



Latitude:36.28155, Longitude:-94.22784

Route:112 Section:02 Log:5.06

Arnold Road ID:4x112x2xA, Arnold Log mile:5.046

District 09, 7 - Benton County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

### Bridge Posting Information

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

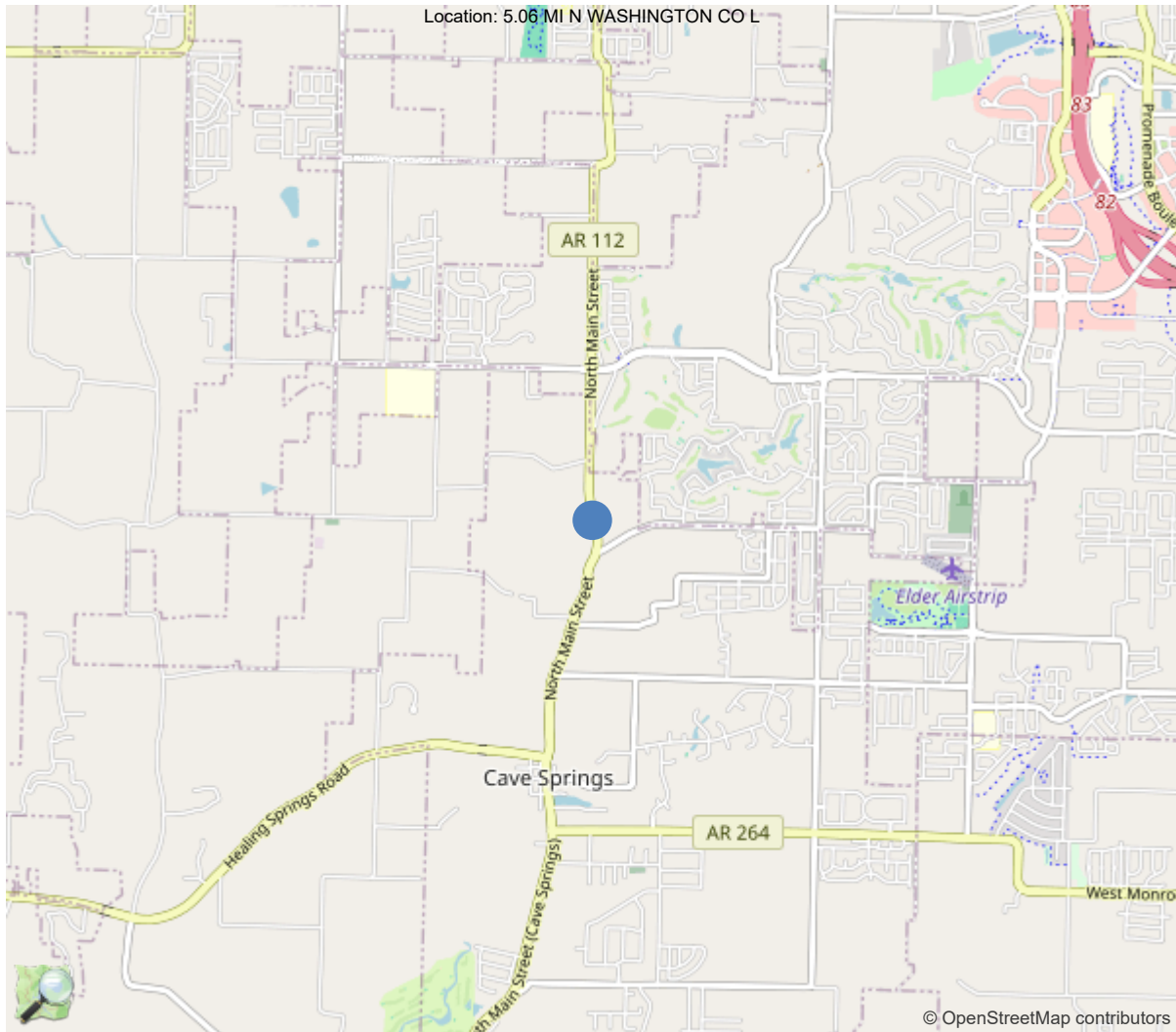
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	40		
Code 9 (31 Tons)	47		
Code 5 (40 Tons)	56		

