



Latitude:36.38132, Longitude:-94.17578

Route:72 Section:03 Log:0.09

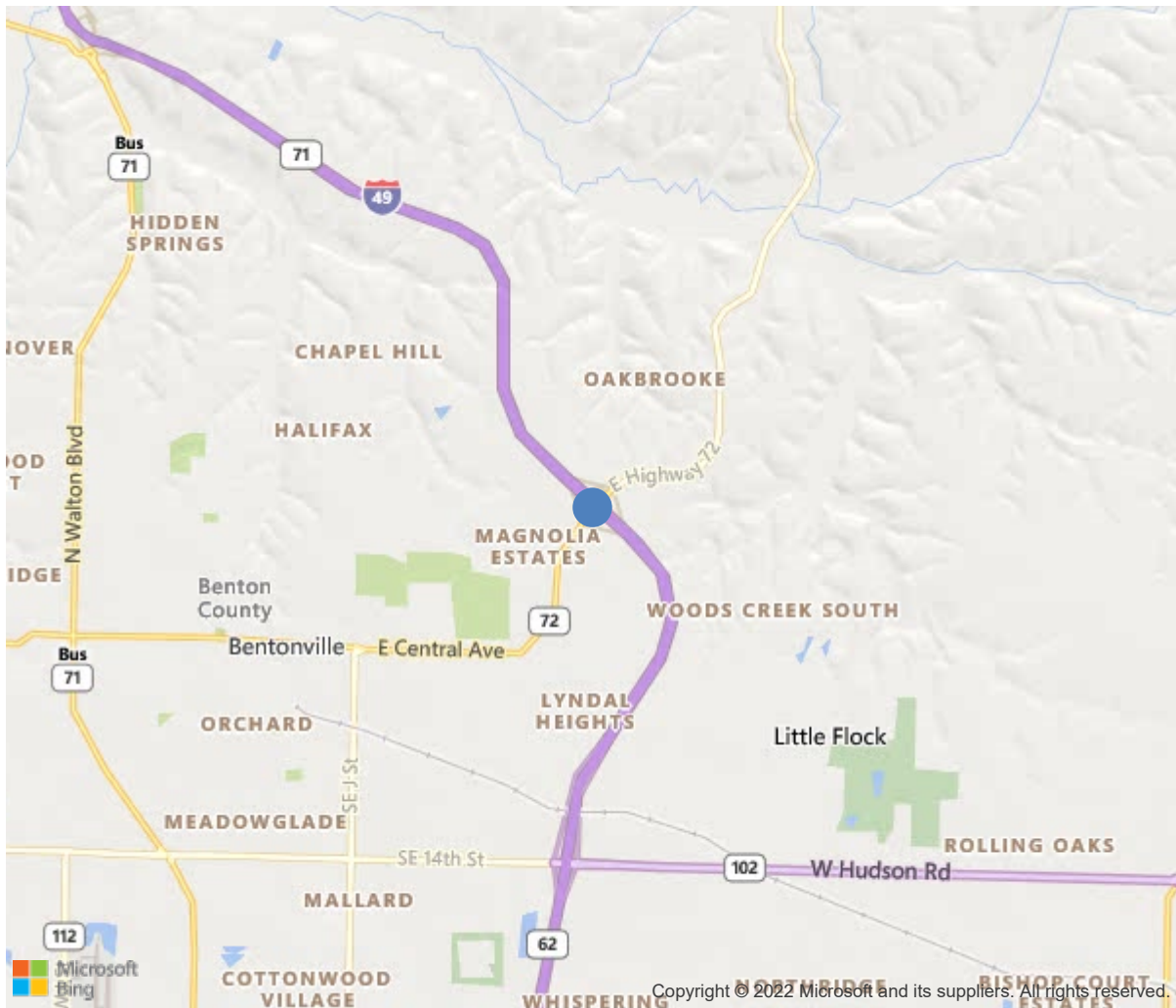
Arnold Road ID:4x72x3xA, Arnold Log mile:0.075

District 09, Benton County

Owner: 1-State Highway Agency

Place Code: 05320 - Bentonville

2.58 E BENTONVILLE





Bridge #05982(Routine)

