

NEWTON COUNTY

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

| Inv. No. | MHTD | Bridge Name | Description |
|----------|----------|---------------------------|---|
| *NEWT01 | J 349 | Redings Mill Bridge | 3- 90' concrete open spandrel arch 1930 M.E. Gillioz, Monett MO |
| NEWT02 | Y 160 | Silver Creek Culvert | 1- 20' stone arch culvert 1939 |
| NEWT03 | Z 210 | Spring Branch Bridge | 2- 17' concrete slab 1914 Concrete & Steel Const. Co. (prob.) |
| *NEWT04 | 008000.3 | Fillmore Bridge | 4- 66' concrete filled spandrel arch 1919 Concrete & Steel Construction Co. |
| *NEWT05 | 026004.5 | Tipton Ford Bridge | 14-50' concrete deck girder 1918 Concrete & Steel Construction Co. |
| NEWT06 | 026004.6 | Culvert | 8- 9' concrete arch culvert c1920 |
| NEWT07 | 086001.7 | Dry Branch Bridge | 1- 24' steel stringer 1911 Western Bridge Company |
| NEWT08 | 089002.4 | Jones Creek Bridge | 1- 26' concrete filled spandrel arch 1919 Concrete & Steel Constr. Company |
| NEWT09 | 090003.5 | Jenkins Creek Bridge | 1- 80' pinned Pratt pony truss c1910 |
| NEWT10 | 209000.2 | Cedar Creek Culvert | 4- 9' concrete arch culvert c1920 |
| NEWT11 | 214001.3 | Baynham Branch Culvert | 4- 9' concrete arch culvert c1920 |
| NEWT12 | 220501.1 | Shoal Creek Bridge | 8- 17' concrete slab 1919 |
| *NEWT13 | 312000.2 | Clear Creek Bridge | (replaced) |
| *NEWT14 | 327001.0 | Willow Branch Bridge | 1- 44' pinned Pratt half-hip pony truss c1900 Canton Bridge Company (prob.) |
| NEWT15 | 382200.1 | Culvert | 4- 10' concrete arch culvert c1925 |
| NEWT16 | 382200.2 | Culvert | 2- 11' concrete arch culvert c1925 |
| *NEWT17 | 384001.2 | Neosho Bridge | 1-136' pinned Pratt through truss 1882 King Iron Bridge Company |
| NEWT18 | 395500.2 | Ottawa Street Bridge | 1- 50' pinned Pratt pony truss c1910 |
| *NEWT19 | 427000.9 | North Indian Creek Bridge | 1- 48' pinned Pratt half-hip pony truss 1896 Wrought Iron Bridge Company |
| *NEWT20 | 459001.4 | Capps Creek Bridge | 1-110' pinned Pratt through truss 1906 Midland Bridge Co., Kansas City |
| *NEWT21 | 533001.0 | Mason Spring Creek Bridge | 1- 50' pinned Pratt half-hip pony truss 1901 Canton Bridge Company |
| *NEWT22 | 598003.0 | South Indian Creek Bridge | 1-118' pinned Pratt through truss 1903 Midland Bridge Co., Kansas City |
| NEWT23 | 611000.8 | Stella Bridge | 4- 20' concrete slab 1920 Concrete & Steel Construction Co. |

NEWTON COUNTY

INCLUDED (cont.):

| | | | | |
|---------|----------|-------------------------|--------|-----------------------------------|
| *NEWT24 | 655001.3 | Sycamore Creek Bridge | 1- 50' | concrete filled spandrel arch |
| | | | c1920 | |
| NEWT25 | 708000.7 | Five Mile Creek Culvert | 3- 9' | concrete arch culvert |
| | | | c1920 | |
| *NEWT26 | 713000.6 | Granby Bridge | 5- 43' | concrete filled spandrel arch |
| | | | 1919 | Concrete & Steel Construction Co. |
| *NEWT27 | 715000.3 | Dry Branch Bridge | 1- 30' | concrete through girder |
| | | | c1920 | |
| *NEWT28 | none | Jolly Mill Bridge | 1- 90' | pinned Camelback through truss |
| | | | 1905 | James B. Diver Bridge Company |

EXCLUDED:

Pratt pony truss
F 576R3

Warren pony truss
F 946A 567000.7 653R00.2 693000.2

Steel stringer

| | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|
| J 279 | J 454 | K 765 | K 990 | K 991 | L 348 | W 278 |
| Y 395 | Y 466 | 058001.8 | 067002.2 | 107001.0 | 113000.2 | 148000.7 |
| 193002.0 | 203000.1 | 203000.2 | 214000.2 | 434000.6 | 554003.3 | 556000.2 |
| 560000.8 | 560001.5 | 601001.0 | 601003.8 | 607001.8 | 613001.2 | 620000.3 |
| 629000.3 | | | | | | |

Concrete girder

| | | | | | | |
|-------|--------|-------|-------|-------|----------|----------|
| F 575 | G 406R | J 623 | K 764 | Y 482 | 479000.0 | 715000.3 |
|-------|--------|-------|-------|-------|----------|----------|

Concrete slab

| | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|
| G 624 | G 669 | W 286 | W 447 | W 448 | W 568 | X 14 |
| Y 305 | 029003.0 | 041000.5 | 076001.0 | 089002.5 | 102000.7 | 107000.2 |
| 179000.7 | 180000.8 | 218001.8 | 220501.2 | 220501.8 | 261002.0 | 291000.5 |
| 300500.3 | 325000.2 | 333002.5 | 395500.1 | 405000.1 | 428000.7 | 532000.8 |
| 554002.5 | 611000.8 | 611001.3 | 640001.8 | 654000.9 | 703001.0 | 708000.4 |

Concrete box culvert

| | | | | | | |
|--------|-------|----------|----------|----------|----------|----------|
| G 429R | J 448 | J 621 | J 622 | J 624 | K 766 | K 992 |
| L 82R | R 838 | S 85 | S 90 | S 91 | S 163 | S 164 |
| S 171 | S 213 | S 838 | T 55 | T 655 | Y 621 | Y 622 |
| Y 623 | Y 881 | 055000.0 | 062000.5 | 064000.5 | 115000.1 | 134000.8 |

Concrete box culvert

| | | | | | | |
|----------|----------|----------|----------|----------|----------|----------|
| 160000.5 | 214001.3 | 219000.7 | 220000.1 | 232001.0 | 241001.4 | 254000.7 |
| 259001.4 | 261001.2 | 309000.7 | 331001.0 | 349000.9 | 407001.1 | 509000.7 |
| 534000.5 | 539000.3 | 568000.8 | 625000.9 | 627000.4 | 650002.5 | 650003.1 |

Timber stringer

| | |
|-------|----------|
| T1008 | 027000.0 |
|-------|----------|

NEWTON COUNTY

SUMMARY:

| | Primary | Secondary | Urban | Other | Total |
|----------|---------|-----------|-------|-------|----------------|
| Included | 0 | 23 | 3 | 1 | 27 |
| Excluded | 47 | 69 | 4 | 0 | 120 |
| <hr/> | | | | | |
| | 47 | 92 | 7 | 1 | 147 structures |

Redings Mill Bridge

NEWT01

GENERAL DATA

| | | | |
|----------------|--------|------------------|--|
| structure no.: | J 349 | city/town: | Redings Mill |
| county: | Newton | feature inters.: | Shoal Creek |
| | | cadastral grid: | S35, T27N, R33W |
| | | highway route: | Missouri State Highway 43 |
| | | highway distr.: | 7 |
| | | current owner: | Missouri Highway and Transportation Department |

STRUCTURAL DATA

superstructure: concrete, two-rib, open spandrel arch, with two concrete deck girder approach spans at each end

substructure: concrete abutments, wingwalls and piers

| | | | |
|----------------|--------|-----------------|--|
| span number: | 3 | condition: | good |
| span length: | 90.0' | alterations: | none |
| total length: | 417.0' | floor/decking : | concrete deck |
| roadway width: | 20.0' | other features: | concrete guardrails with open balustrade (standard Missouri State Highway Department design); concrete sidewalk; curved approach at north end; builder's plate: Built By M.E. Gillioz Contractor Monett MO |

HISTORICAL DATA

erection date: 1930

erection cost: \$49,179.26

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. J 349; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Newton County Court Record, Book J: page 283 (31 August 1903), page 298 (29 September 1903), page 342 (7 November 1903) - located at Newton County Courthouse, Neosho MO; field inspection by Clayton Fraser, 19 April 1991.

sign. rating: 48

evaluation: NRHP determined non-eligible (typically configured example of MSHD concrete arch bridge design)

inventoried by: Clayton B. Fraser 9 March 1994

Silver Creek Culvert

NEWT02

GENERAL DATA

| | | | |
|----------------|--------|------------------|--|
| structure no.: | Y 160 | city/town: | Cliff Village |
| county: | Newton | feature inters.: | Spring Branch |
| | | cadastral grid: | S34/35, T27N, R33W |
| | | highway route: | Missouri State Highway 86 |
| | | highway distr.: | 7 |
| | | current owner: | Missouri Highway and Transportation Department |

STRUCTURAL DATA

| | | | |
|-----------------|-------------------------------|-----------------|------------------------------|
| superstructure: | stone masonry arch culvert | | |
| substructure: | stone abutments and wingwalls | | |
| span number: | 1 | condition: | fair |
| span length: | 20.0' | alterations: | unknown |
| total length: | 21.0' | floor/decking : | asphalt deck over earth fill |
| roadway width: | 24.0' | other features: | unknown |

HISTORICAL DATA

| | |
|----------------|--|
| erection date: | 1939 |
| erection cost: | unknown |
| designer: | unknown |
| fabricator : | none |
| contractor: | unknown |
| references: | Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. Y 160. |
| sign. rating: | 28 |
| evaluation: | NRHP non-eligible (technologically undistinguished, inadequately documented example of small-scale culvert type) |

inventoried by: Clayton B. Fraser 9 March 1994

Spring Branch Bridge

NEWT03

GENERAL DATA

| | | | |
|----------------|--------|------------------|--|
| structure no.: | Z 210 | city/town: | Neosho |
| county: | Newton | feature inters.: | Spring Branch |
| | | cadastral grid: | S19/30, T25N, R31W |
| | | highway route: | Missouri State Highway 86 |
| | | highway distr.: | 7 |
| | | current owner: | Missouri Highway and Transportation Department |

STRUCTURAL DATA

| | | | |
|-----------------|--|-----------------|--|
| superstructure: | concrete slab | condition: | fair |
| substructure: | concrete abutments, wingwalls and pier | alterations: | roadway widened and guardrails replaced |
| span number: | 2 | floor/decking : | concrete deck |
| span length: | 17.0' | other features: | concrete guardrails with recessed panels |
| total length: | 38.0' | | |
| roadway width: | 24.0' | | |

HISTORICAL DATA

| | |
|----------------|--|
| erection date: | 1914 |
| erection cost: | unknown |
| designer: | unknown |
| fabricator : | none |
| contractor : | Concrete and Steel Construction Company, Joplin MO (probable) |
| references: | Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. Z 210. |
| sign. rating: | 31 |
| evaluation: | NRHP non-eligible (technologically undistinguished example of early concrete bridge type, substantially altered) |

inventoried by: Clayton B. Fraser 9 March 1994

Fillmore Bridge

NEWT04

GENERAL DATA

| | | | |
|----------------|----------|------------------|------------------------------|
| structure no.: | 008000.3 | city/town: | 0.5 mile southwest of Joplin |
| county: | Newton | feature inters.: | Shoal Creek |
| | | cadastral grid: | S29, T27N, R33W |
| | | highway route: | County Road 8 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|---|
| superstructure: | concrete filled spandrel arch | | |
| substructure: | concrete abutments, wingwalls and piers | | |
| span number: | 4 | condition: | fair |
| span length: | 66.0' | alterations: | none |
| total length: | 263.0' | floor/decking : | concrete deck over earth fill |
| roadway width: | 18.5' | other features: | concrete post-and-beam guardrails; bullnosed cutwaters at the piers |

