



Latitude:36.13251, Longitude:-94.14560

Route:71 Section:17 Log:2.73

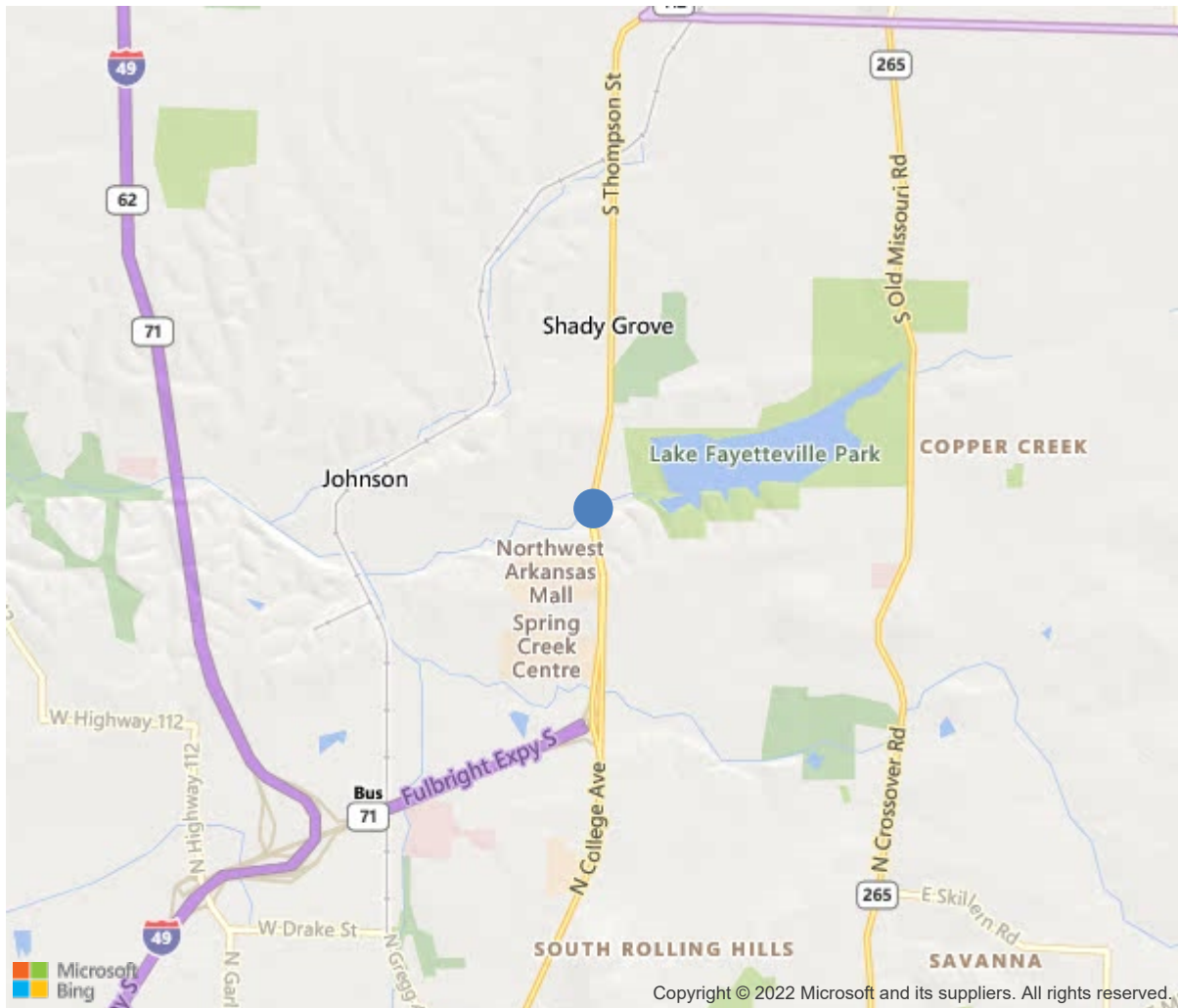
Arnold Road ID:72x71x17BxA, Arnold Log mile:2.986

District 04, Washington County

Owner: 1-State Highway Agency

Place Code: 23290 - Fayetteville

5.47 MI SO BENTON CO LINE



36.13251, -94.14560

Inspection Direction : S to N



Bridge #B5392(Routine)

