



Latitude:35.84334, Longitude:-93.74322

Route:23 Section:08 Log:7.1

Arnold Road ID:44x23x8xA, Arnold Log mile:7.041

District 09, Madison County

Owner: 1-State Highway Agency

.01 S JCT OF SH 16



35.84334, -93.74322

Inspection Direction : S to N



Bridge #02946(Routine, Underwater type 2)

SH 23-Madison Co. over HAWKINS HOLLOW CR

Location: .01 S JCT OF SH 16

Team Lead: Nathan Rowland Inspection Date: October 25, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	02946
(5) Inventory Route	23
(2) Highway Agency District	09
(3) County Code	87-Madison County, Arkansas
(4) Place Code	0
(6) Features Intersected	HAWKINS HOLLOW CR
(7) Facility Carried	SH 23-Madison Co.
(9) Location	.01 S JCT OF SH 16
(11) Mile Point	7.1 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000023080
(16) Latitude	35.84334
(17) Longitude	-93.74322
(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	4
(46) No. of Approach Spans	0
(107) Deck Structure Type	1-Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6-Bituminous
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1955
(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	1198
(30) Year of ADT	2018
(109) Truck ADT	8 %
(19) Bypass, Detour Length	18 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	28 ft
(49) Structure Length	112 ft
(50) Curb or Sidewalk Width	
Left	1 ft
Right	1 ft
(51) Bridge Roadway Width Curb to Curb	24 ft
(52) Deck Width Out to Out	28.5 ft
(32) Approach Roadway Width (W/Shoulders)	22 ft
(33) Bridge Median	0-No median
(34) Skew	30 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	25.9 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	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	4
(59) Superstructure	4
(60) Substructure	4
(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	43
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	4
Rating	26
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	4
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(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	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	1139
(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	Yes		10/2022
* 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.			

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
234	Reinforced Concrete Pier Cap	LF	99	0	3	83	13
1080	Delamination/Spall/Patched Area	LF	33	0	2	18	13
1090	Exposed Rebar	LF	3	0	1	2	0
1120	Efflorescence/Rust Staining	LF	63	0	0	63	0
(234)							
10/25/2021- WNR & DBM:							
-Intermediate bent caps have heavy efflorescence with mapcracking. -Bent #1 cap has delaminated areas on the left and right sides of the back face side and above and adjacent to column #1 on the ahead face. The bottom portion of cap has a spall on the left side approximately 3' long with approximately 4" of concrete section loss. -Bent #2 cap has spalling with exposed reinforcing steel with delaminated areas on the left and right sides. -Bent #3 cap has an area of spalling with exposed reinforcing steel in the cap undersurface between columns that is approximately 13' long and is the full width of the cap.							
330	Metal Bridge Railing	LF	224	124	100	0	0
1010	Cracking	LF	100	0	100	0	0
515	Steel Protective Coating	SF	695	0	0	0	695
3440	Effectiveness (Steel Protective Coatings)	SF	695	0	0	0	695
(330)							
10/25/2021- WNR & DBM:							
-The metal bridge railing has a failing paint system. -The Bottom of the concrete bridge railing posts have concrete deterioration with areas of spalling that exposes reinforcing steel. -Bridge railing post right side has minor spall from collision damage.							



View of span #4



View of bent #3 cap underneath steel exposed.



General view of left side of structure



View of span #1



View of span #2



View of span #3



View of bent #1 ahead side.



Inventory looking north



Downstream view



Upstream view



General view of deck



Upstream view.



Downstream view.



Inventory looking north.



Downstream



General view of deck



Span #2 left side typical steel exposed around deck drains and left edge



Bent #1 ahead side.



Span #2 typical view of efflorescence and cracking to undersurface of deck.



Bent #3 cap underneath deep spalling with steel exposed.



Upstream



Inventory looking North



Bent #2 large tree drift accumulation.



Asphalt wearing surface left lanes has almost rubblized due to traffic.



Typical cracking of asphalt wearing surface.



General view of span #4 undersurface.



Elevation looking West



Deck concrete curb right side.



Bent #3 cap underneath deep spalling with steel exposed.



elevation looking east



Span #1 undersurface



View of span #2 undersurface



Span #2 left side steel exposed around drains.



View of Span #4 undersurface.



General view of deck



View of span #3 undersurface.



View of bent #1 ahead side.



Bent #2 behind side.



Bent #1 ahead side.



Bent #3 cap underneath deep spalling with steel exposed.

Maintenance Needs

Date Reported: 10/31/2011
Priority: C - Important
Type of Work: None
Status: Assigned
Inspection Direction S to N
Component:

Deficiency Description

Intermediate bent caps - The intermediate bent caps have chloride contamination with heavy mapcracking and efflorescence with areas of spalling with exposed reinforcing steel and delaminated areas. The most extreme case is the undersurface of bent #3 cap which has soft and deteriorated concrete with a large area of spalling between the columns that is approximately 13' long and is the full width of the cap.

Remarks



Bent #3 cap underneath deep spalling with steel exposed.



Bent #3 cap underneath deep spalling with steel exposed.



Bent #2 left behind side spalling with steel exposed.



Bent #1 ahead side.



Bent #2 behind side Cracking with heavy efflorescence.



Spalling with exposed reinforcing steel in cap.

Date Reported: 10/31/2011

Priority: D- Routine

Type of Work: None

Status: Monitor

Inspection Direction S to N

Component:

Deficiency Description

Concrete curb on right side has deterioration with spalling that exposes reinforcing steel the entire length of curb.

Remarks



Concrete curb right spalling with steel exposed.



Deck concrete curb right side.

Date Reported: 10/31/2011
Priority: C - Important
Type of Work: None
Status: Assigned
Inspection Direction S to N
Component:

Deficiency Description

Deck / Superstructure -

The undersurface of the deck / superstructure has mapcracking with efflorescence throughout and concrete deterioration with spalling that exposes the primary reinforcing steel along exterior edges and around the deck drains.

Remarks



Span #2 left side typical steel exposed around deck drains and left edge



Soffit span 2 left - heavy cracking with efflorescence and spalling with exposed reinforcing steel around drain.



General view of span #4 undersurface.



Span #2 typical view of efflorescence and and cracking to undersurface of deck.



Span #2 cracking with efflorescence.



Bridge #02946(Routine, Underwater type 2)
SH 23-Madison Co. over HAWKINS HOLLOW CR

Location: .01 S JCT OF SH 16

Team Lead: Nathan Rowland **Inspection Date:** October 25, 2021

Date Reported: 10/25/2021

Priority: D- Routine

Type of Work: Clean

Status: Open

Inspection Direction S to N

Component: Channel

Deficiency Description

Large tree at bent #2 ahead side.

Remarks



Large tree at bent #2 ahead side.



Bridge #02946(Routine, Underwater type 2)
SH 23-Madison Co. over HAWKINS HOLLOW CR
Location: .01 S JCT OF SH 16

Team Lead: Nathan Rowland **Inspection Date:** October 25, 2021

Inspection Comments

10/25/2021- WNR & DBM: Routine and underwater type II inspection conducted this date see element notes for documentation.

Logged South to North.