



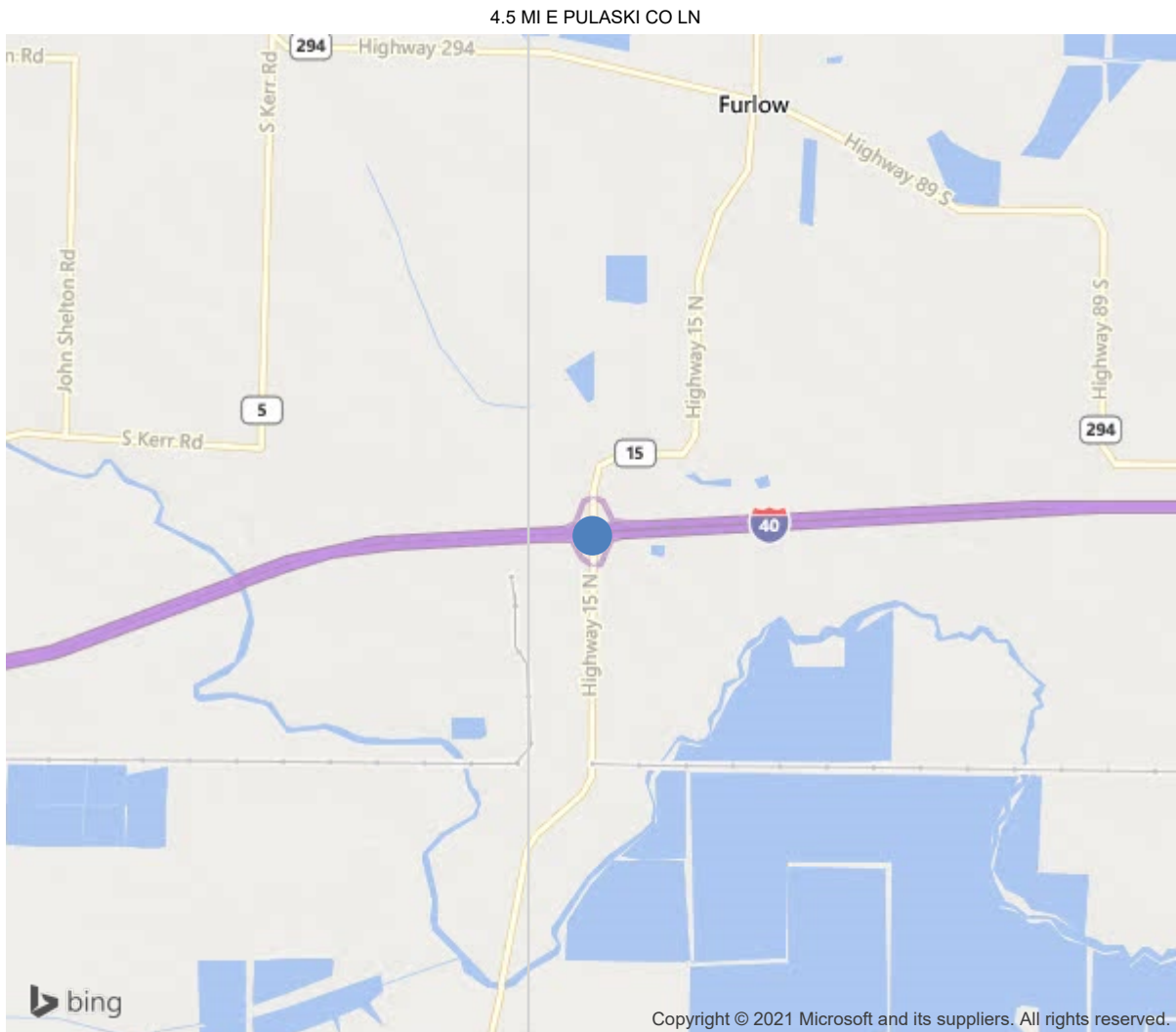
Latitude:34.80139, Longitude:-91.99439

Route:15 Section:11 Log:2.76

Arnold Road ID:43x15x11xA, Arnold Log mile:2.766

District 06, Lonoke County

Owner: 1-State Highway Agency



34.80139, -91.99439



Bridge #A3224(Routine)

