



Latitude:35.96251, Longitude:-94.16759

Route:71 Section:16 Log:17.536

Arnold Road ID:72x71x16xA, Arnold Log mile:17.47

District 04, 143 - Washington County

Owner: 1 - State Highway Agency

### Bridge Posting Information

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

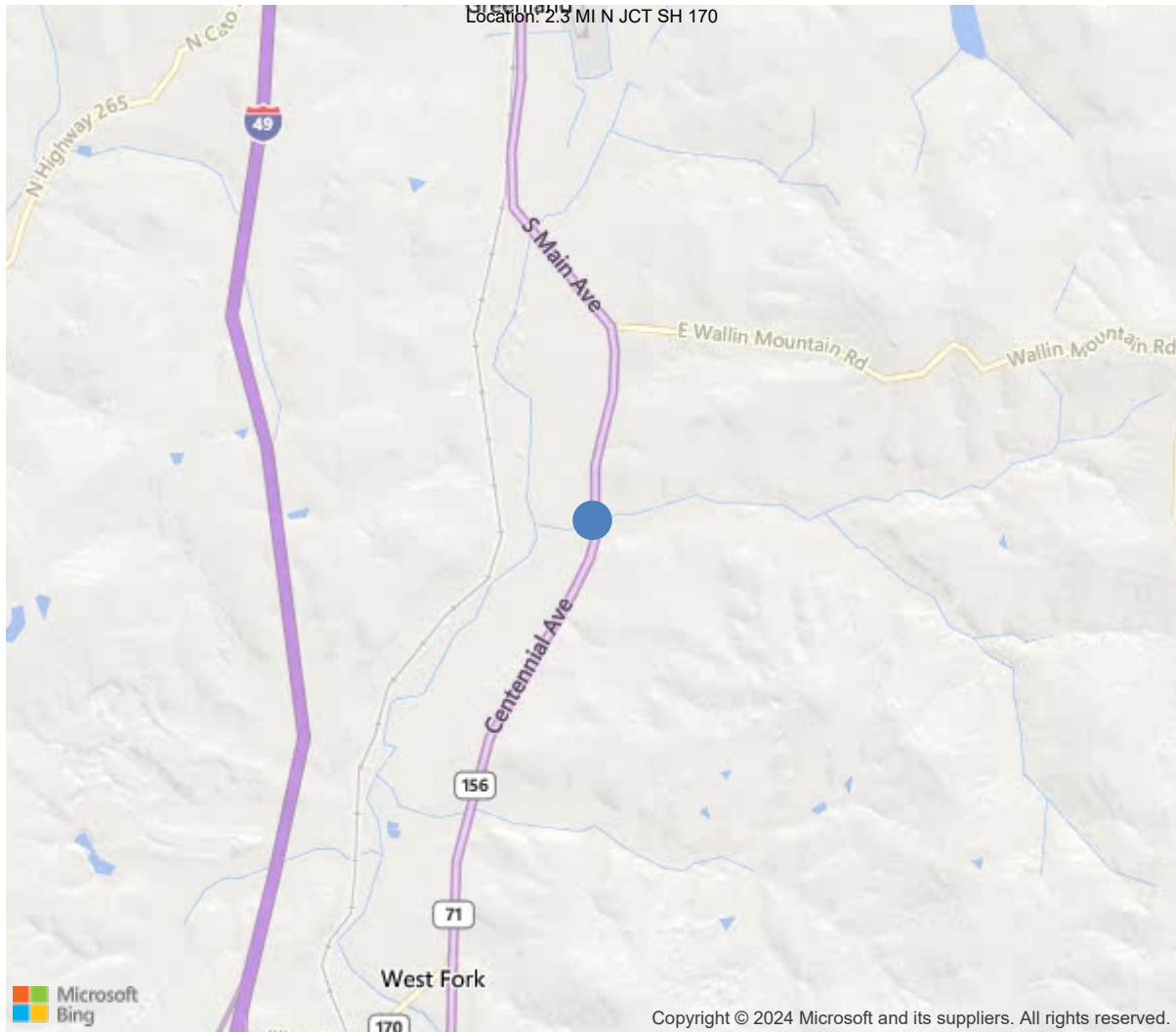
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	35		
Code 9 (31 Tons)	39		
Code 5 (40 Tons)	46		

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



35.96251, -94.16759





**Asset #A1424**(Routine, Underwater type 2)

**US 71-Wash Co. over Rock Creek**

**Location: 2.3 MI N JCT SH 170**

**Team Lead: Eric West, Inspection Date: 06/22/2023**

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	A1424
(5) Inventory Route	1
(2) Highway Agency District	04 - District 04
(3) County Code	143 - Washington County
(4) Place Code	0
(6) Features Intersected	Rock Creek
(7) Facility Carried	US 71-Wash Co.
(9) Location	2.3 MI N JCT SH 170
(11) Mile Point	17.536 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000071160
(16) Latitude	35.96251
(17) Longitude	-94.16759
(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	0 - None (no additional concrete thickne
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1930
(106) Year Reconstructed	1980
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	4
Under	0
(29) Average Daily Traffic	5800
(30) Year of ADT	2018
(109) Truck ADT	3 %
(19) Bypass, Detour Length	25 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	35 ft
(49) Structure Length	105 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	56.1 ft
(52) Deck Width Out to Out	58.8 ft
(32) Approach Roadway Width (W/Shoulders)	56.1 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	57.1 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 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	4
(59) Superstructure	4
(60) Substructure	5
(61) Channel & Channel Protection	5
(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	51
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	30
(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	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(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	35 - Bridge rehabilitation bec
(76) Length of Structure Improvement	105 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 277
(97) Year of Improvement Cost Estimate	1997
(114) Future ADT	8861
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	06/22/2023		
(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.			





