



Latitude:36.31480, Longitude:-94.18194

Route:40810 Section:00 Log:3.13

Arnold Road ID:4xWNEWHOPERDx1xA, Arnold Log mile:3.134

District 09, 7 - Benton County

Owner: 4 - City or Municipal Highway Agency

**Bridge Posting Information**

41 - Structure Open/Posted/Closed: A - Open, no restriction

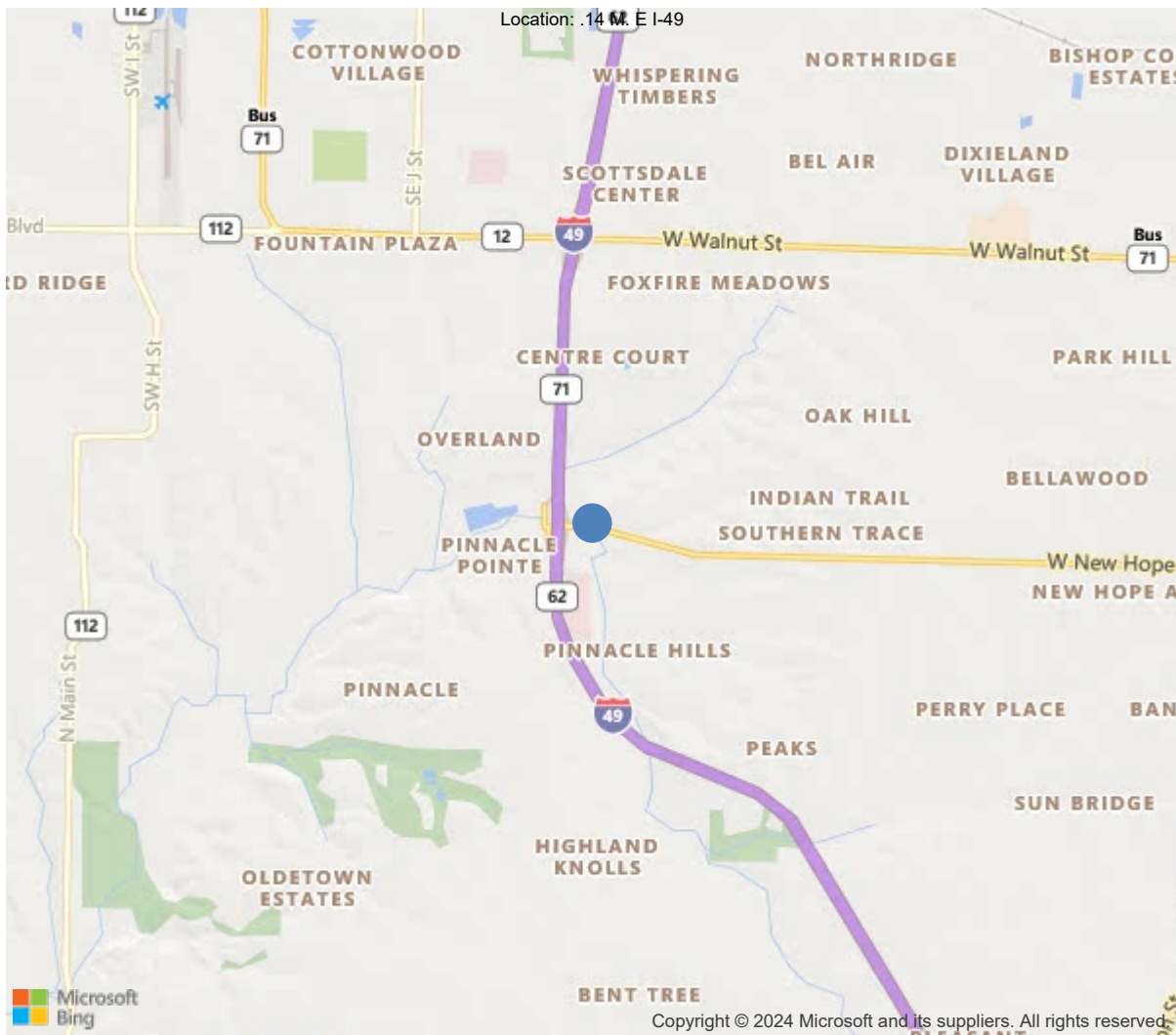
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	40		
Code 9 (31 Tons)	50		
Code 5 (40 Tons)	60		

