

AUDRAIN COUNTY

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

Inv.No.	MHTD	Bridge Name	Description
AUDR01	028000.4	Bridge	1- 21' concrete slab c1915
AUDR02	028001.4	Saling Creek Bridge	(replaced)
AUDR03	050000.1	Bridge	1- 45' pinned Pratt bedstead c1910
AUDR04	098001.0	Youngs Creek Bridge	1- 55' pinned Pratt pony truss c1910
AUDR05	122000.6	Youngs Creek Bridge	(replaced)
AUDR06	196000.3	Youngs Creek Bridge	1- 75' pinned Pratt pony truss c1910
*AUDR07	197000.1	Five Mile Creek Bridge	1- 30' concrete open spandrel arch 1901 county work force (prob.)
AUDR08	227000.5	Little Skull Lick Ck. Bridge	1- 30' concrete through girder c1920
AUDR09	266002.2	Scattering Fork Bridge	1- 22' concrete through girder c1920
AUDR10	278500.3	Clark Street Viaduct	1-130' pinned Pratt through truss 1928 railroad bridge crew
*AUDR11	341000.3	Fisher Bridge	1-116' pinned Pratt through truss 1893 Massillon Bridge Company
AUDR12	562000.2	Cuivre River Bridge	1- 64' pinned Pratt bedstead c1905
AUDR13	633000.7	Loutre River Bridge	1- 50' pinned Pratt bedstead c1910

EXCLUDED:

Pratt pony truss

089000.4 150001.3 260001.7 348000.4 371001.5 582002.5

Warren pony truss

014001.0 017004.5 026000.5 027R00.1 031001.1 043001.2 054000.2
 061000.4 067000.8 073000.1 076000.6 090000.4 090000.5 094000.9
 104000.7 107001.5 122002.6 143001.0 146002.0 147001.0 149001.0
 152001.3 171000.1 206001.3 207000.2 227000.9 228000.9 229001.1
 285001.4 289000.5 304000.9 363003.8 388001.6 426000.1 437000.8
 484000.7 521001.0 551001.4 555000.3 605001.4 669000.5

Lattice bedstead

017002.9 057000.3 082000.8 138000.8 140000.3 155000.3 172002.0
 186000.9 187000.6 196000.4 306000.5 348001.7 355000.3 360000.9
 454000.6 479000.9 499003.7 547000.3

AUDRAIN COUNTY

EXCLUDED (cont.):

Warren bedstead

009001.0 013001.3 104000.6 154000.6

Steel stringer

G 870R	P 89	S 728	S 962	T 205	T 206	X 614
006000.3	046000.1	060R03.3	061001.3	069000.1	073001.0	149002.4
155001.4	178001.3	181000.8	208002.5	321000.8	335000.5	336R00.8
370000.7	370001.7	375000.1	390000.1	431000.5	435000.1	445000.8
451000.6	460000.6	463000.0	471000.9	557000.6	564001.9	581000.4
649000.8						

Steel girder

464001.1 661000.5

Concrete girder

F 19R	G 720R	H 133	H 548	H 549	H 550	H 594R
H 682R	H 832R1	J 114R	J 286R	J 287	J 297	K 672

Concrete slab

H 24 H 337R

Concrete box culvert

F 972R	H 169	H 269	J 116	J 544R	J 785	L 310
P 96	S 961	T 207	T 208	T 214	T 657	X 612
X 613	604001.5					

SUMMARY:

	Primary	Secondary	Urban	Other	Total
Included	0	10	1	0	11
Excluded	38	101	0	0	139
<hr/>					
	38	111	1	0	150 structures

Bridge

AUDR01

GENERAL DATA

structure no.:	028000.4	city/town:	2.1 miles north of Sturgeon
county:	Audrain	feature inters.:	tributary of Saling Creek
		cadastral grid:	S28, T52N, R12W
		highway route:	County Road 28
		highway distr.:	3
		current owner:	Audrain County

STRUCTURAL DATA

superstructure:	concrete slab	condition:	fair
substructure:	concrete abutments and wingwalls	alterations:	unknown
span number:	1	floor/decking :	concrete deck
span length:	21.0'	other features:	steel lattice guardrails
total length:	22.0'		
roadway width:	15.0'		

