

Bridge Inspection Report

01720
SH 7
over
So Fourche Lafave River



Inspection Date: 12/01/2016

Inspected By: William Wood

Inspection Type(s): Routine
Fracture Critical

Inspector: William Wood
 Inspection Date: 12/01/2016

Structure Number: 01720
 Facility Carried: SH 7

Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	12/01/2016
(8) STRUCTURE NUMBER	01720	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 7 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	08 (3) COUNTY CODE 105	A. FRACTURE CRITICAL DETAIL	Y 24 12/01/2016
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	So Fourche Lafave River	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 7		
(9) LOCATION	9.04 MI N Garland Co Line		
(11) MILEPOINT 9.038	(12) BASE HIGHWAY NETWORK 1		
(13A) LRS INVENTORY ROUTE	0000007110 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 34.87101	(17) LONGITUDE -93.11061		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	5
A) KIND OF MATERIAL/DESIGN: 3 - Steel		(59) SUPERSTRUCTURE	5 (60) SUBSTRUCTURE 7
B) TYPE OF DESIGN/CONSTR: 10 - Truss - Thru		(61) CHANNEL & CHANNEL PROTECTION	6 (62) CULVERT N
(44) STRUCTURE TYPE, APPROACH SPANS			
A) KIND OF MATERIAL/DESIGN: 1 - Concrete			
B) TYPE OF DESIGN/CONSTR: 04 - Tee Beam			
(45) NUMBER OF SPANS IN MAIN 2	(46) NUMBER OF APPROACH 7		
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 1		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1933	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	2
(42) TYPE OF SERVICE ON 1 UNDER 5		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 02 UNDER 00		(64) OPERATING RATING	42.5
(29) AVERAGE DAILY TRAFFIC 850	(19) BYPASS DETOUR LENGTH 10	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	25.6
(109) AVERAGE DAILY TRUCK TRAFFIC 10		(70) BRIDGE POSTING	5
		(41) STRUCTURE OPEN/POSTED/CLOSED	A
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 102	(49) STRUCTURE LENGTH (ft.) 485	(67) STRUCTURAL EVALUATION	5
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0 RIGHT 0		(68) DECK GEOMETRY	3
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 20.0		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.) 21.7		(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.) 21.0		(72) APPROACH ROADWAY ALIGNMENT	5
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 24	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99	36A) BRIDGE RAILINGS:	0
(47) TOTAL HORIZONTAL CLEARANCE (ft.) 21.0		36B) TRANSITIONS:	0
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) 99.99		36C) APPROACH GUARDRAIL:	0
(54) VERTICAL UNDER CLEARANCE (ft.) N 0		36D) APPROACH GUARDRAIL ENDS:	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.) N 99.9		(113) SCOUR CRITICAL BRIDGES	8
(56) MIN LATERAL UNDER CLEARANCE (ft.) 0		SUFFICIENCY RATING	2 STATUS 49.7
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED 31	(75B) WORK DONE BY 1	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 524.0		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(94) BRIDGE IMPROVEMENT COST (\$) 0		(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02
(95) ROADWAY IMPROVEMENT COST (\$) 235		(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST 1341		(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE 2003		(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 1300	(115) YEAR OF FUTURE ADT 2034	(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	0
		(20) TOLL	3
		(21) MAINTENANCE RESPONSIBILITY	01
		(22) OWNER	01
		(37) HISTORICAL	1
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	0
		(111) PIER OR ABUTMENT PROTECTION	1
		(39) NAV VERT CLEARANCE (ft.)	0
		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
		(40) NAV HORIZONTAL CLEARANCE (ft.)	0