If calculated Capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner



30"x36" AR



36.31480, -94.18194





**Asset #04531** (Routine, Underwater type 2)

**New Hope Rd Rogers over OSAGE CREEK**

**Location: .14 M. E I-49**

**Team Lead: Nathan Rowland, Inspection Date: 06/08/2022**

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	04531
(5) Inventory Route	1
(2) Highway Agency District	09 - District 09
(3) County Code	7 - Benton County
(4) Place Code	60410
(6) Features Intersected	OSAGE CREEK
(7) Facility Carried	New Hope Rd Rogers
(9) Location	.14 M. E I-49
(11) Mile Point	3.13 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	36.3148
(17) Longitude	-94.18194
(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	7
(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 pl
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1986
(106) Year Reconstructed	2006
(42) Type of Service	15
On	1 - Highway
Under	5 - Waterway
(28) Lane	
On	4
Under	0
(29) Average Daily Traffic	61445
(30) Year of ADT	2018
(109) Truck ADT	10 %
(19) Bypass, Detour Length	5 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	35 ft
(49) Structure Length	248 ft
(50) Curb or Sidewalk Width	
Left	6 ft
Right	6 ft
(51) Bridge Roadway Width Curb to Curb	58.1 ft
(52) Deck Width Out to Out	73.1 ft
(32) Approach Roadway Width (W/Shoulders)	59 ft
(33) Bridge Median	0 - No median
(34) Skew	30 Deg
(35) Structure Flared	0 - No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	71.2 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 w
(111) Pier Protection	1 - Navigation protection not
(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
(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
(20) Toll	3 - On free road. The structure
(21) Maintain	4 - City or Municipal Highway
(22) Owner	4 - City or Municipal Highway
(37) Historical Significance	4 - Historical significance is
CONDITION	
(58) Deck	7
(59) Superstructure	8
(60) Substructure	8
(61) Channel & Channel Protection	7
(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	
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	
(68) Deck Geometry	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	9
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	8 - Bridge foundations determined t
PROPOSED IMPROVEMENTS	
(75) Type of Work	31 - Replacement of bridge or
(76) Length of Structure Improvement	206 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 362
(96) Total Project Cost	\$ 1065
(97) Year of Improvement Cost Estimate	2003
(114) Future ADT	33847
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	06/08/2022		
(91) Frequency	24		
(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.			





### General Observation

6-08-2022 - WNR : Routine and Underwater type II inspections conducted this date .See notes for documentation.

Structure is logged from East to West, and is accessible with a small extension ladder. No bat activity noted. Plan station and new route data is reversed.

Sufficiency Rating Calculation Accepted by dlw at 2010-07-06 10:16:44

Changed route data from SH 94 to New Hope Rd. & related data, per MO 2000 043, signed 7/12/10. LM updated to 3.13 per Str Line from Tech Services dated 6/2010. DRB, 7/14/10

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### 58 - Deck (7 - GOOD CONDITION - some minor problems.)

6-08-2022 - WNR :

Driving surface:

- has a tined finish that is showing very little wear.
- The driving surface has long duration hairline cracking in the driving lanes with intermittent transverse cracks.
- The top of the back wall at the left ending of the bridge has deep spalling for 4' and is cracking, the concrete is loose at this location.
- The pourable construction joint seals are beginning to lose adhesion.
- The right sidewalk has map cracking at the edge near the curb over span #5.

Undersurface:

- the undersurface of all spans has sip forms. No corrosion was noted in the sip forms.
- The left and right over hangs have transverse hairline cracks, some have minor efflorescence.

