



Latitude:35.42118, Longitude:-93.39394

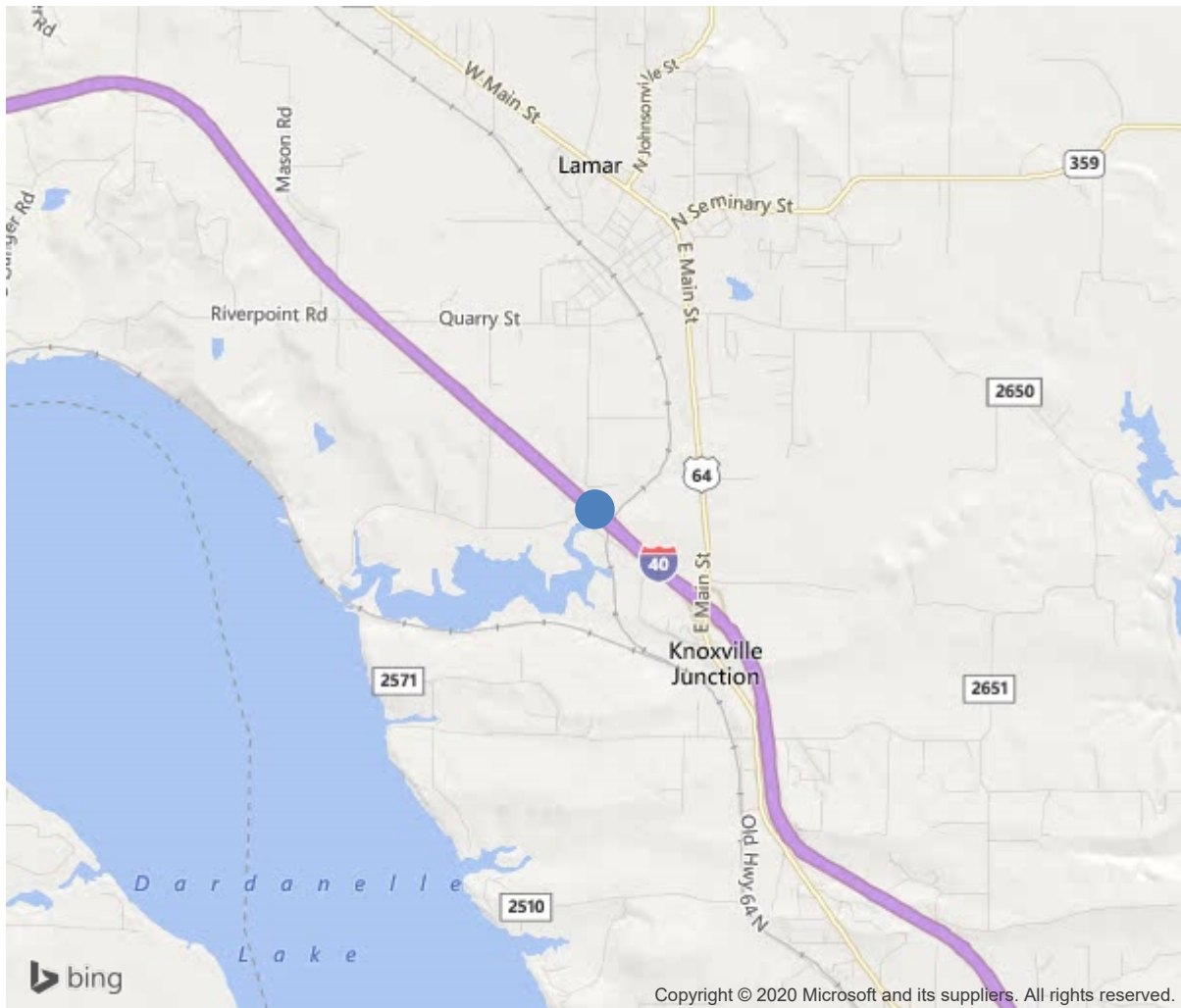
Route:40 Section:21 Log:63.1

Arnold Road ID:36x40x21xB, Arnold Log mile:221.378

District 08, Johnson County

Owner: 1-State Highway Agency

0.73 M NW Jct US 64



35.42118, -93.39394



Bridge #A3947 (Routine)
I 40, WB LNS over Cabin Creek
Location: 0.73 M NW Jct US 64

