.1

Steel stringer  
S 242      S 643

Concrete girder  
F1091R      G 770      H 546

Concrete Slab  
G 348

Concrete box culvert  
F1137R      J 347      J 497      J 499      J 567      J 569      K 503  
S 424      T 76      T 77      T 189      T 475      T 476

Timber stringer  
435000.2

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	1	0	0	0	1
Excluded	19	2	0	0	21
	20	2	0	0	22 structures

# Van Buren Bridge

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CART01

## GENERAL DATA

structure no.:	G 712A1	city/town:	Van Buren
county:	Carter	feature inters.:	Current River
		cadastral grid:	S24, T27N, R1W
		highway route:	U.S. Highway 60
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

**superstructure:** steel, 10-panel, rigid-connected Parker through truss; steel, 6-panel, rigid-connected Pratt through truss; 10 Warren pony truss approach spans at the north end

**substructure:** concrete abutments, wingwalls and piers; concrete spill-through piers under approach spans

span number:	1; 1	condition:	good
span length:	200.0'; 120.0'	alterations:	none
total length:	1141.0'	floor/decking:	concrete deck over steel stringers
roadway width:	20.0'	other features:	main trusses: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: 2 channels with lacing (4 angles with lacing on Pratt truss); diagonal: 2 angles with batten plates; lateral bracing: 1 angle; strut: 2 angles, braced (1 large I-beam on Pratt truss); portal strut: wide flange; floor beam: I-beams; guardrail: 2 steel pipes; pony approach spans: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: 4 angles with continuous plate; diagonal: 2 angles with batten plates; lateral bracing: 1 angle; floor beam: I-beams; guardrail: steel pipe; concrete sidewalk cantilevered outside of truss on east side; bridge plate [partially broken]: Missouri Highway Dept Bridge No G 712 1924

## HISTORICAL DATA

erection date:	1924-26
erection cost:	\$132,039.78
designer:	Missouri State Highway Department
fabricator:	Kansas City Structural Steel Company, Kansas City MO
contractor:	M.E. Gillioz, Monett MO

## Van Buren Bridge

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**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 712A1; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Third Biennial Report of the Missouri State Highway Commission:** "Federal Aid Projects Under Contract" (1 November 1922); **Fourth Biennial Report of the Missouri State Highway Commission:** page 141 (December 1924); **Fifth Biennial Report of the State Highway Commission of Missouri:** page 165 (December 1926); **Sixth Biennial Report of the State Highway Commission of Missouri:** page 215 (December 1928); Fraserdesign, "Van Buren Bridge: Preliminary Determination of NRHP Eligibility for the Missouri Historic Bridge Inventory," 26 September 1991; field inspection by Richard Collier, 29 March 1992.

**sign. rating:** 65  
**evaluation:** NRHP determined eligible (outstanding multiple-span example of MSHD highway truss design)

**inventoried by:** Clayton Fraser and Ron Sladek    20 April 1992

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Van Buren Bridge (Current River Bridge)  
MHTD: G 712A1

CART01

**DATE(S) OF CONSTRUCTION**

1924-26

**LOCATION**

U.S. Highway 60 over Current River; S24, T27N, R1W  
Van Buren; Carter County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP determined eligible (score: 65)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 1; 1  
span length: 200.0'; 120.0'  
total length: 1141.0'  
roadway wdt.: 20.0'

superstructure: steel, 10-panel, rigid-connected Parker through truss; steel, 6-panel, rigid-connected Pratt through truss; 10 Warren pony truss approach spans at the north end  
substructure: concrete abutments, wingwalls and piers; concrete spill-through piers under approach spans

floor/decking: concrete deck over steel stringers

other features: **through trusses:** upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: 2 channels with lacing (4 angles with lacing on Pratt truss); diagonal: 2 angles with batten plates; lateral bracing: 1 angle; strut: 2 angles, braced; portal strut: wide flange; floor beam: I-beams; **pony trusses:** upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: 4 angles with continuous plate; diagonal: 2 angles with batten plates; lateral bracing: 1 angle; floor beam: I-beams; guardrail: steel pipe; concrete sidewalk cantilevered outside of truss on east side; bridge plate [partially broken]: **Missouri Highway Dept Bridge No G 712 1924**

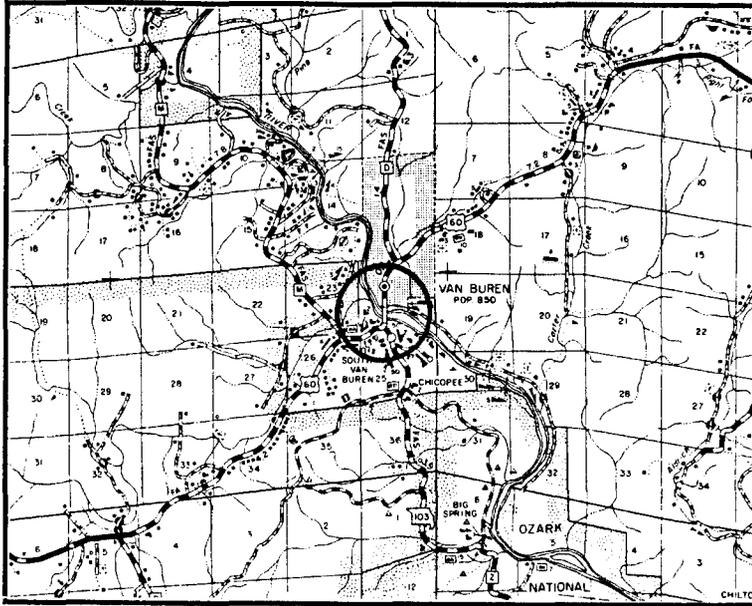
In 1924 the Missouri State Highway Department designed a multiple-span, concrete/steel highway bridge to carry State Route 62 (now U.S. Highway 60) over the Current River immediately south of Van Buren, the Carter County seat. Consisting of one riveted Pratt through truss and one Parker through truss over the river's main channel, with ten Warren pony truss approach spans over the flood plain, the structure featured a roadway width of 20 feet and an overall length of 1141 feet. The trusses and the concrete substructure were all designed from standards maintained by the Highway Department's Bureau of Bridges. After soliciting competitive proposals, the construction contract for the bridge was let in August 1924. Monett, Missouri, contractor M.E. Gillioz erected the structure, using trusses fabricated by the Kansas City Structural Steel Company. Gillioz completed the Van Buren Bridge on September 17, 1926 - almost a year behind schedule - for a final cost of \$132,039.78. It has carried traffic since as Carter County's only Current River crossing, with the addition of a sidewalk in 1937 as the only alteration of note.

Comprised of repetitive, medium-span elements built from MSHD standard designs, the Van Buren Bridge does not represent any technological milestones in bridge design and construction. Its significance is as one of Missouri's longest trussed crossings, other than the structures over the Missouri and Mississippi rivers. With only minor alteration, it is one of the best examples of MSHD highway truss construction in the state.

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**NAME(S) OF STRUCTURE**

Van Buren Bridge (Current River Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 712A1; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Third Biennial Report of the Missouri State Highway Commission: "Federal Aid Projects Under Contract"** (1 November 1922); **Fourth Biennial Report of the Missouri State Highway Commission: page 141** (December 1924); **Fifth Biennial Report of the State Highway Commission of Missouri: page 165** (December 1926); **Sixth Biennial Report of the State Highway Commission of Missouri: page 215** (December 1928); Fraserdesign, "Van Buren Bridge: Preliminary Determination of NRHP Eligibility for the Missouri Historic Bridge Inventory," 26 September 1991; field inspection by Richard Collier, 29 March 1992.

**INVENTORIED BY**

Clayton Fraser and Ron Sladek

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**20 April 1992

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# CRAWFORD COUNTY

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INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*CRAW01	H 117R	Meramec River Bridge	<b>5-110'</b> concrete filled spandrel arch 1925 Federal Bridge Company
CRAW02	X 758	Meramec River Bridge	<b>3-105'</b> steel stringer 1948 Atkinson-Windle Company
CRAW03	038000.7	Bridge	1- 42' riveted Warren pony truss 1917 Miller & Borcharding, St. Louis
*CRAW04	141001.2	Sappington Bridge	1-200' pinned Parker through truss 1904 Stupp Brothers B&I Company
*CRAW05	211000.0	Bird's Nest Bridge	1-250' pinned Pennsylv. through truss 1915 Miller & Borcharding, St. Louis

EXCLUDED:

Warren pony truss  
H 732

Steel stringer

S 330	S 364	S 604	T 202	T 221	T 469	Y 607
023000.4	188003.8	217000.7	410500.1			

Concrete girder

G 367	G 667R	G 668	H 490R	J 94R	J 581	K 199
S 421	T 530					

Concrete slab

H 489R	012001.1	013004.1	015003.1	015003.2	088003.5	092001.9
099001.7	114001.2	190004.1	410500.4			

Concrete box culvert

J 295	J 304	J 582	K 267	P 20	R 835	S 211
S 422	S 423	S 516	X 204	X 205	X 206	X 494
X 766						

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	2	3	0	0	5
Excluded	33	14	0	0	47
	35	17	0	0	52 structures

# Meramec River Bridge

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CRAW01

## GENERAL DATA

structure no.:	H 117R	city/town:	0.6 mile northwest of Steelville
county:	Crawford	feature inters.:	Meramec River
		cadastral grid:	S28, T38N, R4W
		highway route:	State Highway 19
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments, wingwalls and piers		
span number:	5	condition:	good
span length:	110.0'	alterations:	roadway widened and concrete guardrails replaced with Armco, 1983
total length:	640.0'	floor/decking :	asphalt on concrete deck
roadway width:	24.4'	other features:	fluted concrete pylons at piers; corbeled arch rings; cantilevered roadway; Armco guardrails

## HISTORICAL DATA

erection date:	1925
erection cost:	\$60,050.92
designer:	Missouri State Highway Department
fabricator :	none
contractor:	Federal Bridge Company
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 117R; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; <b>Fifth Biennial Report of the State Highway Commission of Missouri</b> , 1925-26: page 171; field inspection by Clayton Fraser, 21 October 1989.
sign. rating:	54
evaluation:	NRHP possibly eligible (outstanding example of MSHD large-scale concrete bridge design)

inventoried by: Clayton B. Fraser 16 December 1991

# Meramec River Bridge

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CRAW02

## GENERAL DATA

structure no.:	X 758	city/town:	0.5 mile northwest of Cook Station
county:	Crawford	feature inters.:	Meramec River
		cadastral grid:	S23, T36N, R5W
		highway route:	State Supplementary Route M
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel stringer		
substructure:	concrete abutments, wingwalls and piers		
span number:	1; 2	condition:	good
span length:	105.0'; 87.0'	alterations:	none
total length:	283.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	steel guardrails

## HISTORICAL DATA

erection date:	1948
erection cost:	\$65,350.50
designer:	Missouri State Highway Department
fabricator :	unknown
contractor:	Atkinson-Windle Company
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number X 758; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.
sign. rating:	42
evaluation:	NRHP non-eligible (notable for its long 105-foot span, but otherwise an undistinguished, late example of an exceedingly common structural type)

inventoried by: Clayton B. Fraser    16 December 1991

# Bridge

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CRAW03

## GENERAL DATA

<b>structure no.:</b> 038000.7	<b>city/town:</b> 3.1 miles northwest of Leasburg
<b>county:</b> Crawford	<b>feature inters.:</b> Little Bourbeuse River tributary
	<b>cadastral grid:</b> S2, T39N, R4W
	<b>highway route:</b> County Road 38
	<b>highway distr.:</b> 9
	<b>current owner:</b> Crawford County

## STRUCTURAL DATA

<b>superstructure:</b> steel, 3-panel, rigid-connected Warren pony truss	
<b>substructure:</b> concrete abutments and wingwalls	
<b>span number:</b> 1	<b>condition:</b> fair
<b>span length:</b> 42.0'	<b>alterations:</b> unknown
<b>total length:</b> 44.0'	<b>floor/decking :</b> timber deck over steel stringers
<b>roadway width:</b> 14.3'	<b>other features:</b> steel angle guardrails

## HISTORICAL DATA

<b>erection date:</b> 1917
<b>erection cost:</b> unknown
<b>designer:</b> Miller and Borcharding, St. Louis MO
<b>fabricator :</b> Stupp Brothers Bridge and Iron Company, St. Louis MO
<b>contractor:</b> Miller and Borcharding, St. Louis MO
<b>references:</b> Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 038000.7.
<b>sign. rating:</b> 34
<b>evaluation:</b> NRHP non-eligible (modestly scaled and detailed example of Warren pony truss construction from the 1910s)

**inventoried by:** Clayton B. Fraser    16 December 1991

# Sappington Bridge

CRAW04

## GENERAL DATA

structure no.:	141001.2	city/town:	7.4 miles east of Bourdon
county:	Crawford	feature inters.:	Meramec River
		cadastral grid:	S35, T40N, R2W
		highway route:	County Road 141
		highway distr.:	9
		current owner:	Crawford County

## STRUCTURAL DATA

**superstructure:** steel, 11-panel, pin-connected Parker through truss, with 3-panel, pin-connected Pratt pony truss approach span

**substructure:** concrete abutments; concrete-filled steel cylinder piers

span number:	1	condition:	fair
span length:	200.0'	alterations:	guardrails replaced
total length:	250.0'	floor/decking :	timber deck over steel stringers
roadway width:	15.1'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; lateral bracing: square eyerod with turnbuckle; strut: 2 angles, braced; floor beam: I-beam, field-bolted to vertical; guardrail: wire rope with chicken wire; portal builder's plate: 1904 / BUILT BY STUPP BRO'S BRIDGE & IRON CO. / ST. LOUIS MO.

## HISTORICAL DATA

**erection date:** 1904  
**erection cost:** \$4900.00  
**designer:** D.W. Childs, St. Louis MO  
**fabricator :** Stupp Brothers Bridge and Iron Company, St. Louis MO  
**contractor:** Stupp Brothers Bridge and Iron Company, St. Louis MO

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 141001.2; Crawford County Court Record, Book 12: pages 347-348 (22 June 1903), pages 354-355 (6 July 1903), page 387 (8 August 1903), page 430 (7 November 1903), page 436 (8 December 1903), page 466 (5 February 1904), page 633 (12 November 1904; Book 16: page 117 (4 February 1914) - located at Crawford County Courthouse, Steelville MO; original drawings, Crawford County Court Order estimating cost at \$5500.00 (no date), County Bridge Box, located at Franklin County Courthouse, Union MO; original plans and specifications (filed 14 July 1903), original petition and subscription (no date), located at Franklin County Courthouse, Union MO;

## Sappington Bridge

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Franklin County Court Record, Book T: page 265 (3 June 1903), page 288 (14 July 1903), page 327 (10 September 1903) - located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 21 October 1989.

**sign. rating:** 63

**evaluation:** NRHP possibly eligible (outstanding, early example of pinned truss construction)

**inventoried by:** Clayton B. Fraser 16 December 1991

# Bird's Nest Bridge

CRAW05

## GENERAL DATA

structure no.:	211000.0	city/town:	2.2 miles north of Steelville
county:	Crawford	feature inters.:	Meramec River
		cadastral grid:	S21, T38N, R4W
		highway route:	County Road 211
		highway distr.:	9
		current owner:	Crawford County

## STRUCTURAL DATA

**superstructure:** steel, 12-panel, pin-connected Pennsylvania through truss, with (non-original) 4-panel, rigid-connected Warren pony truss approach spans on both ends; (original) steel stringer approach spans

**substructure:** concrete abutments; concrete-filled steel cylinder piers at main truss; steel pile bent piers at approach spans

span number:	1	condition:	fair
span length:	250.0'	alterations:	truss approach spans added by converting original concrete abutments and wingwalls into piers and removing fill
total length:	512.0'	floor/decking :	timber deck over steel stringers
roadway width:	15.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; lateral bracing: round rod with turnbuckle; strut: 2 angles, braced; portal strut: A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: wire rope with chicken wire; endpost-mounted builder's plate on through truss: MILLER & BORCHERDING BUILDERS / ST. LOUIS MO. / 1914; endpost-mounted plate on north pony truss: MANUFACTURED BY / THE TOWNSHIP SUPPLY CO. / ST. LOUIS MO.

## HISTORICAL DATA

erection date:	1914-15
erection cost:	\$12,000.00
designer:	Miller and Borcharding, St. Louis MO
fabricator :	Stupp Brothers Bridge and Iron Company, St. Louis MO; Lackawanna Steel Company, Pittsburgh PA
contractor:	Miller and Borcharding, St. Louis MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 211000.0; Crawford County Court Record, Book 16: page 91 (11 December 1913), page 283 (6 October

## Bird's Nest Bridge

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1914), page 315 (7 November 1914), page 362 (4 February 1915) - located at Crawford County Courthouse, Steelville MO; field inspection by Clayton Fraser, 20 October 1989.

**sign. rating:** 60

**evaluation:** NRHP possibly eligible (outstanding, long-span example of pinned truss construction)

**inventoried by:** Clayton B. Fraser 16 December 1991

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Meramec River Bridge  
MHTD: H 117R

CRAW01

**DATE(S) OF CONSTRUCTION**

1925

**LOCATION**

State Highway 19 over Meramec River; S28, T38N, R4W  
0.6 mile northwest of Steelville; Crawford County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 54)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 5

span length: 110.0'

total length: 640.0'

roadway wdt.: 24.4'

superstructure: concrete filled spandrel arch

substructure: concrete abutments, wingwalls and piers

floor/decking: asphalt on concrete deck

other features: fluted concrete pylons at piers; corbeled arch rings; cantilevered roadway; Armco guardrails

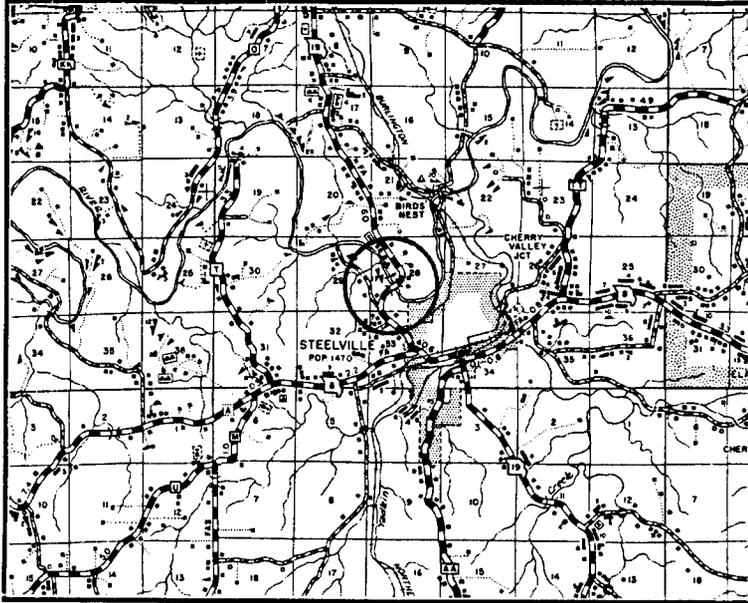
Located just northwest of Steelville, this multiple-span highway bridge carries State Highway 19 over the Meramec River. The structure dates to 1925. That summer the Missouri State Highway Department designed this five-span, filled spandrel arch structure, supported by concrete abutments and piers. Typical of MSHD-designed large-scale concrete bridges, its architectural expression consisted of concrete baluster guardrails and fluted pylons at the piers. The state highway commission in June let bids for construction of the bridge, awarding the contract to the Federal Bridge Company. A Federal crew began work on the substructure excavation in August; the bridge was completed by the end of the year. Total cost: \$60,050.92. The Meramec River Bridge carried highway traffic in unaltered condition for almost sixty years. In 1983 the Missouri Highway and Transportation Department widened its roadway and replaced its original concrete guardrails with Armco. Since that time it has functioned in place with no additional alterations.

Beginning in the mid-1920s, the Missouri State Highway Commission typically used filled spandrel designs for its concrete arches with 80 feet or less of span; open spandrel arches were employed for longer-span applications. MSHD engineers designed numerous single-span examples of the former configuration in the 1920s and 1930s, but few filled spandrel arches with multiple spans. A handful of these large-scale bridges have been identified by the statewide bridge inventory. The Meramec River Bridge's 110-foot span ranks among Missouri's longest-span filled spandrel arch. Moreover, the structure's five spans is unsurpassed among the state's other filled spandrel arches. The Meramec River Bridge thus is distinguished as a technologically significant representative of Missouri State Highway Department concrete design of the 1920s. Its more recent alteration has diminished its physical integrity somewhat, but the bridge is still an important early highway-related resource.

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**NAME(S) OF STRUCTURE**  
Meramec River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 117R; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; **Fifth Biennial Report of the State Highway Commission of Missouri, 1925-26:** page 171; field inspection by Clayton Fraser, 21 October 1989.

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**INVENTORIED BY**  
Clayton B. Fraser

**AFFILIATION**  
Fraserdesign, Loveland CO

**DATE**  
16 December 1991

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Sappington Bridge (Sappington Bluff Bridge; Meramec River Bridge) CRAW04  
MHTD: 141001.2

**DATE(S) OF CONSTRUCTION**

1904

**LOCATION**

County Road 141 over Meramec River; S35, T40N, R2W  
7.4 miles east of Bourdon; Crawford County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 63)

**CONDITION**

fair

**OWNER**

Crawford County

span number: 1  
span length: 200.0'  
total length: 250.0'  
roadway wdt.: 15.1'

superstructure: steel, 11-panel, pin-connected Parker through truss, with 3-panel, pin-connected Pratt pony truss approach span  
substructure: concrete abutments; concrete-filled steel cylinder piers  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; lateral bracing: square eyerod with turnbuckle; strut: 2 angles, braced; floor beam: I-beam, field-bolted to vertical; guardrail: wire rope with chicken wire; portal builder's plate: 1904 / BUILT BY STUPP BRO'S BRIDGE & IRON CO. / ST. LOUIS MO.

On June 22, 1903, a petition was submitted to the Crawford County Court by Philip Sappington and other county residents, "praying that a wagon bridge be built across the Meramec River... at a point known as Sappington Bluff." The citizens presented the court with a \$2500.00 subscription to help defray the cost of building the bridge. Adjacent Franklin and Washington counties also agreed to appropriate funds for the bridge. Crawford County ordered road and bridge commissioner Henry W. Smith to prepare plans and specifications for a new bridge at this site. A month later Smith presented his report, prepared with Franklin County road and bridge commissioner, A.R. Moore. The Sappington Bluff location was "the best in that locality," the two reported. "We found a natural stone abutment on the east side of the river and a bottom on the west side above high water mark." The report concluded, "We find that a bridge is very badly needed at that point as the fords near there are very deep and dangerous to cross." Smith and Moore estimated that it would cost \$6500.00 to construct a 200-foot steel span here.

