



Latitude:34.85682, Longitude:-92.47977

Route:300 Section:02 Log:16.54

Arnold Road ID:60x300x2xA, Arnold Log mile:16.514

District 06, 119 - Pulaski County

Owner: 1 - State Highway Agency

Inspection Direction: 4 - W to E

Bridge Posting Information

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

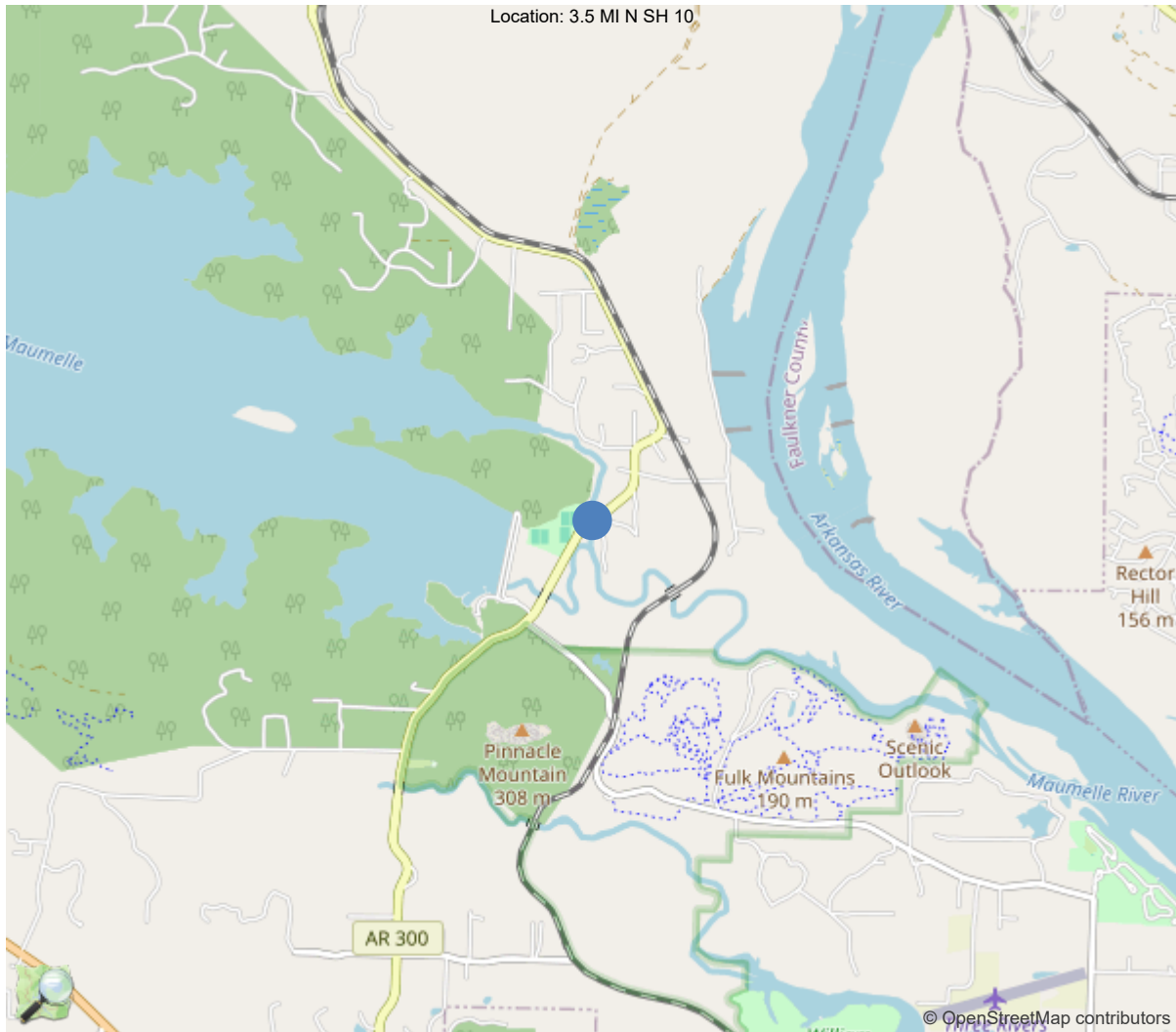
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	26		
Code 9 (31 Tons)	31		
Code 5 (40 Tons)	40		