Team Lead: Gary Dorrough Inspection Date: March 09, 2020

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	A3947
(5) Inventory Route	40
(2) Highway Agency District	08
(3) County Code	71-Johnson County, Arkansas
(4) Place Code	0
(6) Features Intersected	Cabin Creek
(7) Facility Carried	I 40, WB LNS
(9) Location	0.73 M NW Jct US 64
(11) Mile Point	63.1 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000040210
(16) Latitude	35.42118
(17) Longitude	-93.39394
(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	5
(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	1965
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	33213
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	10 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	43 ft
(49) Structure Length	217 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	39 ft
(52) Deck Width Out to Out	42.3 ft
(32) Approach Roadway Width (W/Shoulders)	40 ft
(33) Bridge Median	0-No median
(34) Skew	10 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	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0-No navigation control on water
(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	1
(26) Functional Class	1-Rural Principal Arterial - Int
(100) Defense Highway	1-The inventory route is on a In
(101) Parallel Structure	L-The left structure of parallel
(102) Direction of Traffic	1 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0-N/A
(110) Designated National Network	1-The inventory route is part of the
(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	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	6-MS 18+Mod / HS 20+Mod
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	60
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	5
Rating	36
(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	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	1111
A) Bridge Railings	1-Inspected feature meets currently a
B) Transitions	1-Inspected feature meets currently a
C) Approach Guardrail	1-Inspected feature meets currently a
D) Approach Guardrail Ends	1-Inspected feature meets currently a
(113) Scour Critical Bridges	8-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	0 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 0
(97) Year of Improvement Cost Estimate	
(114) Future ADT	14717
(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	Yes 0
C: Other Special Inspection	No 0

Team Lead: Gary Dorrough, **Inspection Date:** March 09, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	8794	7079	1510	205	0
1080	Delamination/Spall/Patched Area	SF	305	0	300	5	0
1130	Cracking (RC and Other)	SF	910	0	710	200	0
1190	Abrasion/Wear (PSC/RC)	SF	500	0	500	0	0
(12)							
MINOR TO MODERATE CRACKING, SCALE & SPALLING (SOME REBAR EXPOSED) THROUGHOUT DECK. MINOR "D" CRACKING & SPALLING AT JOINTS. MINOR CRACKING W / EFFLOR IN SOFFIT. MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED AROUND DECK DRAINS. SPALLING IN DECK MAINLY IN SPAN 2.							
3/10/2020 GLD & MLM							
Underside - Span #2, between beams 3 & 4 - 3 x 10 area of map cracking 30 SF C2							
Span #1 - cracks 100 SF C2, 50 SF C3							
Span #2 - moderate spalls 5 SF C3, sound patches 156 SF C2, cracks 100 SF C2,							
Span #2, left side - moderate scale 200 SF C2							
Span #3 - cracks 50 SF C2							
Span #4 - cracks 130 SF C2, minor scale 300 SF C2							
Span #5 - cracks 300 SF C2, 150 SF C3							
(12-1080)							
Minor spalls and patched area along joints. 100 SF C2							
Span #2 - moderate spalls 5 SF C3, sound patches & minor spalls 200 SF C2,							
(12-1130)							
Underside - Span #2, between beams 3 & 4 - 3 x 10 area of map cracking 30 SF C2							
Span #1 - cracks 100 SF C2, 50 SF C3							
Span #2 - cracks 100 SF C2,							
Span #3 - cracks 50 SF C2							
Span #4 - cracks 130 SF C2							
Span #5 - cracks 300 SF C2, 150 SF C3							
(12-1190)							
Minor and moderate scale in various places.							
107	Steel Open Girder/Beam	LF	1505	1475	0	30	0
1000	Corrosion	LF	30	0	0	30	0
515	Steel Protective Coating	SF	9406	9406	0	0	0
(107)							
OLD SECTION LOSS AND PITTING IN WEB OF SEVERAL BEAMS BELOW HAUNCHED AREA.							
3/10/2020 GLD & MLM							
All steel was painted in 2009. Paint condition is still good.							
Old section loss, rust and holes in web below concrete haunches.							
(107-1000)							
Pier #5, beam #4, back & ahead side – hole in web below concrete haunch.							