### General Observation

06/22/2023 - EJW & JPW - Routine and Underwater Type II Inspection conducted on this date.

05/12/2022 - EJW & JPW - Recurring Special Inspection conducted on this date to monitor the deck and superstructure due to a condition rating of "4". No apparent significant changes or repairs since the last inspection. See Deck and Superstructure notes for additional documentation.

04/20/2021 - RSM & SPC: Routine inspection conducted this date. See element notes for documentation.

06/11/2020 - RSM & SPC: Other Special Inspection conducted this date to monitor items "58" and "59" with an NBIS Condition Rating of "4". See element notes for documentation. Channel has moderate drift accumulation at bent # 2.

04/11/2019 - TJL - Elements were plan verified on this date.

04/11/2019- JCJ & TJL - Wading and probing along with visual observations indicate that there are minor voids along the edge of the footing with no apparent scour problems during this inspection. Footings appear to be keyed into solid shale channel.

05/21/2018 - JCJ & TJL - Special Recurring Inspection - Special Recurring Inspection conducted this date for the deck and superstructure - Items 58 and 59 have an NBIS rating of 4. No apparent significant changes or repairs since the last inspection. Current element notes are applicable.

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#### 58 - Deck (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour)

05/12/2022 - EJW & JPW - Recurring Special Inspection conducted on this date to monitor the deck due to a condition rating of "4". No apparent significant changes or repairs since the last inspection. Previous notes still apply.

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#### 59 - Superstructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

05/12/2022 - EJW & JPW - Recurring Special Inspection conducted on this date to monitor the superstructure due to a condition rating of "4". No apparent significant changes or repairs since the last inspection.

-Span #1 Girder #4 has areas of delaminating concrete adjacent to abutment #1 in the areas of map cracking with efflorescence buildup.

-Span #2 - No apparent noteworthy problems.

-Span #3, girders #3 & 4 have heavy wide map cracking with efflorescence in the girder haunches at bent # 3. Sounding revealed that the haunch of girder #3 & 4 is delaminated. (The cap haunch in the same location is also delaminated.)

-Span #3 Girder #2, 3 & 4 have delaminated concrete in the areas of heavy efflorescence buildup adjacent to abutment #2.

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#### 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.)

06/22/2023 - EJW & JPW - Underwater Type II Inspection conducted on this date. Visual observation with low water conditions indicates:

-Abutment # 1 footings have cover.

-Bent # 2 footings are exposed but appears to have been keyed into hard shale that has eroded exposing the edges of the footing.

-Bent # 3 footings are exposed but appears to have been keyed into hard shale that has eroded exposing the edges of the footing.

-Abutment # 2 footings have cover.

-No apparent significant scour or undermining at this inspection.

04/20/2021 - RSM - The channel has heavy drift accumulation at bent # 2.

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#### A-15 - Late Reason (Optimize Schedule)

06/22/2023 - EJW - Structure inspected late due to heavy work load.

05/12/2022 - EJW - Structure inspected late due to high water and heavy workload.

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Asset #A1424(Routine, Underwater type 2)

District: 04, County: 143 - Washington County

Team Lead: Eric West, Inspection Date: 06/22/2023

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

-The driving surface of the deck has sealable cracking.

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

-The joint sealant is deteriorated and leaks water. The joints have dirt and debris impaction.

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Asset #A1424(Routine, Underwater type 2)

US 71-Wash Co. over Rock Creek

Location: 2.3 MI N JCT SH 170

Team Lead: Eric West, Inspection Date: 06/22/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	2843	2397	280	166	0
1080	Delamination/Spall/Patched Area	SF	39	0	39	0	0
1120	Efflorescence/Rust Staining	SF	387	0	241	146	0
1130	Cracking (RC and Other)	SF	20	0	0	20	0
510	Wearing Surfaces	SF	2843	1212	1250	366	15
3210	Delam/Spall/Patched Area/Pothole	SF	726	0	701	25	0
3220	Crack (Wearing Surface)	SF	905	0	549	341	15
<p>(16) -The wearing surface of the deck has previously repaired areas that are beginning to delaminate as well as areas adjacent to the patches.</p> <p>-The majority of the driving surface has sealable cracks in all spans.</p> <p>-Span # 2 has a 36" x 36" spalled / fractured area near centerline adjacent to previous repairs adjacent to bents # 2 and # 3 that is breaking apart with loose concrete. The area surrounding the spalls is delaminated.</p> <p>-Span # 3 has a 20" x 6" spall in the inside Southbound lane adjacent to bent # 3.</p> <p>-There is one 20' long longitudinal crack in span # 3, inside Northbound lane that is approximately 1/4" wide and appears to have approximately 1/8" height differential.</p> <p>-The driving surface repairs are typically cracked with a few that are still in good condition.</p> <p>Deck undersurface:</p> <p>-The undersurface of the deck has areas of map cracking with efflorescence between the girders adjacent to the bents and along the construction joints where the structure was widened.</p> <p>-Span # 3, bay # 3 adjacent to bent # 3 has mapcracking with a 4' x 4' delaminated area.</p> <p>-There are patched areas with efflorescence in the undersurface of the deck in bays # 2 &amp; 3 adjacent to abutment # 1.</p> <p>-The undersurface has transverse cracking with efflorescence on approximately 8' to 10' centers.</p> <p>-The haunches at the edge of the deck under the expansion joints over the bents have isolated areas of spalling with exposed reinforcing steel.</p>							
38	RC Slab	SF	3431	2702	721	8	0
1080	Delamination/Spall/Patched Area	SF	124	0	124	0	0
1090	Exposed Rebar	SF	3	0	0	3	0
1120	Efflorescence/Rust Staining	SF	24	0	24	0	0
1130	Cracking (RC and Other)	SF	98	0	93	5	0
1190	Abrasion/Wear (PSC/RC)	SF	480	0	480	0	0
<p>(38) -The edges on the undersurface of the concrete slab portion of the structure have delaminated areas.</p> <p>-There is light efflorescence on the undersurface of the slab adjacent to the exterior girders.</p> <p>-Light wear in the wheel paths on the driving surface of the slabs.</p> <p>-Span # 1 Lt has spalling with exposed reinforcing steel adjacent to bent # 2.</p>							
110	Reinforced Concrete Open Girder/Beam	LF	520	438	43	39	0
1080	Delamination/Spall/Patched Area	LF	4	0	4	0	0
1090	Exposed Rebar	LF	6	0	0	6	0
1120	Efflorescence/Rust Staining	LF	71	0	38	33	0



