SALINE COUNTY

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

Inv. No.	MHTD	Bridge Name	Description	
*SALI01	G 69R	Glasgow Bridge	**5-343'**	**riveted Pennsylv. through truss**
			1925	Mt. Vernon Bridge Company
SALI02	G 518R2	Blackwater River Bridge	**3-115'**	continuous steel plate deck girder
			1948	C.E. Maxwell and Son
*SALI03	K 999R	McDaniel Memorial Bridge	**7-475'**	**riveted cantilever through truss**
			1939	Massman Construction Company
SALI04	025000.9	Muddy Creek Bridge	1- 35'	steel plate deck girder
			1910	county work force
SALI05	027001.6	Muddy Creek Bridge	1- 35'	steel plate deck girder
			1907	county work force
SALI06	040001.8	Salt Fork Bridge	1- 80'	**riveted Pratt through truss**
			1932	Kansas City Bridge Co.
*SALI07	041000.0	Muddy Creek Bridge	1- 36'	pinned Pratt pony truss
			c1915	
*SALI08	065000.7	Salt Branch Bridge	1- 25'	pinned Pratt bedstead
			1895	Massillon Bridge Company
*SALI09	084000.4	Pass Branch Bridge	1- 60'	pinned Pratt half-hip pony truss
			1913	county work force (prob.)
SALI10	129001.5	Finney Creek Bridge	1- 40'	pinned Pratt pony truss
			c1900	
SALI11	142001.0	Finney Creek Bridge	1- 30'	steel plate deck girder
			1911	Illinois Steel Bridge Co. (prob.)
SALI12	146000.3	Finney Creek Bridge	1- 45'	pinned Pratt bedstead
			1901	A.M. Blodgett, Kansas City
SALI13	150000.5	Dicks Branch Bridge	1- 30'	steel plate deck girder
			1912	Kansas City Bridge Company
SALI14	151001.5	Dicks Branch Bridge	1- 30'	pinned Pratt bedstead
			1900	Stupp Brothers B&I Company
SALI15	152000.8	Dicks Branch Bridge	1- 80'	riveted Pratt pony truss
			1911	Kansas City Bridge Company
*SALI16	165002.3	Salt Fork Bridge	1-120'	**pinned Pratt through truss**
			1899	Central Bridge Co., St. Louis
SALI17	172000.5	Rock Creek Bridge	1- 27'	steel stringer
			1919	Kansas City Bridge Company
SALI18	178001.0	Rock Creek Bridge		(replaced)
*SALI19	189000.3	West Cow Creek Bridge	1- 45'	pinned Pratt bedstead
			1903	Kansas City Bridge Company
*SALI20	217001.1	Edmonson Creek Bridge	1- 45'	pinned Pratt half-hip pony truss
			1908	Illinois Steel Bridge Company
*SALI21	218000.5	Salt Branch Bridge		(replaced)
*SALI22	245000.4	Rock Creek Bridge	1- 30'	**pin/rivet Kingpost pony truss**
			1901	Stupp Brothers B&I Company
*SALI23	263000.8	Bear Creek Bridge	1- 68'	pinned Pratt half-hip pony truss
			1907	county work force
SALI24	281001.0	Fish Creek Bridge		(replaced)

SALINE COUNTY

INCLUDED (cont.):

SALI25	299000.7	Fish Creek Bridge	1- 35'	**steel plate through girder**
			1910	county work force
*SALI26	309001.0	Camp Creek Bridge		(replaced)
SALI27	311001.0	Camp Creek Bridge	1- 60'	pinned Pratt pony truss
			c**1910**	
*SALI28	322000.3	Pierre Fleche Creek Bridge		(replaced)
*SALI29	325002.1	Pierre Fleche Creek Bridge	1- 70'	pinned Pratt pony truss
			1891	Massillon Bridge Company
*SALI30	327000.4	Pierre Fleche Creek Bridge	1- 60'	pinned Pratt half-hip pony truss
			1915	county work force
*SALI31	351000.5	Steel's Fish Trap Bridge	1-100'	**bowstring through arch-truss**
			1875	W.L. Smiley
			1882	Missouri Valley B&I Company
SALI32	353001.0	Napton Bridge	1-100'	riveted Pratt pony truss
			1912	Kansas City Bridge Company
*SALI33	366000.4	Scott & Cooney Ford Bridge	1-120'	**pinned Pratt through truss**
			1910	Illinois Steel Bridge Company
*SALI34	368002.5	Boat Yard Ford Bridge	1-150'	**pinned Pratt through truss**
			1888	Kansas City B&I Company
*SALI35	369001.0	Nelson Bridge	1-150'	**riveted Pratt through truss**
			1929	Kansas City Bridge Company
*SALI36	388000.2	Blackwater River Bridge		(replaced)
*SALI37	390000.8	Finney Creek Bridge	1- 80'	**pinned Pratt through truss**
			1895	Wrought Iron Bridge Company
SALI38	391001.0	Buck Branch Bridge	1- 30'	pinned Pratt bedstead
			c**1900**	
*SALI39	408001.0	Blackwater River Bridge	1-100'	**pinned Pratt through truss**
			c**1900**	
*SALI40	408001.5	Blackwater River Bridge	1- 80'	**riveted Pratt through truss**
			c1930	
SALI41	439001.5	Sweet Springs Bridge	1-140'	**riveted Pratt through truss**
			1929	Kansas City Bridge Company
*SALI42	476001.9	Blackwater River Bridge	**2**-120'	**riveted Pratt through truss**
			1924	C.T. Fogle
SALI43	477000.1	Eastwood Road Overpass	**3**- 35'	concrete through girder
			1923	Missouri Pacific Railroad
SALI44	477000.2	Salt Fork Bridge	**3**- 90'	**concrete filled spandrel arch**
			1923	M.E. Gillioz

EXCLUDED:

Pratt pony truss
034000.3 064000.4 072000.7 184000.8 192000.2

Warren pony truss
103001.6 276001.0 277001.5 278001.5

SALINE COUNTY

EXCLUDED (cont.):

Steel stringer

F 105R3	G 517R2	S 803	T 68	T 69	T 70	T 576
T 708	T 975	X 426	050000.4	060001.4	064R00.6	076001.5
078001.5	078003.0	079000.1	084001.8	087001.5	095003.0	103R01.4
105002.0	182000.5	199001.3	249000.1	253001.0	257R00.6	264R00.5
268001.0	276000.2	294000.1	297R01.8	328001.6	407000.7	419000.8
420000.5	429R00.6	432000.5	436000.4	442R00.9	448000.1	451001.2
463001.0	474001.8					

Steel girder

187001.2	208001.2	248000.8	253001.5	294000.1	343001.0	349001.3
419500.1						

Concrete girder

G 524R	G 525R	H 920R	J 41	U267500.1	166000.8

Concrete slab

G 131R1	J 120	087001.0	153000.8	163000.9	475000.8	476001.5

Concrete box culvert

G 560	G 747	J 42	L 315	S 67R	X 645	203R01.5

Timber stringer

368002.9

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	3	34	0	0	36
Excluded	22	59	1	0	82
	25	93	1	0	119 structures

Glasgow Bridge

SALI01

GENERAL DATA

structure no.: G 69R
county: Saline/Howard

city/town: Glasgow
feature inters.: Missouri River
cadastral grid: S2/3, T51N, R18W
highway route: State Highway 240
highway distr.: 2
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, 10-, 12- and 14-panel, rigid-connected Pennsylvania through trusses; rigid-connected Pratt deck truss approach spans
substructure: concrete abutments; concrete bullnose and spill-through piers

span number: 5
span length: 343.0'
total length: 2244.0'
roadway width: 20.3'

condition: good
alterations: deck replaced, 1986
floor/decking : concrete over metal plate deck
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates and lacing; vertical: 4 angles with batten plates and lacing; diagonal: 2 channels with batten plates and lacing; lateral bracing: 1 angle - lower, 4 angles with lacing - upper; strut: 4 angles with lattice and lacing; portal strut; 4 angles with lacing (W-frame); floor beam: I-beam; bridge plate: **Glasgow Bridge / Financed By / Howard County, Saline County / Federal Aid / Appropriated By / Missouri State Highway Commission / Designed By F.W. Adgate / Consulting Engineer / Chicago, Ill. / Supervised By / Missouri State Highway Department / B.H. Piepmeier, Chief Engineer / L.J. Sverdrup, Bridge Engineer / Contractors / Substructure / Union Bridge & Const. Co. / Kansas City, Mo / Superstructure / Mt. Vernon Bridge Co. / Mt. Vernon, Ohio / Completed 1925**

HISTORICAL DATA

erection date: 1922-25
erection cost: $607,970.72
designer: F.W. Adgate, Chicago IL
fabricator : Carnegie Steel Company, Pittsburgh PA
contractor: Mt. Vernon Bridge Company, Mt. Vernon OH (superstructure); Union Bridge and Construction Company, Kansas City MO (substructure)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. G 69R; Missouri Highway and Transportation Department, Primary System Bridge Record, Book 2 (see entries for Saline County), on file at MHTD, Jefferson City, MO.; Saline County Court, Book 1: page 146 (2 June 1919) - located at Saline County Courthouse, Marshall MO; H.J. Kesner, "Some Recent Missouri Bridges," **The Nebraska Blue Print**, May 1929, pages 9-10; "Photo Flashback," **The Slater News-Ruslter**, 2 July 1985; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 70

evaluation: NRHP eligible (excellent, large-scale highway truss)

inventoried by: Clayton B. Fraser 24 January 1992

Blackwater River Bridge

SALI02

GENERAL DATA

structure no.: G 518R2
county: Saline
city/town: 10.8 miles south of Marshall
feature inters.: Blackwater River
cadastral grid: S4, T48N, R21W
highway route: U.S. Highway 40
highway distr.: 2
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: continuous steel plate deck girder
substructure: concrete abutments and wingwalls

span number: 1; 2
span length: 115.0'; 92.0'
total length: 723.0'
roadway width: 38.0'
condition: good
alterations: superstructure and substructure widened, deck and guardrails replaced, 1976
floor/decking : concrete deck
other features: concrete guardrails with steel pipe

HISTORICAL DATA

erection date: 1948
erection cost: $247,065.05
designer: Missouri State Highway Department
fabricator : unknown
contractor: C.E. Maxwell and Son

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. G 518R2; files on Primary System Bridges - located at the Missouri Highway and Transportation Department, Jef ferson City MO.

sign. rating: 36
evaluation: NRHP non-eligible (long-span example of beam bridge construction, substantially altered)

inventoried by: Clayton B. Fraser 24 January 1992

McDaniel Memorial Bridge

SALI03

GENERAL DATA

structure no.: K 999R
county: Saline / Carroll
city/town: Miami
feature inters.: Missouri River
cadastral grid: S11, T52N, R21W
highway route: State Highway 41
highway distr.: 2
current owner: Missouri Highway and Transportation Department

STRUCTURAL DATA

superstructure: steel, rigid-connected cantilever through truss spans; five steel stringer approach spans; three deck truss approach spans
substructure: concrete abutments and piers

span number: 7
span length: 475.0'
total length: 2072.0'
roadway width: 23.0'
condition: good
alterations: deck replaced, 1983
floor/decking: concrete deck over steel stringers
other features: upper chord, lower chord, and inclined end posts: 2 built-up channels with cover plate and double lacing; vertical: 2 channels with lacing, 4 angles with batten plates; diagonal: 2 channels with double lacing, 4 angles with batten plates; lateral bracing: 2 angles with lacing; strut: 4 angles with lacing and braces; floor beam: steel I-beam; guardrail: 2 channels; upper builder's plate text: **Federal Emergency Administration of Public Works; Franklin D. Roosevelt, President of the United States; Harold L. Ickes, Administrator of Public Works; McDaniel Memorial Bridge; 1939**; lower builder's plate text: **McDaniel Memorial Bridge; built by Saline County Missouri with the cooperation of Missouri State Highway Commission; county court of Saline County, Robert L. Hyatt - presiding judge, T. M. Smith - judge, O. Boyd Davis - judge; Sverdrup and Parcel, consulting engineers; Massman Construction Co., general contractors; 1939**

HISTORICAL DATA

erection date: 1939
erection cost: $771,517.00
designer: Sverdrup and Parcel, Consulting Engineers, St. Louis MO
fabricator: Inland Steel Company, East Chicago IN
contractor: Massman Construction Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal (Structure Number K-999R); Carroll County Court Record, Book 5: pages 527-539, 595 (5 July 1938 - 20 October 1938); Book 6: pages 1-16 (December 1938) - located at Carroll County Courthouse, Carrollton MO; **History of Carroll County** (Carrollton MO: Carroll County Historical Society, 1968), page 29; **Bridge Over Missouri River at Miami, Missouri**, P.W.A. Docket Missouri 1075-F, Contract No. 2, Saline County, Missouri (St. Louis MO: Sverdrup and Parcel, Consulting Engineers, no date); **Bridges, Missouri River: Data, History and Laws**, U.S. Engineer Office, Kansas City, Missouri, 1933; field inspection by Clayton Fraser, 9 October 1991.

sign. rating: 72

evaluation: NRHP eligible (outstanding, large-scale example of steel truss construction, located on important great river crossing)

inventoried by: Clayton B. Fraser 14 October 1992

Muddy Creek Bridge

SALI04

GENERAL DATA

structure no.: 025000.9
county: Saline

city/town: 3.8 miles south of Miami
feature inters.: Muddy Creek
cadastral grid: S20/29, T52N, R21W
highway route: County Road 25
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel plate deck girder
substructure: concrete abutments and wingwalls

span number: 1
span length: 35.0'
total length: 36.0'
roadway width: 12.9'

condition: fair
alterations: none
floor/decking : timber deck over steel stringers
other features: steel angle guardrails

HISTORICAL DATA

erection date: 1910
erection cost: unknown
designer: Saline County Engineer
fabricator : Kansas City Bridge Company, Kansas City MO (probable)
contractor: county work force

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 025000.9; Saline County Court Record, Book X: page 233 (6 July 1910) - located at Saline County Courthouse, Marshall MO.

sign. rating: 47
evaluation: NRHP possibly eligible (well-preserved example of little-used beam bridge type)

inventoried by: Clayton B. Fraser 24 January 1992

Muddy Creek Bridge

SALI05

GENERAL DATA

structure no.: 027001.6
county: Saline

city/town: 7.4 miles northwest of Marshall
feature inters.: branch of Muddy Creek
cadastral grid: S7/12, T51N, R21/22W
highway route: County Road 27
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel plate deck girder
substructure: concrete abutments and wingwalls

span number: 1
span length: 35.0'
total length: 36.0'
roadway width: 13.8'

condition: fair
alterations: none
floor/decking : timber deck over steel stringers
other features: steel angle guardrails

HISTORICAL DATA

erection date: 1907
erection cost: unknown
designer: Saline County Engineer
fabricator : Kansas City Bridge Company, Kansas City MO (probable)
contractor: county work force (probable)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 027001.6; Saline County Court Record, Book W: page 298 (4 September 1907) -located at Saline County Courthouse, Marshall MO.

sign. rating: 47
evaluation: NRHP possibly eligible (well-preserved example of little-used beam bridge type)

inventoried by: Clayton B. Fraser 24 January 1992

Salt Fork Bridge

SALI06

GENERAL DATA

structure no.: 040001.8
county: Saline

city/town: 6.5 miles northwest of Marshall
feature inters.: Salt Fork
cadastral grid: S23, T51N, R22W
highway route: County Road 40
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, rigid-connected Pratt through truss, with steel stringer approach spans
substructure: concrete abutments, wingwalls and piers

span number: 1
span length: 80.0'
total length: 114.0'
roadway width: 16.5'

condition: fair
alterations: unknown
floor/decking : concrete deck over steel stringers
other features: steel guardrails