Bridge railing:

- The parapet wall has a square metal tubing attached to the top.
- Left parapet wall- has areas of map cracking along the top edge.

Right parapet wall:

- has areas of map cracking along the top edge.
- The top of parapet has areas of delamination and cracking in random locations.

Pourable joint seal:

- Abutment #2 The left side of abutment has approximately 3' of pourable joint material that has been displaced.
-



Asset #04531 (Routine, Underwater type 2)

District: 09, County: 7 - Benton County

Team Lead: Nathan Rowland, Inspection Date: 06/08/2022

**59 - Superstructure** (8 - VERY GOOD CONDITION - no problems noted.)

6-08-2022 - WNR :

10 beam weathering steel system. Visible beam surface is 20.5" by 8" flange.

The beams are not centered over the bearings as they continue towards abutment #2.

span #1- no deficiencies noted.

span #2- no deficiencies noted.

span #3- no deficiencies noted.

span #4- no deficiencies noted.

span #5- no deficiencies noted.

span #6- no deficiencies noted.

span #7- The beams are not centered on the bearings over abutment #2 at all the beams, the condition worsens as the beams continue to the right.

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**60 - Substructure** (8 - VERY GOOD CONDITION - no problems noted.)

6-08-2022 - WNR :

**Abutment #1:**

- has vertical and horizontal hairline cracking in the bridge seat and back wall for most of its length on the original portion of the abutment, the added section has water staining due to leaking joint seals.
- The elastomeric bearings at abutment #1 are in good condition, the masonry plates are showing minor corrosion due to leaking seals.
- The abutment has a small MSE retaining wall to facilitate the bike path. The rip rap is in place and functioning as intended.
- All bent caps and columns have a thick sprayed on coating that is likely concealing any shrinkage cracking.

**Bent #1:**

- no deficiencies noted in the cap.
- The elastomeric bearings are in good condition.
- No deficiencies noted in all 5 columns.

**Bent #2:**

- no deficiencies noted in the cap.
- The elastomeric bearings are in good condition.
- all 5 columns have minor abrasion on the bottoms.
- Columns #1,2,3 have minor local scour with no footings exposed.

**Bent #3:**

- no deficiencies noted in the cap.
- The elastomeric bearings are in good condition.
- All 5 columns have minor abrasion.
- Columns #3,4,5 have minor local scour, no footings are exposed.

**Bent #4:**

- no deficiencies noted in the cap.
- The elastomeric bearings are in good condition.
- No deficiencies noted on all 5 columns.

**Bent #5:**

- no deficiencies noted in the cap.
- The elastomeric bearings are in good condition.
- No deficiencies noted on all 5 columns.

**Bent #6:**

- no deficiencies noted in the cap.
- The elastomeric bearings are in good condition.
- all 5 columns have minor abrasion at the bottom.

**Abument #2:**

- has vertical and horizontal hairline cracking for most of its length on the original portion of the abutment, the added section has water staining due to leaking joint seals.
- The elastomeric bearings at abutment #1 are in good condition, the masonry plates are showing minor corrosion.
- Bearing pad #1 is not plumb.
- The rip rap is in place and functioning as intended.





Asset #04531 (Routine, Underwater type 2)

New Hope Rd Rogers over OSAGE CREEK

Location: .14 M. E I-49

Team Lead: Nathan Rowland, Inspection Date: 06/08/2022

## Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
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Comment: 6-08-2022 - WNR :

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Asset #04531(Routine, Underwater type 2)

New Hope Rd Rogers over OSAGE CREEK

Location: .14 M. E I-49

Team Lead: Nathan Rowland, Inspection Date: 06/08/2022

## Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
----------	-------------	-------	-------	-----	-----	-----	-----

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Asset #04531 (Routine, Underwater type 2)

New Hope Rd Rogers over OSAGE CREEK

Location: .14 M. E I-49

Team Lead: Nathan Rowland, Inspection Date: 06/08/2022

Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4

60 - Substructure (8 - VERY GOOD CONDITION - no problems noted.)





