



Latitude:34.80379, Longitude:-91.88877

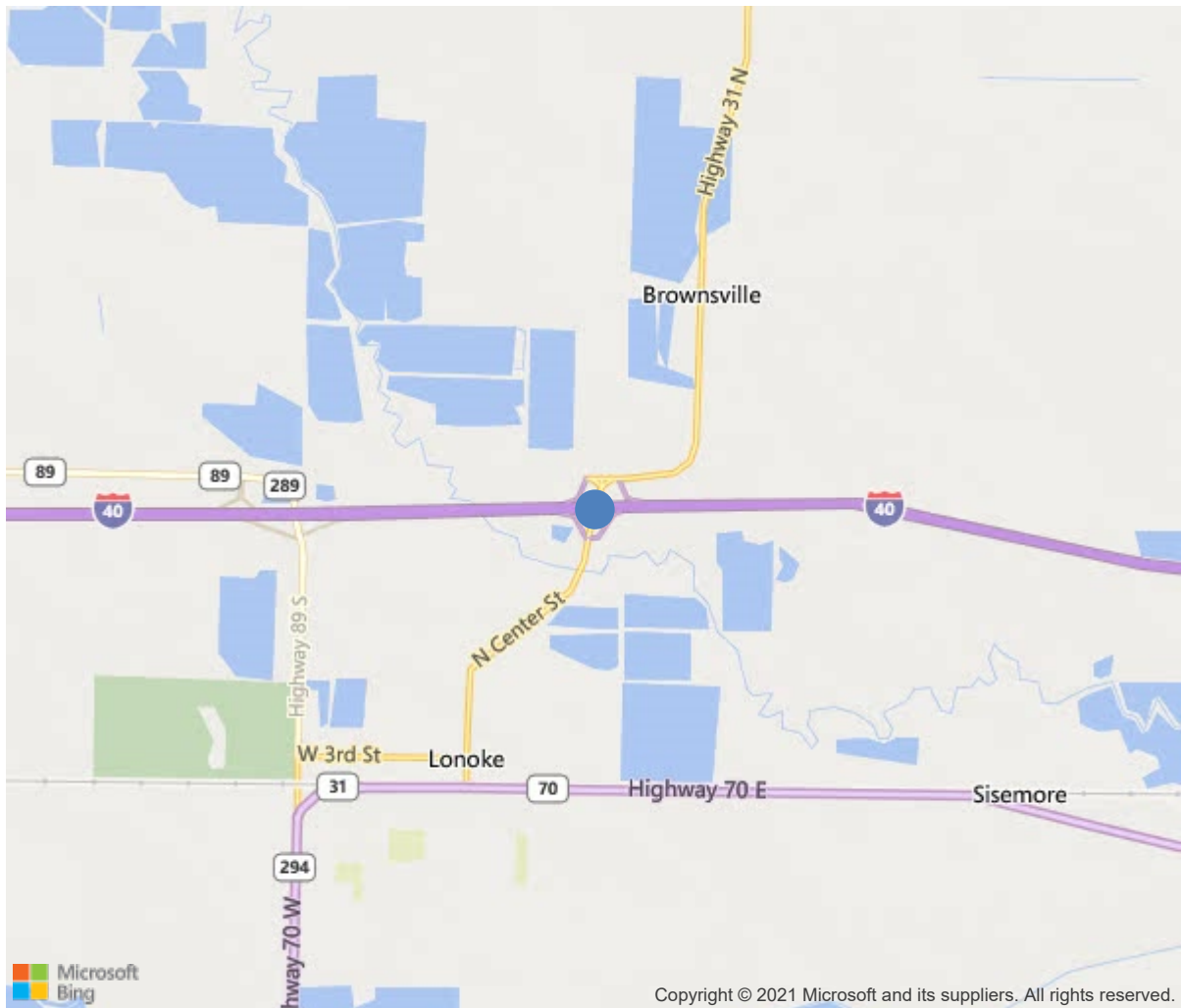
Route:31 Section:03 Log:1.64

Arnold Road ID:43x31x3xA, Arnold Log mile:1.636

District 06, Lonoke County

Owner: 1-State Highway Agency

1.64 MI N US 70



34.80379, -91.88877



Bridge #03228(Routine)

