

## **Bridge 22104 Inspection Report**



Latitude:33.14456, Longitude:-92.77115

Route:2 Section:00 Log:10.648

Arnold Road ID:70xWESSONRDx2xA, Arnold Log mile:2.32

District 07, 139 - Union County

Owner: 2 - County 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

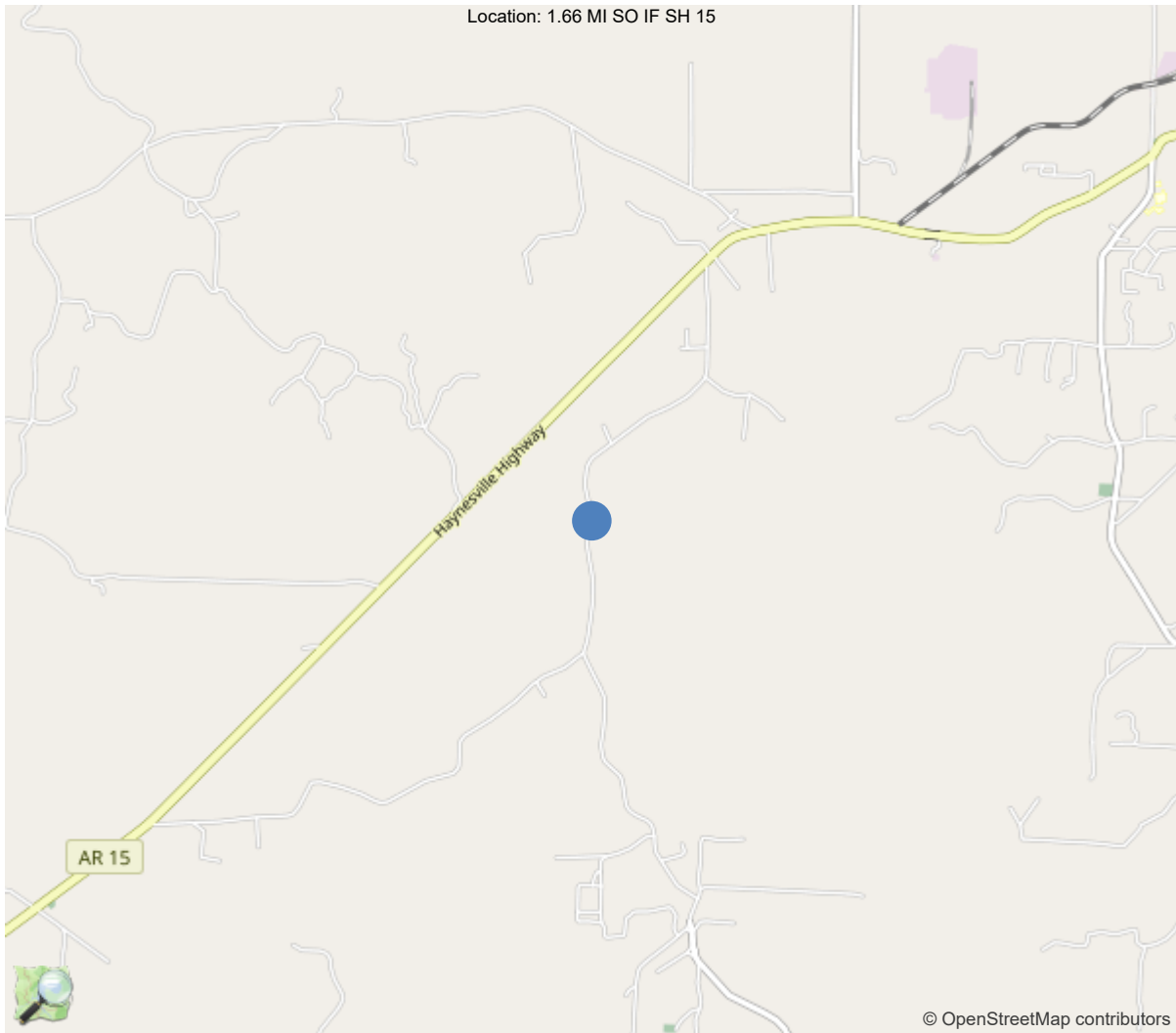
Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	34		
Code 9 (31 Tons)	38		
Code 5 (40 Tons)	47		