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



36.28155, -94.22784



Asset #05911(Routine)

SH 112 Benton 2 over OSAGE CREEK

Location: 5.06 MI N WASHINGTON CO L

Team Lead: Anthony Wood Inspection Date: 07/17/2024

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	05911
(5) Inventory Route	1
(2) Highway Agency District	09 - District 09
(3) County Code	7 - Benton County
(4) Place Code	12340
(6) Features Intersected	OSAGE CREEK
(7) Facility Carried	SH 112 Benton 2
(9) Location	5.06 MI N WASHINGTON CO L
(11) Mile Point	5.06 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	36.28155
(17) Longitude	-94.22784
(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	9
(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 pl
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1982
(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	9698
(30) Year of ADT	2018
(109) Truck ADT	5 %
(19) Bypass, Detour Length	12 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	35 ft
(49) Structure Length	315 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	32.2 ft
(52) Deck Width Out to Out	34.8 ft
(32) Approach Roadway Width (W/Shoulders)	22 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	33.1 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	16 - Urban Minor Arterial
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exis
(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 structu
(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	5
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	5 - MS 18 / HS 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	
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	
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	8 - Bridge foundations determined t
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	6064
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	07/17/2024		
(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**

Structure #05911 can be inspected visually from the ground using waders.

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

Overall, the deck is in satisfactory condition with areas of spalling with exposed reinforcing steel with section loss, spalling with sound and unsound patches, map cracking and abrasion in the driving surface.

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

Overall, the superstructure is in satisfactory condition with areas of spalling with exposed reinforcing steel and cracking with efflorescence in the edges of the slabs.

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

Overall, the substructure is in fair condition with areas spalling with and without exposed reinforcing steel with section loss and minor cracking.

**61 - Channel/Channel Protection** (7 - Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift.)

Overall, the channel is in good condition with minor trees and brush growing in channel.

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

null

Typical debris in gutter lines.

**A-56 - Joint Cleaning/Flushing Needed** (Y)

Typical joints.

**A-61 - Polymer Overlay Advised** (Y)

null

Typical abrasion & cracking in wheel paths.

**B.C.05 Bridge Railing Condition Rating** (7 - GOOD - Some minor defects.)

Overall, the bridge railing is in good condition with minor cracking and shallow exposed reinforcing steel with section loss.

**B.C.06 Bridge Railing Transitions Condition Rating** (7 - GOOD - Some minor defects.)

Overall, the bridge rail transitions are in good condition with minor active corrosion in scattered locations.

**B.C.08 Bridge Joints Condition Rating** (4 - POOR - Widespread moderate or isolated major defects. )

Overall, the joints are in poor condition with all joints having adhesion failure and areas of missing joint material.



**Asset #05911**(Routine)

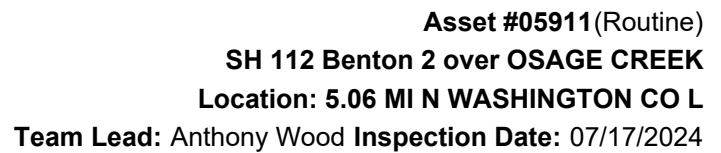
**SH 112 Benton 2 over OSAGE CREEK**

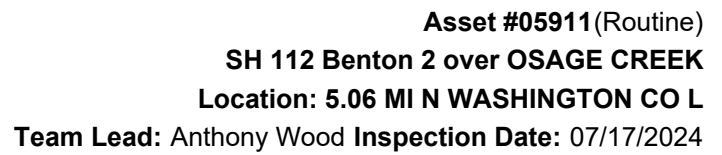
**Location: 5.06 MI N WASHINGTON CO L**

**Team Lead: Anthony Wood Inspection Date: 07/17/2024**

**A-B.C.11 - B.C.11 Scour Condition Rating (New NBIS) (7 - Some minor scour.)**

Overall, the scour condition is good with moderate drift causing localized scour at bent 4.