**Asset #04531**(Routine, Underwater type 2)

**New Hope Rd Rogers over OSAGE CREEK**

**Location: .14 M. E I-49**

**Team Lead: Nathan Rowland, Inspection Date: 06/08/2022**

Comment: 6-08-2022 - WNR :

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**Bent #4:**

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- The elastomeric bearings are in good condition.
- No deficiencies noted on all 5 columns.

**Bent #5:**

- no deficiencies noted in the cap.
- The elastomeric bearings are in good condition.
- No deficiencies noted on all 5 columns.

**Bent #6:**

- no deficiencies noted in the cap.
- The elastomeric bearings are in good condition.
- all 5 columns have minor abrasion at the bottom.

**Abument #2:**

- has vertical and horizontal hairline cracking for most of its length on the original portion of the abutment, the added section has water staining due to leaking joint seals.
- The elastomeric bearings at abutment #1 are in good condition, the masonry plates are showing minor corrosion.
- Bearing pad #1 is not plumb.
- The rip rap is in place and functioning as intended.



Elevation looking south



View of abutment #1 bearings



General view of superstructure



View of waterways under structure





View of abutment #1



-The left side of abutment has approximately 3' of pourable joint material that has been displaced.



Cracking and delamination on top of parapet wall.



Downstream view





Inventory looking west



Upstream view



General view of deck.



General view of deck.





Horizontal cracking in the right parapet.



Typical longitudinal cracking in deck surface.



Abutment #2 view of bearings.



Typical superstructure view.





Abutment #1 general view of bearings.



Abutment 2 view of joint.



Downstream view.



Upstream view.





General view of channel understructure.



Inventory looking West



Typical joint seal condition at the abutments.



Bearing condition at bent #6. Typical of all 10 at this location.





Bearing condition at bent #3. Typical of all 10.



Cracking in the vertical face of the bridge seat in the original portion of the abutment.



Bearing condition at bent #4. Typical of all 10 at this location.



Bridge plate.





Approach view in direction of log mile.



General condition of the weathering steel protective coating.



Bearing condition at bent #2. Typical of all 10.



Upstream channel view.





Bearing condition at bent #5. Typical of all 10 at this location.



General view of the undersurface.



General view of abutment #2.



Map cracking in the edge of the right sidewalk over span #5.





The top of the back wall at the left ending of the structure has deep spalling and is loose.



Bearing condition at abutment #1. Typical of all 10 at this location. Showing minor corrosion on the masonry plate.



Typical view of driving surface.



Bearing condition at bent #1. Typical of all 10.





View of abutment #1.



The beams are not centered on the bearings at abutment #2 at all the beams, the condition worsens as the beams continue to the right.



Downstream channel view.



Map cracking in the bridge parapet. Typical of several locations.





Elevation view. Log mile from left to right.



Typical view of the bents.



Bearing condition at abutment #2. Typical of all 10 at this location.



Elevation looking North.



**Asset #04531**(Routine, Underwater type 2)

**New Hope Rd Rogers over OSAGE CREEK**

**Location: .14 M. E I-49**

**Team Lead:** Nathan Rowland, **Inspection Date:** 06/08/2022

## **Routine Maintenance**

Check Box Maintenance Items

<b>Type of Maintenance</b>	<b>Is recommended?</b>
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	
A-56 - Joint Cleaning/Flushing Needed	
A-57 - Beam End and Bearing Paint Needed	
A-58 - Cap Cleaning/Flushing Needed	
A-59 - Joint Repair Needed	
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	
A-62 - Hydro and LMC Advised	
A-63 Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	