SH 31 Overpass over I-40 LOG 174.58

Location: 1.64 MI N US 70

Team Lead: Keith Harris Inspection Date: March 18, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	03228
(5) Inventory Route	31
(2) Highway Agency District	06
(3) County Code	85-Lonoke County, Arkansas
(4) Place Code	0
(6) Features Intersected	I-40 LOG 174.58
(7) Facility Carried	SH 31 Overpass
(9) Location	1.64 MI N US 70
(11) Mile Point	1.64 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000031030
(16) Latitude	34.80379
(17) Longitude	-91.88877
(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	4
(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	1964
(106) Year Reconstructed	0
(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	6485
(30) Year of ADT	2018
(109) Truck ADT	2 %
(19) Bypass, Detour Length	9 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	70 ft
(49) Structure Length	222 ft
(50) Curb or Sidewalk Width	
Left	1.5 ft
Right	1.5 ft
(51) Bridge Roadway Width Curb to Curb	25.9 ft
(52) Deck Width Out to Out	31.7 ft
(32) Approach Roadway Width (W/Shoulders)	28.9 ft
(33) Bridge Median	0-No median
(34) Skew	15 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	29.9 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	16 ft
Ref:	
(55) Min Lat Underclear RT	11.1 ft
Ref:	
(56) Min Lat Underclear LT	25.8 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	4
(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	60
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	4
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	3
(69) Clearances, Vertical/Horizontal	5
(71) Waterway Adequacy	N
(72) Approach Roadway Alignment	6
(36A) Bridge Railings	0-Inspected feature does not meet cur
(36B) Transitions	0-Inspected feature does not meet cur
(36C) Approach Guardrail	0-Inspected feature does not meet cur
(36D) 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	Replacement of bridge or other
(76) Length of Structure Improvement	256 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 265
(96) Total Project Cost	\$ 1198
(97) Year of Improvement Cost Estimate	2002
(114) Future ADT	6215
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			03/2021
(91) Frequency			24 Months
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	Yes		03/2018
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			



Bridge #03228(Routine)

SH 31 Overpass over I-40 LOG 174.58

Location: 1.64 MI N US 70

Team Lead: Keith Harris, Inspection Date: March 18, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	6334	842	3383	2109	0
1080	Delamination/Spall/Patched Area	SF	2728	0	2558	170	0
1090	Exposed Rebar	SF	45	0	0	45	0
1120	Efflorescence/Rust Staining	SF	1894	0	0	1894	0
1190	Abrasion/Wear (PSC/RC)	SF	825	0	825	0	0
(12)	<p>The deck surface has numerous patched areas, span 3 is the worst with approx 1580 sf of patched areas. Some of the patched areas have exposed rebar and the overhangs have Spalls with exposed rebar at the deck drains and deck haunches.</p> <p>All spans have cracking with efflorescence and rust stains on the soffit.</p> <p>The deck surface has transverse cracks on approx. three foot centers, 0.030 to 0.040 width and these cracks have been sealed</p>						
107	Steel Open Girder/Beam	LF	1100	735	150	215	0
1000	Corrosion	LF	365	0	150	215	0
515	Steel Protective Coating	SF	8513	0	4500	1813	2200
3440	Effectiveness (Steel Protective Coatings)	SF	8513	0	4500	1813	2200
(107)	<p>Scattered areas of freckled rust on beams 1 and 5. All of the beam ends have some active rust with pitting up to 1/8 inch deep. Span 3 beam 1 thru 5 have active rust with moderate pitting.</p>						
205	Reinforced Concrete Column	EA	6	0	4	2	0
1080	Delamination/Spall/Patched Area	EA	4	0	4	0	0
1090	Exposed Rebar	EA	2	0	0	2	0
(205)	<p>All of the columns have cracks and delaminations.</p>						
215	Reinforced Concrete Abutment	LF	58	50	8	0	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
1130	Cracking (RC and Other)	LF	6	0	6	0	0
(215)	<p>Two small delaminations on the face of bent 1 and small cracks in bent 5</p>						
234	Reinforced Concrete Pier Cap	LF	87	25	45	17	0
1080	Delamination/Spall/Patched Area	LF	10	0	0	10	0
1090	Exposed Rebar	LF	7	0	0	7	0
1120	Efflorescence/Rust Staining	LF	27	0	27	0	0

