



Latitude:36.02456, Longitude:-94.32169

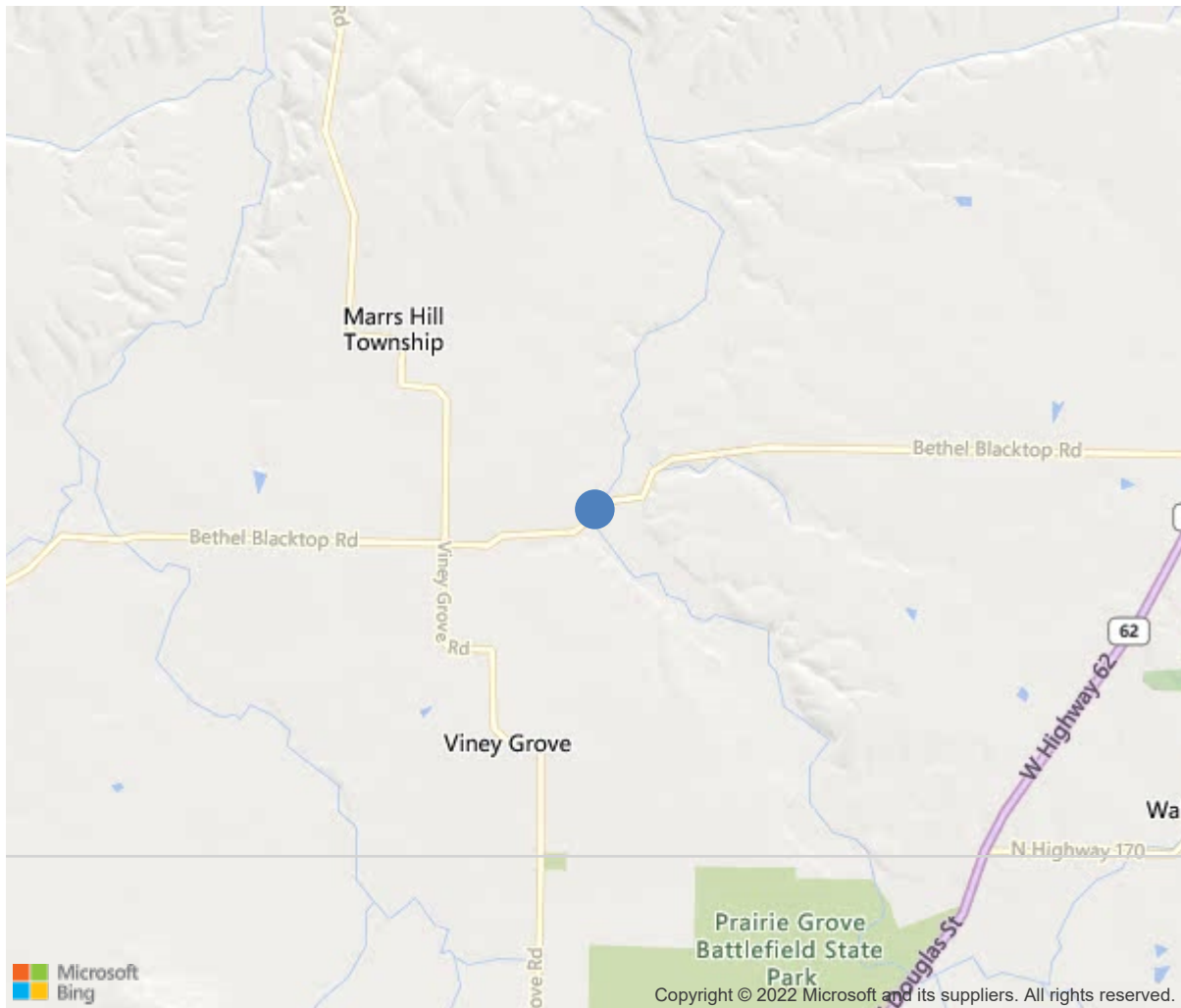
Route:62 Section:00 Log:4.39

Arnold Road ID:72xBETHELBLACKTOPx1xA, Arnold Log mile:3.165

District 04, Washington County

Owner: 2-County Highway Agency

3.26 Mi W Farmington



36.02456, -94.32169

Inspection Direction : W to E



Bridge #23167(Routine, Underwater type 2)

Bethel Blacktop Rd over Illinois River - Wash.