The court then ordered Smith to let the contract for the structure. When the local subscription could not be met and Washington and Franklin Counties had not appropriated funds for the bridge by August, the Crawford County Court scrapped the project. In the winter of 1903, however, funding finally came together. The citizens of Boone and adjacent townships again offered their \$2500.00 subscription. Franklin County contributed \$916.67; Washington County appropriated \$833.33. The Crawford County Court appropriated \$916.67 and again ordered Henry Smith to prepare plans for a 200-foot main span and 50-foot approach, to cost no more than \$4500.00. D.W. Childs of St. Louis was hired to design the new bridge. On February 2, 1904, Smith presented the \$4900.00 bid of



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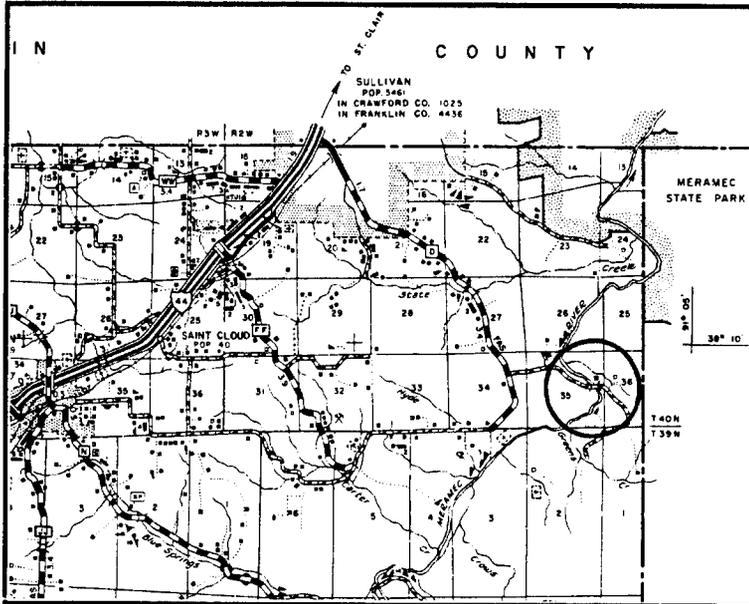
the Stupp Brothers Bridge and Iron Company for a structure with timber stringers. The company was awarded the contract three days later. Stupp Brothers fabricated the pin-connected truss in its St. Louis shops, completing the structure in early November 1904. In 1914 the county contracted with Miller and Borcharding of St. Louis to repair the bridge for \$1100.00. At that time the structure was painted and a new deck and steel stringers were installed. The Sappington Bridge has since carried rural traffic over the Meramec River in the northeast corner of Crawford County.

A pivotal river crossing that linked the citizens of three counties, the Sappington Bridge is historically significant for its role in transportation and commerce in the region. The bridge is technologically significant as a well-preserved example of an uncommon structural type. Pin-connected Pratt trusses were built by the thousands throughout Missouri in the late 19th and early 20th centuries. Pinned Parker trusses - a polygonal-chorded Pratt variant - such as the Sappington Bridge, were typically used for long span crossings and were built far less often; fewer than three dozen remain in place today on Missouri's road system. Among these, the Sappington Bridge ranks as a superlative example: an early, long-span Parker truss that has retained a high degree of physical integrity. A graceful structure that spans high above the Meramec River, it is a well-known local landmark and one of the most significant of Missouri's early roadway trusses.

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**NAME(S) OF STRUCTURE**

Sappington Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 141001.2; Crawford County Court Record, Book 12: pages 347-348 (22 June 1903), pages 354-355 (6 July 1903), page 387 (8 August 1903), page 430 (7 November 1903), page 436 (8 December 1903), page 466 (5 February 1904), page 633 (12 November 1904; Book 16: page 117 (4 February 1914) - located at Crawford County Courthouse, Steelville MO; original drawings, Crawford County Court Order estimating cost at \$5500.00 (no date), County Bridge Box, located at Franklin County Courthouse, Union MO; original plans and specifications (filed 14 July 1903), original petition and subscription (no date), located at Franklin County Courthouse, Union MO; Franklin County Court Record, Book T: page 265 (3 June 1903), page 288 (14 July 1903), page 327 (10 September 1903) - located at Franklin County Courthouse, Union MO; field inspection by Clayton Fraser, 21 October 1989.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**16 December 1991

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Bird's Nest Bridge (Meramec River Bridge)  
MHTD: 211000.0

CRAW05

**DATE(S) OF CONSTRUCTION**

1914-15

**LOCATION**

County Road 211 over Meramec River; S21, T38N, R4W  
2.2 miles north of Steelville; Crawford County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 60)

**CONDITION**

fair

**OWNER**

Crawford County

span number: 1  
span length: 250.0'  
total length: 512.0'  
roadway wdt.: 15.0'

superstructure: steel, 12-panel, pin-connected Pennsylvania through truss, with (non-original) 4-panel, rigid-connected Warren pony truss approach spans on both ends; (original) steel stringer approach spans  
substructure: concrete abutments; concrete-filled steel cylinder piers at main truss; steel pile bent piers at approach spans  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; lateral bracing: round rod with turnbuckle; strut: 2 angles, braced; portal strut: A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: wire rope with chicken wire; endpost-mounted builder's plate on through truss: **MILLER & BORCHERDING BUILDERS / ST. LOUIS MO. / 1914**; endpost-mounted plate on north pony truss: **MANUFACTURED BY / THE TOWNSHIP SUPPLY CO. / ST. LOUIS MO.**

Late in 1913 the Crawford County Court was contemplating changes to the Steelville-Cuba Public Road north of Steelville. The judges ordered county surveyor M.E. Beers to change the road's course north of the Meramec River to eliminate two dangerous railroad crossings. The re-surveyed road would also require a major new crossing of the Meramec River. After a survey and soundings were completed, a bridge designed and bids solicited, the court in October 1914 awarded a contract to fabricate and erect a new wagon bridge over the Meramec some two miles north of Steelville. The structure was to consist of a single 250-foot, pinned Pennsylvania through truss, with a 150-foot, steel stringer approach on the south and a 50-foot approach on the north. The main truss was supported by steel cylinder piers, the approach spans by steel pile bents and concrete abutments. Low bidder at \$12,475.00, St. Louis-based Miller and Borcharding received the contract to build the bridge. By contract, they completed the substructure by December 1914. Using a pin-connected Pennsylvania truss fabricated by the Stupp Brothers Bridge and Iron Works of St. Louis, from steel rolled by the Lackawanna Steel Company in Pittsburgh, Miller and Borcharding completed the bridge early in 1915. The county reduced the contract amount by \$475.00, bringing the final cost of the bridge to \$12,000.00. At some later time the earth fill was removed from behind the two original concrete abutments and wingwalls (turning them into freestanding piers), new concrete abutments were built, and pony truss approach spans were added to both ends of the bridge. Other than this alteration, the structure remains intact today. Known locally as the Bird's Nest Bridge for its proximity to the Bird's Nest Lodge, it continues to carry local traffic across the Meramec River.



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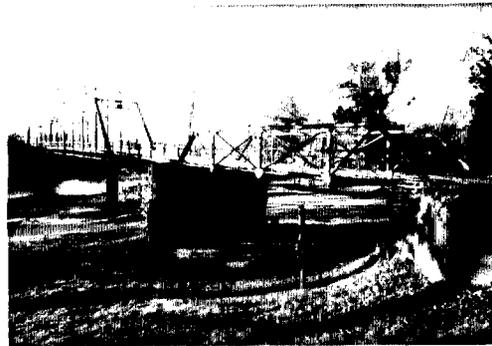
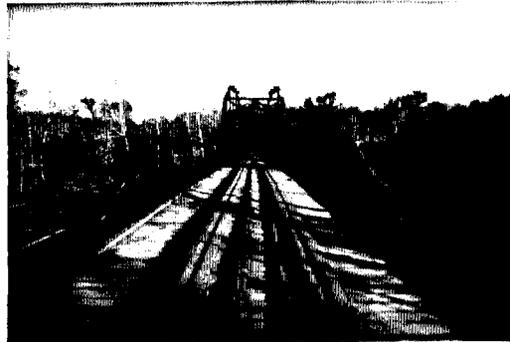
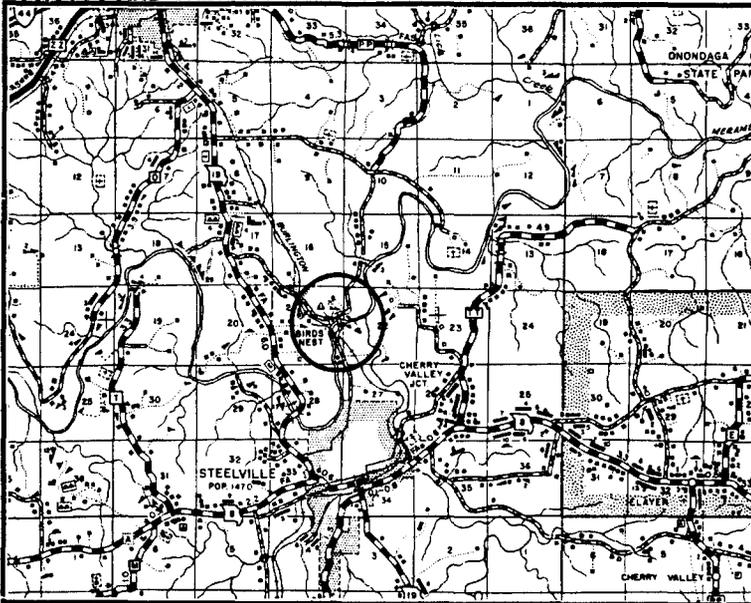
Before the Missouri State Highway Department began building major river crossings in the 1920s, the individual counties were responsible for erecting and maintaining such structures. Numerous long-span truss bridges were erected over the Meramec, the Salt, the Cuivre, the Grand and other major rivers in the late 19th and early 20th centuries. Their pinned connections and relatively narrow roadway widths have made them likely targets for replacement, however, and many of the large-scale concrete bridges built by MSHD have replaced earlier iron or steel trusses. As a result of decades of attrition, relatively few long-span trusses remain in use today in Missouri. The Bird's Nest Bridge is distinguished among the remaining structures by its 250-foot span and its unusual Pennsylvania truss configuration. A well-preserved, superlative example of county-level bridge construction, it is a technologically significant resource.

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**NAME(S) OF STRUCTURE**

Bird's Nest Bridge (Meramec River Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 211000.0; Crawford County Court Record, Book 16: page 91 (11 December 1913), page 283 (6 October 1914), page 315 (7 November 1914), page 362 (4 February 1915) - located at Crawford County Courthouse, Steelville MO; field inspection by Clayton Fraser, 20 October 1989.

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**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

16 December 1991

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# DENT COUNTY

---

**INCLUDED:** [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
DENT01	G 537R	Gladden Creek Bridge	1-100' <b>riveted Pratt through truss</b> 1924 Wilson Construction Company (replaced)
DENT02	H 363	Meramec River Bridge	
DENT03	034001.4	Dry Fork Bridge	1- 98' riveted Pratt half-hip pony truss c1915
DENT04	389500.1	Second Street Culvert	1- 22' <b>concrete arch culvert</b> c1925

**EXCLUDED:**

Warren pony truss  
J 895

Steel stringer  
S 269 T 582 T 984 003000.2 003000.4 003001.5 180002.3  
199001.4

Concrete girder  
H 582 J 70R J 216R J 223R J 570 J 573 J 968  
K 36 T 583

Concrete slab  
102001.4

Concrete box / steel pipe culvert  
J 71 J 251 J 445 J 893 J 946 R 809 S 913  
S 914 S 915 S 916 S 917 T 584 T 585 X 216  
167000.8

**SUMMARY:**

	Primary	Secondary	Urban	Other	Total
Included	1	2	0	0	3
Excluded	27	7	0	0	34
	28	9	0	0	37 structures

# Gladden Creek Bridge

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DENT01

## GENERAL DATA

<b>structure no.:</b> G 537R	<b>city/town:</b> 1.5 miles north of Gladden
<b>county:</b> Dent	<b>feature inters.:</b> Gladden Creek
	<b>cadastral grid:</b> S34, T33N, R5W
	<b>highway route:</b> Missouri State Highway 19
	<b>highway distr.:</b> 9
	<b>current owner:</b> Missouri Highway and Transportation Department

## STRUCTURAL DATA

<b>superstructure:</b> steel, 5-panel, rigid-connected Pratt through truss	
<b>substructure:</b> concrete abutments and wingwalls	
<b>span number:</b> 1	<b>condition:</b> good
<b>span length:</b> 100.0'	<b>alterations:</b> none
<b>total length:</b> 104.0'	<b>floor/decking :</b> concrete deck over steel stringers
<b>roadway width:</b> 20.0'	<b>other features:</b> steel pipe guardrails

## HISTORICAL DATA

<b>erection date:</b> 1924
<b>erection cost:</b> \$13,106.66
<b>designer:</b> Missouri State Highway Department
<b>fabricator :</b> unknown
<b>contractor:</b> Wilson Construction Company
<b>references:</b> Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 537R; Missouri Highway and Transportation Department, Primary System Bridge Record, Book 1 (see entries for Dent County), on file at MHTD, Jefferson City MO.
<b>sign. rating:</b> 38
<b>evaluation:</b> NRHP non-eligible (typically configured example of MSHD truss design in the 1920s)

Inventoried by: Clayton B. Fraser    12 January 1993

# Dry Fork Bridge

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DENT03

## GENERAL DATA

structure no.:	034001.4	city/town:	8.0 miles northwest of Salem
county:	Dent	feature inters.:	Dry Fork
		cadastral grid:	S20, T35N, R6W
		highway route:	county road
		highway distr.:	9
		current owner:	Dent County

## STRUCTURAL DATA

superstructure:	steel, 6-panel, rigid-connected Pratt half-hip pony truss		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	fair
span length:	98.0'	alterations:	unknown
total length:	98.0'	floor/decking :	timber deck
roadway width:	13.5'	other features:	guardrail: steel angle

## HISTORICAL DATA

erection date:	c1915
erection cost:	unknown
designer:	unknown
fabricator :	unknown
contractor:	unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 034001.4.

sign. rating:	30
evaluation:	NRHP non-eligible (longer than average, but typically configured example of common structural type)

inventoried by: Clayton B. Fraser 12 January 1993

# Second Street Culvert

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DENT04

## GENERAL DATA

structure no.:	389500.1	city/town:	Salem
county:	Dent	feature inters.:	intermittent stream
		cadastral grid:	S18, T35N, R5W
		highway route:	Second Street
		highway distr.:	9
		current owner:	Dent County

## STRUCTURAL DATA

superstructure:	concrete arch culvert		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	fair
span length:	22.0'	alterations:	unknown
total length:	22.0'	floor/decking :	asphalt over earth fill
roadway width:	13.0'	other features:	crude concrete forming and simple details

## HISTORICAL DATA

erection date:	c1925
erection cost:	unknown
designer:	unknown
fabricator :	none
contractor:	unknown
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 389500.1.
sign. rating:	29
evaluation:	NRHP non-eligible (undocumented, undistinguished, small-scale structure, lacking in technological significance)

inventoried by: Clayton B. Fraser 12 January 1993

# HOWELL COUNTY

---

**INCLUDED:**

NONE

**EXCLUDED:**

Steel stringer  
 G 645R T 465 211001.1 331000.6 461500.1

Steel girder  
 K 789A

Concrete girder  
 F 372R F1126R1 G 642R S 463 W 525 256000.1 256000.2  
 342000.7

Concrete slab  
 043000.0 150001.0 211001.0 266000.7 293000.5 334000.7 348001.8  
 410002.1 410002.3 433001.3 456000.5 479000.3 517001.1 521000.4  
 523000.3 531000.3 543000.5 545002.4 549000.5 552001.0 554001.1  
 555000.7 562000.1 565000.6 586000.7 628000.7

Concrete box culvert  
 F 306R1 F 308R F 371R G 362R G 643R G 644R G 646R  
 K 476 K 845R K 846R L 390 L 391 R 830 S 270  
 S 271 S 540 S 782 T 138 T 139 T 140 T 141  
 T 477 U4560001 W 39 X 294 X 326 X 878 X 927  
 Y 443 Y 444 Y 470 330000.5 331000.3 331002.2

Timber stringer  
 605000.7

**SUMMARY:**

	Primary	Secondary	Urban	Other	Total
Included	0	0	0	0	0
Excluded	38	36	1	0	75
	38	36	1	0	75 structures

# IRON COUNTY

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INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
IRON01	F 646R	Big Creek Bridge	<b>2-100'</b> concrete open spandrel arch 1945 M.E. Gillioz, Monett, MO
*IRON02	F 990	Townsend Branch Bridge	1- 40' concrete filled spandrel arch 1922 St. Louis Bridge and Supply Co.
*IRON03	F 991	Gum Spring Branch Bridge	1- 40' concrete filled spandrel arch 1922 St. Louis Bridge and Supply Co.
*IRON04	F 992	East Fork Bridge	1- 40' concrete filled spandrel arch 1922 St. Louis Bridge and Supply Co.
IRON05	G 269R	Reeds Creek Bridge	1- 50' concrete filled spandrel arch 1923 J.P. Sparks
IRON06	G 879	Big Creek Bridge	1-100' riveted Pratt through truss 1924 J.W. Wilson
IRON07	H 393	Stouts Creek Bridge	1-123' concrete open spandrel arch 1928 Republic Concrete Constr. Co.
IRON08	101000.4	Stouts Creek Bridge	1- 60' pinned Pratt half-hip pony truss c1895

EXCLUDED:

Pratt pony truss  
G 633

Warren pony truss  
J 990 123000.1

Steel stringer / girder  
F 647R K 136 T 222 020001.4 020003.6 053001.5 154001.3  
158000.0

Concrete slab / girder  
F 644R F 989 G 272 G 568 G 570 G 878A H 147  
J 197 L 322 T 112 T 113 X 495 013500.1 079004.8  
111001.3 173000.2

Concrete box culvert  
G 273 G 632R H 26R H 871 J 351 J 352 J 492R  
J 989 K 137 K 191 S 62 S 63 S 64 S 730  
T 466 X 462 X 463 X 524 013500.2 020000.1 030000.8  
053003.4 109001.0 112001.7 124003.5 134000.7 149000.1

Timber stringer  
020000.3

# IRON COUNTY

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## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	7	1	0	0	8
Excluded	35	20	0	0	55
<hr/>					
	42	21	0	0	63 structures

# Big Creek Bridge

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IRON01

## GENERAL DATA

structure no.:	F 646R	city/town:	3.7 miles north of Annapolis
county:	Iron	feature inters.:	Big Creek and Missouri Pacific Railroad
		cadastral grid:	S34/35, T32N, R3E
		highway route:	State Highway 49
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete two-rib, open-spandrel arch, with concrete girder approach spans		
substructure:	concrete abutments, wingwalls and piers		
span number:	2	condition:	good
span length:	100.0'	alterations:	none
total length:	496.0'	floor/decking :	concrete deck
roadway width:	26.0'	other features:	concrete guardrails (MSHD standard design)

## HISTORICAL DATA

erection date:	1945-46
erection cost:	\$113,718.00
designer:	Missouri State Highway Department
fabricator :	none
contractor:	M.E. Gillioz, Monett MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F 646R; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.
sign. rating:	45
evaluation:	NRHP non-eligible (late example of open spandrel arch construction, with standard detailing and an average degree of physical integrity)

inventoried by: Clayton B. Fraser 21 April 1992

# Townsend Branch Bridge

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IRON02

## GENERAL DATA

<b>structure no.:</b> F 990	<b>city/town:</b> 0.9 mile east of Belleview
<b>county:</b> Iron	<b>feature inters.:</b> Townsend Branch of Cedar Creek
	<b>cadastral grid:</b> S5, T34N, R3E
	<b>highway route:</b> State Highway 21
	<b>highway distr.:</b> 9
	<b>current owner:</b> Missouri Highway and Transportation Department

## STRUCTURAL DATA

<b>superstructure:</b> concrete filled spandrel arch	
<b>substructure:</b> concrete abutments and wingwalls	
<b>span number:</b> 1	<b>condition:</b> good
<b>span length:</b> 40.0'	<b>alterations:</b> none
<b>total length:</b> 43.0'	<b>floor/decking :</b> concrete deck over earth fill
<b>roadway width:</b> 18.0'	<b>other features:</b> concrete guardrails (MSHD standard design)

## HISTORICAL DATA

<b>erection date:</b> 1922	
<b>erection cost:</b> \$2568.60	
<b>designer:</b> Missouri State Highway Department	
<b>fabricator :</b> none	
<b>contractor:</b> St. Louis Bridge and Supply Company, St. Louis MO	
<b>references:</b>	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F 990; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Missouri State Highway Commission, Third Biennial Report, 1921-22, pages 127-28, 131.
<b>sign. rating:</b> 47	
<b>evaluation:</b>	NRHP possibly eligible (relatively early, well-preserved example of MSHD concrete bridge design and construction, built during the agency's formative years.)

inventoried by: Clayton B. Fraser 21 April 1992

# Gum Spring Branch Bridge

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IRON03

## GENERAL DATA

<b>structure no.:</b> F 991	<b>city/town:</b> 0.5 mile east of Belleview
<b>county:</b> Iron	<b>feature inters.:</b> Gum Spring Branch of Knob Creek
	<b>cadastral grid:</b> S5, T34N, R3E
	<b>highway route:</b> State Highway 21
	<b>highway distr.:</b> 9
	<b>current owner:</b> Missouri Highway and Transportation Department

## STRUCTURAL DATA

<b>superstructure:</b> concrete filled spandrel arch	
<b>substructure:</b> concrete abutments and wingwalls	
<b>span number:</b> 1	<b>condition:</b> good
<b>span length:</b> 40.0'	<b>alterations:</b> none
<b>total length:</b> 43.0'	<b>floor/decking :</b> concrete deck over earth fill
<b>roadway width:</b> 18.0'	<b>other features:</b> concrete guardrails (MSHD standard design)

## HISTORICAL DATA

<b>erection date:</b> 1922	
<b>erection cost:</b> \$3438.60	
<b>designer:</b> Missouri State Highway Department	
<b>fabricator :</b> none	
<b>contractor:</b> St. Louis Bridge and Supply Company, St. Louis MO	
<b>references:</b>	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F 991; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Missouri State Highway Commission, <b>Second Biennial Report</b> , 1919-20, pages 129, 134; Missouri State Highway Commission, <b>Third Biennial Report</b> , 1921-22, pages 127-28, 131.
<b>sign. rating:</b> 47	
<b>evaluation:</b>	NRHP possibly eligible (relatively early, well-preserved example of MSHD concrete bridge design and construction, built during the agency's formative years.)

