

Bridge Inspection Report

07011
SH 46-02 LM 7.59
over
Saline River



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

Structure Number: 07011

Inspection Date:

Facility Carried: SH 46-02 LM 7.59

Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	06/30/2016
(8) STRUCTURE NUMBER	07011	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 46 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	02 (3) COUNTY CODE 053	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Saline River	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 46-02 LM 7.59	CONDITION	
(9) LOCATION	3.5 Mi N SH 229-JenkFerry	(58) DECK	7
(11) MILEPOINT 7.590	(12) BASE HIGHWAY NETWORK 0	(59) SUPERSTRUCTURE	8 (60) SUBSTRUCTURE 8
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00	(61) CHANNEL & CHANNEL PROTECTION	8 (62) CULVERT N
(16) LATITUDE	34.20908 (17) LONGITUDE -92.54855	LOAD RATING AND POSTING	
(98A) BORDER BRIDGE CODE		(31) DESIGN LOAD	5
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(63) METHOD USED TO DETERMINE OPERATING RATING	1
STRUCTURE TYPE AND MATERIAL		(64) OPERATING RATING	60.0
(43) STRUCTURE TYPE, MAIN		(65) METHOD USED TO DETERMINE INVENTORY RATING	1
A) KIND OF MATERIAL/DESIGN:	4 - Steel continuous	(66) INVENTORY RATING	36.0
B) TYPE OF DESIGN/CONSTR:	02 - Stringer/Multi-beam or Girder	(70) BRIDGE POSTING	5
(44) STRUCTURE TYPE, APPROACH SPANS		(41) STRUCTURE OPEN/POSTED/CLOSED	A
A) KIND OF MATERIAL/DESIGN:	1 - Concrete	APPRAISAL	
B) TYPE OF DESIGN/CONSTR:	04 - Tee Beam	(67) STRUCTURAL EVALUATION	8
(45) NUMBER OF SPANS IN MAIN	3 (46) NUMBER OF APPROACH	(68) DECK GEOMETRY	5
(107) DECK STRUCTURE TYPE	1 (108A) WEARING SURFACE	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(108B) DECK MEMBRANE	0 (108C) DECK PROTECTION	(71) WATERWAY ADEQUACY	8
AGE OF SERVICE		(72) APPROACH ROADWAY ALIGNMENT	8
(27) YEAR BUILT	2007 (106) YEAR RECONSTRUCTED	(36) TRAFFIC SAFETY FEATURE	
(42) TYPE OF SERVICE	ON 1 UNDER 5	36A) BRIDGE RAILINGS:	1
(28) LANES	ON 02 UNDER 00	36B) TRANSITIONS:	1
(29) AVERAGE DAILY TRAFFIC	1700 (19) BYPASS DETOUR LENGTH	36C) APPROACH GUARDRAIL:	1
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	36D) APPROACH GUARDRAIL ENDS:	1
(109) AVERAGE DAILY TRUCK TRAFFIC	14	(113) SCOUR CRITICAL BRIDGES	5
GEOMETRIC DATA		SUFFICIENCY RATING	94.2 STATUS ND
(48) LENGTH OF MAX SPAN (ft.)	104 (49) STRUCTURE LENGTH (ft.)	CLASSIFICATION	
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 0 RIGHT 0	(112) NBIS BRIDGE LENGTH	Y
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	29.9	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(52) DECK WIDTH, OUT-TO-OUT (ft.)	32.8	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(32) APPROACH ROADWAY WIDTH (ft.)	29.9	(100) STRAHNET HIGHWAY DESIGNATION	0
(33) BRIDGE MEDIAN	0 (34) SKEW (DEG.)	(101) PARALLEL STRUCTURE DESIGNATION	N
(35) STRUCTURE FLARED	0 (10) INV RTE, MIN VERT CLEAR (ft.)	(102) DIRECTION OF TRAFFIC	2
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	31.2	(103) TEMP STRUCTURE	
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(105) FEDERAL LANDS HIGHWAYS	0
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	(110) DESIGNATED NATIONAL NETWORK	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(20) TOLL	3
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	(21) MAINTENANCE RESPONSIBILITY	01
PROPOSED IMPROVEMENTS		(22) OWNER	01
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(37) HISTORICAL	4
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)		NAVIGATION DATA	
(94) BRIDGE IMPROVEMENT COST (\$)		(38) NAVIGATION CONTROL	0
(95) ROADWAY IMPROVEMENT COST (\$)		(111) PIER OR ABUTMENT PROTECTION	1
(96) TOTAL PROJECT COST		(39) NAV VERT CLEARANCE (ft.)	0
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
(114) FUTURE ADT	1042 (115) YEAR OF FUTURE ADT	(40) NAV HORIZONTAL CLEARANCE (ft.)	0