**Team Lead:** Eric West, **Inspection Date:** 06/22/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1130	Cracking (RC and Other)	LF	1	0	1	0	0
<p>(110) Span # 1:</p> <p>-The majority of length of girder # 4 in span # 1 has mapcracking with heavy efflorescence adjacent to the slab span. The undersurface and exterior side of the girder is delaminated in an area approximately 4' in length adjacent to abutment # 1.</p> <p>-Girders # 2, 3, &amp; 4 have hairline map cracking adjacent to abutment # 1. Girder # 4 has a shallow 6" spall with no exposed reinforcing steel adjacent to abutment # 1. The concrete is soft in the girders and sounds delaminated at the base of girders.</p> <p>-Girder # 5 in span # 1 has a 6" spall with an exposed stirrup adjacent to abutment # 1.</p> <p>-Girder # 5 in span # 1 has a 10" spall with exposed reinforcing with up to initial section loss near mid span and three 6" spalls with exposed reinforcing steel that appears to have been placed on the forms during construction.</p> <p>Span # 2:</p> <p>-There are several shallow spalls in the undersurface of Girder # 1 in span # 2 from apparent maintenance activity.</p> <p>-Girder # 2 in span # 2 has a 5" spall with exposed reinforcing steel over bent # 3.</p> <p>-Girder # 4 in span # 2 has hairline map cracking over Bent # 3.</p> <p>Span # 3:</p> <p>-Span # 3, girders # 3 &amp; 4 have heavy wide map cracking with efflorescence in the girder haunches at bent # 3. Sounding revealed that the haunch of girder # 4 is delaminated. (The cap haunch in the same location is also delaminated.)</p> <p>-There are longitudinal cracks up to 0.050" wide near the neutral axis of the girders adjacent to the bearing area that extend approximately 10' in length. There is no apparent change at this inspection.</p> <p>-Span # 3, girder # 5 has several shallow spalls that expose reinforcing steel adjacent to abutment # 2. Exposed reinforcing steel has approximately 1/16" section loss.</p> <p>-Span # 3, girder # 4 has concrete deterioration with shallow spalling along the edge near abutment # 2.</p> <p>-Spalling in the ahead face of bent # 3 cap has caused approximately 5" of bearing area loss at girder # 1 of span # 3.</p> <p>-Spans # 1 &amp; 2, girder # 4 and span # 3, girders # 2, 3, &amp; 4 have map cracking with efflorescence buildup.</p>							
205	Reinforced Concrete Column	EA	16	2	10	4	0
1080	Delamination/Spall/Patched Area	EA	6	0	6	0	0
1090	Exposed Rebar	EA	2	0	0	2	0
1120	Efflorescence/Rust Staining	EA	1	0	0	1	0
1190	Abrasion/Wear (PSC/RC)	EA	5	0	4	1	0
<p>(205) -Column # 3 at bent # 2 has a 24" spalled / delaminated area with exposed reinforcing steel with up to initial section loss.</p> <p>-Column # 5 at bent # 2 has a 10" delaminated areas beneath the cap juncture.</p> <p>-Column # 6 at bent # 2, span # 1 side has an 18" area of concrete deterioration with exposed reinforcing steel with up to initial section loss.</p> <p>-Column # 6 at bent # 2, span # 2 side has a 12" spall with exposed reinforcing steel.</p> <p>-Column # 6 at bent # 3 has a 4" tall area with heavy concrete deterioration with up to 4" of concrete section loss with no exposed reinforcing steel.</p> <p>-Columns have isolated areas of concrete deterioration and spalling with exposed reinforcing steel.</p> <p>-The original columns have light to medium abrasion with isolated areas of heavy abrasion.</p>							
210	Reinforced Concrete Pier Wall	LF	78	0	78	0	0
1120	Efflorescence/Rust Staining	LF	4	0	4	0	0
1130	Cracking (RC and Other)	LF	16	0	16	0	0
1190	Abrasion/Wear (PSC/RC)	LF	58	0	58	0	0
<p>(210) This element is being used to document the condition of the web walls between columns at Bents # 2 &amp; 3.</p> <p>-There is horizontal cracking with light efflorescence in bent # 3 at the cap juncture.</p> <p>-There is light abrasion typical at the base of the web walls with areas of medium abrasion.</p>							

