



Latitude:34.77376, Longitude:-91.80694

Route:381 Section:01 Log:0.39

Arnold Road ID:43x381x1xA, Arnold Log mile:0.391

District 06, 85 - Lonoke County

Owner: 1 - State Highway Agency

Bridge Posting Information

41 - Structure Open/Posted/Closed: A - Open, no restriction

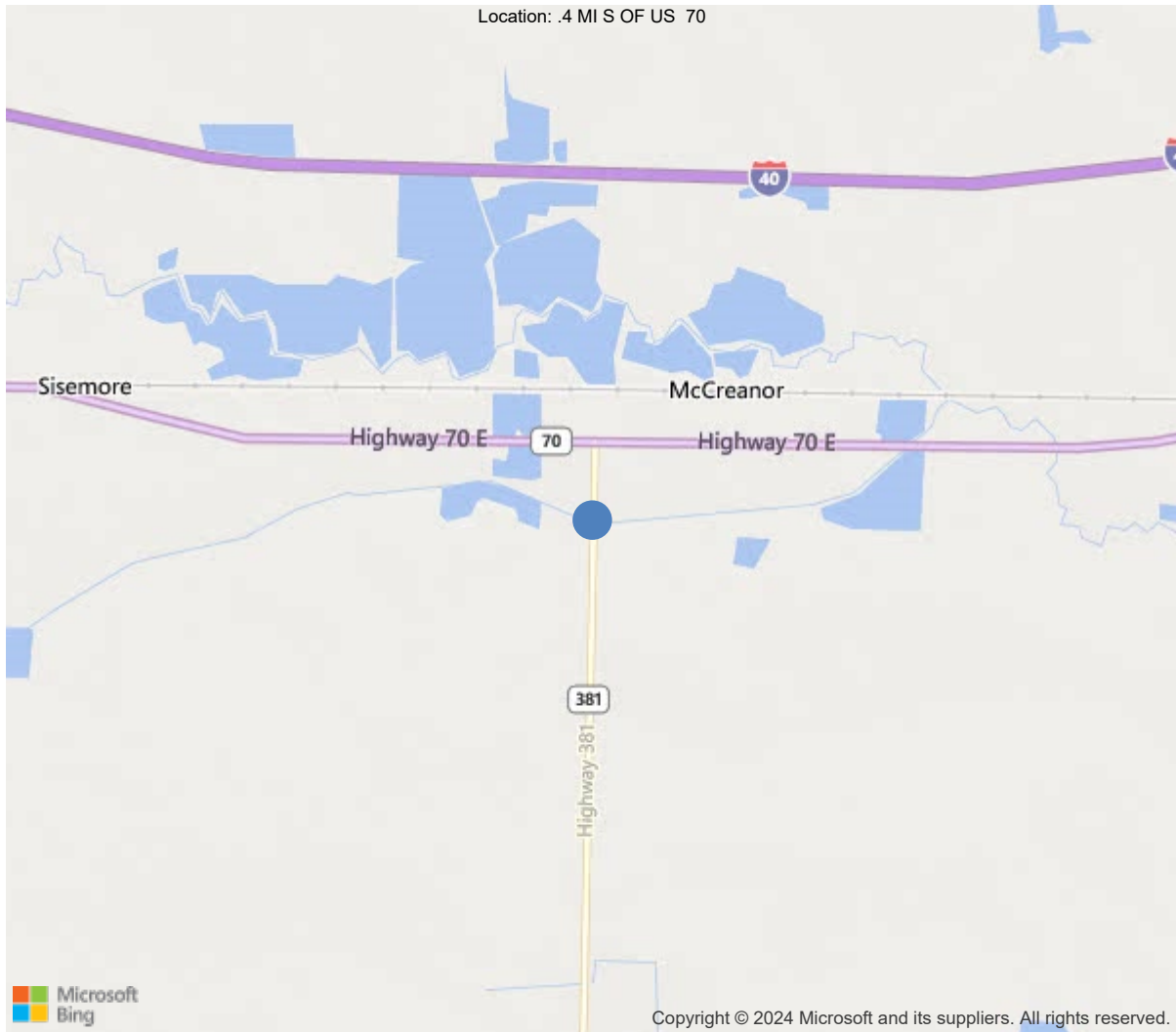
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	29		
Code 9 (31 Tons)	33		
Code 5 (40 Tons)	45		

