

# Bridge Inspection Report

**05709**  
**US 70 @ I-440**  
**over**  
**I 440 Log 9.69**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

Inspector:

Structure Number: 05709

Inspection Date:

Facility Carried: US 70 @ I-440

## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	07/07/2015
(8) STRUCTURE NUMBER	05709	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 2 1 70 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	06 (3) COUNTY CODE 119	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	47940	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	I 440 Log 9.69	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	US 70 @ I-440		
(9) LOCATION	1.8 W OF GALLOWAY (I-6)		
(11) MILEPOINT 6.730	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 34.77092	(17) LONGITUDE -92.16235		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	7
A) KIND OF MATERIAL/DESIGN: 4 - Steel continuous		(59) SUPERSTRUCTURE	7 (60) SUBSTRUCTURE 6
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(61) CHANNEL & CHANNEL PROTECTION	N (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	4
(42) TYPE OF SERVICE ON 6 UNDER 1		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 02 UNDER 08		(64) OPERATING RATING	48.0
(29) AVERAGE DAILY TRAFFIC 5200	(19) BYPASS DETOUR LENGTH 1	(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.) 94	(49) STRUCTURE LENGTH (ft.) 274	(67) STRUCTURAL EVALUATION	6
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0 RIGHT 0		(68) DECK GEOMETRY	9
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 67.9		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	6
(52) DECK WIDTH, OUT-TO-OUT (ft.) 71		(71) WATERWAY ADEQUACY	N
(32) APPROACH ROADWAY WIDTH (ft.) 67.9		(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 15	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99	36A) BRIDGE RAILINGS:	1
(47) TOTAL HORIZONTAL CLEARANCE (ft.) 69.9		36B) TRANSITIONS:	0
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) 99.99		36C) APPROACH GUARDRAIL:	0
(54) VERTICAL UNDER CLEARANCE (ft.) H 16.75		36D) APPROACH GUARDRAIL ENDS:	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.) H 17.7		(113) SCOUR CRITICAL BRIDGES	N
(56) MIN LATERAL UNDER CLEARANCE (ft.) 9		SUFFICIENCY RATING	0 STATUS 91.5
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	16
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	0	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 7129	(115) YEAR OF FUTURE ADT 2028	(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	1
		(20) TOLL	3
		(21) MAINTENANCE RESPONSIBILITY	01
		(37) HISTORICAL	5
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	N
		(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: 05709

Inspection Date:

Facility Carried: US 70 @ I-440

## Bridge Inspection Report

## National Bridge Inventory

## UNDER RECORD A

## IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	US 70 @ I-440
(3) COUNTY CODE	119	(8) STRUCTURE NUMBER	05709
(4) PLACE CODE	47940	(9) LOCATION	1.8 W OF GALLOWAY (I-6)
(5) INV. ROUTE (ON/UNDER)	A 1 1 440 2	(11) MILEPOINT	9.690 (12) BASE HIGHWAY NETWORK 1
(6) FEATURES INTERSECTED	I 440 Log 9.69	(13A) LRS INVENTORY ROUTE	0000440010 (13B) SUBROUTE NUMBER 00
		(16) LATITUDE	34. 7708333333333 (17) LONGITUDE -92.1623333333333

## STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN A) KIND OF MATERIAL/DESIGN: 4 - Steel continuous  
 B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder

## AGE OF SERVICE

(19) BYPASS DETOUR LENGTH	1	(30) YEAR OF AVERAGE DAILY TRAFFIC	2014
(27) YEAR BUILT	1977	(42) TYPE OF SERVICE	ON 6 UNDER 1
(28) LANES	ON 08 UNDER 02	(109) AVERAGE DAILY TRUCK TRAFFIC	1
(29) AVERAGE DAILY TRAFFIC	24000		

## GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	16.8	(48) LENGTH OF MAXIMUM SPAN	94 (49) STRUCTURE LENGTH 274
(47) TOTAL HORIZONTAL CLEARANCE	74.7		

## CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	1
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	11	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	1	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(101) PARALLEL STRUCTURE DESIGNATION	N	(110) DESIGNATED NATIONAL NETWORK	1

