

LACLEDE COUNTY

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

Inv. No.	MHTD	Bridge Name	Description
*LACL01	G 245	Gasconade River Bridge	2-160' riveted Parker through truss 1924 Riley and Bailey Constr. Co.
LACL02	J 881	Osage Fork Bridge	3-100' rivet polyg. Warren pony truss 1933 Kelly and Underwood
LACL03	S 326	Osage Fork Bridge	1-150' riveted Parker through truss 1933 Deering and Davidson
LACL04	S 327	Gasconade River Bridge	2-150' riveted Parker through truss 1933 George W. Condon
LACL05	T 408	Spring Creek Bridge	3- 37' concrete filled spandrel arch 1934 L.G. Barcus
LACL06	T 409	Mill Race Bridge	1- 27' concrete filled spandrel arch 1934 L.G. Barcus
*LACL07	212000.7	Lambeth Bridge	3-124' pinned Pratt through truss 1908 Illinois Steel Bridge Company

EXCLUDED:

Warren pony truss
091001.9

Steel stringer

G 248R1 K 180 S 325 042001.5 081000.7 281002.1

Concrete girder

J 560 T 671 T 672 W 521 X 440 038000.4 091001.8
 097001.2 182000.5 229003.0 264001.2 295001.9 354001.8
 373001.5 373002.0

Concrete slab

F 772R X 792 009000.7 020000.9 148002.8 247000.9 300002.5
 301002.5 362000.9 371000.2 375000.8 381000.8 381001.0

Concrete box culvert

J 546 L 374R T 673 W 556 X 727 X 728 X 756
 X 782 X 783 X 923 Y 760 Y 763 243000.1 355000.3

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	6	1	0	0	7
Excluded	22	28	0	0	50
	28	29	0	0	57 structures

Gasconade River Bridge

LACL01

GENERAL DATA

structure no.:	G 245	city/town:	12.6 miles northeast of Lebanon
county:	Laclede	feature inters.:	Gasconade River
		cadastral grid:	S22/23, T35N, R14W
		highway route:	Interstate 44 Frontage Road
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 8-panel, rigid-connected Parker through truss; 6-panel, rigid-connected Pratt through truss; 4-panel rigid-connected Warren pony truss

substructure: concrete abutments, wingwalls and piers

span number:	2; 1	condition:	excellent
span length:	160.0'; 120.0'	alterations:	none
total length:	526.0'	floor/decking :	asphalt over concrete, with steel stringers
roadway width:	20.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: 4 angles with lacing; diagonal: 2 angles with batten plates; lateral bracing: 1 angle; strut: lattice; floor beam: I-beam; guardrail: steel pipe with Armco at approaches

HISTORICAL DATA

erection date: 1922-24

erection cost: \$70,273.40

designer: Missouri State Highway Department

fabricator : Illinois Steel Company, Chicago IL

contractor: Riley and Bailey Construction Company

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number G 245; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; Missouri State Highway Board, **Third Biennial Report:** 1921-1922, page 127-28, 140; Missouri State Highway Board, **Fourth Biennial Report:** 1923-1924, page 155; field inspection by Clayton Fraser, 30 January 1990.

sign. rating: 59

evaluation: NRHP possibly eligible (well-preserved, multiple-span example of early MSHD truss design)

inventoried by: Clayton B. Fraser 28 February 1992

Osage Fork Bridge

LACL02

GENERAL DATA

structure no.: J 881	city/town: 10.0 miles southeast of Lebanon
county: Laclede	feature inters.: Osage Fork
	cadastral grid: S33, T33N, R15W
	highway route: State Highway 5
	highway distr.: 8
	current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 10-panel, rigid-connected Warren pony truss with polygonal upper chords	
substructure: concrete abutments, wingwalls and piers	
span number: 3	condition: good
span length: 100.0'	alterations: none
total length: 308.0'	floor/decking : concrete deck over steel stringers
roadway width: 24.0'	other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 angles with batten plates; vertical: wide flange; diagonal: wide flange; lateral bracing: 1 angle; floor beam: I-beam; guardrail: steel