If calculated Capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner



30"x36" AR



34.77376, -91.80694



Asset #M3141 (Routine, Underwater type 2)

SH 381 log 0.39 over WHITEOAK BRANCH

Location: .4 MI S OF US 70

Team Lead: Bryan Saunders, Inspection Date: 05/15/2023

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M3141
(5) Inventory Route	1
(2) Highway Agency District	06 - District 06
(3) County Code	85 - Lonoke County
(4) Place Code	0
(6) Features Intersected	WHITEOAK BRANCH
(7) Facility Carried	SH 381 log 0.39
(9) Location	.4 MI S OF US 70
(11) Mile Point	0.39 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.773762
(17) Longitude	-91.806938
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	122
Material	1 - Concrete
Type	22 - Channel beam
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	3
(46) No. of Approach Spans	0
(107) Deck Structure Type	2 - Concrete Precast Panels
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6 - Bituminous
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1968
(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	530
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	3 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	31 ft
(49) Structure Length	69 ft
(50) Curb or Sidewalk Width	
Left	1 ft
Right	1 ft
(51) Bridge Roadway Width Curb to Curb	25.9 ft
(52) Deck Width Out to Out	28.2 ft
(32) Approach Roadway Width (W/Shoulders)	24.9 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	27.2 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 w
(111) Pier Protection	1 - Navigation protection not
(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	7 - Rural Major Collector
(100) Defense Highway	0 - The inventory route is not
(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
(20) Toll	3 - On free road. The structure
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	5
(61) Channel & Channel Protection	5
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	39
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	24
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	0 - Inspected feature does not meet
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	0 - Inspected feature does not meet
(113) Scour Critical Bridges	5 - Bridge foundations determined to
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	691
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	05/15/2023		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* 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.			



Asset #M3141 (Routine, Underwater type 2)

District: 06, County: 85 - Lonoke County

Team Lead: Bryan Saunders, Inspection Date: 05/15/2023

General Observation

Logged Southbound.

Channel Profile added 05/17/2021.

60 - Substructure (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)
pile probed with range pole 2023

61 - Channel/Channel Protection (5 - Bank protection is being eroded. River control devices and/or embankment have major damage. Trees and brush restrict the channel.)
pile probed with range pole 2023

Team Lead: Bryan Saunders, **Inspection Date:** 05/15/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	1932	1932	0	0	0
510	Wearing Surfaces	SF	1794	1794	0	0	0
110	Reinforced Concrete Open Girder/Beam	LF	1104	1094	10	0	0
1080	Delamination/Spall/Patched Area	LF	10	0	10	0	0
(110) Small Spalls on the sides of the channel unit legs							
228	Timber Pile	EA	20	10	6	4	0
1140	Decay/Section Loss	EA	1	0	0	1	0
1160	Crack (Timber)	EA	9	0	6	3	0
(228) Bent 3, pile 5 2019 state forces replaced pile at this location. Bent 2 pile 4 has decay at ground level Bent 3 pile 1,2,3 & 4 have large cracks and pile 2 and 3 is hollow Bent 4 pile 1 & 2 have been replaced by state forces.							
234	Reinforced Concrete Pier Cap	LF	120	107	11	2	0
1080	Delamination/Spall/Patched Area	LF	2	0	0	2	0
1090	Exposed Rebar	LF	1	0	1	0	0
1130	Cracking (RC and Other)	LF	10	0	10	0	0
(234) Small cracks in the caps at bents 1 and 4. One spall with exposed rebar on the bottom of the cap of bent 2 between pile 3 and 4.							
330	Metal Bridge Railing	LF	138	138	0	0	0
515	Steel Protective Coating	SF	138	78	60	0	0
3440	Effectiveness (Steel Protective Coatings)	LF	60	0	60	0	0
(330) galvanized steel							
(515-330) small areas of surface rust							