**Team Lead:** Eric West, **Inspection Date:** 06/22/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
215	Reinforced Concrete Abutment	LF	180	107	30	43	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
1090	Exposed Rebar	LF	1	0	0	1	0
1120	Efflorescence/Rust Staining	LF	42	0	0	42	0
1130	Cracking (RC and Other)	LF	29	0	29	0	0
(215) -The abutments have map cracking with efflorescence between the girders, in the bearing areas, and in the abutment stems. -Most of the cracking with efflorescence is located in the original portions of the abutments. -There is no apparent rotation or settlement at this inspection. -There is one shallow spall adjacent to girder # 4 at abutment # 1.							
220	Reinforced Concrete Pile Cap/Footing	LF	102	42	50	10	0
1190	Abrasion/Wear (PSC/RC)	LF	60	0	50	10	0
(220) -Bents # 2 and 3 footings are exposed and appear to be keyed into the solid shale channel floor that is deteriorating and lowering. -Concrete footings have light to medium abrasion with isolated areas of heavy abrasion with deteriorated concrete. -Bents # 2 & 3 footings have minor voids along the edge of footing where the shale has deteriorated.							
234	Reinforced Concrete Pier Cap	LF	118	84	30	4	0
1080	Delamination/Spall/Patched Area	LF	3	0	2	1	0
1090	Exposed Rebar	LF	6	0	4	2	0
1120	Efflorescence/Rust Staining	LF	6	0	6	0	0
1130	Cracking (RC and Other)	LF	19	0	18	1	0
(234) -Bents # 2 & 3 have isolated areas of spalling with exposed reinforcing steel. -Bent # 3, Span # 2 has an 8" spall with exposed reinforcing steel with up to initial section loss. -Bent # 3 cap aheadface has spalling with exposed reinforcing steel that has caused approximately 5" of bearing area loss at girder # 1 of span # 3. The spalled area has exposed reinforcing steel with active corrosion with approximately 1/4" section loss. -Bent # 3 cap aheadface haunch under girder # 4 has wide map cracking with efflorescence buildup. Sounding revealed that the haunch is delaminated. (The girder haunch is delaminated in the same location) -There are some areas of map cracking in the original sections of the caps.							
301	Pourable Joint Seal	LF	326	0	282	34	10
2310	Leakage	LF	292	0	282	0	10
2350	Debris Impaction	LF	34	0	0	34	0
(301) -Dirt and debris accumulation in the portions of the joints in the shoulders. -The joint sealant is deteriorated and is missing in several locations.							
311	Movable Bearing	EA	6	6	0	0	0
(311) -Original bronze bearings have a green patina with no apparent noteworthy problems during this inspection.							
331	Reinforced Concrete Bridge Railing	LF	218	177	41	0	0
1090	Exposed Rebar	LF	5	0	5	0	0
1130	Cracking (RC and Other)	LF	36	0	36	0	0
(331) -Shallow spalling with exposed reinforcing steel in the faces of the concrete bridge railing. -Vertical cracks at variable spacing in the bridge railing.							



## Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	2843	2397	280	166	0
1080	Delamination/Spall/Patched Area	SF	39	0	39	0	0
1120	Efflorescence/Rust Staining	SF	387	0	241	146	0
1130	Cracking (RC and Other)	SF	20	0	0	20	0
510	Wearing Surfaces	SF	2843	1212	1250	366	15
3210	Delam/Spall/Patched Area/Pothole	SF	726	0	701	25	0
3220	Crack (Wearing Surface)	SF	905	0	549	341	15
<p>(16) -The wearing surface of the deck has previously repaired areas that are beginning to delaminate as well as areas adjacent to the patches.</p> <p>-The majority of the driving surface has sealable cracks in all spans.</p> <p>-Span # 2 has a 36" x 36" spalled / fractured area near centerline adjacent to previous repairs adjacent to bents # 2 and # 3 that is breaking apart with loose concrete. The area surrounding the spalls is delaminated.</p> <p>-Span # 3 has a 20" x 6" spall in the inside Southbound lane adjacent to bent # 3.</p> <p>-There is one 20' long longitudinal crack in span # 3, inside Northbound lane that is approximately 1/4" wide and appears to have approximately 1/8" height differential.</p> <p>-The driving surface repairs are typically cracked with a few that are still in good condition.</p> <p>Deck undersurface:</p> <p>-The undersurface of the deck has areas of map cracking with efflorescence between the girders adjacent to the bents and along the construction joints where the structure was widened.</p> <p>-Span # 3, bay # 3 adjacent to bent # 3 has mapcracking with a 4' x 4' delaminated area.</p> <p>-There are patched areas with efflorescence in the undersurface of the deck in bays # 2 &amp; 3 adjacent to abutment # 1.</p> <p>-The undersurface has transverse cracking with efflorescence on approximately 8' to 10' centers.</p> <p>-The haunches at the edge of the deck under the expansion joints over the bents have isolated areas of spalling with exposed reinforcing steel.</p>							
38	RC Slab	SF	3431	2702	721	8	0
1080	Delamination/Spall/Patched Area	SF	124	0	124	0	0
1090	Exposed Rebar	SF	3	0	0	3	0
1120	Efflorescence/Rust Staining	SF	24	0	24	0	0
1130	Cracking (RC and Other)	SF	98	0	93	5	0
1190	Abrasion/Wear (PSC/RC)	SF	480	0	480	0	0
<p>(38) -The edges on the undersurface of the concrete slab portion of the structure have delaminated areas.</p> <p>-There is light efflorescence on the undersurface of the slab adjacent to the exterior girders.</p> <p>-Light wear in the wheel paths on the driving surface of the slabs.</p> <p>-Span # 1 Lt has spalling with exposed reinforcing steel adjacent to bent # 2.</p>							

**58 - Deck (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour)**

Comment: 05/12/2022 - EJW & JPW - Recurring Special Inspection conducted on this date to monitor the deck due to a condition rating of "4". No apparent significant changes or repairs since the last inspection. Previous notes still apply.



## Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
110	Reinforced Concrete Open Girder/Beam	LF	520	438	43	39	0
1080	Delamination/Spall/Patched Area	LF	4	0	4	0	0
1090	Exposed Rebar	LF	6	0	0	6	0
1120	Efflorescence/Rust Staining	LF	71	0	38	33	0
1130	Cracking (RC and Other)	LF	1	0	1	0	0
<p>(110) Span # 1:</p> <ul style="list-style-type: none"> <li>-The majority of length of girder # 4 in span # 1 has mapcracking with heavy efflorescence adjacent to the slab span. The undersurface and exterior side of the girder is delaminated in an area approximately 4' in length adjacent to abutment # 1.</li> <li>-Girders # 2, 3, &amp; 4 have hairline map cracking adjacent to abutment # 1. Girder # 4 has a shallow 6" spall with no exposed reinforcing steel adjacent to abutment # 1. The concrete is soft in the girders and sounds delaminated at the base of girders.</li> <li>-Girder # 5 in span # 1 has a 6" spall with an exposed stirrup adjacent to abutment # 1.</li> <li>-Girder # 5 in span # 1 has a 10" spall with exposed reinforcing with up to initial section loss near mid span and three 6" spalls with exposed reinforcing steel that appears to have been placed on the forms during construction.</li> </ul> <p>Span # 2:</p> <ul style="list-style-type: none"> <li>-There are several shallow spalls in the undersurface of Girder # 1 in span # 2 from apparent maintenance activity.</li> <li>-Girder # 2 in span # 2 has a 5" spall with exposed reinforcing steel over bent # 3.</li> <li>-Girder # 4 in span # 2 has hairline map cracking over Bent # 3.</li> </ul> <p>Span # 3:</p> <ul style="list-style-type: none"> <li>-Span # 3, girders # 3 &amp; 4 have heavy wide map cracking with efflorescence in the girder haunches at bent # 3. Sounding revealed that the haunch of girder # 4 is delaminated. (The cap haunch in the same location is also delaminated.)</li> <li>-There are longitudinal cracks up to 0.050" wide near the neutral axis of the girders adjacent to the bearing area that extend approximately 10' in length. There is no apparent change at this inspection.</li> <li>-Span # 3, girder # 5 has several shallow spalls that expose reinforcing steel adjacent to abutment # 2. Exposed reinforcing steel has approximately 1/16" section loss.</li> <li>-Span # 3, girder # 4 has concrete deterioration with shallow spalling along the edge near abutment # 2.</li> <li>-Spalling in the ahead face of bent # 3 cap has caused approximately 5" of bearing area loss at girder # 1 of span # 3.</li> <li>-Spans # 1 &amp; 2, girder # 4 and span # 3, girders # 2, 3, &amp; 4 have map cracking with efflorescence buildup.</li> </ul>							

### 59 - Superstructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

Comment: 05/12/2022 - EJW & JPW - Recurring Special Inspection conducted on this date to monitor the superstructure due to a condition rating of "4". No apparent significant changes or repairs since the last inspection.

-Span #1 Girder #4 has areas of delaminating concrete adjacent to abutment #1 in the areas of map cracking with efflorescence buildup.

-Span #2 - No apparent noteworthy problems.

-Span #3, girders #3 & 4 have heavy wide map cracking with efflorescence in the girder haunches at bent # 3. Sounding revealed that the haunch of girder #3 & 4 is delaminated. (The cap haunch in the same location is also delaminated.)

-Span #3 Girder #2, 3 & 4 have delaminated concrete in the areas of heavy efflorescence buildup adjacent to abutment #2.



Asset #A1424(Routine, Underwater type 2)