HISTORICAL DATA

erection date: 1932
erection cost: unknown
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 040001.8; Saline County Court contract with Kansas City Bridge Company, "Specifications for Steel Bridge" (December 1931) - located at the Saline County Courthouse, Marshall MO.

sign. rating: 35
evaluation: NRHP non-eligible (typically configured, relatively late example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Muddy Creek Bridge

SALI07

GENERAL DATA

structure no.: 041000.0
county: Saline

city/town: 6.6 miles northwest of Marshall
feature inters.: Muddy Creek
cadastral grid: S23/24, T51N, R22W
highway route: County Road 41
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt pony truss, with steel stringer approach span
substructure: concrete abutments, wingwalls and piers

span number: 1
span length: 36.0'
total length: 59.0'
roadway width: 14.5'

condition: poor
alterations: truss moved to site; deck removed and bridge closed
floor/decking : removed
other features: steel angle guardrails

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 No. 041000.0; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 20
evaluation: NRHP non-eligible (poorly preserved example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Salt Branch Bridge

SALI08

GENERAL DATA

structure no.: 065000.7
county: Saline

city/town: 7.2 miles west of Marshall
feature inters.: Salt Branch
cadastral grid: S9/16, T50N, R22W
highway route: County Road 65
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 2-panel, pin-connected Pratt truss-leg bedstead, with steel stringer approach spans
substructure: timber abutments with steel truss-leg piers

span number: 1
span length: 50.0'
total length: 50.0'
roadway width: 12.5'

condition: fair
alterations: none
floor/decking : timber deck over steel stringers
other features: upper chord and upright end post: 2 channels with cover and batten plates; lower chord: 2 channels with batten plates; vertical: 2 channels with lacing; diagonal: 2 square eyebars; lateral bracing: 2 round rods with threaded ends; floor beam: I-beam, U-bolted to vertical; guardrail: 2 angles; builder's plate: **THE MASSILLON BRIDGE COMPANY / OHIO / 1895**

HISTORICAL DATA

erection date: 1895
erection cost: $427.00
designer: Massillon Bridge Company, Massillon OH
fabricator : Massillon Bridge Company, Massillon OH
contractor: Massillon Bridge Company, Massillon OH

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 065000.7; Saline County Court Record, Book T: page 408 (3 March 1896) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 47
evaluation: NRHP possibly eligible (well-preserved, small-scale example of a relatively common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Pass Branch Bridge

SALI09

GENERAL DATA

structure no.: 084000.4
county: Saline

city/town: 5.7 miles northeast of Blackburn
feature inters.: Pass Branch
cadastral grid: S3, T50N, R23W
highway route: County Road 84
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt half-hip pony truss
substructure: timber pile bent abutments

span number: 1
span length: 60.0'
total length: 60.0'
roadway width: 12.8'

condition: fair
alterations: none
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 or 2 angles with batten plates; vertical: 4 angles with lacing; diagonal: 2 punched rectangular eyebars; counter: 1 round eyebar with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to the vertical; guardrail: 2 angles

HISTORICAL DATA

erection date: 1913
erection cost: $1850.00 (engineer's estimate)
designer: Kansas City Bridge Company, Kansas City MO (probable)
fabricator : Kansas City Bridge Company, Kansas City MO (probable); Illinois Steel Company, Chicago IL
contractor: county work force (probable)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 084000.4; Saline County Court Record, Book T: page 447 (7 May 1899) - located at the Saline County Courthouse, Marshall Mo; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 44
evaluation: NRHP non-eligible (well-preserved, structurally unremarkable example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Finney Creek Bridge

SALI10

GENERAL DATA

structure no.: 129001.5
county: Saline

city/town: 5.9 miles southwest of Marshall
feature inters.: West Fork of Finney Creek
cadastral grid: S1, T49N, R21/22W
highway route: County Road 129
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt pony truss
substructure: stone masonry abutments

span number: 1
span length: 40.0'
total length: 40.0'
roadway width: 12.3'

condition: fair
alterations: unknown
floor/decking : timber deck
other features: steel angle guardrails

HISTORICAL DATA

erection date: c1900
erection cost: unknown
designer: unknown
fabricator : unknown
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 129001.5.

sign. rating: 26
evaluation: NRHP non-eligible (typically configured, inadequately documented example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Finney Creek Bridge

SALI11

GENERAL DATA

structure no.: 142001.0
county: Saline

city/town: 4.6 miles south of Marshall
feature inters.: North Fork of Finney Creek
cadastral grid: S4, T49N, R21W
highway route: County Road 142
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel plate deck girder
substructure: concrete abutments and wingwalls

span number: 1
span length: 30.0'
total length: 31.0'
roadway width: 14.1'

condition: fair
alterations: unknown
floor/decking : timber deck
other features: steel angle guardrails

HISTORICAL DATA

erection date: 1911
erection cost: unknown
designer: Saline County Engineer
fabricator : Illinois Steel Bridge Company, Jacksonville IL (probable)
contractor: Illinois Steel Bridge Company, Jacksonville IL (probable)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 142001.0; Index to Saline County Proceedings X: page 419 (4 May 1911); Index to Saline County Proceedings Y: page 603 (20 April 1915) - located at Saline County Courthouse, Marshall MO.

sign. rating: 47
evaluation: NRHP possibly eligible (relatively early example of little-used beam bridge type)

inventoried by: Clayton B. Fraser 24 January 1992

Finney Creek Bridge

SALI12

GENERAL DATA

structure no.:	146000.3	city/town:	2.6 miles south of Marshall
county:	Saline	feature inters.:	North Fork of Finney Creek
		cadastral grid:	S28, T50N, R21W
		highway route:	County Road 146
		highway distr.:	2
		current owner:	Saline County

STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt truss-leg bedstead
substructure: steel truss-leg piers with timber back- and wingwalls

span number:	1	condition:	fair
span length:	45.0'	alterations:	unknown
total length:	45.0'	floor/decking :	timber deck
roadway width:	12.0'	other features:	steel angle guardrails

HISTORICAL DATA

erection date: 1901
erection cost: unknown
designer: A.M. Blodgett, Kansas City MO
fabricator : unknown
contractor: A.M. Blodgett, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 146000.3; Index to Saline County Proceedings U: pages 158 and 169 (7 January 1901), pages 204, 244 and 302 (6 May 1901) - located at Saline County Courthouse, Marshall MO.

sign. rating: 41
evaluation: NRHP non-eligible (typically configured example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Dicks Branch Bridge

SALI13

GENERAL DATA

structure no.: 150000.5
county: Saline

city/town: 4.6 miles south of Marshall
feature inters.: Dicks Branch
cadastral grid: S1/2, T49N, R21W
highway route: County Road 150
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel plate deck girder
substructure: concrete abutments and wingwalls

span number: 1
span length: 30.0'
total length: 31.0'
roadway width: 12.2'

condition: fair
alterations: none
floor/decking : timber deck
other features: steel angle guardrails

HISTORICAL DATA

erection date: 1912
erection cost: $675.00 (engineer's estimate)
designer: Saline County Engineer
fabricator : Kansas City Bridge Company, Kansas City MO
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 150000.5; Saline County Court Record, Book Y: page 10 (4 April 1912); Index to Saline County Proceedings U: page 568 (8 April 1903) - located at Saline County Courthouse, Marshall MO.

sign. rating: 47
evaluation: NRHP possibly eligible (relatively early example of little-used beam bridge type)

inventoried by: Clayton B. Fraser 24 January 1992

Dicks Branch Bridge

SALI14

GENERAL DATA

structure no.: 151001.5
county: Saline

city/town: 4.7 miles south of Marshall
feature inters.: Dicks Branch
cadastral grid: S1, T49N, R21W
highway route: County Road 151
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 2-panel, pin-connected Pratt truss-leg bedstead, with steel stringer approach span
substructure: steel truss-leg piers, with timber pile abutments and backwalls

span number: 1
span length: 30.0'
total length: 47.0'
roadway width: 10.9'

condition: fair
alterations: unknown
floor/decking : timber deck
other features: steel angle guardrails

HISTORICAL DATA

erection date: 1900
erection cost: unknown
designer: Stupp Brothers Bridge and Iron Company, 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 No. 151001.5; Saline County Court Record, Book U: page 63 (7 August 1900), page 82 (4 September 1900); Index to Saline County Proceedings U: page 63 (7 August 1900) - located at Saline County Courthouse, Marshall MO.

sign. rating: 41
evaluation: NRHP non-eligible (typically configured example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Dicks Branch Bridge

SALI15

GENERAL DATA

structure no.: 152000.8
county: Saline

city/town: 4.8 miles southeast of Marshall
feature inters.: Dicks Branch
cadastral grid: S31, T50N, R20W
highway route: County Road 152
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 5-panel, rigid-connected Pratt pony truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 80.0'
total length: 82.0'
roadway width: 13.3'

condition: fair
alterations: none
floor/decking : concrete deck over steel stringers
other features: steel angle guardrails

HISTORICAL DATA

erection date: 1911
erection cost: $1995.00 (superstructure cost)
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 152000.8; Saline County Court Record, Book T: page 456 (7 June 1899); Saline County Court Record, Book X: page 419 (4 May 1911), page 422 (5 June 1911), page 479 (5 September 1911); Index to Saline County Proceedings X: pages 419-422 (4 May 1911) - located at Saline County Courthouse, Marshall MO.

sign. rating: 44
evaluation: NRHP non-eligible (typical example of mainstay structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Salt Fork Bridge

SALI16

GENERAL DATA

structure no.: 165002.3
county: Saline

city/town: 5.3 miles southeast of Marshall
feature inters.: Salt Fork
cadastral grid: S32/33, T50N, R20W
highway route: County Road 165
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 8-panel, pin-connected Pratt through truss; 2 steel stringer approach spans
substructure: timber abutments and timber pile bent piers; concrete-filled steel cylinder piers

span number: 1
span length: 120.0'
total length: 165.0'
roadway width: 14.5'

condition: fair
alterations: none
floor/decking : timber deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with double lacing (2 looped square eyerods at the hip); diagonal: 2 looped rectangular eyebars; counter: 1 looped round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; floor beam: I-beam, U-bolted to vertical; guardrail: 2 channels

HISTORICAL DATA

erection date: 1899
erection cost: $7600.00 (two-bridge contract)
designer: unknown
fabricator : Carnegie Steel Company, Pittsburgh PA
contractor: Central Bridge Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 165002.3; Saline County Court Record, Book T: page 470 (3 July 1899), page 506 (6 September 1899) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 51
evaluation: NRHP possibly eligible (typically configured, medium-span example of mainstay structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Rock Creek Bridge

SALI17

GENERAL DATA

structure no.: 172000.5
county: Saline

city/town: 4.5 miles east of Marshall
feature inters.: branch of Rock Creek
cadastral grid: S4/5, T50N, R20W
highway route: County Road 172
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel stringer
substructure: concrete abutments and wingwalls

span number: 1
span length: 27.0'
total length: 28.0'
roadway width: 14.0'

condition: fair
alterations: unknown
floor/decking : timber deck
other features: steel guardrails

HISTORICAL DATA

erection date: 1919
erection cost: $175.00 (engineer's estimate)
designer: Saline County Engineer
fabricator : Kansas City Bridge Company, Kansas City MO
contractor: county work force

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 172000.5; Saline County Court Record, Book 1: page 147 (2 June 1919); Index to Saline County Proceedings U: pages 557 and 563 (10 March 1903) - located at Saline County Courthouse, Marshall MO.

sign. rating: 30
evaluation: NRHP non-eligible (structurally undistinguished, small-scale example of exceedingly common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

West Cow Creek Bridge

SALI19

GENERAL DATA

structure no.: 189000.3
county: Saline

city/town: 5.9 miles north of Marshall
feature inters.: West Cow Creek
cadastral grid: S14, T51N, R21W
highway route: County Road 189
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt bedstead
substructure: cut-off truss legs set in concrete abutments

span number: 1
span length: 45.0'
total length: 53.0'
roadway width: 10.5'

condition: poor
alterations: collision damage
floor/decking : timber deck over steel stringers
other features: upper chord: 2 channels with cover and batten plates; upright end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars, or 2 angles with batten plates; vertical: 4 angles with lacing; diagonal: 1 or 2 looped square eyebars; counter: 1 looped square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 1 angle; gusset plate at the hip; builder's plate: **Kansas City Bridge Co Kansas City Mo**

HISTORICAL DATA

erection date: 1903
erection cost: unknown
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO; Cambria Steel Company, Pittsburgh PA
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 189000.3; Index to Saline County Proceedings V: page 4 (3 August 1903) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 41
evaluation: NRHP non-eligible (poorly preserved example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Edmonson Creek Bridge

SALI20

GENERAL DATA

structure no.: 217001.1
county: Saline

city/town: 5.1 miles east of Miami
feature inters.: Edmonson Creek
cadastral grid: S6/7, T52N, R20W
highway route: County Road 217
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 3-panel, pin-connected Pratt half-hip pony truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 45.0'
total length: 47.0'
roadway width: 13.9'

condition: fair
alterations: none
floor/decking : concrete deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 punched rectangular eyebars; vertical: 4 angles with lacing; diagonal: 2 punched rectangular eyebars; counter: 1 round eyerod with turnbuckle; lateral bracing: round rod with turnbuckle; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

HISTORICAL DATA

erection date: 1908
erection cost: unknown
designer: Illinois Steel Bridge Company, Jacksonville IL (probable)
fabricator : Illinois Steel Bridge Company, Jacksonville IL (probable); Cambria Steel Company, Pittsburgh PA
contractor: county work force

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 217001.1; Saline County Court Record, Book W: page 461 (7 July 1908); Index to Saline County Proceedings W: page 461 (7 July 1908) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 39
evaluation: NRHP non-eligible (well-preserved, structurally unremarkable example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Rock Creek Bridge

SALI22

GENERAL DATA

structure no.: 245000.4
county: Saline

city/town: 4.7 miles north of Gilliam
feature inters.: Rock Creek
cadastral grid: S8, T52N, R19W
highway route: County Road 245
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 2-panel, pin-connected kingpost pony truss
substructure: concrete abutments and wingwalls

span number: 1
span length: 30.0'
total length: 31.0'
roadway width: 10.7'

condition: fair
alterations: none
floor/decking : timber deck over steel stringers
other features: inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with batten plates and lacing; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical

HISTORICAL DATA

erection date: 1900-01
erection cost: unknown
designer: Stupp Brothers Bridge and Iron Company, St. Louis MO
fabricator : Stupp Brothers Bridge and Iron Company, St. Louis MO; Carnegie Steel Company, Pittsburgh PA
contractor: Stupp Brothers Bridge and Iron Company, St. Louis MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 245000.4; Saline County Court Record, Book U: page 62 (7 August 1900), page 82 (9 April 1900); Index to Saline County Proceedings Book U: page 62 (7 August 1900) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 57
evaluation: NRHP possibly eligible (well-preserved example of now-rare structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Bear Creek Bridge

SALI23

GENERAL DATA

structure no.: 263000.8
county: Saline

city/town: 2.9 miles north of Gilliam
feature inters.: Bear Creek
cadastral grid: S21, T52N, R19W
highway route: County Road 263
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

