

# Bridge Inspection Report

**A5583**

**I-630 WB Log 5.48**

**over**

**MISS AVE, RUSHING CREEK**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

Inspector:

Structure Number: A5583

Inspection Date:

Facility Carried: I-630 WB Log 5.48

## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	02/09/2016
(8) STRUCTURE NUMBER	A5583	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 1 1 630 4	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	06 (3) COUNTY CODE 119	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	39020	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	MISS AVE, RUSHING CREEK	C. OTHER SPECIAL	Y 24 02/08/2017
(7) FACILITY CARRIED	I-630 WB Log 5.48		
(9) LOCATION	1.7MI E OF I-430		
(11) MILEPOINT 5.479	(12) BASE HIGHWAY NETWORK 1		
(13A) LRS INVENTORY ROUTE	0000630210 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 34.74581	(17) LONGITUDE -92.35876		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	6
A) KIND OF MATERIAL/DESIGN: 4 - Steel continuous		(59) SUPERSTRUCTURE	4 (60) SUBSTRUCTURE 6
B) TYPE OF DESIGN/CONSTR: 05 - Box Beam or Girders - Multiple		(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 4	(46) NUMBER OF APPROACH 0		
(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 1977	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	5
(42) TYPE OF SERVICE ON 1 UNDER 6		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 03 UNDER 05		(64) OPERATING RATING	39
(29) AVERAGE DAILY TRAFFIC 52000	(19) BYPASS DETOUR LENGTH 1	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2016		(66) INVENTORY RATING	24
(109) AVERAGE DAILY TRUCK TRAFFIC 3		(70) BRIDGE POSTING	5
		(41) STRUCTURE OPEN/POSTED/CLOSED	A
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 134	(49) STRUCTURE LENGTH (ft.) 444	(67) STRUCTURAL EVALUATION	4
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0 RIGHT 0.5		(68) DECK GEOMETRY	6
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 55.8		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	6
(52) DECK WIDTH, OUT-TO-OUT (ft.) 58.5		(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.) 55.1		(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN 0 (34) SKEW (DEG.) 0		(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.) 56.4		36B) TRANSITIONS:	0
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) 99.99		36C) APPROACH GUARDRAIL:	0
(54) VERTICAL UNDER CLEARANCE (ft.) H 16.92		36D) APPROACH GUARDRAIL ENDS:	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.) H 14.5		(113) SCOUR CRITICAL BRIDGES	8
(56) MIN LATERAL UNDER CLEARANCE (ft.) 33.2		SUFFICIENCY RATING	1 STATUS 47.9
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 0		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	11
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	1
(96) TOTAL PROJECT COST	0	(101) PARALLEL STRUCTURE DESIGNATION	R
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(102) DIRECTION OF TRAFFIC	1
(114) FUTURE ADT 69000	(115) YEAR OF FUTURE ADT 2036	(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	1
		(20) TOLL	3
		(21) MAINTENANCE RESPONSIBILITY	01
		(22) OWNER	01
		(37) HISTORICAL	5
		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

Inspector:

Structure Number: A5583

Inspection Date:

Facility Carried: I-630 WB Log 5.48

### Bridge Inspection Report

## National Bridge Inventory

### UNDER RECORD 2

#### IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	I-630 WB Log 5.48
(3) COUNTY CODE	119	(8) STRUCTURE NUMBER	A5583
(4) PLACE CODE	39020	(9) LOCATION	1.7MI E OF I-430
(5) INV. ROUTE (ON/UNDER)	2 5 1 38940 1	(11) MILEPOINT	0.790 (12) BASE HIGHWAY NETWORK 0
(6) FEATURES INTERSECTED	MISS AVE, RUSHING CREEK	(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00
		(16) LATITUDE	34.7459444444445 (17) LONGITUDE -92.35875

#### STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN A) KIND OF MATERIAL/DESIGN: 4 - Steel continuous  
B) TYPE OF DESIGN/CONSTR: 05 - Box Beam or Girders - Multiple

#### AGE OF SERVICE

(19) BYPASS DETOUR LENGTH	1	(30) YEAR OF AVERAGE DAILY TRAFFIC	1983
(27) YEAR BUILT	1977	(42) TYPE OF SERVICE	ON 1 UNDER 6
(28) LANES	ON 05 UNDER 03	(109) AVERAGE DAILY TRUCK TRAFFIC	1
(29) AVERAGE DAILY TRAFFIC	9736		

#### GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	16.9	(48) LENGTH OF MAXIMUM SPAN	134 (49) STRUCTURE LENGTH 444
(47) TOTAL HORIZONTAL CLEARANCE	102		

#### CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	2
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	16	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(101) PARALLEL STRUCTURE DESIGNATION	R	(110) DESIGNATED NATIONAL NETWORK	0

Inspector:

Structure Number: A5583

Inspection Date:

Facility Carried: I-630 WB Log 5.48

## Bridge Inspection Report

## Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
<b>12 - Reinforced Concrete Deck</b>	1- Ben.	25974	sq. ft.	17853	4467	3654	0
	One spall filled with asphalt in span 1 at bent 1. See photo. Deck all spans have large unsealed cracks up to 1/8" wide.						
1080 - Delamination/Spall/Patched Area		18				18	
1130 - Cracking (RC and Other)		8103			4467	3636	
<b>102 - Steel Closed Web/Box Girder</b>	1- Ben.	1768	ft.	1516	207	45	0
	<p>All exterior paint is chalky with some peeling and freckling rust on the sides and bottom of all box girders.</p> <p>Inside the girders scattered freckling and rust is common and heaviest at the ends with some minor pitting. Girder 4 span 1 back of bulk head 1 has active rust on the bottom of box girder and on bottom of web stiffeners and on bottom of bulk head stiffeners. Scattered peeling paint is present on the interior of the bottom plate due to moisture infiltration. Water and dirt enters the ends of all four box girders due to the joint seals and unsealed deck cracks. The "stay in place" forms and the top flanges of the girders have some rust at and near the deck control joints due to leaks. See photos</p> <p>Fatigue cracks are present in the sides of the box girders and at the welded connections of the cross brace diaphragm on Girder 1 left side diaphragms 1, 2, 3, 4, 10, 14, 21 and 22, Girder 1 right side diaphragms 1, 2 and 11, Girder 2 left side diaphragms 2, 3, 4, 10, 14, 15, 21 and 22, Girder 2 right side diaphragms 2, 3, 4, 7, 10, 11, 15, 21 and 22, Girder 3 left side diaphragms 2, 3, 4, 14, 15, 21 and 22, Girder 3 right side diaphragms 1, 2, 3, 4, 10, 11, 14, 15, 19, 21 and 22, Girder 4 left side diaphragms 1, 2, 3, 4 and 21, Girder 4 right side diaphragms 1, 2, 3, 4, 10, 14, 15, 19, 21 and 22. Crack location sheet linked. Cracks still remain on the inside of box that are not visible from outside the box girder. A sketch is linked to locate these cracks. HBM has drilled some of the fatigue cracks that had propagated to the outside of box. Previous holes drilled in cracks ahead and back of diaphragm areas have ringed out. See photos and crack sketch.</p>						
1000 - Corrosion		212			194	18	
1010 - Cracking		40			13	27	
515 - Steel Protective Coating		35943	sq. ft.	0	16030	16033	3880
3440 - Effectiveness (Steel Protective Coatings)		35943			16030	16033	3880
<b>205 - Reinforced Concrete Column</b>	1- Ben.	9	each	9			
<b>215 - Reinforced Concrete Abutment</b>	1- Ben.	119	ft.	96	23	0	0
	Both abutments have small cracks.						
1130 - Cracking (RC and Other)		23			23		
<b>234 - Reinforced Concrete Pier Cap</b>	1- Ben.	176	ft.	176			
<b>302 - Compression Joint Seal</b>	1- Ben.	118	ft.	0	0	0	118
	Both joints have fallen out and are leaking. See photo.						
2310 - Leakage		118					118

Inspector:

Structure Number: A5583

Inspection Date:

Facility Carried: I-630 WB Log 5.48

## Bridge Inspection Report

## Element Inspection

<b>311 - Movable Bearing</b>	1- Ben.	32	each	16	16	0	0
	Active rust on both abutments due to leaking joints.						
1000 - Corrosion		16			16		
<b>313 - Fixed Bearing</b>	1- Ben.	8	each	8			
	The bearing at both abutments have active rust due to leaking joints.						
<b>321 - Reinforced Concrete Approach Slab</b>	1- Ben.	3648	sq. ft.	0	3459	189	0
	Both approach slabs have cracks and minor settlement. The east approach slab has a spall.						
1080 - Delamination/Spall/Patched Area		9				9	
1130 - Cracking (RC and Other)		180				180	
4000 - Settlement		3459			3459		
<b>331 - Reinforced Concrete Bridge Railing</b>	1- Ben.	444	ft.	376	68	0	0
1130 - Cracking (RC and Other)		68			68		
<b>333 - Other Bridge Railing</b>	1- Ben.	444	ft.	386	58	0	0
1010 - Cracking		58			58		

Inspector:

Structure Number: A5583

Inspection Date:

Facility Carried: I-630 WB Log 5.48

### Bridge Inspection Report

#### Maintenance Needs

**Date Reported:** 2/25/2011 12:00:00 AM

**Priority:** C - Important

**Work Code:**

---

**Deficiency Description:**

Deck surface

Large transverse and longitudinal unsealed cracks are present in all spans.  
Some are 1/8" to 1/4" allowing moisture in steel box girders.

