



Latitude:35.57005, Longitude:-90.63438

Route:14 Section:14 Log:5.46

Arnold Road ID:56x14x14xA, Arnold Log mile:5.464

District 10, 111 - Poinsett County

Owner: 1 - State Highway Agency

Inspection Direction: 4 - W to E

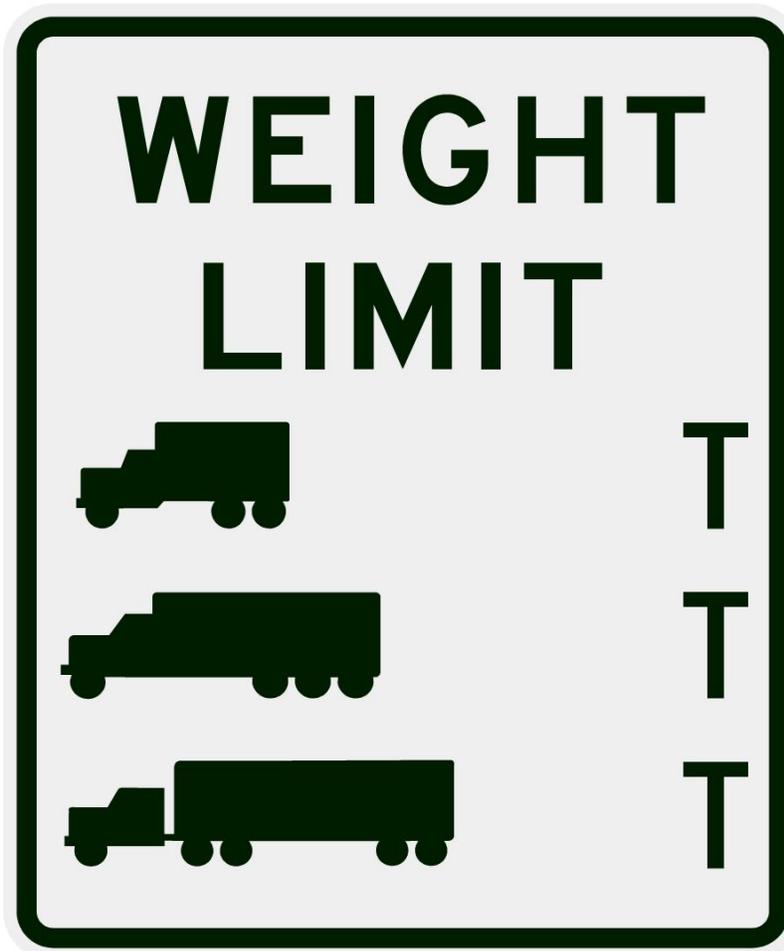
Bridge Posting Information

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

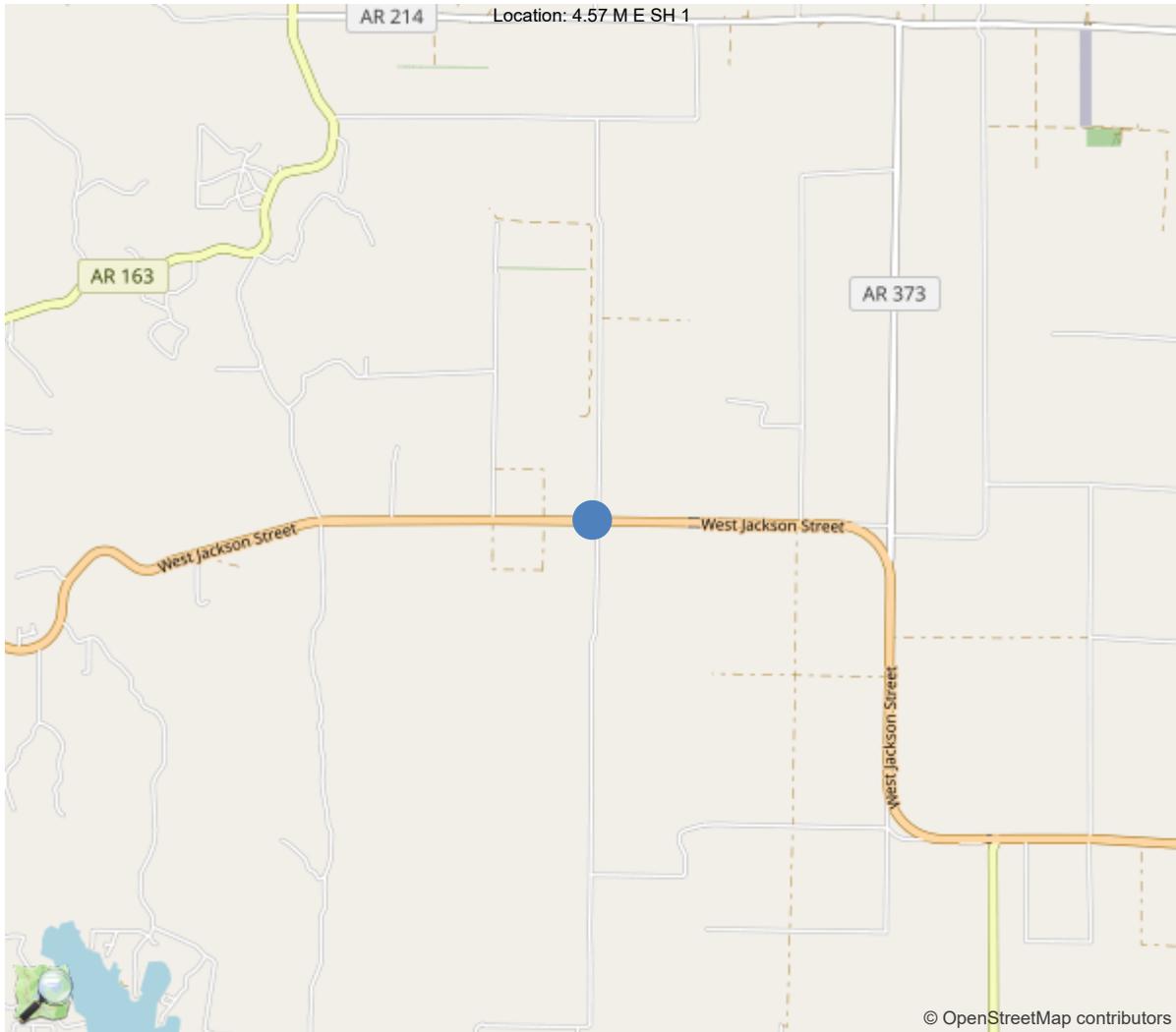
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	30		
Code 9 (31 Tons)	34		
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



35.57005, -90.63438



IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	02594
(5) Inventory Route	1
(2) Highway Agency District	10 - District 10
(3) County Code	111 - Poinsett County
(4) Place Code	0
(6) Features Intersected	DITCH 1
(7) Facility Carried	SH 14-14- LM 5.46
(9) Location	4.57 M E SH 1
(11) Mile Point	5.46 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000014140
(16) Latitude	35.57005
(17) Longitude	-90.63438
(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	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	1949
(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	2600
(30) Year of ADT	2018
(109) Truck ADT	9 %
(19) Bypass, Detour Length	7 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	34 ft
(49) Structure Length	70 ft
(50) Curb or Sidewalk Width	
Left	0.9 ft
Right	0.9 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	26.5 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	24 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	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	6
(59) Superstructure	6
(60) Substructure	6
(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	45
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	27
(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	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 t
PROPOSED IMPROVEMENTS	
(75) Type of Work	31 - Replacement of bridge or
(76) Length of Structure Improvement	95 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 156
(96) Total Project Cost	\$ 389
(97) Year of Improvement Cost Estimate	2004
(114) Future ADT	2856
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			05/20/2024
(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.			



General Observation

inspected with go pro on a pole

58 - Deck (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Deck is in mostly satisfactory condition. See elements

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

Several girder ends were repaired in 2022.

60 - Substructure (6 - SATISFACTORY CONDITION - structural elements show some minor deterioration.)

Sub has minor deterioration or scour.

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.)

Small drift and trees on bent 2 Piling.

Bent 3 abutment is undermined up to 1.5' below and 2' back under with tops of 7 piles exposed.

Rip rap was placed across channel in the past, but has some displacement with filter fabric exposed under span 2.



