

## Bridge A0826 Inspection Report



Latitude:33.41429, Longitude:-93.11083

Route:79 Section:03 Log:0.41

Arnold Road ID:52x79x3xA, Arnold Log mile:0.412

District 07, 103 - Ouachita County

Owner: 1 - State Highway Agency

Inspection Direction: 2 - S to N

### Bridge Posting Information

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

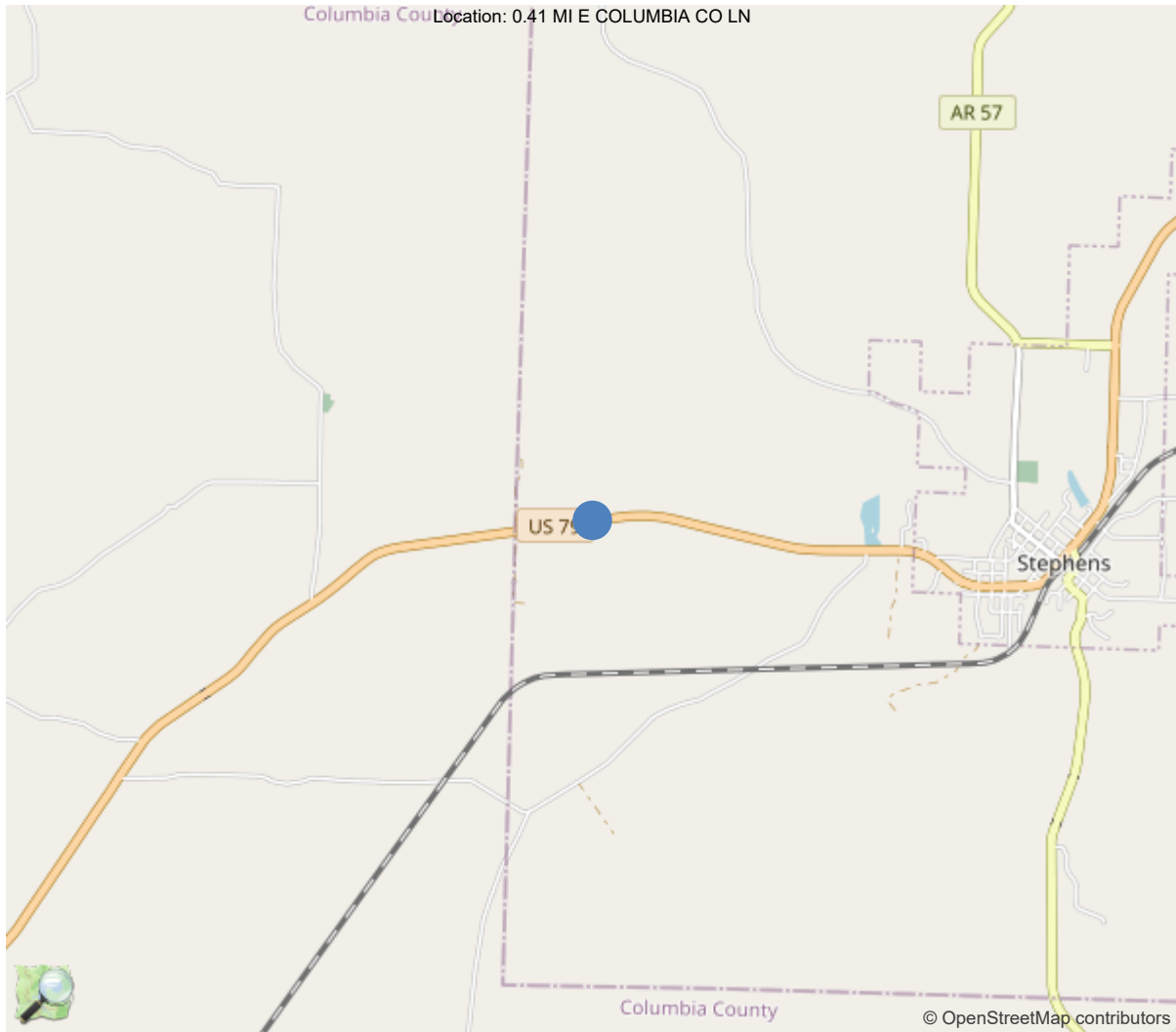
70 - Bridge Posting: 5 - Equal to or above legal loads

