

Bridge Inspection Report

A5040
I 40-SEC 21-WB LN
over
CR 440, Horsehead Creek



Inspection Date:

Inspected By:

Inspection Type(s):

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Inspector:

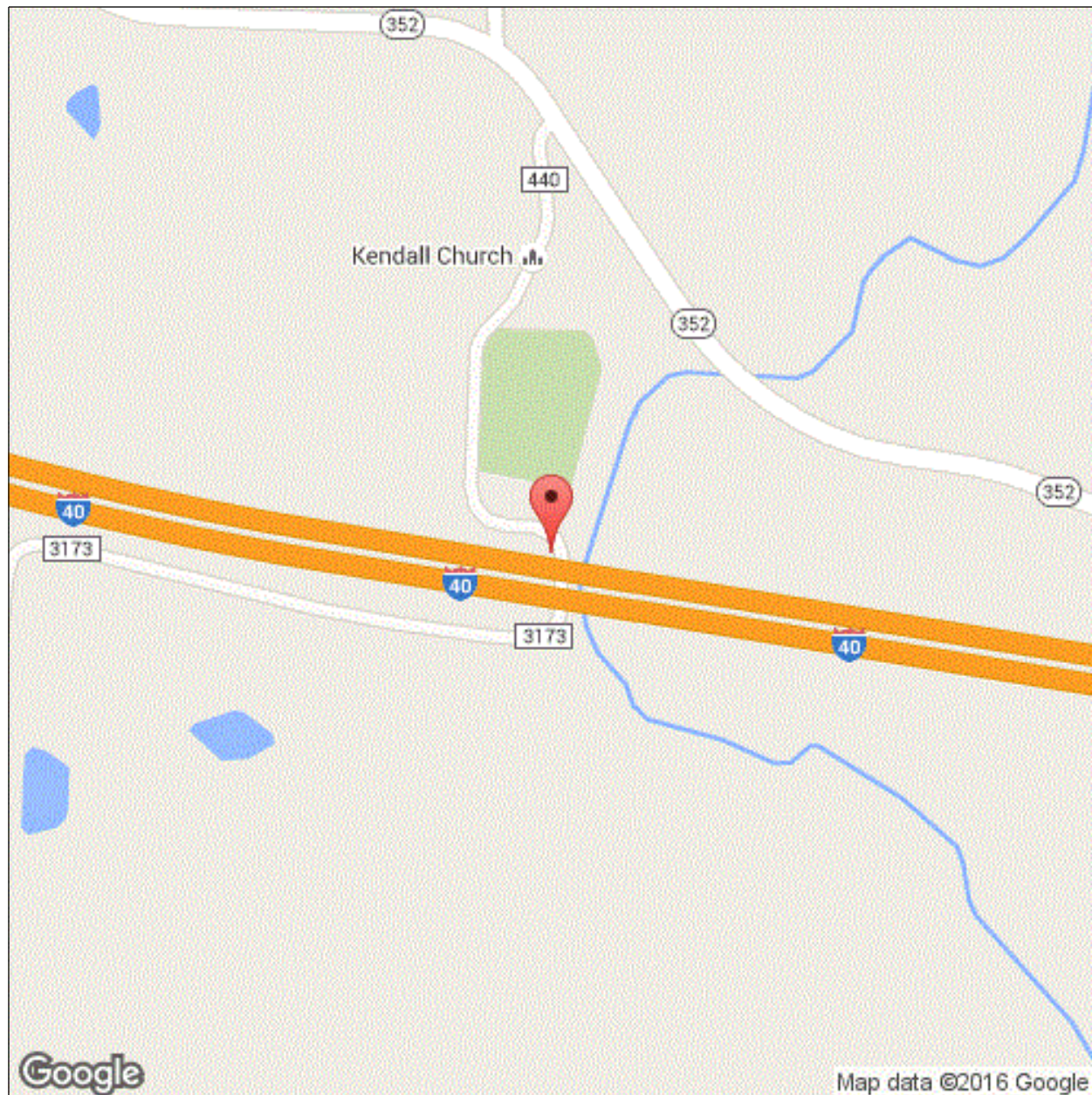
Inspection Date:

Structure Number: A5040

Facility Carried: I 40-SEC 21-WB LN

Bridge Inspection Report

Location Map



Latitude: 35.49398

Longitude: -93.62093

Inspector:

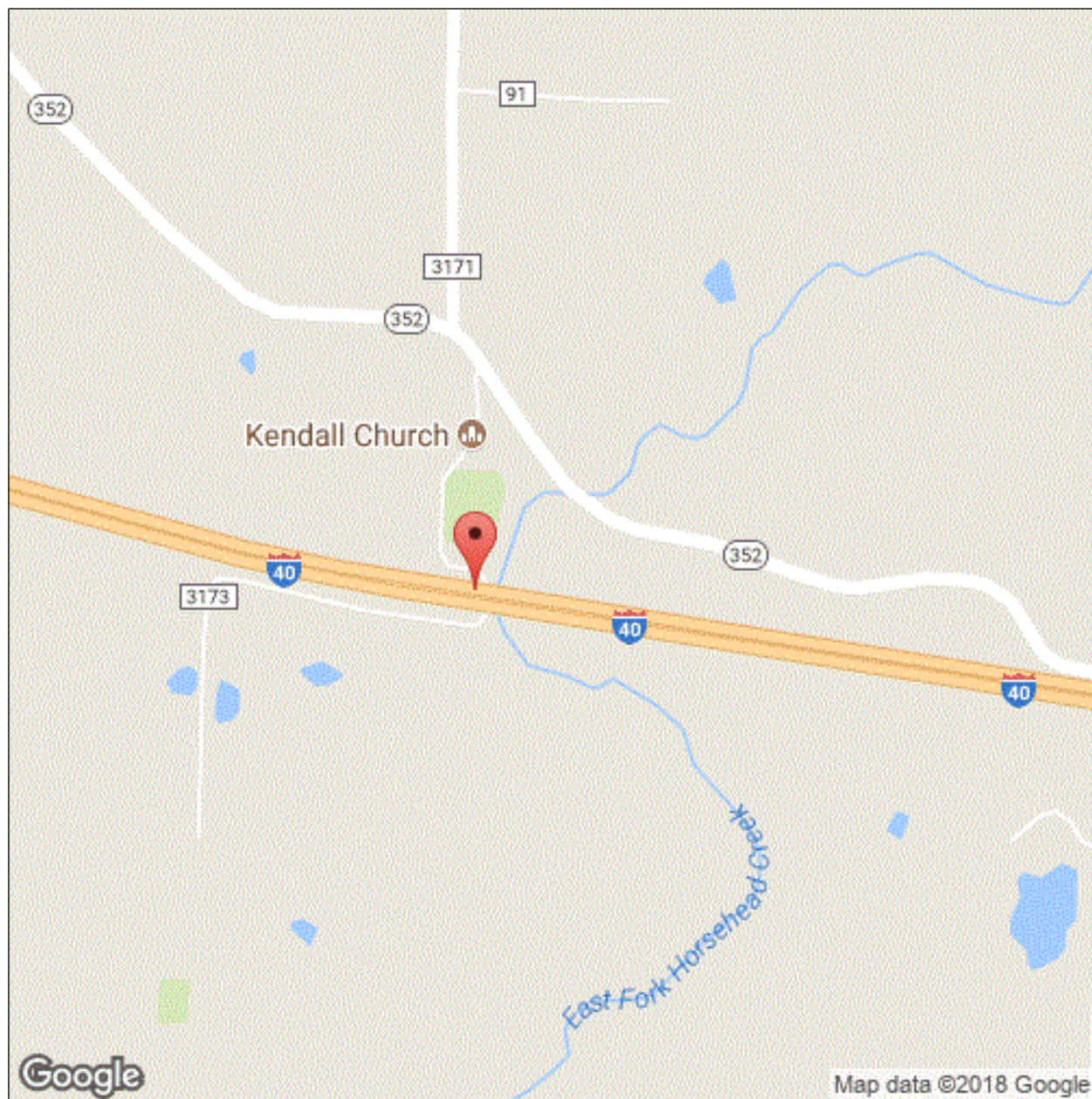
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Location Map



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Longitude: -93.62093

Inspector:

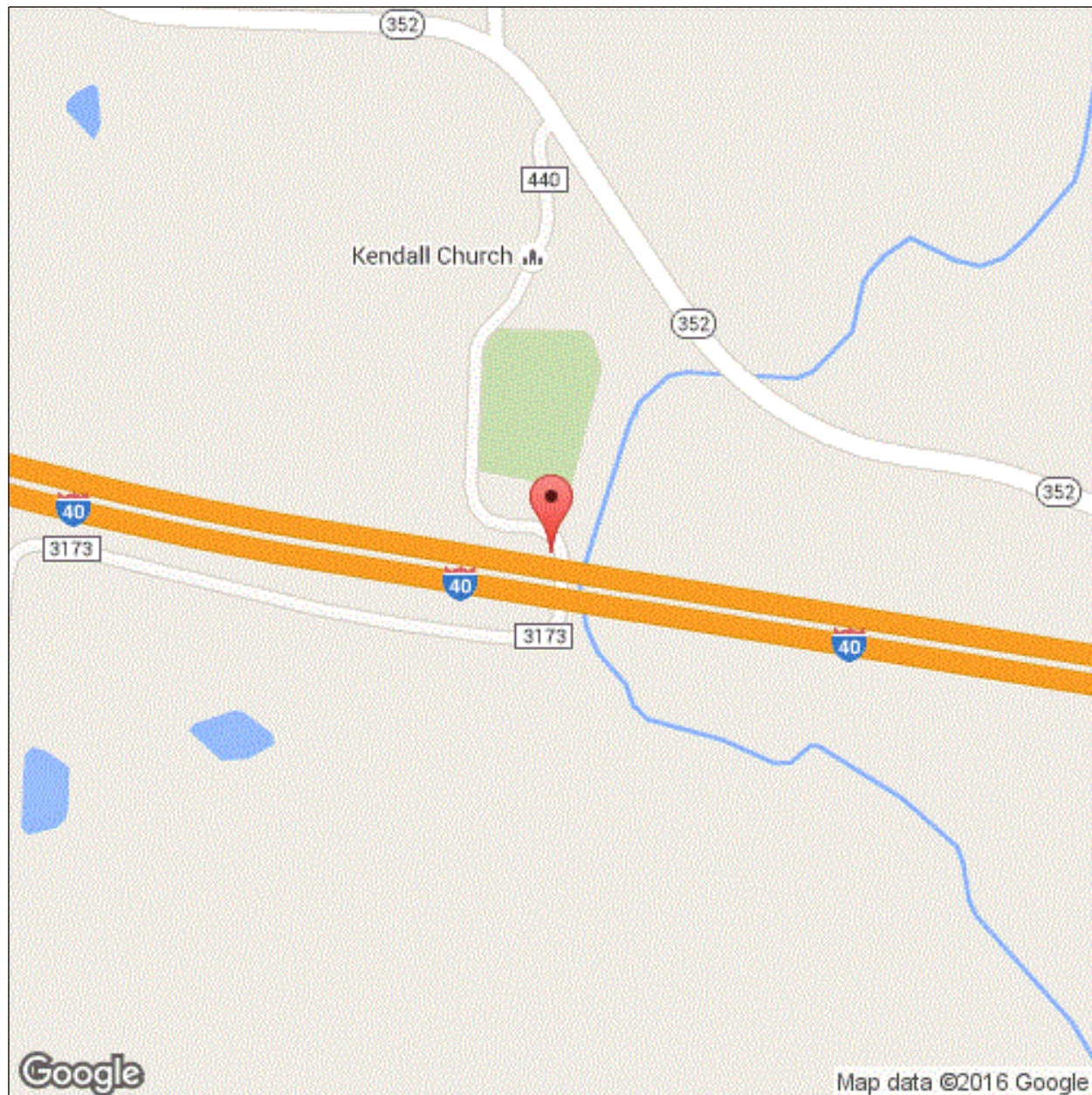
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Bridge Inspection Report

Executive Summary

Inspector:

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Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	03/15/2018
(8) STRUCTURE NUMBER	A5040	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 1 1 40 4	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	08 (3) COUNTY CODE 071	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	CR 440, Horsehead Creek	C. OTHER SPECIAL	Y 24 02/12/2019
(7) FACILITY CARRIED	I 40-SEC 21-WB LN		
(9) LOCATION	4.87 M E Franklin Co.		
(11) MILEPOINT 48.790	(12) BASE HIGHWAY NETWORK 1		
(13A) LRS INVENTORY ROUTE	0000040210 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 35.49398	(17) LONGITUDE -93.62093		
(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 5
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(61) CHANNEL & CHANNEL PROTECTION	7 (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 7	(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 1969	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	6
(42) TYPE OF SERVICE ON 1 UNDER 6		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 02 UNDER 02		(64) OPERATING RATING	60
(29) AVERAGE DAILY TRAFFIC 31702	(19) BYPASS DETOUR LENGTH 10	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	36
(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.) 55	(49) STRUCTURE LENGTH (ft.) 323	(67) STRUCTURAL EVALUATION	5
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0 RIGHT 0		(68) DECK GEOMETRY	6
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 39.0		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	5
(52) DECK WIDTH, OUT-TO-OUT (ft.) 42.1		(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.) 40.0		(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:	1
(47) TOTAL HORIZONTAL CLEARANCE (ft.) 40.0		36B) TRANSITIONS:	1
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) 99.99		36C) APPROACH GUARDRAIL:	1
(54) VERTICAL UNDER CLEARANCE (ft.) H 15.17		36D) APPROACH GUARDRAIL ENDS:	1
(55) LATERAL UNDER CLEARANCE RIGHT (ft.) H 9		(113) SCOUR CRITICAL BRIDGES	8
(56) MIN LATERAL UNDER CLEARANCE (ft.) 5		SUFFICIENCY RATING 72.0	STATUS 0
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	01
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	1
(96) TOTAL PROJECT COST	0	(101) PARALLEL STRUCTURE DESIGNATION	L
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(102) DIRECTION OF TRAFFIC	1
(114) FUTURE ADT 14048	(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
		(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

