



Latitude:36.40228, Longitude:-94.15901

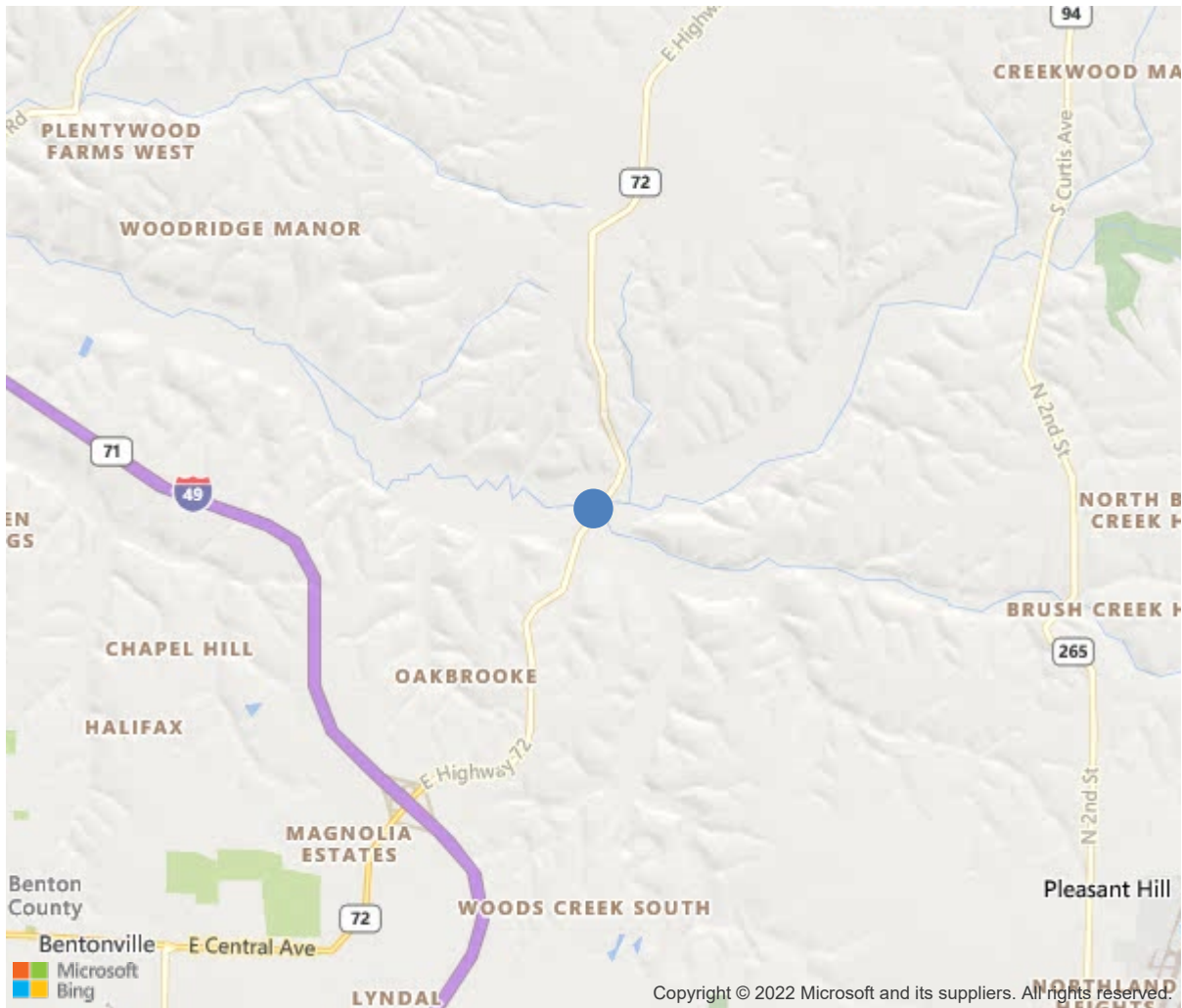
Route:72 Section:03 Log:2.1

Arnold Road ID:4x72x3xA, Arnold Log mile:2.077

District 09, Benton County

Owner: 1-State Highway Agency

2.1 M NE of JCT US 71



36.40228, -94.15901

Inspection Direction :



Bridge #07056(Routine, Underwater type 2)