**inventoried by:** Clayton B. Fraser    21 April 1992

# East Fork Bridge

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IRON04

## GENERAL DATA

<b>structure no.:</b> F 992	<b>city/town:</b> 1.9 miles north of Ironton
<b>county:</b> Iron	<b>feature inters.:</b> East Fork of Cedar Creek
	<b>cadastral grid:</b> S30, T34N, R4E
	<b>highway route:</b> State Highway 21
	<b>highway distr.:</b> 9
	<b>current owner:</b> Missouri Highway and Transportation Department

## STRUCTURAL DATA

<b>superstructure:</b> concrete filled spandrel arch	
<b>substructure:</b> concrete abutments and wingwalls	
<b>span number:</b> 1	<b>condition:</b> good
<b>span length:</b> 40.0'	<b>alterations:</b> none
<b>total length:</b> 43.0'	<b>floor/decking :</b> concrete deck over earth fill
<b>roadway width:</b> 18.0'	<b>other features:</b> concrete guardrails (MSHD standard design)

## HISTORICAL DATA

<b>erection date:</b> 1922	
<b>erection cost:</b> \$3205.10	
<b>designer:</b> Missouri State Highway Department	
<b>fabricator :</b> none	
<b>contractor:</b> St. Louis Bridge and Supply Company, St. Louis MO	
<b>references:</b> Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F 992; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.	
<b>sign. rating:</b> 47	
<b>evaluation:</b> NRHP possibly eligible (relatively early, well-preserved example of MSHD concrete bridge design and construction, built during the agency's formative years.)	

**inventoried by:** Clayton B. Fraser    21 April 1992

# Reeds Creek Bridge

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IRON05

## GENERAL DATA

structure no.:	G 269R	city/town:	1.7 miles northwest of Belleview
county:	Iron	feature inters.:	Reeds Creek
		cadastral grid:	S30, T35N, R3E
		highway route:	State Highway 32
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	good
span length:	50.0'	alterations:	guardrails replaced, 1990
total length:	53.0'	floor/decking :	concrete deck over earth fill
roadway width:	18.0'	other features:	ARMCO guardrails

## HISTORICAL DATA

erection date:	1923
erection cost:	\$4456.80 (engineer's estimate)
designer:	Missouri State Highway Department
fabricator :	none
contractor :	J.P. Sparks
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F 991; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Missouri State Highway Commission, <b>Second Biennial Report</b> , 1919-20, pages 129, 140; Missouri State Highway Commission, <b>Third Biennial Report</b> , 1921-22, pages 154.
sign. rating:	37
evaluation:	NRHP determined non-eligible (relatively early example of MSHD concrete bridge design and construction, recently substantially altered)

inventoried by: Clayton B. Fraser 21 April 1992

# Big Creek Bridge

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IRON06

## GENERAL DATA

<b>structure no.:</b> G 879	<b>city/town:</b> 1.6 miles east of Annapolis
<b>county:</b> Iron	<b>feature inters.:</b> Big Creek
	<b>cadastral grid:</b> S24/25, T31N, R3E
	<b>highway route:</b> State Highway 143
	<b>highway distr.:</b> 9
	<b>current owner:</b> Missouri Highway and Transportation Department

## STRUCTURAL DATA

**superstructure:** steel, 6-panel, rigid-connected Pratt through truss; 6 concrete deck girder approach spans

**substructure:** concrete abutments and wingwalls; concrete hammerhead spill-through piers

<b>span number:</b> 1	<b>condition:</b> good
<b>span length:</b> 100.0'	<b>alterations:</b> none
<b>total length:</b> 357.0'	<b>floor/decking :</b> concrete deck over steel stringers
<b>roadway width:</b> 20.0'	<b>other features:</b> steel pipe guardrails

## HISTORICAL DATA

**erection date:** 1924

**erection cost:** \$33,485.36

**designer:** Missouri State Highway Department

**fabricator :** unknown

**contractor:** J.W. Wilson

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 879; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.

**sign. rating:** 38

**evaluation:** NRHP non-eligible (typically configured example of MSHD truss design)

**inventoried by:** Clayton B. Fraser    21 April 1992

# Stouts Creek Bridge

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IRON07

## GENERAL DATA

structure no.:	H 393	city/town:	2.6 miles east of Ironton
county:	Iron	feature inters.:	Stouts Creek
		cadastral grid:	S3, T33N, R4E
		highway route:	Missouri State Highway 72
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete open spandrel arch		
substructure:	concrete abutments and wingwalls		
span number:	1	condition:	good
span length:	122.5'	alterations:	none
total length:	125.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	concrete guardrails (MSHD standard design)

## HISTORICAL DATA

erection date:	1928
erection cost:	\$16,691.36
designer:	Missouri State Highway Department
fabricator :	none
contractor :	Republic Concrete Construction Company, Republic MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 393; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.
sign. rating:	45
evaluation:	NRHP non-eligible (longer than average example of open spandrel arch construction, with otherwise standard detailing and an average degree of physical integrity)

inventoried by: Clayton B. Fraser    21 April 1992

# Stouts Creek Bridge

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IRON08

## GENERAL DATA

structure no.:	101000.4	city/town:	1.7 miles southwest of Ironton
county:	Iron	feature inters.:	Stouts Creek
		cadastral grid:	S6, T33N, R4E
		highway route:	County Road 101
		highway distr.:	9
		current owner:	Iron County

## STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt half-hip pony truss  
substructure: concrete abutments and wingwalls

span number:	1	condition:	fair
span length:	60.0'	alterations:	steel pile bent pier added at mid-span
total length:	61.0'	floor/decking :	concrete on corrugated steel deck, over steel stringers
roadway width:	16.0'	other features:	fishtail plate girder floor beams

## HISTORICAL DATA

erection date: c1895  
erection cost: unknown  
designer: unknown  
fabricator : unknown  
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 101000.4.

sign. rating: 30  
evaluation: NRHP non-eligible (early, but typically configured and inadequately documented example of a common structural type)

inventoried by: Clayton B. Fraser 21 April 1992

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Townsend Branch Bridge  
MHTD: F 990

IRON02

**DATE(S) OF CONSTRUCTION**

1922

**LOCATION**

State Highway 21 over Townsend Branch of Cedar Creek; S5, T34N, R3E  
0.9 mile east of Belleview; Iron County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 47)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 1

superstructure: concrete filled spandrel arch

span length: 40.0'

substructure: concrete abutments and wingwalls

total length: 43.0'

floor/decking: concrete deck over earth fill

roadway wdt.: 18.0'

other features: concrete guardrails (MSHD standard design)

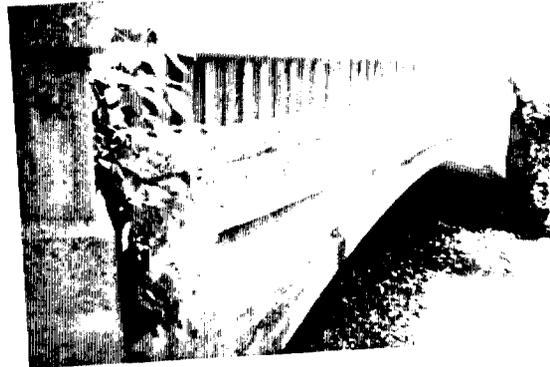
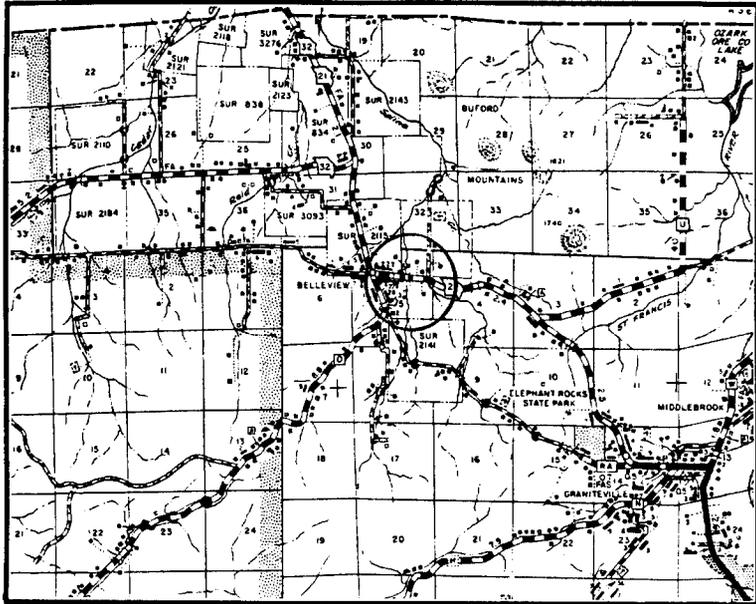
One of the provisions of the Hawes Road Law establishing the Missouri State Highway Department was that the newly formed agency develop plans and specifications for bridges and culverts. "The Highway Department has maintained a drafting room which has been called upon for many kinds of service," the department reported in 1918, "but the especial function of which has been the preparation of bridge and culvert designs." By 1920, the department had developed several standards for short- and medium-span bridges, including 13 designs for steel superstructures with spans ranging up to 100 feet. In addition, the department delineated some 185 special bridge designs during the 1919-20 biennium. In 1922 the department designed some 293 spans with a total length of over 20,000 feet. One of these was a structure over the Townsend Branch Bridge of Cedar Creek in Iron County, a concrete filled spandrel arch with a 40-foot span. One of seven small-scale concrete structures designed by MSHD under Federal Aid Project No. 107, its cost was estimated at \$3,146.50. When competitive proposals were received in May 1922, the low bidder at was the St. Louis Bridge and Supply Company at \$2,568.60. The contractor completed all seven bridges; the Townsend Branch structure has continued to function in place, without alteration. It is historically significant as one of the few structures left intact from MSHD's formative years—a small-scale concrete arch that represents early highway bridge building in Missouri.

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**NAME(S) OF STRUCTURE**

Townsend Branch Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F 990; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Missouri State Highway Commission, Third Biennial Report, 1921-22, pages 127-28, 131.

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**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

21 April 1992

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Gum Spring Branch Bridge  
MHTD: F 991

IRON03

**DATE(S) OF CONSTRUCTION**

1922

**LOCATION**

State Highway 21 over Gum Spring Branch of Knob Creek; S5, T34N, R3E  
0.5 mile east of Belleview; Iron County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 47)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 1

superstructure: concrete filled spandrel arch

span length: 40.0'

substructure: concrete abutments and wingwalls

total length: 43.0'

floor/decking: concrete deck over earth fill

roadway wdt.: 18.0'

other features: concrete guardrails (MSHD standard design)

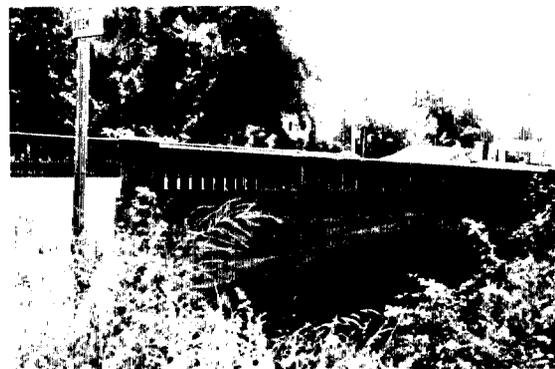
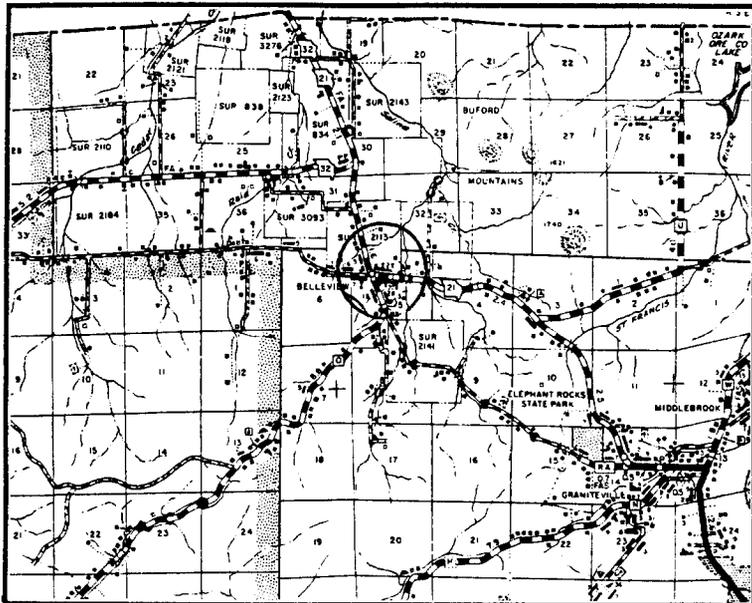
One of the provisions of the Hawes Road Law establishing the Missouri State Highway Department was that the newly formed agency develop plans and specifications for bridges and culverts. "The Highway Department has maintained a drafting room which has been called upon for many kinds of service," the department reported in 1918, "but the especial function of which has been the preparation of bridge and culvert designs." By 1920, the department had developed several standards for short- and medium-span bridges, including 13 designs for steel superstructures with spans ranging up to 100 feet. In addition, the department delineated some 185 special bridge designs during the 1919-20 biennium. In 1922 the department designed some 293 spans with a total length of over 20,000 feet. One of these was a structure over the Gum Spring Branch of Knob Creek in Iron County, a concrete filled spandrel arch with a 40-foot span. One of seven small-scale concrete structures designed by MSHD under Federal Aid Project No. 107, its cost was estimated at \$4,067.30. When competitive proposals were received in May 1922, the low bidder at was the St. Louis Bridge and Supply Company at \$3,438.60. The contractor completed all seven bridges; the Gum Spring Branch structure has continued to function in place, without alteration. It is historically significant as one of the few structures left intact from MSHD's formative years—a small-scale concrete arch that represents early highway bridge building in Missouri.

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**NAME(S) OF STRUCTURE**

Gum Spring Branch Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F 991; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Missouri State Highway Commission, Second Biennial Report, 1919-20, pages 129, 134; Missouri State Highway Commission, Third Biennial Report, 1921-22, pages 127-28, 131.

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**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

21 April 1992

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

East Fork Bridge  
MHTD: F 992

IRON04

**DATE(S) OF CONSTRUCTION**

1922

**LOCATION**

State Highway 21 over East Fork of Cedar Creek; S30, T34N, R4E  
1.9 miles north of Ironton; Iron County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 47)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 1

superstructure: concrete filled spandrel arch

span length: 40.0'

substructure: concrete abutments and wingwalls

total length: 43.0'

floor/decking: concrete deck over earth fill

roadway wdt.: 18.0'

other features: concrete guardrails (MSHD standard design)

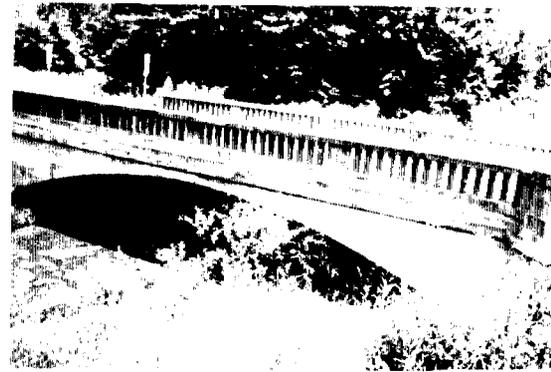
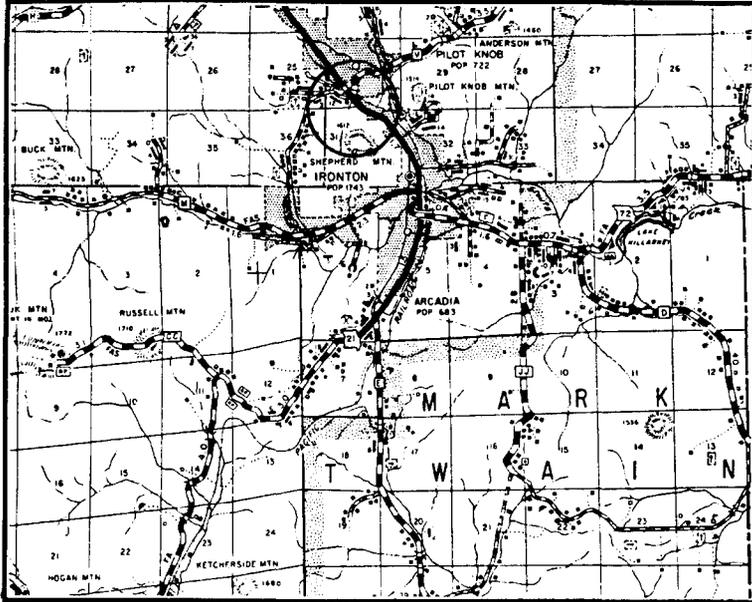
One of the provisions of the Hawes Road Law establishing the Missouri State Highway Department was that the newly formed agency develop plans and specifications for bridges and culverts. "The Highway Department has maintained a drafting room which has been called upon for many kinds of service," the department reported in 1918, "but the especial function of which has been the preparation of bridge and culvert designs." By 1920, the department had developed several standards for short- and medium-span bridges, including 13 designs for steel superstructures with spans ranging up to 100 feet. In addition, the department delineated some 185 special bridge designs during the 1919-20 biennium. In 1922 the department designed some 293 spans with a total length of over 20,000 feet. One of these was a structure over the East Fork of Cedar Creek in Iron County, a concrete filled spandrel arch with a 40-foot span. One of seven small-scale concrete structures designed by MSHD under Federal Aid Project No. 107, its cost was estimated at \$3,820.70. When competitive proposals were received in May 1922, the low bidder was the St. Louis Bridge and Supply Company at \$3,438.60. The contractor completed all seven bridges; the East Fork Bridge structure has continued to function in place, without alteration. It is historically significant as one of the few structures left intact from MSHD's formative years—a small-scale concrete arch that represents early highway bridge building in Missouri.

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**NAME(S) OF STRUCTURE**

East Fork Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number F 992; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.

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**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

21 April 1992

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# OREGON COUNTY

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INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*OREG01	H 289A	Thayer Viaduct	3-150' <b>pinned Pratt through truss</b> 1930 M.S. Cartter & Co., St. Louis Martin Wunderlich
*OREG02	K 272	Riverton Bridge	1-200' <b>riveted Parker through truss</b> 1934 M.E. Gillioz, Monett MO
*OREG03	223000.2	Crow Ford Bridge	1-100 <b>pinned Pratt through truss</b> 1914 East St. Louis Bridge Company

EXCLUDED:

Warren pony truss  
 F1045 F1046 K 344

Steel stringer  
 K 358 006500.1 181002.1

Concrete girder  
 F1057 G 801 H 458A H 921R J 604 T 432 W 247  
 W 488 150000.5 156002.5 178000.8

Concrete slab  
 G 802 H 173 H 174 H 413R Y 170 Y 171 111000.4  
 211000.9 222001.5 259001.0 422500.1

Concrete box culvert  
 H 510 H 511 J 603 K 2 K 3 T 362 T 431  
 T 471 T 472 T 721 T 970R T 971R 242000.4 422500.2

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	2	1	0	0	3
Excluded	30	12	0	0	42
	32	13	0	0	45 structures

# Thayer Viaduct

OREG01

## GENERAL DATA

structure no.:	H 289A	city/town:	Thayer
county:	Oregon	feature inters.:	BNRR and Two Mile Creek
		cadastral grid:	S30, T22N, R6W
		highway route:	State Highway 19
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel, 8-panel, pin-connected Pratt through truss; 2 steel, 6-panel, rigid-connected Warren pony truss approach spans at the north end		
substructure:	concrete abutments, wingwalls and piers		
span number:	3	condition:	good
span length:	150.0'; 70.0'	alterations:	none
total length:	305.0'	floor/decking :	concrete deck over plate girders
roadway width:	20.0'	other features:	Pratt through truss - upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars (4 punched eyebars at center panels); vertical: 2 channels with lacing (2 punched square eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: square rod with unslotted turnbuckle; strut: I-beam; portal strut: 2 channels with angle bracing; floor beam: riveted plate girder; guardrail: steel pipe; timber sidewalk cantilevered outside truss on east side; bridge plate: Built by M.S. Cartter & Co. St. Louis; Warren pony approach spans - upper chord, inclined end post, and lower chord: 2 angles with continuous plate; vertical: two channels with lacing; diagonal: 2 angles; lateral bracing: none; floor beam: I-beam; guardrail: steel pipe

## HISTORICAL DATA

erection date:	1930
erection cost:	\$14,410.67 (MSHD share)
designer:	Missouri State Highway Department (substructure and approaches); Frisco Railroad (through truss)
fabricator :	Passaic Rolling Mill Company, Paterson NJ (through truss)
contractor:	M.S. Cartter and Company, St. Louis (through truss); Martin Wunderlich (substructure and approaches)

## Thayer Viaduct

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**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. H 289A; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Seventh Biennial Report of the State Highway Commission of Missouri: 1929-30**, page 505; field inspection by Richard Collier, 29 March 1992.