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Bridge Inspection Report

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.	8864	sq. ft.	7904	960	0	0
1130 - Cracking (RC and Other)		960		0	960	0	0
16 - Reinforced Concrete Top Flange	1- Ben.	32173	sq. ft.	27347	4826	0	0
1130 - Cracking (RC and Other)		4826		0	4826	0	0
107 - Steel Open Girder/Beam	1- Ben.	1080	ft.	1080	0	0	0
515 - Steel Protective Coating		11556	sq. ft.	11556	0	0	0
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	3920	ft.	3920	0	0	0
205 - Reinforced Concrete Column	1- Ben.	8	each	7	1	0	0
6000 - Scour		1		0	1	0	0
215 - Reinforced Concrete Abutment	1- Ben.	70	ft.	70	0	0	0
227 - Reinforced Concrete Pile	1- Ben.	130	each	130	0	0	0
234 - Reinforced Concrete Pier Cap	1- Ben.	973	ft.	970	3	0	0
302 - Compression Joint Seal	1- Ben.	60	ft.	60	0	0	0
310 - Elastomeric Bearing	1- Ben.	16	each	16	0	0	0
331 - Reinforced Concrete Bridge Railing	1- Ben.	2500	ft.	2500	0	0	0

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Element Inspection

Main

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	8864	sq. ft.	7904	960	0	0
	Deck (Spans 11-13): 32.83' wide x 270' long. Unsealed minor- to large-sized transverse cracks from 1/4 to 3/4 span points at 3 -12 feet intervals. Cracking - 32 cracks (30' long x 1' wide) = 960 sqft.						
1130 - Cracking (RC and Other)		960			960		
107 - Steel Open Girder/Beam	1- Ben.	1080	ft.	1080			
	Girders (Main Spans): 4 per span / Spans 11-13 = 270' total. Coating: 10.7 square feet per linear feet of girder.						
515 - Steel Protective Coating		11556	sq. ft.	11556			
205 - Reinforced Concrete Column	1- Ben.	8	each	7	1	0	0
	Columns (Main Spans): 2 per bent / Bents 11-14. Scour: Span 13: Large area of active erosion running longitudinally with bridge from top of slope down to water.						
6000 - Scour		1			1		
234 - Reinforced Concrete Pier Cap	1- Ben.	120	ft.	120			
	Caps (Main Spans): 30' each / Bents 11-14.						
302 - Compression Joint Seal	1- Ben.	60	ft.	60			
	Joint seal: 30' each / Bents 11 & 14.						
310 - Elastomeric Bearing	1- Ben.	16	each	16			
	Bearings: 4 per bent / Bents 11-14. Bent 14: Bearing are leaning a noticeable amount to the ahead side this inspection.						
331 - Reinforced Concrete Bridge Railing	1- Ben.	540	ft.	540			
	Railing (Main Spans): 270' each side. Some scattered hairline vertical cracking.						

