



Latitude:34.35476, Longitude:-92.88698

Route:30 Section:21 Log:93.47

Arnold Road ID:30x30x21xB, Arnold Log mile:49.495

District 06, 59 - Hot Spring County

Owner: 1 - State Highway Agency



34.35476, -92.88698



Asset #A5027 (Routine, Underwater type 2)

I-30 WB log 93.47 over CREEK

Location: 4.45 MI SW OF SH 270

Team Lead: Chris Doggett, Inspection Date: 10/26/2022

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	A5027
(5) Inventory Route	1
(2) Highway Agency District	06 - District 06
(3) County Code	59 - Hot Spring County
(4) Place Code	0
(6) Features Intersected	CREEK
(7) Facility Carried	I-30 WB log 93.47
(9) Location	4.45 MI SW OF SH 270
(11) Mile Point	93.47 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000030210
(16) Latitude	34.354759
(17) Longitude	-92.886978
(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	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	1 - Monolithic Concrete (concurrently pl
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1967
(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	15500
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	39 ft
(49) Structure Length	197 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	39 ft
(52) Deck Width Out to Out	42 ft
(32) Approach Roadway Width (W/Shoulders)	42 ft
(33) Bridge Median	1 - Open 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	40 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	1 - Rural Principal Arterial -
(100) Defense Highway	1 - The inventory route is on
(101) Parallel Structure	L - The left structure of para
(102) Direction of Traffic	1 - 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	4
(60) Substructure	5
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	6 - MS 18+Mod / HS 20+Mod
(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	5
(68) Deck Geometry	6
(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	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(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	17465
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	10/26/2022		
(91) Frequency	24		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
* 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 **#A5027** (Routine, Underwater type 2)

District: 06, **County:** 59 - Hot Spring County

Team Lead: Chris Doggett, **Inspection Date:** 10/26/2022

General Observation

Lane closure information is located under other tab. Job #R60011, Drawing #27652. Approach looking westbound.

A-46 - Asset Files

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Asset #A5027 (Routine, Underwater type 2)

I-30 WB log 93.47 over CREEK

Location: 4.45 MI SW OF SH 270

Team Lead: Chris Doggett, Inspection Date: 10/26/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	7995	7967	28	0	0
1120	Efflorescence/Rust Staining	SF	28	0	28	0	0
510	Wearing Surfaces	SF	7605	7359	225	21	0
3210	Delam/Spall/Patched Area/Pothole	SF	146	0	125	21	0
3220	Crack (Wearing Surface)	SF	100	0	100	0	0
(12) Deck has a 2" overlay, soffits have cracks with efflorescence. Wearing surface has solid patches in span 1 and cracks have been sealed in the past. Also span 1 has spalls with loose material. (510-12) Span 1 with concrete patches and asphalt patches.							
107	Steel Open Girder/Beam	LF	1365	1213	70	82	0
1000	Corrosion	LF	149	0	70	79	0
1010	Cracking	LF	3	0	0	3	0
515	Steel Protective Coating	SF	7378	3729	2300	1349	0
3420	Peeling/Bubbling/Cracking	LF	225	0	0	225	0
3440	Effectiveness (Steel Protective Coatings)	LF	3424	0	2300	1124	0
(107) All Beam ends have corrosion and section loss to bottom flange or top of web in the haunch area. Section loss up 1/8" is typical. Span 1,2 & 4 girder 4 crack in toe of weld at web at top of diaphragm connection. Protective coating has areas of peeling paint and has lost effectiveness on beam ends. Added 11/2/2022 Span 4, beam 2 rt., 2nd dia.: Crack in weld in top of diaphragm connection Span 4, beam 1, 2nd dia.: Crack in weld in top of diaphragm connection Span 4, beam 1, 2nd dia.: Crack in weld in top of diaphragm connection Span 5, beam 4rt., 2nd dia.: Crack in weld in top of diaphragm connection Span 5, beam 4lt., 2nd dia.: Crack in weld in top of diaphragm connection Span 5, beam 2rt., 2nd dia.: Crack in weld in top of diaphragm connection Span 5, beam 4, bent 6: The end of the beam at the haunch has a 5 1/2" crack that (515-107) .							
205	Reinforced Concrete Column	EA	4	3	0	1	0
1090	Exposed Rebar	EA	1	0	0	1	0
(205) Bent 3 column 2 spall with exposed reinforcing steel with section loss.							
210	Reinforced Concrete Pier Wall	LF	40	34	6	0	0
1080	Delamination/Spall/Patched Area	LF	6	0	6	0	0
(210) Pier wall at bent 3 has a 6' delaminated area.							
215	Reinforced Concrete Abutment	LF	84	72	10	2	0