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(107-515)							
Painted in 2009							
205	Reinforced Concrete Column	EA	4	0	4	0	0
1090	Exposed Rebar	EA	1	0	1	0	0
1130	Cracking (RC and Other)	EA	3	0	3	0	0
(205)							
Pier #3, column #1 - minor spalls with exposed rebar.							
215	Reinforced Concrete Abutment	LF	96	86	10	0	0
6000	Scour	LF	10	0	10	0	0
(215)							
Added wings quantity							
Abut #6, left side - erosion and undermining under abutment cap has exposed some piles. Minor rust on piles.							
225	Steel Pile	EA	14	3	11	0	0
1000	Corrosion	EA	11	0	11	0	0
515	Steel Protective Coating	SF	1596	1585	0	11	0
3440	Effectiveness (Steel Protective Coatings)	SF	11	0	0	11	0
(225)							
Minor old section loss below the cap in various places.							
Pier #2, Pile #'s 4, 5 & 6 - Piles are encased with concrete at ground line.							
Pier #2, pile #'s 1, 2, 3 & 7 - rust at ground line.							
Pier #5 - minor rust and pitting at ground line.							
234	Reinforced Concrete Pier Cap	LF	158	80	72	6	0
1080	Delamination/Spall/Patched Area	LF	5	0	5	0	0
1090	Exposed Rebar	LF	34	0	28	6	0
1130	Cracking (RC and Other)	LF	39	0	39	0	0
(234)							
COND. 1 - 80 LF - MINOR CRACKING & SCALE IN CAPS 4 & 5.							
COND. 2 - 78 LF - MODERATE HORIZONTAL CRACKING IN CAP 2.							
MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN BK. FACE OF CAP 3 & BK. & AHD FACES OF CAP 5. SPALLING DUE TO TIE WIRE TOO CLOSE TO SURFACE.							
3/10/2020 GLD & MLM							
Pier #3, backside - exposed rebar with section loss 6 LF C3.							
305	Assembly Joint without Seal	LF	238	124	100	0	14
2360	Adjacent Deck or Header	LF	100	0	100	0	0
2370	Metal Deterioration or Damage	LF	14	0	0	0	14
(305)							

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
MINOR "D" CRACKING & SPALLING AT JOINTS.							
(305-2360)							
All joints - minor and moderate spalls and patched areas along joints.							
311	Movable Bearing	EA	35	3	18	14	0
1000	Corrosion	EA	32	0	18	14	0
515	Steel Protective Coating	SF	105	73	18	6	8
3440	Effectiveness (Steel Protective Coatings)	SF	32	0	18	6	8
(311)							
MINOR RUST ON ALL BEARINGS.							
03/10/2020 GLD & MLM							
Pier #2, backside - 4 ea. C3, 3 ea. C2							
Pier #2, bearing #4, backside - bearing is floating.							
Pier #3, backside - 6 ea. C3, 1 ea. C2							
Pier #3, ahead side - 3 ea. C3, 4 ea. C2							
Pier #4, ahead side - all have minor rust 7 ea. C2							
Pier #5, ahead side - 1 ea. Minor pack rust C3, 3 ea. C2							
313	Fixed Bearing	EA	35	5	14	16	0
1000	Corrosion	EA	30	0	14	16	0
515	Steel Protective Coating	SF	105	90	15	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	15	0	15	0	0
(313)							
MINOR RUST ON ALL BEARINGS.							
03/10/2020 GLD & MLM							
Abut #1 - 5 ea. Minor pack rust C3, 2 ea. C2							
Pier #2, ahead side - 2 ea. C3, 3 ea. C2.							
Pier #4, backside - 3 ea. C3, 4 ea. C2							
Pier #5, backside - 2 ea. C3, 5 ea. C2							
Abut #6 - B1 thru B4 pack rust 4 ea. C3,							
321	Reinforced Concrete Approach Slab	SF	2880	2870	10	0	0
1080	Delamination/Spall/Patched Area	SF	10	0	10	0	0
(321)							
MINOR CRACKING.							
03/10/2020 GLD & MLM							
West end - minor spalls along sawed joint							
330	Metal Bridge Railing	LF	434	434	0	0	0
(330)							
Aluminum Rail.							



