



Latitude:34.22910, Longitude:-92.25222

Route:190 Section:04 Log:5.53

Arnold Road ID:27x190x4xA, Arnold Log mile:5.53

District 02, Grant County

Owner: 1-State Highway Agency

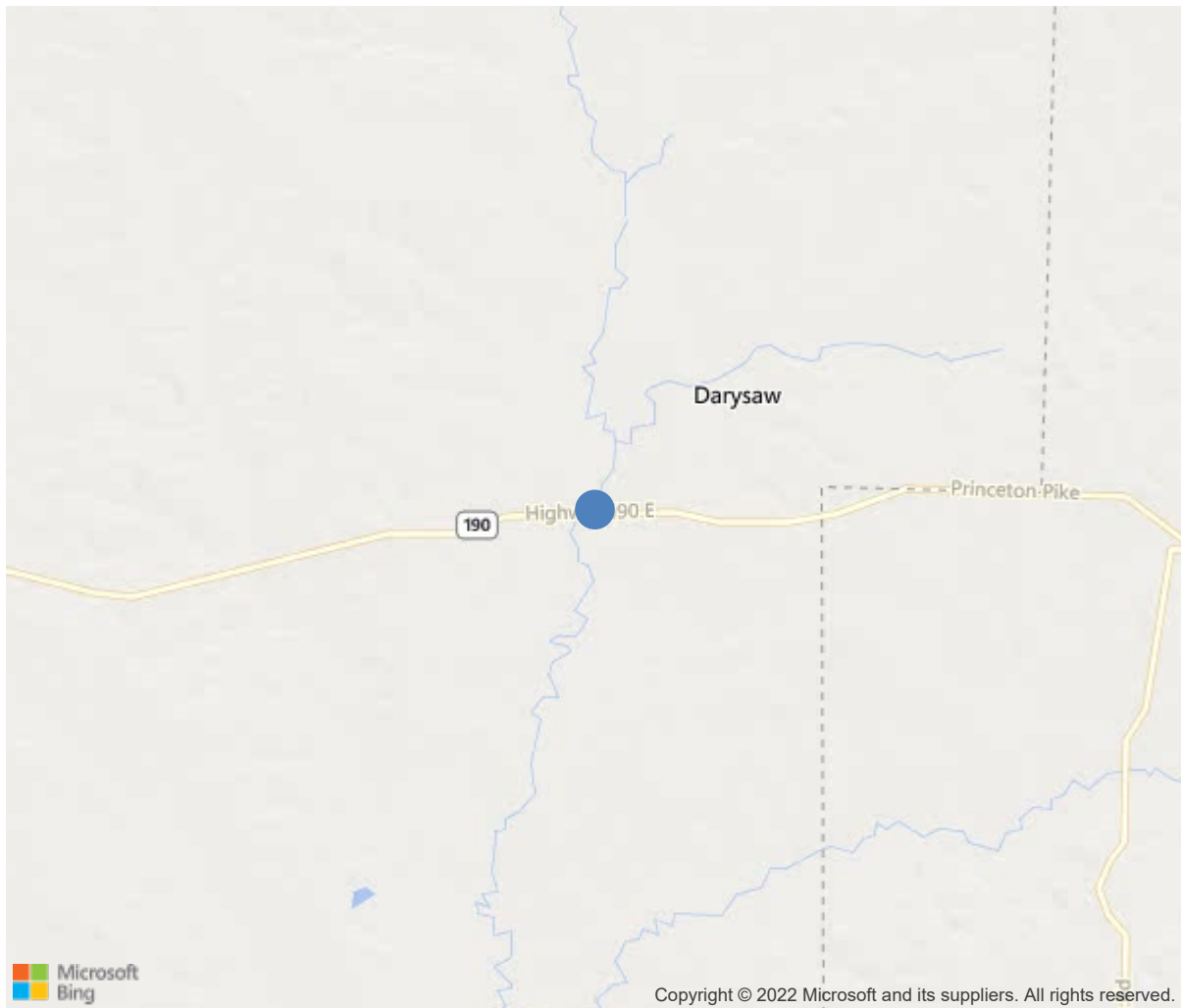


**Bridge #05470**(Routine, Underwater type 2)  
**SH 190-04 LM 5.53 over Derriousseaux Creek**

**Location: 5.53 Mi E SH 35-Ain**

**Team Lead:** Sharon Hooks **Inspection Date:** September 28, 2021

5.53 Mi E SH 35-Ain



34.22910, -92.25222



**Bridge #05470(Routine, Underwater type 2)**  
**SH 190-04 LM 5.53 over Derriusseau Creek**

**Location: 5.53 Mi E SH 35-Ain**

**Team Lead: Sharon Hooks Inspection Date: September 28, 2021**

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	05470
(5) Inventory Route	190
(2) Highway Agency District	02
(3) County Code	53-Grant County, Arkansas
(4) Place Code	0
(6) Features Intersected	Derriusseau Creek
(7) Facility Carried	SH 190-04 LM 5.53
(9) Location	5.53 Mi E SH 35-Ain
(11) Mile Point	5.53 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.2291029290542
(17) Longitude	-92.2522166886594
(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	6
(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	1972
(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	530
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	0 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	30 ft
(49) Structure Length	180 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	25.9 ft
(52) Deck Width Out to Out	28.8 ft
(32) Approach Roadway Width (W/Shoulders)	27.9 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	27.2 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 water
(111) Pier Protection	5-None present but re-evaluation
(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	7-Rural Major Collector
(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	7
(60) Substructure	7
(61) Channel & Channel Protection	6
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	4-M 18 / H 20
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	57
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	6
Rating	34
(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	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1-Inspected feature meets currently a
(36B) Transitions	0-Inspected feature does not meet cur
(36C) Approach Guardrail	0-Inspected feature does not meet cur
(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	Bridge rehabilitation because
(76) Length of Structure Improvement	180 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 232
(97) Year of Improvement Cost Estimate	1998
(114) Future ADT	597
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date	09/2021		
(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:** Sharon Hooks, **Inspection Date:** September 28, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
38	RC Slab	SF	5184	5150	34	0	0
1080	Delamination/Spall/Patched Area	SF	22	0	22	0	0
1130	Cracking (RC and Other)	SF	12	0	12	0	0
510	Wearing Surfaces	SF	4500	4500	0	0	0
(38) Deck: 28.8' wide x 180' long = 5184 sqft Wearing surface: 25' wide x 180' long = 4500 sqft. Currently has thin asphalt wearing surface in place. (Previously noted map cracking of deck surface.)  Some minor scaling and map cracking in gutterlines.  Sides of slabs: Some minor cracking/deterioration, mainly at bents.  Soffit: Minor cracking/delaminations at drain openings.							
215	Reinforced Concrete Abutment	LF	84	84	0	0	0
(215) Abutments: 32'-4 3/4" = 33' each (with 4.5' wings each corner) / Bents 1 & 7.							
227	Reinforced Concrete Pile	EA	20	0	16	4	0
1190	Abrasion/Wear (PSC/RC)	EA	16	0	16	0	0
6000	Scour	EA	4	0	0	4	0
(227) Piling: 4 per bent / Bents 2-6. Bent 2: Significant localized scouring across entire bent - 16-18' to bottom of channel from bottom of cap. (Piling records show 32' pile - 13' remaining in ground.)  All pile have light abrasive wear from water.							