SH 72 Benton 1 over I-49 Benton 1

Location: 2.58 E BENTONVILLE

Team Lead: Nathan Rowland Inspection Date: October 05, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	05982
(5) Inventory Route	72
(2) Highway Agency District	09
(3) County Code	7-Benton County, Arkansas
(4) Place Code	5320
(6) Features Intersected	I-49 Benton 1
(7) Facility Carried	SH 72 Benton 1
(9) Location	2.58 E BENTONVILLE
(11) Mile Point	0.09 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	36.38132
(17) Longitude	-94.17578
(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	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	1-Monolithic Concrete (concurrently placed
Type of Membrane	0-None
Type of Deck Protection	1-Epoxy Coated Reinforcing
AGE AND SERVICE	
(27) Year Built	1989
(106) Year Reconstructed	0
(42) Type of Service	11
On	1-Highway
Under	1-Highway, with or without pedestrian
(28) Lane	
On	3
Under	4
(29) Average Daily Traffic	16000
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	1 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	86 ft
(49) Structure Length	266 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	5 ft
(51) Bridge Roadway Width Curb to Curb	54.7 ft
(52) Deck Width Out to Out	84.7 ft
(32) Approach Roadway Width (W/Shoulders)	74 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	41 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	16.6 ft
Ref:	
(55) Min Lat Underclear RT	30.7 ft
Ref:	
(56) Min Lat Underclear LT	8 ft
NAVIGATION DATA	
(38) Navigation Control	N-Not applicable, no waterway.
(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	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	7
(59) Superstructure	6
(60) Substructure	8
(61) Channel & Channel Protection	N
(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	4
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	9
(69) Clearances, Vertical/Horizontal	6
(71) Waterway Adequacy	N
(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	0-Inspected feature does not meet cur
(113) Scour Critical Bridges	N-Bridge not over waterway.
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	20731
(115) Year of Future ADT	2027

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.			

Team Lead: Nathan Rowland, **Inspection Date:** October 05, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	22351	21498	853	0	0
1130	Cracking (RC and Other)	SF	506	0	506	0	0
1190	Abrasion/Wear (PSC/RC)	SF	347	0	347	0	0
(12)							
10/5/2021 WNR & DBM: -The new widened driving surface of the deck southbound side has numerous longitudinal and transverse sealable cracks in random locations. -The new widened driving surface of the northbound lanes has numerous transverse sealable deck cracks in random locations. -The original deck surface has longitudinal cracking in random locations, as well as wearing and abrasion in the wheel paths.							
107	Steel Open Girder/Beam	LF	30056	30053	0	3	0
1900	Distortion	LF	3	0	0	3	0
515	Steel Protective Coating	SF	35205	35197	0	8	0
3410	Chalking (Steel Protective Coatings)	SF	0	0	0	0	0
3440	Effectiveness (Steel Protective Coatings)	SF	8	0	0	8	0
(107)							
10/5/2021 WNR & DBM: -Structure has been widened since last inspection. Four girders have been added to the left side and two to the right side of structure. -Span #1, Girder #10 has cuts that penetrate into the webs where the diaphragm connection plates appear to have been installed in the incorrect locations and were removed by circular cutting wheel. The cut marks penetrate the web approximately 1/16" in locations. Contractor forces have placed welded repairs in these locations.							
8/25/21 accident inspection performed by BDS/ LRW Span #3- beam #3 has 3" of upward distortion on the bottom flange for 1' that is 41' ahead of bent #2 due to an excavator impact accident on 8/24/21. The beam has flaking paint on the bottom flange 5' ahead of the point of impact. Beam #8 has 2" of upward distortion on the bottom flange 41' ahead of bent #2. Beam #9 has a small area of flaking paint #3 diaphragm due to the beam flexing during the impact. Beam #12 has 3" of upward distortion on the bottom flange for 1' that is 41' ahead of bent #2. The bottom flange of beam #12 has flaking paint beneath the #3 and #4 diaphragms behind and ahead of the point of impact.							
205	Reinforced Concrete Column	EA	18	17	0	1	0
1080	Delamination/Spall/Patched Area	EA	1	0	0	1	0
(205)							
10/5/2021 WNR & DBM: -The recently constructed column #1 of bent #1 has a spalled area with no exposed reinforcing steel approximately 12" from base of column.							
215	Reinforced Concrete Abutment	LF	167	149	18	0	0
1080	Delamination/Spall/Patched Area	LF	5	0	5	0	0
1130	Cracking (RC and Other)	LF	13	0	13	0	0
(215)							
10/5/2021 WNR & DBM: -The top of back the backwall at abutment #1 visible from driving surface has longitudinal cracking at random spacing. Abutment #1							



Bridge #05982(Routine)