[illegible]



ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Bent 4, Left & Right:	Spalling. 2LF CS3						
Bent 5, Right:	Spalling. 2LF CS3						
Bent 6, Center:	Spalling. 2LF CS3						
Bent 7, Center:	Cracking. 2LF CS2						
Bent 7, Left:	Delam. 2 LF CS2						
301	Pourable Joint Seal	LF	302	0	0	0	302
2320	Seal Adhesion	LF	85	0	0	0	85
2330	Seal Damage	LF	217	0	0	0	217
(301) Bents 1 - 8:	Areas of seal adhesion failure. 85LF CS3						
Bents 1 - 8:	Areas of seal missing. 217LF CS3						
331	Reinforced Concrete Bridge Railing	LF	630	443	182	5	0
1090	Exposed Rebar	LF	5	0	0	5	0
1130	Cracking (RC and Other)	LF	182	0	182	0	0
(331) Spans 1 - 9:	Minor cracking. 182LF CS2						
	Spalling with exposed reinforcing steel with section loss in various locations.						



Elevation.



Inventory.



Typical deck.



Typical undersurface.



Channel, Right.



Channel, Left.



Typical debris in gutter lines.



Typical joints.



07/22/2024

Typical abrasion & cracking in wheel paths.



07/22/2024

Span 5, Right: Cracking with efflorescence with build-up.  
6SF CS3



07/22/2024

Spans 4 - 9: Delam. 86SF CS2



07/22/2024

Spans 4 - 9: Spalling with exposed reinforcing steel with  
section loss. 115SF CS3



Span 1 - 9, Left: Map cracking. 630SF CS3



Span 9: Spalling with exposed reinforcing steel with section loss. 2SF CS3



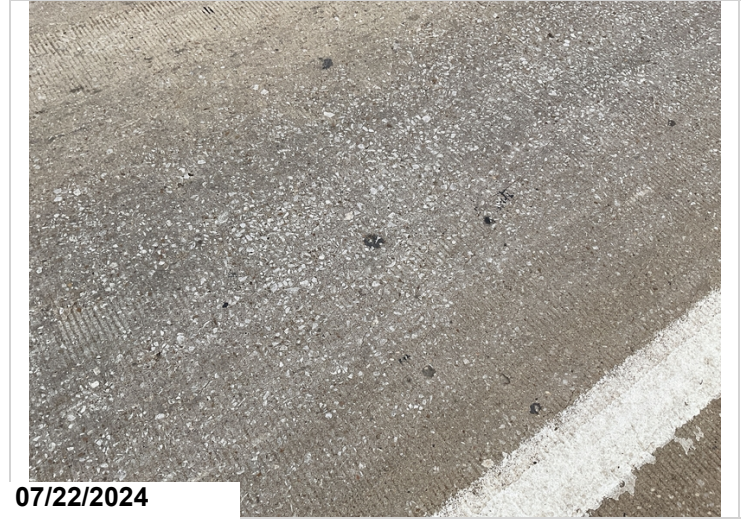
Span 8 & 9: Sound patches. 22SF CS2



Span 8: Spalling with exposed reinforcing steel with section loss. 5LF CS3



Span 8: Spalling with and without asphalt patches 17SF CS3  
Span 8: Delam. areas 108SF CS2



Spans 4 - 6: Map cracking. 120SF CS3



Span 4, Right: Longitudinal cracking. 10SF CS2



Span 3, Right: Cracking. 8SF CS3



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Span 2 & 3, Right: Spalling with sound and unsound patches. 24SF CS3

Span 2 & 3, Right: Spalling with sound patches. 5SF CS2



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Span 2, Right: Spalling with and without asphalt patches. 5SF CS3



07/22/2024

Spans 1 - 8: Typical abrasion in wheel paths. 2520SF CS2



07/22/2024

Bents 1 - 4, Columns 1 & 2: Minor abrasion.