Location: 3.26 Mi W Farmington

Team Lead: Bob McEntyre Inspection Date: April 14, 2020

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	23167
(5) Inventory Route	62
(2) Highway Agency District	04
(3) County Code	143-Washington County, Arkansas
(4) Place Code	0
(6) Features Intersected	Illinois River - Wash.
(7) Facility Carried	Bethel Blacktop Rd
(9) Location	3.26 Mi W Farmington
(11) Mile Point	4.39 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	36.024559
(17) Longitude	-94.321686
(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	2
(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 placed
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	2008
(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	2100
(30) Year of ADT	2018
(109) Truck ADT	4 %
GEOMETRIC DATA	
(48) Length of Maximum Span	95 ft
(49) Structure Length	168 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	26.9 ft
(52) Deck Width Out to Out	26.9 ft
(32) Approach Roadway Width (W/Shoulders)	20 ft
(33) Bridge Median	0-No median
(34) Skew	45 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	25.3 ft
(53) Min Vert Clear Over Bridge Rdwy	99.9 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 water
(111) Pier Protection	1-Navigation protection not requ
(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 a S
(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 part of
(20) Toll	3-On free road. The structure is toll-
(21) Maintain	2-County Highway Agency
(22) Owner	2-County Highway Agency
(37) Historical Significance	4-Historical significance is not dete
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	7
(61) Channel & Channel Protection	6
(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	60
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	2
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	7
(68) Deck Geometry	3
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	5
(72) Approach Roadway Alignment	7
(36A) Bridge Railings	0-Inspected feature does not meet cur
(36B) Transitions	0-Inspected feature does not meet cur
(36C) Approach Guardrail	0-Inspected feature does not meet cur
(36D) Approach Guardrail Ends	0-Inspected feature does not meet cur
(113) Scour Critical Bridges	5-Bridge foundations determined to be
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	2400
(115) Year of Future ADT	2038

INSPECTIONS *			
(90) Inspection Date			04/2020
(91) Frequency			24 Months
(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.			



Inventory 1 looking East.



The beams in span 2 have been painted from mid-span to abutment 2.



The East embankment at the base of abutment # 2 has minor earth settlement / erosion.



Abutment 2 bearing area.



The right exterior side of abutment 2 backwall has a vertical and diagonal crack.



Spall to end of Northeast wing wall.



Ground Anchorage for Southeast approach railing.



Span 1, beam 1-Rust forming.



Drift accumulation on bent 2 cap.



Span 1-Drift in superstructure.



Span 1, Beam 4-Area of paint failure with rust coating.



Cross frames have minor out of plane bending to the bottom angles in some locations.



Abutment 1.



Abutment 1 bearing area.



Boat utilized for inspection.



Beam 4 of span 1-Scuff marks from drift impacts.



Bent 2 cap, right undersurface-Honeycombing with exposed secondary steel.



Probing bent 2.



Span 1 undersurface.



Span 2 undersurface.



Settlement in East approach roadway at centerline.



Abutment 2-Transverse cracks.



The Southeast approach railing has collision damage that has broken the railing loose from the ground anchorage and destroyed the turndown section of railing.



Span 2, right lane-Longitudinal cracking.



Left bridge railing in span # 1 has collision damage over bent # 2 that has created a locket in the railing and has fractured / spalled a 2' long area of the edge of the deck where one of the railing post was incorporated into the deck.



Left bridge railing in span # 1 has collision damage over bent # 2 that has created a locket in the railing and has fractured / spalled a 2' long area of the edge of the deck where one of the railing post was incorporated into the deck.



Left bridge railing in span # 1 has collision damage over bent # 2 that has created a locket in the railing and has fractured / spalled a 2' long area of the edge of the deck where one of the railing post was incorporated into the deck.



Bent 2 expansion joint has areas of rips, tears and adhesion failure.



Bent 2 expansion joint sagging in locations.



Bent 2 expansion joint.



Span 1, right lane-Longitudinal cracking.



Abutment 1 compression joint seal.



Abutment 1-Transverse cracking in top of backwall.



Driving surface.