HISTORICAL DATA

erection date: 1932-33	
erection cost: \$27,739.40	
designer: Missouri State Highway Department	
fabricator : unknown	
contractor: Kelly and Underwood	
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number J 881; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.	
sign. rating: 59	
evaluation: NRHP possibly eligible (excellent, early example of MSHD long-span pony truss design)	

inventoried by: Clayton B. Fraser 28 February 1992

Osage Fork Bridge

LACL03

GENERAL DATA

structure no.: S 326	city/town: 11.3 miles east of Lebanon
county: Laclede	feature inters.: Osage Fork
	cadastral grid: S27, T34N, R14W
	highway route: State Highway 32
	highway distr.: 8
	current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

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

substructure: concrete abutments, wingwalls and spill-through piers

span number: 1	condition: good
span length: 150.0'	alterations: none
total length: 423.0'	floor/decking : concrete deck over steel stringers
roadway width: 20.0'	other features: steel guardrails

HISTORICAL DATA

erection date: 1933

erection cost: \$20,745.69

designer: Missouri State Highway Department

fabricator : unknown

contractor: Deering and Davidson

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number S 326; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.

sign. rating: 39

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

inventoried by: Clayton B. Fraser 28 February 1992

Gasconade River Bridge

LACL04

GENERAL DATA

structure no.: S 327	city/town: 17.4 miles southeast of Lebanon
county: Laclede	feature inters.: Gasconade River
	cadastral grid: S3, T33N, R13W
	highway route: State Highway 32
	highway distr.: 8
	current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

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

substructure: concrete abutments, wingwalls and spill-through piers

span number: 2	condition: good
span length: 150.0'	alterations: none
total length: 644.0'	floor/decking : concrete deck over steel stringers
roadway width: 20.0'	other features: steel guardrails

HISTORICAL DATA

erection date: 1932-33

erection cost: \$27,074.18

designer: Missouri State Highway Department

fabricator : unknown

contractor: George W. Condon

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number S 327; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.

sign. rating: 44

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

inventoried by: Clayton B. Fraser 28 February 1992

Spring Creek Bridge

LACL05

GENERAL DATA

structure no.:	T 408	city/town:	12.0 miles west of Lebanon
county:	Laclede	feature inters.:	Spring Creek
		cadastral grid:	S31, T35N, R17W
		highway route:	State Highway 64A
		highway distr.:	8
		current owner:	Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure:	concrete filled spandrel arch		
substructure:	concrete abutments, wingwalls and piers		
span number:	3	condition:	good
span length:	37.0'	alterations:	none
total length:	129.0'	floor/decking :	concrete deck
roadway width:	20.0'	other features:	stone veneer on sidewalls and parapets

HISTORICAL DATA

erection date:	1934
erection cost:	\$2915.15
designer:	Missouri State Highway Department
fabricator :	none
contractor:	L.G. Barcus
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number T 408; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.
sign. rating:	41
evaluation:	NRHP non-eligible (small-scale example of MSHD concrete arch design)

inventoried by: Clayton B. Fraser 28 February 1992

Mill Race Bridge

LACL06

GENERAL DATA

structure no.: T 409	city/town: 12.0 miles west of Lebanon
county: Laclede	feature inters.: Mill Race Creek
	cadastral grid: S31, T35N, R17W
	highway route: State Highway 64A
	highway distr.: 8
	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: 27.0'	alterations: none
total length: 27.0'	floor/decking : concrete deck
roadway width: 20.0'	other features: stone veneer on sidewalls and parapets

HISTORICAL DATA

erection date: 1934	
erection cost: unknown	
designer: Missouri State Highway Department	
fabricator : none	
contractor: L.G. Barcus	
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number T 409; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.	
sign. rating: 28	
evaluation: NRHP non-eligible (small-scale example of MSHD concrete arch design)	

inventoried by: Clayton B. Fraser 28 February 1992

Lambeth Bridge

LACL07

GENERAL DATA

structure no.: 212000.7	city/town: 11.3 miles southeast of Lebanon
county: Laclede	feature inters.: Osage Fork
	cadastral grid: S9, T33N, R14W
	highway route: county road
	highway distr.: 8
	current owner: Laclede County