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	1723	1502	51	170	0
1120	Efflorescence/Rust Staining	SF	11	0	11	0	0
1130	Cracking (RC and Other)	SF	210	0	40	170	0
510	Wearing Surfaces	SF	1632	1365	127	122	18
3210	Delam/Spall/Patched Area/Pothole	SF	219	0	127	74	18
3220	Crack (Wearing Surface)	SF	48	0	0	48	0
<p>(12) Under surface has a few transverse cracks with some light efflorescence. Deck has a few small full depth patches where beam ends were cradled during repairs.</p> <p>(510-12) Asphalt wearing surface has several cracks and spalls. Asphalt is raveling out along gutters and over joints.</p>							
107	Steel Open Girder/Beam	LF	340	155	175	10	0
1000	Corrosion	LF	185	0	175	10	0
515	Steel Protective Coating	SF	2375	883	426	1066	0
3440	Effectiveness (Steel Protective Coatings)	LF	1492	0	426	1066	0
<p>(107) Ends of girders were cleaned and painted in 2022, but areas of section loss remain at web below haunch. Several diaphragms were replaced.</p> <p>Span 1 bent 1 girder 1 was t spliced in 2022.</p> <p>Span 1 bent 1 girder 5 has bolted plates at web below haunch.</p> <p>Span 1 bent 2 girder 1 has a full height bolted web plate.</p> <p>Span 1 bent 2 girder 2 was t spliced in 2022 with a bolted plate on bottom flange.</p> <p>Span 1 bent 2 girders 3 - 5 were t spliced in the past.</p> <p>Span 2 bent 2 girder 2 was t spliced in 2022 with a bolted plate on bottom flange.</p> <p>Span 2 bent 2 girder 3 has bolted plates at web below haunch. Rocker has advanced rotation.</p> <p>Span 2 bent 2 girder 4 has bolted plates at web below haunch. Rocker has advanced rotation and is loose.</p> <p>Span 2 bent 2 girder 5 was t spliced in 2022 with a bolted plate on bottom flange. Rocker is rotated back.</p> <p>Span 2 bent 3 girders 4 and 5 have bolted plates at web below haunch.</p>							
215	Reinforced Concrete Abutment	LF	67	42	25	0	0
6000	Scour	LF	25	0	25	0	0
<p>(215) Bent 3 abutment is undermined up to 1.5' below and 2' back under with tops of 7 piles exposed.</p>							
227	Reinforced Concrete Pile	EA	11	0	9	2	0
1190	Abrasion/Wear (PSC/RC)	EA	4	0	2	2	0
6000	Scour	EA	7	0	7	0	0
<p>(227) Bent 2 piles have abrasion. CS2 Piles 3 and 4 have moderate abrasion with some loss of aggregate near ground line. CS3 Piles at bent 3 are exposed from scour. CS2</p>							
234	Reinforced Concrete Pier Cap	LF	25	23	2	0	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0



Asset #02594(Routine)

SH 14-14- LM 5.46 over DITCH 1

Location: 4.57 M E SH 1

Team Lead: Richard Jones Inspection Date: 05/20/2024

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(234) Bent 2 cap has 2' of minor spalls on ends of cap.							
305	Assembly Joint without Seal	LF	72	0	0	35	37
2370	Metal Deterioration or Damage	LF	72	0	0	35	37
(305) Bent 1 joint has 13' of slide plate missing. Bent 2 joint has all of slide plate missing, and several areas of joint armor missing. Deck is spalled along joint. Bent 3 slide plate joint is loose and moving under traffic.							
311	Movable Bearing	EA	10	0	0	8	2
1000	Corrosion	EA	10	0	0	8	2
(311) Bearings have pack rust and section loss. Span 2 bent 2 bearings 3 and 4 have advanced rotation. Bearing 4 rocker is loose.							
313	Fixed Bearing	EA	10	0	0	10	0
1000	Corrosion	EA	10	0	0	10	0
(313) Bearings have pack rust and section loss. Span 2 bent 3 bearing 2 was shimmed in the past.							
330	Metal Bridge Railing	LF	140	0	0	140	0
1000	Corrosion	LF	140	0	0	140	0
515	Steel Protective Coating	SF	476	0	0	0	476
3440	Effectiveness (Steel Protective Coatings)	LF	476	0	0	0	476
(330) Crash attenuators at bent 3 Lt and Rt sides have minor collision damage. Lt side end treatment tension cable is broken. Bridge rails have surface rust throughout.							