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



33.41429, -93.11083

## National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	A0826
(5) Inventory Route	1
(2) Highway Agency District	07 - District 07
(3) County Code	103 - Ouachita County
(4) Place Code	0
(6) Features Intersected	GREEN LAKE
(7) Facility Carried	US 79 S-3 LM .410
(9) Location	0.41 MI E COLUMBIA CO LN
(11) Mile Point	0.41 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000079030
(16) Latitude	33.41429
(17) Longitude	-93.11083
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	14
Material	1 - Concrete
Type	4 - Tee 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	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	1948
(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	12 %
(19) Bypass, Detour Length	25 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	34 ft
(49) Structure Length	104 ft
(50) Curb or Sidewalk Width	
Left	2 ft
Right	2 ft
(51) Bridge Roadway Width Curb to Curb	25.9 ft
(52) Deck Width Out to Out	31 ft
(32) Approach Roadway Width (W/Shoulders)	36.1 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	25.9 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	1
(26) Functional Class	2 - Rural Principal 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	1 - The inventory route is par
(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	7
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	5
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	4 - M 18 / H 20
(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	3
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	6
(72) Approach Roadway Alignment	7
(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	131 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 235
(96) Total Project Cost	\$ 570
(97) Year of Improvement Cost Estimate	2002
(114) Future ADT	2900
(115) Year of Future ADT	2038

INSPECTIONS *			
(90) Inspection Date			08/05/2024
(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.			

Team Lead: Rickie Bratton, Inspection Date: 08/05/2024

### Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	A0826
B.ID.02 Bridge Name	
B.ID.03 Previous Bridge No.	
B.W.01 Year Built	1948

LOCATION	
B.L.01 State Code	5 - Arkansas
B.L.02 County Code	103 - Ouachita County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	07 - District 07
B.L.05 Latitude	33.41429
B.L.06 Longitude	-93.11083
B.L.07 Border Bridge Number	
B.L.08 Border Bridge State or Country Code	
B.L.09 Border Bridge Insp. Resp.	
B.L.10 Border Bridge Designated Lead State	
B.L.11 Bridge Location	0.41 MI E COLUMBIA CO LN
B.L.12 Metropolitan Planning Organization	

CLASSIFICATION	
B.CL.01 Owner	S01 - State transportation departme
B.CL.02 Maint. Responsibility	S01 - State transportation departme
B.CL.03 Federal or Tribal Land Access	N - Not Applicable
B.CL.04 Historic Significance	N - Bridge is not eligible for the
B.CL.05 Toll	N - Bridge does not carry a toll ro
B.CL.06 Emergency Evacuation Designation	

ROADSIDE HARDWARE	
B.RH.01A Bridge Railing Type	
B.RH.01B Bridge Railing Year (YY)	
B.RH.01C Bridge Railing Test Level	
B.RH.02A Transition Type	
B.RH.02B Transition Year (YY)	
B.RH.02C Transition Test Level	

BRIDGE GEOMETRY	
B.G.01 NBIS Bridge Length	104
B.G.02 Total Bridge Length	104
B.G.03 Max Span Length	34.1
B.G.04 Min Span Length	34
B.G.05 Bridge Width Out-to-Out	30.8
B.G.06 Bridge Width Curb-to-Curb	25.9
B.G.07 Left Curb or Sidewalk Width	2
B.G.08 Right Curb or Sidewalk Width	2
B.G.09 Approach Roadway Width	36.1

B.G.10 Bridge Median	0 - No median
B.G.11 Skew	0
B.G.12 Curved Bridge	N - Not curved
B.G.13 Max Bridge Height	15
B.G.14 Sidehill Bridge	N - Not a sidehill bridge
B.G.15 Irregular Deck Area	
B.G.16 Calculated Deck Area	3207.4

LOADS AND LOAD RATING	
B.LR.01 Design Load	H20 - H-20
B.LR.02 Design Method	
B.LR.03 Load Rating Date	
B.LR.04 Load Rating Method	LFR - Load Factor Rating
B.LR.05 Inventory Load Rating Factor	0.75
B.LR.06 Operating Load Rating Factor	1.25
B.LR.07 Controlling Legal Load Rating Factor	
B.LR.08 Routine Permit Loads	