Location: 1.64 MI N US 70

Team Lead: Keith Harris, **Inspection Date:** March 18, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1130	Cracking (RC and Other)	LF	18	0	18	0	0
(234)	All of the caps have Spalls with exposed rebar, cracking and efflorescence. Bent 4: top of cap is spalled and delaminated at the top. Approximately 15'.						
303	Assembly Joint with Seal	LF	146	0	0	146	0
2310	Leakage	LF	146	0	0	146	0
(303)	All joints are leaking causing corrosion to beam ends and bearings						
311	Movable Bearing	EA	20	0	0	20	0
1000	Corrosion	EA	20	0	0	20	0
(311)	All of the bearings have laminated rust.						
313	Fixed Bearing	EA	20	0	14	6	0
1000	Corrosion	EA	20	0	14	6	0
(313)	All of the bearings have laminated rust.						
330	Metal Bridge Railing	LF	444	444	0	0	0
331	Reinforced Concrete Bridge Railing	LF	444	370	48	26	0
1080	Delamination/Spall/Patched Area	LF	30	0	30	0	0
1090	Exposed Rebar	LF	26	0	0	26	0
1130	Cracking (RC and Other)	LF	18	0	18	0	0
(331)	Scattered Spalls with exposed rebar along both rails.						



Bent 1 beam 1 typical beam end condition



Deck overview



Span 3 under view



Typical paint condition



Spalls with exposed rebar, Span 4 right bridge rail



Approach

Maintenance Needs

Date Reported: 03/28/2012
Priority: B - Pressing; 6 month completion goal
Type of Work: Repair
Status: Assigned
Component: 12 - Reinforced Concrete Deck

Deficiency Description

Top of deck on all spans have numerous patches, spalls, spalls filled with asphalt, rebar exposed and cracks that reflect through to bottom of the deck. Bottom of deck has numerous spalls and patches. Span 3: large open spall with exposed rebar.

Remarks



Span 3 spalls filled with asphalt.



Span 3: majority of span is patched with most of the patches are beginning to deteriorate.



View of the deck with patched areas in all spans.



Span 2 spalls with exposed rebar.



Span 3 soffit cracks with effloresces and rust stains.



Span 3: large open spall with exposed rebar.



Span 2 spalls filled with asphalt



Span 3 spalls with exposed rebar



Span 3 spall with exposed rebar

Date Reported: 03/28/2012
Priority: C - Important
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Caps of bents 3 and 4 have spalls with exposed rebar and delamination.
Bent 4: right end of cap with a large spall that is adjacent to girder 5 bearing.

Remarks



The right end of the cap of bent 4 has a large spall.



Bent 4, backside of cap is spalled and delaminated at the top.



Bent 4: right end of cap with a large spall that is adjacent to girder 5 bearing.



Bent 4: right end of cap with a large spall that is adjacent to girder 5 bearing.

Date Reported: 03/28/2012
Priority: C - Important
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Columns of bents 2, 3 and 4 have spalls with exposed rebar and delamination.

Remarks



Bent 3, column 1: large spall with exposed rebar.



Bent 4 column 1 large spalls with exposed rebar

Date Reported: 03/28/2012
Priority: C - Important
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Left approach rail at bent 1 has a large spall.

Remarks



Left end post at bent 1.



Left approach rail at bent 1 has a large spall.



Bridge #03228(Routine)
SH 31 Overpass over I-40 LOG 174.58

Location: 1.64 MI N US 70

Team Lead: Keith Harris **Inspection Date:** March 18, 2021

Inspection Comments

Job # 6680 drawing # 9977 for layout

Logged North bound.