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





33.14456, -92.77115

## National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	22104
(5) Inventory Route	1
(2) Highway Agency District	07 - District 07
(3) County Code	139 - Union County
(4) Place Code	0
(6) Features Intersected	CORNIE CREEK
(7) Facility Carried	Union CR2 Z-J
(9) Location	1.66 MI SO IF SH 15
(11) Mile Point	10.648 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.14456
(17) Longitude	-92.77115
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	122
Material	1 - Concrete
Type	22 - Channel beam
(44) Approach Structure Type	00
Material	0 - Other
Type	0 - Other
(45) No. of Spans in Main Unit	2
(46) No. of Approach Spans	0
(107) Deck Structure Type	2 - Concrete Precast Panels
(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	1999
(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	1075
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	3 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	31 ft
(49) Structure Length	62 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	24.3 ft
(52) Deck Width Out to Out	25.3 ft
(32) Approach Roadway Width (W/Shoulders)	20 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	24.3 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	7 - Rural Major Collector
(100) Defense Highway	0 - The inventory route is not
(101) Parallel Structure	N - No parallel structure exists
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0 - N/A
(110) Designated National Network	0 - The inventory route is not
(20) Toll	3 - On free road. The structure
(21) Maintain	2 - County Highway Agency
(22) Owner	2 - County Highway Agency
(37) Historical Significance	4 - Historical significance is
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	7
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2 - M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1 - Load Factor(LF)
Rating	51
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	31
(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	7
(72) Approach Roadway Alignment	6
(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	
(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	365
(115) Year of Future ADT	2007

INSPECTIONS *			
(90) Inspection Date			09/04/2025
(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		
<p>* 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.</p>			

Team Lead: Rickie Bratton, Inspection Date: 09/04/2025

### Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	22104
B.ID.02 Bridge Name	
B.ID.03 Previous Bridge No.	18293
B.W.01 Year Built	1999

LOCATION	
B.L.01 State Code	5 - Arkansas
B.L.02 County Code	139 - Union County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	07 - District 07
B.L.05 Latitude	33.14456
B.L.06 Longitude	-92.77115
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	1.66 MI SO IF SH 15
B.L.12 Metropolitan Planning Organization	

CLASSIFICATION	
B.CL.01 Owner	L01 - County highway agency
B.CL.02 Maint. Responsibility	L01 - County highway agency
B.CL.03 Federal or Tribal Land Access	N - Not Applicable
B.CL.04 Historic Significance	7 - Historic significance of the br
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	62
B.G.02 Total Bridge Length	62
B.G.03 Max Span Length	30.8
B.G.04 Min Span Length	31
B.G.05 Bridge Width Out-to-Out	25.3
B.G.06 Bridge Width Curb-to-Curb	24.3
B.G.07 Left Curb or Sidewalk Width	0.7
B.G.08 Right Curb or Sidewalk Width	0.7
B.G.09 Approach Roadway Width	20

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	7
B.G.14 Sidehill Bridge	N - Not a sidehill bridge
B.G.15 Irregular Deck Area	
B.G.16 Calculated Deck Area	1568.6000000000001