HISTORICAL DATA

erection date:	c1915
erection cost:	unknown
designer:	unknown
fabricator :	none
contractor:	unknown
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 028000.4.
sign. rating:	26
evaluation:	NRHP non-eligible (undistinguished, small-scale structure, lacking in technological significance)

inventoried by: Clayton B. Fraser 23 January 1992

Bridge

AUDR03

GENERAL DATA

structure no.: 050000.1	city/town: 9.0 miles north of Centralia
county: Audrain	feature inters.: tributary of Long Branch Creek
	cadastral grid: S35/36, T53N, R11W
	highway route: County Road 50
	highway distr.: 3
	current owner: Audrain County

STRUCTURAL DATA

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

span number: 1	condition: fair
span length: 45.0'	alterations: unknown
total length: 46.0'	floor/decking : timber deck
roadway width: 11.8'	other features: steel lattice guardrails

HISTORICAL DATA

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

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 050000.1.

sign. rating: 25
evaluation: NRHP non-eligible (technologically undistinguished example of common truss bridge type)

inventoried by: Clayton B. Fraser 23 January 1992

Youngs Creek Bridge

AUDR04

GENERAL DATA

structure no.: 098001.0	city/town: 12.2 miles northwest of Mexico
county: Audrain	feature inters.: Youngs Creek
	cadastral grid: S9/16, T52N, R10W
	highway route: County Road 98
	highway distr.: 3
	current owner: Audrain County

STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt pony truss	
substructure: concrete abutments and wingwalls	
span number: 1	condition: fair
span length: 55.0'	alterations: unknown
total length: 57.0'	floor/decking : concrete deck over steel stringers
roadway width: 11.8'	other features: steel lattice guardrails

HISTORICAL DATA

erection date: c1910	
erection cost: unknown	
designer: unknown	
fabricator : unknown	
contractor: unknown	
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 098001.0.	
sign. rating: 25	
evaluation: NRHP non-eligible (typically configured, inadequately documented example of a common structural type)	

inventoried by: Clayton B. Fraser 23 January 1992

Youngs Creek Bridge

AUDR06

GENERAL DATA

structure no.:	196000.3	city/town:	10.1 miles north of Mexico
county:	Audrain	feature inters.:	Youngs Creek
		cadastral grid:	S4/5, T52N, R9W
		highway route:	County Road 196
		highway distr.:	3
		current owner:	Audrain County

STRUCTURAL DATA

superstructure:	steel, 5-panel, pin-connected Pratt pony truss, with rigid-connected, lattice truss approach span		
substructure:	concrete-filled steel cylinder piers		
span number:	1	condition:	poor
span length:	75.0'	alterations:	unknown
total length:	127.0'	floor/decking :	timber decks
roadway width:	11.7'	other features:	steel lattice guardrails

HISTORICAL DATA

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

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 196000.3.

sign. rating:	28
evaluation:	NRHP non-eligible (undocumented, technologically undistinguished structure, with poor physical integrity)

inventoried by: Clayton B. Fraser 23 January 1992

Five Mile Creek Bridge

AUDR07

GENERAL DATA

structure no.: 197000.1	city/town: 10.7 miles north of Mexico
county: Audrain	feature inters.: Five Mile Creek
	cadastral grid: S4, T52N, R9W
	highway route: County Road 197
	highway distr.: 3
	current owner: Audrain County

STRUCTURAL DATA

superstructure: concrete, continuous rib, open spandrel arch	
substructure: concrete abutments and wingwalls	
span number: 1	condition: fair
span length: 30.0'	alterations: none
total length: 31.0'	floor/decking : concrete deck
roadway width: 14.2'	other features: plain forming, no guardrails

HISTORICAL DATA

erection date: 1901	
erection cost: unknown	
designer: unknown	
fabricator : none	
contractor: county work force (probable)	
references:	Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 197000.1; field inspection by Clayton Fraser and Sheila Bricher-Wade, 5 November 1990.
sign. rating: 64	
evaluation:	NRHP possibly eligible (well-preserved, early example of empirical concrete design, executed by local labor)

inventoried by: Clayton B. Fraser 23 January 1992

Little Skull Lick Creek Bridge

AUDR08

GENERAL DATA

structure no.: 227000.5	city/town: 5.3 miles northwest of Mexico
county: Audrain	feature inters.: Little Skull Lick Creek
	cadastral grid: S5, T51N, R9W
	highway route: County Road 227
	highway distr.: 3
	current owner: Audrain County

STRUCTURAL DATA

superstructure: concrete through girder	
substructure: concrete abutments and wingwalls	
span number: 1	condition: fair
span length: 30.0'	alterations: none
total length: 30.0'	floor/decking : concrete deck
roadway width: 14.0'	other features: plain concrete guardrails