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



34.85682, -92.47977



Asset #M2814(Routine)
SH 300 Log 16.54 over Spillway Ditch
Location: 3.5 MI N SH 10
Team Lead: Shane Byrd Inspection Date: 02/13/2024

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M2814
(5) Inventory Route	1
(2) Highway Agency District	06 - District 06
(3) County Code	119 - Pulaski County
(4) Place Code	0
(6) Features Intersected	Spillway Ditch
(7) Facility Carried	SH 300 Log 16.54
(9) Location	3.5 MI N SH 10
(11) Mile Point	16.54 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.85682
(17) Longitude	-92.47977
(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	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	6 - Bituminous
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1956
(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	3400
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	26 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	31 ft
(49) Structure Length	158 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	23.8 ft
(52) Deck Width Out to Out	23.8 ft
(32) Approach Roadway Width (W/Shoulders)	27.9 ft
(33) Bridge Median	0 - No median
(34) Skew	30 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	25.3 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	6 - Rural Minor Arterial
(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	8
(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	40
(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	2
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	6
(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	U - Bridge with "unknown" foundation
PROPOSED IMPROVEMENTS	
(75) Type of Work	31 - Replacement of bridge or
(76) Length of Structure Improvement	188 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 125
(96) Total Project Cost	\$ 466
(97) Year of Improvement Cost Estimate	2002
(114) Future ADT	4407
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	02/13/2024		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	Yes	60	04/26/2022
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.			



General Observation

Logged East bound.

1/30/18 performed accident inspection. Damage to the right guard rail.

113 - Scour Critical Bridges (U)

Updated during underwater inspection, due to a lack of foundation drawings and pile driving records for this bridge.

A-51 - Inspection Direction (4 - W to E)

This is a west to east route and the bridge is inventoried from west to east as well.

A-114 - Underwater Inspection General Observation

Engineer of Record: Samuel Williams, PE

Team Leader: Samuel Williams, PE

Team Members: LA, AC, AR

Total Substructure Units: 6

Substructure Units in Water: Bents 2-4

Inventory Direction: W to E

Direction of Flow: N to S

Deepest Water Depth: 6.2 ft

Water Velocity: 1.5 FPS

Attachments: Channel Profile/Contour Map, Soundings Table, Inspection Procedures, Stamped Final Report

A-115 - Underwater Inspection Channel/Channel Protection (8 - Banks are protected or well vegetated. River control devices such as spur dikes and embankment protection are not required or are in a stable condition.)

Overall, the channel is in very good condition. The upstream channel is well aligned with the substructure units and there are no obstructions to flow through the channel. The banks upstream and downstream of the bridge are stable and well vegetated. The banks under the bridge are stable and protected with rip rap on the west slope and a concrete back wall on the east bank.

A-116 - Underwater Inspection Substructure Condition (B.C.15) (7 - GOOD CONDITION - some minor problems.)

Overall the substructure units are in good condition. There was corrosion found on the steel cross bracing, which is incidental to the steel pile element. This defect was previously identified in the Routine inspection and a maintenance order was created. There are no updates to the element level condition states as a result of this inspection.

A-117 - Underwater Scour Condition (U)

Based on field observations, there are no signs of scour at the bridge site. Plans were not available at the time of the inspection and pile embedment depths are unknown.



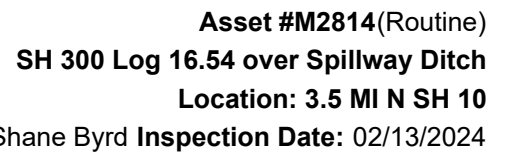
Asset #M2814(Routine)