US 71 B, NB LNS over Clear Creek-Washington

Location: 5.47 MI SO BENTON CO LINE

Team Lead: Bob McEntyre Inspection Date: November 09, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	B5392
(5) Inventory Route	71
(2) Highway Agency District	04
(3) County Code	143-Washington County, Arkansas
(4) Place Code	23290
(6) Features Intersected	Clear Creek-Washington
(7) Facility Carried	US 71 B, NB LNS
(9) Location	5.47 MI SO BENTON CO LINE
(11) Mile Point	2.73 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	000007117B
(16) Latitude	36.13251
(17) Longitude	-94.1456
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	21
Material	2-Concrete continuous
Type	1-Slab
(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	1-Monolithic Concrete (concurrently placed
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1972
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	3
Under	0
(29) Average Daily Traffic	37000
(30) Year of ADT	2014
(109) Truck ADT	1 %
GEOMETRIC DATA	
(48) Length of Maximum Span	50 ft
(49) Structure Length	128 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	48.9 ft
(52) Deck Width Out to Out	52.3 ft
(32) Approach Roadway Width (W/Shoulders)	49.9 ft
(33) Bridge Median	1-Open median
(34) Skew	15 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	49.9 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 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	1
(26) Functional Class	14-Urban Other Principal Arterial
(100) Defense Highway	0-The inventory route is not a S
(101) Parallel Structure	R-The right structure of paralle
(102) Direction of Traffic	1 - 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	1-State Highway Agency
(22) Owner	1-State Highway Agency
(37) Historical Significance	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	5
(59) Superstructure	5
(60) Substructure	6
(61) Channel & Channel Protection	8
(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	60
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	3
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	1-Inspected feature meets currently a
(36B) Transitions	1-Inspected feature meets currently a
(36C) Approach Guardrail	1-Inspected feature meets currently a
(36D) Approach Guardrail Ends	1-Inspected feature meets currently a
(113) Scour Critical Bridges	8-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	23910
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			11/2021
(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.			





Bridge #B5392(Routine)

US 71 B, NB LNS over Clear Creek-Washington

Location: 5.47 MI SO BENTON CO LINE

Team Lead: Bob McEntyre, Inspection Date: November 09, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	6253	2073	2190	1990	0
1080	Delamination/Spall/Patched Area	SF	126	0	55	71	0
1090	Exposed Rebar	SF	19	0	0	19	0
1120	Efflorescence/Rust Staining	SF	135	0	135	0	0
1130	Cracking (RC and Other)	SF	1900	0	0	1900	0
1190	Abrasion/Wear (PSC/RC)	SF	2000	0	2000	0	0
(38)							
-The driving surface of spans # 1 and # 2 have mapcracking in the right shoulder and all three lanes in the negative moment areas near the intermediate bents. -Light to medium abrasion on main lane driving surface. -Minor pop outs in all spans. -Span # 1 has a 5' wide X 26' long area with numerous spalls with exposed reinforcing steel on the driving surface of the deck over the centerline longitudinal construction joint. (Exposed reinforcing steel is covered with temporary asphalt patches during this inspection). Previous inspection notes state that the exposed reinforcing steel has initial section loss during this inspection. -Span # 3 has two basket ball sized spalls on the driving surface of the deck with temporary asphalt patches adjacent to bent # 4. -There are numerous random and transverse cracks visible in the driving surface of deck on all spans. -Delaminated areas along the centerline of bridge deck at the construction joint with light efflorescence. -The vertical face of the slab has narrow vertical cracking over the intermediate bents caps. -There are minor shallow spalls and insignificant scrape marks visible from the undersurface of span # 1 and in the exterior edges of the deck over the pedestrian walk way.							
205	Reinforced Concrete Column	EA	6	4	2	0	0
1130	Cracking (RC and Other)	EA	1	0	1	0	0
1190	Abrasion/Wear (PSC/RC)	EA	1	0	1	0	0
(205)							
-Bent # 2, column # 3 has several narrow vertical cracks that propagate from the base of column and extend up the column to approximately 4' in height. There are shallow delaminated areas and scaling along some of the cracks.							
215	Reinforced Concrete Abutment	LF	146	140	5	1	0
1080	Delamination/Spall/Patched Area	LF	4	0	3	1	0
1120	Efflorescence/Rust Staining	LF	1	0	1	0	0
1130	Cracking (RC and Other)	LF	1	0	1	0	0
(215)							
-Abutment # 1: -The right turn back portion of abutment # 1 is fractured outside the bearing area.  Abutment # 2: One shallow spall at the left of centerline keyway and left end of cap that does not expose reinforcing steel during this inspection.							
220	Reinforced Concrete Pile Cap/Footing	LF	36	36	0	0	0





