



Latitude:35.81843, Longitude:-93.77979

Route:23 Section:08 Log:4.21

Arnold Road ID:44x23x8xA, Arnold Log mile:4.144

District 09, Madison County

Owner: 1-State Highway Agency



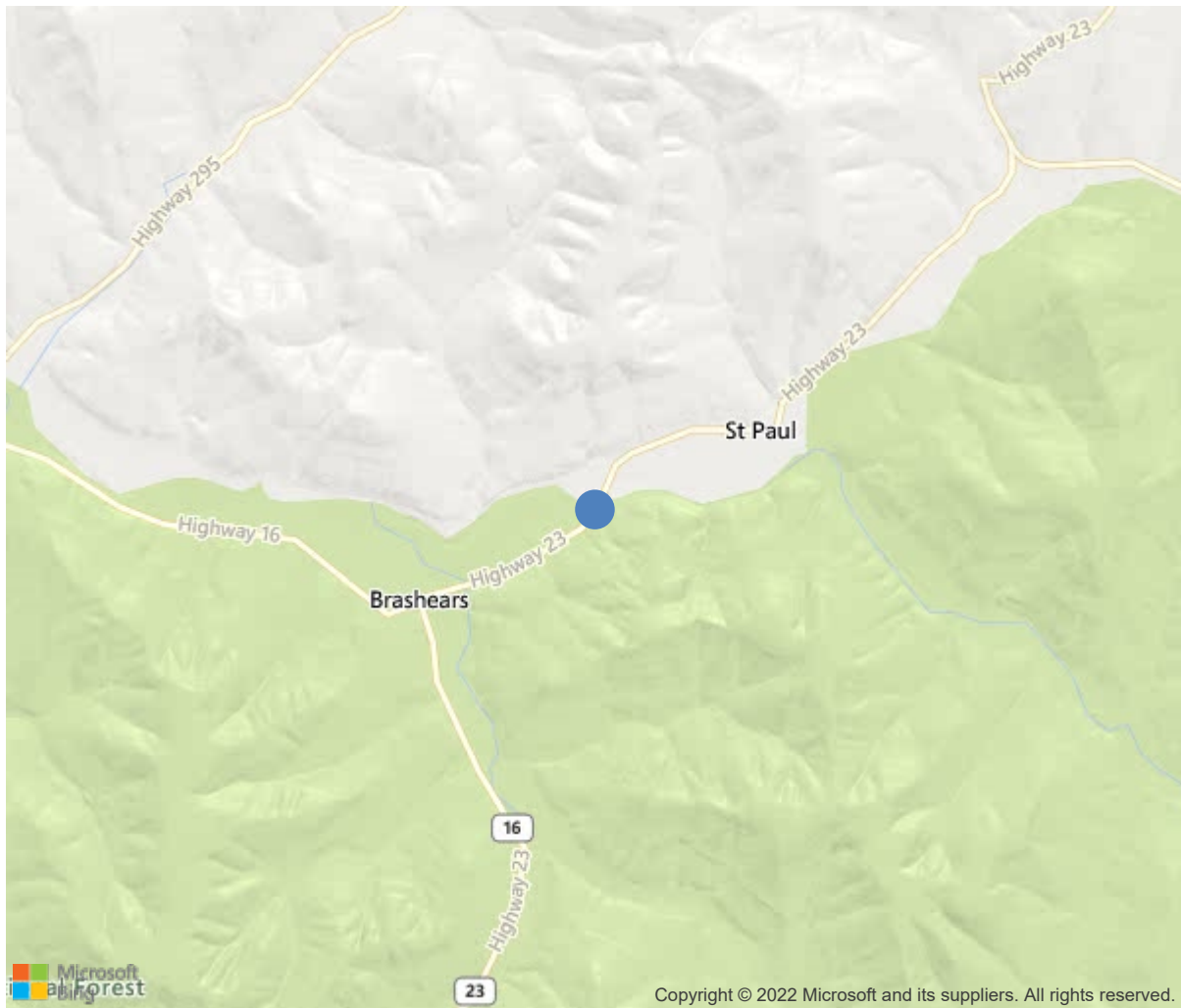
**Bridge #06370**(Routine, Underwater type 2)