HISTORICAL DATA

| | |
|----------------|---|
| erection date: | 1919 |
| erection cost: | unknown |
| designer: | unknown |
| fabricator : | none |
| contractor: | Concrete and Steel Construction Company, Joplin MO |
| references: | Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 008000.3; Report of the State Highway Board of Missouri , December 1920; field inspection by Clayton Fraser, 19 April 1991. |
| sign. rating: | 55 |
| evaluation: | NRHP possibly eligible (significant example of pre-MSHD concrete bridge construction) |

inventoried by: Clayton B. Fraser 9 March 1994

Tipton Ford Bridge

NEWT05

GENERAL DATA

| | | | |
|----------------|----------|------------------|-------------------------------|
| structure no.: | 026004.5 | city/town: | 7.4 miles northwest of Neosho |
| county: | Newton | feature inters.: | Shoal Creek |
| | | cadastral grid: | S15/16, T26N, R32W |
| | | highway route: | County Road 26 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|-----------------------------------|
| superstructure: | concrete, two-rib, deck girder | | |
| substructure: | concrete abutments, wingwalls and bullnosed piers | | |
| span number: | 14 | condition: | fair |
| span length: | 50.0' | alterations: | none |
| total length: | 387.0' | floor/decking : | concrete deck |
| roadway width: | 18.3' | other features: | concrete post-and-beam guardrails |

HISTORICAL DATA

| | |
|----------------|--|
| erection date: | 1918 |
| erection cost: | \$15,749.00 |
| designer: | unknown |
| fabricator : | none |
| contractor : | Concrete and Steel Construction Company, Joplin MO |

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 026004.5; Newton County Court Record, Book I: page 531 (26 December 1900), page 549 (6 February 1901), page 617 (9 August 1901); Newton County Court Record, Book S: page 1 (18 April 1918), page 20 (14 May 1918), page 36 (6 June 1918), page 40 (14 June 1918), page 50 (1 July 1918), page 62 (23 July 1918), page 75 (5 August 1918), page 122 (3 September 1918), page 135 (7 October 1918), page 154 (4 November 1918), page 189 (25 November 1918), page 197 (6 December 1918); field inspection by Clayton Fraser, 19 April 1991.

| | |
|---------------|--|
| sign. rating: | 60 |
| evaluation: | NRHP possibly eligible (important, large-scale example of pre-MSHD concrete bridge design) |

inventoried by: Clayton B. Fraser 9 March 1994

Culvert

NEWT06

GENERAL DATA

| | | | |
|----------------|----------|------------------|-------------------------------|
| structure no.: | 026004.6 | city/town: | 7.3 miles northwest of Neosho |
| county: | Newton | feature inters.: | overflow of Shoal Creek |
| | | cadastral grid: | S15/16, T26N, R32W |
| | | highway route: | County Road 26 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|--|
| superstructure: | concrete arch culvert | | |
| substructure: | concrete abutments, wingwalls and piers | | |
| span number: | 8 | condition: | fair |
| span length: | 9.0' | alterations: | unknown |
| total length: | 74.0' | floor/decking : | concrete deck |
| roadway width: | 19.8' | other features: | concrete guardrails with open balustrade |

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 No. 026004.6. |
| sign. rating: | 27 |
| evaluation: | NRHP non-eligible (With its construction history undocumented, the bridge is of extremely limited interpretive value.) |

inventoried by: Clayton B. Fraser 9 March 1994

Dry Branch Bridge

NEWT07

GENERAL DATA

| | | | |
|----------------|----------|------------------|----------------------------------|
| structure no.: | 086001.7 | city/town: | 2.3 miles northeast of Wentworth |
| county: | Newton | feature inters.: | Dry Valley Branch |
| | | cadastral grid: | S25/26, T27N, R29W |
| | | highway route: | County Road 86 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|----------------------------------|-----------------|------------------------|
| superstructure: | steel stringer | condition: | fair |
| substructure: | concrete abutments and wingwalls | alterations: | unknown |
| span number: | 1 | floor/decking : | concrete deck |
| span length: | 24.0' | other features: | steel angle guardrails |
| total length: | 26.0' | | |
| roadway width: | 12.3' | | |

HISTORICAL DATA

| | |
|----------------|--|
| erection date: | 1911 |
| erection cost: | \$400.00 |
| designer: | Gabe Brown, Newton County Highway Engineer |
| fabricator : | unknown |
| contractor : | Western Bridge Company, Harrisonville MO |
| references: | Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 086001.7; Newton County Court Record, Book S: page 399 (3 September 1919) - located at Newton County Courthouse, Neosho MO. |
| sign. rating: | 30 |
| evaluation: | NRHP non-eligible (typically configured example of common structural type) |

inventoried by: Clayton B. Fraser 9 March 1994

Jones Creek Bridge

NEWT08

GENERAL DATA

| | | | |
|----------------|----------|------------------|--------------------------------|
| structure no.: | 089002.4 | city/town: | 5.0 miles northeast of Diamond |
| county: | Newton | feature inters.: | Jones Creek |
| | | cadastral grid: | S13/24, T27N, R31W |
| | | highway route: | County Road 89 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|----------------------------------|-----------------|--|
| superstructure: | concrete filled spandrel arch | | |
| substructure: | concrete abutments and wingwalls | | |
| span number: | 1 | condition: | fair |
| span length: | 26.0' | alterations: | none |
| total length: | 26.0' | floor/decking : | concrete deck |
| roadway width: | 16.2' | other features: | concrete guardrails with recessed rectangular panels |

HISTORICAL DATA

| | |
|----------------|--|
| erection date: | 1919 |
| erection cost: | unknown |
| designer: | unknown |
| fabricator : | none |
| contractor: | Concrete and Steel Construction Company, Joplin MO |
| references: | Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 089002.4; Newton County Court Record, Book S: page 399 (3 September 1919) - located at Newton County Courthouse, Neosho MO. |
| sign. rating: | 30 |
| evaluation: | NRHP non-eligible (technologically undistinguished example of a concrete bridge type) |

inventoried by: Clayton B. Fraser 9 May 1991

Jenkins Creek Bridge

NEWT09

GENERAL DATA

| | | | |
|----------------|----------|------------------|--------------------------------|
| structure no.: | 090003.5 | city/town: | 10.0 miles northeast of Granby |
| county: | Newton | feature inters.: | Jenkins Creek |
| | | cadastral grid: | S15/22, T27N, R30W |
| | | highway route: | County Road 90 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|--|-----------------|---------------|
| superstructure: | steel, 5-panel, pin-connected Pratt pony truss | | |
| substructure: | concrete abutments and wingwalls | | |
| span number: | 1 | condition: | fair |
| span length: | 80.0' | alterations: | unknown |
| total length: | 82.0' | floor/decking : | timber deck |
| roadway width: | 15.8' | other features: | no guardrails |

HISTORICAL DATA

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

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 090003.5.

| | |
|---------------|---|
| sign. rating: | 30 |
| evaluation: | NRHP non-eligible (undistinguished example of common structural type) |

inventoried by: Clayton B. Fraser 9 March 1994

Cedar Creek Culvert

NEWT10

GENERAL DATA

| | | | |
|----------------|----------|------------------|-------------------------------|
| structure no.: | 209000.2 | city/town: | 6.8 miles northwest of Neosho |
| county: | Newton | feature inters.: | Cedar Creek |
| | | cadastral grid: | S22, T26N, R32W |
| | | highway route: | County Road 209 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|-------------------------------|
| superstructure: | concrete arch culvert | | |
| substructure: | concrete abutments, wingwalls and piers | | |
| span number: | 4 | condition: | fair |
| span length: | 9.0' | alterations: | unknown |
| total length: | 40.0' | floor/decking : | concrete deck over earth fill |
| roadway width: | 18.2' | other features: | no 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 No. 209000.2. |
| sign. rating: | 22 |
| evaluation: | NRHP non-eligible (technologically undistinguished, small-scale example of concrete arch construction) |

Inventoried by: Clayton B. Fraser 9 March 1994

Baynham Branch Culvert

NEWT11

GENERAL DATA

| | | | |
|----------------|----------|------------------|------------------------------------|
| structure no.: | 214001.3 | city/town: | 1.9 miles southeast of Tipton Ford |
| county: | Newton | feature inters.: | Baynham Branch |
| | | cadastral grid: | S24, T26N, R32W |
| | | highway route: | County Road 214 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|-------------------------------|
| superstructure: | concrete arch culvert | | |
| substructure: | concrete abutments, wingwalls and piers | | |
| span number: | 4 | condition: | fair |
| span length: | 9.0' | alterations: | unknown |
| total length: | 35.0' | floor/decking : | concrete deck over earth fill |
| roadway width: | 18.0' | other features: | no 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 No. 214001.3.

| | |
|---------------|--|
| sign. rating: | 22 |
| evaluation: | NRHP non-eligible (technologically undistinguished, small-scale example of concrete arch construction) |

Inventoried by: Clayton B. Fraser 9 March 1994

Jackson Avenue Bridge

NEWT12

GENERAL DATA

| | | | |
|----------------|----------|------------------|-----------------|
| structure no.: | 220501.1 | city/town: | Joplin |
| county: | Newton | feature inters.: | Shoal Creek |
| | | cadastral grid: | S27, T27N, R33W |
| | | highway route: | County Road 220 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|---------------|
| superstructure: | concrete slab | condition: | fair |
| substructure: | concrete abutments, wingwalls and piers | alterations: | none |
| span number: | 8 | floor/decking : | concrete deck |
| span length: | 17.0' | other features: | no guardrails |
| total length: | 138.0' | | |
| roadway width: | 14.0' | | |

HISTORICAL DATA

| | |
|----------------|---------|
| erection date: | 1919 |
| erection cost: | unknown |
| designer: | unknown |
| fabricator : | none |
| contractor : | unknown |

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 220501.1.

sign. rating: 32
evaluation: NRHP non-eligible (marginally noteworthy for its multiple spans, but otherwise a technologically rudimentary concrete structure)

inventoried by: Clayton B. Fraser 9 March 1994

Willow Branch Bridge

NEWT14

GENERAL DATA

| | | | |
|----------------|----------|------------------|-------------------------------|
| structure no.: | 327001.0 | city/town: | 7.9 miles northwest of Neosho |
| county: | Newton | feature inters.: | Willow Branch |
| | | cadastral grid: | S2, T25N, R33W |
| | | highway route: | County Road 327 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

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

| | | | |
|----------------|-------|-----------------|--|
| span number: | 1 | condition: | fair |
| span length: | 44.0' | alterations: | stringers replaced |
| total length: | 45.0' | floor/decking : | concrete deck over steel stringers |
| roadway width: | 15.9' | other features: | upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped square or round eyebars; vertical: 4 angles with double lacing; diagonal: 2 looped square eyebars; counter: round rod with sleeve bolt; lateral bracing: round rod with threaded ends; floor beam: I-beam, U-bolted to vertical |

HISTORICAL DATA

erection date: c1900
erection cost: Canton Bridge Company, Canton OH (probable)
designer: Canton Bridge Company, Canton OH (probable)
fabricator : Carnegie Steel Company, Pittsburgh PA
contractor : Canton Bridge Company, Canton OH (probable)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 327001.0; field inspection by Clayton Fraser, 19 April 1991.

sign. rating: 29
evaluation: NRHP non-eligible (typical example of a common truss type, poorly documented)

inventoried by: Clayton B. Fraser 9 March 1994

Culvert

NEWT15

GENERAL DATA

| | | | |
|----------------|----------|------------------|-----------------------|
| structure no.: | 382200.1 | city/town: | Saginaw |
| county: | Newton | feature inters.: | branch of Shoal Creek |
| | | cadastral grid: | S31, T27N, R32W |
| | | highway route: | County Road 382 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|-------------------------------|
| superstructure: | concrete arch culvert | | |
| substructure: | concrete abutments, wingwalls and piers | | |
| span number: | 4 | condition: | fair |
| span length: | 10.0' | alterations: | unknown |
| total length: | 41.0' | floor/decking : | concrete deck over earth fill |
| roadway width: | 18.0' | other features: | unknown |

HISTORICAL DATA

| | |
|----------------|---------|
| erection date: | c1925 |
| erection cost: | unknown |
| designer: | unknown |
| fabricator : | none |
| contractor : | unknown |

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 382200.1; field inspection by Clayton Fraser, 19 April 1991.