STRUCTURAL DATA

superstructure: steel, 7-panel, pin-connected Pratt through truss, with steel stringer approach span

substructure: concrete abutment and wingwalls with concrete piers and steel pile bent abutments; concrete-filled steel cylinder pier and steel pile bent abutment at east end

span number: 3	condition: good
span length: 124.0'	alterations: abutment replaced; pier and appr. span added
total length: 375.0'	floor/decking : timber deck over timber stringers
roadway width: 12.0'	other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 4 angles with lacing (2 angles with batten plates at hip); diagonal: 2 punched rectangular eyebars; counter: 2 looped square eyebars with turnbuckles; lateral bracing: round bar with threaded ends; strut: 2 angles; floor beam: I-beam, field bolted to vertical; guard-rail: cable; portal strut: lattice with curved knee braces; portal builder's plate: 1908 / W.M. WILSON PRESG. JUDGE / P.A.PART-Low / H.G. HAMILTON / ASSOC. / R. BLICKENS DERFER CO. HY. ENGINEER

HISTORICAL DATA

erection date: 1908

erection cost: \$14,150.00 (two-bridge contract)

designer: Illinois Steel Bridge Company, Jacksonville IL

fabricator : Illinois Steel Bridge Company, Jacksonville IL;
Carnegie Steel Company, Pittsburgh PA

contractor: Illinois Steel Bridge Company, Jacksonville IL

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 212000.7; Laclede County Court Record, Book N: page 422 (3 December 1907), page 466 (12 March 1908), page 470 (20 March 1908), page 471 (22 April 1908), page 534 (26 May 1908), page 535 (27 May 1908), page 536 (28 May 1908), page

Lambeth Bridge

566 (11 August 1908), page 612 (7 November 1908), page 623 (11 November 1908), located at Laclede County Courthouse, Lebanon MO; field inspection by Clayton Fraser, 28 February 1990.

sign. rating: 53

evaluation: NRHP possibly eligible (well-preserved, multiple-span example of main-stay structural type)

inventoried by: Clayton B. Fraser 28 February 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Gasconade River Bridge
MHTD: G 245

LACL01

DATE(S) OF CONSTRUCTION

1922-24

LOCATION

Interstate 44 Frontage Road over Gasconade River; S22/23, T35N, R14W
12.6 miles northeast of Lebanon; Laclede County, Missouri

USE (ORIGINAL / CURRENT)

highway bridge / highway bridge

RATING NRHP possibly eligible (score: 59)

CONDITION

excellent

OWNER

Missouri Highway and Transportation Department

span number: 2; 1
span length: 160.0'; 120.0'
total length: 526.0'
roadway wdt.: 20.0'