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

span number: 1
span length: 68.0'
total length: 68.0'
roadway width: 10.0'

condition: fair
alterations: none
floor/decking : timber deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars, or 2 angles with batten plates; vertical: 4 angles with lacing; diagonal: 2 looped rectangular eyebars; counter: looped round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 angles

HISTORICAL DATA

erection date: 1907
erection cost: unknown
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO; Illinois Steel Company, Chicago IL
contractor: county work force

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 263000.8; Saline County Court Record, Book Q: page 103 (5 August 1889), page 273 (8 July 1907) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 42
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Fish Creek Bridge

SALI25

GENERAL DATA

structure no.:	299000.7	city/town:	2.7 miles south of Gilliam
county:	Saline	feature inters.:	Fish Creek
		cadastral grid:	S17, T51N, R19W
		highway route:	County Road 299
		highway distr.:	2
		current owner:	Saline County

STRUCTURAL DATA

superstructure: steel plate through girder
substructure: concrete abutments and wingwalls

span number:	1	condition:	fair
span length:	35.0'	alterations:	none
total length:	36.0'	floor/decking :	timber deck over steel stringers
roadway width:	13.0'	other features:	unknown

HISTORICAL DATA

erection date: 1910
erection cost: unknown
designer: Saline County Engineer
fabricator : Kansas City Bridge Company, Kansas City MO (probable)
contractor: county work force

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 299000.7; Saline County Court Record, Book V: page 157 (10 February 1910) - located Saline County Courthouse, Marshall MO.

sign. rating: 55
evaluation: NRHP possibly eligible (well-preserved, early example of uncommon structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Camp Creek Bridge

SALI27

GENERAL DATA

structure no.: 311001.0
county: Saline

city/town: 7.9 miles east of Marshall
feature inters.: Camp Creek
cadastral grid: S12/13, T50N, R20W
highway route: County Road 311
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt pony truss
substructure: unknown

span number: 1
span length: 60.0'
total length: 60.0'
roadway width: 11.8'

condition: fair
alterations: unknown
floor/decking : unknown
other features: unknown

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. 311001.0.

sign. rating: 28
evaluation: NRHP non-eligible (typically configured, inadequately documented example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Pierre Fleche Creek Bridge

SALI29

GENERAL DATA

structure no.: 325002.1
county: Saline

city/town: 8.0 miles south of Gilliam
feature inters.: Pierre Fleche Creek
cadastral grid: S11, T50N, R19W
highway route: County Road 325
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: wrought iron, 4-panel, pin-connected Pratt pony truss
substructure: stone masonry abutments

span number: 1
span length: 70.0'
total length: 70.0'
roadway width: 12.3'

condition: fair
alterations: none
floor/decking : timber deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with lacing, with 2-angle outrider; diagonal: 2 square eyebars; counter: 1 round eyerod with unslotted turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, U-bolted to vertical

HISTORICAL DATA

erection date: 1890-91
erection cost: $1600.00
designer: Massillon Bridge Company, Massillon OH
fabricator : Massillon Bridge Company, Massillon OH
contractor: Massillon Bridge Company, Massillon OH

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No 325002.1; Saline County Court Record, Book Q: page 359 (8 November 1890), page 439 (10 April 1891) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 51
evaluation: NRHP possibly eligible (well-preserved, early example of mainstay structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Pierre Fleche Creek Bridge

SALI30

GENERAL DATA

structure no.: 327000.4
county: Saline

city/town: 8.5 miles south of Gilliam
feature inters.: Pierre Fleche Creek
cadastral grid: S15, T50N, R19W
highway route: County Road 327
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

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

span number: 1
span length: 60.0'
total length: 62.0'
roadway width: 14.0'

condition: fair
alterations: unknown
floor/decking : timber deck over steel stringers
other features: steel angle guardrails

HISTORICAL DATA

erection date: 1915
erection cost: unknown
designer: unknown
fabricator : unknown
contractor: county work force

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 327000.4; Saline County Court Record, Book W: page 289 (7 August 1907); Saline County Court Record Y: page 189 (9 January 1913); Saline County Court Record X: page 157 (10 February 1910); Saline County Court Record Z: page 40 (8 September 1915); Index to Saline County Proceedings Y: page 189 (9 January 1913) - located at Saline County Courthouse, Marshall MO.

sign. rating: 32
evaluation: NRHP determined non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Steel's Fish Trap Bridge

SALI31

GENERAL DATA

structure no.: 351000.5
county: Saline

city/town: 9.9 miles southeast of Marshall
feature inters.: Salt Fork
cadastral grid: S13, T49N, R20W
highway route: County Road 351
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: wrought iron, 10-panel, bolt-connected bowstring through arch-truss
substructure: stone masonry abutments and wingwalls

span number: 1
span length: 100.0'
total length: 100.0'
roadway width: 14.0'

condition: fair
alterations: none
floor/decking : corrugated steel plate deck
other features: upper chord: 2 channels with cover plate and double lacing; lower chord: 2 rectangular eyebars; vertical: star iron; diagonal: round rods with threaded ends; lateral bracing: round rod with threaded ends; strut: iron tube; floor beam: 2 channels with I-beams extended to star iron outriders; guardrail: 1 channel; chiseled into stone abutment: **H. Murphy**; chiseled into other stone abutment: **1875**

HISTORICAL DATA

erection date: 1875 / 1882
erection cost: $1507.50 (substructure); $880.00 (superstructure)
designer: Missouri Valley Bridge and Iron Company, Leavenworth KS
fabricator : Missouri Valley Bridge and Iron Company, Leavenworth KS
contractor: W.L. Smiley (substructure);
Missouri Valley Bridge and Iron Company, Leavenworth KS (superstructure)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 351000.5; Saline County Court Record, Book K: page 194 (5 February 1875), page 216 (2 March 1875), page 303 (9 August 1875), page 335 (2 November 1875), page 83 (10 February 1882), page 219 (10 October 1882) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 76
evaluation: NRHP eligible (well-preserved example of early all-metal vehicular structure)

inventoried by: Clayton B. Fraser 24 January 1992

Napton Bridge

SALI32

GENERAL DATA

structure no.:	353001.0	city/town:	7.5 miles southeast of Marshall
county:	Saline	feature inters.:	Salt Fork
		cadastral grid:	S3, T49N, R20W
		highway route:	County Road 353
		highway distr.:	2
		current owner:	Saline County

STRUCTURAL DATA

superstructure: steel, 7-panel, rigid-connected Pratt pony truss
substructure: concrete abutments and wingwalls

span number:	1	condition:	fair
span length:	100.0'	alterations:	unknown
total length:	102.0'	floor/decking :	unknown
roadway width:	14.5'	other features:	steel angle guardrails

HISTORICAL DATA

erection date: 1912
erection cost: unknown
designer: Kansas City Bridge Company, Kansas City MO
fabricator : Kansas City Bridge Company, Kansas City MO
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 353001.0; Saline County Court Record, Book Y: page 32 (8 May 1912), page 114 (4 September 1912); Saline County Court Record, Book X: page 479 (5 September 1911) - located Saline County Courthouse, Marshall MO.

sign. rating: 44
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Scott & Cooney Ford Bridge

SALI33

GENERAL DATA

structure no.: 366000.4
county: Saline

city/town: 10.2 miles southeast of Marshall
feature inters.: Blackwater River
cadastral grid: S22, T49N, R20W
highway route: County Road 366
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 7-panel, pin-connected Pratt through truss; 3 pin-connected Pratt pony approach spans
substructure: concrete abutments; concrete-filled steel cylinder piers

span number: 1
span length: 120.0'
total length: 374.0'
roadway width: 13.8'

condition: fair
alterations: minor floor system repairs
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 (2 looped square eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: 1 square eyebar with turnbuckle; lateral bracing: round rod with threaded ends; strut: 2 angles with continuous plate; floor beam: plate girder, U-bolted to vertical; guardrail: 2 channels; portal plate: **Built by the Illinois Steel Bridge Co., Jacksonville Illinois**

HISTORICAL DATA

erection date: 1910
erection cost: unknown
designer: Illinois Steel Bridge Company, Jacksonville IL
fabricator : Illinois Steel Bridge Company, Jacksonville IL
contractor: Illinois Steel Bridge Company, Jacksonville IL

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 366000.4; Saline County Court Record, Book P: page 193 (3 May 1886), page 427 (10 November 1887), page 429 (5 December 1887); Saline County Court Record, Book X: page 236 (7 July 1910), page 323 (10 November 1910) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 40
evaluation: NRHP determined non-eligible (typical example of common structural type, with average degree of physical integrity)

inventoried by: Clayton B. Fraser 24 January 1992

Boat Yard Ford Bridge

SALI34

GENERAL DATA

structure no.: 368002.5
county: Saline

city/town: 11.7 miles southeast of Marshall
feature inters.: unnamed stream
cadastral grid: S19, T49N, R19W
highway route: County Road 368
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: wrought iron, 9-panel, pin-connected Pratt through truss, with 3-panel, pin-connected Pratt pony truss approach span
substructure: stone masonry abutments; concrete-filled wrought iron cylinder piers

span number: 1
span length: 150.0'
total length: 200.0'
roadway width: 12.0'

condition: fair
alterations: deck removed and bridge closed
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 punched rectangular eyebars, or 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: I-beam; floor beam: riveted plate girder, U-bolted to vertical

HISTORICAL DATA

erection date: 1888
erection cost: $4800.00 (contract amount)
designer: Kansas City Bridge and Iron Company, Kansas City MO
fabricator : Kansas City Bridge and Iron Company, Kansas City MO; Carnegie Steel Company, Pittsburgh PA
contractor: Kansas City Bridge and Iron Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 368002.5; Saline County Court Record, Book P: page 486 (7 May 1888), page 531 (7 August 1888), page 598 (8 January 1889); Saline County Court Record, Book Q: page 177 (9 January 1890); Saline County History, Volume One (1983) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 56
evaluation: NRHP possibly eligible (relatively early, long-span example of mainstay structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Nelson Bridge

SALI35

GENERAL DATA

structure no.: 369001.0
county: Saline

city/town: 0.9 mile south of Nelson
feature inters.: Blackwater River
cadastral grid: S31, T49N, R19W
highway route: County Road 369
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 6-panel, rigid-connected Pratt through truss; rigid-connected Pratt pony and Warren pony truss approach spans
substructure: concrete-filled steel cylinder piers; concrete abutments

span number: 1
span length: 150.0'
total length: 243.0'
roadway width: 15.1'

condition: fair
alterations: none
floor/decking : concrete deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 4 angles; vertical: 4 angles with batten plates and gussets; diagonal: 4 angles with batten plates and gussets; lateral bracing: round rod with threaded ends; strut: 2 angles with knee braces; portal strut: A-frame; floor beam: I-beam, riveted to vertical; guardrail: 2 channels

HISTORICAL DATA

erection date: 1929
erection cost: $24,400.00
designer: unknown
fabricator : Kansas City Bridge Company, Kansas City MO; Inland Steel Company, East Chicago IN
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 369001.0; Saline County Court Record, Book 3: page 280 (21 January 1929), page 283 (28 January 1929); Kansas City Bridge Company, Kansas City, Missouri, proposal to build Nelson Bridge, dated 21 January 1929 - located at the Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 42
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Finney Creek Bridge

SALI37

GENERAL DATA

structure no.: 390000.8
county: Saline

city/town: 9.5 miles south of Marshall
feature inters.: Finney Creek
cadastral grid: S28, T49N, R21W
highway route: County Road 390
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 5-panel, pin-connected Pratt through truss, with steel stringer approach spans
substructure: stone masonry abutments; concrete-filled steel cylinder piers

span number: 1
span length: 80.0'
total length: 109.0'
roadway width: 14.0'

condition: fair
alterations: none
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 looped square eyebars, or 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: 2 round eyerods with turnbuckles; lateral bracing: round rod with turnbuckle; strut: 4 angles with lacing; floor beam: riveted plate girder, U-bolted to vertical; guardrail: 1 angle

HISTORICAL DATA

erection date: 1895
erection cost: $1477.00 (two-bridge contract)
designer: Wrought Iron Bridge Company, Canton OH
fabricator : Wrought Iron Bridge Company, Canton OH
contractor: Wrought Iron Bridge Company, Canton OH

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 390000.8; Saline County Court Record, Book S: page 87 (9 November 1894), page 186 (5 March 1895); Index to Saline County Proceedings V: page 143 (7 May 1904) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 46
evaluation: NRHP non-eligible (typically configured, structurally undistinguished example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Buck Branch Bridge

SALI38

GENERAL DATA

structure no.: 391001.0
county: Saline

city/town: 9.5 miles south of Marshall
feature inters.: Buck Branch
cadastral grid: S32, T49N, R21W
highway route: County Road 391
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 2-panel, pin-connected Pratt bedstead
substructure: concrete abutments and wingwalls

span number: 1
span length: 30.0'
total length: 44.0'
roadway width: 10.8'

condition: fair
alterations: unknown
floor/decking : timber deck over steel stringers
other features: unknown

HISTORICAL DATA

erection date: c1900
erection cost: unknown
designer: unknown
fabricator : unknown
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 391001.0.

sign. rating: 21
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Blackwater River Bridge

SALI39

GENERAL DATA

structure no.: 408001.0
county: Saline

city/town: 8.1 miles east of Sweet Springs
feature inters.: Blackwater River
cadastral grid: S7/12, T48N, R21/22W
highway route: County Road 408
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 6-panel, pin-connected Pratt through truss; rigid-connected Pratt pony truss approach span
substructure: stone masonry abutments; stone piers with concrete caps

span number: 1
span length: 100.0'
total length: 149.0'
roadway width: 12.1'

condition: fair
alterations: pony truss probably added
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 (2 punched rectangular eyebars at the hip); diagonal: 2 punched rectangular eyebars; counter: 1 round eyerod with unslotted turnbuckle; lateral bracing: round eyerod - top, round rod with threaded ends - bottom; strut: I-beam; floor beam: I-beam, U-bolted to vertical; guardrail: 2 channels

HISTORICAL DATA

erection date: c1900
erection cost: unknown
designer: unknown
fabricator : unknown
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 408001.0; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 26
evaluation: NRHP non-eligible (typically configured, inadequately documented example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Blackwater River Bridge

SALI40

GENERAL DATA

structure no.: 408001.5
county: Saline

city/town: 8.1 miles east of Sweet Springs
feature inters.: Blackwater River
cadastral grid: S21/22, T48N, R21/22W
highway route: County Road 408
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 5-panel, rigid-connected Pratt through truss; steel stringer approach span at each end
substructure: concrete abutments; concrete-filled steel cylinder piers

span number: 1
span length: 80.0'
total length: 129.0'
roadway width: 12.3'

condition: fair
alterations: collision damage to portal strut
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 angles with batten plates; vertical: 4 angles with batten plates; diagonal: 2 angles with batten plates; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: 2 channels

HISTORICAL DATA

erection date: c1930
erection cost: unknown
designer: unknown
fabricator : Inland Steel Company, East Chicago IN
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 408001.5; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 23
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Sweet Springs Bridge

SALI41

GENERAL DATA

structure no.: 439001.5
county: Saline

city/town: 2.0 miles southeast of Sweet Springs
feature inters.: Blackwater River
cadastral grid: S13, T48N, R23W
highway route: County Road 439
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 8-panel, rigid-connected Pratt pony truss; rigid-connected Warren pony truss approach span
substructure: concrete abutments and wingwalls; concrete-filled steel cylinder piers

span number: 1
span length: 140.0'
total length: 241.0'
roadway width: 13.0'

condition: fair
alterations: unknown
floor/decking : timber deck over steel stringers
other features: steel angle guardrails