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

inventoried by: Clayton B. Fraser 9 March 1994

Culvert

NEWT16

GENERAL DATA

| | | | |
|----------------|----------|------------------|---------------------------------------|
| structure no.: | 382200.2 | city/town: | Saginaw |
| county: | Newton | feature inters.: | Shoal Creek |
| | | cadastral grid: | S31, T27N, R32W |
| | | highway route: | County Road 382 (old U.S. Highway 71) |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|--|
| superstructure: | concrete arch culvert | | |
| substructure: | concrete abutments, wingwalls and piers | | |
| span number: | 2 | condition: | fair |
| span length: | 11.0' | alterations: | unknown |
| total length: | 39.0' | floor/decking : | concrete deck |
| roadway width: | 25.3' | other features: | concrete guardrails with recessed panels |

HISTORICAL DATA

| | |
|----------------|--|
| erection date: | c1925 |
| erection cost: | unknown |
| designer: | unknown |
| fabricator : | none |
| contractor : | unknown |
| references: | Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 382200.2. |
| sign. rating: | 30 |
| evaluation: | NRHP non-eligible (undocumented and undistinguished example of an early concrete bridge type) |

inventoried by: Clayton B. Fraser 9 March 1994

Neosho Bridge

NEWT17

GENERAL DATA

| | |
|--------------------------------|--|
| structure no.: 384001.2 | city/town: 1.4 mile north of Neosho |
| county: Newton | feature inters.: Shoal Creek |
| | cadastral grid: S7, T25N, R31W |
| | highway route: County Road 384 |
| | highway distr.: 7 |
| | current owner: Newton County |

STRUCTURAL DATA

superstructure: steel, 8-panel, pin-connected Pratt through truss; 2 steel stringer approach spans at each end

substructure: concrete abutments, wingwalls and piers

| | |
|-----------------------------|---|
| span number: 1 | condition: fair |
| span length: 136.0' | alterations: substructure replaced |
| total length: 186.0' | floor/decking : concrete deck over steel stringers |
| roadway width: 16.0' | other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with cover plate and lacing (2 channels at the hip); diagonal: 2 punched rectangular eyebars; counter: square eyebar with sleeve bolt; lateral bracing: looped forked eyebar, bolted to floor beams at verticals; strut: 1 channel with 2 angle knee braces; floor beams; I-beam; guardrail: 2 channels; builder's plate: 1882 King Iron Bridge Co Cleveland O |

HISTORICAL DATA

erection date: 1882
erection cost: \$4000.00
designer: King Iron Bridge Company, Cleveland OH
fabricator : King Iron Bridge Company, Cleveland OH
contractor: Kansas City Bridge Company, Kansas City MO (superstructure); C.W. Hulls (substructure)

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 384001.2; Newton County Court Record, Book F: page 128 (15 May 1882), page 130 (5 June 1882), page 133 (6 June 1882), page 141 (11 July 1882), pages 144 and 145 (7 August 1882), page 152 (4 September 1882), page 155 (4 September 1882), page 191 (4 January 1883), page 194 (22 January 1883) - located Newton County Courthouse, Neosho MO; field inspection by Clayton Fraser, 19 April 1991.

Neosho Bridge

sign. rating: 52

evaluation: NRHP possibly eligible (relatively early example of mainstay structural type)

inventoried by: Clayton B. Fraser 9 March 1994

Ottawa Street Bridge

NEWT18

GENERAL DATA

| | | | |
|----------------|----------|------------------|-------------------|
| structure no.: | 395500.2 | city/town: | Seneca |
| county: | Newton | feature inters.: | Little Lost Creek |
| | | cadastral grid: | S36, T25N, R34W |
| | | highway route: | County Road 395 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

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

| | | | |
|----------------|-------|-----------------|--|
| span number: | 1 | condition: | fair |
| span length: | 50.0' | alterations: | none |
| total length: | 52.0' | floor/decking : | timber deck over steel stringers |
| roadway width: | 20.0' | other features: | steel lattice guardrails; sidewalk cantilevered outside of web on one side of truss; cannon-ball finials at top of inclined end post |

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. 395500.2.

sign. rating: 27
evaluation: NRHP non-eligible (typically configured, inadequately documented example of common structural type)

inventoried by: Clayton B. Fraser 9 March 1994

North Indian Creek Bridge

NEWT19

GENERAL DATA

| | | | |
|----------------|----------|------------------|-----------------------------|
| structure no.: | 427000.9 | city/town: | 3.0 miles south of Newtonia |
| county: | Newton | feature inters.: | North Indian Creek |
| | | cadastral grid: | S35, T25N, R30W |
| | | highway route: | County Road 427 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

superstructure: steel, 4-panel, pin-connected Pratt half-hip pony truss
substructure: concrete abutments and wingwalls; timber wingwalls at west end

| | | | |
|----------------|-------|-----------------|---|
| span number: | 1 | condition: | fair |
| span length: | 48.0' | alterations: | bridge moved |
| total length: | 50.0' | floor/decking : | timber deck over steel stringers |
| roadway width: | 19.0' | other features: | upper chord: 2 channels with cover plate and lacing; inclined end post: 2 channels with batten plates on top and bottom; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with double lacing; diagonal: 2 looped square eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, U-bolted to vertical; guardrail: steel lattice; builder's plate (broken): Wrt. Ir...Bridge...Builde...Canton...1896 |

HISTORICAL DATA

erection date: 1896
erection cost: \$907.00
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. 427000.9; Newton County Court Record, Book I: page 25 (3 March 1896), pages 57 and 58 (8 May 1896), page 63 (1 June 1896), page 69 (6 July 1896), page 93 (13 September 1896), page 105 (10 November 1896) - located at Newton County Courthouse, Neosho MO; field inspection by Clayton Fraser, 19 April 1991.

sign. rating: 46
evaluation: NRHP possibly eligible (patented WIBCo truss type, moved to this location)

Inventoried by: Clayton B. Fraser 9 March 1994

Capps Creek Bridge

NEWT20

GENERAL DATA

| | | | |
|----------------|----------|------------------|---------------------------------|
| structure no.: | 459001.4 | city/town: | 6.0 miles northeast of Newtonia |
| county: | Newton | feature inters.: | Capps Creek |
| | | cadastral grid: | S11, T25N, R29W |
| | | highway route: | County Road 459 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

superstructure: steel, 6-panel, pin-connected Pratt through truss
substructure: concrete abutments and wingwalls

| | | | |
|----------------|--------|-----------------|---|
| span number: | 1 | condition: | fair |
| span length: | 110.0' | alterations: | bridge moved |
| total length: | 110.0' | floor/decking : | timber deck over steel stringers |
| roadway width: | 12.0' | other features: | upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 looped square eyebars at the hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; portal strut: A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: timber or steel lattice; builder's plate: 1906 / The Midland Bridge Co. / Kansas City Mo. / Freygang & Trocon Proprietors |

HISTORICAL DATA

erection date: 1906
erection cost: \$3249.00
designer: Midland Bridge Company, Kansas City MO
fabricator : Midland Bridge Company, Kansas City MO;
Cambria Steel Company, Pittsburgh PA
contractor : Midland Bridge Company, Kansas City MO
references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 459001.4; Newton County Court Record, Book K: pages 307-309 (9 August 1905), pages 312 and 313 (9 August 1905), pages 362 and 363 (4 September 1905), pages 366-368 (5 September 1905), pages 548-550 (5 April 1906), page 556 (14 April 1906) - located at Newton County Courthouse, Neosho MO; field inspection by Clayton Fraser, 19 April 1991.

Capps Creek Bridge

sign. rating: 40

evaluation: NRHP non-eligible (typically configured example of mainstay structural type, moved to this location)

inventoried by: Clayton B. Fraser 9 March 1994

Mason Spring Creek Bridge

NEWT21

GENERAL DATA

| | |
|--------------------------------|---|
| structure no.: 533001.0 | city/town: 3.7 miles southeast of Seneca |
| county: Newton | feature inters.: Mason Spring Creek |
| | cadastral grid: S27/28, T24N, R34W |
| | highway route: County Road 533 |
| | highway distr.: 7 |
| | current owner: Newton County |

STRUCTURAL DATA

| | |
|--|--|
| superstructure: steel, 4-panel, pin-connected Pratt half-hip pony truss | |
| substructure: stone masonry abutments and wingwalls with concrete parging | |
| span number: 1 | condition: fair |
| span length: 50.0' | alterations: none |
| total length: 52.0' | floor/decking : timber deck over timber stringers |
| roadway width: 15.9' | other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped square eyebars; vertical: 4 angles with double lacing; diagonal: 2 looped square eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: steel lattice |

HISTORICAL DATA

| | |
|--|--|
| erection date: 1901 | |
| erection cost: unknown | |
| designer: Canton Bridge Company, Canton OH | |
| fabricator : Canton Bridge Company, Canton OH | |
| contractor : Canton Bridge Company, Canton OH | |
| references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 533001.0; field inspection by Clayton Fraser, 19 April 1991. | |
| sign. rating: 41 | |
| evaluation: NRHP non-eligible (typically configured, inadequately documented example of a common structural type) | |

inventoried by: Clayton B. Fraser 9 March 1994

South Indian Creek Bridge

NEWT22

GENERAL DATA

| | |
|--------------------------------|---|
| structure no.: 598003.0 | city/town: 1.3 miles southeast of Boulder City |
| county: Newton | feature inters.: South Indian Creek |
| | cadastral grid: S24, T24N, R31W |
| | highway route: County Road 598 |
| | highway distr.: 7 |
| | current owner: Newton County |

STRUCTURAL DATA

superstructure: steel, 8-panel, pin-connected Pratt through truss; 1 timber stringer approach span at the south end

substructure: concrete abutments, wingwalls and pier

| | |
|-----------------------------|---|
| span number: 1 | condition: fair |
| span length: 118.0' | alterations: moved, 1930 |
| total length: 136.0' | floor/decking : timber deck over timber stringers |
| roadway width: 16.0' | other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: two channels with wide, flat lacing (2 looped square eyebars at the hip); diagonal: 2 looped rectangular eyebars; counter: round rod with unslotted turnbuckle; lateral bracing: round rod with threaded ends; strut: 1 channel; portal strut: 4 angles with lacing and laced knee braces; floor beams; I-beam, U-bolted to vertical; guardrail: steel pipe; builder's plate: 1903 The Midland Bridge Co. Kansas City Mo. Freygang & Trocon Proprietors |

HISTORICAL DATA

erection date: 1903

erection cost: unknown

designer: Midland Bridge Company, Kansas City MO

fabricator : Midland Bridge Company, Kansas City MO;
Phoenix Iron Company, Philadelphia PA

contractor: Midland Bridge Company, Kansas City MO

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 598003.0; Newton County Court Record, Book J: page 283 (31 August 1903), page 298 (29 September 1903), page 342 (7 November 1903) - located Newton County Courthouse, Neosho MO; field inspection by Clayton Fraser, 19 April 1991.