Elevation



Roadway



Wearing surface



Under surface



2022 aerial



Bent 1 girder repairs



Span 1 bent 1 girder 1



Span 1 bent 1 girder 5



Span 1 bent 2 girder 1 repair



Span 1, Bent 2, Girder 1: bolted web splice



Bent 2 girder repairs



Span 2 bent 3 bearing 2



Bent 3 girder repairs



Bent 2 pile 3



Left side, upstream: channel



Right side, downstream: channel

Maintenance Needs

Date Reported: 12/12/2011

Priority: B - Pressing

Type of Work: Bearing Repair/Replacement

Status: Open

Component: Miscellaneous

Deficiency Description

Span 2 bent 2 bearings 3 and 4 have advanced rotation. Bearing 4 rocker is loose.

Remarks



Span 2, Bent 2, Girder 4: bearing rotation



Span 2, Bent 2, Girder 3: bearing rotation



10/30/2017



10/30/2017

Maintenance Needs

Date Reported: 12/12/2011

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Deck

Deficiency Description

Approach roadways are severely cracked and spalled.
Asphalt wearing surface has several cracks and spalls. Asphalt is raveling out along gutters and over joints.

Remarks



Typical gutter

Maintenance Needs

Date Reported: 12/12/2013

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Miscellaneous

Deficiency Description

Bent 1 joint has 13' of slide plate missing.

Bent 2 joint has all of slide plate missing, and several areas of joint armor missing. Deck is spalled along joint.

Bent 3 slide plate joint is loose and moving under traffic.

Remarks



Bent 1 joint



Bent 2 joint



Bent 3 joint slide plate loose



Bent 1 joint 2019



bent 2 2017



Bent 3 joint 2019

Maintenance Needs

Date Reported: 10/30/2017

Priority: C - Important

Type of Work: Channel Work/Drift Removal

Status: Assigned

Component: Channel

Deficiency Description

Small drift and limb on bent 2.

Remarks

Poinsett Co Crew for removal. KAW 12/8/17

to Poinsett Co Crew for removal KAW 1/17/20



b2 drift



2017

Maintenance Needs

Date Reported: 10/02/2019

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Approach

Deficiency Description

Crash attenuators at bent 3 Lt and Rt sides have minor collision damage. Lt side end treatment tension cable is broken.

Remarks



Bent 3 Lt



Bent 3 Rt



Asset #02594(Routine)
SH 14-14- LM 5.46 over DITCH 1
Location: 4.57 M E SH 1

Team Lead: Richard Jones Inspection Date: 05/20/2024

Maintenance Needs

Date Reported: 06/06/2022

Priority: C - Important

Type of Work: Superstructure Repair

Status: Repair Documented

Component: Superstructure

Deficiency Description

Span 1 girder 4 at bent 1 has 1' of heavy section loss to bottom flange & web.
Span 2 girder 1 bent 2 has a 2" diameter hole in web near haunch.
Span 2 girder 4 bent 3 has a 1/2 in. diameter hole in end of web near haunch.

Remarks

Span 1 bent 1 girder 5 has bolted plates at web below haunch.
Span 1 bent 2 girder 1 has a full height bolted web plate.
Span 2 bent 3 girders 4 and 5 have bolted plates at web below haunch.
Defect locations listed above don't match up with current field conditions or repairs; probably mislabeled.



Asset #02594(Routine)

SH 14-14- LM 5.46 over DITCH 1

Location: 4.57 M E SH 1

Team Lead: Richard Jones Inspection Date: 05/20/2024

Maintenance Needs

Date Reported: 12/12/2013

Priority: D- Routine

Type of Work: Miscellaneous

Status: Repair Documented

Component: Substructure

Deficiency Description

Cap Bent 2 has Dirt and Debris on top of Cap.

Remarks

Cap Bent 2 has Dirt and Debris on top of Cap. Was cleaned during girder repairs reported 5-09-2022



Asset #02594(Routine)

SH 14-14- LM 5.46 over DITCH 1

Location: 4.57 M E SH 1

Team Lead: Richard Jones Inspection Date: 05/20/2024

Maintenance Needs

Date Reported: 10/30/2017

Priority: D- Routine

Type of Work: Replace (General)

Status: Repair Documented

Component: Superstructure

Deficiency Description

Several Diaphragms have heavy section loss with areas with up to 100% section loss, especially over Bent 2. Majority of Concrete Haunches has spalls with rebar exposed.

Remarks

Several diaphragms at ends of spans were replaced in 2022.