US 71-Wash Co. over Rock Creek

Location: 2.3 MI N JCT SH 170

Team Lead: Eric West, Inspection Date: 06/22/2023

## Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
205	Reinforced Concrete Column	EA	16	2	10	4	0
1080	Delamination/Spall/Patched Area	EA	6	0	6	0	0
1090	Exposed Rebar	EA	2	0	0	2	0
1120	Efflorescence/Rust Staining	EA	1	0	0	1	0
1190	Abrasion/Wear (PSC/RC)	EA	5	0	4	1	0
(205) -Column # 3 at bent # 2 has a 24" spalled / delaminated area with exposed reinforcing steel with up to initial section loss. -Column # 5 at bent # 2 has a 10" delaminated areas beneath the cap juncture. -Column # 6 at bent # 2, span # 1 side has an 18" area of concrete deterioration with exposed reinforcing steel with up to initial section loss. -Column # 6 at bent # 2, span # 2 side has a 12" spall with exposed reinforcing steel. -Column # 6 at bent # 3 has a 4" tall area with heavy concrete deterioration with up to 4" of concrete section loss with no exposed reinforcing steel. -Columns have isolated areas of concrete deterioration and spalling with exposed reinforcing steel. -The original columns have light to medium abrasion with isolated areas of heavy abrasion.							
210	Reinforced Concrete Pier Wall	LF	78	0	78	0	0
1120	Efflorescence/Rust Staining	LF	4	0	4	0	0
1130	Cracking (RC and Other)	LF	16	0	16	0	0
1190	Abrasion/Wear (PSC/RC)	LF	58	0	58	0	0
(210) This element is being used to document the condition of the web walls between columns at Bents # 2 & 3. -There is horizontal cracking with light efflorescence in bent # 3 at the cap juncture. -There is light abrasion typical at the base of the web walls with areas of medium abrasion.							
215	Reinforced Concrete Abutment	LF	180	107	30	43	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
1090	Exposed Rebar	LF	1	0	0	1	0
1120	Efflorescence/Rust Staining	LF	42	0	0	42	0
1130	Cracking (RC and Other)	LF	29	0	29	0	0
(215) -The abutments have map cracking with efflorescence between the girders, in the bearing areas, and in the abutment stems. -Most of the cracking with efflorescence is located in the original portions of the abutments. -There is no apparent rotation or settlement at this inspection. -There is one shallow spall adjacent to girder # 4 at abutment # 1.							
220	Reinforced Concrete Pile Cap/Footing	LF	102	42	50	10	0
1190	Abrasion/Wear (PSC/RC)	LF	60	0	50	10	0
(220) -Bents # 2 and 3 footings are exposed and appear to be keyed into the solid shale channel floor that is deteriorating and lowering. -Concrete footings have light to medium abrasion with isolated areas of heavy abrasion with deteriorated concrete. -Bents # 2 & 3 footings have minor voids along the edge of footing where the shale has deteriorated.							
234	Reinforced Concrete Pier Cap	LF	118	84	30	4	0
1080	Delamination/Spall/Patched Area	LF	3	0	2	1	0



Asset #A1424(Routine, Underwater type 2)

US 71-Wash Co. over Rock Creek

Location: 2.3 MI N JCT SH 170

Team Lead: Eric West, Inspection Date: 06/22/2023

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1090	Exposed Rebar	LF	6	0	4	2	0
1120	Efflorescence/Rust Staining	LF	6	0	6	0	0
1130	Cracking (RC and Other)	LF	19	0	18	1	0
(234) -Bents # 2 & 3 have isolated areas of spalling with exposed reinforcing steel. -Bent # 3, Span # 2 has an 8" spall with exposed reinforcing steel with up to initial section loss. -Bent # 3 cap aheadface has spalling with exposed reinforcing steel that has caused approximately 5" of bearing area loss at girder # 1 of span # 3. The spalled area has exposed reinforcing steel with active corrosion with approximately 1/4" section loss. -Bent # 3 cap aheadface haunch under girder # 4 has wide map cracking with efflorescence buildup. Sounding revealed that the haunch is delaminated. (The girder haunch is delaminated in the same location) -There are some areas of map cracking in the original sections of the caps.							

**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.)

Comment: 06/22/2023 - EJW & JPW - Underwater Type II Inspection conducted on this date. Visual observation with low water conditions indicates:

- Abutment # 1 footings have cover.
- Bent # 2 footings are exposed but appears to have been keyed into hard shale that has eroded exposing the edges of the footing.
- Bent # 3 footings are exposed but appears to have been keyed into hard shale that has eroded exposing the edges of the footing.
- Abutment # 2 footings have cover.
- No apparent significant scour or undermining at this inspection.

04/20/2021 - RSM - The channel has heavy drift accumulation at bent # 2.





Elevation



Roadway



Typical driving surface.



Span # 1 typical undersurface of the deck.





Span # 2 typical undersurface of the deck.



Bent # 3 footings typical.



Bent # 2 footings typical.



Downstream





Upstream



Concrete cracking and spalling on the wearing surface.



Wearing surface breakup over the intermediate bents.



Right concrete slab typical.





Left concrete slab typical.



Span # 1 Lt has spalling with exposed reinforcing steel adjacent to bent # 2.



Span # 2 Rt concrete delamination along the edge of the slab.



Span # 3 Girder # 4 map cracking with efflorescence buildup and concrete deterioration with section loss adjacent to Abutment # 2.





Span # 1 girder # 4 map cracking with efflorescence buildup.



Span # 1 girder # 5 spalling with exposed reinforcing steel.



Span # 3 Girder # 5 spalling with exposed reinforcing steel.



Bent # 3 Column # 6 concrete deterioration along the column base.





Bent # 2 column # 3 & 6 spalling with exposed reinforcing steel.



Abutment # 2 cracking with efflorescence buildup.



Bent # 3 aheadface wide map cracking with efflorescence buildup under Girder # 4.



Bent # 3 cap aheadface spalling with exposed reinforcing steel and loss of bearing area.





Bent # 2 typical joint seal.



Bent # 3 typical joint seal.



Typical bridge rail.



Abutment # 1 cracking with efflorescence buildup.





Concrete cracking and spalling on the wearing surface.



Bent # 3 typical joint seal.



Bent # 2 typical joint seal.



**Maintenance Needs**

**Date Reported:** 04/11/2019

**Priority:** C - Important

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

**Status:** Repair Documented

**Component:** Channel

---

**Deficiency Description**

Channel -  
The channel has moderate drift accumulation at bent # 2.

**Remarks**

06/22/2023 - EJW - Drift has been removed.

---



Drift has been removed.



The channel has moderate drift accumulation at bent # 2.



The channel has moderate drift accumulation at bent # 2.