**SH 23 Madison over WHITE RIVER**

**Location: 4.26 M N OF FRANKLIN CO**

**Team Lead:** Nathan Rowland **Inspection Date:** August 01, 2022

4.26 M N OF FRANKLIN CO



35.81843, -93.77979

Inspection Direction : S to N



Bridge #06370(Routine, Underwater type 2)

SH 23 Madison over WHITE RIVER

Location: 4.26 M N OF FRANKLIN CO

Team Lead: Nathan Rowland Inspection Date: August 01, 2022

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	06370
(5) Inventory Route	23
(2) Highway Agency District	09
(3) County Code	87-Madison County, Arkansas
(4) Place Code	0
(6) Features Intersected	WHITE RIVER
(7) Facility Carried	SH 23 Madison
(9) Location	4.26 M N OF FRANKLIN CO
(11) Mile Point	4.21 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000023080
(16) Latitude	35.81843
(17) Longitude	-93.77979
(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	5
(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	1-Epoxy Coated Reinforcing
AGE AND SERVICE	
(27) Year Built	1992
(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	1200
(30) Year of ADT	2018
(109) Truck ADT	4 %
(19) Bypass, Detour Length	58 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	65 ft
(49) Structure Length	328 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	36.1 ft
(52) Deck Width Out to Out	38.8 ft
(32) Approach Roadway Width (W/Shoulders)	24 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	37.1 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	7
(59) Superstructure	6
(60) Substructure	6
(61) Channel & Channel Protection	5
(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	5
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	6
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	9
(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	1300
(115) Year of Future ADT	2038

INSPECTIONS *			
(90) Inspection Date	08/2022		
(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 #06370(Routine, Underwater type 2)

SH 23 Madison over WHITE RIVER

Location: 4.26 M N OF FRANKLIN CO

Team Lead: Nathan Rowland, Inspection Date: August 01, 2022

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	11700	9799	1901	0	0
1080	Delamination/Spall/Patched Area	SF	56	0	56	0	0
1130	Cracking (RC and Other)	SF	1845	0	1845	0	0
(12)	08/01/2022 WNR & DBM -Span #1 right gutter line adjacent to bent #1 there is an active area of heavy scaling and spalling. -The deck driving surface has map cracking in the driving lanes throughout the deck.						
107	Steel Open Girder/Beam	LF	1625	1331	86	208	0
1000	Corrosion	LF	294	0	86	208	0
515	Steel Protective Coating	SF	14625	14174	0	0	451
3440	Effectiveness (Steel Protective Coatings)	SF	451	0	0	0	451
(107)	08/01/2022 WNR & DBM -The majority of beam ends Have minor flaking rust to the bottom flange due to leaking joints.						
205	Reinforced Concrete Column	EA	12	11	0	1	0
1090	Exposed Rebar	EA	1	0	0	1	0
(205)	08/01/2022 WNR & DBM - Bent #2 column #1 ahead side near the base has spalling with steel exposed.						
215	Reinforced Concrete Abutment	LF	142	52	90	0	0
1080	Delamination/Spall/Patched Area	LF	38	0	38	0	0
1130	Cracking (RC and Other)	LF	52	0	52	0	0
(215)	08/01/2022 WNR & DBM -The top of both abutment back walls have multiple areas of cracking. Abutment #1 has a large are of spalling with areas of asphalt patching.  Abutment #2 light map crack under girders #1 & #2						
234	Reinforced Concrete Pier Cap	LF	204	0	204	0	0
1130	Cracking (RC and Other)	LF	204	0	204	0	0
(234)	08/01/2022 WNR & DBM Bent caps #2 thru #5 have random map cracking with efflorescence.						
302	Compression Joint Seal	LF	324	0	0	0	324