HISTORICAL DATA

erection date: 1929
erection cost: $19,752.00
designer: unknown
fabricator : Kansas City Bridge Company, Kansas City MO
contractor: Kansas City Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 439001.5; Saline County Court Record, Book Q: page 219 (3 March 1890), page 226 (7 April 1890), page 333 (6 October 1890); Index to Saline County Proceedings U: pages 401, 419 (7 May 1902); Index to Saline County Proceedings V: page 133 (5 April 1904); Kansas City Bridge Company, proposal to build Sweet Springs Bridge, dated 21 January 1929 - located at Saline County Courthouse, Marshall MO.

sign. rating: 38
evaluation: NRHP non-eligible (typical example of common structural type)

inventoried by: Clayton B. Fraser 24 January 1992

Blackwater River Bridge

SALI42

GENERAL DATA

structure no.: 476001.9
county: Saline

city/town: 9.0 miles south of Marshall
feature inters.: Blackwater River
cadastral grid: S34, T49N, R21W
highway route: County Road 476
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: steel, 6-panel, rigid-connected Pratt through truss; 1 steel stringer approach span at the south end; 6 steel stringer approach spans at the north end

substructure: concrete abutments, wingwalls and piers

span number: 2
span length: 120.0'
total length: 376.0'
way width: 20.1'

condition: fair
alterations: none
floor/decking : asphalt-covered concrete deck over steel road-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: 2 angles; strut: 4 latticed angles; floor beam: I-beam, riveted to vertical; guardrail: 2 steel pipes

HISTORICAL DATA

erection date: 1924
erection cost: $45,685.14
designer: Missouri State Highway Department
fabricator : Inland Steel Company, East Chicago IN
contractor: C.T. Fogle

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 476001.9; Primary System Bridge Records, located at Missouri Highway and Transportation Department, Jefferson City MO; Saline County Court Record, Book W: page 107 (2 October 1906); Saline County Court Record, Book X: page 426 (13 April 1917); Index to Saline County Proceedings W: page 107 (2 October 1906) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

sign. rating: 43
evaluation: NRHP non-eligible (typically configured example of MSHD highway truss design)

inventoried by: Clayton B. Fraser 24 January 1992

Eastwood Road Overpass

SALI43

GENERAL DATA

structure no.: 477000.1
county: Saline
city/town: Marshall
feature inters.: Missouri Pacific Railroad
cadastral grid: S12, T50N, R21W
highway route: Eastwood Road
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: concrete through girder, skewed
substructure: concrete abutments, wingwalls and piers

span number: 3
span length: 35.0'
total length: 105.0'
roadway width: 19.0'
condition: good
alterations: none
floor/decking : concrete deck
other features: solid concrete girders with recessed rectangular panels

HISTORICAL DATA

erection date: 1923
erection cost: unknown
designer: Missouri State Highway Department
fabricator : none
contractor: Missouri Pacific Railroad

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 477000.1; Missouri State Highway Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; Missouri State Highway Board, **First Biennial Report**: 1917-18, pages 100-101; Missouri State Highway Board, **Second Biennial Report**: 1919-20, pages 129, 133, 148-49.

sign. rating: 59
evaluation: NRHP possibly eligible (relatively early example of MSHD concrete beam bridge design)

inventoried by: Clayton B. Fraser 24 January 1992

Eastwood Road Bridge

SALI44

GENERAL DATA

structure no.: 477000.2
county: Saline
city/town: Marshall
feature inters.: Salt Fork Creek
cadastral grid: S12, T50N, R21W
highway route: Eastwood Road
highway distr.: 2
current owner: Saline County

STRUCTURAL DATA

superstructure: concrete filled spandrel arch
substructure: concrete abutments, wingwalls and piers

span number: 1; 2
span length: 90.0'; 60.0'
total length: 281.0'
roadway width: 18.8'
condition: good
alterations: none
floor/decking : concrete deck over earth fill
other features: MSHD standard concrete guardrails

HISTORICAL DATA

erection date: 1923
erection cost: $46,276.20
designer: Missouri State Highway Department
fabricator : none
contractor: M.E. Gillioz, Monett MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 477000.2; Missouri State Highway Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; Missouri State Highway Board, **First Biennial Report**: 1917-18, pages 100-101; Missouri State Highway Board, **Second Biennial Report**: 1919-20, pages 129, 133, 148-49.

sign. rating: 59
evaluation: NRHP possibly eligible (relatively early example of MSHD concrete arch bridge design)

inventoried by: Clayton B. Fraser 24 January 1992

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Glasgow Bridge
MHTD: G 69R

SALI01

DATE(S) OF CONSTRUCTION
1922-25

LOCATION
State Highway 240 over Missouri River; S2/3, T51N, R18W
Glasgow; Saline/Howard County, Missouri

USE (ORIGINAL / CURRENT)
highway bridge / highway bridge

RATING NRHP eligible (score: 70)

CONDITION
good

OWNER
Missouri Highway and Transportation Department

span number: 5
span length: 343.0'
total length: 2244.0'
roadway wdt.: 20.3'

superstructure: steel, 10-, 12- and 14-panel, rigid-connected Pennsylvania through trusses; rigid-connected Pratt deck truss approach spans
substructure: concrete abutments; concrete bullnose and spill-through piers
floor/decking: concrete over metal plate deck
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 channels with batten plates and lacing; vertical: 4 angles with batten plates and lacing; diagonal: 2 channels with batten plates and lacing; lateral bracing: 1 angle - lower, 4 angles with lacing - upper; strut: 4 angles with lattice and lacing; portal strut; 4 angles with lacing (W-frame); floor beam: I-beam; bridge plate: **Glasgow Bridge / Financed By / Howard County, Saline County / Federal Aid / Appropriated By / Missouri State Highway Commission / Designed By F.W. Adgate / Consulting Engineer / Chicago, Ill. / Supervised By / Missouri State Highway Department / B.H. Piepmeier, Chief Engineer / L.J. Sverdrup, Bridge Engineer / Contractors / Substructure / Union Bridge & Const. Co. / Kansas City, Mo / Superstructure / Mt. Vernon Bridge Co. / Mt. Vernon, Ohio / Completed 1925**

This multiple-span highway bridge carries State Highway 240 over the Missouri River at Glasgow, between Saline and Howard counties. Located immediately downriver from the Illinois Central Gulf Railroad's bridge, this immense structure consists of five truss spans varying between 224 feet to 343 feet in length. The first bridge built over the Missouri River at Glasgow was the Glasgow Steel Bridge–the first all-steel bridge in the world–built in 1879 by the Chicago & Alton Railroad Company. Positioned alongside the existing railroad bridge, the highway bridge was designed in 1922 with the objective of linking vehicular traffic between Saline and Howard counties. Comprised of five riveted Pennsylvania through trusses and series of deck truss and deck girder approach spans, the structure cost $619,00.00–$278.00 per lineal foot–and was financed in part by the two counties. Federal aid was also appropriated by the Missouri State Highway Commission. Designed by Consulting Engineer F. Adgate and supervised by the Missouri State Highway Department, the bridge extends some 2,244 feet in length. The contract to build the superstructure was awarded to the Mt. Vernon Bridge Company of Mt. Vernon, Ohio. The concrete substructure was built by the Union Bridge and Construction Company of Kansas City, Missouri. Throughout the years, rehabilitation efforts have taken place, including resurfacing the floor with asphalt, general painting and installation of a concrete-filled grid deck. Since its completion, the Glasgow Bridge has functioned as a strategically important state highway while

retaining its structural integrity.

The Glasgow Bridge, significant as one of the first over the Missouri River in this area of the state, has continuously provided a reliable year-round route to local and interstate vehicular traffic over the Missouri River since its construction. The structure is also significant as a well-preserved example of large-scale bridge construction in Missouri. Like several bridges built over the Missouri River in the 1920s, it incorporated long, fixed-span, simply supported trusses on concrete piers. The Pennsylvania trusses of the Glasgow Bridge fit well within the mainstream of great river bridge construction in the 1920s. Just as the pin-connected Whipple truss had been the industry standard for Missouri River railroad bridges in the 1880s and 1890s, the riveted Pennsylvania (or Petit) truss was the standard configuration for long-span highway bridge applications in the 1910s, 1920s and 1930s.

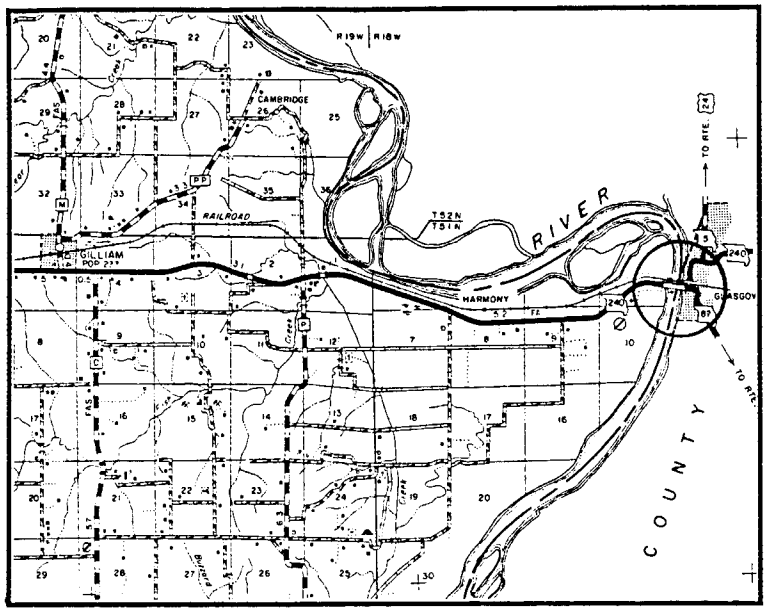
Its name derived from extensive use in the 19th century by the Pennsylvania Railroad, the Pennsylvania truss was patented in 1875 as a refinement of the standard Pratt truss, from which it was derived. Pennsylvania trusses featured vertical compression members and two-panel diagonals in tension, like the Whipple trusses they superseded. The primary differences lay in the substitution of a polygonal top chords for economy of materials and the addition of sub-struts or sub-ties. These relatively short diagonal members severed to provide lateral support for the diagonals and stiffen the truss under heavy moving loads. Like most truss types in America, Pennsylvanias were pioneered by the railroads and were later used to carry vehicular traffic.

The first polygonal-chorded bridge over the Mississippi River - the double-track Merchants' Bridge at St. Louis, was a Pennsylvania truss. During the bridge boom along the Missouri River in the 1920s, fifteen of the eighteen fixed-span bridges featured Pennsylvania trusses. Almost identical, they varied only in span lengths, which were determined largely by adjacent railroad bridges.

NAME(S) OF STRUCTURE

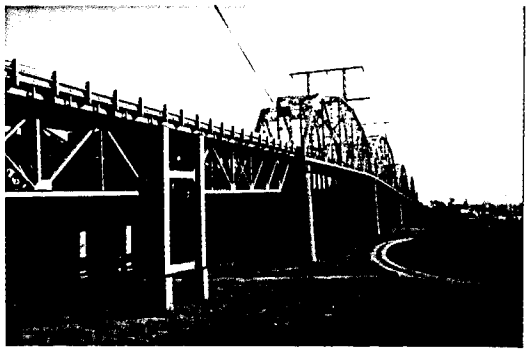
Glasgow Bridge

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. G 69R; Missouri Highway and Transportation Department, Primary System Bridge Record, Book 2 (see entries for Saline County), on file at MHTD, Jefferson City, MO.; Saline County Court, Book 1: page 146 (2 June 1919) - located at Saline County Courthouse, Marshall MO; H.J. Kesner, "Some Recent Missouri Bridges," **The Nebraska Blue Print**, May 1929, pages 9-10; "Photo Flashback," **The Slater News-Ruslter**, 2 July 1985; field inspection by Clayton Fraser, 2 October 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	24 January 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Muddy Creek Bridge
MHTD: 025000.9

SALI04

DATE(S) OF CONSTRUCTION
1910

LOCATION
County Road 25 over Muddy Creek; S20/29, T52N, R21W
3.8 miles south of Miami; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 47)

CONDITION
fair

OWNER
Saline County

span number:	1	superstructure:	steel plate deck girder
span length:	35.0'	substructure:	concrete abutments and wingwalls
total length:	36.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	12.9'	other features:	steel angle guardrails

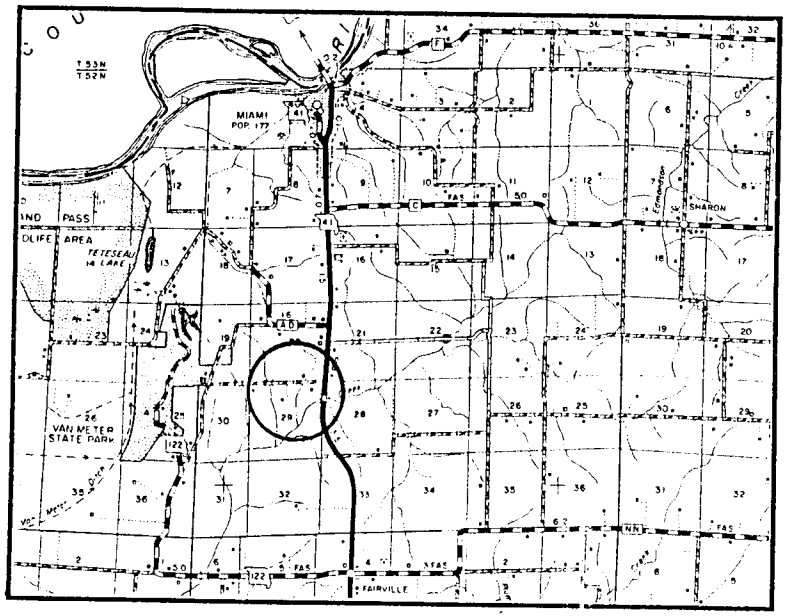
This small-scale steel bridge carries an unpaved county road over Muddy Creek almost four miles south of Miami, in northern Saline County. Built as a riveted plate deck girder, the timber-floored bridge is supported by concrete abutments. The Muddy Creek Bridge was conceived by the Saline County Court in July 1910, when the judges directed the county engineer to build a bridge at this crossing of Muddy Creek. The engineer evidently ordered the superstructural steel from the Kansas City Bridge Company–which at the time supplied most of the county's bridge steel–and built the concrete substructure and erected the steel girders using local force account labor. Probably completed later that year, the Muddy Creek Bridge has since functioned in place, without substantial alteration.

In the 1930s and 1940s, the state highway department experimented with steel plate girders for its long-span crossings. Before that, however, this relatively simple beam bridge type had received only sparing use in Missouri, as the counties had eschewed girders for short- and medium-span trusses in the 19th and early 20th centuries. As a result comparably few deck girder bridges have been identified from the state's formative bridge building period. Most of the standing county-built girders are found in Saline County, which used several plate deck structures for short-span crossings between 1907 and 1915. The Muddy Creek Bridge is one of these: a well-preserved, relatively early example of this little-used beam bridge type.

