



Latitude:34.50857, Longitude:-93.27605

Route:227 Section:00 Log:7.28

Arnold Road ID:26x227x0xA, Arnold Log mile:7.26

District 06, 51 - Garland County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N



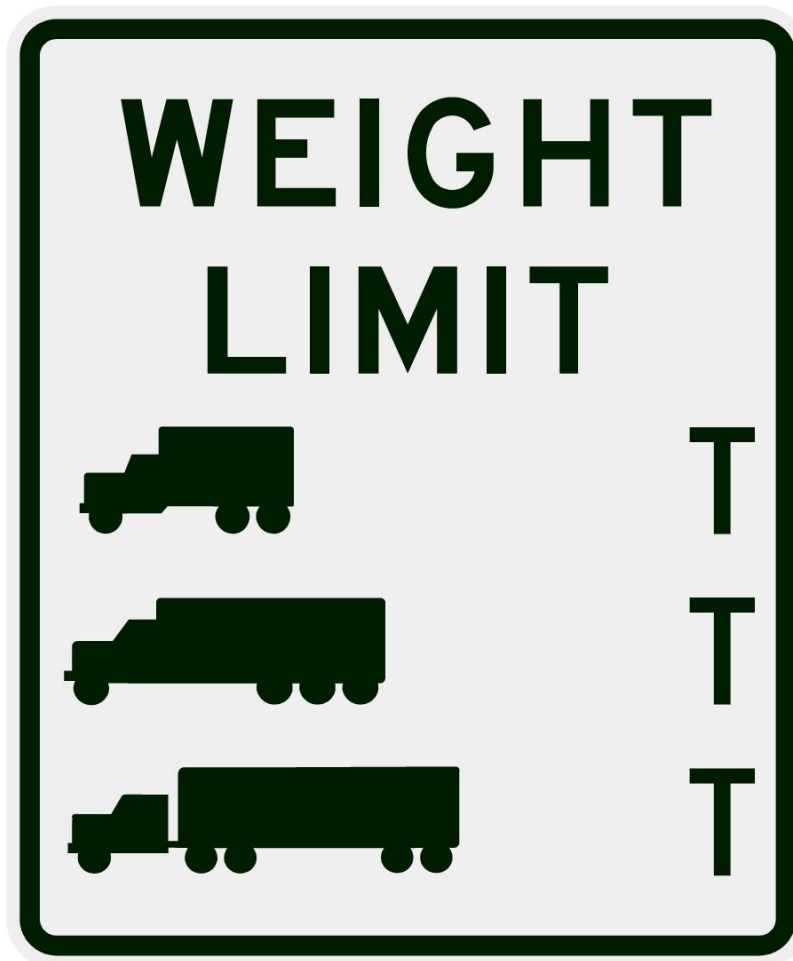
### Bridge Posting Information

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

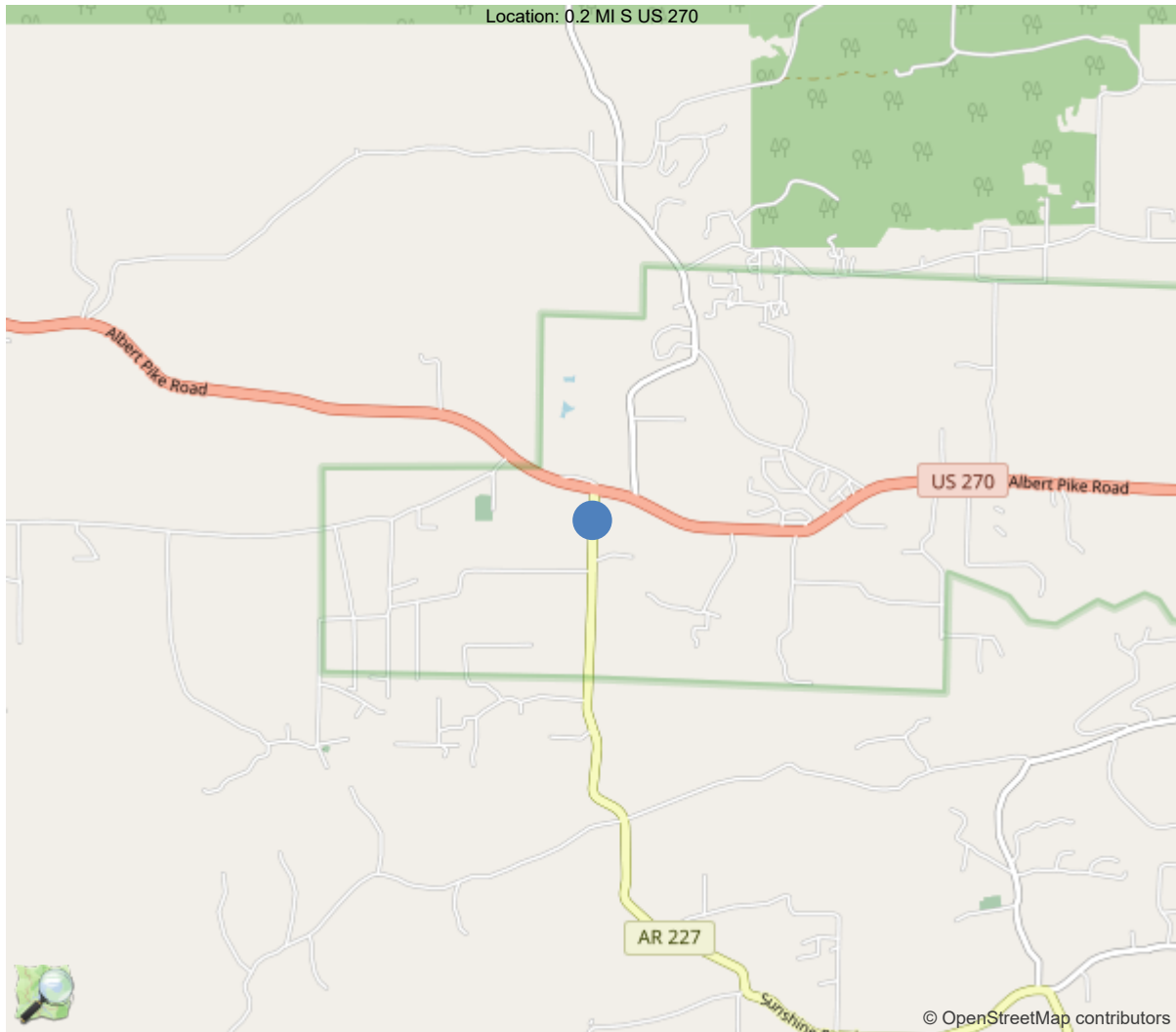
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	31		
Code 9 (31 Tons)	34		
Code 5 (40 Tons)	51		

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



34.50857, -93.27605

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	M2415
(5) Inventory Route	1
(2) Highway Agency District	06 - District 06
(3) County Code	51 - Garland County
(4) Place Code	0
(6) Features Intersected	MAYBERRY CREEK
(7) Facility Carried	SH 227 Log 7.28
(9) Location	0.2 MI S US 270
(11) Mile Point	7.28 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.50857
(17) Longitude	-93.27605
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	11
Material	1 - Concrete
Type	1 - Slab
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	2
(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	1950
(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	1300
(30) Year of ADT	2018
(109) Truck ADT	6 %
(19) Bypass, Detour Length	10 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	13.8 ft
(49) Structure Length	31.1 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	25.4 ft
(52) Deck Width Out to Out	26.8 ft
(32) Approach Roadway Width (W/Shoulders)	27.9 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	26.2 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	0 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	6
(59) Superstructure	6
(60) Substructure	7
(61) Channel & Channel Protection	6
(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	41
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	25
(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	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	7
(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	0
(114) Future ADT	2103
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	08/16/2023		
(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 #M2415**(Routine, Underwater type 2)

**SH 227 Log 7.28 over MAYBERRY CREEK**

**Location: 0.2 MI S US 270**

**Team Lead:** Chris Doggett **Inspection Date:** 08/16/2023

### **General Observation**

Approach going north  
Soundings taken 08/16/2023

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**59 - Superstructure** (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

The steel beams have active rust with moderate pitting.