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
331	Reinforced Concrete Bridge Railing	LF	434	434	0	0	0
(331)	MINOR SCALE IN CONCRETE.						



Roadway

Maintenance Needs

Date Reported: 02/21/2012
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component:

Deficiency Description

End of Beams, section loss in the web (small holes rusted completely through the web) below the concrete haunch area.
Location of beams with holes - ahead side of pier # 2, beam # 4 -
ahead side of pier # 4, beam #s 2 & 3 & 4
backside of pier # 5, beam # 4
ahead side of pier # 5, beam # 4

Remarks



Pier #5 backside, beam #4, hole rust through beam in web at the haunch area.



Pier #4, ahead side, beam #2 hole rusted through web at haunch area.

Date Reported: 03/05/2018

Priority: D- Routine

Type of Work: None

Status: Monitor

Component:

Deficiency Description

DELAM. CRACKING & SPALLING W / REBAR EXPOSED IN BK. FACE OF CAP 3.

Remarks



Typ. Delam, Cracking & Spalling W / Rebar
Exposed in Bk. Face of Cap 3.

Date Reported: 03/05/2018
Priority: D- Routine
Type of Work: None
Status: Monitor
Component:

Deficiency Description

MINOR TO MODERATE CRACKING & SCALING THROUGHOUT DECK. MINOR SPALL IN SPAN 2

Remarks



Typ. Cracking in Deck.



Typ. Scale in Deck.



Typ. Spalling is Deck.

Date Reported: 03/10/2020

Priority: D- Routine

Type of Work: Clean

Status: Open

Component:

Deficiency Description

Vegetation under bridge and growing beside bridge.

Remarks



Team Lead: Gary Dorrough **Inspection Date:** March 09, 2020

Date Reported: 03/11/2020
Priority: C - Important
Type of Work: Repair
Status: Open
Component: 305 - Assembly Joint without Seal

Deficiency Description

Deck, Joint #5 - a section of the slide plate has been removed and another section is loose.
District Bridge Crew is currently working on this.

Remarks



Joint #5 - 8' missing and another 6' loose

Date Reported: 03/11/2020
Priority: D- Routine
Type of Work: Repair
Status: Open
Component: Substructure

Deficiency Description

Bearings at various locations have minor pack rust.

Remarks



Pier #2, bearing #4, backside - bearing is floating.



Pier #3, bearing #2, backside - pack rust

Date Reported: 03/11/2020
Priority: D- Routine
Type of Work: Repair
Status: Open
Component: 215 - Reinforced Concrete Abutment

Deficiency Description

Abut #6, left side - erosion and undermining has exposed some piles. Minor rust on piles.

Remarks



Abut #6, left side



Abut #6, left side - exposed pile.

Date Reported: 03/11/2020
Priority: D- Routine
Type of Work: Repair
Status: Open
Component: 225 - Steel Pile

Deficiency Description

Steel Piles - Rust and pitting at the ground line of some piles.

Pier #2, Pile #2 - water from the back slope is draining into a deep hole beside pile. This may cause corrosion of the pile below the ground line.

Remarks



Pier #2, pile #1 - minor pack rust



Pier #2, pile #2 - large hole and rust



Pier #5, pile #4 - minor rust below cap



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Inspection Comments

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Substructure Notes

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