**sign. rating:** 51

**evaluation:** NRHP possibly eligible (representative example of trussed viaduct, cooperatively built by railroad and highway department)

**Inventoried by:** Clayton B. Fraser 4 May 1992

# Riverton Bridge

OREG02

## GENERAL DATA

structure no.:	K 272	city/town:	Riverton
county:	Oregon	feature inters.:	Eleven Point River
		cadastral grid:	S17, T23N, R2W
		highway route:	U.S. Highway 160
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: steel, 10-panel, rigid-connected Parker through truss, with steel stringer approach spans

substructure: concrete abutments, wingwalls and piers

span number:	1	condition:	good
span length:	200.0'	alterations:	none
total length:	402.0'	floor/decking :	asphalt on concrete deck, over steel stringers
roadway width:	22.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with lacing; vertical: 2 channels with lacing (4 angles with lacing at the hip); diagonal: 2 angles with batten plates; lateral bracing: 1 angle; strut: 4 angles with bracing; portal strut: wide flange; floor beam: I-beam; guardrail: 2 channels; bridge plate: Missouri Highway Dept. Bridge N <sup>o</sup> K272 1934

## HISTORICAL DATA

erection date: 1934  
erection cost: \$40,414.95  
designer: Missouri State Highway Department  
fabricator : Bethlehem Steel Company, Bethlehem PA  
contractor: M.E. Gillioz, Monett MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. K 272; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Oregon County Court Record, Book 16: page 336 (2 June 1914), page 343 (7 August 1914), page 349 (11 August 1914), page 354 (29 August 1914), page 358 (17 September 1914), page 363 (2 November 1914), page 369 (7 December 1914) - located at Oregon County Courthouse, Alton MO; field inspection by Richard Collier, 30 March 1992.

sign. rating: 51  
evaluation: NRHP possibly eligible (well-preserved, well-documented, long-span example of MSHD highway truss design)

inventoried by: Clayton B. Fraser 4 May 1992

# Crow Ford Bridge

OREG03

## GENERAL DATA

structure no.:	223000.2	city/town:	1.0 mile north of Thayer
county:	Oregon	feature inters.:	Warm Fork Creek
		cadastral grid:	S20, T22N, R5W
		highway route:	Old Alton Road
		highway distr.:	9
		current owner:	Oregon County

## STRUCTURAL DATA

superstructure: steel, 6-panel, pin-connected Pratt through truss, with 2 steel stringer approach spans

substructure: concrete abutments, wingwalls and piers

span number:	1	condition:	fair
span length:	100.0'	alterations:	bridge closed
total length:	140.0'	floor/decking :	concrete over corrugated steel deck
roadway width:	16.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; counter: square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; portal strut: A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: 2 channels

## HISTORICAL DATA

erection date: 1914  
erection cost: \$2861.25  
designer: unknown  
fabricator : East St. Louis Bridge Company, East St. Louis IL;  
Illinois Steel Company, Chicago IL  
contractor: East St. Louis Bridge Company, East St. Louis IL  
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 223000.2; Oregon County Court Record, Book 16: page 335 (2 June 1914), page 336 (29 June 1914), page 338 (30 June 1914), page 343 (7 August 1914), page 369 (7 December 1914) - located at Oregon County Courthouse, Alton MO; "Oregon County Residents Want to Restore 'Old Iron Bridge'" West Plains Daily Quill, 3 June 1987; "Old Iron Bridge May Be Restored," South Missourian News, 4 June 1987; field inspection by Richard Collier, 30 March 1992.

sign. rating: 40  
evaluation: NRHP non-eligible (typically configured example of mainstay structural type)

inventoried by: Clayton B. Fraser 4 May 1992

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Thayer Viaduct  
MHTD: H 289A

OREG01

**DATE(S) OF CONSTRUCTION**

1930

**LOCATION**

State Highway 19 over Two Mile Creek; S30, T22N, R6W  
Thayer; Oregon County, Missouri

**USE (ORIGINAL / CURRENT)**

highway viaduct / highway viaduct

**RATING** NRHP potentially eligible (score: 51)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 3  
span length: 150.0'; 70.0'  
total length: 305.0'  
roadway wdt.: 20.0'

superstructure: steel, 8-panel, pin-connected Pratt through truss; 2 steel, 6-panel, rigid-connected Warren pony truss approach spans at the north end  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete deck over plate girders  
other features: Pratt through truss: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars (4 punched eyebars at center panels); vertical: 2 channels with lacing (2 punched square eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: square rod with unslotted turnbuckle; strut: I-beam; portal strut: 2 channels with angle bracing; floor beam: riveted plate girder; guardrail: steel pipe; timber sidewalk cantilevered outside truss on east side; bridge plate:  
**Built by M.S. Cartter & Co. St. Louis**  
Warren pony approach spans: upper chord, inclined end post, and lower chord: 2 angles with continuous plate; vertical: two channels with lacing; diagonal: 2 angles; lateral bracing: none; floor beam: I-beam; guardrail: steel pipe

The Thayer Viaduct carries Missouri State Highway 19 over Two Mile Creek and the tracks of the Burlington Northern Railroad, at the northern edge of Thayer. The structure is comprised of a pinned Pratt through truss over the railroad tracks and two rigid-connected Warren pony trusses over the creek immediately north. Concrete piers and abutments form the substructure. The superstructure was built in two separate stages, reflective of structure's dual role. The substructure and pony truss approach spans were designed by the Missouri State Highway Department and built under a contract with Martin Wunderlich. Fabricated by the Passaic Rolling Mill Company of New Jersey, the through truss was erected by M.S. Cartter and Company of St. Louis, in behalf of the Frisco Railroad. (The truss itself may have been built at another, earlier location, salvaged and re-built at this overpass). Since its completion in 1930, the Thayer Viaduct has carried vehicular and pedestrian traffic, without substantial alteration.

"The work of reducing the grade-crossing hazard has gone forward at an accelerated rate," the state highway commission reported in 1930. "During the biennial period just closing, the State Highway Commission, with the cooperation of the railroad companies, has constructed sixty-two grade separation structures at a cost of approximately \$1,600,000.00... The cost of these structures including the approaches thereto has been borne equally by the State Highway Commission and the railroad companies." The Thayer Viaduct was one



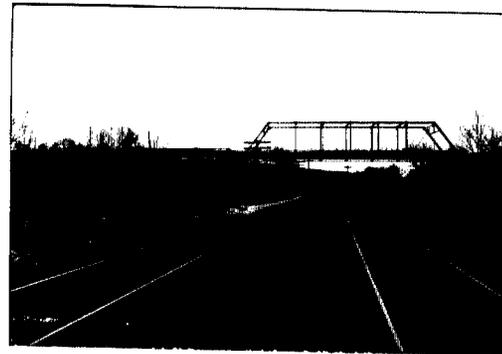
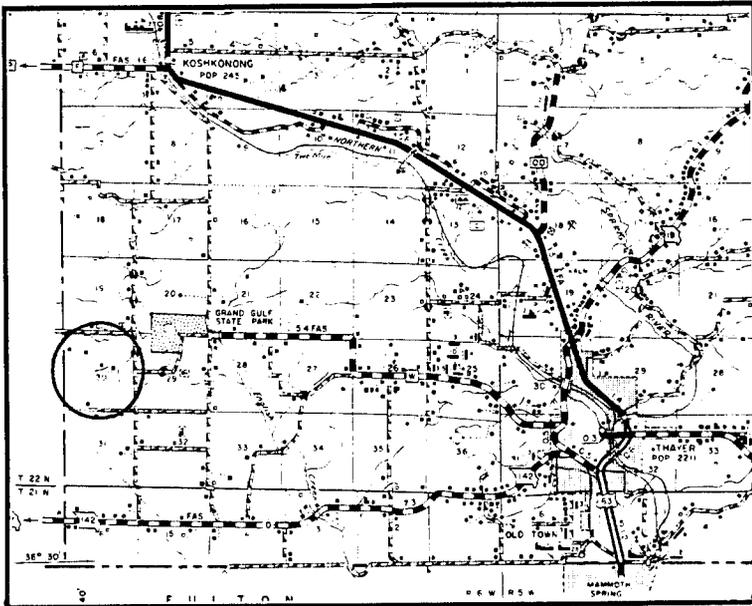
of the cooperatively built grade separations constructed during this period. In this it typifies a statewide historical trend. The pony trusses employ standard MSHD design and detailing. Designed and built by the railroad to carry street traffic, the through truss reflects its mixed lineage, with structural features common for both highway and railroad trusses of the time. A locally important crossing, the Thayer Viaduct is a well-preserved transportation-related resource.

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**NAME(S) OF STRUCTURE**

Thayer Viaduct

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. H 289A; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Seventh Biennial Report of the State Highway Commission of Missouri: 1929-30, page 505;** field inspection by Richard Collier, 29 March 1992.

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**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

4 May 1992

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Riverton Bridge (Eleven Point River Bridge)  
MHTD: K 272

OREG02

**DATE(S) OF CONSTRUCTION**

1934

**LOCATION**

U.S. Highway 160 over Eleven Point River; S17, T23N, R2W  
Riverton; Oregon County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 51)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 1  
span length: 200.0'  
total length: 402.0'  
roadway wdt.: 22.0'

superstructure: steel, 10-panel, rigid-connected Parker through truss, with steel stringer approach spans  
substructure: concrete abutments, wingwalls and piers  
floor/decking: asphalt on concrete deck, over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with lacing; vertical: 2 channels with lacing (4 angles with lacing at the hip); diagonal: 2 angles with batten plates; lateral bracing: 1 angle; strut: 4 angles with bracing; portal strut: wide flange; floor beam: I-beam; guardrail: 2 channels; bridge plate: Missouri Highway Dept. Bridge N<sup>o</sup> K272 1934

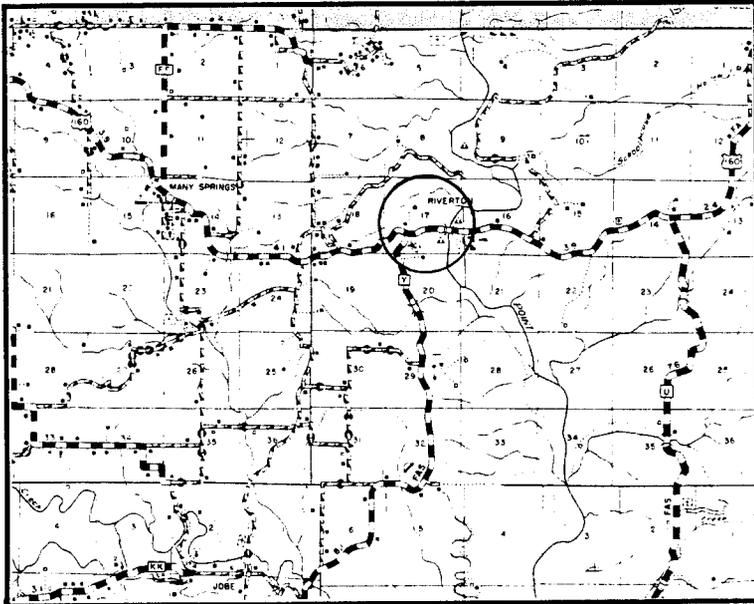
This long-span Parker through truss carries U.S. Highway 160 over the Eleven Point River at what has historically been known as the Johnson Ford, just west of Riverton. Named for Lum Johnson, who in earlier years had operated a ferry here, the first bridge at this site was built in 1914 by Oregon County. By 1933 the county road had been upgraded to State Route 42 (now U.S. 160), and the original pinned through truss was in need of replacement. The Bureau of Bridges of the Missouri State Highway Department designed a riveted Parker through truss in the fall of 1933. In December the agency let the contract for its construction to M.E. Gillioz of Monett, Missouri, that December. Monett completed the structure the following year for \$40,414.95. Since that time the Riverton Bridge has functioned in place at this picturesque Ozarks crossing, without alteration.

The Riverton Bridge is a noteworthy long-span Parker through truss crossing. With its construction history well-documented, the crossing's physical integrity is, likewise, well intact.

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**NAME(S) OF STRUCTURE**

Riverton Bridge (Eleven Point River Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. K 272; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Oregon County Court Record, Book 16: page 336 (2 June 1914), page 343 (7 August 1914), page 349 (11 August 1914), page 354 (29 August 1914), page 358 (17 September 1914), page 363 (2 November 1914), page 369 (7 December 1914) - located at Oregon County Courthouse, Alton MO; field inspection by Richard Collier, 30 March 1992.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

4 May 1992

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Crow Ford Bridge (Warm Fork Spring River Bridge)  
MHTD: 223000.2

OREG03

**DATE(S) OF CONSTRUCTION**

1914

**LOCATION**

Old Alton Road over Warm Fork Creek; S20, T22N, R5W  
1.0 mile north of Thayer; Oregon County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / abandoned

**RATING** NRHP non-eligible (score: 40)

**CONDITION**

fair

**OWNER**

Oregon County

span number: 1  
span length: 100.0'  
total length: 140.0'  
roadway wdt.: 16.0'

superstructure: steel, 6-panel, pin-connected Pratt through truss, with 2 steel stringer approach spans  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete over corrugated steel deck  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; counter: square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; portal strut: A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: 2 channels

On June 2, 1914, the Oregon County Court declared that "a great public necessity existed for the erection of a bridge across Warm Fork Creek at the crossing of the Thayer and Alton Public Road known as the Crow Ford." County Engineer Wade Heiskell was directed to prepare measurements and estimate the structure's cost. Later that month bid notices were run in the *South-Missourian Democrat* and the *Ozark News*. Proposals received from several bridge builders were opened on June 29th. With a bid of \$2805.00, the East St. Louis Bridge Company won the contract. A separate deal was struck with local contractor Hayden Pierce, to build dirt approaches for 24¢ per cubic yard. Construction of the bridge was undertaken in the summer and fall of 1914. On December 7th Heiskell reported that the structure had been "completed according to contract in every detail." The Court accepted the bridge and issued payment of \$2861.25 to the East St. Louis Bridge Company. Included in this final cost was an additional \$56.25 for extra concrete work. The structure carried traffic on the old Thayer to Alton Road until the summer of 1982. Found to be in a deteriorated condition, the bridge was closed to traffic at that time. In recent years local sentiment has been directed toward restoring and reopening the bridge. No direct action to do so has been undertaken however.

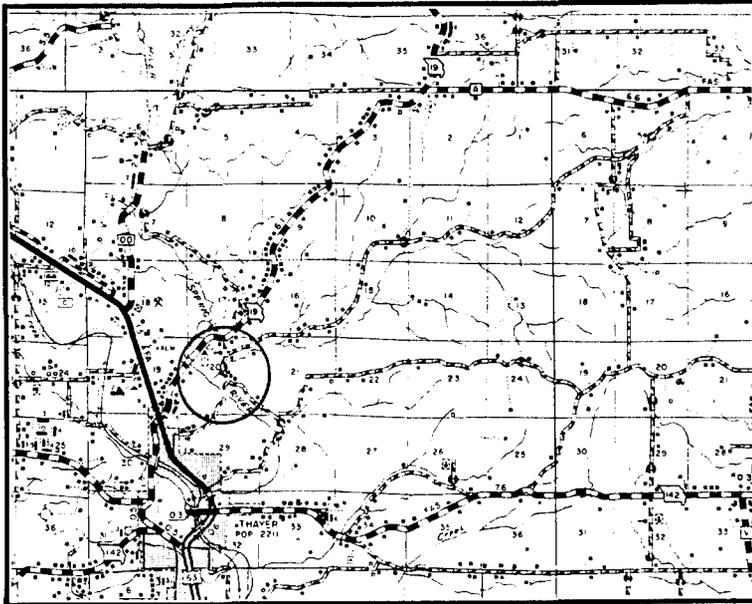
Despite its abandonment, the Crow Ford Bridge has retained a high degree of historical integrity. A representative example of pinned Pratt truss construction, the structure's history is thoroughly documented.

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**NAME(S) OF STRUCTURE**

Crow Ford Bridge (Warm Fork Spring River Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 223000.2; Oregon County Court Record, Book 16: page 335 (2 June 1914), page 336 (29 June 1914), page 338 (30 June 1914), page 343 (7 August 1914), page 369 (7 December 1914) - located at Oregon County Courthouse, Alton MO; "Oregon County Residents Want to Restore 'Old Iron Bridge'" *West Plains Daily Quill*, 3 June 1987; "Old Iron Bridge May Be Restored," *South Missourian News*, 4 June 1987; field inspection by Richard Collier, 30 March 1992.

---

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

4 May 1992

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# PHELPS COUNTY

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INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
PHEL01	X 8	Bourbeuse River Bridge	<b>2-100'</b> riveted Warren pony truss 1934 James R. Hancock
*PHEL02	Z 828	Jerome Bridge	<b>4-125'</b> pinned Pratt through truss 1928 Missouri Valley B&I Company

## EXCLUDED:

Warren pony truss  
055000.0

Steel stringer  
L 188R S 634 099000.7 194005.3

Concrete girder  
G 300R J 855 J 856 X 637 X 638 043001.8 092002.0  
133000.5 33A001.8 33A002.6 35A000.4

Concrete slab  
J 857 Y 183 Y 184 043002.0 065003.0 097000.7 107001.0  
110000.5 128000.0 128000.7 128001.0 140000.2 147001.0 161002.5  
212000.2 217003.4 217004.0 221001.0 235001.7 244001.5 254001.0  
277001.3 377500.2 377500.4

Concrete box culvert  
G 563R1 J 858 J 904 J 971 K 946 L 367R X 735  
X 736 093000.2 277000.5 35A001.0 377500.1 377500.5

Timber stringer  
W 570 377501.3

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	2	0	0	0	2
Excluded	19	36	0	0	55
	21	36	0	0	57 structures

# Bourbeuse River Bridge

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PHEL01

## GENERAL DATA

structure no.:	X 8	city/town:	10.2 miles northeast of St. James
county:	Phelps	feature inters.:	Bourbeuse River
		cadastral grid:	S4, T39N, R6W
		highway route:	State Secondary Route B
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel, 6-panel, rigid-connected Warren pony truss, skewed, with steel stringer approach spans		
substructure:	concrete abutments, wingwalls and piers		
span number:	2	condition:	good
span length:	100.0'	alterations:	none
total length:	332.0'	floor/decking :	concrete deck over steel stringers
roadway width:	20.0'	other features:	steel guardrails

## HISTORICAL DATA

erection date:	1934
erection cost:	\$25,557.80
designer:	Missouri State Highway Department
fabricator :	unknown
contractor:	James R. Hancock
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number X 8; files on Primary System Bridges - located at Missouri Highway and Transportation Department, Jefferson City MO.
sign. rating:	65
evaluation:	NRHP possibly eligible (typical example of MSHD pony truss design of the 1930, distinguished somewhat by its two spans and skewed configuration)

Inventoried by: Clayton B. Fraser    21 February 1994

# Jerome Bridge

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PHEL02

## GENERAL DATA

<b>structure no.:</b> Z 828	<b>city/town:</b> 0.3 mile south of Jerome
<b>county:</b> Phelps	<b>feature inters.:</b> Gasconade River
	<b>cadastral grid:</b> S24, T37N, R10W
	<b>highway route:</b> State Secondary Route D
	<b>highway distr.:</b> 9
	<b>current owner:</b> Missouri Highway and Transportation Department

## STRUCTURAL DATA

<b>superstructure:</b> steel, 7-panel, pin-connected Pratt through truss	
<b>substructure:</b> concrete abutments; concrete-filled steel cylinder piers	
<b>span number:</b> 4	<b>condition:</b> good
<b>span length:</b> 125.0'	<b>alterations:</b> timber deck replaced with concrete
<b>total length:</b> 510.0'	<b>floor/decking :</b> asphalt covered concrete with curbing over steel stringers
<b>roadway width:</b> 17.0'	<b>other features:</b> upper chord and inclined end post: 2 channels with cover plates and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 braced angles; floor beam: I-beam, field-bolted to vertical; guard-rail: 2 angles

## HISTORICAL DATA

<b>erection date:</b> 1928	
<b>erection cost:</b> unknown	
<b>designer:</b> Missouri Valley Bridge and Iron Company, Leavenworth KS	
<b>fabricator :</b> Missouri Valley Bridge and Iron Company, Leavenworth KS	
<b>contractor:</b> Missouri Valley Bridge and Iron Company, Leavenworth KS	
<b>references:</b> Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number Z 828; files on Primary System Bridges - located at the Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 25 October 1989.	
<b>sign. rating:</b> 52	
<b>evaluation:</b> NRHP determined eligible (noteworthy example of toll-bridge construction)	

inventoried by: Clayton B. Fraser 21 February 1994

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Bourbeuse River Bridge  
MHTD: X 8

PHEL01

**DATE(S) OF CONSTRUCTION**

1934

**LOCATION**

State Secondary Route B over Bourbeuse River; S4, T39N, R6W  
10.2 miles northeast of St. James; Phelps County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 65)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 2  
span length: 100.0'  
total length: 332.0'  
roadway wdt.: 20.0'

superstructure: steel, 6-panel, rigid-connected Warren pony truss, skewed, with steel stringer approach spans  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete deck over steel stringers  
other features: steel guardrails

Located northeast of St. James, this long-span pony truss carries State Secondary Route B over the Bourbeuse River. The two 100-foot channel spans are rigid-connected Warren pony trusses, approached by a series of steel stringer spans and carried on a skew by a concrete substructure. The Bourbeuse River Bridge was designed late in 1933 by engineers for the Missouri State Highway Department. On January 19, 1934, a contract to build the bridge was awarded to James R. Hancock. Probably completed later that year, the Bourbeuse River Bridge has functioned in place with no serious alterations.

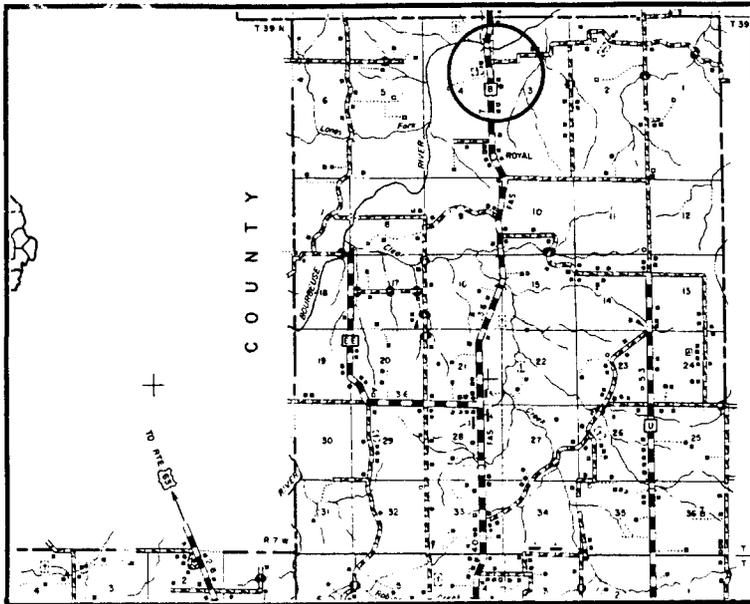
The Missouri State Highway Department used riveted Warren configurations for its pony trusses almost from the time the agency developed its first bridge standards around 1920. Structurally straightforward and versatile, these ubiquitous trusses were erected by the hundreds throughout the state in span lengths ranging from 40 to 100 feet. Virtually all of these trusses were situated at a right angle to their streambeds. A relatively small number, however, were angled, or skewed, spans. The Bourbeuse River Bridge is distinguished among Missouri's Warren trusses as among the few skewed examples of this mainstay structural type.