SH 72 Benton 1 over I-49 Benton 1

Location: 2.58 E BENTONVILLE

Team Lead: Nathan Rowland, Inspection Date: October 05, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
also has multiple areas of small shallow spalls on top of the abutment in same locations. -The abutment has been widened since last inspection. -The left side of the widened portion of abutment #2 backwall has a large area of honeycombing above the bridge seat. -Abutment #2 top of backwall (driving surface) - road-iron is approximately 0.5" lower than deck road-iron.							
234	Reinforced Concrete Pier Cap	LF	229	229	0	0	0
(234)							
10/5/2021 WNR & DBM:							
-No noteworthy deficiencies at this inspection.							
302	Compression Joint Seal	LF	170	143	0	24	3
2320	Seal Adhesion	LF	3	0	0	0	3
2350	Debris Impaction	LF	24	0	0	24	0
(302)							
10/5/2021 WNR & DBM:							
-No noteworthy notes apparent at this inspection.							
310	Elastomeric Bearing	EA	48	48	0	0	0
(310)							
10/5/2021 WNR & DBM:							
No noteworthy deficiencies at this inspection.							
311	Movable Bearing	EA	12	0	2	10	0
1000	Corrosion	EA	12	0	2	10	0
515	Steel Protective Coating	SF	36	0	0	0	36
3440	Effectiveness (Steel Protective Coatings)	SF	36	0	0	0	36
(311)							
10/5/2021 WNR & DBM:							
-The Rocker bearings at abutments #1 and #2 have fretting rust due to the fact that during this inspection traffic could be heard impacting the girders/bearing areas causing the fretting rust seen in the photos shown in report dated 09/04/2019.							
-The contractor has cleaned and painted rocker bearings under contract CA0902.							
-Bearing #5 at abutment #1 and bearings #5 and #10 at abutment #2 are missing one bolt that attaches the sole plate to the bearing device.							
-Bearings #6, #7, #9, & #10 at abutment #1 are missing one anchor bolt.							
-Bearings #7, 9 and #10 at abutment #2 are missing one anchor bolt.							
330	Metal Bridge Railing	LF	260	260	0	0	0
515	Steel Protective Coating	SF	4160	4160	0	0	0
(330)							
10/5/2021 WNR & DBM:							
-During this inspection only the right parapet had metal railing attached to it. Additionally the PVC conduit was plumbed for the street lights but they have not been placed yet.							
331	Reinforced Concrete Bridge Railing	LF	532	347	185	0	0
1130	Cracking (RC and Other)	LF	185	0	185	0	0

Bridge #05982(Routine)
SH 72 Benton 1 over I-49 Benton 1
Location: 2.58 E BENTONVILLE

Team Lead: Nathan Rowland, **Inspection Date:** October 05, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(331)	10/5/2021 WNR & DBM: -Left and right parapet have vertical cracking in random locations or in the areas of construction sawn joints.						



Inventory looking North



View of bent #2 bearings.



View of abutment #2 joint.



View of longitudinal cracking in older portion of bridge.



General view of deck



View of bearings at abutment #1.



View of span #2.



View of span #3



Fretting dust in the bearing area.



General view of span #3 superstructure.



Typical view of rocker bearings at abutment #1.



Elevation looking West.



General view of Abutment #2



Girder #10 in spans #1 has cuts that penetrate into the web of the diaphragm connection plates that appear to have been installed in the incorrect locations and were removed by mechanical grinding. The cut marks penetrate the web approximately 1/16" in locations.



Only girders 5-10 have a second splice plate in span #2.



General view of bearing at abutment #1



Fretting dust in the bearings



General view of deck. New and old portions. East bound lanes.



General view of deck. New and old portions. East bound lanes.



View of abutment #1.



Inventory looking North



Fretting dust in the bearing area.



Bearing #6 at abutment #1 missing anchor bolts



Superstructure has new steel protective coating applied since last inspection.



Bearings #6 and #7 at abutment #2 missing anchor bolts.



General view of deck. New and old portions. West bound lanes.



Bases for light poles not yet installed.



General view of cracking in new portions of the deck.



Bent #1 column #1



Typical view of left parapet



Right side of bridge has a 6' sidewalk.



General view of bearings at abutment #2.



Contractors have placed welded repairs in previous gouged web and flange locations.



General view of bearings at abutment #1.



South bound lanes typical transverse cracking



Abutment #2 bearing #5 left bolt that attaches sole plate to rocker bearing.



Span #2 general view of superstructure.



Bearing #5 at abutment #1 missing bolt that attaches the sole plate to the bearing.



General view of right parapet and metal bridge railing.



Honeycombing and un-grouted snap ties at abutment #2.

Maintenance Needs

Date Reported: 09/05/2017

Priority: D- Routine

Type of Work: None

Status: Monitor

Component:

Deficiency Description

Substructure - The recently constructed column #1 of bent #1 has a spall approximately 14" high and 1" deep located at the base of column.

Remarks

Under contract CA0902. This Maintenance Need will be forwarded to RE C2, Kip Guthrie, with instructions for directing the Contractor to correct this deficiency.