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Element Inspection

Rollup

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	4275	sq. ft.	0	4275	0	0
1080 - Delamination/Spall/Patched Area		675		0	675	0	0
1130 - Cracking (RC and Other)		3600		0	3600	0	0
16 - Reinforced Concrete Top Flange	1- Ben.	6440	sq. ft.	0	6440	0	0
1120 - Efflorescence/Rust Staining		1840		0	1840	0	0
1130 - Cracking (RC and Other)		4600		0	4600	0	0
510 - Wearing Surfaces		1600	sq. ft.	0	1600	0	0
3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces)		600		0	600	0	0
3220 - Crack (Wearing Surface)		1000		0	1000	0	0
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	840	ft.	830	10	0	0
1090 - Exposed Rebar		10		0	10	0	0
120 - Steel Truss	1- Ben.	400	ft.	0	400	0	0
1000 - Corrosion		400		0	400	0	0
515 - Steel Protective Coating		11791	sq. ft.	0	2361	0	9430
3420 - Peeling/Bubbling/Cracking (Steel Protective Coatings)		2361		0	2361	0	0
3440 - Effectiveness (Steel Protective Coatings)		9430		0	0	0	9430
152 - Steel Floor Beam	1- Ben.	484	ft.	0	368	116	0
1000 - Corrosion		484		0	368	116	0
515 - Steel Protective Coating		1694	sq. ft.	0	1288	0	406
3420 - Peeling/Bubbling/Cracking (Steel Protective Coatings)		1288		0	1288	0	0
3440 - Effectiveness (Steel Protective Coatings)		406		0	0	0	406
162 - Steel Gusset Plate	1- Ben.	68	each	0	68	0	0
1000 - Corrosion		68		0	68	0	0
515 - Steel Protective Coating		1088	sq. ft.	0	544	544	0
3420 - Peeling/Bubbling/Cracking (Steel Protective Coatings)		544		0	544	0	0
3440 - Effectiveness (Steel Protective Coatings)		544		0	0	544	0
205 - Reinforced Concrete Column	1- Ben.	16	each	14	2	0	0
1080 - Delamination/Spall/Patched Area		1		0	1	0	0
1090 - Exposed Rebar		1		0	1	0	0
215 - Reinforced Concrete Abutment	1- Ben.	48	ft.	48	0	0	0
234 - Reinforced Concrete Pier Cap	1- Ben.	181	ft.	181	0	0	0
305 - Assembly Joint without Seal	1- Ben.	66	ft.	0	66	0	0
2360 - Adjacent Deck or Header		66		0	66	0	0
311 - Movable Bearing	1- Ben.	4	each	0	4	0	0
1000 - Corrosion		4		0	4	0	0

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515 - Steel Protective Coating		16	sq. ft.	0	0	16	0
3440 - Effectiveness (Steel Protective Coatings)		16		0	0	16	0
313 - Fixed Bearing	1- Ben.	4	each	0	4	0	0
1000 - Corrosion		4		0	4	0	0
515 - Steel Protective Coating		16	sq. ft.	0	0	16	0
3440 - Effectiveness (Steel Protective Coatings)		16		0	0	16	0
330 - Metal Bridge Railing	1- Ben.	400	ft.	0	400	0	0
1000 - Corrosion		400		0	400	0	0
515 - Steel Protective Coating		1200	sq. ft.	0	0	0	1200
3440 - Effectiveness (Steel Protective Coatings)		1200		0	0	0	1200
334 - Masonry Bridge Railing	1- Ben.	560	ft.	0	558	2	0
1610 - Mortar Breakdown (Masonry)		558		0	558	0	0
1640 - Masonry Displacement		2		0	0	2	0

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Main - Pony Trusses

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	4275	sq. ft.	0	4275	0	0
	MINOR TO MODERATE DELAM, CRACKING & SPALLING THROUGHOUT DECK & CURBS. MODERATE DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN DECK, CURBS & EDGES OF DECK AT JOINTS AT PIERS 3 & 4. MODERATE DELAM & CRACKING W / EFFLOR. THROUGHOUT CURBS.						
1080 - Delamination/Spall/Patched Area		675			675		
1130 - Cracking (RC and Other)		3600			3600		
120 - Steel Truss	1- Ben.	400	ft.	0	400	0	0
	MODERATE RUST THROUGHOUT TRUSSES. SOME MINOR SECTION LOSS ON CHANNELS OF BOTTOM CHORD.						
1000 - Corrosion		400			400		
515 - Steel Protective Coating		11791	sq. ft.	0	2361	0	9430
3420 - Peeling/Bubbling/Cracking (Steel Protective Coatings)		2361			2361		
3440 - Effectiveness (Steel Protective Coatings)		9430					9430
152 - Steel Floor Beam	1- Ben.	484	ft.	0	368	116	0
	COND. 2 - 368 LF - MINOR CHALKING & PEELING OF PAINT. COND. 3 - 116 LF - MODERATE RUST & PITTING ON APPROX. 2' OF ENDS OF BEAMS AT CONNECTION TO BOTTOM CHORD. MINOR SECTION LOSS ON BEAMS. MODERATE RUST, PITTING & SECTION LOSS TO BOTTOM OF WEB & FLANGES OF FLOOR BEAM AT PIER 3. APPROX. 1/4" SECTION LOSS TO A 10" X 36" AREA OF WEB APPROX. 36" FROM LT. END. HOLES RUSTED THROUGH WEB IN THIS AREA. APPROX. 1/8" SECTION LOSS TO BOTTOM OF WEB ALONG ENTIRE LENGTH OF BEAM. MINOR TO MODERATE SECTION LOSS TO TOP & BOTTOM FLANGES. SOME AREAS OF FLANGES ARE KNIFE EDGED. SOME AREAS OF FLOOR BEAM HAVE BEEN PAINTED. MODERATE SECTION LOSS ON APPROX. 12" OF ENDS OF FLOOR BEAMS AT PIER 4. HOLES RUSTED THROUGH WEB AT BOTTOM FLANGE AT CONNECTION TO BOTTOM CHORD.						
1000 - Corrosion		484			368	116	
515 - Steel Protective Coating		1694	sq. ft.	0	1288	0	406
3420 - Peeling/Bubbling/Cracking (Steel Protective Coatings)		1288			1288		
3440 - Effectiveness (Steel Protective Coatings)		406					406
162 - Steel Gusset Plate	1- Ben.	68	each	0	68	0	0
	MODERATE CHALKING & PEELING OF PAINT. MINOR TO MODERATE SURFACE & FRECKLED RUST THROUGHOUT. MINOR RUST IN ALL CONNECTIONS.						
1000 - Corrosion		68			68		