NAME(S) OF STRUCTURE

Muddy Creek 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. 025000.9; Saline County Court Record, Book X: page 233 (6 July 1910) - located at Saline County Courthouse, Marshall MO.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

24 January 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Muddy Creek Bridge
MHTD: 027001.6

SALI05

DATE(S) OF CONSTRUCTION
1907

LOCATION
County Road 27 over branch of Muddy Creek; S7/12, T51N, R21/22W
7.4 miles northwest of Marshall; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 47)

CONDITION
fair

OWNER
Saline County

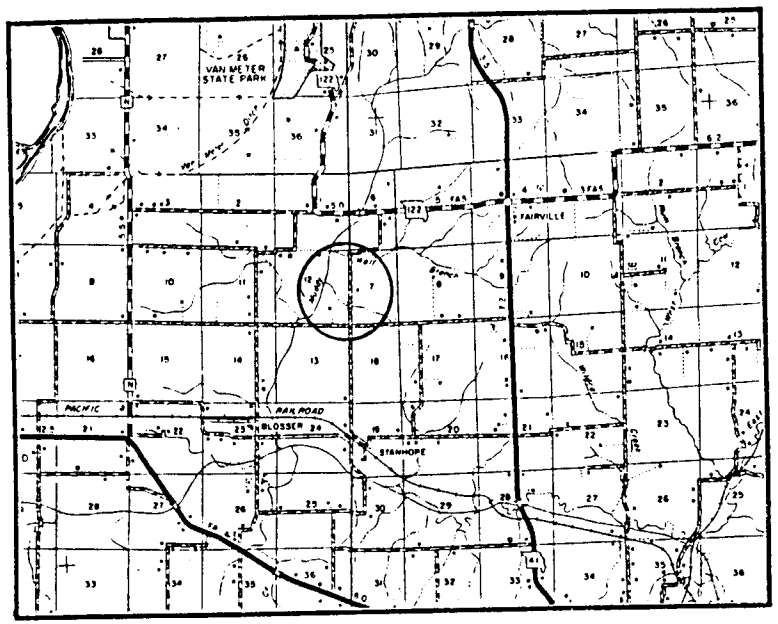
span number:	1	superstructure:	steel plate deck girder
span length:	35.0'	substructure:	concrete abutments and wingwalls
total length:	36.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	13.8'	other features:	steel angle guardrails

This small-scale steel bridge carries an unpaved county road over Muddy Creek some 7½ miles northwest of Marshall, the seat of Saline County. Built as a riveted plate deck girder, the timber-floored bridge is supported by concrete abutments. The Muddy Creek Bridge was conceived by the Saline County Court in September 1907, when the judges directed the county engineer to build a bridge at this crossing of Muddy Creek. The engineer evidently ordered the superstructural steel from the Kansas City Bridge Company–which at the time supplied most of the county's bridge steel–and built the concrete substructure and erected the steel girders using local force account labor. Probably completed later that year, the Muddy Creek Bridge has since functioned in place, without substantial alteration.

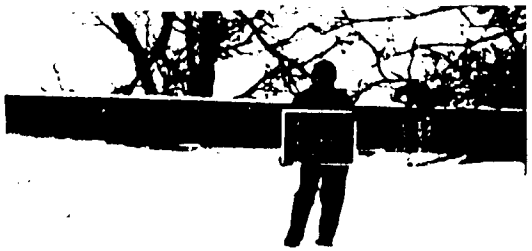
In the 1930s and 1940s, the state highway department experimented with steel plate girders for its long-span crossings. Before that, however, this relatively simple beam bridge type had received only sparing use in Missouri, as the counties had eschewed girders for short- and medium-span trusses in the 19th and early 20th centuries. As a result comparably few deck girder bridges have been identified from the state's formative bridge building period. Most of the standing county-built girders are found in Saline County, which used several plate deck structures for short-span crossings between 1907 and 1915. The Muddy Creek Bridge is one of these: a well-preserved, relatively early example of this little-used beam bridge type.

NAME(S) OF STRUCTURE
Muddy Creek 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. 027001.6; Saline County Court Record, Book W: page 298 (4 September 1907) -located at Saline County Courthouse, Marshall MO.

INVENTORIED BY
Clayton B. Fraser

AFFILIATION
Fraserdesign, Loveland CO

DATE
24 January 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Finney Creek Bridge
MHTD: 142001.0

SALI11

DATE(S) OF CONSTRUCTION
1911

LOCATION
County Road 142 over North Fork of Finney Creek; S4, T49N, R21W
4.6 miles south of Marshall; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 47)

CONDITION
fair

OWNER
Saline County

span number:	1	superstructure:	steel plate deck girder
span length:	30.0'	substructure:	concrete abutments and wingwalls
total length:	31.0'	floor/decking:	timber deck
roadway wdt.:	14.1'	other features:	steel angle guardrails

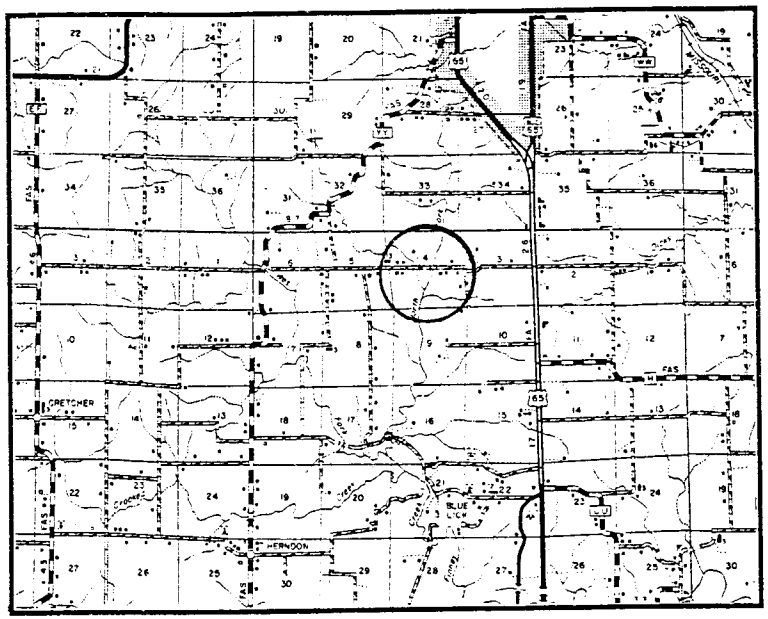
Located on an ungraded county road south of Marshall, this small-scale steel bridge spans the North Fork of Finney Creek. The structure is comprised of a single plate girder span that carries the roadway in a deck position, supported by concrete abutments. The Finney Creek Bridge was fabricated and erected in 1911 by the Illinois Steel Bridge Company of Jacksonville, Illinois, a perennial bridge contractor for Saline County. Since its completion, the Finney Creek Bridge has functioned in place, with only maintenance-related repairs.

Although steel plate girders were used commonly by railroads throughout the late 19th and early 20th centuries, they never received widespread use for vehicular spans by Missouri's counties. For some reason, Saline County alone differed from this statewide trend, building several small-scale plate girder spans between 1907 and 1915. Eight of these bridges remain in place, all modestly scaled and simply detailed. The Finney Creek Bridge is one of these. With a 30-foot span, it is technologically unremarkable; nevertheless, it is a noteworthy example of a little-used beam bridge type in Missouri.

NAME(S) OF STRUCTURE

Finney Creek 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. 142001.0; Index to Saline County Proceedings X: page 419 (4 May 1911); Index to Saline County Proceedings Y: page 603 (20 April 1915) - located at Saline County Courthouse, Marshall MO.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

24 January 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Salt Branch Bridge
MHTD: 065000.7

SALI08

DATE(S) OF CONSTRUCTION
1895

LOCATION
County Road 65 over Salt Branch; S9/16, T50N, R22W
7.2 miles west of Marshall; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 47)

CONDITION
fair

OWNER
Saline County

span number:	1	superstructure:	steel, 2-panel, pin-connected Pratt truss-leg bedstead, with steel stringer approach spans
span length:	50.0'	substructure:	timber abutments with steel truss-leg piers
total length:	50.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	12.5'	other features:	upper chord and upright end post: 2 channels with cover and batten plates; lower chord: 2 channels with batten plates; vertical: 2 channels with lacing; diagonal: 2 square eyebars; lateral bracing: 2 round rods with threaded ends; floor beam: I-beam, U-bolted to vertical; guardrail: 2 angles; builder's plate: **THE MASSILLON BRIDGE COMPANY / OHIO / 1895**

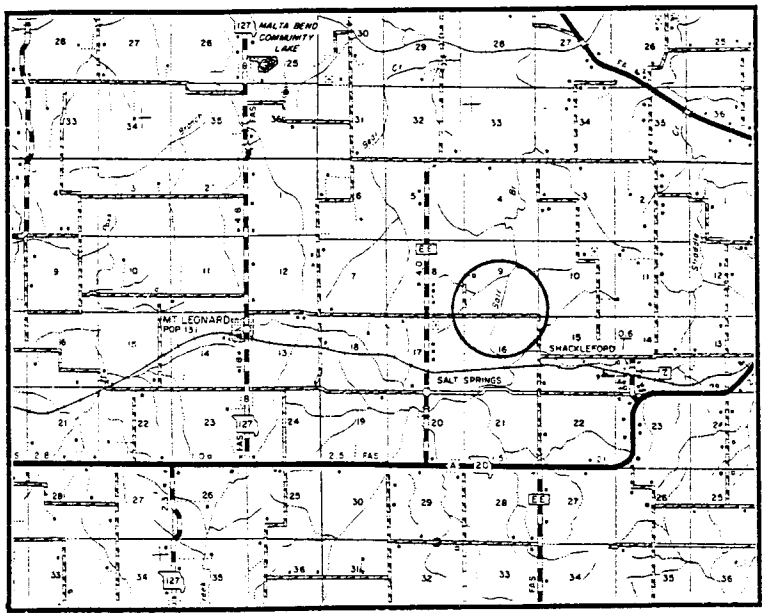
Located some seven miles west of Marshall, this small-scale steel bridge carries a gravel-surfaced county road over Salt Branch. The structure is configured as a single-span, pinned Pratt bedstead with a timber deck over steel stringers. The truss is supported by steel truss-leg piers; the stringers bear on timber pile abutments. The Salt Branch Bridge dates to 1895. That year the Saline County Court contracted with Massillon Bridge Company of Massillon, Ohio, to fabricate and erect the 25-foot bridge for $427.00. The structure was completed by the following March. Since that time the Salt Branch Bridge has functioned in place, without serious alteration.

The bedstead truss enjoyed widespread popularity in Missouri in the late 1890s and early 1900s. A single "leg" functioned as both end post and support at each corner. This combined super- and substructure reduced erection costs somewhat, but bedsteads were prey to flood and collision damage and suffered from inherent structural weaknesses relating to compression stress in the lower chords. Because of this weakness, bedsteads were typically limited to short-span applications. One of the oldest bedsteads remaining in Missouri, the Salt Branch Bridge is a well-preserved, small-scale example of a relatively common structural type.

NAME(S) OF STRUCTURE

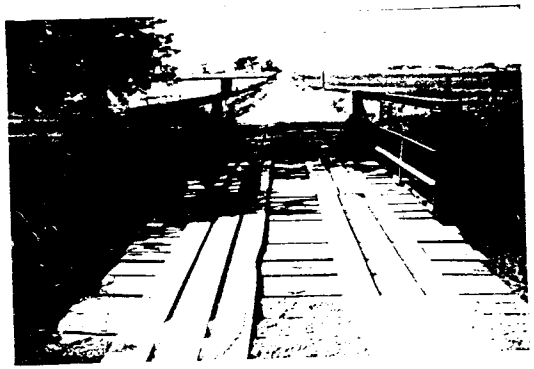
Salt Branch Bridge

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. 065000.7; Saline County Court Record, Book T: page 408 (3 March 1896) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

24 January 1992

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Dicks Branch Bridge
MHTD: 150000.5

SALI13

DATE(S) OF CONSTRUCTION
1912

LOCATION
County Road 150 over Dicks Branch; S1/2, T49N, R21W
4.6 miles south of Marshall; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 47)

CONDITION
fair

OWNER
Saline County

span number:	1	superstructure:	steel plate deck girder
span length:	30.0'	substructure:	concrete abutments and wingwalls
total length:	31.0'	floor/decking:	timber deck
roadway wdt.:	12.2'	other features:	steel angle guardrails

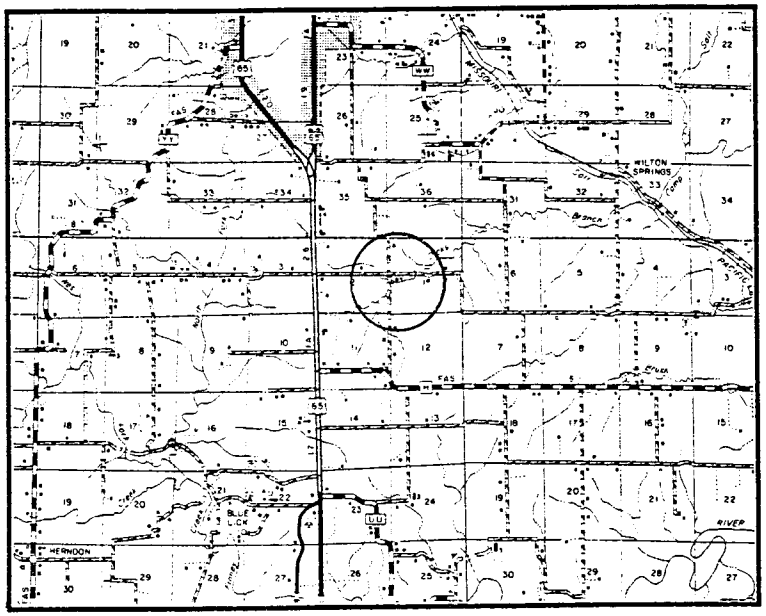
Located some 4½ miles south of Marshall, this small-scale steel bridge carries a gravel-surfaced county road over Dicks Branch. The structure is comprised of a single plate girder span that carries the roadway in a deck position, supported by concrete abutments and framed by steel guardrails. The Dicks Branch Bridge dates to 1912. In April of that year, the Saline County Court directed the county engineer to design and build seven short-span bridges, including this span south of Marshall, estimated to cost $675. The county hired the Kansas City Bridge Company to fabricate and erect the bridge. Since its completion, the Dicks Branch Bridge has carried vehicular traffic, in essentially unaltered condition.

Although steel plate girders were used commonly by railroads throughout the late 19th and early 20th centuries, they never received widespread use for vehicular spans by Missouri's counties. For some reason, Saline County alone differed from this statewide trend, building several small-scale plate girder spans between 1907 and 1915. Eight of these bridges remain in place, all modestly scaled and simply detailed. The Finney Creek Bridge is one of these. With a 30-foot span, it is technologically unremarkable; nevertheless, it is a noteworthy example of a little-used beam bridge type in Missouri.

