



Bridge #06814(Routine)
U.S.278 S-13 LM4.5 over SALINE RIVER

Location: 1.2 MILES WEST SH 172

Team Lead: Rickie Bratton Inspection Date: January 27, 2021



Latitude:33.60700, Longitude:-92.01248

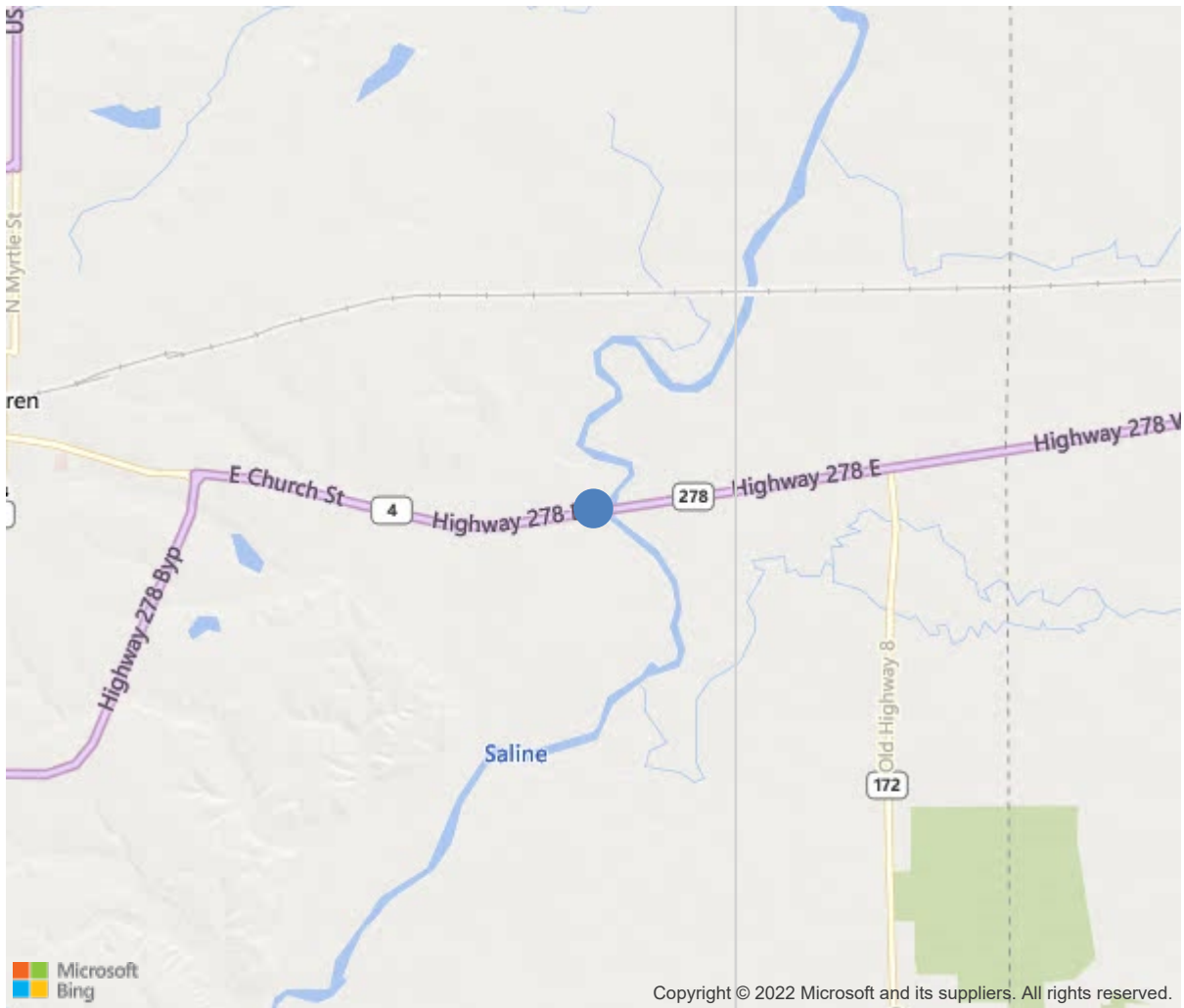
Route:278 Section:13 Log:4.51

Arnold Road ID:6x278x13xA, Arnold Log mile:4.64

District 07, Bradley County

Owner: 1-State Highway Agency

1.2 MILES WEST SH 172



33.60700, -92.01248



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IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	06814
(5) Inventory Route	278
(2) Highway Agency District	07
(3) County Code	11-Bradley County, Arkansas
(4) Place Code	0
(6) Features Intersected	SALINE RIVER
(7) Facility Carried	U.S.278 S-13 LM4.5
(9) Location	1.2 MILES WEST SH 172
(11) Mile Point	4.51 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000278130
(16) Latitude	33.607002
(17) Longitude	-92.012482
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	42
Material	4-Steel continuous
Type	2-Stringer/Multi-beam or girder
(44) Approach Structure Type	42
Material	4-Steel continuous
Type	2-Stringer/Multi-beam or girder
(45) No. of Spans in Main Unit	3
(46) No. of Approach Spans	24
(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	9-Other
AGE AND SERVICE	
(27) Year Built	2002
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	4
Under	0
(29) Average Daily Traffic	5300
(30) Year of ADT	2014
(109) Truck ADT	5 %
(19) Bypass, Detour Length	26 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	124 ft
(49) Structure Length	1760 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	75.1 ft
(52) Deck Width Out to Out	78 ft
(32) Approach Roadway Width (W/Shoulders)	75.1 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	76.1 ft
(53) Min Vert Clear Over Bridge Rdwy	99.9 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 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	6-Rural Minor Arterial
(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	7
(59) Superstructure	7
(60) Substructure	7
(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	8
(68) Deck Geometry	9
(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	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	6132
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			01/2021
(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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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	137280	127260	8132	1888	0
1130	Cracking (RC and Other)	SF	10020	0	8132	1888	0
107	Steel Open Girder/Beam	LF	15840	15840	0	0	0
515	Steel Protective Coating	SF	134406	134406	0	0	0
205	Reinforced Concrete Column	EA	104	103	1	0	0
1130	Cracking (RC and Other)	EA	1	0	1	0	0
(205)	Bent 27 column 4 , vertical cracks near ground line.						
234	Reinforced Concrete Pier Cap	LF	2128	2128	0	0	0
(234)	Bent 24 pier cap on Rt. end has several cracks from leaks in joint material above the cracks.						
302	Compression Joint Seal	LF	780	0	0	736	44
2310	Leakage	LF	20	0	0	0	20
2330	Seal Damage	LF	24	0	0	0	24
2340	Seal Cracking	LF	20	0	0	20	0