INSPECTION REQUIREMENTS	
B.IR.01 NSTM Inspection Required	N - NSTM inspection not required.
B.IR.02 Fatigue Details	N - No E/E' details
B.IR.03 UW Inspection Required	N - Underwater inspection not requi
B.IR.04 Complex Feature	N - Bridge does not have complex fe

COMPONENT CONDITION RATINGS	
B.C.01 Deck Condition Rating	7 - GOOD - Some minor defects.
B.C.02 Superstructure Condition	7 - GOOD - Some minor defects.
B.C.03 Substructure Condition	5 - FAIR - Some moderate defec
B.C.04 Culvert Condition	N - NOT APPLICABLE - Component
B.C.05 Bridge Railing Condition	7 - GOOD - Some minor defects.
B.C.06 Bridge Railing Transitions Condition	7 - GOOD - Some minor defects.
B.C.07 Bridge Bearings Cond.	5 - FAIR - Some moderate defec
B.C.08 Bridge Joints Condition	8 - VERY GOOD - Some inherent
B.C.09 Channel Condition Rating	5 - FAIR - Moderate defects; b
B.C.10 Channel Protection Condition	6 - SATISFACTORY - Widespread
B.C.11 Scour Condition Rating	6 - Widespread minor or isolat
B.C.12 Bridge Condition Classification	F - Fair
B.C.13 Lowest Condition Rating	5 - FAIR - Some moderate defec
B.C.14 NSTM Insp. Condition	
B.C.15 UW Inspection Condition	

APPRAISAL	
B.AP.01 Approach Roadway Alignment	G - Good
B.AP.02 Overtopping Likelihood	1 - Remote - once every 100 years o
B.AP.03 Scour Vulnerability	AB-T - TEMP - Stable for scour, pos
B.AP.04 Scour Plan of Action	0 - A scour POA is not required.
B.AP.05 Seismic Vulnerability	0 - Seismic evaluation not complete

Team Lead: Rickie Bratton, Inspection Date: 08/05/2024

SPAN SETS			
<b>M1</b>			
B.SP.02 # of Spans	3	B.SP.08 Deck Interaction	IM - Integral or monolithic
B.SP.03 # of Beam Lines	5	B.SP.09 Deck Material and Type	C01 - Reinforced concrete - ca
B.SP.04 Span Material	C01 - Reinforced concrete - ca	B.SP.10 Wearing Surface	B01 - Bituminous (asphalt)
B.SP.05 Span Continuity	1 - Simple or single span	B.SP.11 Deck Protective System	0 - None
B.SP.06 Span Type	G03 - Girder/beam - tee-beam	B.SP.12 Deck Reinforcing Protective System	0 - None
B.SP.07 Span Protective System	0 - None	B.SP.13 Deck Stay-In-Place Forms	0 - None

SUBSTRUCTURE SETS			
<b>A1</b>			
B.SB.02 No. of Substructure Units	2	B.SB.05 Substructure Protective System	0 - None
B.SB.03 Substructure Material	C01 - Reinforced concrete - ca	B.SB.06 Foundation Type	PX - Pile - other
B.SB.04 Substructure Type	A02 - Abutment - stub	B.SB.07 Foundation Protective System	0 - None
<b>P1</b>			
B.SB.02 No. of Substructure Units	2	B.SB.05 Substructure Protective System	0 - None
B.SB.03 Substructure Material	C01 - Reinforced concrete - ca	B.SB.06 Foundation Type	PX - Pile - other
B.SB.04 Substructure Type	B03 - Bent - pile	B.SB.07 Foundation Protective System	0 - None

HIGHWAY FEATURES			
<b>H1</b>			
B.F.02 Feature Location	C - Carried on bridge	B.H.09 Annual ADT	2600
B.F.03 Feature Name	US 79 S-3 LM .410	B.H.10 Annual ADTT	312
B.H.01 Functional Classification	3 - Principal Arterial - Other	B.H.11 Year of Annual ADT	2018
B.H.02 Urban Code	99999	B.H.12 Highway Max Usable Vertical Clearance	99.9
B.H.03 NHS Designation	Y - NHS	B.H.13 Highway Min Vertical Clearance	99.9
B.H.04 National Highway Freight Network	1-T - TEMP - NHFN - 1 or 2 or	B.H.14 Highway Min Horizontal Clearance, Left	
B.H.05 STRAHNET Designation	N - Not a STRAHNET route	B.H.15 Highway Min Horizontal Clearance, Right	
B.H.06 LRS Route ID	79030	B.H.16 Highway Max Usable Surface Width	25.5
B.H.07 LRS Mile Point	0.41	B.H.17 Bypass Detour Length	25
B.H.08 Lanes On Highway	2	B.H.18 Crossing Bridge Number	