**Work Description:**

---

**Date Repairs Completed:**

**Maintenance Comments:**

---

**Date Reported:** 2/25/2011 12:00:00 AM

**Priority:** C - Important

**Work Code:**

---

**Deficiency Description:**

Abutment 2 girder 4 left bearing  
Cotter key missing.

**Work Description:**

---

**Date Repairs Completed:**

**Maintenance Comments:**

---

Inspector:

Structure Number: A5583

Inspection Date:

Facility Carried: I-630 WB Log 5.48

### Bridge Inspection Report

## Maintenance Needs

Date Reported: 2/25/2011 12:00:00 AM

Priority: B - Pressing; 6 month completion goal

Work Code:

### Deficiency Description:

Fatigue cracks are present in the sides of the box girders and at the welded connections of the cross brace diaphragm on Girder 1 left side diaphragms 1, 2, 3, 4, 10, 14, 21 and 22, Girder 1 right side diaphragms 1, 2 and 11, Girder 2 left side diaphragms 2, 3, 4, 10, 14, 15, 21 and 22, Girder 2 right side diaphragms 2, 3, 4, 7, 10, 11, 15, 21 and 22, Girder 3 left side diaphragms 2, 3, 4, 14, 15, 21 and 22, Girder 3 right side diaphragms 1, 2, 3, 4, 10, 11, 14, 15, 19, 21 and 22, Girder 4 left side diaphragms 1, 2, 3, 4 and 21, Girder 4 right side diaphragms 1, 2, 3, 4, 10, 14, 15, 19, 21 and 22. See photos

Added 2/8/2017 CDDC497

New fatigue cracks were found during this inspection. Girder 3: dia. 1 lt., dia. 7 rt., dia. 8 rt. and lt., dia. 9 rt. dia. 10 rt. and lt. Also, at bulk head 1 a crack was located at the top right welded connection. New photos linked.

### Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Girder 4 diaphragm 21 back crack in the web. No change.

Stage: Assigned

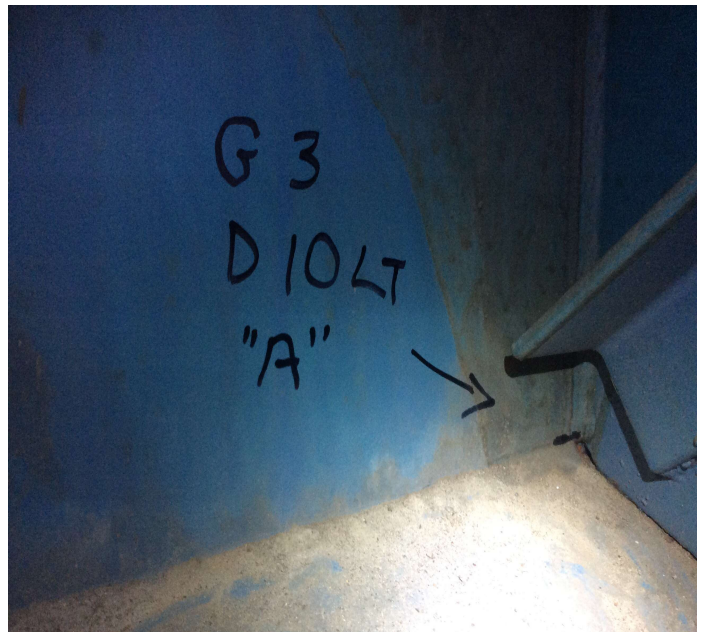


PHOTO 2 Description girder 3 diaphragm 10



Inspector:

Inspection Date:

Structure Number: A5583

Facility Carried: I-630 WB Log 5.48

## Bridge Inspection Report

### Maintenance Needs

Stage: Assigned

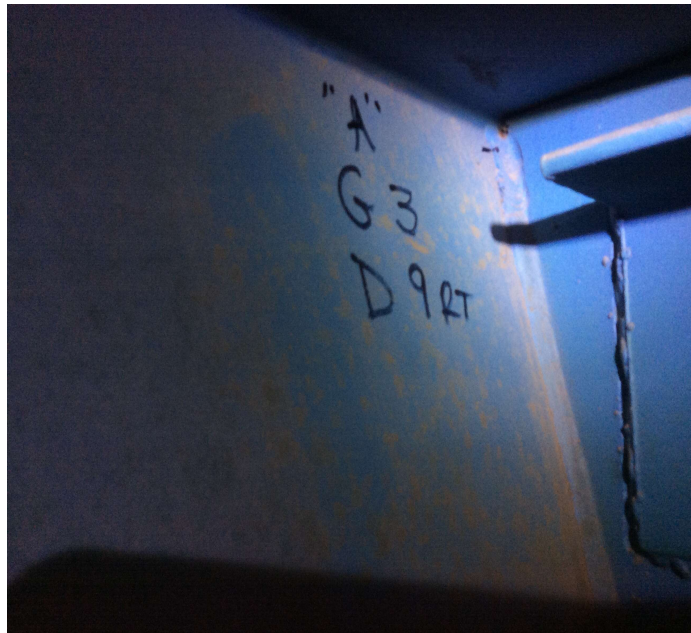


PHOTO 3 Description girder 3 diaphragm 9

Stage: Assigned



PHOTO 4 Description girder 3 diaphragm 8

Stage: Assigned

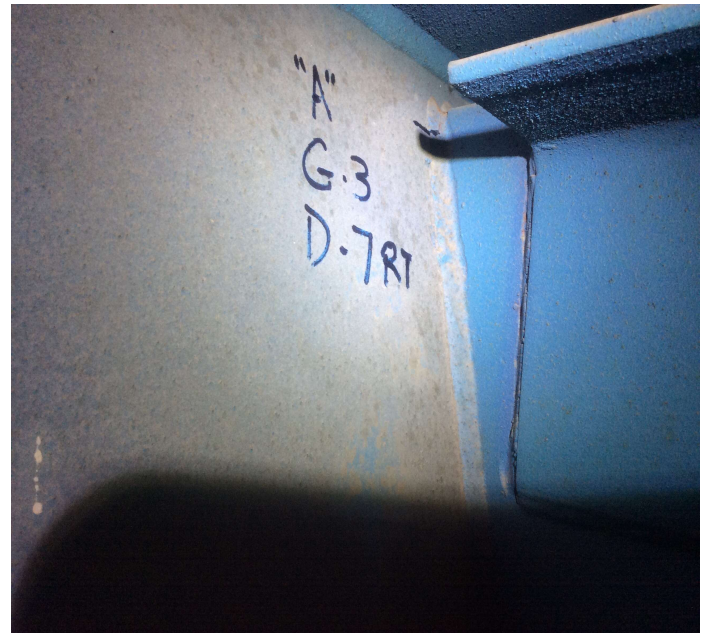


PHOTO 5 Description girder 3 dia 7

Stage: Assigned



PHOTO 6 Description girder 3



Inspector:

Structure Number: A5583

Inspection Date:

Facility Carried: I-630 WB Log 5.48

## Bridge Inspection Report

### Maintenance Needs

Stage: Assigned



PHOTO 7 Description New crack located

Stage: Assigned



PHOTO 8 Description girder 2

Stage: Assigned



PHOTO 9 Description Girder 3 diaphragm 8 back right side. New crack in the weld at upper diaphragm.

Stage: Assigned



PHOTO 10 Description Girder 2 diaphragm 3 crack in the weld. No change.

Inspector:

Structure Number: A5583

Inspection Date:

Facility Carried: I-630 WB Log 5.48

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 2/25/2011 12:00:00 AM

Priority: C - Important

Work Code:

---

#### Deficiency Description:

Joint seals at both abutments.

The joint seals at both abutments are missing allowing moisture and debris to build-up around bearings and enter the steel box girders. Spalls on top of abutment 2

#### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1      Description      Bent 1 joint seal missing. Common bent 5.

Inspector:

Structure Number: A5583

Inspection Date:

Facility Carried: I-630 WB Log 5.48

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 2/25/2011 12:00:00 AM

Priority: D - Routine

Work Code:

---

#### Deficiency Description:

Girder 4 span 1 back of bulk head 1.

Active rust to bottom of box girder, bottom of web stiffeners and bottom of bulk head.

#### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1      Description      Girder 4 at first bulkhead back active rust with moderate pitting to bottom flange and lower web.