South Indian Creek Bridge

sign. rating: 43

evaluation: NRHP non-eligible (typically configured example of mainstay structural type, moved to this location)

inventoried by: Clayton B. Fraser 9 March 1994

Stella Bridge

NEWT23

GENERAL DATA

| | | | |
|----------------|----------|------------------|---------------------------------|
| structure no.: | 611000.8 | city/town: | 3.3 miles southwest of Fairview |
| county: | Newton | feature inters.: | Middle Indian Creek |
| | | cadastral grid: | S10/11, T24N, R30W |
| | | highway route: | County Road 611 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|-----------------------------------|
| superstructure: | concrete slab | condition: | fair |
| substructure: | concrete abutments, wingwalls and piers | alterations: | unknown |
| span number: | 4 | floor/decking : | concrete deck |
| span length: | 20.0' | other features: | concrete post-and-beam guardrails |
| total length: | 80.0' | | |
| roadway width: | 20.0' | | |

HISTORICAL DATA

| | |
|----------------|---|
| erection date: | 1920 |
| erection cost: | unknown |
| designer: | unknown |
| fabricator : | none |
| contractor : | Concrete and Steel Construction Company, Joplin MO |
| references: | Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 611000.8; Newton County Court Record, Book S: page 605 (20 June 1920), page 622 (20 July 1920) - located at Newton County Courthouse, Neosho MO. |
| sign. rating: | 33 |
| evaluation: | NRHP non-eligible (technologically undistinguished example of a simple concrete bridge design) |

inventoried by: Clayton B. Fraser 9 March 1994

Sycamore Creek Bridge

NEWT24

GENERAL DATA

| | | | |
|----------------|----------|------------------|-------------------------------|
| structure no.: | 655001.3 | city/town: | 2.8 miles southeast of Seneca |
| county: | Newton | feature inters.: | Sycamore Creek |
| | | cadastral grid: | S15/22, T24N, R34W |
| | | highway route: | County Road 655 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|-----------------------------------|
| superstructure: | concrete filled spandrel arch, skewed | | |
| substructure: | concrete abutments and wingwalls with stone backing | | |
| span number: | 1 | condition: | fair |
| span length: | 50.0' | alterations: | none |
| total length: | 50.0' | floor/decking : | concrete deck over earth fill |
| roadway width: | 28.5' | other features: | concrete curbs without 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 No. 655001.3; field inspection by Clayton Fraser, 19 April 1991.

| | |
|---------------|--|
| sign. rating: | 26 |
| evaluation: | NRHP non-eligible (inadequately documented example of a concrete filled spandrel arch, marginally noteworthy for its skewed configuration) |

inventoried by: Clayton B. Fraser 9 March 1994

Five Mile Creek Culvert

NEWT25

GENERAL DATA

| | | | |
|----------------|----------|------------------|--------------------------------|
| structure no.: | 708000.7 | city/town: | 12.0 miles northwest of Neosho |
| county: | Newton | feature inters.: | Five Mile Creek |
| | | cadastral grid: | S20, T26N, R33W |
| | | highway route: | County Road 708 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|--------------------------|
| superstructure: | concrete arch culvert | | |
| substructure: | concrete abutments, wingwalls and piers | | |
| span number: | 3 | condition: | poor |
| span length: | 9.0' | alterations: | two spans have collapsed |
| total length: | 31.0' | floor/decking : | concrete deck |
| roadway width: | 19.5' | other features: | no 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 No. 708000.7.

| | |
|---------------|---|
| sign. rating: | 33 |
| evaluation: | NRHP non-eligible (poorly documented example of a rudimentary concrete bridge type) |

inventoried by: Clayton B. Fraser 9 March 1994

Granby Bridge

NEWT26

GENERAL DATA

| | | | |
|----------------|----------|------------------|---------------------------|
| structure no.: | 713000.6 | city/town: | 1.9 miles north of Granby |
| county: | Newton | feature inters.: | Shoal Creek |
| | | cadastral grid: | S25, T26N, R31W |
| | | highway route: | County Road 713 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|---|-----------------|---|
| superstructure: | concrete filled spandrel arch | | |
| substructure: | concrete abutments, wingwalls and piers | | |
| span number: | 5 | condition: | fair |
| span length: | 43.0' | alterations: | none |
| total length: | 215.0' | floor/decking : | concrete deck over earth fill |
| roadway width: | 18.3' | other features: | concrete post-and-beam guardrails; "Z-642" Missouri Highway and Transportation Department designation spray painted on concrete at approach |

HISTORICAL DATA

| | |
|----------------|--|
| erection date: | 1919 |
| erection cost: | \$14,600.00 |
| designer: | unknown |
| fabricator : | none |
| contractor : | Concrete and Steel Construction Company, Joplin MO |

references: Missouri Highway and Transportation Department, Structure Inventory and Appraisal: Structure No. 713000.6; Report of the State Highway Board of Missouri for the Period Ending December 1, 1918, located at the Missouri Highway and Transportation Department, Jefferson City MO; Newton County Court Record S: pages 313 and 314 (21 April 1919), page 360 (7 July 1919), page 391 (19 August 1919), page 392 (1 September 1919) - located at Newton County Courthouse, Neosho MO; McDonald County Court Record, Book P: page 252 (12 February 1920) -located at McDonald County Courthouse, Pineville MO; field inspection by Clayton Fraser, 19 April 1991.

| | |
|---------------|---|
| sign. rating: | 53 |
| evaluation: | NRHP possibly eligible (significant example of pre-MSHD concrete bridge construction) |

inventoried by: Clayton B. Fraser 9 March 1994

Dry Branch Bridge

NEWT27

GENERAL DATA

| | | | |
|----------------|----------|------------------|-------------------------|
| structure no.: | 715000.3 | city/town: | northern edge of Granby |
| county: | Newton | feature inters.: | Dry Branch |
| | | cadastral grid: | S31, T26N, R30W |
| | | highway route: | County Road 715 |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

| | | | |
|-----------------|----------------------------------|-----------------|--|
| superstructure: | concrete through girder, skewed | | |
| substructure: | concrete abutments and wingwalls | | |
| span number: | 1 | condition: | fair |
| span length: | 30.0' | alterations: | none |
| total length: | 35.0' | floor/decking : | concrete deck |
| roadway width: | 17.8' | other features: | solid concrete guardrails with recessed rectangular panels |

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 No. 715000.3; field inspection by Clayton Fraser, 19 April 1991.

| | |
|---------------|---|
| sign. rating: | 30 |
| evaluation: | NRHP non-eligible (well-preserved example of uncommon structural type, inadequately documented) |

inventoried by: Clayton B. Fraser 9 March 1994

Jolly Mill Bridge

NEWT28

GENERAL DATA

| | | | |
|----------------|--------|------------------|---------------------------------|
| structure no.: | none | city/town: | 6.6 miles northeast of Newtonia |
| county: | Newton | feature inters.: | Capps Creek Bridge |
| | | cadastral grid: | S11, T25N, R29W |
| | | highway route: | county road |
| | | highway distr.: | 7 |
| | | current owner: | Newton County |

STRUCTURAL DATA

superstructure: steel, 6-panel, pin-connected Camelback through truss
substructure: non-original concrete piers; no abutments

| | | | |
|----------------|-------|-----------------|--|
| span number: | 1 | condition: | good |
| span length: | 90.0' | alterations: | bridge moved to Jolly Mill Park, under restoration |
| total length: | 90.0' | floor/decking : | no deck or stringers at time of survey |
| roadway width: | 16.0' | 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 (4 angles with lacing at the hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: angles, braced; portal strut: A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: steel lattice; builder's plate (removed): Built by James B. Diver Bridge Co., Keokuk Ia |

HISTORICAL DATA

erection date: 1905
erection cost: \$2569.00
designer: unknown
fabricator : unknown
contractor: James B. Diver Bridge Company, Keokuk IA

references: Newton County Court Record, Book J: page 357 (29 December 1903), pages 393 and 394 (5 February 1904), page 581 (6 September 1904); Newton County Court Record, Book K: page 174 (19 March 1905) - located at Newton County Courthouse, Neosho MO; "Jolly Mill To Be Preserved," *Monett Times* (6 June 1973) page 1; "Group Hopes To Restore Jolly Mill," *Joplin Globe* (24 April 1983), n.p.; field inspection by Clayton Fraser, 19 April 1991.

Jolly Mill Bridge

sign. rating: 38

evaluation: NRHP non-eligible (short-span example of uncommon structural type,
recently moved)

inventoried by: Clayton B. Fraser 9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Redings Mill Bridge
MHTD: J 349

NEWT01

DATE(S) OF CONSTRUCTION

1930

LOCATION

Missouri State Highway 43 over Shoal Creek; S35, T27N, R33W
Redings Mill; Newton County, Missouri

USE (ORIGINAL / CURRENT)

highway bridge / highway bridge

RATING NRHP determined non-eligible (score: 48)

CONDITION

good

OWNER

Missouri Highway and Transportation Department

span number: 3
span length: 90.0'
total length: 417.0'
roadway wdt.: 20.0'

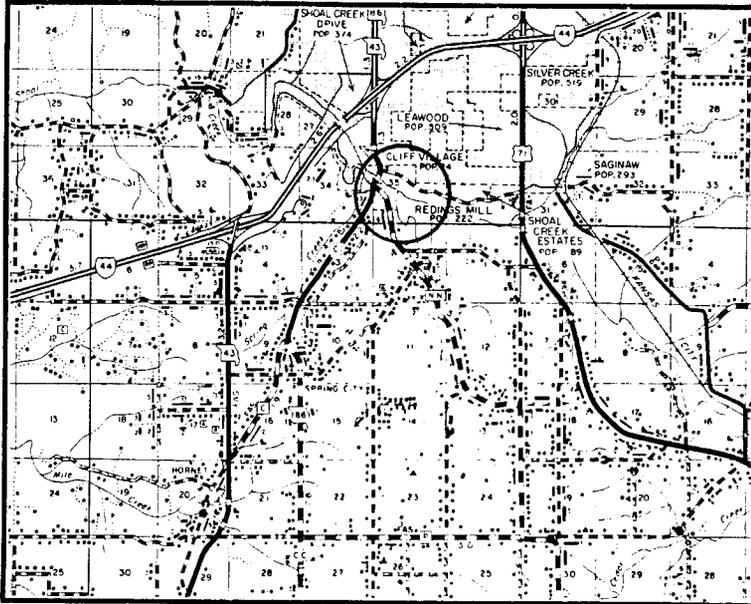
superstructure: concrete, two-rib, open spandrel arch, with two concrete deck girder approach spans at each end
substructure: concrete abutments, wingwalls and piers
floor/decking: concrete deck
other features: concrete guardrails with open balustrade (standard Missouri State Highway Department design); concrete sidewalk; curved approach at north end; builder's plate: **Built By M.E. Gillioz Contractor Monett MO**

The history of the Redings Mill Bridge dates to 1903. That summer Newton County contracted with the Midland Bridge Company to construct a two-span steel truss over Shoal Creek at Redings Mill, just south of the city of Joplin. Completed in September, the structure functioned without alteration until 1930. Located along the heavily traveled route south of Joplin, a replacement bridge had become necessary because of the crossing's increased use. Accordingly, the state highway department designed the replacement and contracted with M.E. Gillioz of Monett, Missouri, to build the new Redings Mill Bridge—a wider and more substantial three-span concrete arch structure. The two steel spans built by Midland in 1903 were still in good condition, however, and the county decided to re-erect them at less heavily trafficked, rural locations. One of the two Midland spans [NEWT22] was rebuilt over South Indian Creek near Boulder City, while the other [NEWT13] was moved to a crossing over Clear Creek east of Ritchey. Completed in 1930, the Redings Mill Bridge is still in service and has not been seriously altered.

