

# PHELPS COUNTY

---

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

---

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

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.

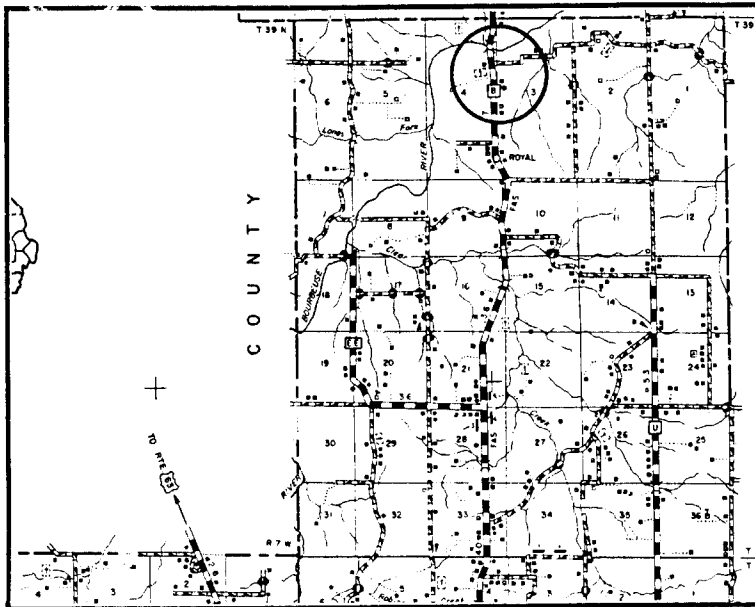
The Missouri State Highway Department used riveted Warren configurations for its pony trusses almost from the time the agency developed its first bridge standards around 1920. Structurally straightforward and versatile, these ubiquitous trusses were erected by the hundreds throughout the state in span 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.

---

**NAME(S) OF STRUCTURE**

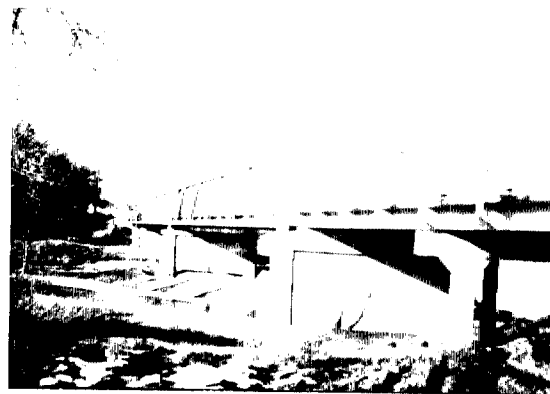
Bourbeuse River Bridge

**PHOTOS AND SKETCH MAP OF LOCATION**



**LOCATION MAP**

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT  
GENERAL HIGHWAY MAP



---

**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	superstructure: steel, 7-panel, pin-connected Pratt through truss
span length: 125.0'	substructure: concrete abutments; concrete-filled steel cylinder piers
total length: 510.0'	floor/decking: asphalt covered concrete with curbing over steel stringers
roadway wdt.: 17.0'	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



---

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.

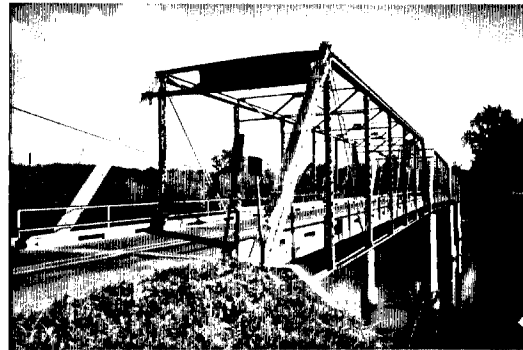
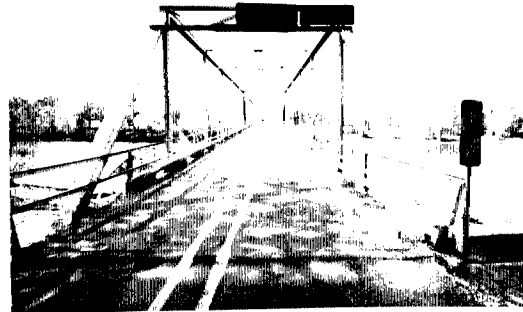
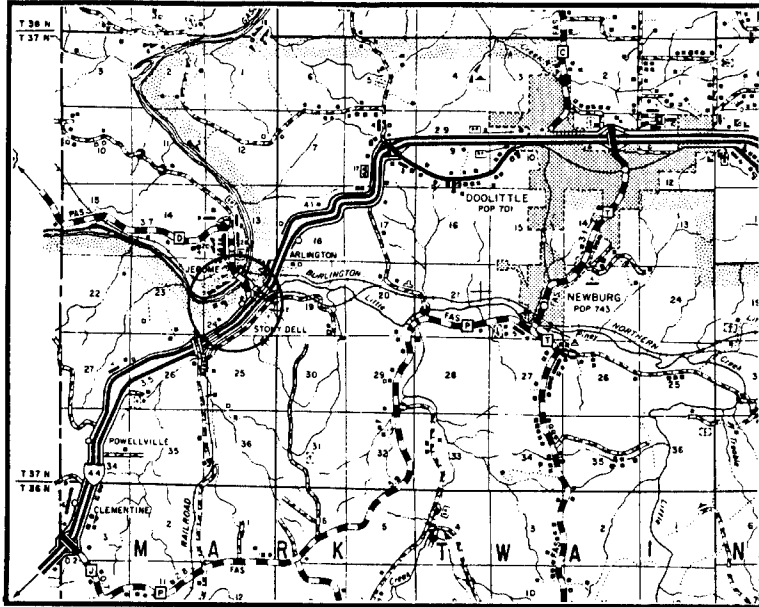


---

**NAME(S) OF STRUCTURE**

Jerome 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 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

---