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515 - Steel Protective Coating		1088	sq. ft.	0	544	544	0
3420 - Peeling/Bubbling/Cracking (Steel Protective Coatings)		544			544		
3440 - Effectiveness (Steel Protective Coatings)		544				544	
205 - Reinforced Concrete Column	1- Ben.	6	each	6			
MINOR CRACKING. MINOR SCALE AT FLOW LINE AT PIERS 3 & 4. MINOR VERTICAL CRACKING IN WEB WALLS.							
234 - Reinforced Concrete Pier Cap	1- Ben.	86	ft.	86			
MINOR VERTICAL CRACKING							
305 - Assembly Joint without Seal	1- Ben.	66	ft.	0	66	0	0
MINOR TO MODERATE DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN EDGES OF DECK & CURBS AT JOINTS. MINOR CRACKING & SPALLING IN DECK AROUND JOINTS. MINOR POPPING IN JOINTS ON IMPACT.							
2360 - Adjacent Deck or Header		66			66		
311 - Movable Bearing	1- Ben.	4	each	0	4	0	0
MINOR RUST ON ALL BEARINGS.							
1000 - Corrosion		4			4		
515 - Steel Protective Coating		16	sq. ft.	0	0	16	0
3440 - Effectiveness (Steel Protective Coatings)		16				16	
313 - Fixed Bearing	1- Ben.	4	each	0	4	0	0
MINOR RUST ON ALL BEARINGS.							
1000 - Corrosion		4			4		
515 - Steel Protective Coating		16	sq. ft.	0	0	16	0
3440 - Effectiveness (Steel Protective Coatings)		16				16	
330 - Metal Bridge Railing	1- Ben.	400	ft.	0	400	0	0
MINOR TO MODERATE RUST ON RAIL.							
1000 - Corrosion		400			400		
515 - Steel Protective Coating		1200	sq. ft.	0	0	0	1200
3440 - Effectiveness (Steel Protective Coatings)		1200					1200

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Approach - 3 Beam R/C Tee Beam

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
16 - Reinforced Concrete Top Flange	1- Ben.	6440	sq. ft.	0	6440	0	0
	MINOR TO MODERATE DELAM, CRACKING & SPALLING THROUGHOUT DECK, CURBS & EDGES OF DECK UNDER MASONRY RAIL. MODERATE DELAM & CRACKING W / EFFLOR. THROUGHOUT CURBS. DECK W / 1" AC OL (SPANS 1 & 9) - MODERATE CRACKING IN OVERLAY. SEVERAL PATCHED AREAS MODERATE CRACKING W / EFFLOR IN EDGES OF DECK & SOFFIT OF OVERHANGS. MINOR CRACKING W / EFFLOR THROUGHOUT SOFFIT.						
1120 - Efflorescence/Rust Staining		1840			1840		
1130 - Cracking (RC and Other)		4600			4600		
510 - Wearing Surfaces		1600	sq. ft.	0	1600	0	0
3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces)		600			600		
3220 - Crack (Wearing Surface)		1000			1000		
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	840	ft.	830	10	0	0
	COND. 1 - 830 LF - MINOR CRACKING. COND. 2 - 10 LF - MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN BEARING AREAS OF SOME BEAMS. SPALLING DUE TO REBAR TO CLOSE TO SURFACE.						
1090 - Exposed Rebar		10			10		
205 - Reinforced Concrete Column	1- Ben.	10	each	8	2	0	0
	COND. 1 - 8 EA - MINOR VERTICAL CRACKING & SCALE. MINOR VERTICAL CRACKING IN WEB WALLS. COND. 2 - 2 EA - MINOR SPALL IN COLUMN 2 AT PIER 5 BK. SIDE APPROX. 1' BELOW CAP. MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN COLUMN 1 AT PIER 9 BK. SIDE.						
1080 - Delamination/Spall/Patched Area		1			1		
1090 - Exposed Rebar		1			1		
215 - Reinforced Concrete Abutment	1- Ben.	48	ft.	48			
234 - Reinforced Concrete Pier Cap	1- Ben.	95	ft.	95			
	MINOR VERTICAL CRACKING.						
334 - Masonry Bridge Railing	1- Ben.	560	ft.	0	558	2	0
	MINOR CRACKING IN MORTAR JOINTS. POST AT PIER 5 LT. SIDE HAS FALLEN OFF.						
1610 - Mortar Breakdown (Masonry)		558			558		
1640 - Masonry Displacement		2				2	