The Missouri State Highway Department typically used open spandrel designs for its concrete arches with 80 feet or more of span. Although numerous single-span, open spandrel arches were built in the 1920s and 1930s, multiple-span examples were erected far less often. Approximately 20 multiple-span open spandrel arches have been identified by the statewide bridge inventory. Among these, the Redings Mill Bridge ranks as a well-preserved, representative example of MSHD concrete bridge design.

NAME(S) OF STRUCTURE

Redings Mill 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. J 349; Primary System Bridge Record, located at the Missouri Highway and Transportation Department, Jefferson City MO; Newton County Court Record, Book J: page 283 (31 August 1903), page 298 (29 September 1903), page 342 (7 November 1903) - located at Newton County Courthouse, Neosho MO; field inspection by Clayton Fraser, 19 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Fillmore Bridge
MHTD: 008000.3

NEWT04

DATE(S) OF CONSTRUCTION

1919

LOCATION

County Road 8 over Shoal Creek; S29, T27N, R33W
0.5 mile southwest of Joplin; Newton County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / abandoned

RATING NRHP possibly eligible (score: 55)

CONDITION

fair

OWNER

Newton County

| | |
|----------------------|---|
| span number: 4 | superstructure: concrete filled spandrel arch |
| span length: 66.0' | substructure: concrete abutments, wingwalls and piers |
| total length: 263.0' | floor/decking: concrete deck over earth fill |
| roadway wdt.: 18.5' | other features: concrete post-and-beam guardrails; bullnosed cutwaters at the piers |

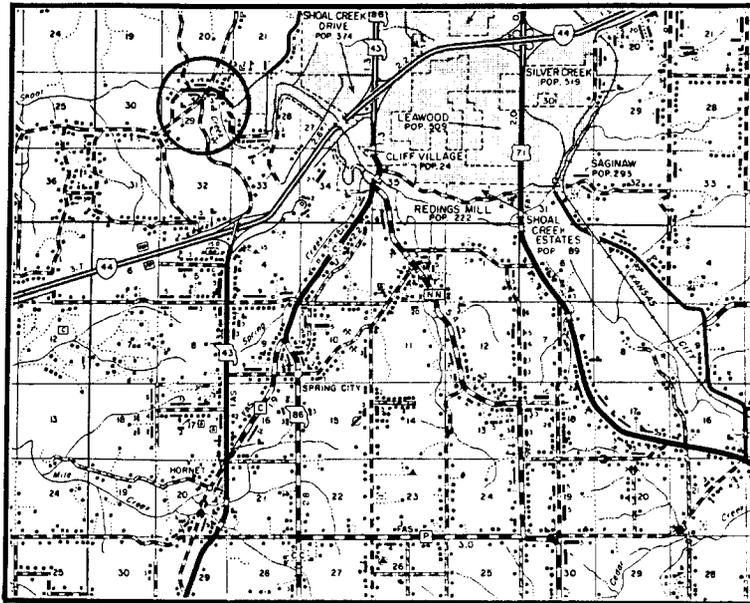
Located on an abandoned section of road in Shoal Creek Township, this large-scale concrete bridge spans Shoal Creek on the western periphery of Joplin. The structure is comprised of four elliptically shaped, filled spandrel concrete arches, supported by concrete piers and abutments. The bridge is plainly detailed, with triangular cutwaters on the piers and concrete post-and-beam guardrails. This structure dates to 1919. That year the Joplin Special Road District began planning for a substantial replacement for the Fillmore Bridge, a timber pile structure that had deteriorated beyond repair. The road district hired the Concrete and Steel Road District to build the new bridge. The Joplin-based firm built timber centering on Shoal Creek, placed the concrete and completed the bridge that year, while simultaneously building an almost identical concrete bridge over Shoal Creek north of Granby [NEWT26]. The Fillmore Bridge carried increasingly heavy traffic until its eventual replacement by Interstate 44. It has more recently been abandoned in place, deteriorating but intact.

Before the Missouri State Highway Department began designing vehicular bridges in the late 1910s, the state's counties, municipalities and road districts were individually responsible for their own bridge design and construction. Most opted for metal truss bridges, which were cheaply and quickly erected and were typically engineered by the bridge companies. The highway department began using concrete for its highway spans in the 1920s as an alternative to metal truss construction, but the counties never really embraced concrete as a superstructural material. There are a few noteworthy exceptions to this statewide trend, among them the Fillmore Bridge. With its 1919 construction date and locally generated concrete arch design, this Newton County structure is historically and technologically significant for its deviation from what is an overwhelming trend in Missouri bridge construction. A regionally important crossing on the road west of Joplin, it is today an important and well-preserved example of pre-MSHD concrete bridge design.

NAME(S) OF STRUCTURE

Fillmore 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. 008000.3; Report of the State Highway Board of Missouri, December 1920; field inspection by Clayton Fraser, 19 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Tipton Ford Bridge
MHTD: 026004.5

NEWT05

DATE(S) OF CONSTRUCTION

1918

LOCATION

County Road 26 over Shoal Creek; S15/16, T26N, R32W
7.4 miles northwest of Neosho; Newton County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 60)

CONDITION

fair

OWNER

Newton County

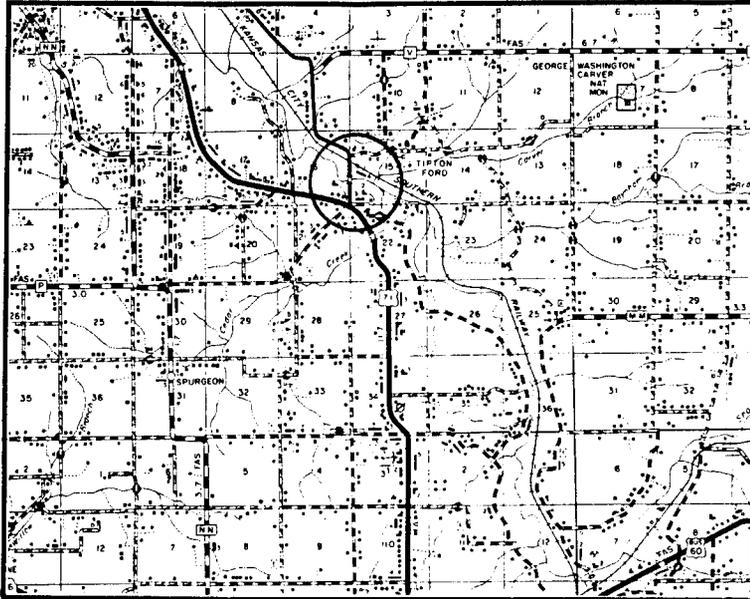
| | |
|----------------------|---|
| span number: 14 | superstructure: concrete, two-rib, deck girder |
| span length: 50.0' | substructure: concrete abutments, wingwalls and bullnosed piers |
| total length: 387.0' | floor/decking: concrete deck |
| roadway wdt.: 18.3' | other features: concrete post-and-beam guardrails |

Citizens in the area of Tipton Ford south of Joplin first petitioned for a bridge on the Neosho-Joplin Road at this site in 1896. With members of the county court divided on the issue, however, it was more than five years before a bridge was actually built. During the spring and summer of 1901 the Wrought Iron Bridge Company erected a 125-foot steel truss with a 375-foot timber pile approach at Tipton Ford. Built for \$2252.00, this structure lasted only 17 years. In the spring of 1918 county highway engineer O.A. Hearrell inspected the Tipton Ford Bridge and determined that a new structure was needed. Bids were solicited, and on June 6, 1918, a contract was awarded to the Concrete and Steel Construction Company of Joplin to build the bridge for \$15,749.00. As built, the replacement structure was comprised 14 concrete deck girder spans, each made up of two deep ribs, a concrete deck and concrete post-and-beam guardrails. Work on the project began in early July and continued through the summer and fall. On November 25, 1918, the county court formally accepted the Tipton Ford Bridge as complete. The Tipton Ford Bridge continues to carry traffic, and appears essentially the same today as when originally built.

Unlike many Midwestern states, Missouri did not employ reinforced concrete extensively for construction of vehicular bridge superstructures in the 1910s. The various counties and, to a lesser extent, the state highway department continued to prefer steel for bridge superstructures well after concrete had received widespread acceptance elsewhere. This, combined with subsequent attrition, has resulted in a relatively small number of concrete bridges that exist today from this formative period. The Tipton Ford Bridge is an example of a locally produced concrete design, built just prior to the development of state bridge standards emanating from the 1918 Hawes Road Law. A forerunner of one of several State Highway Department designs for short- and medium-span bridges, this concrete deck girder structure is notable for its multiple-span configuration. Only four such structures identified by the statewide bridge inventory have more than 14 spans, and just five have individual spans longer than 50 feet.

NAME(S) OF STRUCTURE

Tipton 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 No. 026004.5; Newton County Court Record, Book I: page 531 (26 December 1900), page 549 (6 February 1901), page 617 (9 August 1901); Newton County Court Record, Book S: page 1 (18 April 1918), page 20 (14 May 1918), page 36 (6 June 1918), page 40 (14 June 1918), page 50 (1 July 1918), page 62 (23 July 1918), page 75 (5 August 1918), page 122 (3 September 1918), page 135 (7 October 1918), page 154 (4 November 1918), page 189 (25 November 1918), page 197 (6 December 1918); field inspection by Clayton Fraser, 19 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Neosho Bridge
MHTD: 384001.2

NEWT17

DATE(S) OF CONSTRUCTION

1882

LOCATION

County Road 384 over Shoal Creek; S7, T25N, R31W
1.4 mile north of Neosho; Newton County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / abandoned

RATING NRHP possibly eligible (score: 52)

CONDITION

fair

OWNER

Newton County

span number: 1
span length: 136.0'
total length: 186.0'
roadway wdt.: 16.0'

superstructure: steel, 8-panel, pin-connected Pratt through truss; 2 steel stringer approach spans at each end
substructure: concrete abutments, wingwalls and piers
floor/decking: concrete deck over steel stringers
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 punched rectangular eyebars; vertical: 2 channels with cover plate and lacing (2 channels at the hip); diagonal: 2 punched rectangular eyebars; counter: square eyebar with sleeve bolt; lateral bracing: looped forked eyebar, bolted to floor beams at verticals; strut: 1 channel with 2 angle knee braces; floor beams; I-beam; guardrail: 2 channels; builder's plate: 1882 King Iron Bridge Co Cleveland O