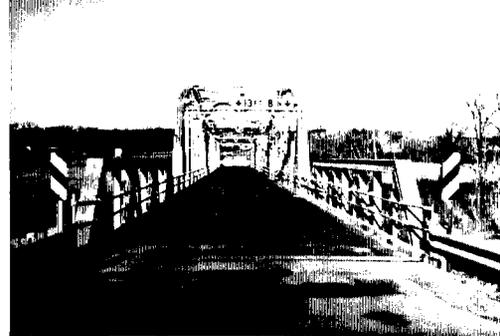
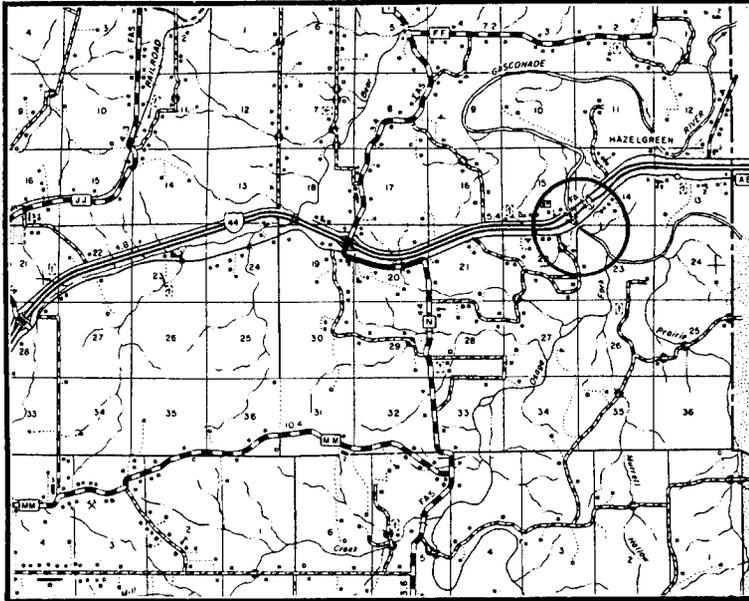
superstructure: steel, 8-panel, rigid-connected Parker through truss; 6-panel, rigid-connected Pratt through truss; 4-panel rigid-connected Warren pony truss
substructure: concrete abutments, wingwalls and piers
floor/decking: asphalt over concrete, with steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates; vertical: 4 angles with lacing; diagonal: 2 angles with batten plates; lateral bracing: 1 angle; strut: lattice; floor beam: I-beam; guardrail: steel pipe with Armco at approaches

Spanning the Gasconade River at the eastern edge of Laclede County, this long-span structure was designed by the Missouri State Highway Department late in 1922 as part of construction on U.S. Highway 66. As delineated by the agency's bridge department, the structure consisted of two Parker through trusses, one Pratt through truss and a Warren pony truss - all rigid-connected spans supported by concrete piers and abutments. In December 1922 the highway department contracted with the Riley and Bailey Construction Company to build the bridge. The contractors worked throughout 1923 and into 1924 on the immense structure, completing the project in May 1924 for a total cost of \$70,273.40. The Gasconade River Bridge carried heavy interstate traffic for over thirty years before its replacement by Interstate Highway 44 in 1956. Since that time it has carried intermittent traffic on the frontage road for the interstate.

The Gasconade River Bridge is historically significant as a major river crossing on Route 66, one of the most important of the early transcontinental highways. As a major undertaking by the Missouri State Highway Department in its formative years, the bridge marked a milestone of sorts for the fledgling agency. 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 526 feet, the Gasconade River Bridge was 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.

NAME(S) OF STRUCTURE

Gasconade 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 G 245; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; Missouri State Highway Board, **Third Biennial Report: 1921-1922**, page 127-28, 140; Missouri State Highway Board, **Fourth Biennial Report: 1923-1924**, page 155; field inspection by Clayton Fraser, 30 January 1990.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE28 February 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Osage Fork Bridge
MHTD: J 881

LACL02

DATE(S) OF CONSTRUCTION

1932-33

LOCATION

State Highway 5 over Osage Fork; S33, T33N, R15W
10.0 miles southeast of Lebanon; Laclede County, Missouri

USE (ORIGINAL / CURRENT)

highway bridge / highway bridge

RATING NRHP possibly eligible (score: 59)

CONDITION

good

OWNER

Missouri Highway and Transportation Department

span number: 3

span length: 100.0'

total length: 308.0'

roadway wdt.: 24.0'

superstructure: steel, 10-panel, rigid-connected Warren pony truss with polygonal upper chords

substructure: concrete abutments, wingwalls and piers

floor/decking: concrete deck over steel stringers

other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 angles with batten plates; vertical: wide flange; diagonal: wide flange; lateral bracing: 1 angle; floor beam: I-beam; guardrail: steel