**A-54 - Sealable Deck Cracks**

**A-55 - Deck Washing Needed**

**A-56 - Joint Cleaning/Flushing Needed**



**Asset #04531**(Routine, Underwater type 2)  
**New Hope Rd Rogers over OSAGE CREEK**

**Location: .14 M. E I-49**

**Team Lead:** Nathan Rowland, **Inspection Date:** 06/08/2022

**A-57 - Beam End and Bearing Painting Needed**

**A-58 - Cap Cleaning/Flushing Needed**

**A-59 - Joint Repair Needed**

**A-60 - Full Beam Painting Needed**

**A-61 - Polymer Overlay Advised**

**A-62 - Hydro and LMC Advised**

**A-63 - Missing/Incorrect Log Mile Signage**

**A-64 - Vegetation Removal Requested**



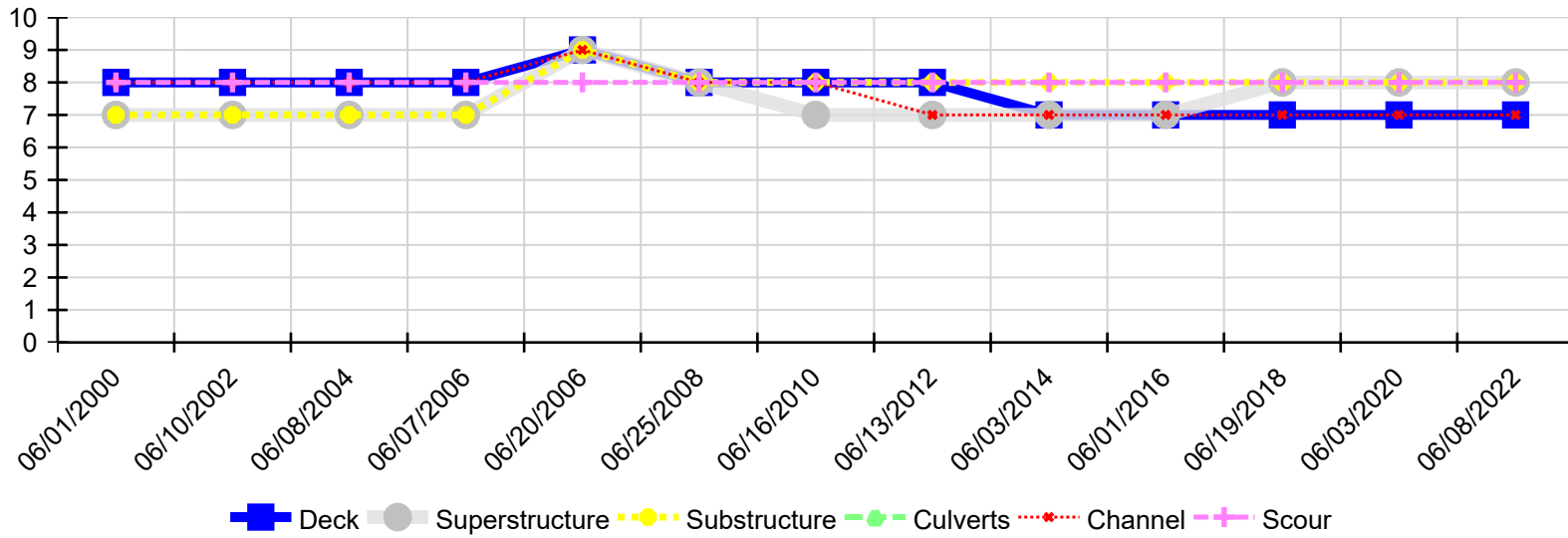
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New Hope Rd Rogers over OSAGE CREEK

Location: .14 M. E I-49

Team Lead: Nathan Rowland, Inspection Date: 06/08/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
06/08/2022	7	8	8	N	7	8
06/03/2020	7	8	8	N	7	8
06/19/2018	7	8	8	N	7	8
06/01/2016	7	7	8	N	7	8
06/03/2014	7	7	8	N	7	8
06/13/2012	8	7	8	N	7	8
06/16/2010	8	7	8	N	8	8
06/25/2008	8	8	8	N	8	8
06/20/2006	9	9	9	N	9	8
06/07/2006	8	7	7	N	8	8
06/08/2004	8	7	7	N	8	8
06/10/2002	8	7	7	N	8	8
06/01/2000	8	7	7	N	8	8