NAME(S) OF STRUCTURE

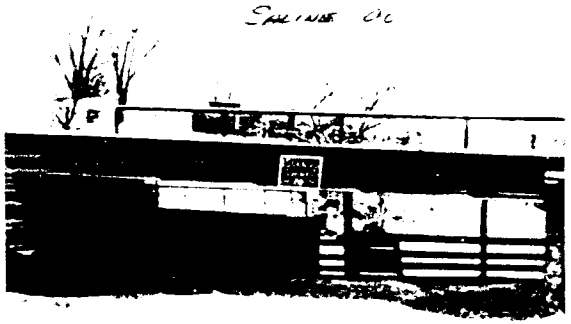
Dicks Branch Bridge

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. 150000.5; Saline County Court Record, Book Y: page 10 (4 April 1912); Index to Saline County Proceedings U: page 568 (8 April 1903) - located at Saline County Courthouse, Marshall MO.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

24 January 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Salt Fork Bridge
MHTD: 165002.3

SALI16

DATE(S) OF CONSTRUCTION
1899

LOCATION
County Road 165 over Salt Fork; S32/33, T50N, R20W
5.3 miles southeast of Marshall; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 51)

CONDITION
fair

OWNER
Saline County

span number:	1	superstructure:	steel, 8-panel, pin-connected Pratt through truss; 2 steel stringer approach spans
span length:	120.0'	substructure:	timber abutments and timber pile bent piers; concrete-filled steel cylinder piers
total length:	165.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	14.5'	other features:	upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with double lacing (2 looped square eyerods at the hip); diagonal: 2 looped rectangular eyebars; counter: 1 looped round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; floor beam: I-beam, U-bolted to vertical; guardrail: 2 channels

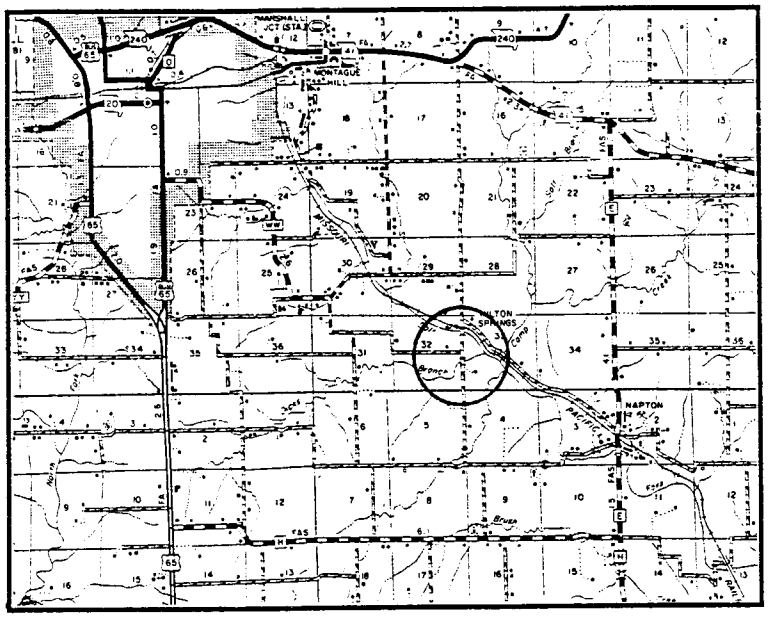
Located about five miles southeast of Marshall, this Pratt through truss carries an unpaved county road over Salt Fork Creek. This road follows the line between Sections 32 and 33, of Township 50, Range 20 in east-central Saline County. Supported by concrete-filled steel cylinder piers, the bridge's superstructure consists of a single 120-foot, pinned Pratt truss, flanked by two steel stringer approach spans. In July 1899 the Saline County Court ordered the construction of the truss, and that September the county engineer contracted with the Central Bridge Company of St. Louis to fabricate and erect this bridge and another 150-foot span over the Blackwater River [SALI36]. (Contract cost for the two structures: $7600.00.) Completed the same year, the Salt Fork Bridge today appears largely unaltered and possesses average integrity.

In Missouri the pinned Pratt through truss was the bridge of choice for short- and medium-span applications in the late 19th and early 20th centuries. As a result, thousands of Pratts were built across the state, and today Pratts constitute the most populous group of through trusses. Though it retains a relatively high degree of physical integrity, the Salt Fork Bridge is unremarkable in its design and dimensions. The truss is distinguished somewhat by the decorative cast iron finials attached to its hips and the cresting across its portal struts.

NAME(S) OF STRUCTURE

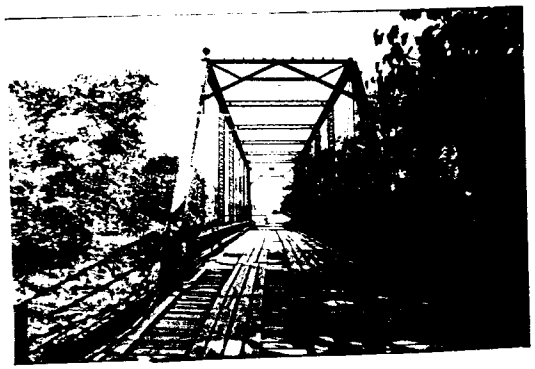
Salt Fork Bridge

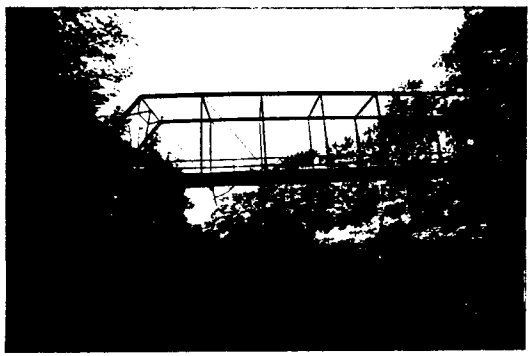
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT GENERAL HIGHWAY MAP





SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 165002.3; Saline County Court Record, Book T: page 470 (3 July 1899), page 506 (6 September 1899) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	24 January 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Rock Creek Bridge
MHTD: 245000.4

SALI22

DATE(S) OF CONSTRUCTION
1900-01

LOCATION
County Road 245 over Rock Creek; S8, T52N, R19W
4.7 miles north of Gilliam; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 57)

CONDITION
fair

OWNER
Saline County

span number:	1	superstructure:	steel, 2-panel, pin-connected kingpost pony truss
span length:	30.0'	substructure:	concrete abutments and wingwalls
total length:	31.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	10.7'	other features:	inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with batten plates and lacing; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical

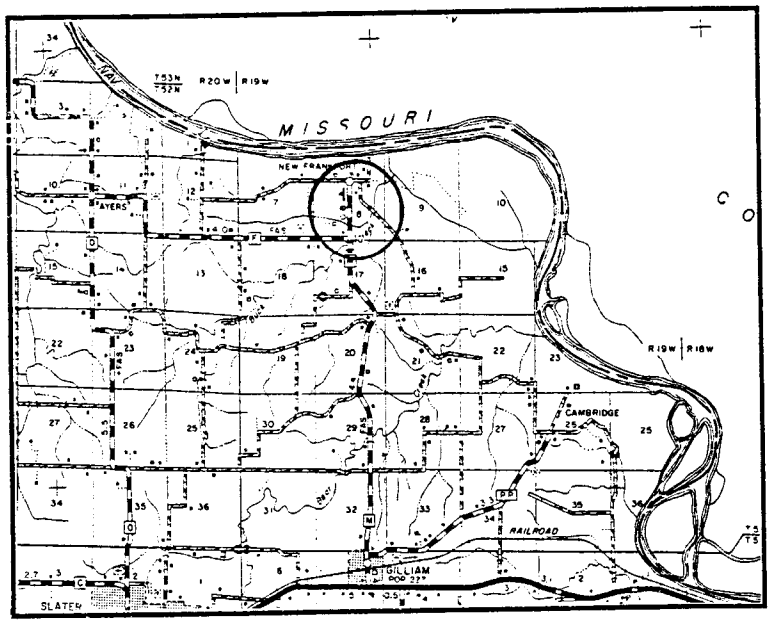
Ordered built in August 1900 by the Saline County Court, the Rock Creek Bridge is located in Section 8, Township 52, Range 19, in the northeastern corner of Saline County. One month later the Stupp Brothers Bridge and Iron Company signed a contract to fabricate and erect this and five other small-scale bridges in the county. County road and bridge commissioner G.W. Latimer agreed to the price of $2018.00, which included the construction cost of the Rock Creek Bridge. The contract stipulated that the bridge be ready for inspection by March 1, 1901. Stupp Brothers used steel components rolled by the Carnegie Steel Company of Pittsburgh, Pennsylvania, to rivet the bridge parts in its St. Louis shops and shipped them by rail to Saline County. As built, the Rock Creek Bridge consisted of a single kingpost pony truss–pinned lower chord connections and a riveted upper connection–supported by a concrete substructure. Since its completion early in 1901, the Rock Creek Bridge has functioned in place, with only maintenance-related repairs.

The simplest of truss types, the kingpost pony truss was utilized throughout Missouri during the state's settlement and early development periods in the 19th century. Earlier examples were simple wood trusses, while later kingposts were built of iron or steel. By the turn of the century, though, Pratt truss configurations - including truss-leg bedsteads and half-hip pony trusses - had become the designs of choice for medium-span crossings, and steel stringer structures were used for short-span applications. Consequently, few kingposts were built after 1900, and only a dozen are now known to remain in use on Missouri's roadways. The only kingpost in Missouri with both pinned and riveted connections, the Rock Creek Bridge is technologically representative of kingpost pony truss construction: a once popular but now rare truss design.

NAME(S) OF STRUCTURE

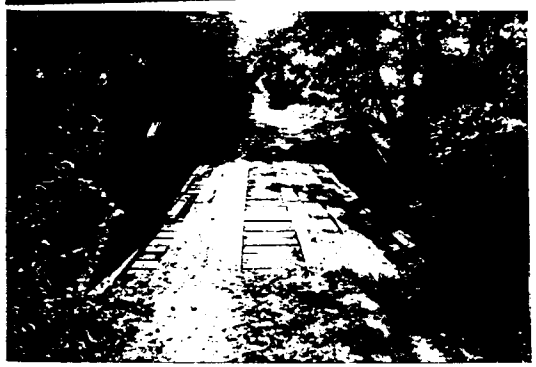
Rock Creek Bridge

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. 245000.4; Saline County Court Record, Book U: page 62 (7 August 1900), page 82 (9 April 1900); Index to Saline County Proceedings Book U: page 62 (7 August 1900) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

24 January 1992

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Fish Creek Bridge
MHTD: 299000.7

SALI25

DATE(S) OF CONSTRUCTION
1910

LOCATION
County Road 299 over Fish Creek; S17, T51N, R19W
2.7 miles south of Gilliam; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 55)

CONDITION
fair

OWNER
Saline County

span number:	1	superstructure:	steel plate through girder
span length:	35.0'	substructure:	concrete abutments and wingwalls
total length:	36.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	13.0'	other features:	unknown

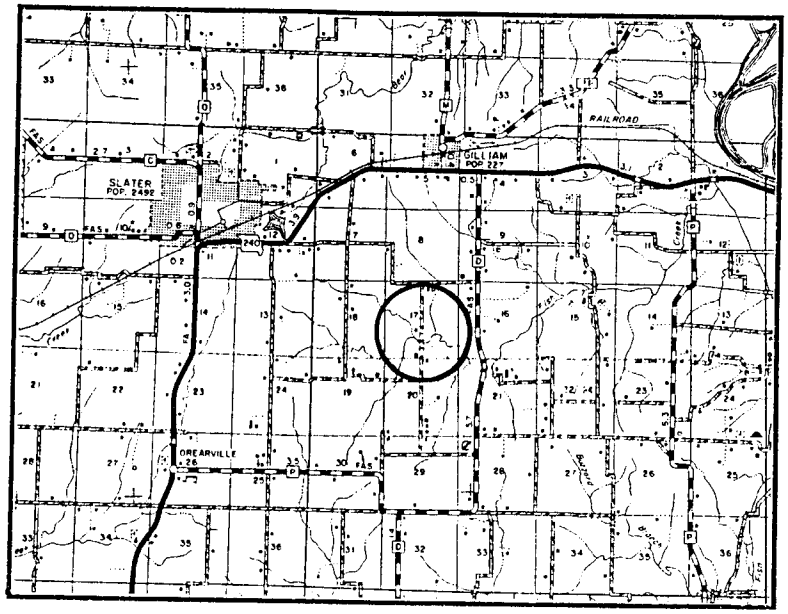
Located south of Gilliam, this short-span steel beam bridge carries a gravel-surfaced county road across Fish Creek in eastern Saline County. The structure is comprised of a single plate girder span, with the girders in the through position, supported by a concrete substructure. The structure dates to 1910. That February the Saline County Court resolved to build 13 small-scale structures, including this bridge over Fish Creek. The county apparently ordered the superstructure steel from the Kansas City Bridge Company and used force account local labor to place the abutments and erect the girders. Probably completed in 1910, the Fish Creek Bridge has since functioned in place, with only maintenance-related repairs.

In the 1930s and 1940s, the state highway department experimented with steel plate girders for its long-span crossings. Before that, however, this relatively simple beam bridge type had received only sparing use in Missouri, as the counties had eschewed girders for short- and medium-span trusses in the 19th and early 20th centuries. As a result comparably few through girder bridges have been identified from the state's formative bridge building period. Most of the standing county-built girders are found in Saline County, which used several plate deck and through structures for short-span crossings between 1907 and 1915. The Fish Creek Bridge is one of these: a well-preserved, relatively early example of this little-used beam bridge type.

NAME(S) OF STRUCTURE

Fish Creek 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. 299000.7; Saline County Court Record, Book V: page 157 (10 February 1910) - located Saline County Courthouse, Marshall MO.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	24 September 1994

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Pierre Fleche Creek Bridge
MHTD: 325002.1

SALI29

DATE(S) OF CONSTRUCTION
1890-91

LOCATION
County Road 325 over Pierre Fleche Creek; S11, T50N, R19W
8.0 miles south of Gilliam; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 51)

CONDITION
fair

OWNER
Saline County

span number:	1	superstructure:	wrought iron, 4-panel, pin-connected Pratt pony truss
span length:	70.0'	substructure:	stone masonry abutments
total length:	70.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	12.3'	other features:	upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with lacing, with 2-angle outrider; diagonal: 2 square eyebars; counter: 1 round eyerod with unslotted turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, U-bolted to vertical

Saline County was formed in 1820. Situated south of a broad sweep of the Missouri River, about two-thirds of the way between St. Louis and Independence, the county was strategically located to capture both waterborne and overland traffic. Its development has been directed and influenced from its inception by interstate commerce, both from the boats that plied the great river and from the wagon traffic that paralleled it. In 1820 the Missouri State Legislature sought to facilitate this overland traffic by authorizing the survey and construction of an east-west state road through the region. Known as the Franklin-to-Fort Osage Post Road, the route crossed the Missouri River at Arrow Rock and extended westward through Saline County via Grand Pass to the county's western border. The routing of this road, Saline County's first, was one of the first items of business considered by the newly formed county court in July 1821.

The state legislature designated other state roads in the region, but organized road and bridge building was, by and large, the responsibility of Saline County itself. Under the supervision of the county court, a network of roads and trails gradually developed to link such developing settlements as Marshall, Jonesboro, Miami and Arrow Rock. The court ordered short-span timber stringer bridges built over the myriad small streams and sloughs that crisscrossed the region. Though inexpensive to erect, most of these early spans tended to be structurally suspect and required frequent maintenance to prevent their collapse. Moreover, they were limited to short-span crossings.