SH 72 Benton 1 over LITTLE SUGAR CREEK

Location: 2.1 M NE of JCT US 71

Team Lead: Nathan Rowland Inspection Date: April 29, 2021

| IDENTIFICATION                            |  |
|---|--|
| (1) State Names                           | Arkansas                                   |
| (8) Structure Number                      | 07056                                      |
| (5) Inventory Route                       | 72   |
| (2) Highway Agency District               | 09   |
| (3) County Code                           | 7-Benton County, Arkansas                  |
| (4) Place Code                            | 0  |
| (6) Features Intersected                  | LITTLE SUGAR CREEK                         |
| (7) Facility Carried                      | SH 72 Benton 1                             |
| (9) Location                              | 2.1 M NE of JCT US 71                      |
| (11) Mile Point                           | 2.1 mi                                     |
| (12) Base Highway Network                 | No   |
| (13) LRS Inventory Rte & Subrte           | 0000000000                                 |
| (16) Latitude                             | 36.40228                                   |
| (17) Longitude                            | -94.15901                                  |
| (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              | 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                           | 2007                                       |
| (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                | 12000                                      |
| (30) Year of ADT                          | 2018                                       |
| (109) Truck ADT                           | 15 %                                       |
| (19) Bypass, Detour Length                | 3 mi                                       |
| GEOMETRIC DATA                            |  |
| (48) Length of Maximum Span               | 95 ft                                      |
| (49) Structure Length                     | 440 ft                                     |
| (50) Curb or Sidewalk Width               |  |
| Left                                      | 0 ft                                       |
| Right                                     | 0 ft                                       |
| (51) Bridge Roadway Width Curb to Curb    | 40 ft                                      |
| (52) Deck Width Out to Out                | 43.4 ft                                    |
| (32) Approach Roadway Width (W/Shoulders) | 40 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    | 41.3 ft                                    |
| (53) Min Vert Clear Over Bridge Rdwy      | 99.9 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                  | 16-Urban 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           | 4-Historical significance is not dete  |
| CONDITION                              |  |
| (58) Deck                              | 6                                      |
| (59) Superstructure                    | 7                                      |
| (60) Substructure                      | 8                                      |
| (61) Channel & Channel Protection      | 6                                      |
| (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                     | 5                                      |
| (69) Clearances, Vertical/Horizontal   | N                                      |
| (71) Waterway Adequacy                 | 9                                      |
| (72) Approach Roadway Alignment        | 7                                      |
| (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                       | 8180                                   |
| (115) Year of Future ADT               | 2028                                   |

| INSPECTIONS *  |      |             |           |
|--|------|-------------|-----------|
| (90) Inspection Date   |      |             | 04/2021   |
| (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 #07056(Routine, Underwater type 2)**  
**SH 72 Benton 1 over LITTLE SUGAR CREEK**