## UNDER RECORD B

## IDENTIFICATION

(1) STATE CODE	056 - Arkansas	(7) FACILITY CARRIED	US 70 @ I-440
(3) COUNTY CODE	119	(8) STRUCTURE NUMBER	05709
(4) PLACE CODE	47940	(9) LOCATION	1.8 W OF GALLOWAY (I-6)
(5) INV. ROUTE (ON/UNDER)	B 1 1 440 4	(11) MILEPOINT	9.690 (12) BASE HIGHWAY NETWORK 1
(6) FEATURES INTERSECTED	I 440 Log 9.69	(13A) LRS INVENTORY ROUTE	0000440010 (13B) SUBROUTE NUMBER 00
		(16) LATITUDE	34. 7708333333333 (17) LONGITUDE -92.1623333333333

## STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE, MAIN A) KIND OF MATERIAL/DESIGN: 4 - Steel continuous  
 B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder

## AGE OF SERVICE

(19) BYPASS DETOUR LENGTH	1	(30) YEAR OF AVERAGE DAILY TRAFFIC	2014
(27) YEAR BUILT	1977	(42) TYPE OF SERVICE	ON 6 UNDER 1
(28) LANES	ON 04 UNDER 02	(109) AVERAGE DAILY TRUCK TRAFFIC	1
(29) AVERAGE DAILY TRAFFIC	24000		

## GEOMETRIC DATA

(10) INV RTE, MIN VERT CLEARANCE	16.8	(48) LENGTH OF MAXIMUM SPAN	94 (49) STRUCTURE LENGTH 274
(47) TOTAL HORIZONTAL CLEARANCE	78.7		

## CLASSIFICATION

(20) TOLL	3	(102) DIRECTION OF TRAFFIC	1
(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	11	(103) TEMP STRUCTURE	
(100) STRAHNET HIGHWAY DESIGNATION	1	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(101) PARALLEL STRUCTURE DESIGNATION	N	(110) DESIGNATED NATIONAL NETWORK	1

Inspector:

Structure Number: 05709

Inspection Date:

Facility Carried: US 70 @ I-440

## Bridge Inspection Report

## Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	19393	sq. ft.	17693	1700	0	0
	Random transverse and longitudinal cracks in all spans. 0.035 inch avg.						
1130 - Cracking (RC and Other)		1700			1700		
107 - Steel Open Girder/Beam	1- Ben.	2710	ft.	2683	27	0	0
	Active rust on beam ends at bent 1 Span 2 beam 10 has a small dent in the bottom flange over westbound traffic in the center lane. Span 3 beams 1,2,4,6,8 & 10 have traffic impact damage over the center and right eastbound lanes. Beams 1,2,4&6 have some gouges in the bottom flanges at these impact areas. Beam 2 is misaligned approx. 2 inches due to impact.						
1000 - Corrosion		20			20		
7000 - Damage		7			7		
515 - Steel Protective Coating		23654	sq. ft.	90	0	23564	0
3410 - Chalking (Steel Protective Coatings)		23564				23564	
205 - Reinforced Concrete Column	1- Ben.	9	each	1	0	8	0
	All three columns at bent 2 have vertical cracks. Bent 3, columns 1&3 are cracked. Bent 4, all three columns are cracked.						
1130 - Cracking (RC and Other)		8				8	
215 - Reinforced Concrete Abutment	1- Ben.	201	ft.	0	201	0	0
	The face of the beam seat has horizontal cracking along the entire face. Bent 5 is similar.						
1130 - Cracking (RC and Other)		201			201		
234 - Reinforced Concrete Pier Cap	1- Ben.	210	ft.	204	6	0	0
	The left ends of the caps of Bents 3&4 are cracked.						
1130 - Cracking (RC and Other)		6			6		
302 - Compression Joint Seal	1- Ben.	142	ft.	71	0	0	71
	The seal has fallen out at bent 1.						
2330 - Seal Damage		71					71
310 - Elastomeric Bearing	1- Ben.	50	each	42	8	0	0
	Five of the bearing plates have active rust at bent 1. Bent 5, beams 1,5&6, the bearing pads have moved.						
1000 - Corrosion		5			5		
2210 - Movement		3			3		
321 - Reinforced Concrete Approach Slab	1- Ben.	3504	sq. ft.	3404	100	0	0
	Both approach slabs are cracked.						
1130 - Cracking (RC and Other)		100			100		
331 - Reinforced Concrete Bridge Railing	1- Ben.	547	ft.	547			