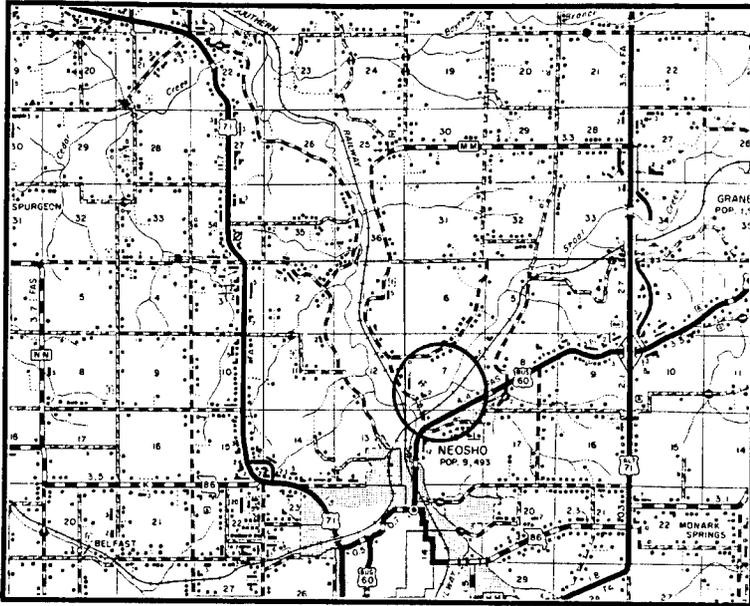
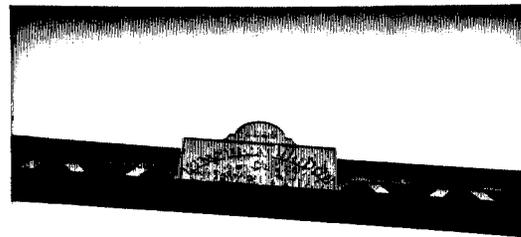
Erected in 1882 about 1½ miles north of the town for which it was named, the Neosho Bridge is Newton County's oldest remaining vehicular crossing. Minutes of the Newton County Court indicate that the county contracted with the Kansas City Bridge and Iron Company to build the structure, but a builder's plate denotes that it was erected by the King Iron Bridge Company of Cleveland. Kansas City Bridge evidently received the contract, and then subcontracted the bridge's fabrication to King. A single-span, pin-connected Pratt through truss, with flanking steel stringer approach spans, the bridge's history dates to the spring of 1882. On May 15th of that year the county court appropriated \$3500.00 for a bridge across Shoal Creek at "a point near the center of the county as practicable." Bids were let on July 11th, and just under a month later, on August 7th, the Kansas City Bridge and Iron Company was awarded a \$3900.00 contract to erect the structure. C.W. Hulls, meanwhile, received a separate contract to build the abutments priced at \$3.00 per perch. By the end of the year, the substructure was in place, and Hulls had been issued two warrants totaling \$100.00. Kansas City Bridge, meanwhile, was paid half its contract price of \$1950.00 on January 4, 1883. Just over two weeks later, on January 22nd, the bridge was completed, and a second payment of \$1950.00 was issued to Kansas City Bridge. Hulls's original stone abutments have been replaced with concrete, but the structure otherwise appears as originally built. In 1979 a new bridge was built and the existing roadway realigned. In this way, it was possible to preserve the old Neosho Bridge in its original location.

As the oldest remaining wagon crossing in Newton County, the Neosho Bridge is historically significant as an intact remnant of early

transportation. The structure is also technologically representative as one of Missouri's earliest pinned Pratt through trusses—a mainstay structural type for medium-span crossings built in the late 19th century. Statewide, only four pinned Pratt through trusses that still remain are documented to have been built earlier than the Neosho Bridge.

NAME(S) OF STRUCTURE

Neosho 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. 384001.2; Newton County Court Record, Book F: page 128 (15 May 1882), page 130 (5 June 1882), page 133 (6 June 1882), page 141 (11 July 1882), pages 144 and 145 (7 August 1882), page 152 (4 September 1882), page 155 (4 September 1882), page 191 (4 January 1883), page 194 (22 January 1883) - located Newton County Courthouse, Neosho MO; field inspection by Clayton Fraser, 19 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

North Indian Creek Bridge
MHTD: 427000.9

NEWT19

DATE(S) OF CONSTRUCTION

1896

LOCATION

County Road 427 over North Indian Creek; S35, T25N, R30W
3.0 miles south of Newtonia; Newton County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 46)

CONDITION

fair

OWNER

Newton County

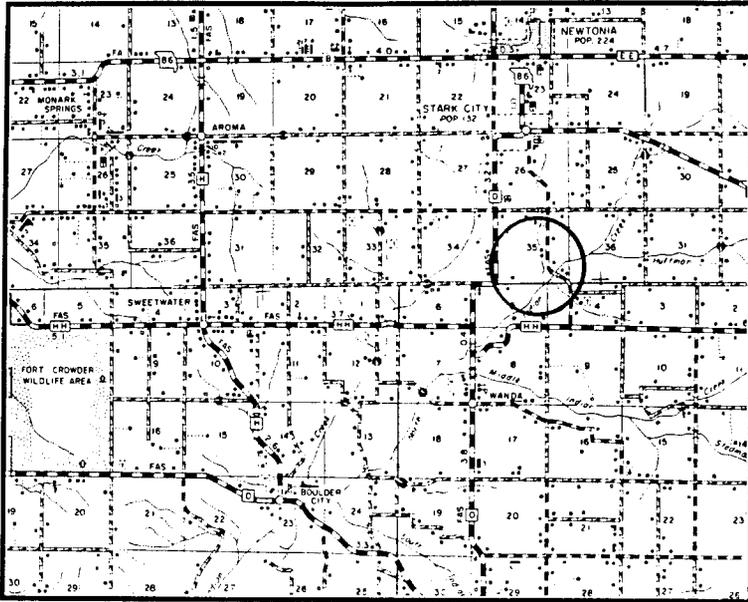
| | |
|---------------------|---|
| span number: 1 | superstructure: steel, 4-panel, pin-connected Pratt half-hip pony truss |
| span length: 48.0' | substructure: concrete abutments and wingwalls; timber wingwalls at west end |
| total length: 50.0' | floor/decking: timber deck over steel stringers |
| roadway wdt.: 19.0' | other features: upper chord: 2 channels with cover plate and lacing; inclined end post: 2 channels with batten plates on top and bottom; lower chord: 2 looped rectangular eyebars; vertical: 4 angles with double lacing; diagonal: 2 looped square eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, U-bolted to vertical; guardrail: steel lattice; builder's plate (broken): Wrt. Ir...Bridge...Builde...Canton...1896 |

The North Indian Creek Bridge is located along an unpaved county road three miles south of Newtonia, in southeastern Newton County. A pin-connected Pratt half-hip pony truss, the bridge is supported by a concrete substructure. The truss was built in 1896, but is no longer in its original location. In early March 1896 a petition for a bridge across Shoal Creek at Spring Ford was filed with the Newton County Court. Two months later, on May 8th, the county court ordered the erection of two bridges over Shoal Creek—one near Granby, and this bridge at Spring Ford. Bids were solicited, and on June 1st the Wrought Iron Bridge Company received the contract to build both spans. Construction on both structures began later that summer. At Spring Ford, local residents built the approaches, while Wrought Iron Bridge erected the main span for \$907.00. The date that the truss was moved to its current location is undocumented. Although no longer at its original location, the North Indian Creek Bridge is a well-documented example of a mainstay structural type—the pin-connected Pratt half-hip pony truss.

NAME(S) OF STRUCTURE

North Indian 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. 427000.9; Newton County Court Record, Book I: page 25 (3 March 1896), pages 57 and 58 (8 May 1896), page 63 (1 June 1896), page 69 (6 July 1896), page 93 (13 September 1896), page 105 (10 November 1896) - located at Newton County Courthouse, Neosho MO; field inspection by Clayton Fraser, 19 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Capps Creek Bridge
MHTD: 459001.4

NEWT20

DATE(S) OF CONSTRUCTION

1906

LOCATION

County Road 459 over Capps Creek; S11, T25N, R29W
6.0 miles northeast of Newtonia; Newton County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP non-eligible (score: 40)

CONDITION

fair

OWNER

Newton County

span number: 1

span length: 108.0'

total length: 110.0'

roadway wdt.: 12.0'

superstructure: steel, 6-panel, pin-connected Pratt through truss

substructure: concrete abutments and wingwalls

floor/decking: timber deck over steel stringers

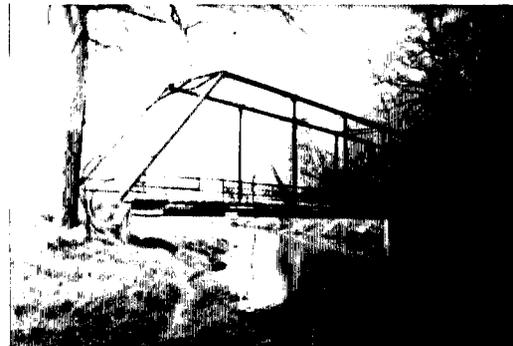
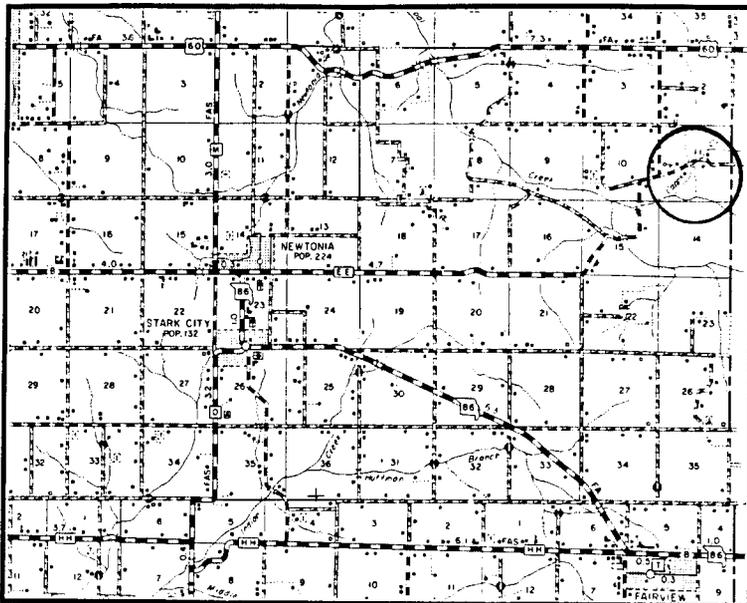
other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped rectangular eyebars; vertical: 2 channels with lacing (2 looped square eyebars at the hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: 4 angles with lacing; portal strut: A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: timber or steel lattice; builder's plate: 1906 / The Midland Bridge Co. / Kansas City Mo. / Freygang & Trocon Proprietors

The Capps Creek Bridge is located six miles northeast of Newtonia, in eastern Newton County. A builder's plate reveals that the bridge was built in 1906. County records show that the structure is no longer in its original location, however. On August 9, 1905, J.R. Smith presented a petition for a bridge over Indian Creek near Boulder City in Section 23 of Township 24 North, Range 31 West. County officials viewed the petition favorably, and John Sherwood, the road and bridge commissioner, prepared plans for a 108-foot steel through truss and a 40-foot pony truss approach. On September 5, 1905, a contract to erect the crossing was let to the Midland Bridge Company of Kansas City. Midland completed the project by early spring, and on April 5, 1906, the company was issued a warrant for \$3249.00. The length of time that the bridge carried traffic over Indian Creek prior to being moved to Capps Creek has not been documented.