Asset #M3141(Routine, Underwater type 2)

SH 381 log 0.39 over WHITEOAK BRANCH

Location: .4 MI S OF US 70

Team Lead: Bryan Saunders, Inspection Date: 05/15/2023

Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	1932	1932	0	0	0
510	Wearing Surfaces	SF	1794	1794	0	0	0

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Location: .4 MI S OF US 70

Team Lead: Bryan Saunders, Inspection Date: 05/15/2023

Substructure

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228	Timber Pile	EA	20	10	6	4	0
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234	Reinforced Concrete Pier Cap	LF	120	107	11	2	0
1080	Delamination/Spall/Patched Area	LF	2	0	0	2	0
1090	Exposed Rebar	LF	1	0	1	0	0
1130	Cracking (RC and Other)	LF	10	0	10	0	0
(234) Small cracks in the caps at bents 1 and 4. One spall with exposed rebar on the bottom of the cap of bent 2 between pile 3 and 4.							

60 - Substructure (5 - FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour.)

Comment: pile probed with range pole 2023

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Comment: pile probed with range pole 2023



Elevation



Approach looking south



Soffit view



Deck view



Upstream



Downstream



Bent 4 cap has a vertical crack above pile 3



Bent 4



Bent 3



Bent 3

Maintenance Needs

Date Reported: 05/25/2011

Priority: C - Important

Status: Monitor

Type of Work: (Inactive) (Inactive) 9 - None

Component:

Deficiency Description

Bent 3 piles 1 and 2 have minor cracks and decay. Pile 2 hollow at cross brace. Pile 3 has 1/8 inch wide cracks, hollow at cross brace and pile 4 has 9/16 inch wide cracks at top of piles below caps.

Remarks



Bent 3 pile 3 1/8" crack in pile.

Maintenance Needs

Date Reported: 05/18/2023

Priority: C - Important

Type of Work: Substructure Repair

Status: Open

Component: Substructure

Deficiency Description

Bent 2 column 4 has a decayed section on ahead side approximately 5"x4"x 1/4" deep near bank line

Remarks



Bent 2 pile 4 ahead side decay at bank line

Maintenance Needs

Date Reported: 05/18/2021

Priority: D- Routine

Status: Monitor

Type of Work: (Inactive) (Inactive) 1 - Clean

Component:

Deficiency Description

Debris and vegetation in both gutter lines.

Remarks



Debris and vegetation in both gutter lines.



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Team Lead: Bryan Saunders, **Inspection Date:** 05/15/2023

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	No
A-55 - Deck Washing Needed	No
A-56 - Joint Cleaning/Flushing Needed	No
A-57 - Beam End and Bearing Paint Needed	No
A-58 - Cap Cleaning/Flushing Needed	No
A-59 - Joint Repair Needed	No
A-60 - Full Beam Painting Needed	No
A-61 - Polymer Overlay Advised	No
A-62 - Hydro and LMC Advised	No
A-63 Missing/Incorrect Log Mile Signage	No
A-64 - Vegetation Removal Requested	

A-54 - Sealable Deck Cracks (No)

A-55 - Deck Washing Needed (No)

A-56 - Joint Cleaning/Flushing Needed (No)



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A-57 - Beam End and Bearing Painting Needed (No)

A-58 - Cap Cleaning/Flushing Needed (No)

A-59 - Joint Repair Needed (No)

A-60 - Full Beam Painting Needed (No)

A-61 - Polymer Overlay Advised (No)

A-62 - Hydro and LMC Advised (No)