Throughout the 1850s and 1860s, Saline County built only timber and timber/iron combination bridges at the major crossings. In the early 1870s, however, the court began contracting for all-iron structures as a more durable alternative to wood construction. This trend continued through the end of the century, the county contracting with several state and regional fabricators for pin-connected trusses. The Pierre Fleche Creek Bridge is one of these later structures: a pinned Pratt pony truss supported by massive stone masonry abutments. The bridge dates to late 1890. That November the Saline County Court ordered F.H. Boyd, the county road and bridge commissioner, to solicit bids for the construction of this structure across Pierre Fleche Creek in the far eastern region of the county. Proposals were

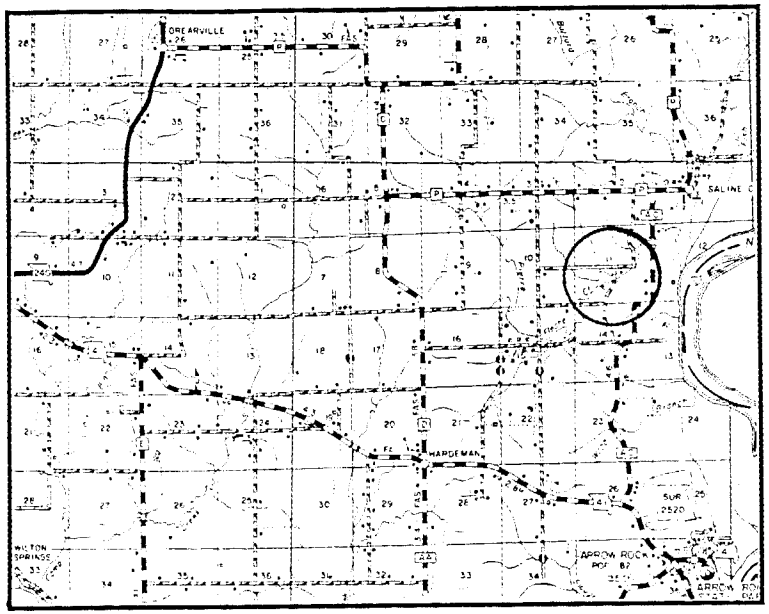
received from several firms later that year and a contract to fabricate and erect the truss let to the Massillon Bridge Company of Massillon, Ohio. Massillon fabricated the built-up iron components of the truss in its Ohio shops, shipped them by rail to the county, and erected the bridge over traditional timber falseworks. Completed in 1891, the Pierre Fleche Creek Bridge has carried traffic since, with no substantial alterations.

Like virtually all of Missouri's counties, Saline County followed a definite progression in its bridge construction in the 19th century, in response to evolving transportation needs and technological development in the bridge industry. The first simple spans, built as the county was undergoing its initial settlement, were rudimentary timber structures. These were cheap and easy to build but lacking in durability and limited in span length. With greater revenues from increased settlement, the county could undertake more ambitious timber trusses in the 1840s. Iron was used in the tension members in the combination spans erected between the 1850s and early 1880s. These, in turn, were superseded in the 1880s and 1890s by all-iron spans such as the Pierre Fleche Creek Bridge, made readily available by mass production. Featuring typical 19th century pin-connected detailing, this structure is one of the more noteworthy examples in Missouri of what was once a mainstay structural type–the pinned Pratt pony truss. Numerous such Pratts were built on the state's early roads in the 19th century, executed first as all-timber or timber/iron combination structures and later as all-metal configurations. Iron or steel Pratt trusses were marketed by the state's bridge companies as an inexpensive bridge for short-span and medium-span applications. With its early erection date and high degree of structural integrity, the Pierre Fleche Creek Bridge is a significant example of this bridge construction trend in Missouri.

NAME(S) OF STRUCTURE

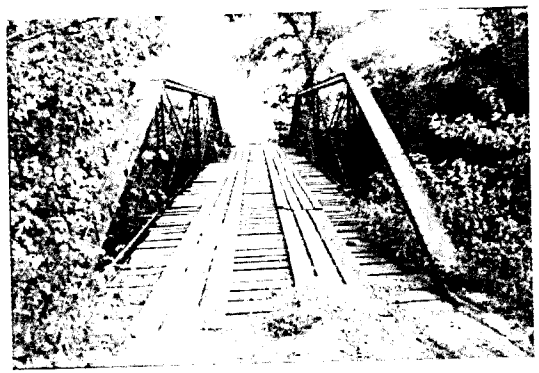
Pierre Fleche Creek Bridge

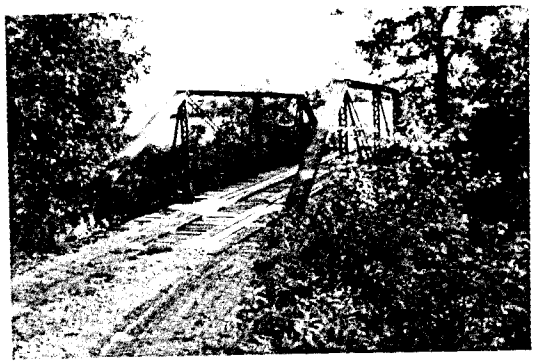
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT GENERAL HIGHWAY MAP





SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No 325002.1; Saline County Court Record, Book Q: page 359 (8 November 1890), page 439 (10 April 1891) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	24 January 1992

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Steel's Fish Trap Bridge
MHTD: 351000.5

SALI31

DATE(S) OF CONSTRUCTION
1875 / 1882

LOCATION
County Road 351 over Salt Fork; S13, T49N, R20W
9.9 miles southeast of Marshall; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP eligible (score: 76)

CONDITION
fair

OWNER
Saline County

span number:	1	superstructure:	wrought iron, 10-panel, bolt-connected bowstring through arch-truss
span length:	100.0'	substructure:	stone masonry abutments and wingwalls
total length:	100.0'	floor/decking:	corrugated steel plate deck
roadway wdt.:	14.0'	other features:	upper chord: 2 channels with cover plate and double lacing; lower chord: 2 rectangular eyebars; vertical: star iron; diagonal: round rods with threaded ends; lateral bracing: round rod with threaded ends; strut: iron tube; floor beam: 2 channels with I-beams extended to star iron outriders; guardrail: 1 channel; chiseled into stone abutment: H. **Murphy**; chiseled into other stone abutment: **1875**

Lacking the funds to build permanent bridges over larger rivers such as the Salt Fork and Blackwater, Saline County in its formative years licensed the operation of toll ferries during the 1820s, 1830s and 1840s. The Arrow Rock ferry across the Missouri River was clearly the region's earliest. Established in 1817 as the first ferry across the Missouri west of Franklin, it proved pivotal in the routing of the Santa Fe Trail through the county. In 1833 the county court authorized Richard Marshall to operate a ferry across the Blackwater at the mouth of Salt Fork. Other ferries and fords, notably the Hunt's Ferry across the Blackwater and the Jonesboro Ferry across Salt Fork, developed with need.

By the 1840s, however, it had become apparent that the ferries made poor river crossings and that permanent bridges were necessary for the developing road system. In May 1843 the court authorized construction of the county's first major bridge over the Salt Fork at Jonesboro. Completed two years later, the timber span lacked a wooden sheathing to protect the structural members. Leaving the superstructure exposed did not pose a serious threat to the small-scale timber pile spans, which rarely lasted long enough to suffer damage by rain and snow. But more complex and expensive timber trusses, left open to the weather, proved vulnerable to deterioration in their chord connections. The Jonesboro Bridge lasted only nine years before it needed replacement. For this reason, the county began covering its wooden trusses with shingle roofs and plank siding in the early 1850s. Structures such as the new Jonesboro Bridge [1854] and Kiser Bridge [1854] over Salt Fork and the Napton Bridge [1855] and Marshall Bridge [1856] over the Blackwater featured timber/iron Howe truss superstructures with wood housings.

Throughout the 1850s and 1860s, Saline County built only timber and timber/iron combination bridges at the major crossings. In the early 1870s, however, the court began contracting for all-iron structures as a more durable alternative to wood construction. Two of

these earliest iron trusses were an 80-foot span across Salt Fork at Walker's Ford and a 60-foot span across Salt Fork on the Marshall-Miami Road, both erected in 1875 by Farnsworth and Eaves of Kansas City. In the early 1880s the county began replacing some of its earliest covered bridges with iron spans. The Steel's Fish Trap Bridge is one of these replacement structures. The original bridge at this crossing southeast of Marshall was built in 1875. That February the Saline County Court appropriated funds, in the amount of $1600.00, to build a bridge across the Salt Fork Creek at Steel's Trap, as petitioned by G.A. Munel and others. The court at that time appointed the county road commissioner to prepare the plans and specifications for the structure. The bridge contract was awarded a month later to W.L. Smiley for $1550.00. After construction was underway in August, George W. Latimer, the Saline County Bridge Commissioner, reported to the road and bridge commission that "a portion of the masonry (fell) short of specs in some unimportant particulars." Nonetheless, the court accepted the bridge as complete, paying Smiley $1507.50 for the masonry work and $1550.00 for the combination truss superstructure.

It is not known whether the original bridge here was sheathed with siding. Seven years after its completion, the county began planning for its replacement–an indicator of either calamity or poor construction. The Missouri Valley Bridge and Iron Company of Leavenworth, Kansas, placed an $880.00 bid in October 1882 to erect the replacement superstructure: a 100-foot wrought iron bowstring arch-truss using the firm's patented configuration. Since its 1882 completion, the Steel's Fish Trap Bridge continues to carry traffic in essentially unaltered condition.

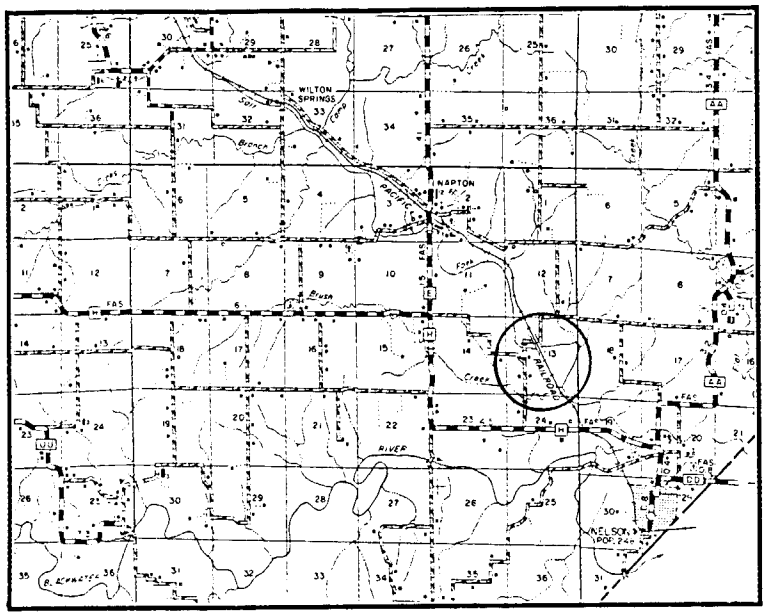
The bowstring arch-truss was the iron span of choice for Missouri counties in the late 1860s and 1870s. Marketed extensively throughout the Midwest by such industry giants as the King Iron Bridge and Manufacturing Company, the Wrought Iron Bridge Company and the Missouri Valley Bridge and Iron Company, these often-patented bridge forms featured a wide range of span lengths, economical fabrication cost and relatively quick erection. The proliferation of the bowstring corresponded with the initial development of Missouri's road system. As a result, perhaps thousands of these prototypical iron spans were erected throughout the state.

The bowstring had some rather severe structural flaws, however, relating primarily to lateral stability of the arches, and it was largely superseded by the pin-connected truss in the early 1880s. Despite this, some bowstrings were still erected in Missouri in the 1880s, although the number dwindled precipitously by the decade's end. Through subsequent attrition, almost all of Missouri's bowstrings have since been replaced and demolished. Now only a half-dozen remain in place. With its excellent degree of physical integrity, the Steel's Fish Creek Bridge is both historically and technologically significant as one of the last remaining examples in the state of what was once a mainstay structural type.

NAME(S) OF STRUCTURE

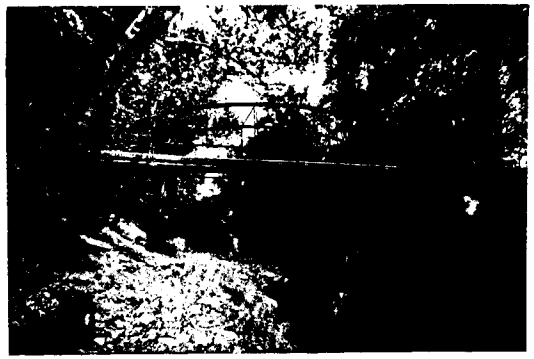
Steel's Fish Trap Bridge

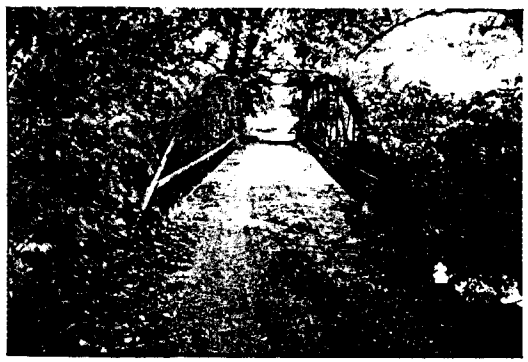
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT GENERAL HIGHWAY MAP





SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 351000.5; Saline County Court Record, Book K: page 194 (5 February 1875), page 216 (2 March 1875), page 303 (9 August 1875), page 335 (2 November 1875), page 83 (10 February 1882), page 219 (10 October 1882) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	24 January 1992

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Boat Yard Ford Bridge
MHTD: 368002.5

SALI34

DATE(S) OF CONSTRUCTION
1888

LOCATION
County Road 368 over unnamed stream; S19, T49N, R19W
11.7 miles southeast of Marshall; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / abandoned

RATING NRHP possibly eligible (score: 56)

CONDITION
fair

OWNER
Saline County

span number: 1
span length: 150.0'
total length: 200.0'
roadway wdt.: 12.0'

superstructure: wrought iron, 9-panel, pin-connected Pratt through truss, with 3-panel, pin-connected Pratt pony truss approach span
substructure: stone masonry abutments; concrete-filled wrought iron 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 punched rectangular eyebars; vertical: 2 punched rectangular eyebars, or 2 channels with lacing; diagonal: 2 punched rectangular eyebars; lateral bracing: round rod with threaded ends; strut: I-beam; floor beam: riveted plate girder, U-bolted to vertical

Now abandoned with its timber deck burned and badly decomposed, this long-span truss crosses the Blackwater River at the Boat Yard Ford some eleven miles southeast of Marshall. This pinned Pratt truss dates to 1888. The original bridge constructed on this site was replaced in 1856, when the Marshall Covered Bridge was built on the earlier bridge's stone abutments and center pier. Irreparably damaged in a flood and ensuing ice jam, only the wooden bridge's stone abutments and pier remained. The Boat Yard Ford Bridge was constructed using the original abutments. Bridge commissioner George W. Latimer was instructed in May 1888 by the Saline County Court to obtain construction bids for a replacement structure here. That August Latimer presented to the court a proposal from the Kansas City Bridge and Iron Company to fabricate and build the bridge for $4800.00. Completed later that year, the bridge features concrete-filled wrought iron cylinder piers and pony truss approach spans. The court issued a warrant in 1890 to pay a Mr. A. Olson $1261.00 for masonry work he completed on the bridge's original stone abutments, presumably for minor repairs. Although this bridge is no longer carrying traffic, the truss remains remarkably intact.