Inspector:

Inspection Date:

Structure Number: 05709

Facility Carried: US 70 @ I-440

## Bridge Inspection Report

### Pictures



No overlay on the bridge deck.



Inspector:

Structure Number: 05709

Inspection Date:

Facility Carried: US 70 @ I-440

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 7/11/2011 12:00:00 AM

Priority: C - Important

Work Code:

---

#### Deficiency Description:

Columns at bents 2, 3 and 4 have full height vertical cracks up to 1/16 inch wide and on 8 inch centers.

Photo

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor

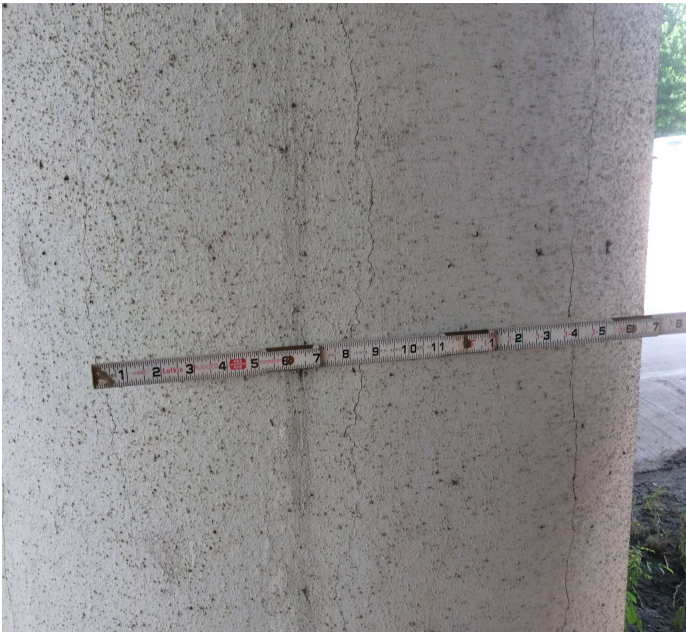


PHOTO 1      Description      Bent 2, column 2. Vertical cracks.  
Common appearance to several  
columns.



Inspector:

Structure Number: 05709

Inspection Date:

Facility Carried: US 70 @ I-440

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 7/11/2011 12:00:00 AM

Priority: C - Important

Work Code:

---

#### Deficiency Description:

Joint seal at bent 1 abutment has fallen out and is laying on beam ends and bearings allowing dirt debris to build-up causing sole plate to rust.

Photo

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1      Description      Bent 1, the joint seal is out causing debris to build up on the beam ends and active rust to form on the beam ends.

Inspector:

Structure Number: 05709

Inspection Date:

Facility Carried: US 70 @ I-440

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 7/2/2013 12:00:00 AM

Priority: C - Important

Work Code:

---

Deficiency Description:

Span 3 on girders 1, 2, 4, 6, 8 and 10 have traffic impact and are bent out of plane  $\frac{1}{2}$  to 1  $\frac{1}{2}$  inch. Photo

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1      Description      Traffic impact to beams 1&2 of span 3.



Inspector:

Structure Number: 05709

Inspection Date:

Facility Carried: US 70 @ I-440

### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 7/2/2013 12:00:00 AM

Priority: C - Important

Work Code:

---

Deficiency Description:

Deck has unsealed cracks up to 0.040 inch and the top of abutment 1 has a large spall between road iron.

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Date Reported: 7/2/2013 12:00:00 AM

Priority: C - Important

Work Code:

---

Deficiency Description:

Right approach guardrail at abutment 1 has traffic damage.

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---