09/04/2019 WNR: This maintenance need is still relevant contractor forces have just painted over the area.



Bent #1 column #1



Bent #1, column #1-Spalled area.

Date Reported: 09/05/2017

Priority: D- Routine

Type of Work: None

Status: Monitor

Component:

Deficiency Description

Substructure - The widened portion of abutments have ungrouted snap-tie holes from the construction process. The widened portion of abutment #2 backwall has a large area of honeycombing above the bridge seat on the left side.

Remarks

Under contract CA0902. This Maintenance Need will be forwarded to RE C2, Kip Guthrie, with instructions for directing the Contractor to correct this deficiency.

09/04/2019 WNR: This maintenance need is still relevant.



Abutment #2-Honeycombing in backwall.



Honeycombing and un-grouted snap ties at abutment #2.



Abutment #2-Snap-tie holes ungrouted.

Date Reported: 09/21/2011

Priority: D- Routine

Type of Work: None

Status: Monitor

Component:

Deficiency Description

Bearings:

Bearing #5 at abutment #1 and bearings #5 and #10 at abutment #2 are missing one bolt that attaches the soleplate to the bearing device.

Bearings #6, #7, #9, & #10 at abutment #1 are missing one anchor bolt.

Bearings #7, 9 and #10 at abutment #2 are missing one anchor bolt.

Remarks

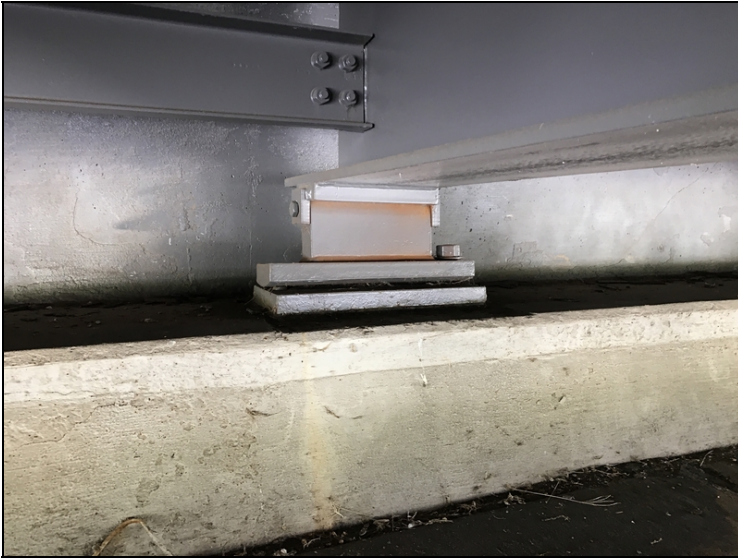
09/04/2019 WNR: This maintenance need is still relevant many bolts are still missing from bearings and some new bolts are now missing from bearings.



Bearings #6 and #7 at abutment #2 missing anchor bolts.



Abutment #2 bearing #5 left bolt that attaches sole plate to rocker bearing.



Fretting dust in the bearing area.



Bearing #5 at abutment #1 missing bolt that attaches the sole plate to the bearing.



Typical view of rocker bearings at abutment #1.



Bearing #6 at abutment #1 missing anchor bolts

Date Reported: 08/26/2021
Priority: C - Important
Type of Work: Repair
Status: Monitor
Component:

Deficiency Description

Span #3- beam #3 has 3" of upward distortion on the bottom flange for 1' that is 41' ahead of bent #2 due to an excavator impact accident on 8/24/21. The beam has flaking paint on the bottom flange 5' ahead of the point of impact. Beam #8 has 2" of upward distortion on the bottom flange 41' ahead of bent #2. Beam #9 has a small area of flaking paint #3 diaphragm due to the beam flexing during the impact. Beam #12 has 3" of upward distortion on the bottom flange for 1' that is 41' ahead of bent #2. The bottom flange of beam #12 has flaking paint beneath the #3 and #4 diaphragms behind and ahead of the point of impact.

Remarks

Heavy Br.



Beam #3 span #3 has 3" of upward distortion on the bottom flange for 1'. 41' ahead of bent #2.



Beam #8 in span #3 has 2" of upward distortion on the bottom flange for 1'.



Beam #12 has 3" of upward distortion on the bottom flange for 1'.



Bridge #05982(Routine)
SH 72 Benton 1 over I-49 Benton 1
Location: 2.58 E BENTONVILLE

Team Lead: Nathan Rowland **Inspection Date:** October 05, 2021

Inspection Comments

10/5/2021 WNR & DBM: Routine inspection conducted this date. See element notes for documentation.

Logged South to North.