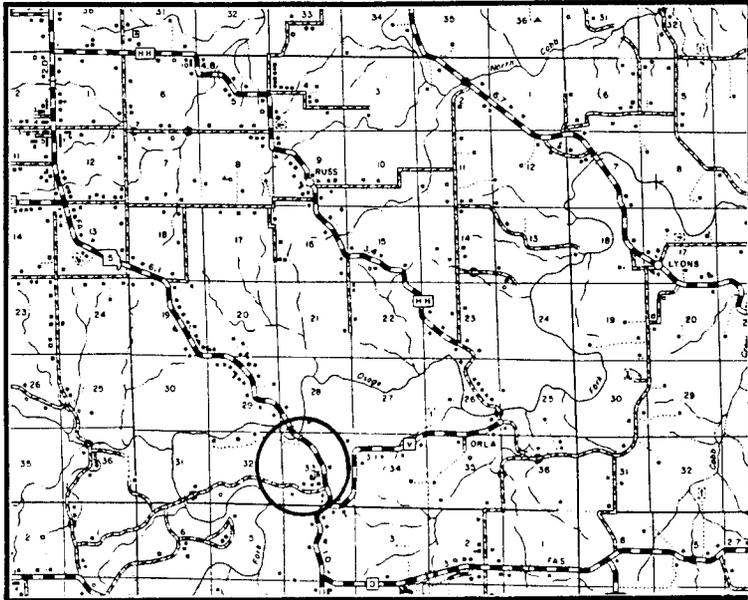
This long-span pony truss carries Missouri State Highway 5 over Osage Fork some 10 miles southeast of Lebanon, in Laclede County. The Osage Fork Bridge is comprised of three rigid-connected Warren pony truss spans, with polygonal upper chords, all supported by a concrete substructure. The Osage Fork Bridge was designed by the state highway department in the summer of 1932 and built in 1932-33 by contractors Kelly and Underwood for almost \$28,000. Since its completion, the bridge has functioned in place, without substantial alteration.

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. In the early 1930s the highway department designed Warren trusses with polygonal upper chords, a variation that was more materially conservant than the straight-chorded Warren for long-span applications. Relatively few of these Warren subtypes were built during the decade, due more to their extreme span length than to their utility. Approximately fifteen of these polygonal Warren pony trusses have been identified as extant by the statewide bridge inventory, all built between 1932 and 1940 and all spanning between 100 and 110 feet. Fabricated from essentially the same drawings, their superstructures were virtually identical. The Osage Bridge is distinguished among these as the oldest documented example of this mainstay long-span truss type.

NAME(S) OF STRUCTURE

Osage 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 J 881; Missouri Highway and Transportation Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

28 February 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Lambeth Bridge
MHTD: 212000.7

LACL07

DATE(S) OF CONSTRUCTION

1908

LOCATION

county road over Osage Fork; S9, T33N, R14W
11.3 miles southeast of Lebanon; Laclede County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP potentially eligible (score: 53)

CONDITION

good

OWNER

Laclede County

span number: 3
span length: 124.0'
total length: 375.0'
roadway wdt.: 12.0'