**Maintenance Needs**

**Date Reported:** 04/29/2015

**Priority:** C - Important

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

**Status:** Monitor

**Component:** Element

---

**Deficiency Description**

Deck -

The undersurface of the deck has areas of map cracking with efflorescence adjacent to the bents at the construction joints where the structure was widened.

**Remarks**

---



The undersurface of the deck has areas of map cracking with efflorescence adjacent to the bents at the construction joints where the structure was widened.



The undersurface of the deck has areas of map cracking with efflorescence adjacent to the bents at the construction joints where the structure was widened.



**Maintenance Needs**

**Date Reported:** 04/29/2015

**Priority:** C - Important

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

**Status:** Monitor

**Component:** Element

---

**Deficiency Description**

R.C. Tee Beams -

Spans # 1 & 2, Girder # 4 and Span # 3, Girders # 2, 3, & 4 have hairline map cracking with chloride contamination. The majority of the length of girder # 4 in span # 1 has mapcracking with heavy efflorescence. The undersurface and exterior side of the girder is delaminated in an area approximately 4' in length adjacent to abutment # 1. Girders # 3 & 4 in span # 3 have heavy wide map cracking with efflorescence in the girder haunches at bent # 3. Sounding revealed that the haunch of girder # 4 is delaminated. (The cap haunch in the same location is also delaminated.)

The concrete is soft in the girders and sounds delaminated at the base of girders. There are longitudinal cracks up to 0.050" wide near the neutral axis of the girders adjacent to the bearing area that extend approximately 10' in length.

**Remarks**

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Span # 3 Girder # 4 map cracking with efflorescence buildup and concrete deterioration with section loss adjacent to Abutment # 2.



Span # 1 girder # 4 map cracking with efflorescence buildup.



Span # 3, girder 4-Moderate width longitudinal crack.

**Maintenance Needs**

**Date Reported:** 04/29/2015

**Priority:** C - Important

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

**Status:** Monitor

**Component:** Element

---

**Deficiency Description**

Deck -

Span # 3 Right inside lane has a longitudinal crack approx. 1/4" wide by 20' long that has approx. 1/8" differential settlement. There is a longitudinal crack with light efflorescence on the undersurface of the deck that appears to correspond with the surface crack but has no differential settlement. There is map cracking in areas where the driving surface of the deck appears to be breaking apart.

**Remarks**

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Concrete cracking and spalling on the wearing surface.



Span # 3, right lane-Wide longitudinal cracking.



**Maintenance Needs**

**Date Reported:** 04/29/2015

**Priority:** C - Important

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

**Status:** Monitor

**Component:** Element

---

**Deficiency Description**

Deck -

The concrete repaired areas on the driving surface of the deck and the areas surrounding the repairs are delaminated in several locations. Both ends of Span # 2 driving surface adjacent to bents # 2 and # 3 have a 36" x 36" spalled / fractured area near centerline adjacent to previous repairs that is breaking apart with loose concrete. The area surrounding the spalls is delaminated.

Span # 3 has a 20" x 6" spall with a temporary asphalt patch located in the inside Southbound lane adjacent to bent # 3.

**Remarks**

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Wearing surface breakup over the intermediate bents.



Span # 2 at bent 3-Spalled / delaminated area.

**Maintenance Needs**

**Date Reported:** 04/29/2015

**Priority:** D- Routine

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

**Status:** Monitor

**Component:** Element

---

**Deficiency Description**

Deck -

Isolated areas of concrete spalling with exposed reinforcing steel visible in the Expansion joint dams over Bents # 2 & 3.

**Remarks**

---



Isolated areas of concrete spalling with exposed reinforcing steel visible in the Expansion joint dams over Bents # 2 & 3.



Isolated areas of concrete spalling with exposed reinforcing steel visible in the Expansion dams over Bents # 2 & 3.



**Maintenance Needs**

**Date Reported:** 04/29/2015

**Priority:** D- Routine

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

**Status:** Monitor

**Component:** Element

---

**Deficiency Description**

Reinforced Concrete Columns -

Columns have areas of concrete deterioration and spalling with exposed reinforcing steel.

**Remarks**

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Bent # 3, column # 6-Concrete deterioration.



Bent # 2, column # 3-Spalling in ahead face with exposed reinforcing steel.

**Maintenance Needs**

**Date Reported:** 04/29/2015

**Priority:** D- Routine

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

**Status:** Monitor

**Component:** Approach

---

**Deficiency Description**

Approach Roadway -

The asphalt of the approach roadways have heavy mapcracking with minor settlement adjacent to the bridge ends.

**Remarks**

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North approach roadway-Mapcracking in asphalt.



South approach roadway-Settlement in right lane.



**Maintenance Needs**

**Date Reported:** 04/29/2015

**Priority:** D- Routine

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

**Status:** Monitor

**Component:** Element

---

**Deficiency Description**

Reinforced Concrete Bent Cap -

Bent # 3 cap has spalling with exposed reinforcing steel in the ahead face under girder # 1 of span # 3 that has caused approximately 5" of bearing area loss.

Bent # 3 cap haunch under girders # 3 and # 4 of span # 3 have wide mapcracking with efflorescence. Sounding revealed that the haunch under girder # 4 is delaminated (Girder # 4 haunch in the same location is also delaminated).

The back face of bent # 3 cap in span # 2 has an area of spalling with exposed reinforcing steel between girders # 4 and 5.

**Remarks**

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Bent # 3 cap aheadface spalling with exposed reinforcing steel and loss of bearing area.