HISTORICAL DATA

erection date: c1920
erection cost: unknown
designer: unknown
fabricator : none
contractor: unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 227000.5.

sign. rating: 32
evaluation: NRHP non-eligible (technologically undistinguished example of early concrete bridge type)

inventoried by: Clayton B. Fraser 23 January 1992

Scattering Fork Bridge

AUDR09

GENERAL DATA

structure no.:	266002.2	city/town:	5.3 miles southwest of Mexico
county:	Audrain	feature inters.:	Scattering Fork of the Salt River
		cadastral grid:	S7, T50N, R9W
		highway route:	County Road 266
		highway distr.:	3
		current owner:	Audrain County

STRUCTURAL DATA

superstructure:	concrete through girder	condition:	fair
substructure:	concrete abutments and wingwalls	alterations:	unknown
span number:	1	floor/decking :	concrete deck
span length:	22.0'	other features:	plain concrete guardrails
total length:	26.0'		
roadway width:	18.7'		

HISTORICAL DATA

erection date:	c1920
erection cost:	unknown
designer:	unknown
fabricator :	none
contractor:	unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 266002.2.

sign. rating:	25
evaluation:	NRHP non-eligible (technologically undistinguished example of early concrete bridge type)

inventoried by: Clayton B. Fraser 23 January 1992

Clark Street Viaduct

AUDR10

GENERAL DATA

structure no.: 278500.3	city/town: Mexico
county: Audrain	feature inters.: Norfolk & Western and Illinois Central Gulf Railroads
	cadastral grid: S25, T51N, R9W
	highway route: city street
	highway distr.: 3
	current owner: City of Mexico

STRUCTURAL DATA

superstructure: steel, 10-panel, pin-connected Pratt through truss	
substructure: concrete abutments and wingwalls	
span number: 1	condition: fair
span length: 130.0'	alterations: none
total length: 134.0'	floor/decking : concrete deck over steel stringers
roadway width: 26.5'	other features: steel guardrails

HISTORICAL DATA

erection date: 1928
erection cost: unknown
designer: railroad engineering department
fabricator : unknown
contractor: railroad bridge crew
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 278500.3.
sign. rating: 30
evaluation: NRHP determined non-eligible (heavily constructed, but otherwise typical example of pinned Pratt through truss construction)

Inventoried by: Clayton B. Fraser 23 January 1992

Fisher Bridge

AUDR11

GENERAL DATA

structure no.: 341000.3	city/town: 11.1 miles north of Mexico
county: Audrain	feature inters.: South Fork of the Salt River
	cadastral grid: S31, T53N, R9W
	highway route: County Road 341
	highway distr.: 3
	current owner: Audrain County

STRUCTURAL DATA

superstructure: steel, 7-panel, pin-connected Pratt through truss, with rigid-connected Warren pony truss and rigid-connected lattice pony truss approach spans

substructure: steel pile bent piers with timber back- and wingwalls

span number: 1	condition: fair
span length: 116.0'	alterations: truss perhaps moved, approach span added, substructure replaced
total length: 230.0'	floor/decking : timber deck over steel stringers
roadway width: 13.1'	other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 rectangular eyebars; counter: round rod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; floor beam: I-beam, U-bolted to lower chord pin; guardrail: steel lattice; builder's plate: [broken] Massillon Bridge Company / 1893...

HISTORICAL DATA

erection date: 1893

erection cost: unknown

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 Number 341000.3; Audrain County Bridge Record n.p.: see entry for "Fisher Bridge, S31/T53N/R8W"; field inspection by Clayton Fraser and Sheila Bricher-Wade, 5 November 1990.

sign. rating: 40

evaluation: NRHP non-eligible (poorly preserved, early example of mainstay structural type)

inventoried by: Clayton B. Fraser 23 January 1992

Cuivre River Bridge

AUDR12

GENERAL DATA

structure no.: 562000.2	city/town: 10.3 miles south of Vandalia
county: Audrain	feature inters.: West Fork of the Cuivre River
	cadastral grid: S27, T51N, R5W
	highway route: County Road 562
	highway distr.: 3
	current owner: Audrain County

STRUCTURAL DATA

superstructure: steel, pin-connected Pratt truss-leg bedstead, with steel stringer approach spans	
substructure: truss legs; concrete abutments and wingwalls	
span number: 1	condition: fair
span length: 64.0'	alterations: unknown
total length: 92.0'	floor/decking : concrete deck over steel stringers
roadway width: 11.7'	other features: steel lattice guardrails