Asset #A5027 (Routine, Underwater type 2)

I-30 WB log 93.47 over CREEK

Location: 4.45 MI SW OF SH 270

Team Lead: Chris Doggett, **Inspection Date:** 10/26/2022

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1130	Cracking (RC and Other)	LF	12	0	10	2	0
(215) The beam seat of bent 6 has a horizontal crack. Top of back wall at bent 1 has 2 spalls.							
225	Steel Pile	EA	12	0	0	12	0
1000	Corrosion	EA	12	0	0	12	0
515	Steel Protective Coating	SF	1440	0	0	720	720
3440	Effectiveness (Steel Protective Coatings)	EA	1440	0	0	720	720
(225) All steel piles have section loss either at the top or bottom. Bent 5 steel pile 1 hole in top of pile and section loss up to 3/16". Bent 2 piles 1, 2 3 and 4 have up to 1/8" section loss at the top. Protective system has failed. (515-225) .							
234	Reinforced Concrete Pier Cap	LF	161	157	1	3	0
1090	Exposed Rebar	LF	4	0	1	3	0
(234) Bent 5 ahead face at beam 5 has a 3' spall with exposed rebar. Bent 2 on the bottom of the cap between pile 4 and 5, small spall with exposed rebar.							
302	Compression Joint Seal	LF	254	0	0	254	0
2310	Leakage	LF	239	0	0	239	0
2330	Seal Damage	LF	15	0	0	15	0
(302) Sections of the seal are missing at bents 3, 4&5. All of the seals leak.							
311	Movable Bearing	EA	35	0	35	0	0
1000	Corrosion	EA	27	0	27	0	0
2210	Movement	EA	7	0	7	0	0
2240	Loss of Bearing Area	EA	1	0	1	0	0
(311) Bents 3, 3, 4 and 5 have floating bearings. See maintenance needs for locations. All of the bearings have active corrosion on the surface.							
313	Fixed Bearing	EA	35	0	35	0	0
1000	Corrosion	EA	22	0	22	0	0
2210	Movement	EA	13	0	13	0	0
(313) Bents 2, 3 and 6 have floating bearings. See maintenance needs for locations.							
321	Reinforced Concrete Approach Slab	SF	2800	2560	240	0	0
1130	Cracking (RC and Other)	SF	80	0	80	0	0
1190	Abrasion/Wear (PSC/RC)	SF	160	0	160	0	0
(321) Both approach slabs have transverse cracks. The slab at bent 1 has longitudinal cracking also.							
330	Metal Bridge Railing	LF	394	393	1	0	0

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
7000	Damage	LF	1	0	1	0	0
(330) Metal post has damage in span 1 south side.							
331	Reinforced Concrete Bridge Railing	LF	394	392	2	0	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
(331) Concrete bridge has a patch repair on left side.							

Asset #A5027(Routine, Underwater type 2)

Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	1365	1213	70	82	0
1000	Corrosion	LF	149	0	70	79	0
1010	Cracking	LF	3	0	0	3	0
515	Steel Protective Coating	SF	7378	3729	2300	1349	0
3420	Peeling/Bubbling/Cracking	LF	225	0	0	225	0
3440	Effectiveness (Steel Protective Coatings)	LF	3424	0	2300	1124	0
<p>(107) All Beam ends have corrosion and section loss to bottom flange or top of web in the haunch area. Section loss up 1/8" is typical. Span 1,2 & 4 girder 4 crack in toe of weld at web at top of diaphragm connection. Protective coating has areas of peeling paint and has lost effectiveness on beam ends.</p> <p>Added 11/2/2022</p> <p>Span 4, beam 2 rt., 2nd dia.: Crack in weld in top of diaphragm connection</p> <p>Span 4, beam 1, 2nd dia.: Crack in weld in top of diaphragm connection</p> <p>Span 4, beam 1, 2nd dia.: Crack in weld in top of diaphragm connection</p> <p>Span 5, beam 4rt., 2nd dia.: Crack in weld in top of diaphragm connection</p> <p>Span 5, beam 4lt., 2nd dia.: Crack in weld in top of diaphragm connection</p> <p>Span 5, beam 2rt., 2nd dia.: Crack in weld in top of diaphragm connection</p> <p>Span 5, beam 4, bent 6: The end of the beam at the haunch has a 5 1/2" crack that</p>							
(515-107) .							

Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
205	Reinforced Concrete Column	EA	4	3	0	1	0
1090	Exposed Rebar	EA	1	0	0	1	0
(205) Bent 3 column 2 spall with exposed reinforcing steel with section loss.							
210	Reinforced Concrete Pier Wall	LF	40	34	6	0	0
1080	Delamination/Spall/Patched Area	LF	6	0	6	0	0
(210) Pier wall at bent 3 has a 6' delaminated area.							
215	Reinforced Concrete Abutment	LF	84	72	10	2	0
1130	Cracking (RC and Other)	LF	12	0	10	2	0
(215) The beam seat of bent 6 has a horizontal crack. Top of back wall at bent 1 has 2 spalls.							
225	Steel Pile	EA	12	0	0	12	0
1000	Corrosion	EA	12	0	0	12	0
515	Steel Protective Coating	SF	1440	0	0	720	720
3440	Effectiveness (Steel Protective Coatings)	EA	1440	0	0	720	720
(225) All steel piles have section loss either at the top or bottom. Bent 5 steel pile 1 hole in top of pile and section loss up to 3/16". Bent 2 piles 1, 2 3 and 4 have up to 1/8" section loss at the top. Protective system has failed.							
(515-225) .							
234	Reinforced Concrete Pier Cap	LF	161	157	1	3	0
1090	Exposed Rebar	LF	4	0	1	3	0
(234) Bent 5 ahead face at beam 5 has a 3' spall with exposed rebar. Bent 2 on the bottom of the cap between pile 4 and 5, small spall with exposed rebar.							



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Location: 4.45 MI SW OF SH 270

Team Lead: Chris Doggett, **Inspection Date:** 10/26/2022

Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4



Elevation



Up to 1/4" section loss at the haunch



At the haunch



2022



Crack propagates into the web. 2022



Span 1: multiple concrete patches and asphalt patches in this span.



Bent 5: joint seal leaking



Approach slab with multiple large transverse cracks



By 6, girder 4: bearing with typical corrosion at this bent.



Large crack from the end of the beam into the web.



Beam 6, span 5, bent 6: up to 3/16" section loss to the bottom flange and 1/16" section loss to the lower web.



Ahead side of bent 4, girder 5: large spall under girder 5 with some loss to the bearing area



Deck view



Bent 2, pile 4: at ground line all surfaces with measurable section loss up to 1/8". The right flange in the picture has 1/8" steel remaining.



Bent 2, pile 5: up to 1/16" section loss from the ground up 4".



Bent 2: the paint has failed in numerous areas and surface rust and section loss to all piles.



Span 1, girder 1: large area of section loss to the lower web and bottom flange.



Deck view



Inventory looking east

Maintenance Needs

Date Reported: 10/13/2016

Priority: C - Important

Type of Work: (Inactive) (Inactive) 1 - Clean

Status: Assigned

Component: Channel

Deficiency Description

Bents 2 thru 5 vines and trees growing on and against bents.

Remarks

Assigned to Hot Springs 06301 9-29-15



Vines growing on columns at bents 3 and 4.

Maintenance Needs

Date Reported: 10/13/2016

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Substructure

Deficiency Description

Bents 2 & 5 steel pile have active rust with pitting at ground line and below caps.

Remarks



Bent 2, pile 4: at ground line all surfaces with measurable section loss up to 1/8". The right flange in the picture has 1/8" steel remaining.



Bent 2, pile 5: at ground line all surfaces with measurable section loss up to 1/16".



Bent 5 steel pile 1 hole in top of pile and section loss up to 3/16" .





Maintenance Needs

Date Reported: 10/13/2016

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Element

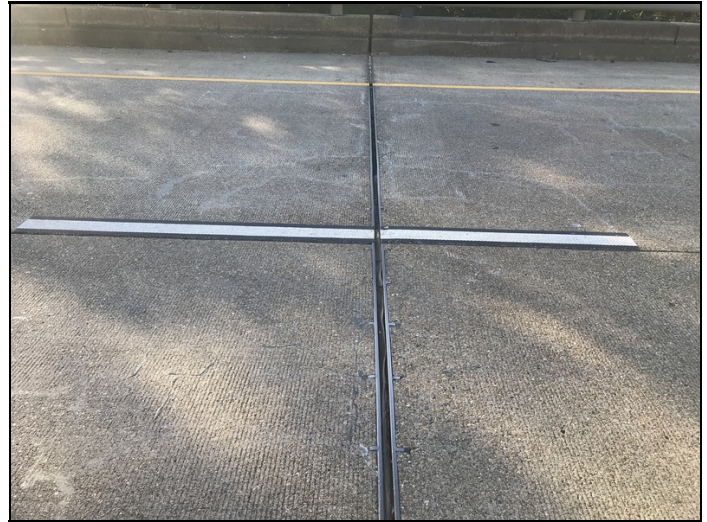
Deficiency Description

All joints are torn and leaking allowing debris to build up on bearings.