Abutment 1: Minor cracking. 41LF CS2



Bent 4, Column 1: Footing exposed with minor scour.



Bent 3, Center: Minor cracking. 2LF CS2



Bent 3, Left: Spalling with exposed reinforcing steel with section loss. 2LF CS3



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Bent 4, Left & Right: Delam. 2LF CS2

Bent 4, Left & Right: Spalling. 2LF CS3



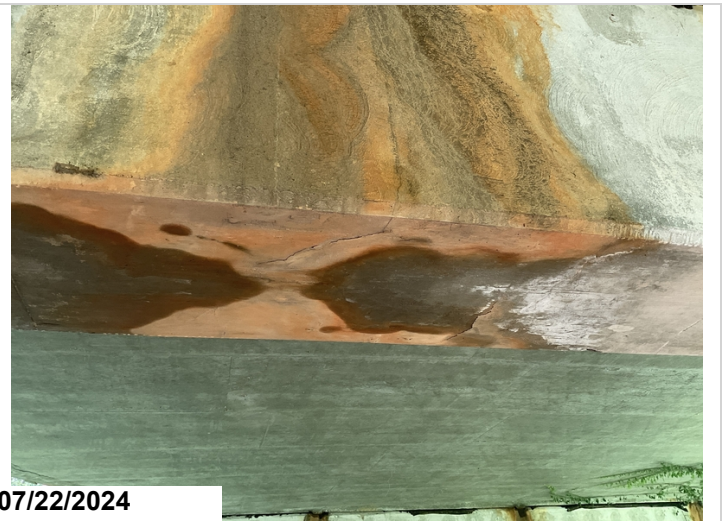
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Bent 5, Right: Spalling. 2LF CS3



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Bent 6, Center: Spalling. 2LF CS3



07/22/2024

Bent 7, Center: Cracking. 2LF CS2



Bent 7, Left: Delam. 2 LF CS2



Typical joints.



Cracking. 182LF CS2



Spalling with exposed reinforcing steel with section loss. 5LF  
CS3



Log mile sign not visible.

### Maintenance Needs

Date Reported: 06/16/2022

Priority: B - Pressing

Type of Work: Channel Work/Drift Removal

Status: Open

Component: Channel

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### Deficiency Description

Large drift:

-The channel has large trees and drift cause localized scour.

### Remarks

Benton II

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Bents 3 - 5: Large drift blocking channel. Localized scour at bent 4.



View of channel under structure



Large trees at bents 4-6 that are causing localized scour.

### Maintenance Needs

Date Reported: 06/25/2014

Priority: D- Routine

Type of Work: Deck Repair

Status: Assigned

Component: Deck

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### Deficiency Description

Spalling and patched areas:

- Span #2, #3, and #8 at bent #2 right side spalling patched areas adjacent to joint.
- Deck surface Span #2 at bent #1 right side near gutter has a spalled area creating a basketball sized pothole.

### Remarks

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Deck surface span #8 spalling with steel exposed



Deck surface over bent #2 concrete and asphalt patches right side. Some of the asphalt patching is failing at this inspection



Deck surface over bent #2 concrete and asphalt patches right side. Some of the asphalt patching is failing at this inspection



Deck span #2 right failing concrete and asphalt patches.



Deck surface Span 2 & 3 at bent 2 right side spalling patched areas.



Deck surface Span 2 at bent 1 right spalled area.



Asset #05911(Routine)

SH 112 Benton 2 over OSAGE CREEK

Location: 5.06 MI N WASHINGTON CO L

Team Lead: Anthony Wood Inspection Date: 07/17/2024

## Routine Maintenance

Check Box Maintenance Items

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

**A-54 - Sealable Deck Cracks (Yes)**

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

null

Typical debris in gutter lines.



Typical debris in gutter lines.

**A-56 - Joint Cleaning/Flushing Needed (Yes)**

Typical joints.



Typical joints.