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Pictures



PHOTO 1

Description	Elevation
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PHOTO 2

Description	Roadway
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Deck/Culvert Notes

DECK - MINOR TO MODERATE DELAM, CRACKING & SPALLING THROUGHOUT DECK, CURBS & EDGES OF DECK UNDER MASONRY RAIL. MODERATE DELAM & CRACKING W / EFFLOR. THROUGHOUT CURBS. DECK W / 1" AC OL (SPANS 1 & 9) - MODERATE CRACKING IN OVERLAY. SEVERAL PATCHED AREAS. MODERATE CRACKING W / EFFLOR IN EDGES OF DECK & SOFFIT OF OVERHANGS. MINOR CRACKING W / EFFLOR THROUGHOUT SOFFIT. RAIL - MINOR CRACKING IN MORTAR JOINTS. POST AT PIER 5 LT. SIDE HAS FALLEN OFF. RAIL - MINOR TO MODERATE RUST ON RAIL. SLIDE PLATES - MINOR TO MODERATE DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN EDGES OF DECK & CURBS AT JOINTS. MINOR CRACKING & SPALLING IN DECK AROUND JOINTS. MINOR POPPING IN JOINTS ON IMPACT.

SuperStructure Notes

TRUSSES - MODERATE RUST THROUGHOUT TRUSSES. SOME MINOR SECTION LOSS ON CHANNELS OF BOTTOM CHORD. PIER 4. HOLES RUSTED THROUGH WEB AT BOTTOM FLANGE AT CONNECTION TO BOTTOM CHORD. COND. 3 - 116 LF - MODERATE RUST & PITTING ON APPROX. 2' OF ENDS OF BEAMS AT CONNECTION TO BOTTOM CHORD. MINOR SECTION LOSS ON BEAMS. MODERATE RUST, PITTING & SECTION LOSS TO BOTTOM OF WEB & FLANGES OF FLOOR BEAM AT PIER 3. APPROX. 1/4" SECTION LOSS TO A 10" X 36" AREA OF WEB APPROX. 36" FROM LT. END. HOLES RUSTED THROUGH WEB IN THIS AREA. APPROX. 1/8" SECTION LOSS TO BOTTOM OF WEB ALONG ENTIRE LENGTH OF BEAM. MINOR TO MODERATE SECTION LOSS TO TOP & BOTTOM FLANGES. SOME AREAS OF FLANGES ARE KNIFE EDGED. SOME AREAS OF FLOOR BEAM HAVE BEEN PAINTED. MODERATE SECTION LOSS ON APPROX. 12" OF ENDS OF FLOOR BEAMS AT PIER 4. HOLES RUSTED THROUGH WEB AT BOTTOM FLANGE AT CONNECTION TO BOTTOM CHORD. GUSSET PLATES - MODERATE CHALKING & PEELING OF PAINT. MINOR TO MODERATE SURFACE & FRECKLED RUST THROUGHOUT. MINOR RUST IN ALL CONNECTIONS. BEAMS - TEE BEAMS - COND. 1 - 830 LF - MINOR CRACKING. COND. 2 - 10 LF - MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN BEARING AREAS OF SOME BEAMS. SPALLING DUE TO REBAR TO CLOSE TO SURFACE.

SubStructure Notes

ABUTMENTS - GOOD
COLUMNS - COND. 1 - 14 EA - MINOR VERTICAL CRACKING & SCALE. MINOR VERTICAL CRACKING IN WEB WALLS. MINOR SCALE AT FLOW LINE AT PIERS 3 & 4.
COND. 2 - 2 EA - MINOR SPALL IN COLUMN 2 AT PIER 5 BK. SIDE APPROX. 1' BELOW CAP.
MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN COLUMN 1 AT PIER 9 BK. SIDE.
CAPS - MINOR VERTICAL CRACKING.

CHANNEL: GRAVEL & ROCK - MINOR SCOUR AT PIER 3 COLUMN 1. MINOR EROSION AT ABUTMENT 1. MODERATE EMBANKMENT EROSION BETWEEN PIERS 2 & 3. MINOR DRIFT AT PIER 3 ON RT. (UP) SIDE.