HIGHWAY ROUTES					
Highway Parent	B.RT.01 Route Designation	B.RT.02 Route Number	B.RT.03 Route Direction	B.RT.04 Route Type	B.RT.05 Service Type
H1	R01	79	2-T - TEMP - Two-way traffic - NS or EW	2 - U.S. route	1 - Mainline



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## WATERWAY FEATURES

W1

B.F.02 Feature Location	B - Below bridge	B.N.03 Movable Bridge Max Navigation Vertical Clearance	
B.F.03 Feature Name	GREEN LAKE	B.N.04 Navigation Channel Width	
B.N.01 Navigable Waterway	N - Not navigable waters	B.N.05 Navigation Channel Min Horizontal Clearance	
B.N.02 Navigation Min Vertical Clearance		B.N.06 Substructure Navigation Protection	

## POSTING STATUS DATA

B.PS.01 Load Posting Status	B.PS.02 Posting Status Change Date
PO - Permanent - Open	

## LOAD EVALUATION AND POSTING

B.EP.01 Legal Load Configuration	B.EP.02 Legal Load Rating Factor	B.EP.03 Posting Type	B.EP.04 Posting Value
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**Asset #A0826**(Routine, Underwater type 2)

**US 79 S-3 LM .410 over GREEN LAKE**

**Location: 0.41 MI E COLUMBIA CO LN**

**Team Lead: Rickie Bratton Inspection Date: 08/05/2024**

## Inspection Notes

### General Observation

Hip boots and ladder used for inspection.

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### 58 - Deck (7 - GOOD CONDITION - some minor problems.)

Good -

Normal wear on overlay, cracks over joints.

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

Satisfactory -

Normal wear, bearings have corrosion.

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

Fair-

Piles with moderate abrasion with 1 delam.

cap has spalls with exposed rebar.

abutment with local scour.

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### National Bridge Element Quantities and Notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	3224	3220	4	0	0
1080	Delamination/Spall/Patched Area	SF	4	0	4	0	0
510	Wearing Surfaces	SF	2704	2648	56	0	0
3220	Crack (Wearing Surface)	SF	56	0	56	0	0
(16) Normal wear, joints are leaking allowing water and roadway salts on the bearings. 07/26/2018 JPR -- New AC/inlay on bridge, no cracks present at this time.							
110	Reinforced Concrete Open Girder/Beam	LF	520	471	47	2	0
1080	Delamination/Spall/Patched Area	LF	2	0	0	2	0
1130	Cracking (RC and Other)	LF	47	0	47	0	0
(110) End of G5 @ abutment one has damage. See picture.							
215	Reinforced Concrete Abutment	LF	122	60	31	31	0
4000	Settlement	LF	31	0	31	0	0
6000	Scour	LF	31	0	0	31	0
(215) Roadway settlement. 07/26/2018 JPR -- There is a new AC/inlay over the bridge at this time and there are no new signs visible now at BR ends, there is significant scouring of abutment 2 slope and under and below the bottom of the abutment 2 cap.							
227	Reinforced Concrete Pile	EA	12	2	5	5	0
1080	Delamination/Spall/Patched Area	EA	1	0	0	1	0
1190	Abrasion/Wear (PSC/RC)	EA	9	0	5	4	0
(227) Column 3 bt 3 has a large spall and several cracks. See picture. Other columns have moderate "pebbling" and loss of outer surface at and below high waterline. Bent 3 is the worst as it is the most exposed bent. 07/26/2018 JPR -- This creek is in oil fields and therefore have been exposed to high concentrations of salt water.							
234	Reinforced Concrete Pier Cap	LF	62	60	0	2	0
1090	Exposed Rebar	LF	2	0	0	2	0
305	Assembly Joint without Seal	LF	62	62	0	0	0
311	Movable Bearing	EA	15	0	0	15	0
1000	Corrosion	EA	15	0	0	15	0
(311) Rusty							
313	Fixed Bearing	EA	15	0	0	15	0
1000	Corrosion	EA	15	0	0	15	0
(313) Rusty							
330	Metal Bridge Railing	LF	60	60	0	0	0
515	Steel Protective Coating	SF	120	120	0	0	0

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
331	Reinforced Concrete Bridge Railing	LF	208	208	0	0	0
	(331) Normal wear and abrasion.						