A-63 - Missing/Incorrect Log Mile Signage (No)

A-64 - Vegetation Removal Requested



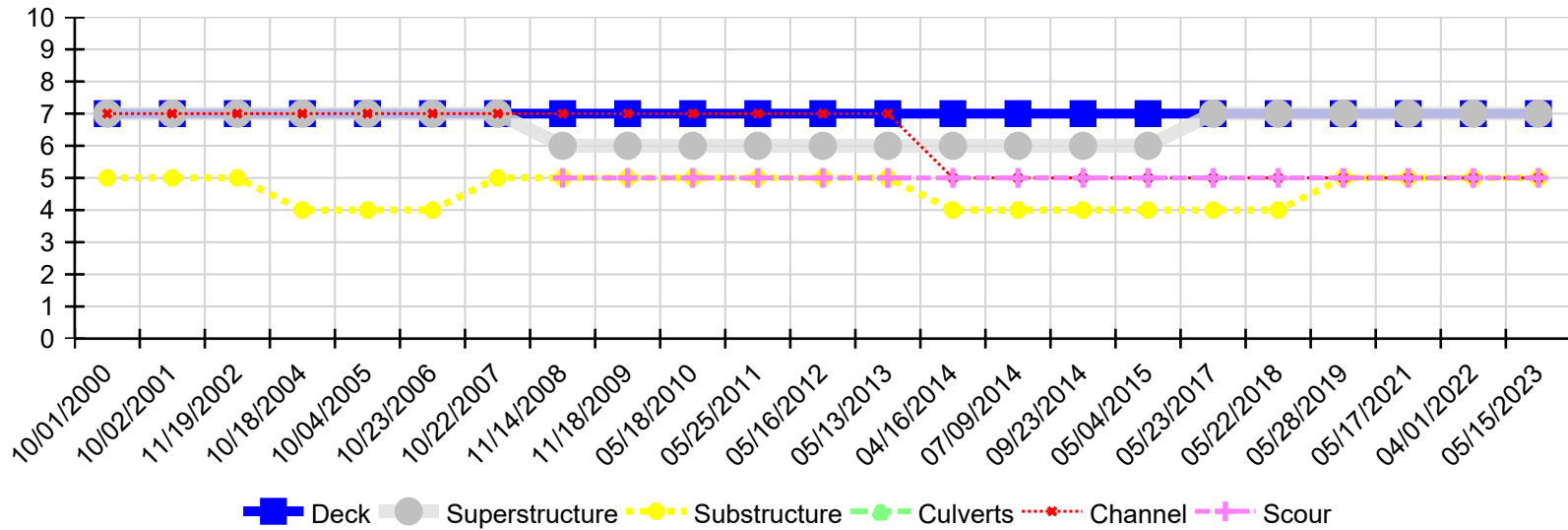
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Location: .4 MI S OF US 70

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Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
05/15/2023	7	7	5	N	5	5
04/01/2022	7	7	5	N	5	5
05/17/2021	7	7	5	N	5	5
05/28/2019	7	7	5	N	5	5
05/22/2018	7	7	4	N	5	5
05/23/2017	7	7	4	N	5	5
05/04/2015	7	6	4	N	5	5
09/23/2014	7	6	4	N	5	5
07/09/2014	7	6	4	N	5	5
04/16/2014	7	6	4	N	5	5
05/13/2013	7	6	5	N	7	5
05/16/2012	7	6	5	N	7	5
05/25/2011	7	6	5	N	7	5
05/18/2010	7	6	5	N	7	5
11/18/2009	7	6	5	N	7	5
11/14/2008	7	6	5	N	7	5
10/22/2007	7	7	5	N	7	N
10/23/2006	7	7	4	N	7	N
10/04/2005	7	7	4	N	7	N
10/18/2004	7	7	4	N	7	N
11/19/2002	7	7	5	N	7	N
10/02/2001	7	7	5	N	7	N
10/01/2000	7	7	5	N	7	N