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**NAME(S) OF STRUCTURE**

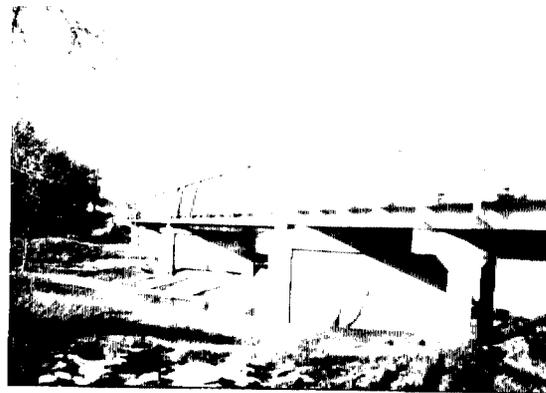
Bourbeuse River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number X 8; files on Primary System Bridges - located at Missouri Highway and Transportation Department, Jefferson City MO.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

21 February 1994

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Jerome Bridge  
MHTD: Z 828

PHEL02

**DATE(S) OF CONSTRUCTION**

1928

**LOCATION**

State Secondary Route D over Gasconade River; S24, T37N, R10W  
0.3 mile south of Jerome; Phelps County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP determined eligible (score: 52)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 4

span length: 125.0'

total length: 510.0'

roadway wdt.: 17.0'

superstructure: steel, 7-panel, pin-connected Pratt through truss

substructure: concrete abutments; concrete-filled steel cylinder piers

floor/decking: asphalt covered concrete with curbing over steel stringers

other features: upper chord and inclined end post: 2 channels with cover plates and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 2 braced angles; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

The Jerome Bridge carries Missouri Secondary System Route D over the Gasconade River just south of Jerome, in western Phelps County. A four-span pin-connected Pratt through truss, the structure is supported by concrete abutments and concrete-filled steel cylinder piers. The Jerome Bridge was designed, fabricated and built in 1928 by the Missouri Valley Bridge and Iron Company of Leavenworth, Kansas. Erected under contract for the Jerome Bridge Company, a privately held toll bridge firm, the structure functioned as a toll bridge until 1936, when it was acquired by the Missouri State Highway Commission. MSHD at that time discontinued the tolls and replaced the original timber plank deck with concrete. The small frame toll house, which stood at the bridge's west side, has since been removed, but the bridge itself remains unaltered, as it has continued to carry increasingly heavy traffic loads.

Toll bridges have long been a part of the American overland network. On virtually all of the earliest railroad bridges over the Missouri River, for instance, tolls were charged on a per-car or a per-passenger rate. As vehicular bridges were later built over the great Midwestern rivers, their owners too charged tolls to help defray construction and maintenance costs. Major structures financed on this basis included the Eads and McKinley bridges in St. Louis, the Ohio River bridges at Cincinnati, and bridges at Wheeling, West Virginia, Keokuk, Iowa, and Omaha, Nebraska, among many others. For the most part, though, the ponderous financial and technological aspects of bridging the nation's major rivers offered nearly insurmountable obstacles to public and private entities alike through the first decades of this century.

The bridge issue reached critical proportions during the 1920s in the face of an ever-increasing stream of automobiles on the nation's highways. As mandated by the Bankhead Act in 1916, the U.S. Bureau of Public Roads and state highway department located and planned a network of highways and bridges based on extensive traffic data. But funding to implement such plans generally fell far short, with momentous bridges—of momentous cost—the least budgetable items of all. The need was thus established and documented. And



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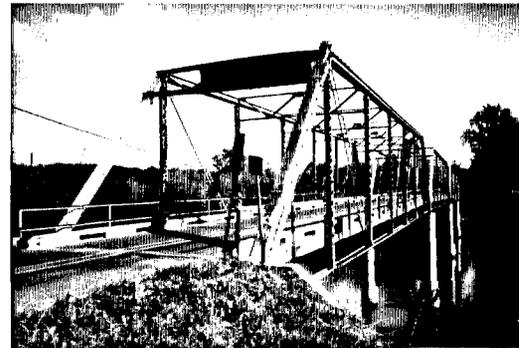
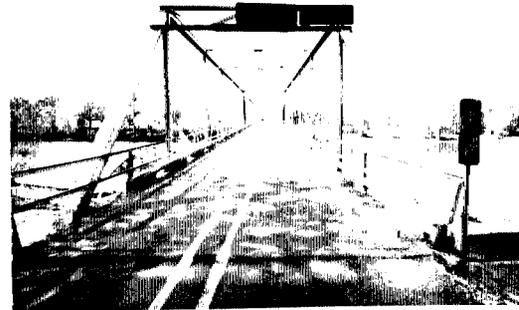
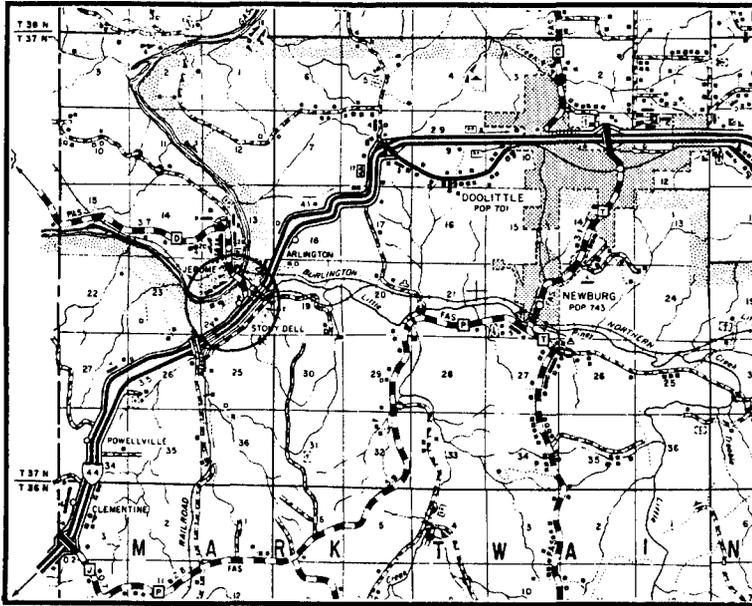
private investors, armed with the traffic data, stepped in to fulfill this need. Toll bridge construction developed from virtual inactivity in 1920 into a burgeoning industry in just ten years. A 1930 **Engineering News-Record** map showing toll bridges in the United States indicated that some 20 toll bridges were then operating in Missouri. Of these, all but one spanned the Osage, Missouri or Mississippi rivers. The lone exception was the Jerome Bridge over the Gasconade River (a second Gasconade River toll bridge [GASC01] was completed at Gasconade in 1931). It is thus distinguished as a unique medium-scale example of toll-bridge construction in Missouri, built during the industry's heyday in the 1920s. A regionally important crossing and an unusually late example of pinned truss construction, the Jerome Bridge is historically and technologically noteworthy.

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**NAME(S) OF STRUCTURE**

Jerome Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number Z 828; files on Primary System Bridges - located at the Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 25 October 1989.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

21 February 1994

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# PULASKI COUNTY

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INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*PULA01	G 455A	Waynesville Bridge	5- 80' <b>concrete filled spandrel arch</b> 1923 Koss Construction Company
*PULA02	J 802	Gasconade River Bridge	1-200' <b>riveted Parker through truss</b> 1932 Maxwell Construction Company
*PULA03	K 203	Gasconade River Bridge	2-150' <b>riveted Parker through truss</b> 1934 List and Clark Construction Co.
*PULA04	L 35	Big Piney River Bridge	3-160' <b>concrete open spandrel arch</b> 1942 Hannibal Contracting Company
PULA05	T 474	Gasconade River Bridge	6-105' steel plate through girder 1937 George W. Condon Company
PULA06	061001.8	Little Tavern Creek Bridge	1- 60' pinned Pratt half-hip pony truss c1910
PULA07	089000.2	BN Railroad Overpass	3- 50' steel stringer 1902 Burlington Northern Railroad
*PULA08	195002.8	Ross Ford Bridge	1-150' <b>pinned Pratt through truss</b> 1908 Canton Bridge Company
*PULA09	206001.5	Devils Elbow Bridge	2-160' <b>riveted Parker through truss</b> 1923 Riley and Bailey

EXCLUDED:

Steel stringer						
K 112	K 113	K 212	015003.6	122000.6	138000.5	139001.0
Concrete slab / girder						
H 88R	J 502	Y 298	Y 457	089002.1	136000.5	131001.1
168001.8	143002.0					
Concrete box culvert						
L 50	X 705	X 947	029000.6			
Timber stringer						
197000.5						

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	5	4	0	0	9
Excluded	10	11	0	0	21
	15	15	0	0	30 structures

# Waynesville Bridge

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PULA01

## GENERAL DATA

structure no.:	G 455A	city/town:	Waynesville
county:	Pulaski	feature inters.:	Roubidoux Creek
		cadastral grid:	S24, T36N, R12W
		highway route:	State Highway 17
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments, wingwalls and piers		
span number:	5	condition:	good
span length:	80.0'	alterations:	roadway widened and guardrails replaced, 1939
total length:	416.0'	floor/decking :	concrete deck over earth fill
roadway width:	36.0'	other features:	concrete guardrails (standard MSHD design)

## HISTORICAL DATA

erection date:	1923
erection cost:	\$44,035.00
designer:	Missouri State Highway Department
fabricator :	none
contractor :	Koss Construction Company, Des Moines IA
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. G 455A; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; <b>Fourth Biennial Report of the Missouri State Highway Commission</b> (1923-24), page 166; field inspection by Clayton Fraser, 5 May 1990.
sign. rating:	50
evaluation:	NRHP possibly eligible (excellent multiple-span example of MSHD concrete bridge design)

inventoried by: Clayton B. Fraser 6 March 1993

# Gasconade River Bridge

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PULA02

## GENERAL DATA

<b>structure no.:</b> J 802	<b>city/town:</b> 1.9 miles north of Waynesville
<b>county:</b> Pulaski	<b>feature inters.:</b> Gasconade River
	<b>cadastral grid:</b> S14, T36N, R12W
	<b>highway route:</b> State Highway 17
	<b>highway distr.:</b> 9
	<b>current owner:</b> Missouri Highway and Transportation Department

## STRUCTURAL DATA

**superstructure:** steel, 10-panel, rigid-connected Parker through truss; two, 6-panel, rigid-connected polygonal Warren pony truss approach spans; two steel stinger approach spans

**substructure:** concrete abutments, wingwalls and piers

<b>span number:</b> 1; 2	<b>condition:</b> good
<b>span length:</b> 200.0'; 100.0'	<b>alterations:</b> none
<b>total length:</b> 482.0'	<b>floor/decking :</b> concrete deck over steel stringers
<b>roadway width:</b> 24.0'	<b>other features:</b> steel angle guardrails

## HISTORICAL DATA

**erection date:** 1932

**erection cost:** \$37,595.90

**designer:** Missouri State Highway Department

**fabricator :** unknown

**contractor :** Maxwell Construction Company

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 802; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; field inspection by Clayton Fraser, 5 May 1990.

**sign. rating:** 47

**evaluation:** NRHP non-eligible (typically configured, long-span example of MSHD truss design in the 1930s)

**inventoried by:** Clayton B. Fraser    6 March 1993

# Gasconade River Bridge

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PULA03

## GENERAL DATA

<b>structure no.:</b> K 203	<b>city/town:</b> 3.5 miles northwest of Devils Elbow
<b>county:</b> Pulaski	<b>feature inters.:</b> Gasconade River
	<b>cadastral grid:</b> S36, T37N, R11N
	<b>highway route:</b> State Highway 28
	<b>highway distr.:</b> 9
	<b>current owner:</b> Missouri Highway and Transportation Department

## STRUCTURAL DATA

<b>superstructure:</b> steel, 8-panel, rigid-connected Parker through truss; two, rigid-connected, Warren pony truss approach spans	
<b>substructure:</b> concrete abutments, wingwalls and piers	
<b>span number:</b> 2; 2	<b>condition:</b> good
<b>span length:</b> 150.0'; 70.0'	<b>alterations:</b> none
<b>total length:</b> 450.0'	<b>floor/decking :</b> concrete deck over steel stringers
<b>roadway width:</b> 22.0'	<b>other features:</b> steel angle guardrails

## HISTORICAL DATA

<b>erection date:</b> 1934	
<b>erection cost:</b> \$45,030.87	
<b>designer:</b> Missouri State Highway Department	
<b>fabricator :</b> unknown	
<b>contractor:</b> List and Clark Construction Company	
<b>references:</b> Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. K 203; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.	
<b>sign. rating:</b> 47	
<b>evaluation:</b> NRHP non-eligible (typically configured example of MSHD truss design in the 1930s)	

**inventoried by:** Clayton B. Fraser    6 March 1993

# Big Piney River Bridge

PULA04

## GENERAL DATA

structure no.:	L 35	city/town:	0.5 mile west of Devils Elbow
county:	Pulaski	feature inters.:	Big Piney River
		cadastral grid:	S18, T36N, R10W
		highway route:	State Supplementary Route Z
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: concrete, two-rib, open spandrel arch; five arched concrete deck girder approach spans

substructure: concrete abutments, wingwalls and piers

span number:	1; 2	condition:	good
span length:	160.0'; 100.0'	alterations:	none
total length:	638.0'	floor/decking :	concrete deck
roadway width:	58.0'	other features:	concrete guardrails with curved haunches (standard Missouri Highway Department design)

## HISTORICAL DATA

erection date: 1942-43

erection cost: \$47,707.00

designer: Missouri State Highway Department

fabricator : none

contractor: Maxwell Construction Company

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. L 35; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Thirteenth Biennial Report of the State Highway Commission of Missouri** (1941-42), pages 145, 149-150; field inspection by Clayton Fraser, 5 May 1990.

sign. rating: 50

evaluation: NRHP possibly eligible (well-preserved, long-span example of MSHD concrete arch design, built relatively late)

Inventoried by: Clayton B. Fraser 6 March 1993

# Gasconade River Bridge

PULA05

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## GENERAL DATA

structure no.:	T 474	city/town:	4.1 miles south of Richland
county:	Pulaski	feature inters.:	Gasconade River
		cadastral grid:	S6, T35N, R13W
		highway route:	State Highway 133
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	steel plate through girder	condition:	good
substructure:	concrete abutments, wingwalls and piers	alterations:	none
span number:	1; 4; 1	floor/decking :	concrete deck
span length:	105.0'; 90.0'; 60.0'	other features:	steel angle guardrails
total length:	637.0'		
roadway width:	20.0'		

## HISTORICAL DATA

erection date:	1936-37
erection cost:	\$66,870.30
designer:	Missouri State Highway Commission
fabricator :	unknown
contractor:	George W. Condon
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. T 474; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO.
sign. rating:	47
evaluation:	NRHP determined non-eligible (typically configured example of MSHD beam design in the 1930s)

inventoried by: Clayton B. Fraser    6 March 1993

# Little Tavern Creek Bridge

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PULA06

## GENERAL DATA

structure no.:	061001.8	city/town:	3.8 miles northeast of Crocker
county:	Pulaski	feature inters.:	Little Tavern Creek
		cadastral grid:	S27, T38N, R12W
		highway route:	County Road 61
		highway distr.:	9
		current owner:	Pulaski County

## STRUCTURAL DATA

superstructure:	steel, 4-panel, pin-connected Pratt half-hip pony truss		
substructure:	steel pile bent piers, with timber back- and wingwalls		
span number:	1	condition:	fair
span length:	60.0'	alterations:	unknown
total length:	60.0'	floor/decking :	timber deck
roadway width:	13.5'	other features:	no guardrails

## HISTORICAL DATA

erection date:	c1910
erection cost:	unknown
designer:	unknown
fabricator :	unknown
contractor:	unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 061001.8.

sign. rating:	29
evaluation:	NRHP non-eligible (typically configured, inadequately documented example of a common structural type)

inventoried by: Clayton B. Fraser    6 March 1993

# Burlington Northern Overpass

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PUL07

## GENERAL DATA

structure no.:	089000.2	city/town:	4.1 miles northeast of Dixon
county:	Pulaski	feature inters.:	Burlington Northern Railroad
		cadastral grid:	S9, T37N, R11W
		highway route:	County Road 89
		highway distr.:	9
		current owner:	Pulaski County

## STRUCTURAL DATA

superstructure:	steel stringer	condition:	fair
substructure:	unknown	alterations:	none
span number:	3	floor/decking :	unknown
span length:	50.0'	other features:	unknown
total length :	124.0'		
roadway width:	18.0'		

## HISTORICAL DATA

erection date: 1902  
erection cost: unknown  
designer: unknown  
fabricator : unknown  
contractor : Burlington Northern Railroad

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 089000.2.

sign. rating: 43  
evaluation: NRHP non-eligible (somewhat noteworthy for its multiple spans, but otherwise an undistinguished, early example of an exceedingly common structural type)

inventoried by: Clayton B. Fraser    6 March 1993

# Ross Ford Bridge

PULA08

## GENERAL DATA

structure no.:	195002.8	city/town:	2.7 miles east of Big Piney
county:	Pulaski	feature inters.:	Big Piney River
		cadastral grid:	S8, T34N, R10W
		highway route:	County Road 195
		highway distr.:	9
		current owner:	Pulaski County

## STRUCTURAL DATA

**superstructure:** steel, 9-panel, pin-connected Pratt through truss; 4 timber stringer approach spans at the south end; 1 timber stringer approach span at the north end

**substructure:** concrete abutments and wingwalls; concrete-filled steel cylinder piers

span number:	1	condition:	fair
span length:	150.0'	alterations:	none
total length:	245.0'	floor/decking :	timber deck over steel stringers
roadway width:	11.7'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 square eyebars at the hip); diagonal: 2 looped rectangular eyebars; lateral bracing: round rod with threaded ends; strut: two angles with continuous plate; floor beam: I-beam, field-bolted to vertical; guard-rail: 2 angles; builder's plate: 1908 / CANTON BRIDGE Co. BUILDERS / CANTON OHIO

## HISTORICAL DATA

**erection date:** 1908  
**erection cost:** \$10,900.00 (two-bridge contract)  
**designer:** Canton Bridge Company, Canton OH  
**fabricator :** Canton Bridge Company, Canton OH;  
Carnegie Steel Company, Pittsburgh PA  
**contractor:** Canton Bridge Company, Canton OH

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 195002.8; Pulaski County Court Record, Book F: page 55 (11 May 1907), page 237 (9 May 1908), page 237 (9 May 1908), pages 358-59 (3 February 1909), page 408 (6 May 1909) - located at Pulaski County Courthouse, Waynesville MO; field inspection by Clayton Fraser, 5 May 1990.

**sign. rating:** 48  
**evaluation:** NRHP determined non-eligible (typical example of mainstay structural type)

Inventoried by: Clayton B. Fraser 6 March 1993

# Devils Elbow Bridge

PULA09

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## GENERAL DATA

structure no.:	206001.5	city/town:	Devils Elbow
county:	Pulaski	feature inters.:	Big Piney River
		cadastral grid:	S18, T36N, R10W
		highway route:	County Road 206
		highway distr.:	9
		current owner:	Pulaski County

## STRUCTURAL DATA

**superstructure:** two steel, 8-panel, rigid-connected Parker through trusses; rigid-connected Warren pony truss approach span at the south end; four concrete deck girder approach spans

**substructure:** concrete abutments, wingwalls and piers

span number:	2; 1	condition:	good
span length:	160.0'; 80.0'	alterations:	none
total length:	590.0'	floor/decking :	concrete deck over steel stringers
roadway width:	19.5'	other features:	steel pipe guardrails

## HISTORICAL DATA

**erection date:** 1922-23

**erection cost:** \$63,352.20

**designer:** Missouri State Highway Department

**fabricator :** Inland Steel Company, East Chicago IN

**contractor:** Riley and Bailey Construction Company

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 206001.5; **Third Biennial Report of the Missouri State Highway Commission (1921-22)**, pages 132, 142; **Fourth Biennial Report of the Missouri State Highway Commission (1923-24)**, page 166; field inspection by Clayton Fraser, 5 May 1990.

**sign. rating:** 50

**evaluation:** NRHP possibly eligible (one of earliest extant examples of MSHD long-span truss design)

**inventoried by:** Clayton B. Fraser    6 March 1993

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Waynesville Bridge  
MHTD: G 455A

PULA01

**DATE(S) OF CONSTRUCTION**

1923

**LOCATION**

State Highway 17 over Roubidoux Creek; S24, T36N, R12W  
Waynesville; Pulaski County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 5  
span length: 80.0'  
total length: 416.0'  
roadway wdt.: 36.0'

superstructure: concrete filled spandrel arch  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete deck over earth fill  
other features: concrete guardrails (standard MSHD design)

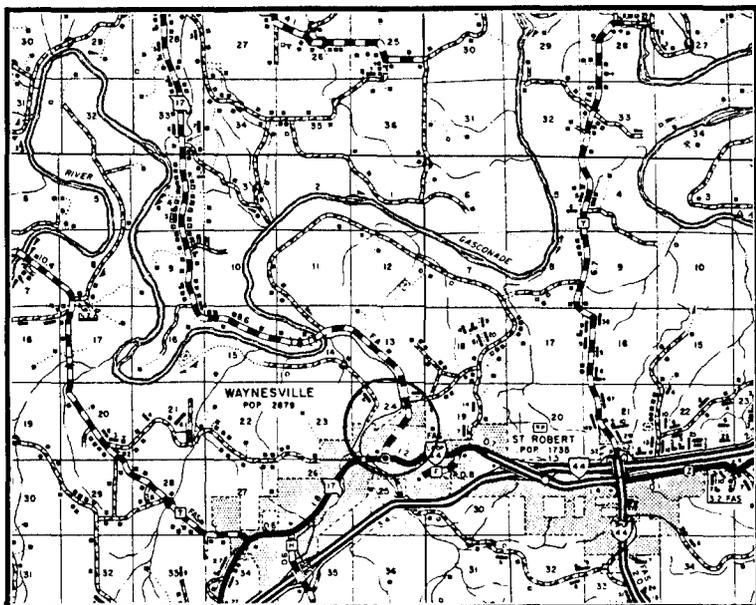
Located on the western edge of Waynesville, the Pulaski County Seat, this multiple-span crossing was built in 1923 by Koss Construction Company. The Waynesville Bridge is comprised of five 80-foot filled spandrel arches, for an overall length in excess of 400 feet. The bridge was designed in late 1922 by the Missouri State Highway Commission, and on February 2, 1923, Koss won the contract to build it. Completed later that year for \$44,035.00, the Waynesville Bridge carried Missouri State Highway 14 (later Highway 17) over Roubidoux Creek for 16 years without alteration. In 1939 the roadway was widened by extending the arch barrels and replacing the original guardrails. Since that time, the structure has functioned in place with no further alteration.

The Missouri State Highway Department typically used filled spandrel designs for its concrete arches with 80 feet or less of span; open spandrel arches were employed for longer-span applications. MSHD engineers designed numerous single-span examples of the former configuration in the 1920s, but few filled spandrel arches with multiple spans. A handful of these large-scale bridges have been identified by the statewide bridge inventory. The Waynesville Bridge in Pulaski County stands out among those remaining for its five span configuration. The Meramec River Bridge in Crawford County [CRAW01] is Missouri's only other five-span filled spandrel arch. The Waynesville Bridge, therefore, is technologically significant as a well-preserved, multiple-span representative of Missouri State Highway Department concrete design of the 1920s.