SH 15 over I-40 LOG 168.58

Location: 4.5 MI E PULASKI CO LN

Team Lead: Chris Doggett Inspection Date: May 06, 2019

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	A3224
(5) Inventory Route	15
(2) Highway Agency District	06
(3) County Code	85-Lonoke County, Arkansas
(4) Place Code	0
(6) Features Intersected	I-40 LOG 168.58
(7) Facility Carried	SH 15
(9) Location	4.5 MI E PULASKI CO LN
(11) Mile Point	2.76 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.8013888888889
(17) Longitude	-91.9943888888889
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3-Steel
Type	2-Stringer/Multi-beam or girder
(44) Approach Structure Type	00
Material	0-Other
Type	0-Other
(45) No. of Spans in Main Unit	6
(46) No. of Approach Spans	0
(107) Deck Structure Type	1-Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	1-Monolithic Concrete (concurrently placed
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1961
(106) Year Reconstructed	1969
(42) Type of Service	11
On	1-Highway
Under	1-Highway, with or without pedestrian
(28) Lane	
On	2
Under	4
(29) Average Daily Traffic	1100
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	59 ft
(49) Structure Length	308 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	39 ft
(52) Deck Width Out to Out	42 ft
(32) Approach Roadway Width (W/Shoulders)	40 ft
(33) Bridge Median	0-No median
(34) Skew	0 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	40 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	16.33 ft
Ref:	
(55) Min Lat Underclear RT	10.5 ft
Ref:	
(56) Min Lat Underclear LT	18.1 ft
NAVIGATION DATA	
(38) Navigation Control	N-Not applicable, no waterway.
(111) Pier Protection	1-Navigation protection not requ
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	6-Rural Minor Arterial
(100) Defense Highway	0-The inventory route is not a S
(101) Parallel Structure	N-No parallel structure exists.
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0-N/A
(110) Designated National Network	0-The inventory route is not part of
(20) Toll	3-On free road. The structure is toll-
(21) Maintain	1-State Highway Agency
(22) Owner	1-State Highway Agency
(37) Historical Significance	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	5
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	N
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	4-M 18 / H 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	50
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	6
Rating	30
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	6
(69) Clearances, Vertical/Horizontal	4
(71) Waterway Adequacy	N
(72) Approach Roadway Alignment	7
(36) Traffic Safety Features	0110
A) Bridge Railings	0-Inspected feature does not meet cur
B) Transitions	1-Inspected feature meets currently a
C) Approach Guardrail	1-Inspected feature meets currently a
D) Approach Guardrail Ends	0-Inspected feature does not meet cur
(113) Scour Critical Bridges	N-Bridge not over waterway.
PROPOSED IMPROVEMENTS	
(75) Type of Work	Bridge rehabilitation because
(76) Length of Structure Improvement	308 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 580
(97) Year of Improvement Cost Estimate	1996
(114) Future ADT	7320
(115) Year of Future ADT	2028
INSPECTIONS	
(90) Inspection Date	
(91) Frequency	24 Months
(92) Critical Feature Inspection	Done Freq. (Mon) Date
A: Fracture Critical Detail	No 24
B: Underwater Inspection	No 0
C: Other Special Inspection	No 0



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	12913	7703	3893	1317	0
1080	Delamination/Spall/Patched Area	SF	582	0	328	254	0
1090	Exposed Rebar	SF	63	0	0	63	0
1120	Efflorescence/Rust Staining	SF	1000	0	0	1000	0
1130	Cracking (RC and Other)	SF	2637	0	2637	0	0
1190	Abrasion/Wear (PSC/RC)	SF	928	0	928	0	0
(12)	The deck has approx. 328 sf of concrete patching, 254 foot of spalls, 63 foot of spalls with exposed rebar. See photos. The surface of the deck has unsealed transverse cracks on three foot centers and are up to 1/8 inch wide. See photo Some cracks reflect thru to the soffit with effloresces						
107	Steel Open Girder/Beam	LF	2448	2168	200	80	0
1000	Corrosion	LF	280	0	200	80	0
515	Steel Protective Coating	SF	16694	0	12519	3275	900
3420	Peeling/Bubbling/Cracking	SF	400	0	400	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	16294	0	12119	3275	900
(107)	The beam ends and scattered areas along the top and bottom flanges have active rust with moderate pitting. This is most common on the original beams before the bridge was widened.						
205	Reinforced Concrete Column	EA	20	15	5	0	0
1080	Delamination/Spall/Patched Area	EA	0	0	0	0	0
1130	Cracking (RC and Other)	EA	5	0	5	0	0
(205)	Bent 2, cols. 2&3: both cracked and have delamns. Bent 4 col 1: delamned. Bent 6, col. 2,3,4 are cracked.						
215	Reinforced Concrete Abutment	LF	96	89	7	0	0
1090	Exposed Rebar	LF	5	0	5	0	0
1130	Cracking (RC and Other)	LF	2	0	2	0	0
(215)	Both abutments cracks in the backwall.						
234	Reinforced Concrete Pier Cap	LF	210	179	20	11	0
1080	Delamination/Spall/Patched Area	LF	11	0	10	1	0



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1090	Exposed Rebar	LF	20	0	10	10	0
(234)	Small delaminations are present on the faces of all the caps. The caps of bents 2,3,4 & 5 have Spalls with exposed rebar on the sides and bottom. See photo						
305	Assembly Joint without Seal	LF	280	130	150	0	0
2360	Adjacent Deck or Header	LF	150	0	150	0	0
(305)	Several areas of the deck at the joints are cracked, spalled and patched.						
311	Movable Bearing	EA	48	28	20	0	0
1000	Corrosion	EA	20	0	20	0	0
313	Fixed Bearing	EA	48	28	20	0	0
1000	Corrosion	EA	20	0	20	0	0
330	Metal Bridge Railing	LF	612	612	0	0	0
331	Reinforced Concrete Bridge Railing	LF	612	612	0	0	0





Numerous transverse cracks are sealed



Deck view





Span 6 with an open spall in northbound lane



Span 3: right side the soffit has a few spalls with exposed rebar





Bent 3, between columns 2 & 3: large spall with exposed rebar



Span 1, girder 8: the lower web and bottom flange with active corrosion mean the beam end





Soffit view of span 6: (worst case)



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## **Maintenance Needs**





**Bridge #A3224**(Routine)

**SH 15 over I-40 LOG 168.58**

**Location: 4.5 MI E PULASKI CO LN**

**Team Lead:** Chris Doggett **Inspection Date:** May 06, 2019

### **Inspection Comments**

Drawing NO. 15961Form IIIB revised 5/16/17

Logged North bound.