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Element Inspection

Approach

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
16 - Reinforced Concrete Top Flange	1- Ben.	32173	sq. ft.	27347	4826	0	0
	Deck (Span 1-10 & Spans 14-31): 32.83' wide x 980' long. Some unsealed, hairline- to minor-sized diagonal cracks from deck joints to gutterlines at various joints. Unsealed, hairline- to moderate-sized longitudinal cracks, running mostly alongside of Girders 2 & 3. A few unsealed, hairline-sized transverse cracks on some spans. Small amount of efflorescence visible on underside at some of the longitudinal, transverse or diagonal cracks. Cracking - 15% of overall area.						
1130 - Cracking (RC and Other)		4826			4826		
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	3920	ft.	3920			
	Girders (Approach Spans): 4 per span / Spans 1-10 & 14-31 (35' each) = 980' total. Bent 30 ahead: Delamination on diaphragm between Girders 1 & 2 (6' wide x 3' tall).						
215 - Reinforced Concrete Abutment	1- Ben.	70	ft.	70			
	Abutments: 35' each / Bents 1 & 32.						
227 - Reinforced Concrete Pile	1- Ben.	130	each	130			
	Piling (Approach Spans): 5 per bent / Bents 2-10 & 15-31.						
234 - Reinforced Concrete Pier Cap	1- Ben.	853	ft.	850	3	0	0
	Caps (Approach Spans): 32.8' each / Bents 2-10 & 15-31. Bents 17, 19, 22, & 30: Some shallow spall areas (2-3 square feet or less) on front or back faces.						
1080 - Delamination/Spall/Patched Area		3			3		
331 - Reinforced Concrete Bridge Railing	1- Ben.	1960	ft.	1960			
	Railing (Approach Spans): 890' each side. Some scattered hairline unsealed vertical cracks.						

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Maintenance Needs

Date Reported: 7/16/2012 12:00:00 AM

Priority: C - Important

Work Code: N/A

Deficiency Description:

Channel – Span 13: Large area of active erosion running longitudinally with bridge from top of slope down to water.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Channel - Span 13 (erosion)

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/16/2012 12:00:00 AM

Priority: D - Routine

Work Code: N/A

Deficiency Description:

Deck – Spans 11-13 (main spans): Unsealed minor- to large-sized transverse cracks from 1/4 to 3/4 span points at 3-12 feet intervals.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Deck - Span 12 @ 3/4 span
(transverse cracking)

Inspector:

Structure Number: 07011

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/16/2012 12:00:00 AM

Priority: D - Routine

Work Code: N/A

Deficiency Description:

Deck – Spans 1-10 & Spans 14-31 (approach spans): Some unsealed, hairline- to minor-sized diagonal cracks from deck joints to gutterlines at various joints.

Unsealed, hairline- to moderate-sized longitudinal cracks, running mostly alongside of Girders 2 & 3.

A few unsealed hairline-sized transverse cracks on some spans.

Small amount of efflorescence visible on underside at some of the longitudinal, transverse or diagonal cracks

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Soffit - Span 18 Bay 1 @ Bent 19
(efflorescence)

Stage: Monitor



PHOTO 2 Description Deck - Span 30 right @ Bent 30
(diagonal cracking)

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Maintenance Needs

Stage: Monitor



PHOTO 3 Description Deck - Spans 27-28 left @ Bent 28
(cracking)

Stage: Monitor



PHOTO 4 Description Deck - Span 14 left (longitudinal
cracking)

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Maintenance Needs

Date Reported: 7/16/2012 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code: N/A

Deficiency Description:

Caps & Diaphragm Walls – Bents 17, 19, 22, & 30: Some shallow spall areas (2-3 square feet or less) on front or back faces (Small amounts of steel exposed – no rust or section loss.).

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Cap/diaphragm - Bent 22 left ahead (spalling)

Stage: Monitor



PHOTO 2 Description Diaphragm - Bent 30 left ahead (spalling)

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Maintenance Needs

Date Reported: 6/24/2014 12:00:00 AM

Priority: D - Routine

Work Code: N/A

Deficiency Description:

Joints – Bents 2-10 & Bents 15-31: Poured joint material is intact, but has lost adhesion in many areas, allowing stormwater to leak through onto end of deck, ends of girders, into diaphragm wall, and onto cap.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Joint - Bent 9 (loosing adhesion)