LOADS AND LOAD RATING	
B.LR.01 Design Load	H15 - H-15
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	0.86
B.LR.06 Operating Load Rating Factor	1.42
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	7 - GOOD - Some minor defects.
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	N - NOT APPLICABLE - Component
B.C.07 Bridge Bearings Cond.	N - NOT APPLICABLE - Component
B.C.08 Bridge Joints Condition	N - NOT APPLICABLE - Bridge do
B.C.09 Channel Condition Rating	7 - GOOD - Some minor defects.
B.C.10 Channel Protection Condition	7 - GOOD - Some minor defects.
B.C.11 Scour Condition Rating	7 - Some minor scour.
B.C.12 Bridge Condition Classification	G - Good
B.C.13 Lowest Condition Rating	7 - GOOD - Some minor defects.
B.C.14 NSTM Insp. Condition	
B.C.15 UW Inspection Condition	

APPRAISAL	
B.AP.01 Approach Roadway Alignment	F - Fair
B.AP.02 Overtopping Likelihood	2 - Very low - once every 51 to 99
B.AP.03 Scour Vulnerability	0 - Scour appraisal has not been co
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: 09/04/2025

SPAN SETS			
<b>M1</b>			
B.SP.02 # of Spans	2	B.SP.08 Deck Interaction	IM - Integral or monolithic
B.SP.03 # of Beam Lines	7	B.SP.09 Deck Material and Type	C02 - Reinforced concrete - pr
B.SP.04 Span Material	C02 - Reinforced concrete - pr	B.SP.10 Wearing Surface	0 - None
B.SP.05 Span Continuity	1 - Simple or single span	B.SP.11 Deck Protective System	0 - None
B.SP.06 Span Type	G07 - Girder/beam - channel ad	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	1	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	1075
B.F.03 Feature Name	Union CR2 Z-J	B.H.10 Annual ADTT	10
B.H.01 Functional Classification	5 - Major Collector	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	N - Non-NHS	B.H.13 Highway Min Vertical Clearance	99.9
B.H.04 National Highway Freight Network	N - Not on the NHFN	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		B.H.16 Highway Max Usable Surface Width	24.2
B.H.07 LRS Mile Point	10.648	B.H.17 Bypass Detour Length	3
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	2	2-T - TEMP - Two-way traffic - NS or EW	4 - County route	1 - Mainline



Team Lead: Rickie Bratton, Inspection Date: 09/04/2025

## 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	CORNIE CREEK	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 and 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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## Inspection Notes

### General Observation

Inspected with the use hip boots.

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

Overall, the deck is in good condition.

Span 1:

-Unit 4, along right keyway, 4 spalls that are 8" x 3" x 2" deep.

Span 2:

- Unit 2, at Bent 3, 1 - 8" x 3" x 2" deep spall, 1- 12" x 8" x 1" deep spall.

-Unit 4, along the right keyway, there are 2 spalls that ar 10" x 2" x 2" deep.

-Unit 6, at Bent 3, 16" x 4" X 1" deep spall.

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#### 59 - Superstructure (7 - GOOD CONDITION - some minor problems.)

Overall, the superstructure is in good condition.

All Spans:

-Units are grouted and bolted.

-All stems have hairline flexural cracks on the bottom of the stems.

Span 2:

-Unit 5, right stem, at Bent 3, Hairline shear crack.

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#### 60 - Substructure (7 - GOOD CONDITION - some minor problems.)

Overall, the substructure is in good condition.

Bent 1:

-2' from both ends of the abutment, the embankment has settled 10".

Bent 2:

-Cap backside, below Unit 2, 4" diam. delam.

-Cap, left end, top, 8"diam. x 2" deep spall.

Bent 3 delam under unit 7 left leg

-All piles have light abrasion at the waterline.

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#### 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.)

Channel is vegetated with rip rap on slopes.

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

Channel has minor scour.