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

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

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

**A-60 - Full Girder Painting Needed (No)**

**A-61 - Polymer Overlay Advised (Yes)**

null

Typical abrasion & cracking in wheel paths.



Typical abrasion & cracking in wheel paths.

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

**A-63 - Missing/Incorrect Log Mile Signage (Yes)**



Log mile sign not visible.

**A-64 - Vegetation Removal Requested (No)**



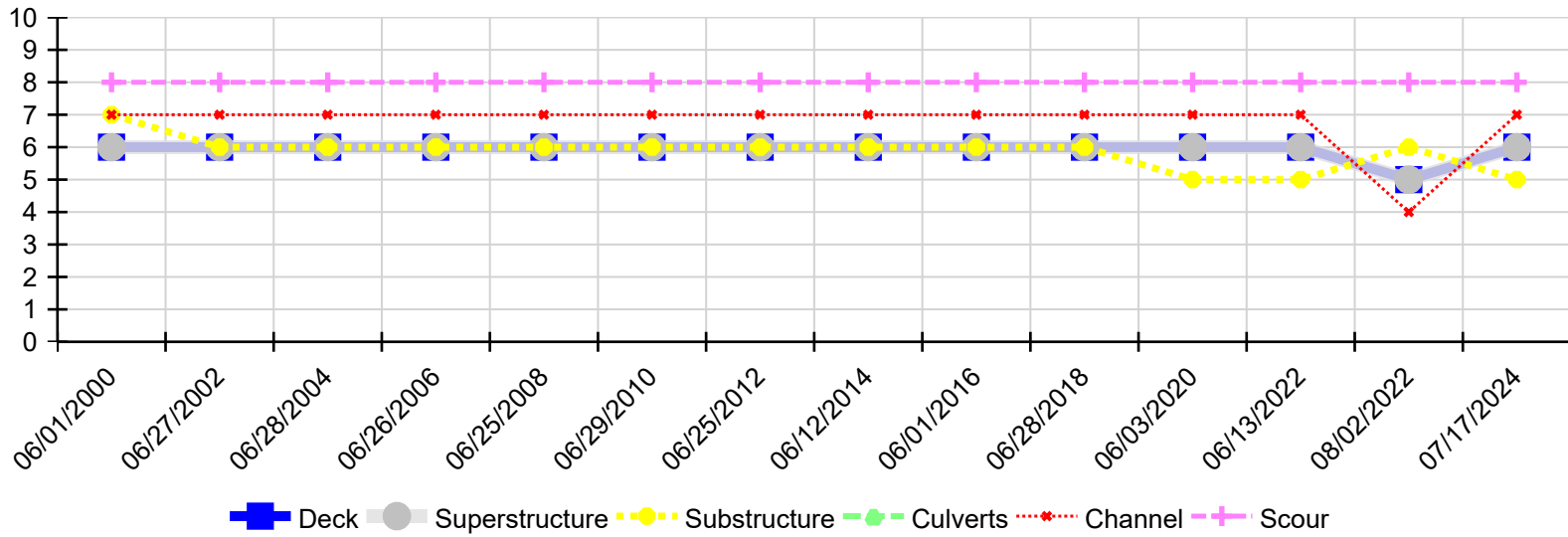
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SH 112 Benton 2 over OSAGE CREEK

Location: 5.06 MI N WASHINGTON CO L

Team Lead: Anthony Wood Inspection Date: 07/17/2024

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
07/17/2024	6	6	5	N	7	8
08/02/2022	5	5	6	N	4	8
06/13/2022	6	6	5	N	7	8
06/03/2020	6	6	5	N	7	8
06/28/2018	6	6	6	N	7	8
06/01/2016	6	6	6	N	7	8
06/12/2014	6	6	6	N	7	8
06/25/2012	6	6	6	N	7	8
06/29/2010	6	6	6	N	7	8
06/25/2008	6	6	6	N	7	8
06/26/2006	6	6	6	N	7	8
06/28/2004	6	6	6	N	7	8
06/27/2002	6	6	6	N	7	8
06/01/2000	6	6	7	N	7	8