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**61 - Channel/Channel Protection** (6 - Bank is beginning to slump. River control devices and embankment protection have widespread minor damage. There is minor stream bed movement evident. Debris is restricting the channel slightly.)  
Soundings taken 08/16/2021. MSB

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Asset #M2415(Routine, Underwater type 2)

SH 227 Log 7.28 over MAYBERRY CREEK

Location: 0.2 MI S US 270

Team Lead: Chris Doggett Inspection Date: 08/16/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	171	171	0	0	0
510	Wearing Surfaces	SF	171	171	0	0	0
38	RC Slab	SF	713	677	2	34	0
1080	Delamination/Spall/Patched Area	SF	2	0	2	0	0
1090	Exposed Rebar	SF	6	0	0	6	0
1130	Cracking (RC and Other)	SF	28	0	0	28	0
510	Wearing Surfaces	SF	713	713	0	0	0
(38) Slab is cracked down centerline: span 1 has 1 spall & 1 exposed rebar, span 2 has 5 exposed rebars.							
107	Steel Open Girder/Beam	LF	128	0	64	64	0
1000	Corrosion	LF	128	0	64	64	0
515	Steel Protective Coating	SF	480	0	0	0	480
3440	Effectiveness (Steel Protective Coatings)	LF	480	0	0	0	480
(107) All beams have active corrosion due to failed protective coating. Beams 2 and 3 have heavy laminating to bottom flanges and webs. Beam 2 has pitting up to 1/8" deep in areas of the web. Beams 2 & 3 have pitting on the bottom flange up to 1/8". (515-107) No paint on any beam.							
213	Masonry Pier Wall	LF	19	19	0	0	0
(213) Entire footing is exposed with 1' undermine at outlet end							
217	Masonry Abutment	LF	84	84	0	0	0
(217) Both footings are exposed with no undermine. All three bent are sitting on solid rock							
220	Reinforced Concrete Pile Cap/Footing	LF	76	0	76	0	0
6000	Scour	LF	76	0	76	0	0
(220) The footings are exposed at all three bents with bent 2 bottom of footing exposed.							
330	Metal Bridge Railing	LF	64	64	0	0	0
515	Steel Protective Coating	SF	128	0	128	0	0
3440	Effectiveness (Steel Protective Coatings)	LF	128	0	128	0	0



Elevation



Channel looking down stream.



Span 1: spall with exposed rebar and crack in the soffit near center line



Channel looking up stream





08/16/2023

Span 2: small spall with exposed rebar in the soffit



08/16/2023

Beam 2: active rust with moderate pitting.



08/16/2023

Beam 2: active rust with moderate pitting.



08/16/2023

Span 2: crack at centerline with spall exposing rebar.





Beam 3: active rust with moderate pitting.



Beam 3: active rust with moderate pitting.



Bent 2: footing exposed and has minor undermining.



Inventory looking north



Deck overview.



Deck overview.



### Maintenance Needs

Date Reported: 08/11/2015

Priority: C - Important

Type of Work: Superstructure Repair

Status: Open

Component: Superstructure

### Deficiency Description

All four beams have moderate pitting the entire length.  
Due to failed paint system.

### Remarks



Beam 2: active rust with moderate pitting.



Beam 3: active rust with moderate pitting.



Active corrosion on all of beams.



Span 2 beam 2 has active corrosion with pitting to bottom flange and web. Common beam 3.



Beam 3 span 2 active corrosion with moderate pitting.