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**NAME(S) OF STRUCTURE**

Waynesville Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. G 455A; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Fourth Biennial Report of the Missouri State Highway Commission (1923-24), page 166; field inspection by Clayton Fraser, 5 May 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**5 May 1990

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Big Piney River Bridge  
MHTD: L 35

PULA04

**DATE(S) OF CONSTRUCTION**

1942-43

**LOCATION**

State Supplementary Route Z over Big Piney River; S18, T36N, R10W  
0.5 mile west of Devils Elbow; Pulaski County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 1; 2

span length: 160.0'; 100.0'

total length: 638.0'

roadway wdt.: 58.0'

superstructure: concrete, two-rib, open spandrel arch; five arched concrete deck girder approach spans

substructure: concrete abutments, wingwalls and piers

floor/decking: concrete deck

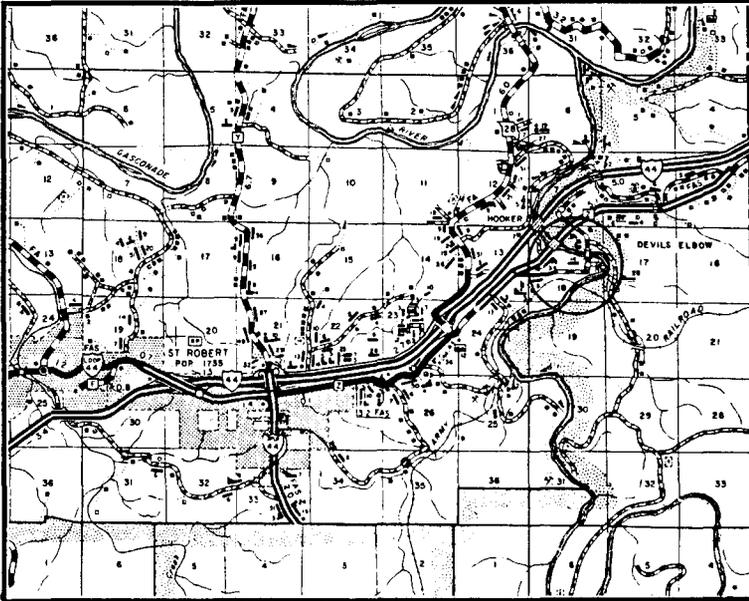
other features: concrete guardrails with curved haunches (standard Missouri Highway Department design)

The Big Piney River Bridge is located  $\frac{1}{2}$  mile west of Devils Elbow, in east-central Pulaski County. Designed by the Missouri State Highway Commission in the spring of 1942, the concrete structure features three open spandrel arches and five arched girder approach spans, all supported by concrete spill-through piers and mass abutments. The contract for its construction was awarded on July 31, 1942, to the Maxwell Construction Company. Completing the project the following year, the contractor was paid \$47,707.00. Much of this money came from federal sources such as the Strategic Highway Fund and the Emergency Relief Fund. Established early on during World War II, these two funds were used to correct deficiencies on strategic networks of roads and bridges, and to provide relief in response to emergencies such as floods. Carrying traffic on Route 66 and later State Supplementary Route Z, the Big Piney River Bridge is unchanged from its original construction.

The Missouri State Highway Department characteristically used open spandrel designs for its concrete arches with 80 feet or more of span; with some exceptions, filled spandrel arches were typically employed for shorter-span applications. MSHD engineers designed a number of open spandrel arches in the 1920s, 1930s and early 1940s, employing both single and multiple span configurations. The Big Piney River Bridge has one of the longest spans of those identified by the statewide bridge inventory, but with a construction date of 1942 it represents no noteworthy technological significance.

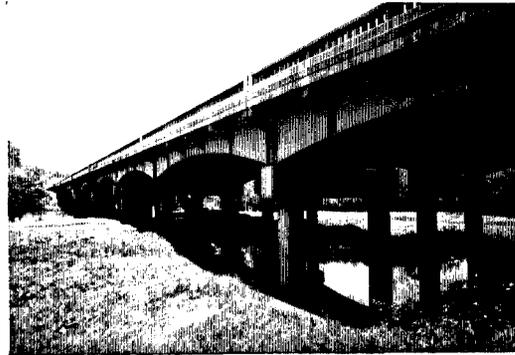
**NAME(S) OF STRUCTURE**  
Big Piney River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



**SOURCES**  
Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. L 35; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Thirteenth Biennial Report of the State Highway Commission of Missouri (1941-42)**, pages 145, 149-150; field inspection by Clayton Fraser, 5 May 1990.

**INVENTORIED BY**  
Clayton B. Fraser

**AFFILIATION**  
Fraserdesign, Loveland CO

**DATE**  
5 May 1990

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Ross Ford Bridge  
MHTD: 195002.8

PULA08

**DATE(S) OF CONSTRUCTION**

1908

**LOCATION**

County Road 195 over Big Piney River; S8, T34N, R10W  
2.7 miles east of Big Piney; Pulaski County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP determined non-eligible (score: 48)

**CONDITION**

fair

**OWNER**

Pulaski County

span number: 1  
span length: 150.0'  
total length: 245.0'  
roadway wdt.: 11.7'

superstructure: steel, 9-panel, pin-connected Pratt through truss; 4 timber stringer approach spans at the south end; 1 timber stringer approach span at the north end  
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers  
floor/decking: timber deck over steel stringers  
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 square eyebars at the hip); diagonal: 2 looped rectangular eyebars; lateral bracing: round rod with threaded ends; strut: two angles with continuous plate; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles; builder's plate: 1908 / CANTON BRIDGE Co. BUILDERS / CANTON OHIO

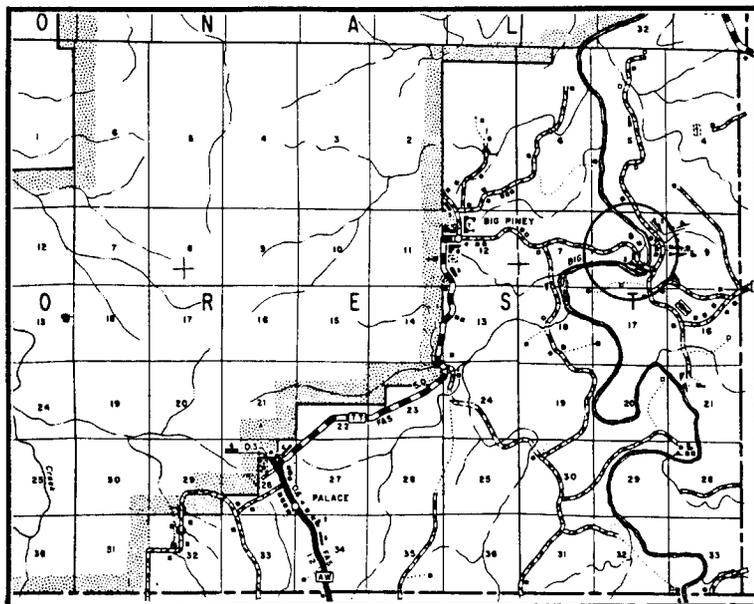
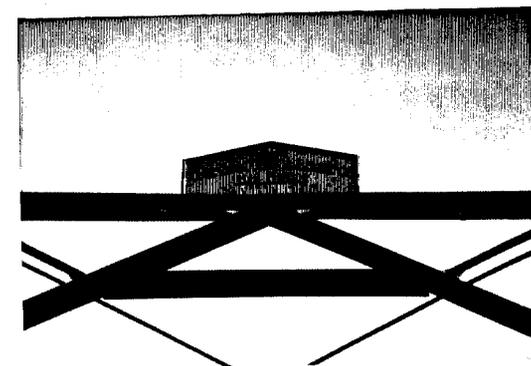
On May 11, 1907, the Pulaski County Court ordered the county surveyor to prepare measurements for three bridges: over the Gasconade River at Bear Creek Ford, over Roubidoux Creek at Waynesville, and this crossing of the Big Piney River at Ross Ford. It was not until the following May that the county court finally ordered the bridges built. In the summer of 1908, J.W. Hoover, agent for the Canton Bridge Company, received contracts to build the Ross Ford Bridge and the Bear Creek Ford Bridge across the Gasconade. Warrants for the two structures, totaling \$10,900.00, were paid to Canton Bridge between February and March of 1909. The Bear Creek Ford Bridge has been replaced, but the Ross Ford structure continues to carry local traffic. A steel Pratt through truss featuring pinned connections, the bridge appears much the same today as when it was erected.

In the early 1880s, the pin-connected Pratt truss superseded the bowstring arch-truss as the iron bridge of choice for medium-span wagon crossings. Patented in 1844 by Thomas and Caleb Pratt, the Pratt design is distinguished by vertical members acting in compression and diagonals that act in tension. "The Pratt truss is the type most commonly used in America for spans under two hundred and fifty (250) feet in length," noted bridge engineer J.A.L. Waddell in 1916. "Its advantages are simplicity, economy of metal, and suitability for connection to the floor and lateral systems." Virtually all of the regional bridge fabricators manufactured Pratt trusses and marketed them extensively to Missouri's counties. With an erection date of 1908, the Ross Ford Bridge is distinguished as one of the longer Pratt trusses in Missouri. It is thus a typical—though technologically undistinguished—example of this mainstay structural type.

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**NAME(S) OF STRUCTURE**

Ross Ford Bridge

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 195002.8; Pulaski County Court Record, Book F: page 55 (11 May 1907), page 237 (9 May 1908), page 237 (9 May 1908), pages 358-59 (3 February 1909), page 408 (6 May 1909) - located at Pulaski County Courthouse, Waynesville MO; field inspection by Clayton Fraser, 5 May 1990.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**5 May 1990

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Devils Elbow Bridge  
MHTD: 206001.5

PULA09

**DATE(S) OF CONSTRUCTION**

1922-23

**LOCATION**

County Road 206 over Big Piney River; S18, T36N, R10W  
Devils Elbow; Pulaski County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

good

**OWNER**

Pulaski County

span number: 2; 1  
span length: 160.0'; 80.0'  
total length: 590.0'  
roadway wdt.: 19.5'

superstructure: two steel, 8-panel, rigid-connected Parker through trusses; rigid-connected Warren pony truss approach span at the south end; four concrete deck girder approach spans  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete deck over steel stringers  
other features: steel pipe guardrails

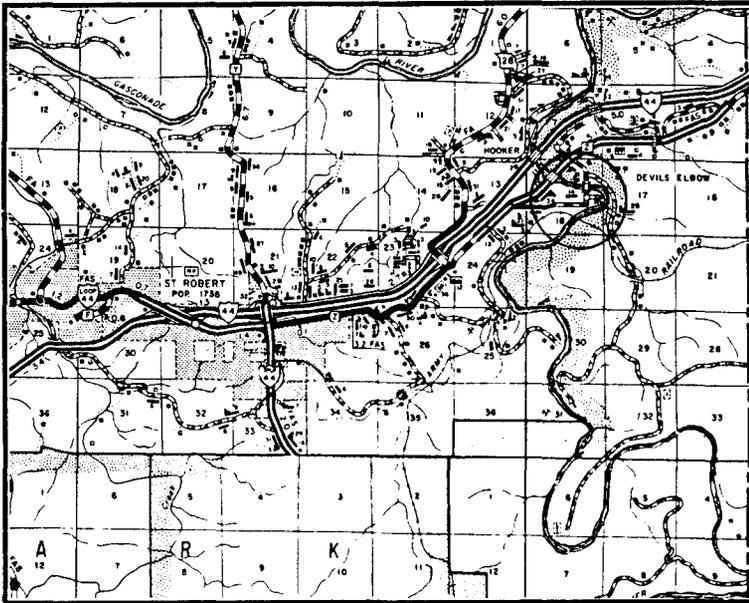
This multiple-span highway bridge over the Big Piney River is located at the small town of Devils Elbow in east-central Pulaski County. Built in 1923, the structure is comprised of two 160-foot Parker through trusses, one 80-foot Warren pony truss, and four 40-foot concrete deck girder approach spans, all supported by concrete piers and abutments. The bridge was designed in 1921 by the Missouri State Highway Commission as part of construction on State Highway 14. A contract for its construction was not let until late the following year. On December 12, 1922, a \$63,352.20 contract to build the bridge was awarded to Riley and Bailey. Completed in the spring of 1923, the structure has since functioned in place without substantial alteration. State Highway 14 was later redesignated U.S. Highway 66, then Supplementary Route V; when Interstate 44 was built across the county in 1977, the bridge and adjacent roadway was turned over to Pulaski County. It now carries primarily local traffic.

In the 1921-22 biennium, the highway department prepared special designs for 293 structures, for an aggregate length of some 20,000 feet and a cost in excess of \$2.3 million. With an overall length of 590 feet, the Devils Elbow Bridge was one of the largest of the structures (other than the Missouri River bridges at Glasgow, Boonville, Waverly and Lexington) undertaken at this time. The bridge accrues an added degree of significance as one of the oldest examples in the state of the MSHD-designed riveted Parker through truss, a mainstay structural type for long-span highway bridges of the 1920s and 1930s.

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**NAME(S) OF STRUCTURE**  
Devils Elbow Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 206001.5; **Third Biennial Report of the Missouri State Highway Commission (1921-22)**, pages 132, 142; **Fourth Biennial Report of the Missouri State Highway Commission (1923-24)**, page 166; field inspection by Clayton Fraser, 5 May 1990.

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**INVENTORIED BY**  
Clayton B. Fraser

**AFFILIATION**  
Fraserdesign, Loveland CO

**DATE**  
5 May 1990

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# REYNOLDS COUNTY

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INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	FHWA	Bridge Name	Description
*REYN01	083001.4	Hunt's Farm Bridge	<b>3-180'</b> pinned Parker through truss 1917 Miller & Borcharding, St.Louis
REYN02	391000.1	Sinking Creek Bridge	<b>3- 60'</b> riveted Warren pony truss 1923 Cooper's Constr. Service Co.

**EXCLUDED:**

Warren pony truss  
G 714

Steel stringer  
S 851      T 153      T 259

Concrete girder  
J 319

Concrete slab  
028002.7    082000.2    082000.5    082001.2    128000.1    128000.2

Concrete box culvert  
 J 320      J 321      J 751      J 752      J 753      K 246      S 220  
 S 824      T 78      T 79      T 430      T 599      T 600      T 724  
 W 527      W 528      X 218      075500.1

**SUMMARY:**

	Primary	Secondary	Urban	Other	Total
Included	0	2	0	0	2
Excluded	22	7	0	0	29
	22	9	0	0	31 structures

# Hunt's Farm Bridge (Black River Bridge)

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REYN01

## GENERAL DATA

structure no.:	083001.4	city/town:	1.3 miles southeast of Lesterville
county:	Reynolds	feature inters.:	Black River
		cadastral grid:	S22, T32N, R2E
		highway route:	County Road 83
		highway distr.:	9
		current owner:	Reynolds County

## STRUCTURAL DATA

**superstructure:** steel, 9-panel, pin-connected Parker through truss; steel, 6-panel, pin-connected Pratt through trusses; steel stringer approach spans

**substructure:** concrete abutments, wingwalls and piers

span number:	3	condition:	good
span length:	180.0; 110.0'	alterations:	none
total length:	528.0'	floor/decking :	concrete deck over steel stringers
roadway width:	15.7'	other features:	Parker through truss: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with "X" bracing between; floor beam: I-beam, field bolted; guardrail: 2 angles; timber sidewalks; builder's plate: 1917 Miller-Borcherding Builders St. Louis, Mo.; Pratt through trusses: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 4 angles with "X" bracing between; floor beam: I-beam, field bolted; guardrail: 2 angles

## HISTORICAL DATA

**erection date:** 1917

**erection cost:** \$14,200.00

**designer:** unknown

**fabricator :** Illinois Steel Company, Chicago IL

**contractor:** Miller and Borcherding, St. Louis MO

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 083001.4; Reynolds County Court Record 11: page 619 (6 May 1916), page 621 (5 June 1916), page 625 (5 June 1916), page 634 (9 August 1916); Reynolds County Court Record

## Hunt's Farm Bridge

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12: page 116 (29 December 1916), page 136 (9 February 1917), page 146 (13 March 1917), page 164 (7 April 1917), page 191 (5 July 1917) - located at Reynolds County Courthouse, Centerville, Missouri; field inspection by Richard Collier, 31 March 1992.

**sign. rating:**

56

**evaluation:**

NRHP possibly eligible (well-preserved, multiple-span example of main-stay structural type, forming a regionally important crossing)

**inventoried by:** Clayton B. Fraser    13 May 1992

# Sinking Creek Bridge

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REYN02

## GENERAL DATA

structure no.:	391000.1	city/town:	4.3 miles northwest of Redford
county:	Reynolds	feature inters.:	Sinking Creek
		cadastral grid:	S29, T31N, R1E
		highway route:	County Road 391
		highway distr.:	9
		current owner:	Reynolds County

## STRUCTURAL DATA

superstructure:	steel, 6-panel, rigid-connected Warren pony truss, with concrete slab approach spans		
substructure:	concrete abutments, wingwalls and piers		
span number:	3	condition:	good
span length:	60.0'	alterations:	none
total length:	222.0'	floor/decking :	concrete deck over steel stringers
roadway width:	21.0'	other features:	steel pipe guardrails

## HISTORICAL DATA

erection date:	1922-23
erection cost:	\$23,406.30
designer:	Missouri State Highway Department
fabricator :	unknown
contractor:	Cooper's Construction Service Company

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 391000.1; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson city MO; **Fourth Biennial Report of the State Highway Commission of Missouri: 1923-24, page 168.**

sign. rating:	49
evaluation:	NRHP possibly eligible (well-preserved, relatively early, multiple-span example of mainstay structural type)

inventoried by: Clayton B. Fraser    13 May 1992

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Hunt's Farm Bridge (Black River Bridge)  
MHTD: 083001.4

REYN01

**DATE(S) OF CONSTRUCTION**

1917

**LOCATION**

County Road 83 over Black River; S22, T32N, R2E  
1.3 miles southeast of Lesterville; Reynolds County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 56)

**CONDITION**

good

**OWNER**

Reynolds County

span number: 3  
span length: 180.0; 110.0'  
total length: 528.0'  
roadway wdt.: 15.7'

superstructure: steel, 9-panel, pin-connected Parker through truss; steel, 6-panel, pin-connected Pratt through trusses; steel stringer approach spans  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete deck over steel stringers  
other features: Parker through truss: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with "X" bracing between; floor beam: I-beam, field bolted; guardrail: 2 angles; timber sidewalks; builder's plate: 1917 Miller-Borcherding Builders St. Louis, Mo.; Pratt through trusses: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; lateral bracing: round rod with threaded ends; strut: 4 angles with "X" bracing between; floor beam: I-beam, field bolted; guardrail: 2 angles

Efforts to build the Hunt's Farm Bridge began in the spring of 1916. In early May of that year, the Reynolds County Court ordered two substantial bridges erected across the Black River in the northern part of the county. Proposals from several bridge contractors were opened in June, and contracts to fabricate and erect both bridges were awarded to Miller and Borcherding, builders from St. Louis. One of the structures was located at Carter's Mill; the other was this long-span crossing south of Lesterville, known as the Hunt's Farm Bridge. Miller and Borcherding completed both bridges in March 1917 for a combined cost of \$14,400.00. The Carter's Mill Bridge was opened to traffic at that time, but for some reason, the county had contracted with Miller and Borcherding for only the channel span of the Hunt's Farm structure. The approaches remained unbuilt. The county court at this time ordered the St. Louis contractors to erect two 125-foot Pratt-truss approach spans - later changed to 110-foot spans - to be built on one end of the Parker truss and steel stringer spans on both sides of the trusses. This work was completed in early July 1917, and the contractors received final payment of \$8200.00 for the additional work. As built, the long-span crossing was approached on its east end by four steel stringer spans, and also featured timber sidewalks, inside the webs, on either side of the roadway. The Pratt trusses were additionally noteworthy, because their structural members were of unusually light construction. Nonetheless, the Black River Bridge has stood the test of time. Continuing to carry traffic in southern Missouri's picturesque Ozarks, the bridge exhibits strong structural integrity.



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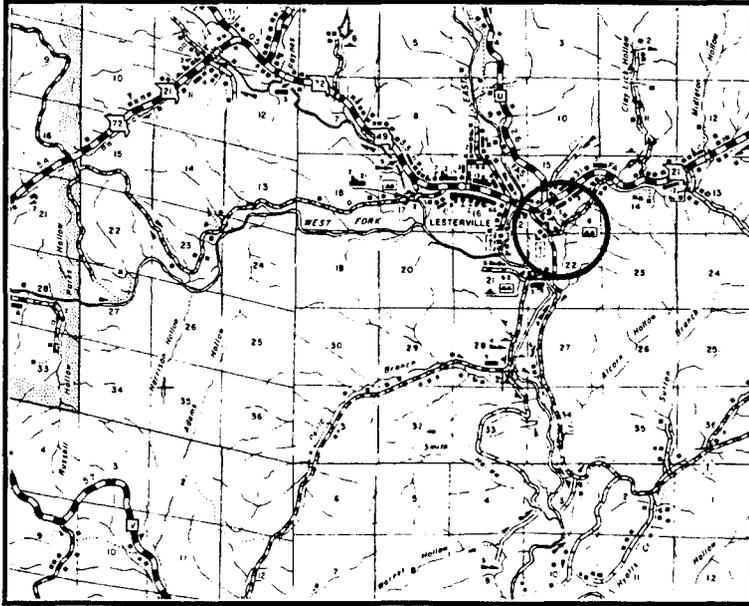
The Hunt's Farm Bridge is historically noteworthy as a regionally important crossing of a major southeastern Missouri river - the oldest of the three spans over the Black River in Reynolds County. The Parker and Pratt through trusses that comprise this structure are straightforward examples of Missouri's two most common through truss configurations. What distinguishes this bridge, however, is its multiplicity of spans. Relatively few multiple-span through trusses remain from what was once an extensive inventory in the state. Fewer yet combine structural types, such as the two trusses on the Hunt's Farm Bridge. This structure is thus technologically important as a well-preserved, and now uncommon, example of this structural trend.

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**NAME(S) OF STRUCTURE**

Hunt's Farm Bridge (Black River Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 083001.4; Reynolds County Court Record 11: page 619 (6 May 1916), page 621 (5 June 1916), page 625 (5 June 1916), page 634 (9 August 1916); Reynolds County Court Record 12: page 116 (29 December 1916), page 136 (9 February 1917), page 146 (13 March 1917), page 164 (7 April 1917), page 191 (5 July 1917) - located at Reynolds County Courthouse, Centerville, Missouri; field inspection by Carl McWilliams and Richard Collier, 31 March 1992.

