



Latitude:34.93189, Longitude:-94.17601

Route:80 Section:00 Log:0.47

Arnold Road ID:63x80x0xA, Arnold Log mile:0.449

District 04, Scott County

Owner: 1-State Highway Agency

0.47 MI SE JCT SH 28



34.93189, -94.17601



Bridge #06109(Routine)

State Highway 80 over Hon Branch-Scott Co.

Location: 0.47 MI SE JCT SH 28

Team Lead: Jeff Jones Inspection Date: October 12, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	06109
(5) Inventory Route	80
(2) Highway Agency District	04
(3) County Code	127-Scott County, Arkansas
(4) Place Code	0
(6) Features Intersected	Hon Branch-Scott Co.
(7) Facility Carried	State Highway 80
(9) Location	0.47 MI SE JCT SH 28
(11) Mile Point	0.47 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.93189
(17) Longitude	-94.17601
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	11
Material	1-Concrete
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	1986
(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	760
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	3 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	27.9 ft
(52) Deck Width Out to Out	30.8 ft
(32) Approach Roadway Width (W/Shoulders)	25.9 ft
(33) Bridge Median	0-No median
(34) Skew	0 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	29.2 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	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	1-State Highway Agency
(22) Owner	1-State Highway Agency
(37) Historical Significance	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	6
(59) Superstructure	6
(60) Substructure	6
(61) Channel & Channel Protection	7
(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	6
(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 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	1135
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			10/2021
(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.			



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Team Lead: Jeff Jones, Inspection Date: October 12, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	3255	3113	142	0	0
1080	Delamination/Spall/Patched Area	SF	3	0	3	0	0
1120	Efflorescence/Rust Staining	SF	22	0	22	0	0
1130	Cracking (RC and Other)	SF	117	0	117	0	0
(38)	-Minor vertical hairline cracks visible in the edges of the deck located approximately 1' from the deck joint. -There are diagonal hairline cracks in corners of each span visible from the driving surface of the deck. -Span # 2 Right edge has a delaminated area on the undersurface of the slab.						
205	Reinforced Concrete Column	EA	4	2	2	0	0
1190	Abrasion/Wear (PSC/RC)	EA	2	0	2	0	0
(205)	-There is light abrasion at the base of Bent # 3 columns.						
215	Reinforced Concrete Abutment	LF	98	96	2	0	0
1130	Cracking (RC and Other)	LF	2	0	2	0	0
(215)	-There are short duration horizontal cracks at the wing wall juncture at the North abutment. -No apparent noteworthy deficiencies in the South abutment during this inspection.						
234	Reinforced Concrete Pier Cap	LF	62	38	14	10	0
1080	Delamination/Spall/Patched Area	LF	6	0	6	0	0
1090	Exposed Rebar	LF	11	0	1	10	0
1120	Efflorescence/Rust Staining	LF	4	0	4	0	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(234)	-There are vertical hairline cracks with light efflorescence over the columns. -There are delaminated areas and spalls with exposed reinforcing steel in the caps. -Exposed reinforcing steel has very little concrete cover from the construction process with up to initial section loss during this inspection. -Stains on the substructure caps indicate water leakage through the failing joint seals.						
301	Pourable Joint Seal	LF	62	0	0	62	0
2310	Leakage	LF	62	0	0	62	0
(301)	-Joint sealant between the spans over the intermediate bents have adhesion failure and leak water onto the substructure caps.						
331	Reinforced Concrete Bridge Railing	LF	210	208	2	0	0
1130	Cracking (RC and Other)	LF	2	0	2	0	0

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(331)	-There are 2 isolated vertical hairline cracks in the face of the parapet walls.						



Elevation.



Approach roadway facing South.



Driving surface of the deck. Typical.



Deck soffit. Typical.



Typical vertical cracking with light efflorescence buildup over the exterior edge of the columns.



Bent 2 cap undersurface spalling with exposed reinforcing steel.



Typical driving surface of the slab.



Bent 3 failed joint seal.



North approach asphalt settlement.



Typical staining from water leakage through the deck joints.



Bent 2 joint seal deterioration.



Span 2 Bent 2 Rt delaminated concrete.



Roadway



Typical undersurface of the slab.



Inventory 2 looking West.



Bent 3 Lt spalling with exposed reinforcing steel.



Deck soffit. Span # 1. Typical.



Span # 2. Right. Delaminated area on the undersurface of the slab.



Driving surface of span # 3. Typical.



Hairline diagonal cracking in the corners of the slab spans.



Bent # 3 columns. Light abrasion.



Bent # 1. Typical.



Bent # 4. Typical.



Bent # 2. Typical.



Spalls with exposed reinforcing steel on the undersurface of bent # 3 cap. Exposed reinforcing steel has up to initial section loss during this inspection.



Staining and delaminated areas in the substructure caps from leaking deck joints.



Leaking expansion joint sealant over bent # 3.



Right parapet. Typical.



Left parapet. Typical.

Maintenance Needs

Date Reported: 10/03/2013
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: 301 - Pourable Joint Seal

Deficiency Description

Expansion Joints

The deck joint sealant over the intermediate bent caps have adhesion failure and leak water. Cap staining indicates the entire length of the joint seals leak and this appears to be contributing to the cracking and spalling in the substructure.

Remarks



Bent # 3 failed joint seal.



Bent # 2 joint seal deterioration.



Stains and delaminated areas in Bent # 2 cap from leaking deck joints.



Leaking expansion joint sealant over Bent # 3.



Leaking expansion joint sealant over Bent # 2.

Date Reported: 10/03/2013
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: 234 - Reinforced Concrete Pier Cap

Deficiency Description

Substructure

Spalling with exposed reinforcing steel on the undersurface of the intermediate bent caps.

Remarks



Bent # 3 Lt spalling with exposed reinforcing steel.



Left end of bent # 3. Spalls with exposed reinforcing steel.

Date Reported: 10/30/2019
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: Approach

Deficiency Description

Approach Roadway

The North approach roadway has cracking with minor settlement.

Remarks



North approach asphalt settlement.



Settlement at the North approach roadway.



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Asphalt settlement at the North approach roadway.

Date Reported: 10/12/2021
Priority: D- Routine
Type of Work: Repair
Status: Open
Component: Approach

Deficiency Description

There are voids under the North approach gutter.

Remarks



Voids under the North approach gutter.



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Inspection Comments

10/12/2021 - JCJ & TJL - Routine Inspection conducted this date.

10/29/2019 - EJW & JPW - Type 2 Underwater Inspection - Wading and probing during very low water conditions indicate that the footings have cover with no apparent scour problems at this inspection.

Superstructure Notes

Concrete slab span.