

Bridge Inspection Report

02870
SH 77-02- LM 7.16
over
LITTLE RIVER



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

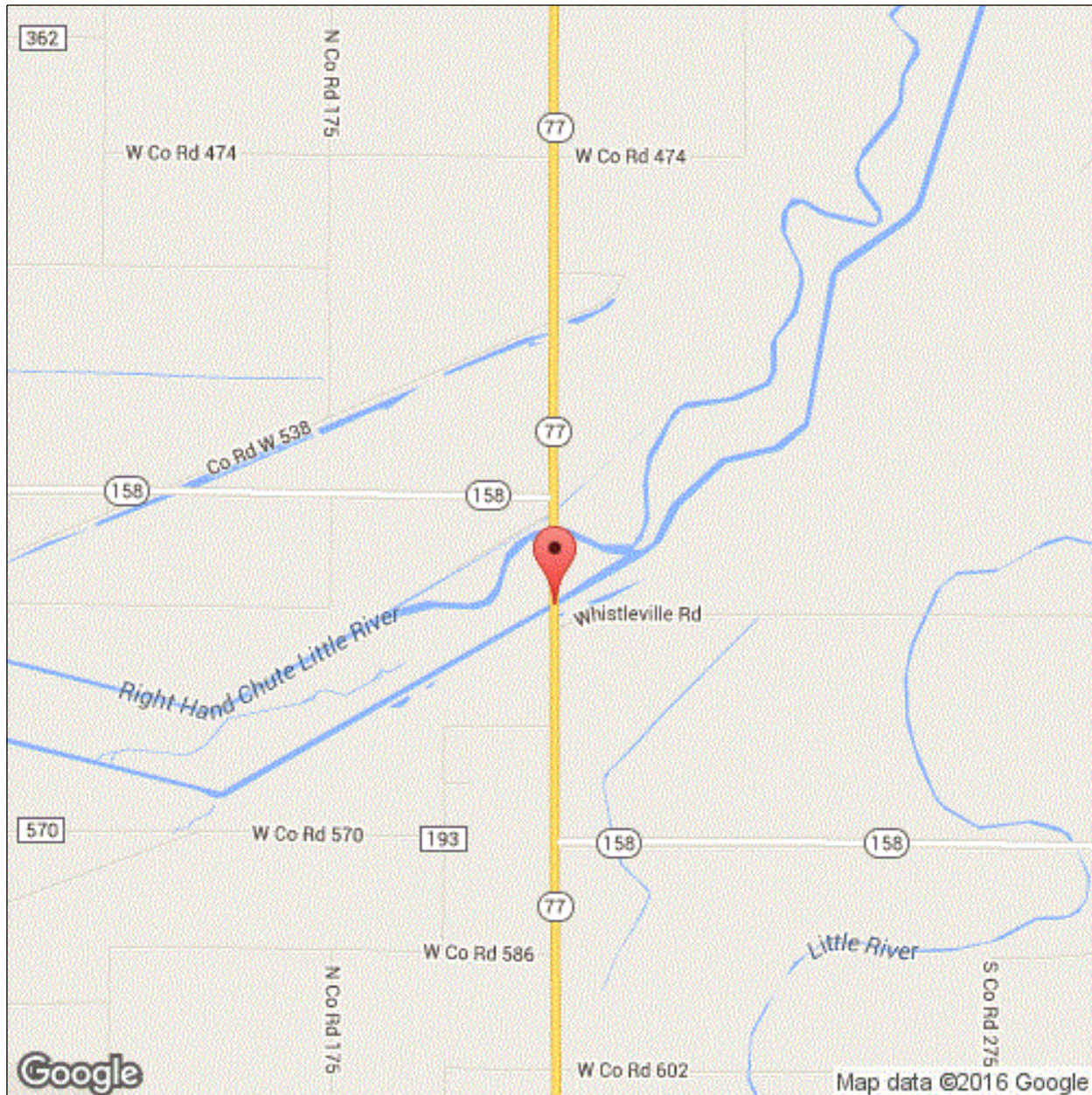
Structure Number: 02870

Inspection Date:

Facility Carried: SH 77-02- LM 7.16

Bridge Inspection Report

Location Map



Latitude: 35.77214

Longitude: -90.17805

Inspector:

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Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	06/07/2016
(8) STRUCTURE NUMBER	02870	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 77 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	10 (3) COUNTY CODE 093	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	LITTLE RIVER	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 77-02- LM 7.16		
(9) LOCATION	1.1 MI N JCT OF SH 158		
(11) MILEPOINT 7.160	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 35.77214	(17) LONGITUDE -90.17805		
(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	4 (60) SUBSTRUCTURE 5
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(61) CHANNEL & CHANNEL PROTECTION	6 (62) CULVERT N
(44) STRUCTURE TYPE, APPROACH SPANS			
A) KIND OF MATERIAL/DESIGN: 0 - Other			
B) TYPE OF DESIGN/CONSTR: 00 - Other			
(45) NUMBER OF SPANS IN MAIN 5	(46) NUMBER OF APPROACH 0		
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 6		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1954	(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	46.0
(29) AVERAGE DAILY TRAFFIC 1700	(19) BYPASS DETOUR LENGTH 13	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	28.0
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(70) BRIDGE POSTING	5
		(41) STRUCTURE OPEN/POSTED/CLOSED	A
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 40	(49) STRUCTURE LENGTH (ft.) 202	(67) STRUCTURAL EVALUATION	4
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0 RIGHT 0		(68) DECK GEOMETRY	4
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 24.0		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.) 28.5		(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.) 27.9		(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 30	(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.) 26.2		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	7
(56) MIN LATERAL UNDER CLEARANCE (ft.) 0		SUFFICIENCY RATING	1 STATUS 44.8
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED 35	(75B) WORK DONE BY 1	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 202.0		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	260	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE	1999	(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 2074	(115) YEAR OF FUTURE ADT 2028	(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	5
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	0
		(111) PIER OR ABUTMENT PROTECTION	5
		(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

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	5769	sq. ft.	4887	0	882	0
1080 - Delamination/Spall/Patched Area		491				491	
1090 - Exposed Rebar		21				21	
1120 - Efflorescence/Rust Staining		270				270	
1130 - Cracking (RC and Other)		100				100	
510 - Wearing Surfaces		4858	sq. ft.	3534	0	1324	0
3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces)		565				565	
3220 - Crack (Wearing Surface)		759				759	
107 - Steel Open Girder/Beam	1- Ben.	1000	ft.	400	558	42	0
1000 - Corrosion		597			555	42	
1900 - Distortion		3			3		
515 - Steel Protective Coating		7445	sq. ft.	0	0	2978	4467
3440 - Effectiveness (Steel Protective Coatings)		7445				2978	4467
215 - Reinforced Concrete Abutment	1- Ben.	77	ft.	71	0	6	0
1090 - Exposed Rebar		6				6	
227 - Reinforced Concrete Pile	1- Ben.	20	each	20			
234 - Reinforced Concrete Pier Cap	1- Ben.	113	ft.	0	0	113	0
1080 - Delamination/Spall/Patched Area		35				35	
1090 - Exposed Rebar		36				36	
1120 - Efflorescence/Rust Staining		5				5	
1130 - Cracking (RC and Other)		37				37	
311 - Movable Bearing	1- Ben.	25	each	0	0	25	0
1000 - Corrosion		23				23	
2240 - Loss Bearing Area		2				2	
313 - Fixed Bearing	1- Ben.	25	each	0	0	25	0
1000 - Corrosion		25				25	
333 - Other Bridge Railing	1- Ben.	405	ft.	0	375	30	0
1000 - Corrosion		375			375		
1010 - Cracking		22				22	
1080 - Delamination/Spall/Patched Area		8				8	

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/25/2011 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Several girder ends have section loss at web below haunch and at bottom flange:

Span 1 Girder 2 over Bent 1 has the right side flange knife edged with up to 3/4in. section loss at bottom flange near bearing.