Remarks



Bent 6 joint is leaking.



Bent 5 joint.

Maintenance Needs

Date Reported: 10/12/2016

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

Bent 1 spalls in the top of back wall.

Remarks



2 spalls in top of back wall at bent 1.



Bent 1 spalls in top of back wall.

Maintenance Needs

Date Reported: 10/13/2016

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Superstructure

Deficiency Description

Beam ends at all bents have up to 1/4" section loss to the web at the deck haunch and along the bottom flanges. Photos attached.

Remarks



More than 6 feet of the bottom flange and lower web with measurable section loss



Span 1 girder 1 section loss in web and flange 20' in length.



Bent 6 girder 6 section loss to bottom flange.



Bent 5 back side girder 1 section loss up to 1/8" on bottom flange.





Bent 4 girder 5 back side section loss in web at the haunch area.

Maintenance Needs

Date Reported: 10/04/2018

Priority: B - Pressing

Type of Work: Repair (General)

Status: Open

Component: Superstructure

Deficiency Description

Crack in top of diaphragm connection that has propagated into the web, span 1 girder 4.

Crack in weld in top of diaphragm connection, span 2 girder 4 right and left sides. Crack in weld in top of diaphragm connection, span 4 girder 4 right and left sides.

Added 11/2/2022

Span 4, beam 2 rt., 2nd dia.: Crack in weld in top of diaphragm connection

Span 4, beam 1, 2nd dia.: Crack in weld in top of diaphragm connection

Span 4, beam 1, 2nd dia.: Crack in weld in top of diaphragm connection

Span 5, beam 4rt., 2nd dia.: Crack in weld in top of diaphragm connection

Span 5, beam 4lt., 2nd dia.: Crack in weld in top of diaphragm connection

Span 5, beam 2rt., 2nd dia.: Crack in weld in top of diaphragm connection

Span 5, beam 4, bent 6: The end of the beam at the haunch has a 5 1/2" crack that