## Inspection Photos and Notes



Bent 3 cap back exposed rebar



Bent 3 pile 3 delam.



Span 2 bottom surface overview



Bent 3 abrasion to piles.



Elevation



Cracks over joints in wearing surface



Channel upstream overview left side



Channel downstream overview right side



Deck overview



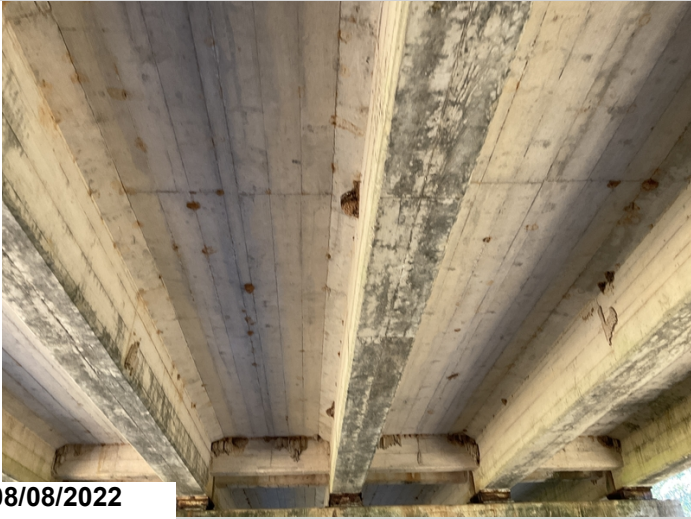
Approach roadway Northbound



Elevation



Elevation



Underview



Overview



Span 2, typical girders.



Upstream



Downstream



Approach

### Maintenance Needs

Date Reported: 07/17/2012

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Substructure

### Deficiency Description

Bent 3 columns are pitted with some loss of section. Column 3 is the worst with large cracks. 07/26/2018 JPR -- this creek is in the oil fields and these piling have been exposed to salt water thus causing the deterioration at water line.

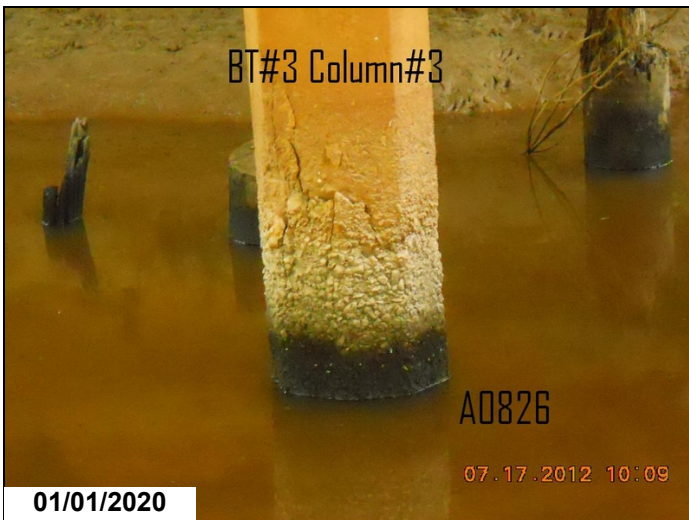
### Remarks



Bent 3 abrasion to piles.



Bent 3 piles abrasion and wear pile 3 has a crack



Bent 3 column 3 has significant cracking and delamination @ waterline along with heavy abrasion and wear to the face of the pile.



Bt. 3, looking ahead, abrasion to the piles & pile 3 has cracks & delams.

### Maintenance Needs

Date Reported: 07/26/2018

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Substructure

### Deficiency Description

Abutment 2 Lt. side there is a large scour hole that goes back under the abutment cap from edge of wingwall & goes Rt. Just past girder 1. Abutment 2 slope has significant scouring & lateral stream migration towards abutment 2.

### Remarks



Bent 2 abutment left side scour



Abutment 2 slope has significant scouring & lateral stream migration.



Abutment 2 Lt. side there is a large scour hole that goes back under the abutment cap from edge of wingwall & goes Rt. Just past girder 1.