HISTORICAL DATA

erection date: c1905
erection cost: unknown
designer: unknown
fabricator : unknown
contractor : unknown

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 562000.2.

sign. rating: 29
evaluation: NRHP non-eligible (undocumented, modestly scaled and detailed example of early truss bridge type)

inventoried by: Clayton B. Fraser 23 January 1992

Loutre River Bridge

AUDR13

GENERAL DATA

structure no.:	633000.7	city/town:	10.6 miles southeast of Mexico
county:	Audrain	feature inters.:	Loutre River
		cadastral grid:	S31, T50N, R7W
		highway route:	County Road 633
		highway distr.:	3
		current owner:	Audrain County

STRUCTURAL DATA

superstructure:	steel, 3-panel, pin-connected Pratt truss-leg bedstead, with steel stringer approach spans		
substructure:	truss leg piers with timber back- and wingwalls		
span number:	1	condition:	fair
span length:	50.0'	alterations:	unknown
total length:	71.0'	floor/decking :	timber deck
roadway width:	11.8'	other features:	steel lattice guardrails

HISTORICAL DATA

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

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure Number 633000.7.

sign. rating:	25
evaluation:	NRHP non-eligible (undocumented, relatively common Pratt truss sub-type, with average integrity)

inventoried by: Clayton B. Fraser 23 January 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Five Mile Creek Bridge
MHTD: 197000.1

AUDR07

DATE(S) OF CONSTRUCTION

1901

LOCATION

County Road 197 over Five Mile Creek; S4, T52N, R9W
10.7 miles north of Mexico; Audrain County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 64)

CONDITION

fair

OWNER

Audrain County

span number:	1	superstructure:	concrete, continuous rib, open spandrel arch
span length:	30.0'	substructure:	concrete abutments and wingwalls
total length:	31.0'	floor/decking:	concrete deck
roadway wdt.:	14.2'	other features:	plain forming, no guardrails

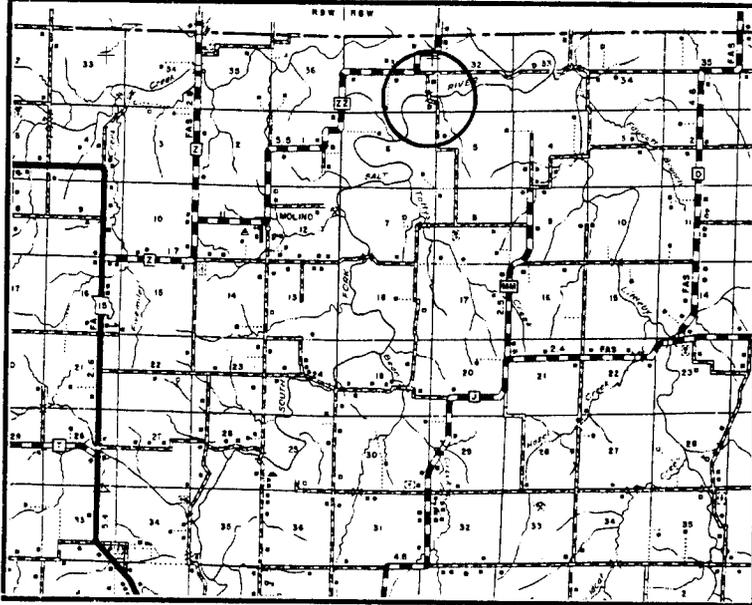
This small-scale concrete structure carries a gravel surfaced county road over Five Mile Creek north of Mexico, the Audrain County seat. The bridge consists of a single open spandrel arch, with a continuous rib that springs into concrete abutments and wingwalls. Audrain County Structure Inventory and Appraisal Records indicate that the bridge was built at this rural crossing in 1901, although other county records have failed to corroborate this. The simple detailing and crude formwork suggest that the bridge was constructed by a county work force. There is no evidence of subsequent structural alterations.

The earliest open spandrel arches in America featured single, relatively thin arch ribs that extended continuously over the width of the bridge. Around 1910 engineers began to experiment with multi-rib designs that used several individual ribs in lieu of continuous ribs. Lighter and more efficient than the former design, these multi-rib arches had almost completely replaced continuous-rib arches by the time that the state highway department adopted the open spandrel arch as a standard long-span concrete bridge configuration. As a result, relatively few continuous-rib arches were ever built in Missouri. The most outstanding of these was the Kingshighway Viaduct in St. Louis, recently demolished. Today only one continuous-rib arch has been identified by the statewide bridge inventory: the Five Mile Creek Bridge in Audrain County. Modestly scaled and simply detailed, it is noteworthy as an early, well-preserved example of empirical concrete design, executed by local labor during the formative years of concrete bridge construction.