2350	Debris Impaction	LF	716	0	0	716	0
(302)	Dirt and debris built up in joints typical of all joints. Bents 5, 8, 12, 16, 20, & 24 Rt. there are holes in joint material near the ends of the joint material that is allowing dirt, debris, and road salts onto girder ends, and the ends of the pier caps, this is typical of all the open joints on both sides of the bridge.						
310	Elastomeric Bearing	EA	296	296	0	0	0
331	Reinforced Concrete Bridge Railing	LF	3520	3520	0	0	0
1130	Cracking (RC and Other)	LF	0	0	0	0	0



Span 5 map cracks



Span 6 map cracks



Soffit span 26



Bent 27 column 4, vertical cracks, 0.030



End approach 1" 1/2 settlement



Span 7, transverse deck cracks 0.040



Span 6 deck crack, max 0.040



River spans 6 and 7 deck overview



Bent 5 joint missing end, approx 2 feet



Deck overview



Approach roadway



Deck overview span 1



Deck over main river span.



Roadway



Soffit span 2



Soffit. Abutment 2



Joint between span 1 and 2. Dirt and debris.



Profile



Soffit river span



Deck



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Team Lead: Rickie Bratton **Inspection Date:** January 27, 2021

Maintenance Needs

Date Reported: 01/27/2011

Priority: D- Routine

Type of Work: None

Status: Monitor

Component:

Deficiency Description

Deck --- all spans.
Sealable transverse and longitudinal cracks.

Remarks



Date Reported: 01/27/2011
Priority: C - Important
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Deck,

Strip seal joint material @ all expansion joints.

Has failed at both ends of each joint, allowing water and road salts on all outside bearing plates and cap ends. Wet debris have built up on the cap ends @ the expansion joints. 01/11/2017 JPR -- No change in the joint material and there is wet debris on top of the caps at these locations.

Remarks





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Date Reported: 01/12/2017
Priority: C - Important
Type of Work: None
Status: Monitor
Component:

Deficiency Description

Bent 24 pier cap on Rt. end has several large cracks from leaks in joint material above the cracks, Bent 24 Lt. pier cap has some cracks on the end of the cap also, Bent 12 pier cap on Rt. end has several cracks on the end of the cap. Bent 24 has small tree growing from cap.

Remarks



Bent 24 pier cap on Rt. end has several cracks from leaks in joint material above the cracks.



Bent 12 Rt. side, large hole in joint material approx. 1 1/2' long & 3/4" - 1" wide, allowing dirt, debris, & road salts to get through to girder ends & top of caps.



Bent 24 Lt. side large crack in joint material approx.
2 1/2' long & 1" wide, allowing dirt, debris, & road
salts to get through to girder ends & top of cap.

Date Reported: 01/12/2017

Priority: D- Routine

Type of Work: None

Status: Monitor

Component:

Deficiency Description

Dirt and debris built up in joints typical of all joints

Remarks



Joint between span 1 and 2. Dirt and debris.



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Inspection Comments

01/22/2019 JPR -- This structure is logged from West to East.