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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.	13598	sq. ft.	3998	8600	1000	0
	MODERATE CRACKING & SCALE THROUGHOUT DECK. MINOR TO MODERATE DELAM & SPALLING W / REBAR EXPOSED. MAINLY IN SPANS 1, 2, 3 & 7. POPOUTS THROUGHOUT DECK. MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED AROUND DECK DRAINS. MINOR CRACKING IN SOFFIT.						
1080 - Delamination/Spall/Patched Area		4000			4000		
1090 - Exposed Rebar		600			600		
1130 - Cracking (RC and Other)		5000			4000	1000	
107 - Steel Open Girder/Beam	1- Ben.	2247	ft.	2195	27	25	0
	MINOR RUST & OLD SECTION LOSS IN HAUNCHED AREAS OF SOME BEAMS. SEVERAL BEAMS IN SPANS 1 - 3 HAVE CRACKS IN WEB AT DIAPHRAGM CONNECTIONS. PLATES ARE WELDED TO WEB FOR DIAPHRAGMS TO BOLT ON. SEE A5040 BEAM NOTES 18 FOR CRACK DETAILS.						
1000 - Corrosion		40			20	20	
1010 - Cracking		12			7	5	
515 - Steel Protective Coating		14314	sq. ft.	14294	20	0	0
3440 - Effectiveness (Steel Protective Coatings)		20			20		
205 - Reinforced Concrete Column	1- Ben.	14	each	14			
	MINOR CRACKING & SCALE THROUGHOUT.						
215 - Reinforced Concrete Abutment	1- Ben.	86	ft.	86			
	MINOR CRACKING. ANCHOR BOLT NUT MISSING ON BEAM 6 AT ABUTMENT 8.						
234 - Reinforced Concrete Pier Cap	1- Ben.	234	ft.	117	115	2	0
	COND. 1 - 117 LF - MINOR TO MODERATE CRACKING & SCALE IN CAPS. COND. 2 - 115 LF - MINOR DELAM, CRACKING & SPALLING W REBAR EXPOSED IN FACES OF CAPS. 2, 4, 5, 6 & 7. MINOR DELAM & CRACKING IN LT. END OF CAP 3. COND. 3 - 2 LF - MODERATE TO MAJOR VERTICAL CRACK IN CAP 3 BETWEEN COLUMNS 1 & 2.						
1080 - Delamination/Spall/Patched Area		30			30		
1090 - Exposed Rebar		35			35		
1130 - Cracking (RC and Other)		52			50	2	

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Element Inspection

302 - Compression Joint Seal	1- Ben.	312	ft.	0	0	204	108
COND. 3 - 208 LF - MODERATE TO MAJOR DELAM & CRACKING IN ALL SEALS. MINOR POPPING AT JOINTS ON IMPACT. COND. 4 - 108 LF - SEALS AT PIERS 4 & 6 HAVE FAILED & FALLEN OUT OF JOINTS. SEALS AT ABUTMENTS 1 & 8 & PIER 7 HAVE SOME FAILED AREAS.							
2310 - Leakage		108					108
2330 - Seal Damage		204				204	
311 - Movable Bearing	1- Ben.	49	each	0	19	30	0
MINOR TO MODERATE RUST & PACK RUST ON ALL BEARINGS.							
1000 - Corrosion		49			19	30	
515 - Steel Protective Coating		147	sq. ft.	0	57	90	0
3440 - Effectiveness (Steel Protective Coatings)		147			57	90	
313 - Fixed Bearing	1- Ben.	49	each	0	29	20	0
MINOR TO MODERATE RUST & PACK RUST ON ALL BEARINGS.							
1000 - Corrosion		49			29	20	
515 - Steel Protective Coating		147	sq. ft.	0	87	60	0
3440 - Effectiveness (Steel Protective Coatings)		147			87	60	
321 - Reinforced Concrete Approach Slab	1- Ben.	2886	sq. ft.	1386	1000	500	0
MINOR TO MODERATE CRACKING THROUGHOUT.							
1130 - Cracking (RC and Other)		1500			1000	500	
330 - Metal Bridge Railing	1- Ben.	646	ft.	636	10	0	0
ALUMINUM RAIL - MINOR IMPACT DAMAGE IN SPAN 7 ON RT. SIDE.							
7000 - Damage		10			10		
331 - Reinforced Concrete Bridge Railing	1- Ben.	646	ft.	646			
MINOR SCALE IN CONCRETE.							