Bt. 4, left side of the abutment, erosion below the cap of the abutment.



Bt. 4, abutment, scour action from the stream is removing the embankment.

### Maintenance Needs

**Date Reported:** 07/17/2012

**Priority:** D- Routine

**Type of Work:** Repair (General)

**Status:** Monitor

**Component:** Superstructure

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### Deficiency Description

All bearings and pads have paint failure and moderate pack rust with section loss to masonry plates, all movable bearing are rocked ahead.

### Remarks

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Active corrosion with some pack rust to bearings and pads all bents.



Masonry plates and rockers have severe corrosion.



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## 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-65 - Clogged deck drains?	
A-66 - Approach minor pothole/leveling needed	

**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 - 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)**

**A-65 - Clogged deck drains?**



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**A-66 - Approach minor pothole/leveling needed**



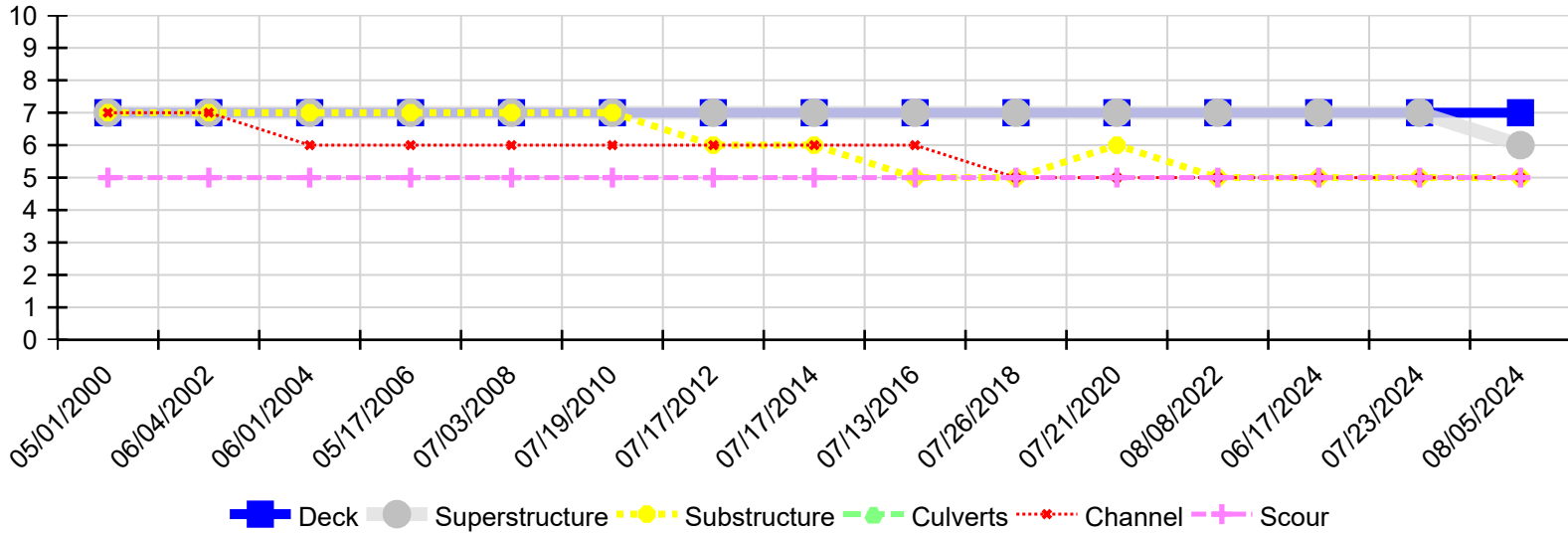
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Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
08/05/2024	7	6	5	N	5	5
07/23/2024	7	7	5	N	5	5
06/17/2024	7	7	5	N	5	5
08/08/2022	7	7	5	N	5	5
07/21/2020	7	7	6	N	5	5
07/26/2018	7	7	5	N	5	5
07/13/2016	7	7	5	N	6	5
07/17/2014	7	7	6	N	6	5
07/17/2012	7	7	6	N	6	5
07/19/2010	7	7	7	N	6	5
07/03/2008	7	7	7	N	6	5
05/17/2006	7	7	7	N	6	5
06/01/2004	7	7	7	N	6	5
06/04/2002	7	7	7	N	7	5
05/01/2000	7	7	7	N	7	5