Maintenance Needs

Date Reported: 10/30/2017

Priority: D- Routine

Type of Work: Channel Work/Drift Removal

Status: Monitor

Component: Substructure

Deficiency Description

Bent 3 abutment is undermined up to 1.5' below and 2' back under with tops of 7 piles exposed.
Rip rap was placed across channel in the past, but has some displacement with filter fabric exposed under Span 2.

Remarks



Bent 3



2017



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	Yes
A-59 - Joint Repair Needed	Yes
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 (Yes)

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



Asset #02594(Routine)

SH 14-14- LM 5.46 over DITCH 1

Location: 4.57 M E SH 1

Team Lead: Richard Jones Inspection Date: 05/20/2024

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

A-58 - Cap Cleaning/Flushing Needed (Yes)

A-59 - Joint Repair Needed (Yes)

A-60 - Full Girder Painting Needed (No)

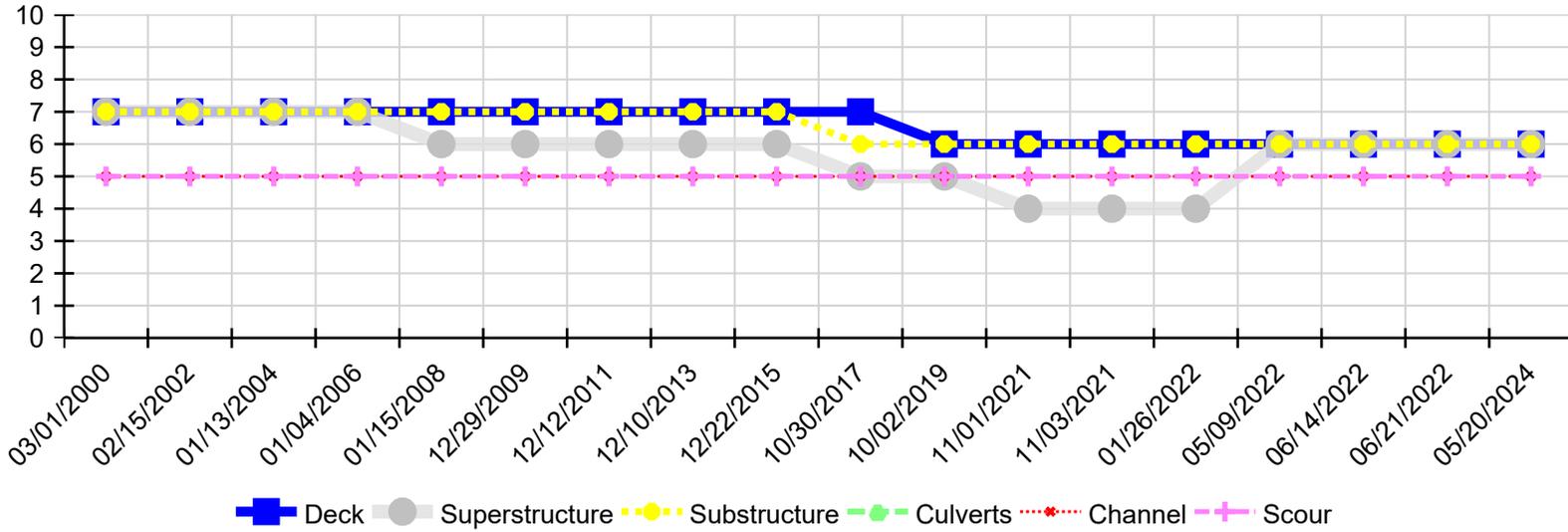
A-61 - Polymer Overlay Advised (No)

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
05/20/2024	6	6	6	N	5	5
06/21/2022	6	6	6	N	5	5
06/14/2022	6	6	6	N	5	5
05/09/2022	6	6	6	N	5	5
01/26/2022	6	4	6	N	5	5
11/03/2021	6	4	6	N	5	5
11/01/2021	6	4	6	N	5	5
10/02/2019	6	5	6	N	5	5
10/30/2017	7	5	6	N	5	5
12/22/2015	7	6	7	N	5	5
12/10/2013	7	6	7	N	5	5
12/12/2011	7	6	7	N	5	5
12/29/2009	7	6	7	N	5	5
01/15/2008	7	6	7	N	5	5
01/04/2006	7	7	7	N	5	5
01/13/2004	7	7	7	N	5	5
02/15/2002	7	7	7	N	5	5
03/01/2000	7	7	7	N	5	5