Although no longer at its original location, the Capps Creek Bridge is a well-documented example of a mainstay structural type—the pin-connected Pratt through truss. The bridge displays standard detailing, unremarkable dimensions, and an average degree of physical integrity.

NAME(S) OF STRUCTURE

Capps 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. 459001.4; Newton County Court Record, Book K: pages 307-309 (9 August 1905), pages 312 and 313 (9 August 1905), pages 362 and 363 (4 September 1905), pages 366-368 (5 September 1905), pages 548-550 (5 April 1906), page 556 (14 April 1906) - located at Newton County Courthouse, Neosho MO; field inspection by Clayton Fraser, 19 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Mason Spring Creek Bridge
MHTD: 533001.0

NEWT21

DATE(S) OF CONSTRUCTION

1901

LOCATION

County Road 533 over Mason Spring Creek; S27/28, T24N, R34W
3.7 miles southeast of Seneca; Newton County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP non-eligible (score: 41)

CONDITION

fair

OWNER

Newton County

span number: 1

span length: 50.0'

total length: 52.0'

roadway wdt.: 15.9'

superstructure: steel, 4-panel, pin-connected Pratt half-hip pony truss

substructure: stone masonry abutments and wingwalls with concrete parging

floor/decking: timber deck over timber stringers

other features: upper chord and inclined end post: 2 channels with cover plate and lacing; lower chord: 2 looped square eyebars; vertical: 4 angles with double lacing; diagonal: 2 looped square eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; floor beam: I-beam, field-bolted to vertical; guardrail: steel lattice

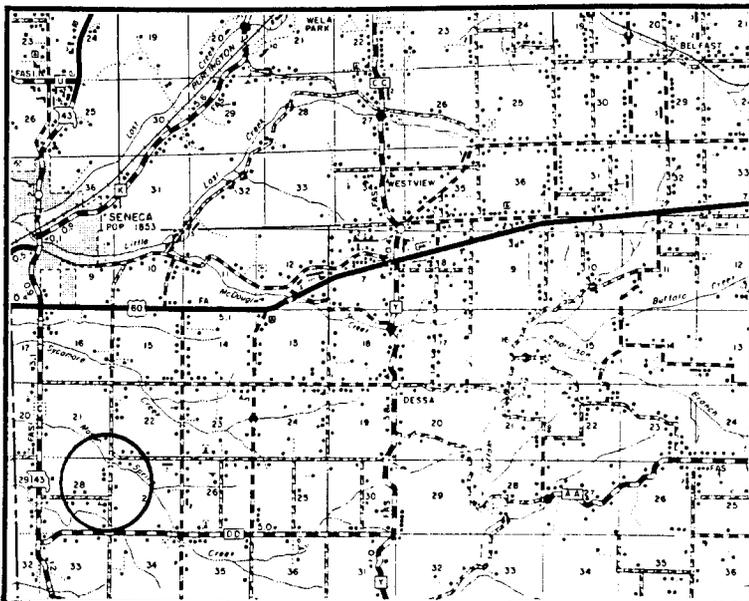
Located some 3.7 miles southeast of Seneca, this single-span truss carries an unpaved county road across Mason Spring Creek. The structure was evidently built under contract for the county by the Canton Bridge Company of Canton, Ohio, in 1901. As constructed, the Mason Spring Creek Bridge is comprised of a pinned Pratt half-hip pony truss, supported by stone masonry abutments. The truss employs Canton's standard configuration, which until recently included decorative cast iron finials at the hips. The substructure has been parged with concrete in places, the finials have been broken off, and the truss has undergone minor repairs, but the bridge remains otherwise intact.

The Mason Spring Creek Bridge is a relatively well-preserved example of a mainstay structural type—the pin-connected Pratt half-hip pony truss. The bridge displays standard detailing and unremarkable dimensions.

NAME(S) OF STRUCTURE

Mason Spring 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. 533001.0; field inspection by Clayton Fraser, 19 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

South Indian Creek Bridge
MHTD: 598003.0

NEWT22

DATE(S) OF CONSTRUCTION

1903

LOCATION

County Road 598 over South Indian Creek; S24, T24N, R31W
1.3 miles southeast of Boulder City; Newton County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP non-eligible (score: 43)

CONDITION

fair

OWNER

Newton County

span number: 1
span length: 118.0'
total length: 136.0'
roadway wdt.: 16.0'

superstructure: steel, 8-panel, pin-connected Pratt through truss; 1 timber stringer approach span at the south end
substructure: concrete abutments, wingwalls and pier
floor/decking: timber deck over timber stringers
other features: upper chord and inclined end post: 2 channels with cover and batten plates; lower chord: 2 looped rectangular eyebars; vertical: two channels with wide, flat lacing (2 looped square eyebars at the hip); diagonal: 2 looped rectangular eyebars; counter: round rod with unslotted turnbuckle; lateral bracing: round rod with threaded ends; strut: 1 channel; portal strut: 4 angles with lacing and laced knee braces; floor beams; I-beam, U-bolted to vertical; guardrail: steel pipe; builder's plate: 1903 The Midland Bridge Co. Kansas City Mo. Freygang & Trocon Proprietors

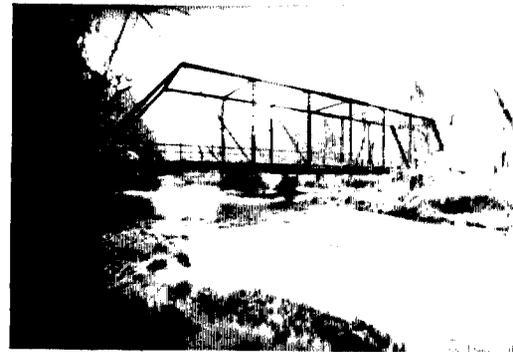
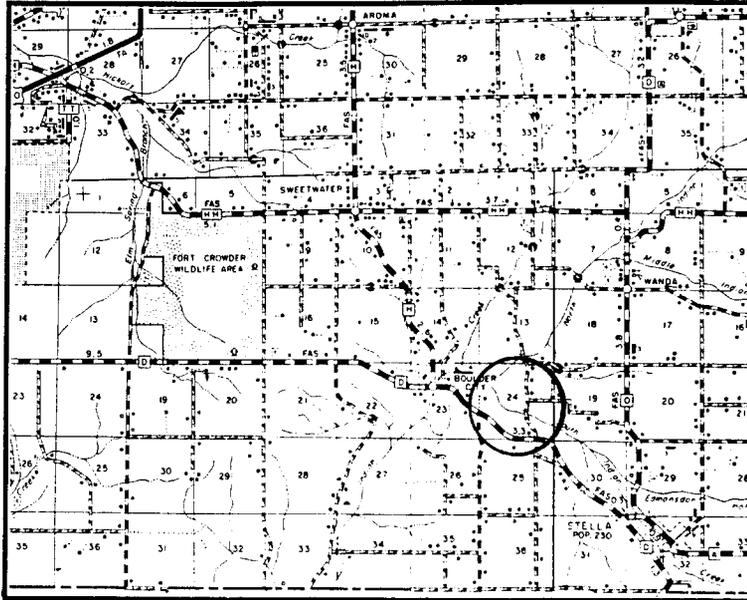
Located in southern Newton County, this bridge carries a secondary county road across South Indian Creek, just over a mile southeast of Boulder City. A single-span, pinned Pratt through truss, the structure features concrete abutments and a timber deck. The truss was fabricated in 1903. That summer Newton County contracted with the Midland Bridge Company to fabricate and build a two-span, steel truss over Shoal Creek at Redings Mill, just south of the city of Joplin. Completed in September 1903, the two spans served at the Redings Mill crossing until 1930. That year the state highway department built a concrete replacement structure [NEWT01], and the two 1903 steel trusses were dismantled and moved to less trafficked, rural crossings. One of the two spans [NEWT13] was rebuilt over Clear Creek three miles east of Ritchey, while the other was moved to this site and has since served to carry traffic over South Indian Creek. The South Indian Creek Bridge still features Midland's original portal plate.

Moved from its original location in 1930, the South Indian Creek Bridge is a typical example of a common truss configuration. The crossing features standard detailing, unremarkable dimensions and an average degree of physical integrity.

NAME(S) OF STRUCTURE

South Indian 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. 598003.0; Newton County Court Record, Book J: page 283 (31 August 1903), page 298 (29 September 1903), page 342 (7 November 1903) - located Newton County Courthouse, Neosho MO; field inspection by Clayton Fraser, 19 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Granby Bridge
MHTD: 713000.6

NEWT26

DATE(S) OF CONSTRUCTION

1919

LOCATION

County Road 713 over Shoal Creek; S25, T26N, R31W
1.9 miles north of Granby; Newton County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP possibly eligible (score: 53)

CONDITION

fair

OWNER

Newton County

span number: 5

span length: 43.0'

total length: 215.0'

roadway wdt.: 18.3'

superstructure: concrete filled spandrel arch

substructure: concrete abutments, wingwalls and piers

floor/decking: concrete deck over earth fill

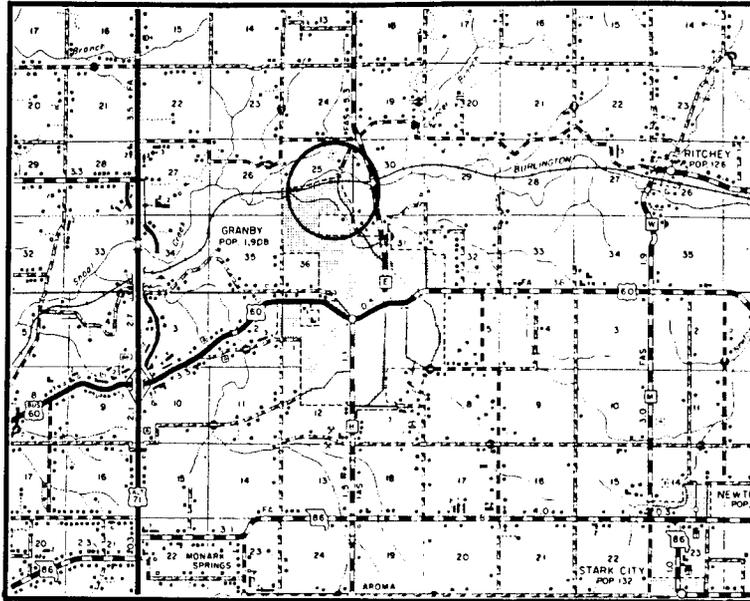
other features: concrete post-and-beam guardrails; "Z-642" Missouri Highway and Transportation Department designation spray painted on concrete at approach

The Granby Bridge carries a secondary county road over Shoal Creek immediately north of Granby, in central Newton County. Designed in early 1919 as a replacement for an earlier truss bridge, the five-span concrete filled spandrel arch structure was built by the Concrete and Steel Construction Company. The Joplin-based contracting firm was hired by the Newton County Court to build the large-scale structure on April 21, 1919, for \$14,600.00. The contractors pushed construction on the bridge during the spring and summer, while simultaneously building an almost identical concrete bridge over Shoal Creek south of Joplin [NEWT05]. On September 1, 1919, the new Granby Bridge was declared complete and formally accepted by the court. Meanwhile, the trusses from the old Granby bridge had been sold to McDonald County for \$1050.00. McDonald County also paid to have the old truss moved, and then re-erected it over Mikes Creek, near Powell in southeastern McDonald County. Since its completion, the new Granby Bridge has carried vehicular traffic in essentially unaltered condition. It served for a while as a state highway bridge but has more recently reverted to county ownership.