**Location: 2.1 M NE of JCT US 71**

**Team Lead:** Nathan Rowland, **Inspection Date:** April 29, 2021

| ELEM   | DESCRIPTION   | UNITS | TOTAL | CS1   | CS2  | CS3 | CS4 |
|--|---|-------|-------|-------|------|-----|-----|
| 12   | Reinforced Concrete Deck  | SF    | 17524 | 16425 | 1099 | 0   | 0   |
| 1120   | Efflorescence/Rust Staining   | SF    | 115   | 0     | 115  | 0   | 0   |
| 1130   | Cracking (RC and Other)   | SF    | 108   | 0     | 108  | 0   | 0   |
| 1190   | Abrasion/Wear (PSC/RC)  | SF    | 876   | 0     | 876  | 0   | 0   |
| (12)   |   |       |       |       |      |     |     |
| 04/29/2021 WNR & DBM:<br>Driving surface:<br>- Left and right lanes have longitudinal cracking throughout the entire deck at random locations<br>- The wheel paths of the left and right lanes have light wear.<br>- The gutter line at the right and left sides both have minor debris accumulation.<br>- South approach roadway in the left lane has minor settlement.                               |   |       |       |       |      |     |     |
| Deck Undersurface:<br>- The undersurface of the deck overhangs have transverse cracking with light efflorescence at random spacing in all spans.<br>Span #2- bays 2 & 3 have corrosion in the SIP forms 15' from bent #1 beneath the pourable joint seal.  |   |       |       |       |      |     |     |
| Span #3 has sip corrosion in bays #3,4 beneath the first field splice and in bay #1 at the 2nd field splice.   |   |       |       |       |      |     |     |
| 107  | Steel Open Girder/Beam  | LF    | 2185  | 2174  | 11   | 0   | 0   |
| 1000   | Corrosion   | LF    | 11    | 0     | 11   | 0   | 0   |
| 515  | Steel Protective Coating  | SF    | 29822 | 29800 | 0    | 22  | 0   |
| 3430   | Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings) | SF    | 22    | 0     | 0    | 22  | 0   |
| (107)  |   |       |       |       |      |     |     |
| 04/29/2021 WNR & DBM:<br>5 beam weathering steel system. The visible beam surface is 38" tall by 15 3/4" flange.   |   |       |       |       |      |     |     |
| Span #1- beam #1 has 2' of minor corrosion on the web at the beginning of the span. Beam #5 on the exterior side has 4' of minor corrosion on the web and bottom flange over abutment #1. The weathering steel patina is dark and has developed flaking in the affected area.  |   |       |       |       |      |     |     |
| Span 2 - has 4' of corrosion with flaking rust on beam #3 in span #2 at the field splice.  |   |       |       |       |      |     |     |
| Span #3- no deficiencies noted.  |   |       |       |       |      |     |     |
| Span #4- no deficiencies noted.  |   |       |       |       |      |     |     |
| Span #5- beam #5 has 1' of minor corrosion on the exterior web.  |   |       |       |       |      |     |     |
| 205  | Reinforced Concrete Column  | EA    | 12    | 12    | 0    | 0   | 0   |
| (205)  |   |       |       |       |      |     |     |
| 04/29/2021 WNR & DBM:<br>Bent #1 column #3, Bent #2 column #1, Bent #3 column #3 and bent #4 column #3 all have localized scour due a flooding event. Bent #2 column #1 is the worst case condition due to minor channel migration that has directed the channel flow into the substructure. No footings were exposed at these locations.<br>- Areas of minor honeycombing are typical in the columns. |   |       |       |       |      |     |     |

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**Location: 2.1 M NE of JCT US 71**

**Team Lead:** Nathan Rowland, **Inspection Date:** April 29, 2021

| ELEM   | DESCRIPTION   | UNITS | TOTAL | CS1 | CS2 | CS3 | CS4 |
|--|---|-------|-------|-----|-----|-----|-----|
| 215  | Reinforced Concrete Abutment  | LF    | 138   | 110 | 28  | 0   | 0   |
| 1120   | Efflorescence/Rust Staining   | LF    | 5     | 0   | 5   | 0   | 0   |
| 1130   | Cracking (RC and Other)   | LF    | 23    | 0   | 23  | 0   | 0   |
| (215)  |   |       |       |     |     |     |     |
| 04/29/2021 WNR & DBM:<br>- Cracking in the back walls of abutments #1 & 2 was noted and is visible as transverse cracking across the top of the backwalls from the driving surface. The back wall has a few full height vertical cracks with light efflorescence in both abutments.<br>The rip rap is in place and functioning as intended at abutments #1 and #2.   |   |       |       |     |     |     |     |
| 234  | Reinforced Concrete Pier Cap  | LF    | 188   | 188 | 0   | 0   | 0   |
| (234)  |   |       |       |     |     |     |     |
| 04/29/2021 WNR & DBM:<br>No deficiencies apparent in the caps at this inspection.  |   |       |       |     |     |     |     |
| 300  | Strip Seal Expansion Joint  | LF    | 98    | 8   | 90  | 0   | 0   |
| 2350   | Debris Impaction  | LF    | 90    | 0   | 90  | 0   | 0   |
| (300)  |   |       |       |     |     |     |     |
| 04/29/2021 WNR & DBM:<br>- Abutments 1 & 2 have loose debris impaction the full width of expansion joints.   |   |       |       |     |     |     |     |
| 310  | Elastomeric Bearing   | EA    | 30    | 26  | 0   | 4   | 0   |
| 1000   | Corrosion   | EA    | 4     | 0   | 0   | 4   | 0   |
| 515  | Steel Protective Coating  | SF    | 60    | 52  | 0   | 8   | 0   |
| 3430   | Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings) | SF    | 8     | 0   | 0   | 8   | 0   |
| (310)  |   |       |       |     |     |     |     |
| 04/29/2021 WNR & DBM:<br>Abutment #1 bearings- #1,5 have corrosion with flaking rust due to a leaking expansion joint.<br><br>Bent #1 bearings- no deficiencies noted on all 5.<br><br>Bent #2 bearings- no deficiencies noted on all 5.<br><br>Bent #3 bearings- no deficiencies noted on all 5.<br><br>Bent #4 bearings- no deficiencies noted on all 5.<br><br>Abutment #2 bearings- bearings #1,5 both have corrosion with flaking rust due to a leaking joint seal. |   |       |       |     |     |     |     |
| 331  | Reinforced Concrete Bridge Railing  | LF    | 880   | 739 | 141 | 0   | 0   |
| 1130   | Cracking (RC and Other)   | LF    | 141   | 0   | 141 | 0   | 0   |
| (331)  |   |       |       |     |     |     |     |
| 04/29/2021 WNR & DBM:<br>- Vertical hairline cracking at random spacing was noted in the left and right parapet walls. The cracks are mostly at the saw joints and corners of the drain areas.   |   |       |       |     |     |     |     |