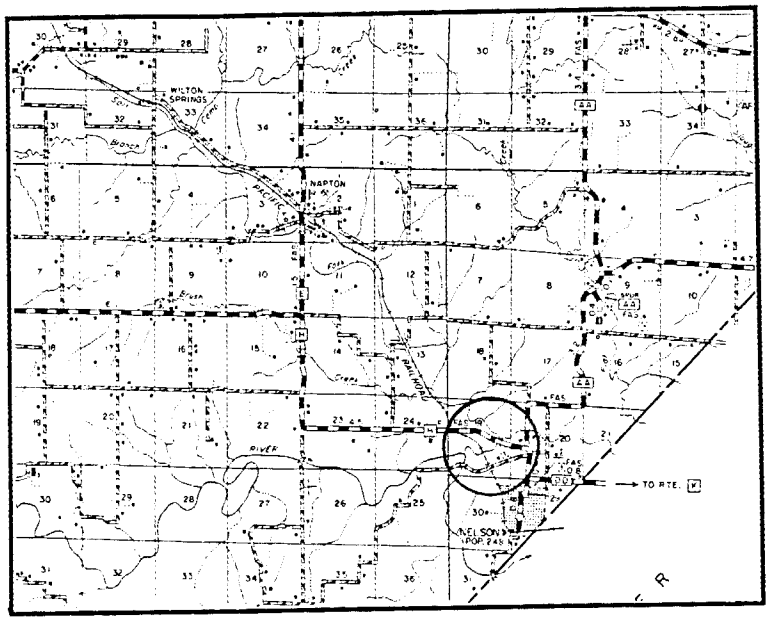
Like virtually all of Missouri's counties, Saline County followed a definite progression in its bridge construction in the 19th century, in response to evolving transportation needs and technological development in the bridge industry. The first simple spans, built as the county was undergoing its initial settlement, were rudimentary timber structures. These were cheap and easy to build but lacking in durability and limited in span length. With greater revenues from increased settlement, the county could undertake more ambitious timber trusses in the 1840s. Iron was used in the tension members in the combination spans erected between the 1850s and early 1880s. These, in turn, were superseded in the 1880s and 1890s by all-iron spans such as the Boat Yard Ford Bridge, made readily available by mass production. Featuring typical 19th century pin-connected detailing, this structure is one of the more noteworthy examples in Missouri of what was once a mainstay structural type–the pinned Pratt pony truss. Numerous such Pratts were built on the state's early

roads in the 19th century, executed first as all-timber or timber/iron combination structures and later as all-metal configurations. Iron or steel Pratt trusses were marketed by the state's bridge companies as an inexpensive bridge for short-span and medium-span applications. With its early erection date and high degree of structural integrity, the boat Yard Ford Bridge is a significant example of this bridge construction trend in Missouri.

NAME(S) OF STRUCTURE

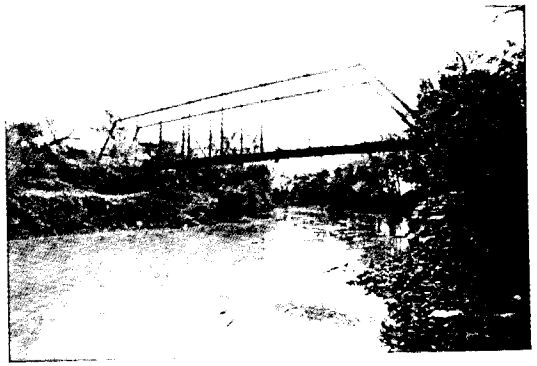
Boat Yard Ford Bridge

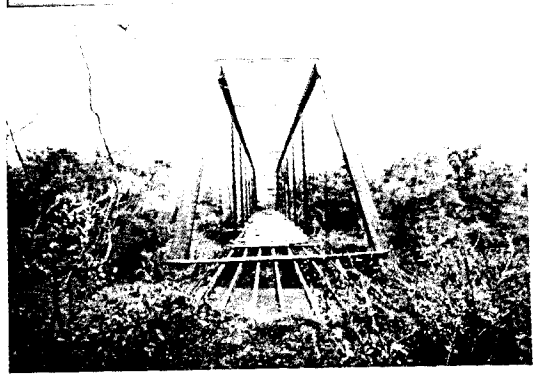
PHOTOS AND SKETCH MAP OF LOCATION



LOCATION MAP

TAKEN FROM MISSOURI HIGHWAY AND TRANSPORTATION DEPARTMENT GENERAL HIGHWAY MAP





SOURCES

Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 368002.5; Saline County Court Record, Book P: page 486 (7 May 1888), page 531 (7 August 1888), page 598 (8 January 1889); Saline County Court Record, Book Q: page 177 (9 January 1890); Saline County History, Volume One (1983) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	24 January 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Finney Creek Bridge
MHTD: 390000.8

SALI37

DATE(S) OF CONSTRUCTION
1895

LOCATION
County Road 390 over Finney Creek; S28, T49N, R21W
9.5 miles south of Marshall; Saline County, Missouri

USE (ORIGINAL / CURRENT)
roadway bridge / roadway bridge

RATING NRHP non-eligible (score: 46)

CONDITION
fair

OWNER
Saline County

span number:	1	superstructure:	steel, 5-panel, pin-connected Pratt through truss, with steel stringer approach spans
span length:	80.0'	substructure:	stone masonry abutments; concrete-filled steel cylinder piers
total length:	109.0'	floor/decking:	timber deck over steel stringers
roadway wdt.:	14.0'	other features:	upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 looped square eyebars, or 2 channels with lacing; diagonal: 2 looped rectangular eyebars; counter: 2 round eyerods with turnbuckles; lateral bracing: round rod with turnbuckle; strut: 4 angles with lacing; floor beam: riveted plate girder, U-bolted to vertical; guardrail: 1 angle

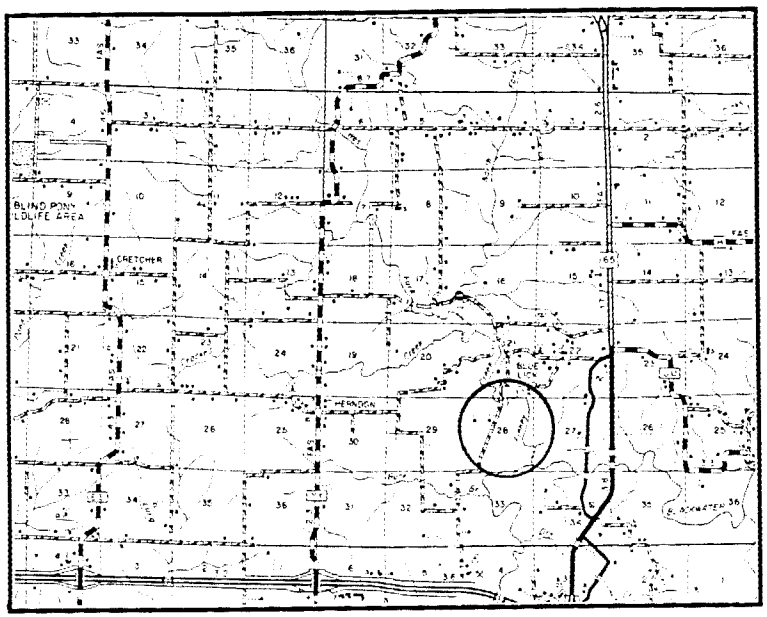
This bridge carries a county road over Finney Creek near Blue Lick Spring, a small crossroads community some nine miles south of Marshall. Consisting of a single-span, pinned Pratt through truss, the bridge features steel angle guardrails and stone abutments, with tubular steel piers. First ordered built in November 1894 by the Saline County Commissioners, the structure was completed in March the following year. The county paid Wrought Iron Bridge Company of Canton, Ohio, $1477.00 for the construction of two bridges, including the Finney Creek Bridge. Only two bridges were built by the Wrought Iron Bridge Company in Saline County during this period, while most of the bridges were assembled at that time by the Kansas City Bridge Company of Missouri. Since its completion, the structure has carried traffic in essentially unaltered condition.

In Missouri, the pinned Pratt through truss was the bridge of choice for short- and medium-span applications in the late 19th and 20th centuries. As a result, thousands of Pratts were built across the state, and today Pratts constitute the most populous group of through trusses. Though it retains a relatively high degree of physical integrity, the Finney Creek Bridge is unremarkable in its design, dimensions, and detailing.

NAME(S) OF STRUCTURE

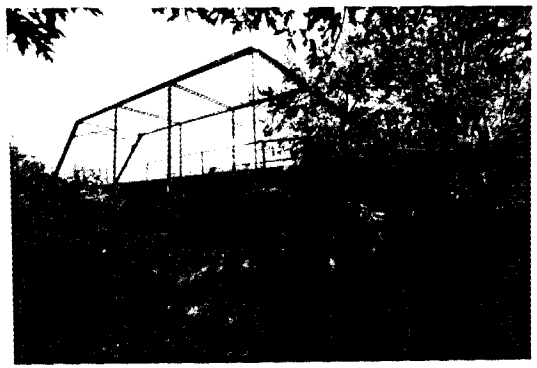
Finney Creek Bridge

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. 390000.8; Saline County Court Record, Book S: page 87 (9 November 1894), page 186 (5 March 1895); Index to Saline County Proceedings V: page 143 (7 May 1904) - located at Saline County Courthouse, Marshall MO; field inspection by Clayton Fraser, 2 October 1991.

INVENTORIED BY	AFFILIATION	DATE
Clayton B. Fraser	Fraserdesign, Loveland CO	24 January 1992

HAER INVENTORY
Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Eastwood Road Overpass
MHTD: 477000.1

SALI43

DATE(S) OF CONSTRUCTION
1923

LOCATION
Eastwood Road over Missouri Pacific Railroad; S12, T50N, R21W
Marshall; Saline County, Missouri

USE (ORIGINAL / CURRENT)
highway bridge / roadway bridge

RATING NRHP possibly eligible (score: 59)

CONDITION
good

OWNER
Saline County

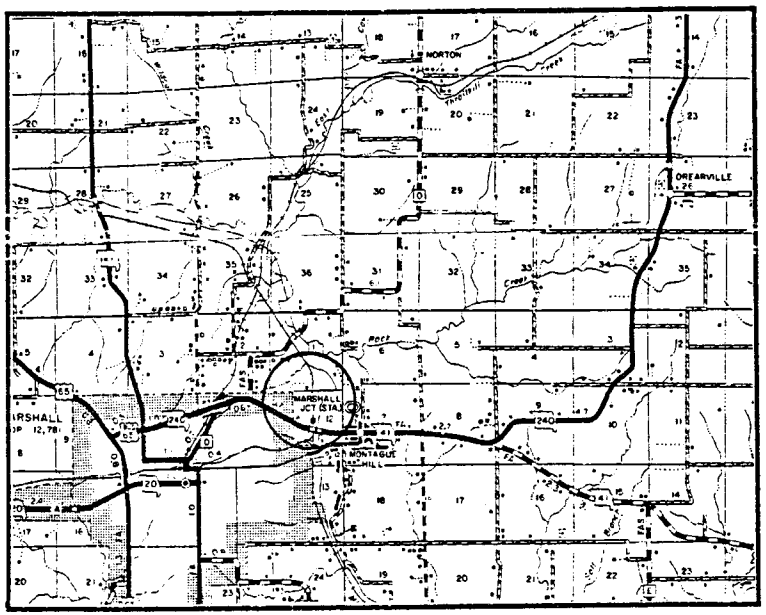
span number:	3	superstructure:	concrete through girder, skewed
span length:	35.0'	substructure:	concrete abutments, wingwalls and piers
total length:	105.0'	floor/decking:	concrete deck
roadway wdt.:	19.0'	other features:	solid concrete girders with recessed rectangular panels

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 tracks of the Missouri Pacific Railroad in Marshall County, a three-span concrete through girder, supported on a skew by concrete piers and abutments. One of two concrete structures designed by MSHD as part of work on State Route 20 through Marshall, the Saline County seat, it was built as a joint venture between the highway department and the railroad. Monett, Missouri, contractor M.E. Gillioz filled and graded the approaches under contract with the highway department, and the railroad built the structure itself. Completed in 1923, the Eastwood Road Overpass has functioned in place to the present. It is no longer located on a state route, but the overpass remains in unaltered condition. The Eastwood Road Overpass is historically significant as one of the few structures left intact from MSHD's formative years–a small-scale concrete beam bridge that represents early highway bridge building in Missouri.

NAME(S) OF STRUCTURE

Eastwood Road Overpass

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. 477000.1; Missouri State Highway Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; Missouri State Highway Board, **First Biennial Report**: 1917-18, pages 100-101; Missouri State Highway Board, **Second Biennial Report**: 1919-20, pages 129, 133, 148-49.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign, Loveland CO	24 January 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE
Eastwood Road Bridge
MHTD: 477000.2

SALI44

DATE(S) OF CONSTRUCTION
1923

LOCATION
Eastwood Road over Salt Fork Creek; S12, T50N, R21W
Marshall; Saline County, Missouri

USE (ORIGINAL / CURRENT)
highway bridge / roadway bridge

RATING NRHP possibly eligible (score: 59)

CONDITION
good

OWNER
Saline County

span number:	1; 2	superstructure:	concrete filled spandrel arch
span length:	90.0'; 60.0'	substructure:	concrete abutments, wingwalls and piers
total length:	281.0'	floor/decking:	concrete deck over earth fill
roadway wdt.:	18.8'	other features:	MSHD standard concrete guardrails

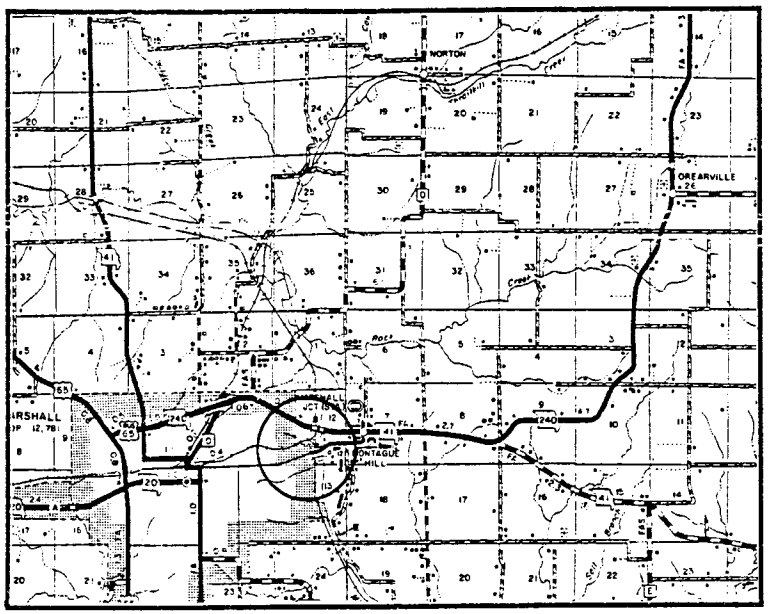
Located on the eastern periphery of Marshall, the Saline County seat, this three-span concrete bridge was built in 1923 by M.E. Gillioz of Monett, Missouri. The Eastwood Road Bridge is comprised of a 90-foot filled spandrel arch, flanked by two 60-foot arches for an overall length of 281 feet. The bridge was designed in late 1922 by the Missouri State Highway Commission, and on December 23rd, Gillioz won the contract to build it. Completed the following year for over $46,000, the Eastwood Road Bridge has carried Missouri State Highway 20 (later State Highway 41, and more recently County Road 477) over Salt Fork Creek, without serious 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 Eastwood Road Bridge in Saline County stands out among those remaining for its three-span configuration. It is, therefore, technologically significant as a well-preserved, multiple-span representative of Missouri State Highway Department concrete design during its formative years in the early 1920s.

NAME(S) OF STRUCTURE

Eastwood Road 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. 477000.2; Missouri State Highway Department Primary System Bridge Record, located at Bridge Division, MHTD, Jefferson City MO; Missouri State Highway Board, **First Biennial Report**: 1917-18, pages 100-101; Missouri State Highway Board, **Second Biennial Report**: 1919-20, pages 129, 133, 148-49.

INVENTORIED BY	**AFFILIATION**	**DATE**
Clayton B. Fraser	Fraserdesign, Loveland CO	24 January 1992