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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(220)							
-The top of bent # 3, columns # 1 and 2 footings are exposed. Footings appear to be keyed into solid lime stone with no apparent scour problems during this inspection.							
11/13/2019 - JCJ & TJL - ArDOT Drawing # 16967 - General notes state that the footings shall be poured directly against excavated surfaces of rock and shall be a minimum of one foot into material designated limestone.							
234	Reinforced Concrete Pier Cap	LF	108	103	5	0	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
1090	Exposed Rebar	LF	3	0	3	0	0
(234)							
-Bent # 2 left has two 4" long shallow spalls with shallow exposed reinforcing steel visible in the bottom of the cap.							
-Bent # 3 left on undersurface of cap has two shallow baseball sized spalls with exposed reinforcing steel with up to initial section loss.							
301	Pourable Joint Seal	LF	108	4	0	0	104
2310	Leakage	LF	100	0	0	0	100
2350	Debris Impaction	LF	4	0	0	0	4
(301)							
-Pourable joint material at both bridge ends leak and are full of incompressible material.							
321	Reinforced Concrete Approach Slab	SF	3500	1286	932	1282	0
1080	Delamination/Spall/Patched Area	SF	0	0	0	0	0
1130	Cracking (RC and Other)	SF	174	0	92	82	0
1190	Abrasion/Wear (PSC/RC)	SF	2040	0	840	1200	0
(321)							
-South approach slab has wide sealable cracks.							
-North approach slab has approximately 1/8" wide transverse cracks located approximately 2' from the abutment # 2 expansion joint.							
-The Southeast approach shoulder has medium scaling.							
Approach Roadways:							
-The collision damage to the Southwest approach railing has been repaired since last inspection.							
330	Metal Bridge Railing	LF	256	255	1	0	0
7000	Damage	LF	1	0	1	0	0
(330)							
-Post # 7 of the right bridge railing has minor collision damage.							
331	Reinforced Concrete Bridge Railing	LF	256	199	57	0	0
1090	Exposed Rebar	LF	1	0	1	0	0
1120	Efflorescence/Rust Staining	LF	7	0	7	0	0

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
1130	Cracking (RC and Other)	LF	49	0	49	0	0
(331) -The concrete bridge railing has vertical hairline cracks at variable spacing. -The right side of span # 3 has a 6" spall with exposed reinforcing steel near abutment # 2. -Right bridge railing over bent # 2 has map cracking with light efflorescence.							



Inventory 1 looking North.



Abutment # 2 expansion joint sealant has failed with incompressible material in the joint.





Span 3, right concrete railing at abutment # 2-Spall with exposed reinforcing steel.



Abutment 2, left side-Shallow spall that appears to be from mowing operations.





Abutment 2-Spall at key way near centerline.



Bent 3 cap, left side-Shallow spalls with exposed reinforcing steel in undersurface.





Bent 3, column 1 footing exposed.



Abutment 2.





Vertical cracking in slab exterior edge on right side over bent 3.



Bent # 2, column # 3-Numerous vertical cracks on approximately 6" spacing.





Bent 2 cap, left end-Shallow spalls with exposed reinforcing steel in undersurface.



Vertical and diagonal cracking in left exterior side of slab over bent # 2.





Span 1, left side-Shallow spall over pedestrian trail.



Span 2 undersurface.





Bent 3.



Span 1 undersurface-Efflorescence at construction joint.





Abutment # 1.



The right turn back portion of abutment # 1 is fractured outside the bearing area.





Post # 7 of the right bridge railing has minor collision damage.



Span # 2, right shoulder-Mapcracking.





Span # 2, right lane-Mapcracking.



Span 2, center lane-Mapcracking.





Delaminated areas along centerline.



Dirt and debris in gutters.





Span 3, right lane-Spalls in driving surface.



North approach slab-Wide transverse cracking.





Span 1, right lane-Large area of spalling with exposed reinforcing steel.



Span 1, right lane-Large area of spalling with exposed reinforcing steel.





Abutment # 1 expansion joint-Debris impaction.