Remarks



Crack propagates into the web 2022



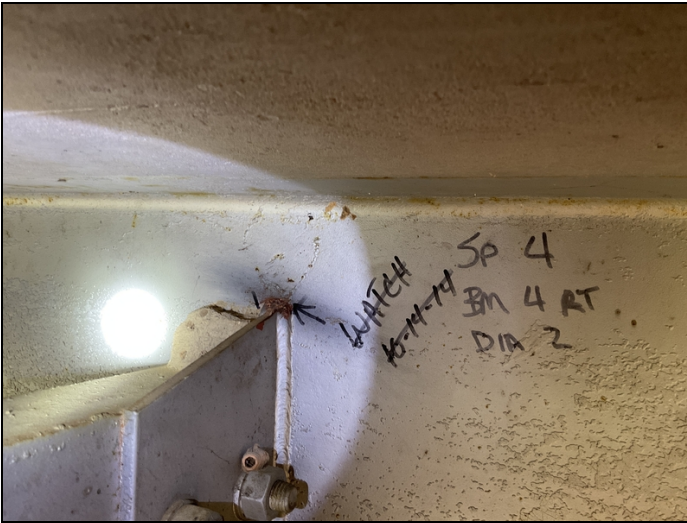
This crack propagates into the web 2022



2022



2022



Crack propagates into the the web 2022



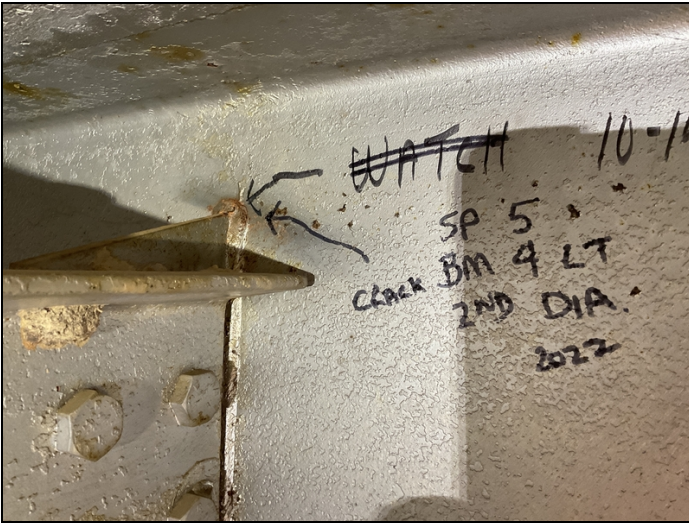
Crack in the toe of the weld. 2022



Crack in the toe of the weld. 2022



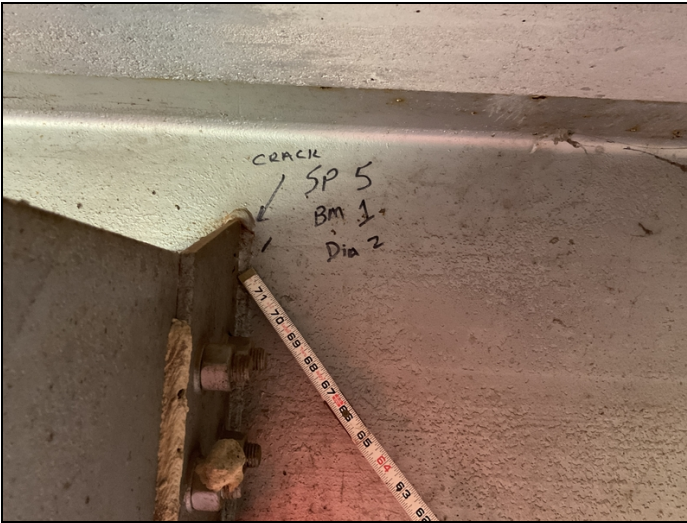
Crack propagates into the web. 2022



2022



Crack in the weld. 2022



Crack propagates into the web 3/4". 2022



Large crack from the end of the beam into the web.



Span 2 girder 4 crack in top of weld in diaphragm connection.



Span 4 beam 4 first diaphragm ahead of bent 2. Crack in the toe of weld at top diaphragm bracket.



Span 1 girder 4 crack in web at top of diaphragm connection.

Maintenance Needs

Date Reported: 10/03/2018

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

Floating bearings: Fixed bearings are floating at the following locations. Bent 2 bearings 6 and 7, Bent 3 bearings 1 thru 6 and bent 6 bearings 2, 3, 5 and 6.

Moveable bearings are floating at the following locations, Bent 3 bearings 4, 5 and 7, bent 4 bearings 1 and 3 and bent 5 bearings 2 thru 6.

Remarks



Bent 4: all bearings have large amounts of fretting rust coming from them due to them impacting when loads



Beam 3, bent 5, span 5: bearing is floating



Bent 6 bearings 2, 3, 5 and 6 are floating.



Bent 3 bearing 3 floating under load.

Maintenance Needs

Date Reported: 10/14/2020

Priority: B - Pressing

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

Span 5 bent 5, ahead side, spall on cap below bearing, reducing the bearing surface area by 2 3/4"

Remarks



2 3/4" of bearing loss. Bent 5, beam 5, span 5



Span 5 bent 5, ahead side, spall on cap below bearing, reducing the bearing surface area.
Photo attached.



Asset #A5027(Routine, Underwater type 2)

I-30 WB log 93.47 over CREEK

Location: 4.45 MI SW OF SH 270

Team Lead: Chris Doggett, **Inspection Date:** 10/26/2022

Maintenance Needs

Date Reported: 10/15/2020

Priority: C - Important

Type of Work: (Inactive) (Inactive) 1 - Clean

Status: Assigned

Component: Miscellaneous

Deficiency Description

Tree Limbs obstructing snoopers at spans 4 & 5.

Remarks

Assigned to Hot Spring County 6-1-21.

Maintenance Needs

Date Reported: 10/14/2020

Priority: C - Important

Type of Work: Repair (General)

Status: RepairDocumented

Component: Deck

Deficiency Description

Span 1 has spall and delams in the rigid overlay.

Remarks



Span 1 spalls and delam in the rigid overlay.

Maintenance Needs

Date Reported: 11/03/2022

Priority: B - Pressing

Type of Work: Repair (General)

Status: Open

Component: Approach

Deficiency Description

West bound approaching roadway at center line has a pothole in the asphalt surface adjacent to the approach slab.

Remarks



West bound approach roadway with a pothole in the asphalt surface adjacent to the approach slab.