**Team Lead:** Nathan Rowland, **Inspection Date:** August 01, 2022

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
2320	Seal Adhesion	LF	64	0	0	0	64
2340	Seal Cracking	LF	260	0	0	0	260
(302)							
08/01/2022 WNR & DBM							
-All joints have areas of lost adhesion and cracking.							
-All bents have minimal space between road irons that is restricting compression joints from functioning as intended and causing joint material to back out.							
The majority of all compression joint material has severe cracking with areas where joint material that has been displaced.							
311	Movable Bearing	EA	25	10	15	0	0
1000	Corrosion	EA	15	0	15	0	0
(311)							
08/01/2022 WNR & DBM							
Some bearings showing signs of corrosion							
313	Fixed Bearing	EA	25	14	11	0	0
1000	Corrosion	EA	11	0	11	0	0
(313)							
08/01/2022 WNR & DBM							
Some bearings showing signs of corrosion							
331	Reinforced Concrete Bridge Railing	LF	650	456	193	1	0
1080	Delamination/Spall/Patched Area	LF	1	0	0	1	0
1130	Cracking (RC and Other)	LF	193	0	193	0	0
(331)							
08/01/2022 WNR & DBM							
-Span 3 right railing adjacent Bent 3 basketball sized to the top of parapet wall with steel exposed.							
-Both the left and right parapet have vertical cracking in construction joints and in random locations.							
-Both left and right parapet walls have map cracking in random locations in all spans.							



Inventory looking north



View of abutment #1



General view of superstructure



Upstream view



View of joint at abutment #2



Downstream view



General view of deck



View of abutment #1 joint



Downstream view.



Upstream view



Inventory looking North.



Elevation looking East.



General view of bent 1 behind side.



Span 1 typical map cracking.



Span 3 right railing adjacent Bent 3 spalling to the top of parapet wall with steel exposed.



Span 1 right adjacent bent 1 large area of spalling.



Abutment 2 bridge seat areas of map cracking.



Span 5 abutment 2 girder 1 nut is missing.



Bent 4 compression joint material being pushed out of joint due to excessive compression.



General view of span 2



Bent 4 minimal space between road irons.



Bent 2 Column 1 ahead side spalling with steel exposed.



Inventory 1 looking North.



Bent 2 joint material lose of adhesion and flaking rust on road irons.



General view span 3



Span 5 abutment 2 girder 2 nut is missing.



Abutment 1 joint material displaced and top of abutment back wall has spalls.



Bent 4 cap mapcracking.



Railing Right typical view of cracking in parapet wall.



Abutment 2 joint.



Span 1 Bent 1 Bearing 1 - Typical condition of bearings with active corrosion.



General view of span 1



Ben 1 joint.



Elevation looking East.



General view of deck



Typical condition of beams ends with minor flaking rust.



General view of superstructure.



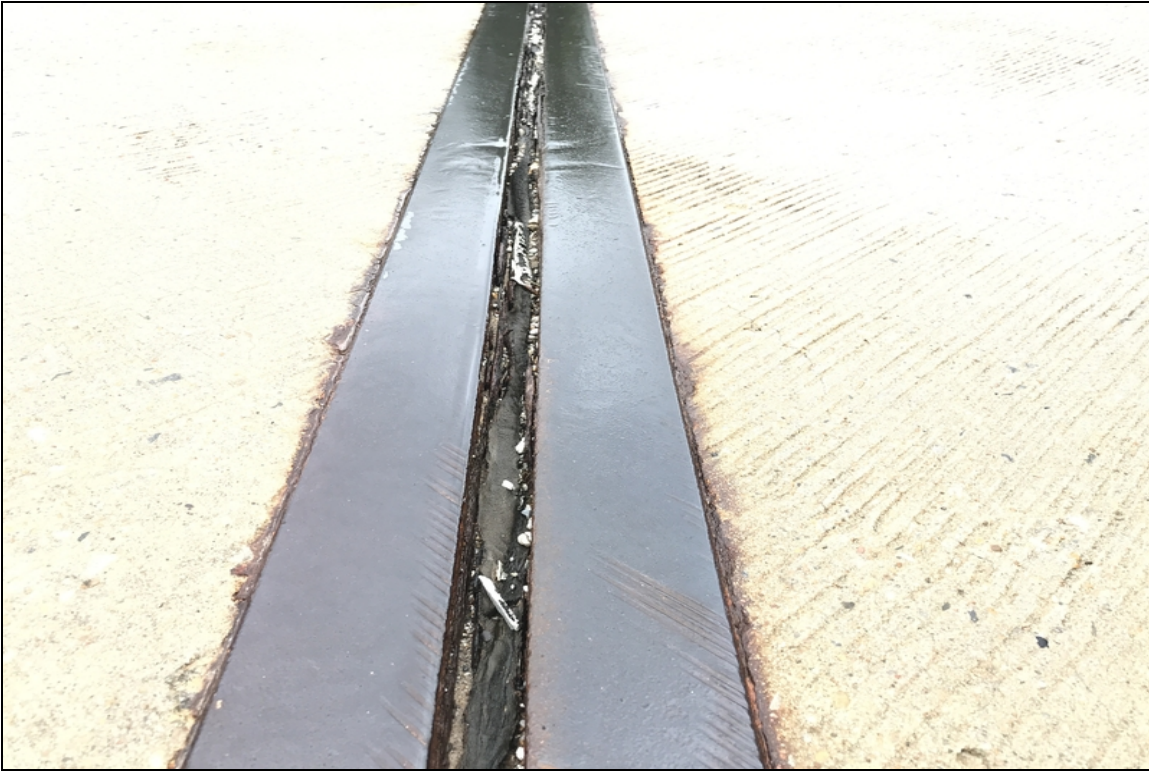
Abutment #1 joint.