Maintenance Needs

Date Reported: 04/14/2020
Priority: B - Pressing; 6 month completion goal
Type of Work: Repair
Status: Open
Component: Miscellaneous

Deficiency Description

Left Bridge railing / Southeast approach railing -

Left bridge railing in span # 1 has collision damage over bent # 2 that has created a "pocket" in the railing and has fractured / spalled a 2' long area of the edge of the deck where the railing post was incorporated into the deck.

The Southeast approach railing has collision damage that has broken the railing loose from the ground anchorage and destroyed the turndown section of railing.

Remarks

Left bridge railing in span # 1 has collision damage over bent # 2 that has created a locket in the railing and has fractured / spalled a 2' long area of the edge of the deck where one of the railing post was incorporated into the deck.



Left bridge railing in span # 1 has collision damage over bent # 2 that has created a locket in the railing and has fractured / spalled a 2' long area of the edge of the deck where one of the railing post was incorporated into the deck.



The Southeast approach railing has collision damage that has broken the railing loose from the ground anchorage and destroyed the turndown section of railing.

Date Reported: 04/20/2020
Priority: D- Routine
Type of Work: Repair
Status: Open
Component: Miscellaneous

Deficiency Description

Expansion joints -

The expansion joint seals have areas of rips / tears and adhesion failure. Staining on the bent caps indicate that the joint seals leak.

Remarks



The expansion joint seals have areas of rips / tears and adhesion failure. Staining on the bent caps indicate that the joint seals leak.



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Bridge #23167(Routine, Underwater type 2)

Bethel Blacktop Rd over Illinois River - Wash.

Location: 3.26 Mi W Farmington

Team Lead: Bob McEntyre **Inspection Date:** April 14, 2020

Inspection Comments

04/14/2020 - RSM & SPC: Routine and Underwater Type II inspections conducted this date. See notes tab for documentation.

Deck Notes

Deck:

- The driving surface of both spans have a longitudinal hairline crack in the Right lane.
- Minor areas of light wear developing in the driving surface in isolated areas.
- Bent # 2 expansion joint has areas of rips, tears and adhesion failure.

Deck undersurface:

- Undersurface of the deck is not visible due to metal SIP Forms.

Bridge Railing:

- Left bridge railing in span # 1 has collision damage over bent # 2 that has created a "pocket" in the railing and has fractured / spalled a 2' long area of the edge of the deck where the railing post was incorporated into the deck.
 - The Southeast approach railing has collision damage that has broken the railing loose from the ground anchorage and destroyed the turndown section of railing.
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Superstructure Notes

Girders/Beams:

- Superstructure is constructed from salvaged beams from Bridge # 02470 that has been replaced over the White River.
 - The exterior side of beam # 4 has scuff marks from apparent drift impacts during high water events.
 - The beams have areas of paint peeling in Isolated areas. The beams in span # 2 have been painted from abutment # 2 to mid-span since last inspection.
 - Cross frames have minor out of plane bending to the bottom angles in some locations.
 - There is a 5' area of paint missing in the exterior web of Beams # 1 & 4 in Span # 1. The area has a light rust coating at this inspection.
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Substructure Notes

04/14/2020 - RSM & SPC -Underwater Type II inspection: Probing from a boat in deep water conditions indicated that the tops of footings are exposed at Bent # 2, but have no apparent undermining at this inspection.

Abutments:

- The East embankment at the base of abutment # 2 has minor earth settlement / erosion.
- The top of the columns of abutment # 1 spill through type abutment is exposed at this inspection.

Stem Wall:

- No apparent problems at this inspection.

Backwall:

- Transverse cracking typical in the top of the back walls at Bents # 1 & 3 that are visible from the driving surface of the deck.
- The right exterior side of abutment 2 backwall has a vertical and diagonal crack.

Bent 2:

Columns:

- Upstream column of Bent # 2 is out of plane. The column appears to be in "as built" condition with no apparent noteworthy deficiencies at this inspection or changes since the last inspection.

Bridge Seat:

- Minor drift accumulation on the top of the cap at Bent # 2.

Pier Cap:

- Bent # 2 cap has honeycombing with exposed secondary reinforcing on the underside of cap adjacent to column # 2.
- Bent # 2 cap has short duration vertical cracks in the ahead face at the step downs.

Footing:

- Probing from a boat revealed that the tops of footings are exposed at Bent # 2 but have no apparent undermining at this inspection. Previous inspection notes indicated that the footings appeared to be cast on a solid rock channel that was visible in some areas.