Inventory looking north



General view of deck.



General view of abutment #1



Longitudinal cracking over bent #1 in south bound lanes.



View of abutment #2



View of bent #4 ahead side.



Abutment #2 expansion joint debris impact



View of joint at abutment #1



Upstream view



Upstream view



Downstream view



Typical view of the 5 bearings at abutment #1.



General view of abutment #2.



Approach view in direction of log mile.



4' of corrosion with flaking rust on beam #3 in span #2 at the field splice.



View of strip seal expansion joint at abutment #1.



Bridge plate.



Typical efflorescence cracking in the deck over hangs.



Typical view of driving surface.



Upstream channel view.



General view of the bents.



Minor corrosion of beam #5 in span #1. Typical of other locations.



Typical view of the undersurface.



Downstream channel view.



Approach guard rail damage at the right beginning of the structure.



Elevation view. Log mile from left to right.



Column #1 of bent #2 showing local scour. No footing was exposed.



General view of abutment #1.



Typical bearing condition over the bents.



Minor local scour around column #3 of bent # 4. No footing was exposed.

## Maintenance Needs

**Date Reported:** 04/24/2013  
**Priority:** C - Important  
**Type of Work:** None  
**Status:** Assigned  
**Component:**

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## Deficiency Description

The southeast approach railing has collision damage that has created a "pocket" in the railing.

## Remarks

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The southeast approach railing has collision damage that has created a "pocket" in the railing.



Guard rail damage at right side approach rail



**Bridge #07056**(Routine, Underwater type 2)  
**SH 72 Benton 1 over LITTLE SUGAR CREEK**

**Location: 2.1 M NE of JCT US 71**

**Team Lead:** Nathan Rowland **Inspection Date:** April 29, 2021

**Date Reported:** 04/24/2013

**Priority:** D- Routine

**Type of Work:** None

**Status:** Assigned

**Component:**

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### Deficiency Description

Deck -

The driving surface of the deck has sealable cracking in all spans.

The joint seals are beginning to leak and are promoting corrosion of the exterior bearings at abutments #1,2.

### Remarks

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Typical longitudinal cracking.



Bent 1 Left longitudinal cracking.



Longitudinal cracking over bent #1 in south bound lanes.

**Date Reported:** 05/03/2021  
**Priority:** C - Important  
**Type of Work:** Clean  
**Status:** Open  
**Component:** Channel

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### Deficiency Description

Drift accumulation:

- Span #2 has a large tree that has wedged against girder #5 resulting from a high water event.
- The upstream side of Bent #3 has drift accumulation.

### Remarks

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Bent #3 drift accumulation



Span #2 has a large tree that has wedge against girder #5 resulting from a high water event.



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**SH 72 Benton 1 over LITTLE SUGAR CREEK**

**Location: 2.1 M NE of JCT US 71**

**Team Lead:** Nathan Rowland **Inspection Date:** April 29, 2021

### **Inspection Comments**

04/29/2021 WNR & DBM: Routine and underwater type II inspection conducted this date. See element notes for documentation.

Structure is logged from South to North and is accessible with a small extension ladder.

No bat activity was noted.