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**INVENTORIED BY**

Carl McWilliams

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

13 May 1992

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# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**  
Sinking Creek Bridge  
MHTD: 391000.1

REYN02

**DATE(S) OF CONSTRUCTION**  
1923

**LOCATION**

County Road 391 over Sinking Creek; S29, T31N, R1E  
4.3 miles northwest of Redford; Reynolds County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / roadway bridge

**RATING** NRHP possibly eligible (score: 49)

**CONDITION**

good

**OWNER**

Reynolds County

span number: 3  
span length: 60.0'  
total length: 222.0'  
roadway wdt.: 21.0'

superstructure: steel, 6-panel, rigid-connected Warren pony truss, with concrete slab approach spans  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete deck over steel stringers  
other features: steel pipe guardrails

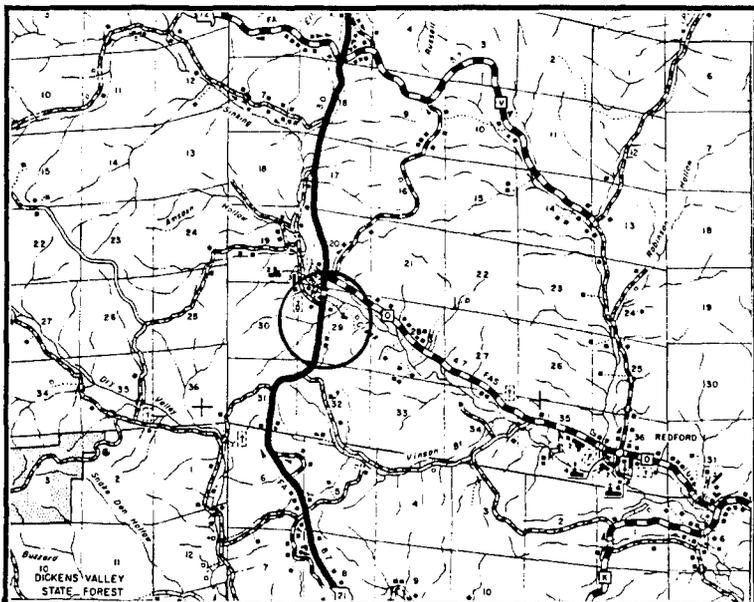
Located northwest of Redford, this three-span pony truss carries a county road over Sinking Creek. The channel spans are rigid-connected Warren pony trusses, carried by a concrete substructure and approached on each side by a concrete slab span. The Sinking Creek Bridge was designed in 1922 by engineers for the Missouri State Highway Department. On December 2nd a contract to build the bridge was awarded to Cooper's Construction Service Company. The contractors used steel rolled by the Illinois Steel Company for the truss, completing the bridge the next year. Total cost: approximately \$23,000.00. Since its completion, the Sinking Creek Bridge has functioned in place, with no serious alterations.

The Missouri State Highway Department used riveted Warren configurations for its pony trusses almost from the time the agency developed its first bridge standards around 1920. Structurally straightforward and versatile, these ubiquitous trusses were erected by the hundreds throughout the state in span lengths ranging from 40 to 100 feet. The Sinking Creek Bridge is distinguished among Missouri's Warren trusses as among the oldest extant examples of this mainstay structural type.

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**NAME(S) OF STRUCTURE**  
Sinking Creek Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**  
Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 391000.1; Primary System Bridge Record, located at Missouri Highway and Transportation Department, Jefferson city MO; **Fourth Biennial Report of the State Highway Commission of Missouri: 1923-24, page 168.**

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**INVENTORIED BY**  
Clayton B. Fraser

**AFFILIATION**  
Fraserdesign, Loveland CO

**DATE**  
13 May 1992

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# RIPLEY COUNTY

---

**INCLUDED:**

NONE

**EXCLUDED:**

Pratt pony truss

L 378      107003.2

Warren pony truss

096000.0    096000.9    259001.2

Steel stringer

J 643	J 644	J 958	S 225	S226	S 814	S 889
T 8	073R01.5	073000.9	077001.1	078R00.7	086000.5	087000.3
089002.1	095000.0	097000.9	106000.3	131001.3	142000.8	188000.3
236001.7	260001.4					

Concrete girder

H 884      T 310      T 823      T 824

Concrete slab

F 185R      T 758      147002.2    258001.0

Concrete box culvert

H 932	J 660	J 661	K 13	S 967	T 6	T 7
T 787	T 821	T 826	T 828	X 394	Y 792	118500.1
118500.2	118500.3	147001.2	149000.4	151000.5	172000.1	177002.6
193000.1						

**SUMMARY:**

	Primary	Secondary	Urban	Other	Total
Included	0	0	0	0	0
Excluded	28	30	0	0	58
	<hr/>				
	28	30	0	0	58 structures

# SHANNON COUNTY

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INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*SHAN01	G 804A	Current River Bridge	5-130' <b>concrete filled spandrel arch</b> 1924 M.E. Gillioz, Monett, MO
*SHAN02	H 79	Sinking Creek Bridge	3- 80' <b>concrete open spandrel arch</b> 1925 Public Works Construction Co.
*SHAN03	J 420	Round Spring Bridge	1-150' <b>concrete open spandrel arch</b> 1930 C.F. Johnson and Son
*SHAN04	K 209	Eminence Bridge	3-110' <b>concrete open spandrel arch</b> 1933 List & Clark Construction Co.

**EXCLUDED:**

Steel stringer  
 J 646      K 274      K 924      K 989      T 157      T 789

Steel pipe culvert  
 R 818      R 819

Concrete girder  
 163000.6

Concrete slab  
 153001.6    306000.7    306001.7    464000.1

Concrete box culvert  
 J 747      K 273      K 935      K 975      Y 174      037500.1    037500.2  
 190000.2    190000.5    249001.1    302001.1    302002.2    302002.3    305001.2

**SUMMARY:**

	Primary	Secondary	Urban	Other	Total
Included	4	0	0	0	4
Excluded	13	14	0	0	27
	17	14	0	0	31 structures

# Current River Bridge

SHAN01

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## GENERAL DATA

structure no.:	G 804A	city/town:	0.3 mile north of Round Spring
county:	Shannon	feature inters.:	Current River
		cadastral grid:	S20, T30N, R4W
		highway route:	Missouri State Highway 19
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments, wingwalls and piers		
span number:	5	condition:	good
span length:	130.0'	alterations:	none
total length:	602.0'	floor/decking :	concrete deck
roadway width:	18.0'	other features:	concrete guardrails (standard Missouri Highway Department design); bridge plate: Missouri Highway Dept. Bridge N° 804 1924

## HISTORICAL DATA

erection date:	1924
erection cost:	\$71,471.39
designer:	Missouri State Highway Department
fabricator :	none
contractor:	M.E. Gillioz, Monett MO
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 804A; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; <b>Fourth Biennial Report of the Missouri State Highway Commission</b> (1923-24), p. 170; field inspection by Carl McWilliams and Richard Collier, 29 March 1992.
sign. rating:	57
evaluation:	NRHP possibly eligible

inventoried by: Carl McWilliams 6 May 1992

# Sinking Creek Bridge

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SHAN02

## GENERAL DATA

structure no.:	H 79	city/town:	0.6 mile north of Round Spring
county:	Shannon	feature inters.:	Sinking Creek
		cadastral grid:	S17/18, T30N, R4W
		highway route:	Missouri State Highway 19
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: concrete, 2-rib, open spandrel arch; 1 concrete deck girder approach span at each end

substructure: concrete abutments, wingwalls and piers

span number:	3	condition:	good
span length:	80.0'	alterations:	none
total length:	339.0'	floor/decking :	concrete deck
roadway width:	18.0'	other features:	concrete guardrails (standard Missouri State Highway Department design); bridge plate: Missouri Highway Dept. Bridge N° H 79 1925

## HISTORICAL DATA

erection date: 1925

erection cost: \$38,724.07

designer: Missouri State Highway Department

fabricator : none

contractor: Public Works Construction Company

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 79; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Fifth Biennial Report of the Missouri State Highway Commission (1925-26)**, p. 217; field inspection by Richard Collier and Carl McWilliams, 29 March 1992.

sign. rating: 50

evaluation: NRHP possibly eligible

inventoried by: Carl McWilliams 6 May 1992

# Round Spring Bridge

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SHAN03

## GENERAL DATA

structure no.:	J 420	city/town:	Round Spring
county:	Shannon	feature inters.:	Spring Valley Creek
		cadastral grid:	S19/20, T30N, R4W
		highway route:	Missouri State Highway 19
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: concrete, 2-rib, open spandrel arch; 3 concrete deck girder approach spans at the north end; 4 concrete deck girder approach spans at the south end

substructure: concrete abutments, wingwalls and piers

span number:	1	condition:	good
span length:	150.0'	alterations:	none
total length:	523.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	concrete guardrails (standard Missouri State Highway Department design); bridge plate: Missouri Highway Department Bridge N° J-420 1930

## HISTORICAL DATA

erection date: 1930  
erection cost: \$70,152.85  
designer: Missouri State Highway Department  
fabricator : none  
contractor: C.F. Johnson and Son

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 420; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Seventh Biennial Report of the Missouri State Highway Commission** (1929-30), p. 261; field inspection by Carl McWilliams and Richard Collier, 29 March 1992.

sign. rating: 53  
evaluation: NRHP possibly eligible

inventoried by: Carl McWilliams 6 May 1992

# Eminence Bridge

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SHAN04

## GENERAL DATA

structure no.:	K 209	city/town:	Eminence
county:	Shannon	feature inters.:	Jacks Fork of Current River
		cadastral grid:	S26, T29N, R4W
		highway route:	Missouri State Highway 19
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

superstructure: concrete, 2-rib, open spandrel arch; 2 concrete deck girder approach spans at the north end; 1 concrete deck girder approach span at the south end

substructure: concrete abutments, wingwalls and piers

span number:	3	condition:	good
span length:	110.0'	alterations:	none
total length:	430.0'	floor/decking :	concrete deck
roadway width:	22.0'	other features:	concrete guardrails (standard Missouri State Highway Department design); bridge plate: Missouri Highway Dept. Bridge K 209 1933

## HISTORICAL DATA

erection date: 1933  
erection cost: \$50,514.75  
designer: Missouri State Highway Department  
fabricator : none  
contractor: List and Clark Construction Company

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number K 209; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Ninth Biennial Report of the Missouri State Highway Commission (1933-34), pp. 186-87; field inspection by Carl McWilliams and Richard Collier, 29 March 1992.

sign. rating: 50  
evaluation: NRHP possibly eligible

inventoried by: Carl McWilliams 6 May 1992

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Current River Bridge  
MHTD: G 804A

SHAN01

**DATE(S) OF CONSTRUCTION**

1924

**LOCATION**

Missouri State Highway 19 over Current River; S20, T30N, R4W  
0.3 mile north of Round Spring; Shannon County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 57)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 5

span length: 130.0'

total length: 602.0'

roadway wdt.: 18.0'

superstructure: concrete filled spandrel arch

substructure: concrete abutments, wingwalls and piers

floor/decking: concrete deck

other features: concrete guardrails (standard Missouri Highway Department design); bridge plate:  
**Missouri Highway Dept. Bridge N° 804 1924**

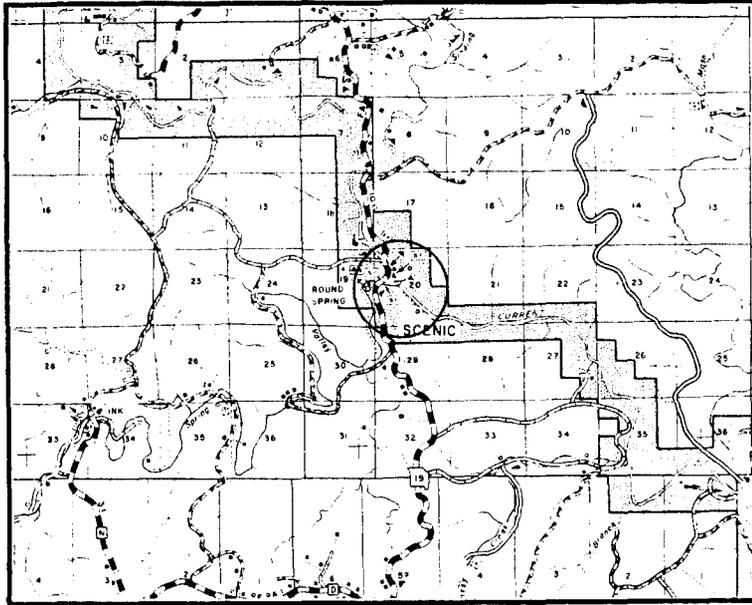
Extending through southern Missouri's scenic Ozarks, State Highway 19 is Shannon County's principal north-south highway. In the early 1920s, the Missouri State Highway Commission began efforts to modernize the roadway, including the replacement of bridges over the route's larger waterways. Opting for concrete construction rather than steel, the highway commission built a series of graceful arches, that blended nicely with the mountainous terrain. Comprised of three, 130-foot open spandrel arches, flanked on either end by 60-foot filled spandrel arches, this bridge was erected where the Current River intersected the highway just north of Round Spring. Drawings were prepared in the fall of 1923, and by year's end the project had been put out to bid. On January 29, 1924, a contract for the bridge's construction was awarded to M.E. Gillioz. Based in Monett, Missouri, Gillioz was one of southern Missouri's more prolific builders during the 1920s and 1930s. Comprised of three 130-foot arches, and two 60-foot arches, Gillioz completed the crossing later that year. Unchanged from its original construction, the Current River Bridge displays a high degree of historical integrity as it continues to carry traffic in the Missouri Ozarks.

The Missouri State Highway Department characteristically used filled spandrel designs for its concrete arches with 80 feet or less of span; open spandrel arches were employed for longer-span applications. MSHD engineers designed numerous single-span examples of the former configuration in the 1920s and 1930s, but few filled spandrel arches with multiple spans. A handful of these large-scale bridges have been identified by the statewide bridge inventory. The Current River Bridge's 130-foot span ranks as Missouri's longest-span filled spandrel arch. Moreover, the structure's five spans is unsurpassed among the state's other filled spandrel arches. The Current River Bridge thus is distinguished as a technologically significant representative of Missouri State Highway Department concrete design of the 1920s.

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**NAME(S) OF STRUCTURE**  
Current River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 804A; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Fourth Biennial Report of the Missouri State Highway Commission (1923-24)**, p. 170; field inspection by Carl McWilliams and Richard Collier, 29 March 1992.

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**INVENTORIED BY**  
Carl McWilliams

**AFFILIATION**  
Fraserdesign, Loveland CO

**DATE**  
6 May 1992

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Sinking Creek Bridge  
MHTD: H 79

SHAN02

**DATE(S) OF CONSTRUCTION**

1925

**LOCATION**

Missouri State Highway 19 over Sinking Creek; S17/18, T30N, R4W  
0.6 mile north of Round Spring; Shannon County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP possibly eligible (score: 50)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 3

span length: 80.0'

total length: 339.0'

roadway wdt.: 18.0'

superstructure: concrete, 2-rib, open spandrel arch; 1 concrete deck girder approach span at each end

substructure: concrete abutments, wingwalls and piers

floor/decking: concrete deck

other features: concrete guardrails (standard Missouri State Highway Department design); bridge plate:  
**Missouri Highway Dept. Bridge N° H 79 1925**

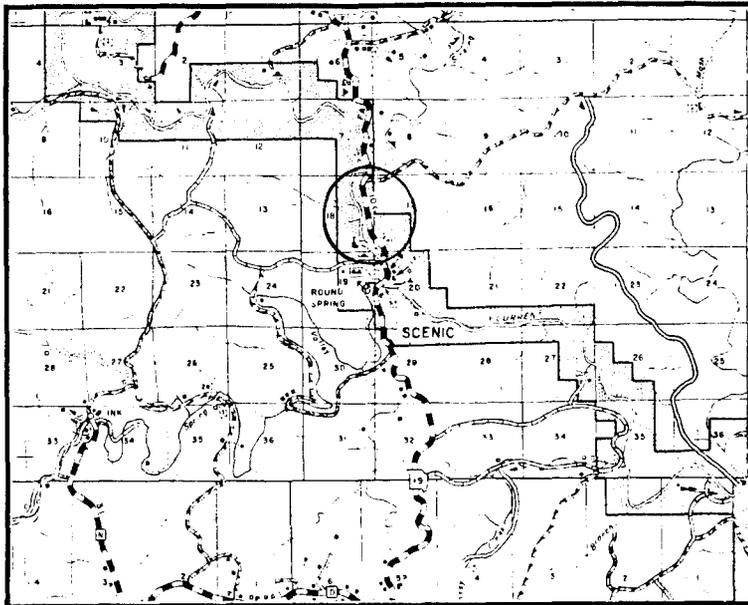
Extending through southern Missouri's scenic Ozarks, State Highway 19 is Shannon County's principal north-south highway. In the early 1920s, the Missouri State Highway Commission began efforts to modernize the roadway, including the replacement of bridges over the route's larger waterways. Opting for concrete construction, rather than steel, the Highway Commission built a series of graceful open-spandrel arches, that blended nicely with the mountainous terrain. Among the first such bridges was this three-span arch, erected over Sinking Creek, where it intersected the highway about ½ mile north of Round Spring. Design work was prepared by the Highway Commission in early 1925. Bids were solicited that spring, and on June 26th, a \$38,724.07 contract for the bridge's construction was awarded to the Public Works Construction Company. Comprised of three 80-foot open-spandrel arches, the structure was flanked on each end by 40-foot concrete deck girder approaches. The crossing was completed in the fall of 1925, as planned and on schedule. Still in use, the Sinking Creek Bridge is unchanged from its original construction. As such, the crossing possesses a high degree of historical integrity.

The Missouri State Highway Department typically used open spandrel designs for its concrete arches with 80 feet or more of span; with some exceptions, filled spandrel arches were employed for shorter-span applications. MSHD engineers designed a number of open spandrel arches in the 1920s and '30s, employing both single and multiple span configurations. Among those identified by the statewide bridge inventory, the Sinking Creek Bridge rates as a well-preserved, representative example of open spandrel arch construction.

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**NAME(S) OF STRUCTURE**  
Sinking Creek Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**  
Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number H 79; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Fifth Biennial Report of the Missouri State Highway Commission (1925-26)**, p. 217; field inspection by Richard Collier and Carl McWilliams, 29 March 1992.

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**INVENTORIED BY**  
Carl McWilliams

**AFFILIATION**  
Fraserdesign, Loveland CO

**DATE**  
6 May 1992

---

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Round Spring Bridge (Spring Valley Bridge)  
MHTD: J 420

SHAN03

**DATE(S) OF CONSTRUCTION**

1930

**LOCATION**

Missouri State Highway 19 over Spring Valley Creek; S19/20, T30N, R4W  
Round Spring; Shannon County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP potentially eligible (score: 53)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 1  
span length: 150.0'  
total length: 523.0'  
roadway wdt.: 20.0'

superstructure: concrete, 2-rib, open spandrel arch; 3 concrete deck girder approach spans at the north end; 4 concrete deck girder approach spans at the south end  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete deck  
other features: concrete guardrails (standard Missouri State Highway Department design); bridge plate: **Missouri Highway Department Bridge No J-420 1930**

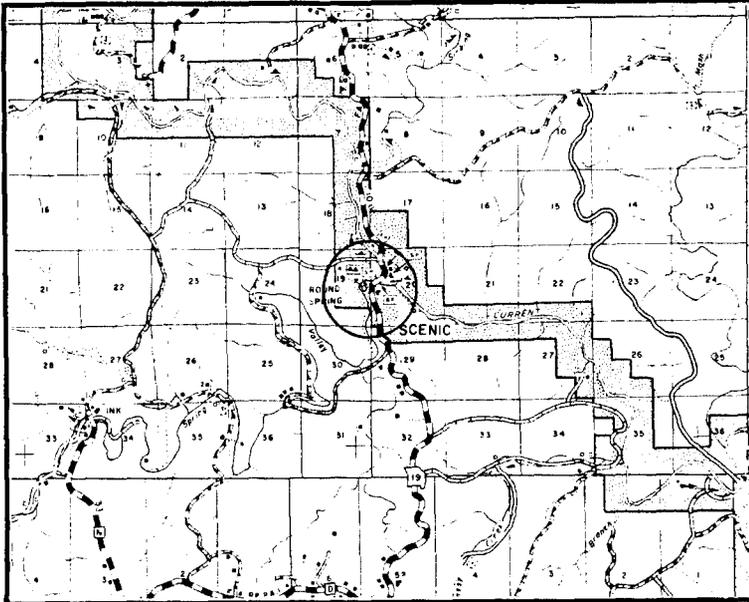
Extending through southern Missouri's scenic Ozarks, State Highway 19 is Shannon County's principal north-south highway. In the early 1920s, the Missouri State Highway Commission began efforts to modernize the roadway, including the replacement of bridges over the route's larger waterways. Opting for concrete construction, rather than steel, the Highway Commission built a series of graceful open-spandrel arches, that blended nicely with the mountainous terrain. Perhaps the most impressive of these bridges was this skewed, open-spandrel arch, erected over Spring Valley Creek, along one of the highway's most picturesque stretches. Located within the Ozark National Scenic Riverways, the bridge is adjacent to a nearly perfectly round spring. Ages ago, the spring was underground - within a natural cave - but the cave's roof has long since collapsed, and the spring is now open, displaying waters with a deep green hue. Drawings for the crossing, which takes its name from the spring, were prepared in early 1930. In the spring of that year, the project was put out to bid. On April 28, 1930, a contract for the bridge's construction was awarded to C.F. Johnson and Sons. Comprised of a single 150-foot arch over Spring Creek's channel, the bridge was flanked by seven concrete deck girder approaches. Johnson and Sons completed the structure later that year for just over \$70,000.00. Located where the highway leads into a sweeping curve, the bridge continues to carry moderate traffic loads. Unchanged from its original construction, the Round Spring Bridge possess a high degree of historical integrity.

The Missouri State Highway Department characteristically used open-spandrel designs for its concrete arches with 80 feet or more of span; with some exceptions, filled-spandrel arches were typically employed for shorter-span applications. MSHD engineers designed a number of open-spandrel arches in the 1920s and '30s, employing both single and multiple span configurations. Among those identified by the statewide bridge inventory, the Round Spring Bridge rates as superlative example of open-spandrel arch construction. Possessing strong integrity of both design and setting, the structure is surpassed in span length only by the Branson Bridge in Taney County (Structure No. J 705 R).