SH 300 Log 16.54 over Spillway Ditch

Location: 3.5 MI N SH 10

Team Lead: Shane Byrd Inspection Date: 02/13/2024

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	3887	3887	0	0	0
510	Wearing Surfaces	SF	3728	3550	178	0	0
3220	Crack (Wearing Surface)	SF	178	0	178	0	0
(16) No problems noted.							
(510-16) cracks in the wearing surface at both abutments							
110	Reinforced Concrete Open Girder/Beam	LF	1106	1091	0	15	0
1080	Delamination/Spall/Patched Area	LF	15	0	0	15	0
(110) Spalls on the side of unit 1 in span 1,2,3&4. Common on the side of unit 7 span 3.							
215	Reinforced Concrete Abutment	LF	84	74	6	4	0
1080	Delamination/Spall/Patched Area	LF	4	0	0	4	0
1130	Cracking (RC and Other)	LF	6	0	6	0	0
(215) Bent 6 large spalls under units 3,4&7.							
225	Steel Pile	EA	17	12	5	0	0
1000	Corrosion	EA	5	0	5	0	0
515	Steel Protective Coating	SF	1047	1007	0	0	40
3440	Effectiveness (Steel Protective Coatings)	EA	40	0	0	0	40
(225) Steel piles are encased in concrete X bracing in bent 2,3,4 are rusted in 2							
2022 Underwater - Bents 2 and 3: The steel cross bracing is severely corroded with 50% typical section loss. There is a 1'L section of 100% section loss of the diagonal cross brace between Piles 1 and 2 at Bent 2, and a 2'L section of 100% section loss of the diagonal cross brace between Piles 3 and 4 at Bent 3. This defect is incidental to the element.							
Bent 5 steel piles have active corrosion with minor pitting.							
(515-225) Steel pile at bent 5 paint system has failed.							
234	Reinforced Concrete Pier Cap	LF	140	103	12	25	0
1080	Delamination/Spall/Patched Area	LF	17	0	0	17	0
1090	Exposed Rebar	LF	8	0	0	8	0
1130	Cracking (RC and Other)	LF	12	0	12	0	0
(234) Bent 2&4 cap back large delam under unit 1. Bent 5 exposed rebar on bottom of cap between columns 1,2&3. See photo. Bent 3 backside has map cracking							
330	Metal Bridge Railing	LF	316	316	0	0	0
515	Steel Protective Coating	SF	632	82	550	0	0
3440	Effectiveness (Steel Protective Coatings)	LF	550	0	550	0	0



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
	<p>(330) Left bridge rail and post has damage from traffic impact at span 1&2.</p> <p>Accident report 1/30/18: right guard rail and post damaged. The guard rail that was damaged during this accident has been repaired. 2/21/18.</p> <p>(515-330) Steel bridge rail has freckling rust.</p>						



UPSTREAM ELEVATION



Channel upstream view.



Soffit span 4.



Bent 6 large spall under units 3 & 4.



Bent 5 steel piles have active corrosion with minor pitting.



Bent 5 steel piles have active corrosion with minor pitting.



Bent 5 cap back above pile 4 spall with exposed rebar. 50% section loss on rebar.



Bent 5 cap at pile 2 spall with exposed rebar at pile 2. 50% section loss to hoop bars.



Bent 6 cracks in the asphalt wearing surface.



Bent 1 cracks in asphalt wearing surface.



Approach eastbound.



Channel downstream view.



Bent 2 cross bracing section loss.



Bent 4 cap back above piles 1 & 2 large delam.



Span 1 girder 1 left side spalls.



Bent 2 cap back right side spall with exposed rebar.



02/13/2024

Deck overview.



05/19/2022

BENTS 2 & 3, CORROSION ON CROSS BRACING WITH
UP TO 100% SECTION LOSS



05/02/2022

SOUTH EMBANKMENT



05/02/2022

NORTH EMBANKMENT



VIEW OF UPSTREAM CHANNEL, FROM ABOVE BRIDGE



VIEW OF DOWNSTREAM CHANNEL, FROM ABOVE BRIDGE



BENT 2



BENT 3



BENT 4



DOWNTREAM ELEVATION



Asset #M2814(Routine)
SH 300 Log 16.54 over Spillway Ditch
Location: 3.5 MI N SH 10

Team Lead: Shane Byrd **Inspection Date:** 02/13/2024

Maintenance Needs

Date Reported: 03/05/2012

Priority: C - Important

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

Status: Monitor

Component:

Deficiency Description

Bent 2 and 3
X brace Rusted in half.

Remarks

Maintenance Needs

Date Reported: 03/04/2012

Priority: C - Important

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

Status: Monitor

Component:

Deficiency Description

Guard rail and posts at Abutment 1 and span 2.
Rail damage and broken posts.

Remarks

Assigned District Bridge Crew 06001 5/17/18
2/19/2020 rail is fixed



Left bridge rail post at bent bent 1 damaged from traffic impact.

Maintenance Needs

Date Reported: 02/13/2024

Priority: C - Important

Type of Work: Substructure Repair

Status: Open

Component: Substructure

Deficiency Description

Bents 2 and 5 cap spalls with exposed rebar. Hoop bars have 50 to 75 % section loss.