234	Reinforced Concrete Pier Cap	LF	145	129	16	0	0
1080	Delamination/Spall/Patched Area	LF	16	0	16	0	0
(234) Caps: 29' each / Bents 2-6. Bent 2 left end: Some minor-sized cracking. (2') Bent 4 back: Cracking/delaminations at top of cap around keyways. (8' total) Bent 5 back: Cracking/delaminations at top of cap around keyways. (6')							
301	Pourable Joint Seal	LF	130	0	0	130	0
2320	Seal Adhesion	LF	130	0	0	130	0
(301) Joints: 26' each / Bents 2-6. Poured joint material is intact but has lost adhesion, allowing stormwater to leaking through joint and onto cap.							

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**SH 190-04 LM 5.53 over Derrieusseaux Creek**

**Location: 5.53 Mi E SH 35-Ain**

**Team Lead:** Sharon Hooks, **Inspection Date:** September 28, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
331	Reinforced Concrete Bridge Railing	LF	360	360	0	0	0
(331)  Railing: 180' each side. Spans 3 & 6 left: Some exposed rebar close to deck.							



Bent 4 cap left back has delam.



Abrasion on piles at Bent 2. Common on most piles at bents 2-5.



Localized scour at Bent 3. Common on most bents.



Under view of span 2.



Approach.



Deck over view.

## Maintenance Needs

**Date Reported:** 08/20/2013

**Priority:** D- Routine

**Type of Work:** N/A

**Status:** Assigned

**Component:**

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### Deficiency Description

Joints – Bents 2-6: Poured joint material is intact but has lost adhesion, allowing stormwater to leaking through joint and onto cap.

### Remarks

Repair, and advise when complete

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Joint - Bent 2: Loss of adhesion



Joint - Bent 5: Loss of adhesion



Typical joint



Bent 6 joint seal has loss of adhesion. Common on most joint seals.

**Date Reported:** 09/11/2017  
**Priority:** B - Pressing; 6 month completion goal  
**Type of Work:** N/A  
**Status:** Assigned  
**Component:**

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### Deficiency Description

Channel - Bent 2: Significant localized scouring across entire bent - 16-18' to bottom of channel from bottom of cap.  
(Piling records show 32' pile - 13' remaining in ground.)

NOTE: Water in hole as of 09/11/2017 & 9/23/2019 inspections is about 8' deep at Piles 2 & 3.

09-23-2019 GGL-KLR: Changed priority from "C" to "B".

### Remarks

David: Called Mike Hill - Heavy Bridge, he said the cure for this was to dump either rip or buttress stone on the upstream side of the concerned bent. Use rip if the water velocity is always slow, or go with buttress stone if the flow is high.

Charlie: might consider getting with Ronnie and haul and place rip in this area- we've got lots of it now.

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**Date Reported:** 09/28/2021

**Priority:** D- Routine

**Type of Work:** Clean

**Status:** Open

**Component:**

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**Deficiency Description**

Gutter line both sides of deck filled with debris.

**Remarks**

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Gutter rlns full of debris blocking Drainage from  
deck.



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### **Inspection Comments**

Bridge is logged from west to east.  
Beginning of structure toward SH 35 - west end.08-31-2007, Dropping UW inspection due to sub-str. elements are not continuously submerged. High water events occur. Rock riprap on slopes at Abt's. NBI Items #60 and #61 will represent all elements that occasionally stand in water. RLW.08-27-2009, Deck was overlaid with less than 1/2 inch asphalt seal coat between the inspection in 08-31-2007 and today's inspection 08-27-2009. RLW.