The gutters of the South approach roadway has medium scaling.





South approach slab, right lane-Moderate width transverse crack.



South approach slab-Wear / abrasion.





South approach slab, left lane-Wide longitudinal crack.



South approach slab-Spall at roadway juncture.





The collision damage to the Southwest approach railing has been repaired since last inspection.





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Team Lead: Bob McEntyre Inspection Date: November 09, 2021

## Maintenance Needs

**Date Reported:** 11/13/2019  
**Priority:** C - Important  
**Type of Work:** None  
**Status:** Repair Documented  
**Component:**

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## Deficiency Description

The Southwest approach guardrail has collision damage.

## Remarks

11/09/2021 - RSM - The collision damage to the Southwest approach railing has been repaired since last inspection.

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Approach roadway facing North.



Southwest approach guardrail. Collision damage.





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**Location: 5.47 MI SO BENTON CO LINE**

**Team Lead: Bob McEntyre Inspection Date: November 09, 2021**



The collision damage to the Southwest approach railing has been repaired since last inspection.



**Date Reported:** 11/30/2011  
**Priority:** C - Important  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** 38 - RC Slab

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### Deficiency Description

#### Deck -

Span # 1 has a 5' X 26' area with numerous spalls with exposed reinforcing steel on the driving surface of the deck over the centerline longitudinal construction joint. Exposed reinforcing steel has initial section loss during this inspection. Span # 3 has two basket ball sized spalls on the driving surface of the deck that have temporary asphalt patches adjacent to Bent # 4.

### Remarks

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Deck over Bent # 2.



Span # 3. Deck.





Span # 1. Typical.



Span 1, right lane-Large area of spalling with exposed reinforcing steel.





Span 1, right lane-Large area of spalling with exposed reinforcing steel.



**Date Reported:** 11/30/2011  
**Priority:** D- Routine  
**Type of Work:** Replace  
**Status:** Monitor  
**Component:** 301 - Pourable Joint Seal

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**Deficiency Description**

Expansion joints between the abutments and the Approach Slabs -  
The pourable joint sealant is deteriorated and missing with incompressible material in the joint.

**Remarks**

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Expansion joint at Bent # 1.



Expansion joint at Bent # 4.





Abutment # 1 expansion joint-Debris impaction.



**Date Reported:** 11/01/2017  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** 38 - RC Slab

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**Deficiency Description**

Approach Slabs -

Both approach slabs have sealable cracks.

The North approach slab has sealable transverse cracks near the bridge end approximately 2' from the expansion joint.

**Remarks**

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Expansion joint at Bent # 4.



South approach slab. Typical.





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North approach slab-Wide transverse cracking.



**Date Reported:** 11/01/2017  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** 234 - Reinforced Concrete Pier Cap

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**Deficiency Description**

Substructure -  
Shallow spalling with exposed reinforcing steel on the undersurface of Bents # 2 & 3 cap.

**Remarks**

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Bent # 3 cap. Undersurface. Left end.



Bent # 2. Undersurface of the cap. Left end.





Bent 3 cap, left side-Shallow spalls with exposed reinforcing steel in undersurface.





**Bridge #B5392**(Routine)  
**US 71 B, NB LNS over Clear Creek-Washington**  
**Location: 5.47 MI SO BENTON CO LINE**

**Team Lead:** Bob McEntyre **Inspection Date:** November 09, 2021

**Date Reported:** 11/10/2021  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Open  
**Component:** 38 - RC Slab

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#### **Deficiency Description**

Deck -  
The driving surface of the slab has sealable cracking in all spans.

#### **Remarks**

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Span # 2, right lane-Mapcracking.





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**Team Lead: Bob McEntyre Inspection Date: November 09, 2021**

### **Inspection Comments**

11/09/2021 - RSM & SPC: Routine Inspection conducted this date. See element notes for documentation.

11/13/2019 - TJL - Elements were plan verified on this date. 11/13/2019 - JCJ & TJL - ArDOT Drawing # 16967 - General Notes state that the footings shall be poured directly against excavated surfaces of rock and shall be a minimum of one foot into material designated limestone. 11/13/2019 - JCJ & TJL - Type 2 Underwater Inspection - Wading and probing along with visual observations indicate that Bent # 3, Columns # 1 and 2 footings are exposed. Footings appear to be keyed into solid limestone channel with no apparent scour problems during this inspection.