Before the Missouri State Highway Department began designing vehicular bridges in the late 1910s, the state's counties, municipalities and road districts were individually responsible for their own bridge design and construction. Most opted for metal truss bridges, which were cheaply and quickly erected and were typically engineered by the bridge companies. The highway department began using concrete for its highway spans in the 1920s as an alternative to metal truss construction, but the counties never really embraced concrete as a superstructural material. There are a few noteworthy exceptions to this statewide trend, among them the Granby Bridge. With its 1919 construction date and locally generated concrete arch design, this Newton County structure is historically and technologically significant for its deviation from what is an overwhelming trend in Missouri bridge construction. A regionally important crossing in central Newton County, it is today an important and well-preserved example of pre-MSHD concrete bridge design.

NAME(S) OF STRUCTURE

Granby 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. 713000.6; Report of the State Highway Board of Missouri for the Period Ending December 1, 1918, located at the Missouri Highway and Transportation Department, Jefferson City MO; Newton County Court Record S: pages 313 and 314 (21 April 1919), page 360 (7 July 1919), page 391 (19 August 1919), page 392 (1 September 1919) - located at Newton County Courthouse, Neosho MO; McDonald County Court Record, Book P: page 252 (12 February 1920) - located at McDonald County Courthouse, Pineville MO; field inspection by Clayton Fraser, 19 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Dry Branch Bridge
MHTD: 715000.3

NEWT27

DATE(S) OF CONSTRUCTION

c1920

LOCATION

County Road 715 over Dry Branch; S31, T26N, R30W
northern edge of Granby; Newton County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / roadway bridge

RATING NRHP non-eligible (score: 30)

CONDITION

fair

OWNER

Newton County

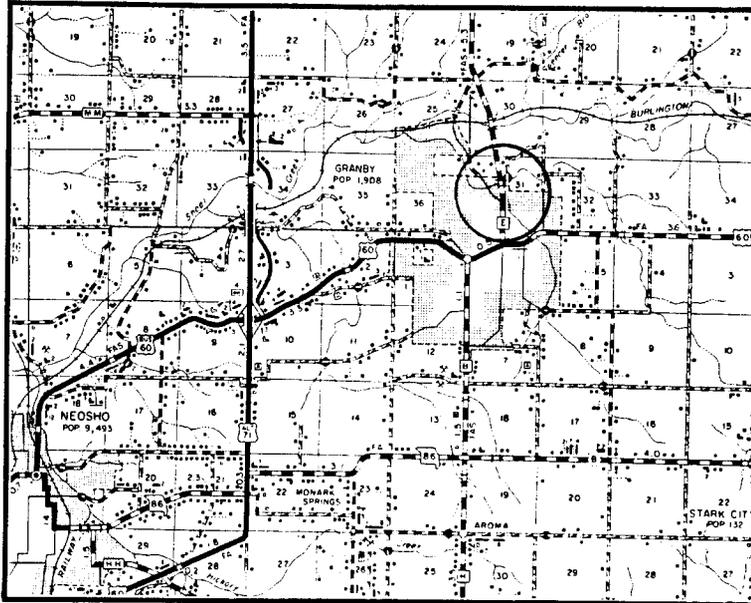
| | |
|---------------------|--|
| span number: 1 | superstructure: concrete through girder, skewed |
| span length: 30.0' | substructure: concrete abutments and wingwalls |
| total length: 35.0' | floor/decking: concrete deck |
| roadway wdt.: 17.8' | other features: solid concrete guardrails with recessed rectangular panels |

Before the Missouri State Highway Department began designing vehicular bridges in the late 1910s, the state's counties, municipalities and road districts were individually responsible for their own bridge design and construction. Most opted for metal truss bridges, which were cheaply and quickly erected and were typically engineered by the bridge companies. The highway department began using concrete for its highway spans in the 1920s as an alternative to metal truss construction, but the counties never really embraced concrete as a superstructural material. There are a few noteworthy exceptions to this statewide trend, among them Newton County. In the late 1910s and 1920s, the county contracted extensively for major concrete bridges such as the Fillmore Bridge [NEWT05], the Tipton Ford Bridge [NEWT05] and the Granby Bridge [NEWT26]. This small-scale concrete girder span over a branch of Shoal Creek north of Granby also typifies the county's early commitment to concrete bridge construction. The dearth of information around its construction tends to limit its interpretive value, however.

NAME(S) OF STRUCTURE

Dry 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. 715000.3; field inspection by Clayton Fraser, 19 April 1991.

INVENTORIED BY

Clayton B. Fraser

AFFILIATION

Fraserdesign, Loveland CO

DATE

9 March 1994

HAER INVENTORY

Missouri Historic Bridge Inventory

NAME(S) OF STRUCTURE

Jolly Mill Bridge
MHTD: none

NEWT28

DATE(S) OF CONSTRUCTION

1905

LOCATION

county road over Capps Creek Bridge; S11, T25N, R29W
6.6 miles northeast of Newtonia; Newton County, Missouri

USE (ORIGINAL / CURRENT)

roadway bridge / none

RATING NRHP non-eligible (score: 38)

CONDITION

good

OWNER

Newton County

| | |
|--|--|
| <p>span number: 1 span length: 90.0' total length: 90.0' roadway wdt.: 16.0'</p> | <p>superstructure: steel, 6-panel, pin-connected Camelback through truss substructure: non-original concrete piers; no abutments floor/decking: no deck or stringers at time of survey 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 (4 angles with lacing at the hip); diagonal: 2 looped rectangular eyebars; counter: round eyerod with turnbuckle; lateral bracing: round rod with threaded ends; strut: angles, braced; portal strut: A-frame; floor beam: I-beam, field-bolted to vertical; guardrail: steel lattice; builder's plate (removed): Built by James B. Diver Bridge Co., Keokuk Ia</p> |
|--|--|

On December 29, 1903, A.L. White headed a group of petitioners asking the Newton County Court that bridges be built across Shoal and Capps Creeks in the eastern part of the county. The court replied that both bridges were "a public necessity and entirely practicable." The judges then ordered that both bridges be built—one over Shoal Creek in Newtonia Township and this bridge over Capps Creek in Franklin Township. R.F. Jones, the road and bridge commissioner was directed to draft plans and specifications and to advertise for the bridges' construction. Bids from fourteen firms were received, and on February 4, 1904, the James B. Diver Bridge Company of Keokuk, Iowa, was awarded the contract. Diver was paid \$2540.00 plus \$3.50 per foot for approaches to build both bridges. By March 1905 the county court formally accepted both bridges. A pin-connected Camelback through truss, the Capps Creek Bridge served in its original location until the late 1980s. In more recent years, the bridge has been re-erected near the historic Jolly Mill where plans call for its adaptive reuse at the restored Jolly Mill Park. The bridge's abutments, approach spans, and floor system had not yet been restored as of May 1991.

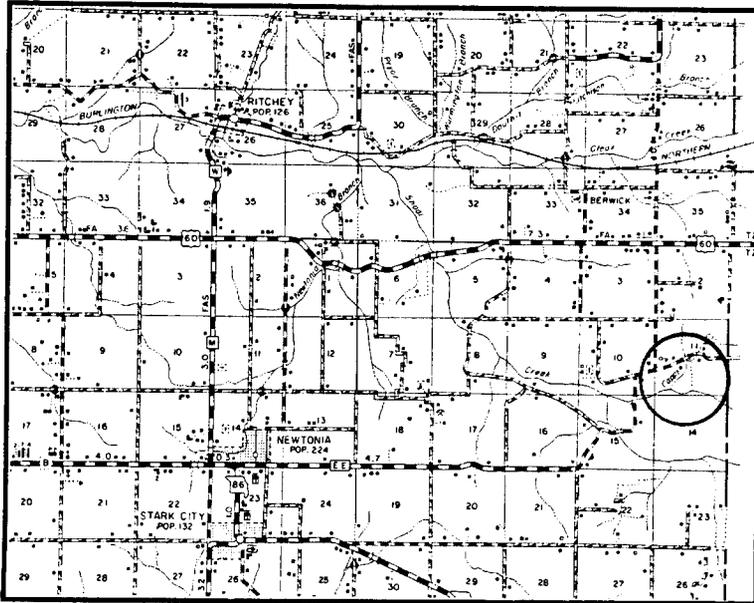
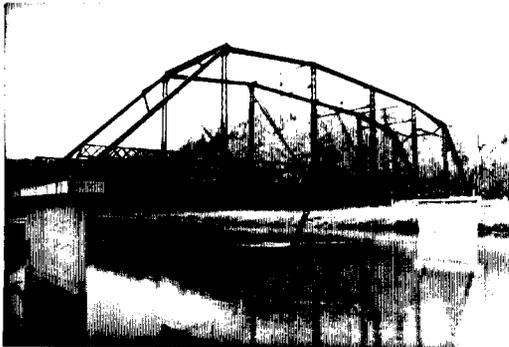
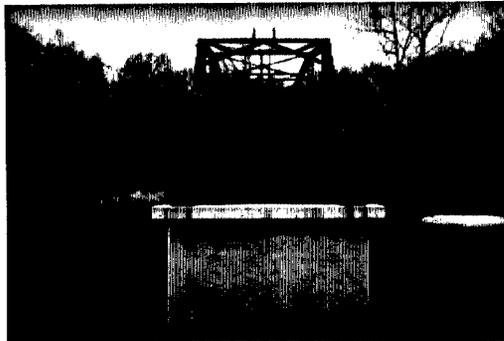
Through the 19th century, the pin-connected Pratt truss was the bridge of choice for medium- and long-span roadway crossings in Missouri. Late in the century, polygonal-chorded truss types began to replace the straight-chorded Pratts, however. The inclined upper chords of these structures afforded a degree of efficiency in long span trusses, where bending moment stresses at mid-span greatly exceed the sheer stresses at the ends. Their drawback was that, unlike the straight-chorded Pratt truss, the polygonal chords necessitated different-length verticals and diagonals at each panel, increasing their fabrication costs somewhat. Because trusses were generally priced on the basis of their superstructural steel weight, the lighter overall weight of a polygonal-chord truss more than offset the slight increase in fabricating costs in spans greater than 160 feet. In the highly competitive bridge industry, this economy equated directly with profit.



These bridges generally employed Pratt-type web configurations, with upper chords and verticals in compression and lower chords and diagonals in tension. The most common of these Pratt variants was the Parker truss. Another was the Camelback truss, a Parker with five upper-chord facets. With its distinctive profile, the Camelback configuration was disdained by many engineers (including the redoubtable J.A.L. Waddell, who called it "uncompromisingly ugly") for its tendency under certain conditions to reverse compressive and tensile forces acting on the individual members. As a result, Camelback trusses never received widespread acceptance. Relatively few were ever built on Missouri's roads, and fewer than ten remain in place today. The Jolly Mill Bridge in Newton County is one of these, although its relatively short span and its recent move fail to distinguish it among the remaining examples of its type.

NAME(S) OF STRUCTURE

Jolly Mill Bridge

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

SOURCES

Newton County Court Record, Book J: page 357 (29 December 1903), pages 393 and 394 (5 February 1904), page 581 (6 September 1904); Newton County Court Record, Book K: page 174 (19 March 1905) - located at Newton County Courthouse, Neosho MO; "Jolly Mill To Be Preserved," *Monett Times* (6 June 1973) page 1; "Group Hopes To Restore Jolly Mill," *Joplin Globe* (24 April 1983), n.p.; field inspection by Clayton Fraser, 19 April 1991.

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DATE9 March 1994
