



Latitude:34.82279, Longitude:-92.34397

Route:430 Section:21 Log:12.827

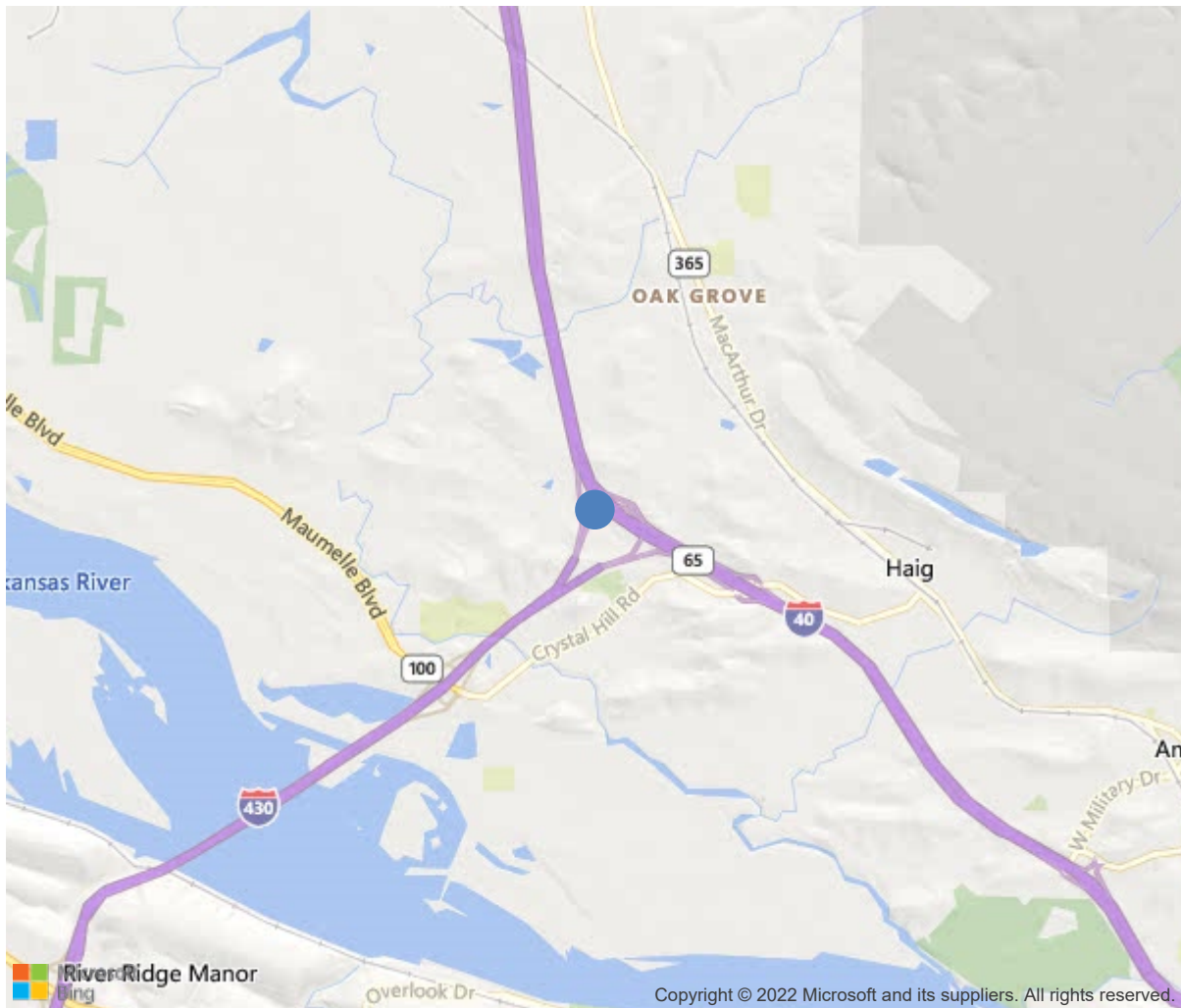
Arnold Road ID:60x430x21xB, Arnold Log mile:0.352

District 06, Pulaski County

Owner: 1-State Highway Agency

Place Code: 50450 - North Little Rock

I-430 & I-40 INTERCHANGE



34.82279, -92.34397

Inspection Direction : N to S



Bridge #05325(Routine)