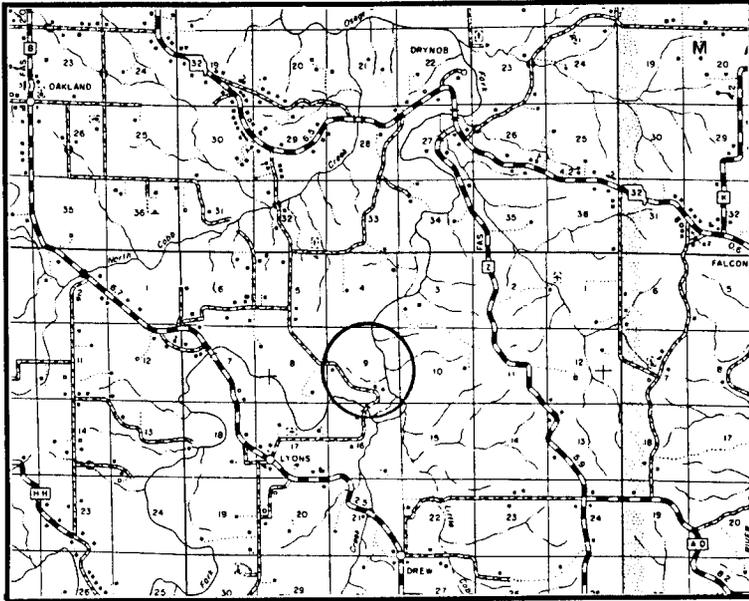
superstructure: steel, 7-panel, pin-connected Pratt through truss with steel stringer approach span
substructure: concrete abutment and wingwalls with concrete piers and steel pile bent abutments; concrete-filled steel cylinder pier and steel pile bent abutment at east end
floor/decking: timber deck over timber stringers
other features: upper chord / inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 4 angles with lacing (2 angles with batten plates at hip); diagonal: 2 punched rectangular eyebars; counter: 2 looped square eyebars with turnbuckles; lateral bracing: round bar with threaded ends; strut: 2 angles; floor beam: I-beam, field bolted to vertical; guardrail: cable; portal strut: lattice with curved knee braces; portal builder's plate: 1908 / W.M. WILSON PRESG. JUDGE / P.A.PARTLOW / H.G. HAMILTON / ASSOC. / R. BLICKENSDERFER CO. HY. ENGINEER

Late in 1907 the Laclede County Court was searching for the "most feasible points on the Gasconade and Osage Fork Rivers for constructing a bridge." County highway engineer Robert Blickensderfer had selected two crossings - the Casey and Bowman crossings - on the Gasconade and three - Lambeth, Hannah and Orea - on the Osage. After entertaining petitions and arguments for these and other prospective sites over the next three months, the court in March selected the Dougan Ford over the Gasconade River and the Lambeth Ford over the Osage Fork, east of Lyons, for permanent bridges. Blickensderfer surveyed both sites later that month, drew up plans and specifications, and advertised for competitive bids from bridge companies. (The companies were allowed to submit their own plans, "provided they confirm with the county's plan generally.") In May 1908 the county awarded a contract to fabricate and erect the two bridges to the Illinois Steel Bridge Company of Jacksonville, Illinois. Both structures were to be complete by the end of the year for a total cost of \$14,150. The contractors poured the concrete substructure that summer and, using members rolled by the Carnegie Steel Company, erected the three pinned Pratt through trusses by November. The Lambeth Bridge served as a major regional crossing of the Osage Fork, until supersedure of the route by State Supplementary Road B. Its east abutment has subsequently been replaced by a steel cylinder pier and a steel stringer approach span added to widen the river channel, but the structure remains otherwise intact, as it now carries intermittent county-road traffic.

Among the out-of-state bridge contractors active in Missouri in the early 1900s, the Illinois Steel Bridge Company was one of the most prolific. The Lambeth Bridge reflects the firm's proclivity for pinned Pratt trusses for medium-span applications—a standard truss type used by virtually all of the major bridge fabricators at the time. Thousands of pinned Pratt through trusses were erected throughout the state during the early 20th century, many of which remain in place today. What distinguishes the Lambeth Bridge among these is its multiplicity of spans. Although a large number of multi-span trusses were built across Missouri's major rivers, very few have survived the subsequent attrition. The Lambeth Bridge is thus technologically significant as a well-preserved, multi-span example of a pin-connected roadway truss bridge.

NAME(S) OF STRUCTURE

Lambeth 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 212000.7; Laclede County Court Record, Book N: page 422 (3 December 1907), page 466 (12 March 1908), page 470 (20 March 1908), page 471 (22 April 1908), page 534 (26 May 1908), page 535 (27 May 1908), page 536 (28 May 1908), page 566 (11 August 1908), page 612 (7 November 1908), page 623 (11 November 1908), located at Laclede County Courthouse, Lebanon MO; field inspection by Clayton Fraser, 28 February 1990.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE28 February 1992