Maintenance Needs

Date Reported: 11/03/2022

Priority: B - Pressing

Type of Work: Repair (General)

Status: Open

Component: Element

Deficiency Description

Bent 5 steel pile 1; 5" hole in the pile adjacent to the cap at the ahead side. 2022

Remarks



Bent 5 steel pile 1; 5" hole in the pile adjacent to the cap
at the ahead side. 2022



Asset #A5027(Routine, Underwater type 2)

I-30 WB log 93.47 over CREEK

Location: 4.45 MI SW OF SH 270

Team Lead: Chris Doggett, **Inspection Date:** 10/26/2022

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	
A-56 - Joint Cleaning/Flushing Needed	
A-57 - Beam End and Bearing Paint Needed	
A-58 - Cap Cleaning/Flushing Needed	
A-59 - Joint Repair Needed	
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	
A-62 - Hydro and LMC Advised	



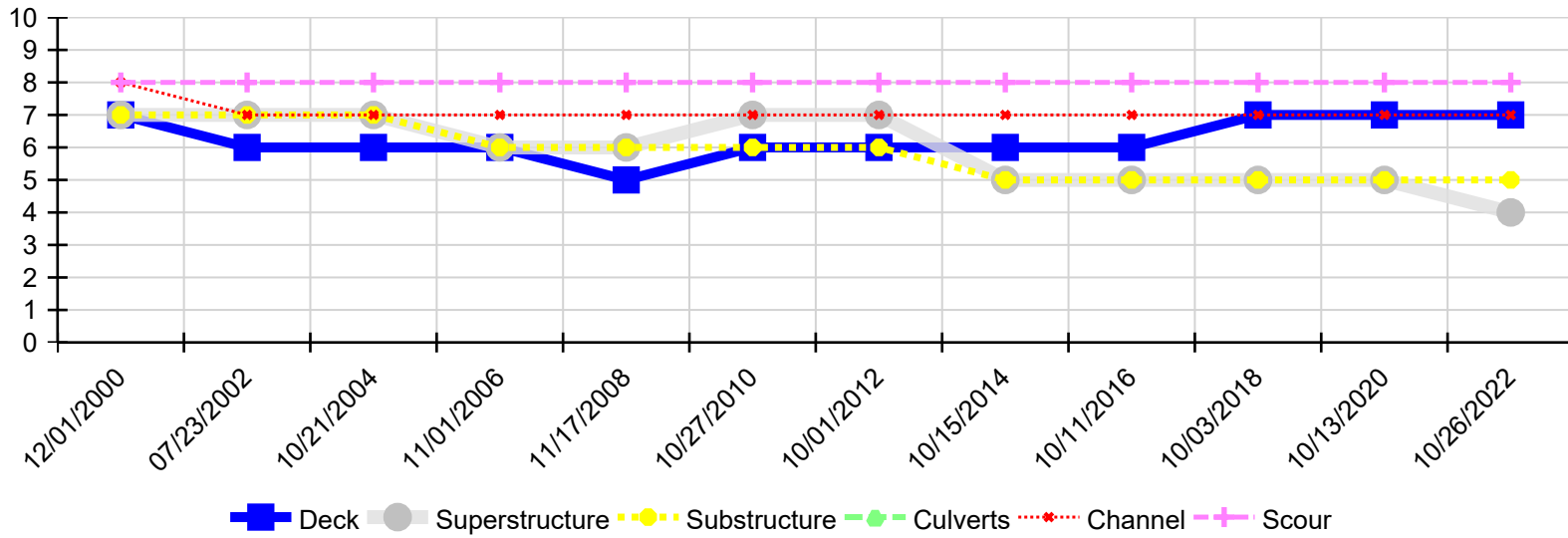
Asset #A5027 (Routine, Underwater type 2)

I-30 WB log 93.47 over CREEK

Location: 4.45 MI SW OF SH 270

Team Lead: Chris Doggett, Inspection Date: 10/26/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
10/26/2022	7	4	5	N	7	8
10/13/2020	7	5	5	N	7	8
10/03/2018	7	5	5	N	7	8
10/11/2016	6	5	5	N	7	8
10/15/2014	6	5	5	N	7	8
10/01/2012	6	7	6	N	7	8
10/27/2010	6	7	6	N	7	8
11/17/2008	5	6	6	N	7	8
11/01/2006	6	6	6	N	7	8
10/21/2004	6	7	7	N	7	8
07/23/2002	6	7	7	N	7	8
12/01/2000	7	7	7	N	8	8