Ahead face of bent # 3 cap under girder # 4 is delaminated.



**Maintenance Needs**

**Date Reported:** 05/24/2017

**Priority:** D- Routine

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

**Status:** Monitor

**Component:** Element

---

**Deficiency Description**

Concrete Slab Span -  
Shallow concrete spalling and delaminated areas along the edges of the slab.

**Remarks**

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Span # 1 Lt has spalling with exposed reinforcing steel adjacent to bent # 2.



Span # 3, right side-Delaminated areas.

## Routine Maintenance

### Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	Yes
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	Yes
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	
A-62 - Hydro and LMC Advised	
A-63 Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	

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

-The driving surface of the deck has sealable cracking.



Concrete cracking and spalling on the wearing surface.

**A-55 - Deck Washing Needed**

**A-56 - Joint Cleaning/Flushing Needed**

**A-57 - Beam End and Bearing Painting Needed**

**A-58 - Cap Cleaning/Flushing Needed**

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

-The joint sealant is deteriorated and leaks water. The joints have dirt and debris impaction.



Bent # 3 typical joint seal.



Bent # 2 typical joint seal.

**A-60 - Full Beam Painting Needed**

**A-61 - Polymer Overlay Advised**





**Asset #A1424**(Routine, Underwater type 2)

**US 71-Wash Co. over Rock Creek**

**Location: 2.3 MI N JCT SH 170**

**Team Lead: Eric West, Inspection Date: 06/22/2023**

**A-62 - Hydro and LMC Advised**

**A-63 - Missing/Incorrect Log Mile Signage**

**A-64 - Vegetation Removal Requested**



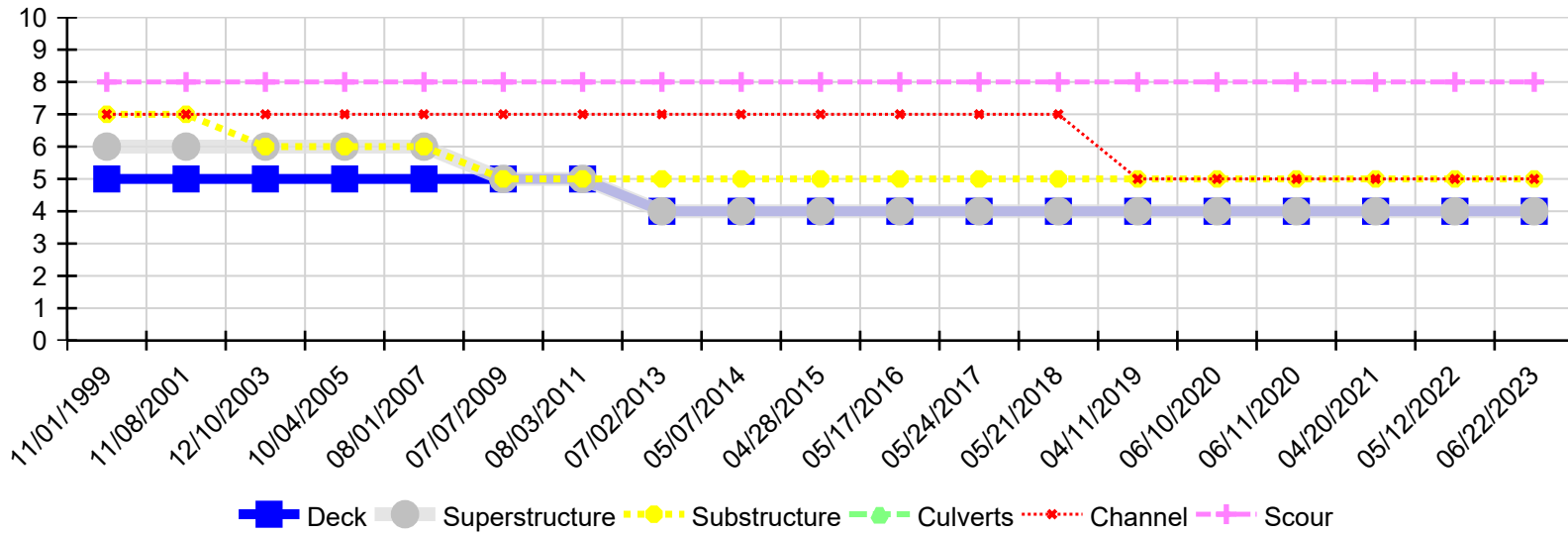
Asset #A1424(Routine, Underwater type 2)

US 71-Wash Co. over Rock Creek

Location: 2.3 MI N JCT SH 170

Team Lead: Eric West, Inspection Date: 06/22/2023

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
06/22/2023	4	4	5	N	5	8
05/12/2022	4	4	5	N	5	8
04/20/2021	4	4	5	N	5	8
06/11/2020	4	4	5	N	5	8
06/10/2020	4	4	5	N	5	8
04/11/2019	4	4	5	N	5	8
05/21/2018	4	4	5	N	7	8
05/24/2017	4	4	5	N	7	8
05/17/2016	4	4	5	N	7	8
04/28/2015	4	4	5	N	7	8
05/07/2014	4	4	5	N	7	8
07/02/2013	4	4	5	N	7	8
08/03/2011	5	5	5	N	7	8
07/07/2009	5	5	5	N	7	8
08/01/2007	5	6	6	N	7	8
10/04/2005	5	6	6	N	7	8
12/10/2003	5	6	6	N	7	8
11/08/2001	5	6	7	N	7	8
11/01/1999	5	6	7	N	7	8