## Routine Maintenance

### Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	No
A-55 - Deck Washing Needed	Yes
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	Yes
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	Yes

**A-54 - Sealable Deck Cracks (No)**



**A-55 - Deck Washing Needed (Yes)**



Deck overview.

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

**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 (Yes)**



Beam 2: active rust with moderate pitting.

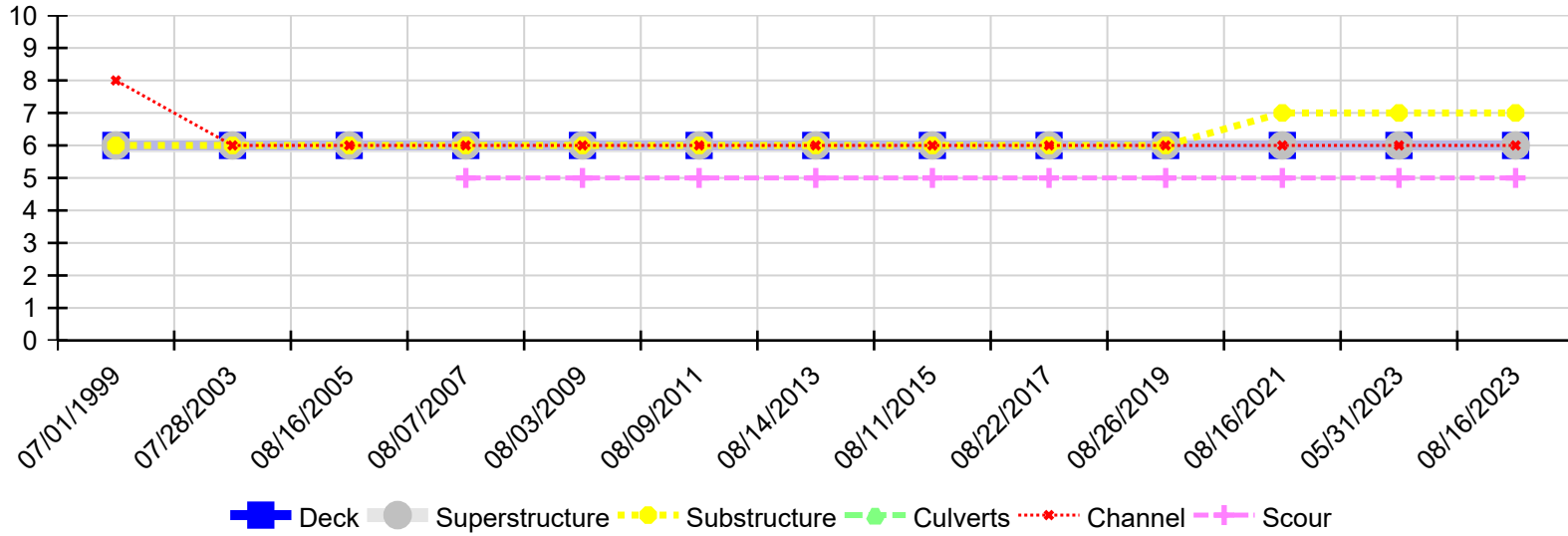
**A-61 - Polymer Overlay Advised (No)**

**A-62 - Hydro and LMC Advised (No)**

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

**A-64 - Vegetation Removal Requested (Yes)**

### Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
08/16/2023	6	6	7	N	6	5
05/31/2023	6	6	7	N	6	5
08/16/2021	6	6	7	N	6	5
08/26/2019	6	6	6	N	6	5
08/22/2017	6	6	6	N	6	5
08/11/2015	6	6	6	N	6	5
08/14/2013	6	6	6	N	6	5
08/09/2011	6	6	6	N	6	5
08/03/2009	6	6	6	N	6	5
08/07/2007	6	6	6	N	6	5
08/16/2005	6	6	6	N	6	N
07/28/2003	6	6	6	N	6	N
07/01/1999	6	6	6	N	8	N