NAME(S) OF STRUCTURE

Fisher 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 341000.3; Audrain County Bridge Record n.p.: see entry for "Fisher Bridge, S31/T53N/R8W"; field inspection by Clayton Fraser and Sheila Bricher-Wade, 5 November 1990.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

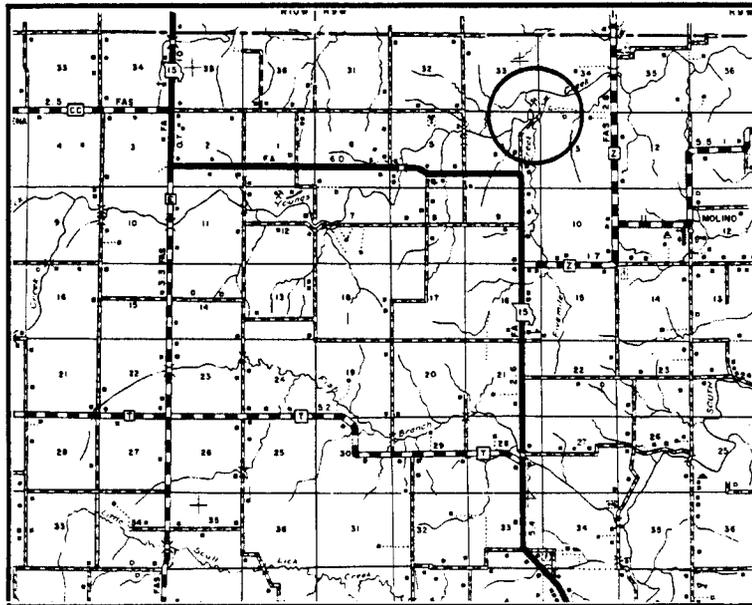
DATE

23 January 1992

NAME(S) OF STRUCTURE

Five Mile 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 Number 197000.1; field inspection by Clayton Fraser and Sheila Bricher-Wade, 5 November 1990.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

23 January 1992

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Fisher Bridge
MHTD: 341000.3

AUDR11

DATE(S) OF CONSTRUCTION

1893

LOCATION

County Road 341 over South Fork of the Salt River; S31, T53N, R9W
11.1 miles north of Mexico; Audrain County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP non-eligible (score: 40)

CONDITION

fair

OWNER

Audrain County

span number: 1
span length: 116.0'
total length: 230.0'
roadway wdt.: 13.1'

superstructure: steel, 7-panel, pin-connected Pratt through truss, with rigid-connected Warren pony truss and rigid-connected lattice pony truss approach spans
substructure: steel pile bent piers with timber back- and wingwalls
floor/decking: timber deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing; diagonal: 2 rectangular eyebars; counter: round rod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; floor beam: I-beam, U-bolted to lower chord pin; guardrail: steel lattice; builder's plate: [broken] **Massillon Bridge Company / 1893...**

This short-span through truss carries an unpaved county road over the South Fork of the Salt River some eleven miles north of Mexico, the Audrain County seat. The structure consists of a pinned Pratt through truss over the river's channel, with a riveted Warren pony truss on one approach and a riveted lattice pony truss on the other. The channel span is supported by relatively new steel cylinder piers. A builder's plate on the through truss indicates that it was fabricated in 1893 by the Massillon Bridge Company of Massillon, Ohio. Audrain County records from the period are vague, referring briefly to a Hizer Ford Bridge that was built by Massillon in 1892-93. This was the only major span built at this time by Massillon for Audrain County; it may be this crossing of the Salt River, or it may be a different crossing, with the truss subsequently moved here prior to 1926. In February of that year the county contracted with the Pan-American Bridge Company of Indiana to erect a 50-foot Warren pony truss on the south end of the through truss and build a new south abutment. Called the Fisher Bridge at this time, the structure has been further altered by the addition of a lattice truss on its north and the replacement of its original piers. It functions in place today in somewhat deteriorating condition.

The Fisher Bridge is a poorly preserved example of a pin-connected Pratt through truss - a mainstay design for medium-span crossings in the late 19th and early 20th centuries. With a modest span length, typical detailing and a substantial loss of physical integrity, the structure lacks an appreciable degree of technological integrity.