I-430 SB over I-40 LOG 147.34

Location: I-430 & I-40 INTERCHANGE

Team Lead: Keith Harris Inspection Date: May 06, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	05325
(5) Inventory Route	430
(2) Highway Agency District	06
(3) County Code	119-Pulaski County, Arkansas
(4) Place Code	50450
(6) Features Intersected	I-40 LOG 147.34
(7) Facility Carried	I-430 SB
(9) Location	I-430 & I-40 INTERCHANGE
(11) Mile Point	12.827 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000430210
(16) Latitude	34.82279
(17) Longitude	-92.34397
(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	0-None
AGE AND SERVICE	
(27) Year Built	1972
(106) Year Reconstructed	0
(42) Type of Service	61
On	6-Overpass structure at an interchange or secon
Under	1-Highway, with or without pedestrian
(28) Lane	
On	1
Under	4
(29) Average Daily Traffic	20000
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	10 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	146 ft
(49) Structure Length	591 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	24.9 ft
(52) Deck Width Out to Out	28.3 ft
(32) Approach Roadway Width (W/Shoulders)	24.9 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	25.9 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	17.16 ft
Ref:	
(55) Min Lat Underclear RT	39 ft
Ref:	
(56) Min Lat Underclear LT	33 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	1
(26) Functional Class	11-Urban Principal Arterial - Int
(100) Defense Highway	1-The inventory route is on a In
(101) Parallel Structure	N-No parallel structure exists.
(102) Direction of Traffic	1 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0-N/A
(110) Designated National Network	1-The inventory route is part of the
(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	5
(59) Superstructure	6
(60) Substructure	6
(61) Channel & Channel Protection	N
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	6-MS 18+Mod / HS 20+Mod
(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	6
(68) Deck Geometry	7
(69) Clearances, Vertical/Horizontal	9
(71) Waterway Adequacy	N
(72) Approach Roadway Alignment	7
(36A) Bridge Railings	0-Inspected feature does not meet cur
(36B) Transitions	0-Inspected feature does not meet cur
(36C) Approach Guardrail	0-Inspected feature does not meet cur
(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	Replacement of bridge or other
(76) Length of Structure Improvement	632 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 247
(96) Total Project Cost	\$ 1947
(97) Year of Improvement Cost Estimate	1998
(114) Future ADT	14500
(115) Year of Future ADT	2033

INSPECTIONS *			
(90) Inspection Date	05/2021		
(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 #05325(Routine)

I-430 SB over I-40 LOG 147.34

Location: I-430 & I-40 INTERCHANGE

Team Lead: Keith Harris, Inspection Date: May 06, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	16547	3675	8861	4011	0
1080	Delamination/Spall/Patched Area	SF	21	0	11	10	0
1090	Exposed Rebar	SF	11	0	0	11	0
1130	Cracking (RC and Other)	SF	9390	0	5400	3990	0
1190	Abrasion/Wear (PSC/RC)	SF	3450	0	3450	0	0
(12)	Large transverse unsealed cracks in all spans on three to four foot centers and up to 1/8" wide. Spans 1,2, 4 & 5 have Spalls with exposed rebar. Scattered small delaminations in the deck. All spans have minor abrasion in the travel lanes.						
107	Steel Open Girder/Beam	LF	2344	2259	72	13	0
1000	Corrosion	LF	85	0	72	13	0
515	Steel Protective Coating	SF	32816	0	19600	13126	90
3440	Effectiveness (Steel Protective Coatings)	SF	32816	0	19600	13126	90
(107)	Girder 1 & 2 at bents 1 & 6 have active rust with moderate pitting on lower web and flange due to leaking joints. Areas freckling rust at the splice plates all spans. Girder 1 span 1 pack rust has formed on bottom flange splice plate. Span 4 1st diaphragm between girders 1 and 2 has 3 loose blots. The paint has dulled on all girders.						
205	Reinforced Concrete Column	EA	4	4	0	0	0
215	Reinforced Concrete Abutment	LF	68	60	8	0	0
1080	Delamination/Spall/Patched Area	LF	8	0	8	0	0
(215)	Small spalls in the top of backwall at bent 6						
234	Reinforced Concrete Pier Cap	LF	108	87	16	5	0
1080	Delamination/Spall/Patched Area	LF	1	0	1	0	0
1090	Exposed Rebar	LF	8	0	3	5	0
1130	Cracking (RC and Other)	LF	12	0	12	0	0
(234)	Bent 5, right end on the bottom, one small spall with exposed rebar. Bent 4, bottom right, small spall with exposed rebar. Bent 3, back face on the left small spalls with exposed rebar Bent 2, ahead face left end small spalls with exposed rebar						
303	Assembly Joint with Seal	LF	50	0	30	0	20