**NAME(S) OF STRUCTURE**

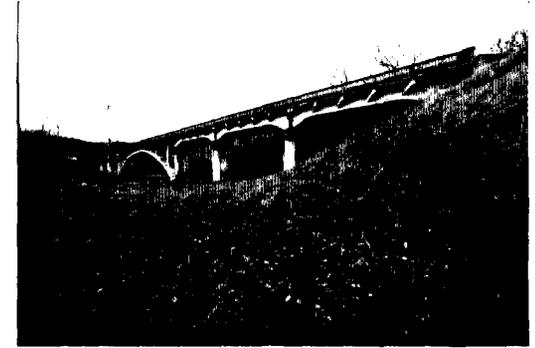
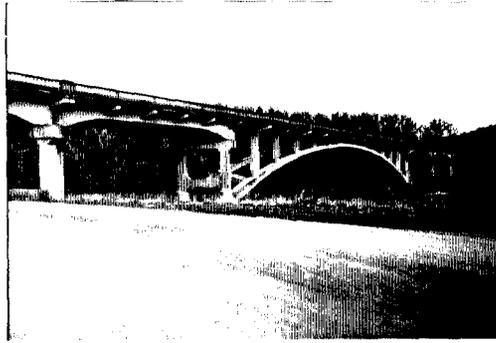
Round Spring Bridge (Spring Valley Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 420; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; *Seventh Biennial Report of the Missouri State Highway Commission (1929-30)*, p. 261; field inspection by Carl McWilliams and Richard Collier, 29 March 1992.

**INVENTORIED BY**

Carl McWilliams

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

6 May 1992

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Eminence Bridge (Jacks Fork Bridge)  
MHTD: K 209

SHAN04

**DATE(S) OF CONSTRUCTION**

1933

**LOCATION**

Missouri State Highway 19 over Jacks Fork of Current River; S26, T29N, R4W  
Eminence; Shannon County County, Missouri

**USE (ORIGINAL / CURRENT)**

highway bridge / highway bridge

**RATING** NRHP potentially eligible (score: 50)

**CONDITION**

good

**OWNER**

Missouri Highway and Transportation Department

span number: 3  
span length: 110.0'  
total length: 430.0'  
roadway wdt.: 22.0'

superstructure: concrete, 2-rib, open spandrel arch; 2 concrete deck girder approach spans at the north end; 1 concrete deck girder approach span at the south end  
substructure: concrete abutments, wingwalls and piers  
floor/decking: concrete deck  
other features: concrete guardrails (standard Missouri State Highway Department design); bridge plate:  
**Missouri Highway Dept. Bridge K 209 1933**

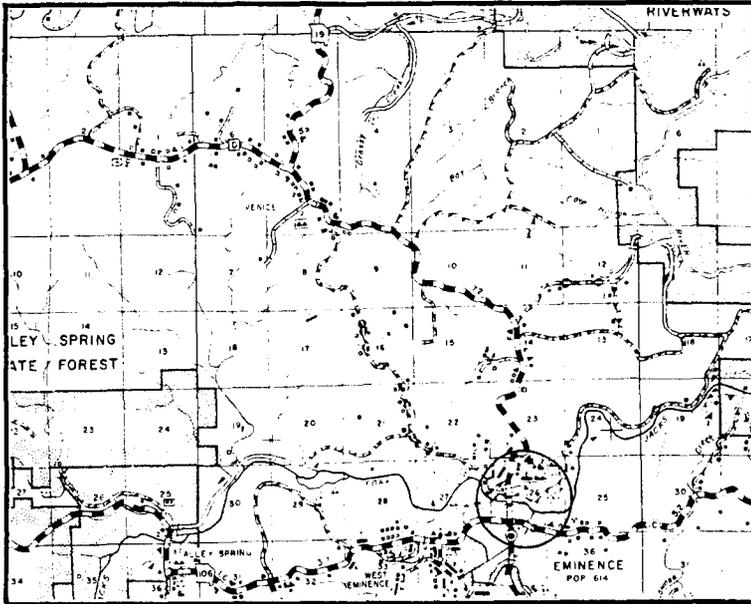
Extending through southern Missouri's scenic Ozarks, State Highway 19 is Shannon County's principal north-south highway. In the early 1920s, the Missouri State Highway Commission began efforts to modernize the roadway, including the replacement of bridges over the route's larger waterways. Opting for concrete construction, rather than steel, the Highway Commission built a series of graceful open-spandrel arches, that blended nicely with the mountainous terrain. Erected late in the series was this three-span open spandrel arch, erected over the Jack's Fork of the Current River, at the north edge of Eminence. Drawings were prepared in early fall 1933. Following a bidding process, on October 28th, the List and Clark Construction Company was awarded a \$50,514.75 contract for the bridge's construction. Embracing three 110-foot arches, and three 25-foot concrete deck girder approaches, the crossing was completed early the following year. Unchanged from its original construction, the Eminence Bridge displays strong attributes of historical integrity. Continuing to carry traffic, the bridge remains an integral part of State Highway 19.

The Missouri State Highway Department characteristically used open-spandrel designs for its concrete arches with 80 feet or more of span; with some exceptions, filled-spandrel arches were typically employed for shorter-span applications. MSHD engineers designed a number of open-spandrel arches in the 1920s and '30s, employing both single and multiple span configurations. Among those identified by the statewide bridge inventory, the Eminence Bridge is a well-preserved, representative example of open spandrel arch construction.

**NAME(S) OF STRUCTURE**

Eminence Bridge (Jacks Fork Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number K 209; Missouri Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; **Ninth Biennial Report of the Missouri State Highway Commission (1933-34)**, pp. 186-87; field inspection by Carl McWilliams and Richard Collier, 29 March 1992.

**INVENTORIED BY**

Carl McWilliams

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**

6 May 1992

# TEXAS COUNTY

---

INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
TEXA01	J 617	Big Creek Bridge	1-120' <b>riveted Pratt through truss</b> 1932 Massman Construction Co.
TEXA02	J 665	Jacks Fork Bridge	<b>2-100'</b> riveted Warren pony truss 1931 Kelly and Underwood
TEXA03	520002.6	Mason Bridge	1-152' <b>pinned Parker through truss</b> 1926 Concrete & Steel Constr. Co.

EXCLUDED:

Steel stringer

F 427R	G 411R	J 669R	S 528	S 529	S 606	S 607
T 10	T 11	196R00.8	296R00.7	429R00.1		

Concrete slab / girder

H 237R	H 296R1	J 22	J 119	K 996	K 998	T 165
002001.9	089000.0	146002.7	146002.8	146002.9	199000.1	200000.2
203500.1	206000.7	227001.9	227002.8	228001.0	229000.8	247003.2
248000.2	258000.3	276000.4	280000.6	288002.5	293001.0	295001.3
299000.8	302002.2	332004.0	332004.1	399004.0	406000.1	440001.0
503000.2	505001.2	507000.4	508001.3	512000.9	513001.9	521000.1
521003.5	521005.2					

Concrete box / steel pipe culvert

G 410R	G 766R1	G 767R	J 618	J 668R	J 670	J 792
K 997	P 59	S 608	T 163	T 164	T 730	T 731
T 732	X 900	003001.9	204R00.0	239R00.6		

Timber stringer

001000.9

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	2	1	0	0	3
Excluded	32	44	0	0	76
	34	45	0	0	79 structures

# Big Creek Bridge

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TEXA01

## GENERAL DATA

<b>structure no.:</b> J 617	<b>city/town:</b> 9.4 miles southeast of Houston
<b>county:</b> Texas	<b>feature inters.:</b> Big Creek
	<b>cadastral grid:</b> S3, T29N, R8W
	<b>highway route:</b> State Highway 17
	<b>highway distr.:</b> 9
	<b>current owner:</b> Missouri Highway and Transportation Department

## STRUCTURAL DATA

**superstructure:** steel, 6-panel, rigid-connected Pratt through truss, with steel stringer approach spans

**substructure:** concrete abutments, wingwalls and piers

<b>span number:</b> 1	<b>condition:</b> good
<b>span length:</b> 120.0'	<b>alterations:</b> none
<b>total length:</b> 207.0'	<b>floor/decking :</b> concrete deck over steel stringers
<b>roadway width:</b> 22.0'	<b>other features:</b> steel angle guardrails

## HISTORICAL DATA

**erection date:** 1932

**erection cost:** \$14,771.68

**designer:** Missouri State Highway Department

**fabricator :** unknown

**contractor:** Massman Construction Company

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 617; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.

**sign. rating:** 41

**evaluation:** NRHP non-eligible (typically configured example of MSHD standard bridge design)

**inventoried by:** Clayton B. Fraser    11 May 1992

# Jacks Fork Bridge

TEXA02

## GENERAL DATA

<b>structure no.:</b> J 665	<b>city/town:</b> 9.1 miles southeast of Clear Springs
<b>county:</b> Texas	<b>feature inters.:</b> Jacks Fork Creek
	<b>cadastral grid:</b> S36, T28N, R7W
	<b>highway route:</b> State Highway 17
	<b>highway distr.:</b> 9
	<b>current owner:</b> Missouri Highway and Transportation Department

## STRUCTURAL DATA

**superstructure:** steel, 6-panel, rigid-connected Warren pony truss  
**substructure:** concrete abutments, wingwalls and piers

<b>span number:</b> 2	<b>condition:</b> good
<b>span length:</b> 100.0'	<b>alterations:</b> none
<b>total length:</b> 329.0'	<b>floor/decking :</b> concrete deck over steel stringers
<b>roadway width:</b> 20.0'	<b>other features:</b> verticals at alternate panel points; steel pipe guardrails

## HISTORICAL DATA

**erection date:** 1931  
**erection cost:** \$33,455.86  
**designer:** Missouri State Highway Department  
**fabricator :** unknown  
**contractor:** Kelly and Underwood

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 665; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.

**sign. rating:** 45  
**evaluation:** NRHP non-eligible (typically configured example of MSHD standard bridge design)

**inventoried by:** Clayton B. Fraser    11 May 1992

# Mason Bridge

TEXA03

## GENERAL DATA

structure no.: 520002.6      city/town: 6.4 miles west of Lickins  
county: Texas      feature inters.: Piney River  
cadastral grid: S1, T32N, R10W  
highway route: County Road 520  
highway distr.: 9  
current owner: Texas County

## STRUCTURAL DATA

superstructure: steel, 8-panel, pin-connected Parker through truss, with pin-connected Pratt pony approach span on each end  
substructure: concrete abutments, wingwalls and piers

span number: 1      condition: fair (extensive collision damage)  
span length: 152.0'      alterations: bridge closed  
total length: 272.0'      floor/decking : asphalt-covered timber deck over steel stringers  
roadway width: 15.0'      other features: through truss: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 rectangular eyebars; counter: 2 square eyebars with turnbuckles; lateral bracing: round rod with threaded ends; strut: 2 angles; portal strut: lattice with knee braces; floor beam: I-beam; guardrail: 2 angles; portal builder's plate: 1926 / BUILT BY CONCRETE & STEEL CONSTRUCTION CO. / JOPLIN, MO (with list of county officers)

## HISTORICAL DATA

erection date: 1926  
erection cost: unknown  
designer: unknown  
fabricator : unknown  
contractor: Concrete and Steel Construction Company, Joplin MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 520002.6.

sign. rating: 42  
evaluation: NRHP non-eligible (relatively late example of uncommon Pratt sub-type)

inventoried by: Clayton B. Fraser      11 May 1992

# WASHINGTON COUNTY

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INCLUDED: [Significant feature(s) of bridge given in boldface]  
 [Field inventoried bridge indicated by asterisk]

Inv. No.	MHTD	Bridge Name	Description
*WASH01	J 987	Cedar Creek Bridge	1-120' riveted Pratt through truss 1935 Lay Construction Company
*WASH02	013003.7	Kingston Ford Bridge	1-166' pinned Pratt through truss 1886 St. Louis Bridge and Iron Co. m1917 Miller & Borcharding, St. Louis
*WASH03	086004.0	Haefner Bridge	2-100' pinned Pratt through truss 1918 R.L. Miller, St. Louis

## EXCLUDED:

Pratt pony truss  
G 461R

Warren pony truss  
153000.8

Steel stringer  
S 522 T 114 X 449 X 925 Y 982 032000.0 042000.1  
061003.2

Concrete girder  
H 271 H 506R J 403R J 988 T 399 T 400 065000.6

Concrete slab  
013001.3 018000.1 060001.9 062000.2 071002.8 079005.8 079006.4  
081002.0 083001.7 088000.4 089000.0 097000.2 098000.8 102002.0  
156000.1 213500.1 351500.4

Concrete box culvert  
A 2979 F 836R G 440R G 474R G 475R H 505 J 60  
J 150 J 293 J 294 J 404 J 405 J 414 K 52  
K 353 L 366 S 820 S1000 T 119 T 123 T 124  
W 92 W 217 W 539 X 431 X 432 Y 412 Y 497  
Y 498 Y 747 Y 748

## SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	1	2	0	0	3
Excluded	43	22	0	0	65
	44	24	0	0	68 structures

# Cedar Creek Bridge

WASH01

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## GENERAL DATA

structure no.:	J 987	city/town:	6.3 miles southwest of Irondale
county:	Washington	feature inters.:	Cedar Creek
		cadastral grid:	S7, T35N, R3E
		highway route:	Missouri State Highway 32
		highway distr.:	9
		current owner:	Missouri Highway and Transportation Department

## STRUCTURAL DATA

**superstructure:** steel, 6-panel, rigid-connected Pratt through truss, with steel stringer approach spans

**substructure:** concrete abutments, wingwalls and piers

span number:	1	condition:	good
span length:	120.0'	alterations:	none
total length:	250.0'	floor/decking :	concrete deck over steel stringers
roadway width:	22.0'	other features:	steel angle guardrails

## HISTORICAL DATA

**erection date:** 1934-35

**erection cost:** \$19,096.25

**designer:** Missouri State Highway Department

**fabricator :** Inland Steel Company, East Chicago IN

**contractor:** Lay Construction Company

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. J 987; Missouri Highway and Transportation Department, Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City, Missouri; field inspection by Clayton Fraser, 6 September 1991.

**sign. rating:** 41

**evaluation:** NRHP non-eligible (typically configured example of MSHD truss design of the 1930s)

**inventoried by:** Clayton B. Fraser    17 January 1992

# Kingston Ford Bridge

WASH02

## GENERAL DATA

structure no.:	013003.7	city/town:	12.5 miles northeast of Potosi
county:	Washington	feature inters.:	Big River
		cadastral grid:	S22, T39N, R3E
		highway route:	county road
		highway distr.:	9
		current owner:	Washington County

## STRUCTURAL DATA

superstructure:	wrought iron, 8-panel, pin-connected Pratt through truss with steel stringer approach spans		
substructure:	concrete-filled steel cylinder piers, with concrete abutments and steel pile bent piers at approach spans		
span number:	1	condition:	fair
span length:	166.0'	alterations:	truss moved
total length:	254.0'	floor/decking :	timber deck over steel stringers
roadway width:	14.8'	other features:	upper chord / inclined end post: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with unslotted turnbuckle; strut: 2 braced angles; floor beam: I-beam, U-bolted to vertical; 2-channel guardrails

## HISTORICAL DATA

**erection date:** 1885-86 (moved 1917)  
**erection cost:** \$9870.00 (superstructure contract amount)  
**designer:** St. Louis Bridge and Iron Company, St. Louis MO  
**fabricator :** St. Louis Bridge and Iron Company, St. Louis MO  
**contractor:** St. Louis Bridge and Iron Company, St. Louis MO (1885 construction); Miller & Borcharding, St. Louis MO (1917 move)

**references:** Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 013003.7; Jefferson County Court Record 4: page 313 (7 May 1885), page 328 (4 August 1885), page 349 (28 September 1885), page 355 (2 November 1885), page 418 (20 April 1886); Jefferson County Court Record 12: page 411 (20 July 1916), page 443 (23 September 1916), pages 518-20 (19 March 1917), located at Jefferson County Courthouse, Hillsboro MO; Washington County Court Record K: page 321 (1 May 1916), page 333 (4 May 1916), page 349 (30 June 1916), pages 371-72 (12 August 1916), page 396 (14 November 1917), page 403 (18 November 1917); Washington County Court Record L: page 24 (5 April 1917), located at Washington County Courthouse, Potosi MO; field inspection by Clayton Fraser, 6 September 1991.

# Haefner Bridge

WASH03

## GENERAL DATA

structure no.: 086004.0      city/town: 5.0 miles southwest of Irondale  
county: Washington      feature inters.: Cedar Creek  
cadastral grid: S5, T35N, R3E  
highway route: county road  
highway distr.: 9  
current owner: Washington County

## STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Pratt through truss  
substructure: concrete abutments, wingwalls and pier

span number: 2      condition: fair  
span length: 100.0'      alterations: none  
total length: 202.0'      floor/decking : timber deck over steel stringers  
roadway width: 13.3'      other features: upper chord/ inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 punched rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles with knee braces; portal strut: A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

## HISTORICAL DATA

erection date: 1918  
erection cost: \$4950.00  
designer: R.L. Miller, St. Louis MO  
fabricator : unknown  
contractor: R.L. Miller, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 086004.0; Washington County Court Record L: page 168 (5 July 1918), page 171 (5 July 1918), page 186 (2 September 1918), located at Washington County Courthouse, Potosi MO; "Washington County Missouri" [map], Potosi, MO: published by W.T. Hunter and M.E. Rhodes, 1885; field inspection by Clayton Fraser, 6 September 1991.

sign. rating: 39  
evaluation: NRHP non-eligible (typically configured example of common structural type)

inventoried by: Clayton B. Fraser      17 January 1992

## Kingston Ford Bridge

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sign. rating: 56

evaluation: NRHP possibly eligible (well-preserved, long-span example of early wrought iron truss construction)

inventoried by: Clayton B. Fraser 17 January 1992

# HAER INVENTORY

Missouri Historic Bridge Inventory

**NAME(S) OF STRUCTURE**

Kingston Ford Bridge (Big River Bridge)  
MHTD: 013003.7

WASH02

**DATE(S) OF CONSTRUCTION**

1885-86 (moved 1917)

**LOCATION**

county road over Big River; S22, T39N, R3E  
12.5 miles northeast of Potosi; Washington County, Missouri

**USE (ORIGINAL / CURRENT)**

roadway bridge / roadway bridge

**RATING** NRHP potentially eligible (score: 56)

**CONDITION**

fair

**OWNER**

Washington County

span number: 1  
span length: 166.0'  
total length: 254.0'  
roadway wdt.: 14.8'

superstructure: wrought iron, 8-panel, pin-connected Pratt through truss with steel stringer approach spans  
substructure: concrete-filled steel cylinder piers, with concrete abutments and steel pile bent piers at approach spans  
floor/decking: timber deck over steel stringers  
other features: upper chord / inclined end post: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with unslotted turnbuckle; strut: 2 braced angles; floor beam: I-beam, U-bolted to vertical; 2-channel guardrails

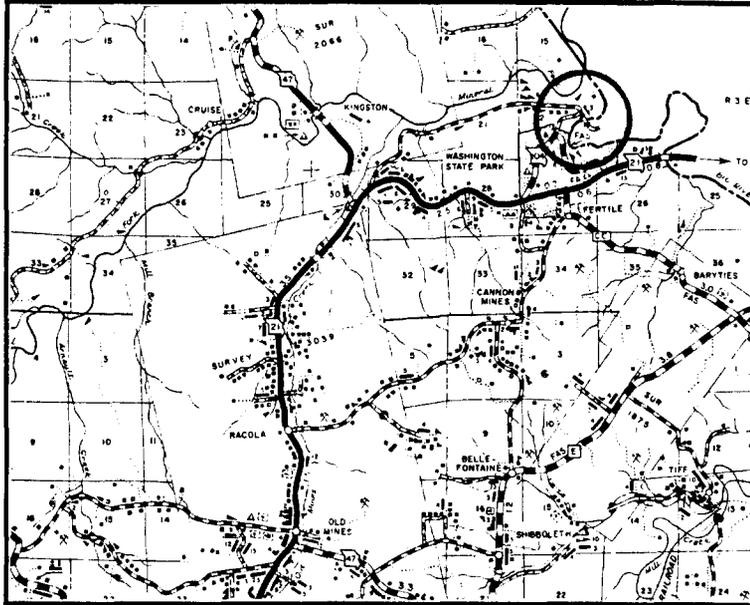
After repeated repairs over the years, the timber Lemay Ferry Bridge over the Meramec River between St. Louis and Jefferson counties finally needed replacement by the early 1880s. The two county courts at this time agreed to share the costs of a new structure; after rebuilding the masonry substructure in 1884, the counties in September 1885 adopted plans and specifications prepared by J.T. Garrett, proprietor of the St. Louis Bridge and Iron Company. Competitive bids were solicited, and a contract to fabricate and erect this long-span, pin-connected truss was awarded to St. Louis B&I in November for \$9870.00. By April 1886 the Lemay Ferry Bridge had been completed. The bridge served to carry wagon traffic - and in later years an occasional automobile - until the fall of 1916. That September the Jefferson and St. Louis County Courts decided to replace the aging truss with a new structure. As part of the agreement, Jefferson County took over ownership of the old bridge, which was dismantled by Miller and Borcharding of St. Louis. The county then sold one of its spans to Washington County. Miller and Borcharding subsequently re-erected this span over the Big River at the Kingston Ford on the Jefferson and Washington County line. Here it has carried traffic over the Big River in unaltered condition since early 1917. The Kingston Ford Bridge, and the Lemay Ferry Bridge, has now been in service for more than 100 years.

Large-scale iron truss structures were built at many of Missouri's major river crossings in the 1870s and 1880s, replacing earlier ferry operations. Very few of these big, early trusses have survived to the present, however. The survivors, such as the Lemay Ferry Bridge, are thus technologically and historically significant for their representation of early Missouri overland transportation. A well-preserved truss that has carried traffic at two regionally important crossings, this is one of the more important of the early wagon spans in the state.

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**NAME(S) OF STRUCTURE**

Kingston Ford Bridge (Big River Bridge)

**PHOTOS AND SKETCH MAP OF LOCATION****LOCATION MAP**TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP

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**SOURCES**

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 013003.7; Jefferson County Court Record 4: page 313 (7 May 1885), page 328 (4 August 1885), page 349 (28 September 1885), page 355 (2 November 1885), page 418 (20 April 1886); Jefferson County Court Record 12: page 411 (20 July 1916), page 443 (23 September 1916), pages 518-20 (19 March 1917), located at Jefferson County Courthouse, Hillsboro MO; Washington County Court Record K: page 321 (1 May 1916), page 333 (4 May 1916), page 349 (30 June 1916), pages 371-72 (12 August 1916), page 396 (14 November 1917), page 403 (18 November 1917); Washington County Court Record L: page 24 (5 April 1917), located at Washington County Courthouse, Potosi MO; field inspection by Clayton Fraser, 6 September 1991.

**INVENTORIED BY**

Clayton B. Fraser

**AFFILIATION**

Fraserdesign, Loveland CO

**DATE**17 January 1992

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