Span 1 Girder 4 over Bent 1 has the left side flange knife edged with up to 3/4in. section loss at bottom flange near bearing. Both anchor bolts are missing. Web has a 1/16in. diameter hole near concrete haunch.

Spans 1&2 Girder 3 Bent 2 has section loss at bottom flange.

Span 1 Girder 3 Bent 2 has a 4" x 3/4" hole in web at haunch.

Span 2 Girder 5 Bent 3 has a 4" x 2" hole in web at haunch.

Span 3 Girder 3 Bent 3 has a 1 1/2" x 3/8" hole in web at haunch.

Span 3 Girder 3 Bent 4 has two small holes (1/8") in web at haunch.

Span 4 Girder 3 Bent 4 has a 1 1/2" x 3/4" hole in web at haunch.

Span 4 Girder 3 Bent 5 has a 1" x 3/4" hole in web at haunch.

Span 5 Girder 3 Bent 5 has a 1" x 3/4" hole in web near concrete haunch.

Span 5 Girder 4 Bent 5 has a 2" x 3/4" hole in bottom of web over bearing 5" from end of girder.

Span 5 Girder 1 Bent 6 has a 5" x 1 1/2" hole in web at haunch.

Span 5 Girder 3 Bent 6 has a 1 3/4" x 3/4" hole in web at haunch.

Span 5 Girder 5 Bent 6 web at end of girder is bowed, possibly crushing.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Inspector:

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 2 Description

Stage: Monitor

Stage: Monitor



PHOTO 4 Description

Stage: Monitor



PHOTO 3 Description



PHOTO 5 Description

Inspector:

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 6 Description

Stage: Monitor

Stage: Monitor



PHOTO 8 Description

Stage: Monitor



PHOTO 7 Description



PHOTO 9 Description

Inspector:

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Facility Carried: SH 77-02- LM 7.16

Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 10 Description

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/25/2011 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Steel Girders have 60% paint deterioration and areas of surface rust with some section loss.

Ends of most Girders are rusted with section loss at haunch and bearings.

Exterior girders 1 and 5 have rust and section loss throughout spans especially below drain openings.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Inspector:

Structure Number: 02870

Inspection Date:

Facility Carried: SH 77-02- LM 7.16

Bridge Inspection Report

Maintenance Needs

Date Reported: 7/25/2011 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Majority of anchor bolts and nuts are rusted with sect. loss.
Some anchor bolt nuts have complete sect. loss.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Inspector:

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Maintenance Needs

Date Reported: 7/25/2011 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Bent 2 and 3 caps have spalls under bearings, (Approx. 20% loss of bearing area):

Span 1 bent 2 bearing 5

Span 3 bent 3 bearing 1

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description

Inspector:

Structure Number: 02870

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Bridge Inspection Report

Maintenance Needs

Date Reported: 7/25/2011 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Bent 2 cap on ahead side has 1.5' x 1.5' x 1" deep spall near pile 2, and 3.5' x 2' x 2" deep spall with exposed rebar near pile 3, Exposed rebar has up to 50% section loss.

Bent 3 cap on ahead side has a 1.5' x 1' x 2" deep spall near pile 4. Bottom of cap has a 2.5' x 6" x 2" deep spall between piles 3 and 4 with exposed rebar. Exposed rebar has up to 50% section loss.

Bent 4 cap has several small spalls with rebar exposed on bottom of cap. (10')

Bent 6 abutment has a spalled area with rebar exposed.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description

Inspector:

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Inspection Date:

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Maintenance Needs

Date Reported: 06/13/2016

Priority: D - Routine

Work Code:

Deficiency Description:

Lt and Rt curbs are deteriorated with section loss.

Lt and Rt overhangs have moderate deterioration, cracking with efflorescence, and several spalls with rebar exposed.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description