Bent #1 joint.



Bent #2 joint



Bent #2 typical condition of joint material.



Bent #3 joint.



Bent #4 joint.



Abutment #2 joint.



**Bridge #06370**(Routine, Underwater type 2)

**SH 23 Madison over WHITE RIVER**

**Location: 4.26 M N OF FRANKLIN CO**

**Team Lead:** Nathan Rowland **Inspection Date:** August 01, 2022

## Maintenance Needs

**Date Reported:** 07/17/2012

**Priority:** D- Routine

**Type of Work:** None

**Status:** Monitor

**Inspection Direction** S to N

**Component:**

---

## Deficiency Description

Deck Cracking:

-The deck driving surface has mapcracking in the driving lanes throughout the deck.

## Remarks

---



The deck driving surface has mapcracking in the driving lanes throughout the deck.

**Date Reported:** 07/17/2012

**Priority:** D- Routine

**Type of Work:** None

**Status:** Monitor

**Inspection Direction** S to N

**Component:**

---

**Deficiency Description**

Bent #2 column #1 ahead side near the base has spalling with steel exposed.

**Remarks**

---



Exposed rebar column #1 of bent #2



Bent 2 Column 1 ahead side spalling with steel exposed.

**Date Reported:** 07/17/2012  
**Priority:** C - Important  
**Type of Work:** None  
**Status:** Assigned  
**Inspection Direction** S to N  
**Component:**

---

**Deficiency Description**

Deck Surface:

-Span #1 right gutter line adjacent to bent #1 there is an active area of heavy scaling and spalling.

**Remarks**

---



Span 1 right adjacent bent 1 large area of spalling.

**Date Reported:** 07/17/2012

**Priority:** D- Routine

**Type of Work:** None

**Status:** Monitor

**Inspection Direction** S to N

**Component:**

---

**Deficiency Description**

Bents caps #2 thru #5- random cracking with efflorescence

**Remarks**

---



Typical map cracking to all bent caps.



Bent 4 cap mapcracking.



Cracking in cap the behind side of bent #4

**Date Reported:** 07/17/2012

**Priority:** D- Routine

**Type of Work:** None

**Status:** Monitor

**Inspection Direction** S to N

**Component:**

---

**Deficiency Description**

Abutment #2 top of backwall extensive map cracking with deterioration.

**Remarks**

---



Map cracking to face of abutment #2



Abutment 2 bridge seat areas of map cracking.

**Date Reported:** 07/18/2018  
**Priority:** C - Important  
**Type of Work:** None  
**Status:** Monitor  
**Inspection Direction** S to N  
**Component:**

---

**Deficiency Description**

Missing Nuts:

- In span #5 abutment #2 girders #1 & #2 have nuts is missing for the anchor bolts.

**Remarks**

---



In span #5 abutment #2 girder #2 has nut is missing for the anchor bolt.



In span #5 abutment #2 girders #1 has nut is missing for the anchor bolt.



**Bridge #06370**(Routine, Underwater type 2)

**SH 23 Madison over WHITE RIVER**

**Location: 4.26 M N OF FRANKLIN CO**

**Team Lead:** Nathan Rowland **Inspection Date:** August 01, 2022

**Inspection Comments**

08/01/2022 WNR & DBM:

Routine and Underwater Type II inspections conducted this date. See Element notes for documentation.

Logged South to North.