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## Inspection Photos and Notes



Channel downstream overview right side



Channel upstream overview left side



Elevation



Deck overview





Approach roadway Northbound



Elevation



Approach



Deck overview





Deck Underview



Typical superstructure



Typical substructure



Channel left side



Channel right side





## 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)**



**Asset #22104**(Routine)  
**Union CR2 Z-J over CORNIE CREEK**  
**Location: 1.66 MI SO IF SH 15**

**Team Lead: Rickie Bratton Inspection Date: 09/04/2025**

**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?**



**Asset #22104**(Routine)

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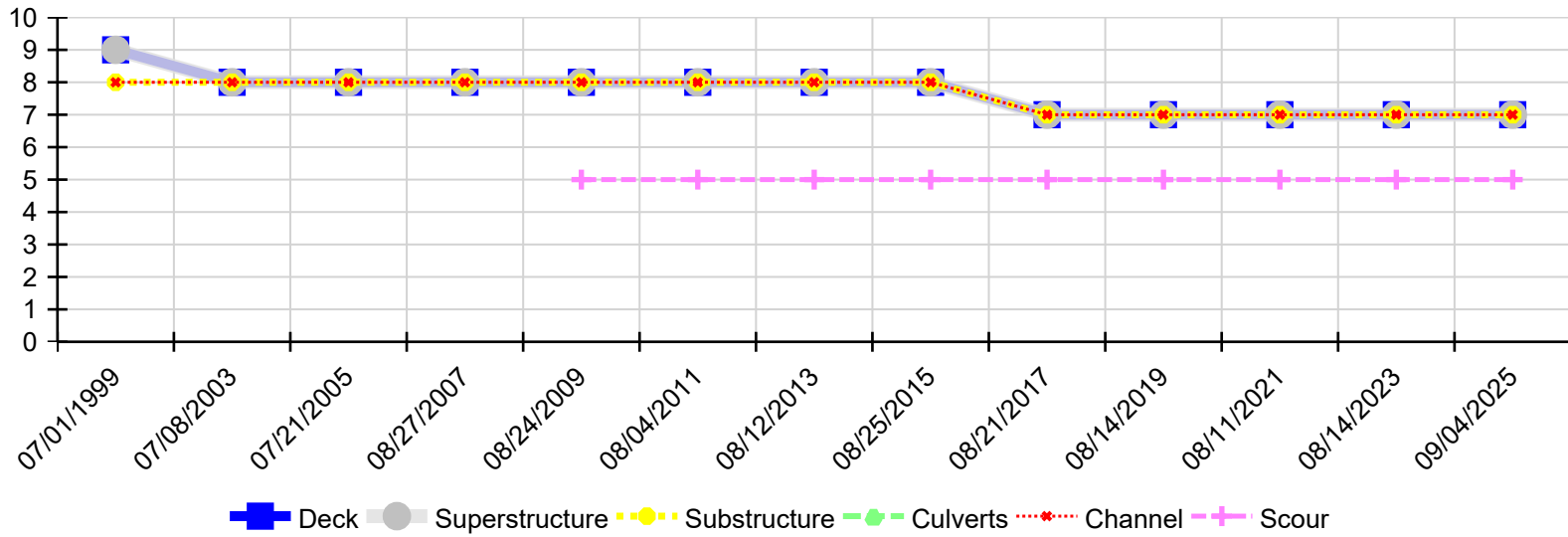
**A-66 - Approach minor pothole/leveling needed**



Asset #22104(Routine)  
Union CR2 Z-J over CORNIE CREEK  
Location: 1.66 MI SO IF SH 15

Team Lead: Rickie Bratton Inspection Date: 09/04/2025

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
09/04/2025	7	7	7	N	7	5
08/14/2023	7	7	7	N	7	5
08/11/2021	7	7	7	N	7	5
08/14/2019	7	7	7	N	7	5
08/21/2017	7	7	7	N	7	5
08/25/2015	8	8	8	N	8	5
08/12/2013	8	8	8	N	8	5
08/04/2011	8	8	8	N	8	5
08/24/2009	8	8	8	N	8	5
08/27/2007	8	8	8	N	8	N
07/21/2005	8	8	8	N	8	N
07/08/2003	8	8	8	N	8	N
07/01/1999	9	9	8	N	8	N