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Location: I-430 & I-40 INTERCHANGE

Team Lead: Keith Harris, Inspection Date: May 06, 2021

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
2330	Seal Damage	LF	20	0	0	0	20
2350	Debris Impaction	LF	30	0	30	0	0
(303)	The rubber trough is torn and open at both abutments causing debris to build up on the beam seats and beam ends.						
310	Elastomeric Bearing	EA	24	20	4	0	0
2230	Bulging, Splitting or Tearing	EA	4	0	4	0	0
(310)	Bent 1 bearings 1&2 bent 6 bearings 3&4 are weathered.						
321	Reinforced Concrete Approach Slab	SF	1750	1676	60	14	0
1130	Cracking (RC and Other)	SF	74	0	60	14	0
(321)	North approach slab has scattered cracks.						
330	Metal Bridge Railing	LF	1172	1172	0	0	0
331	Reinforced Concrete Bridge Railing	LF	1172	1172	0	0	0



Approach



Deck overview





Span 3 abrasion



Span 2 under view





Bent 3 small spalls with exposed rebar on cap



Span 4, girder 2 left side, at diaphragm 3: moderate sized piece of concrete is sitting on top of the diaphragm gusset about to fall off. This chunk of concrete is above I-40 west bound left lane.



## Maintenance Needs

**Date Reported:** 05/12/2011  
**Priority:** C - Important  
**Type of Work:** None  
**Status:** Monitor  
**Inspection Direction** N to S  
**Component:**

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### Deficiency Description

Deck surface all spans

Large unsealed transverse cracks all span up to 1/8" wide on two foot centers. Most reflect thru the deck with light efflorescence.

### Remarks

Span 5

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Spall in he deck at span 1.



Span 5 transverse unsealed cracking up to 1/8" on three to four foot centers. Common in all spans.



**Bridge #05325(Routine)**

**I-430 SB over I-40 LOG 147.34**

**Location: I-430 & I-40 INTERCHANGE**

**Team Lead: Keith Harris Inspection Date: May 06, 2021**



Typical deck cracking



**Date Reported:** 05/12/2011  
**Priority:** C - Important  
**Type of Work:** None  
**Status:** Monitor  
**Inspection Direction** N to S  
**Component:**

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**Deficiency Description**

The bearing of girder #1 at the north abutment & Girder 4 at the south abutment.  
Pack rust has swelled between the bearing and the bottom flange, causing the welded connection to break.

**Remarks**

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Bent 6, girder 4: weld broke due to pack rust



Pack rust has swelled between the bearing and the bottom flange, causing the welded connection to break. North abutment girder 1.

**Date Reported:** 05/16/2013  
**Priority:** C - Important  
**Type of Work:** None  
**Status:** Monitor  
**Inspection Direction** N to S  
**Component:**

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**Deficiency Description**

Deck span 1,2,4 & 5  
Spalls with exposed rebar. Span 2 is in the worst condition.

**Remarks**

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Span 5: large open spalls with exposed rebar in the deck surface



Span 4



**Date Reported:** 05/16/2013  
**Priority:** C - Important  
**Type of Work:** Clean  
**Status:** Assigned  
**Inspection Direction** N to S  
**Component:**

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**Deficiency Description**

Abutments 1 & 2 girders 3 & 4 have dirt & debris on bearings and bottom flanges due to damaged joint seal.

**Remarks**

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Bent 6, debris on the beam seat and beam ends due to open joint.



Bent 1: joint seal is open allowing debris to rest upon beam seat and bearings between girders 1 & 2. Similar condition at opposite abutment.



Bent 1: joint seal is open allowing debris to rest upon beam seat and bearings between girders 1 & 2. Similar condition at opposite abutment.



Bent 6, debris on the beam seat and beam ends due to open joint.



**Date Reported:** 06/03/2021

**Priority:** D- Routine

**Type of Work:** Repair

**Status:** Open

**Inspection Direction** N to S

**Component:**

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**Deficiency Description**

Girder 1 span 1 pack rust has formed on bottom flange splice plate causing minor deformation.  
Span 2, girders 1, 3, & 4 1st splice plates are in similar condition.

**Remarks**

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Girder 1 span 1 pack rust has formed on bottom  
flange splice plate.



**Bridge #05325(Routine)**

**I-430 SB over I-40 LOG 147.34**

**Location: I-430 & I-40 INTERCHANGE**

**Team Lead:** Keith Harris **Inspection Date:** May 06, 2021

### **Inspection Comments**

Form IIIB

Logged North bound. Inspected north to south.

Layout Dwg# 17383