Remarks



Bent 5 cap at pile 2 spall with exposed rebar at pile 2.
50% section loss to hoop bars.



Bent 2 cap back right side spall with exposed rebar.



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	No

A-54 - Sealable Deck Cracks (No)

A-55 - Deck Washing Needed (No)

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



Asset #M2814(Routine)
SH 300 Log 16.54 over Spillway Ditch
Location: 3.5 MI N SH 10

Team Lead: Shane Byrd **Inspection Date:** 02/13/2024

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

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

A-59 - Joint Repair Needed (No)

A-60 - Full Girder Painting Needed (No)

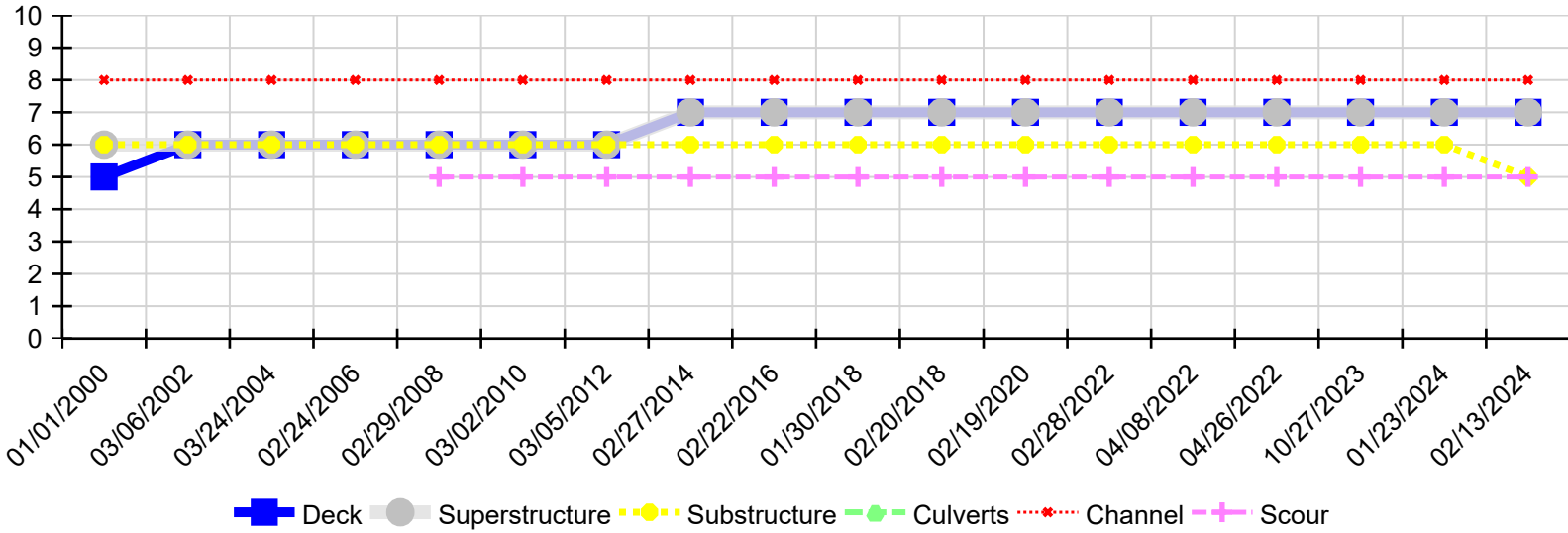
A-61 - Polymer Overlay Advised (No)

A-62 - Hydro and LMC Advised (No)

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

A-64 - Vegetation Removal Requested (No)

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
02/13/2024	7	7	5	N	8	5
01/23/2024	7	7	6	N	8	5
10/27/2023	7	7	6	N	8	5
04/26/2022	7	7	6	N	8	5
04/08/2022	7	7	6	N	8	5
02/28/2022	7	7	6	N	8	5
02/19/2020	7	7	6	N	8	5
02/20/2018	7	7	6	N	8	5
01/30/2018	7	7	6	N	8	5
02/22/2016	7	7	6	N	8	5
02/27/2014	7	7	6	N	8	5
03/05/2012	6	6	6	N	8	5
03/02/2010	6	6	6	N	8	5
02/29/2008	6	6	6	N	8	5
02/24/2006	6	6	6	N	8	N
03/24/2004	6	6	6	N	8	N
03/06/2002	6	6	6	N	8	N
01/01/2000	5	6	6	N	8	N