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Pictures

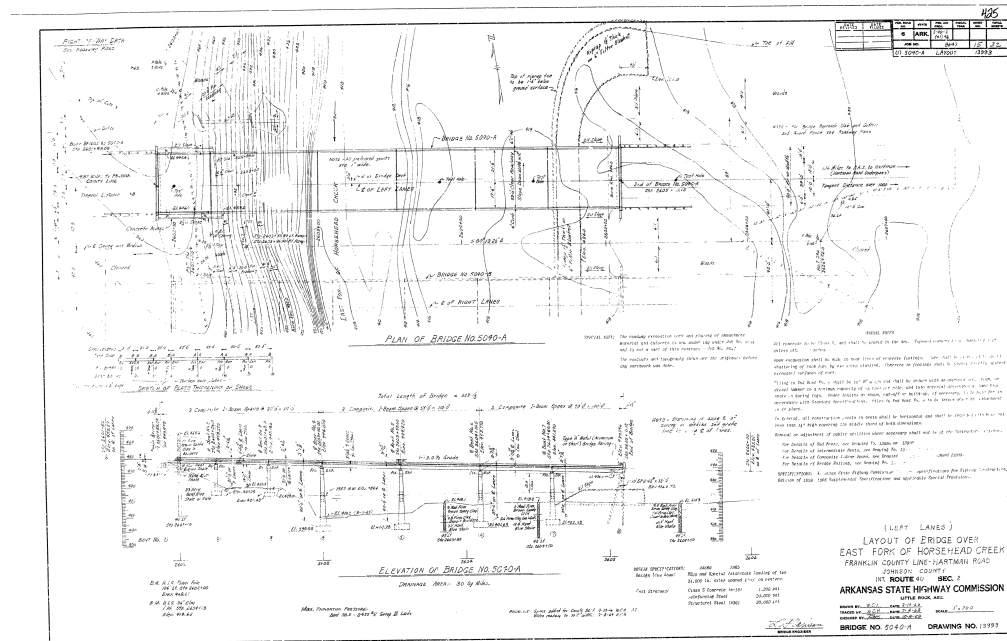


PHOTO 1

Description

PHOTO 1

Description

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Bridge Inspection Report

Sketches

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 2/21/2012 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Deck joint #s 1, 4, 6, 7 & 8. Seals at Joints 1, 7 & 8 have several failed Areas. Seals at Joints 4 & 6 have failed & fallen out of Joints.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Seal missing at Joints.

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Bridge Inspection Report

Maintenance Needs

Date Reported: 2/21/2012 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Deck; all spans

Moderate unsealed cracks, most of cracks are transverse.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Typ. Cracking in Deck.

Stage: Monitor



PHOTO 2 Description Minor Spall in Deck.

Inspector:

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Maintenance Needs

Stage: Monitor



PHOTO 3 Description Typ Popuots in Deck.

Stage: Monitor



PHOTO 4 Description Typ. Minor Spalling at Joints 6 & 7.

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Maintenance Needs

Date Reported: 2/28/2014 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

MODERATE TO MAJOR VERTICAL CRACK IN CAP 3 BETWEEN COLUMNS 1 & 2. CRACK STARTS AT BOTTOM CAP & GOES TO TOP.

Work Description:

installed rubber spacers and cleaned pack rust

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Vertical Crack in Cap 3 Ahd. Side.

Stage: Monitor



PHOTO 2 Description Vertical Crack in Cap 3 Bk. Side.

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Maintenance Needs

Date Reported: 03/05/2018

Priority: D - Routine

Work Code:

Deficiency Description:

MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN BK. FACE OF CAP 5 & AHD. FACES OF CAPS 6 & 7.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description Typ. Delam, Cracking & Spalling W / Rebar Exposed in AHD Faces of Caps 6 & 7.

Stage: Open



PHOTO 2 Description Delam, Cracking & Spalling W / Rebar Exposed in Bk. Face of Cap 5.