



Bridge #05951 (Routine)
Us-79/Sec-16/L9.30 over Cow Bayou
Location: 9.0 Miles Ne Of Jct Sh 1

Team Lead: Drew Melton **Inspection Date:** August 24, 2020



Latitude:34.84241, Longitude:-90.64010

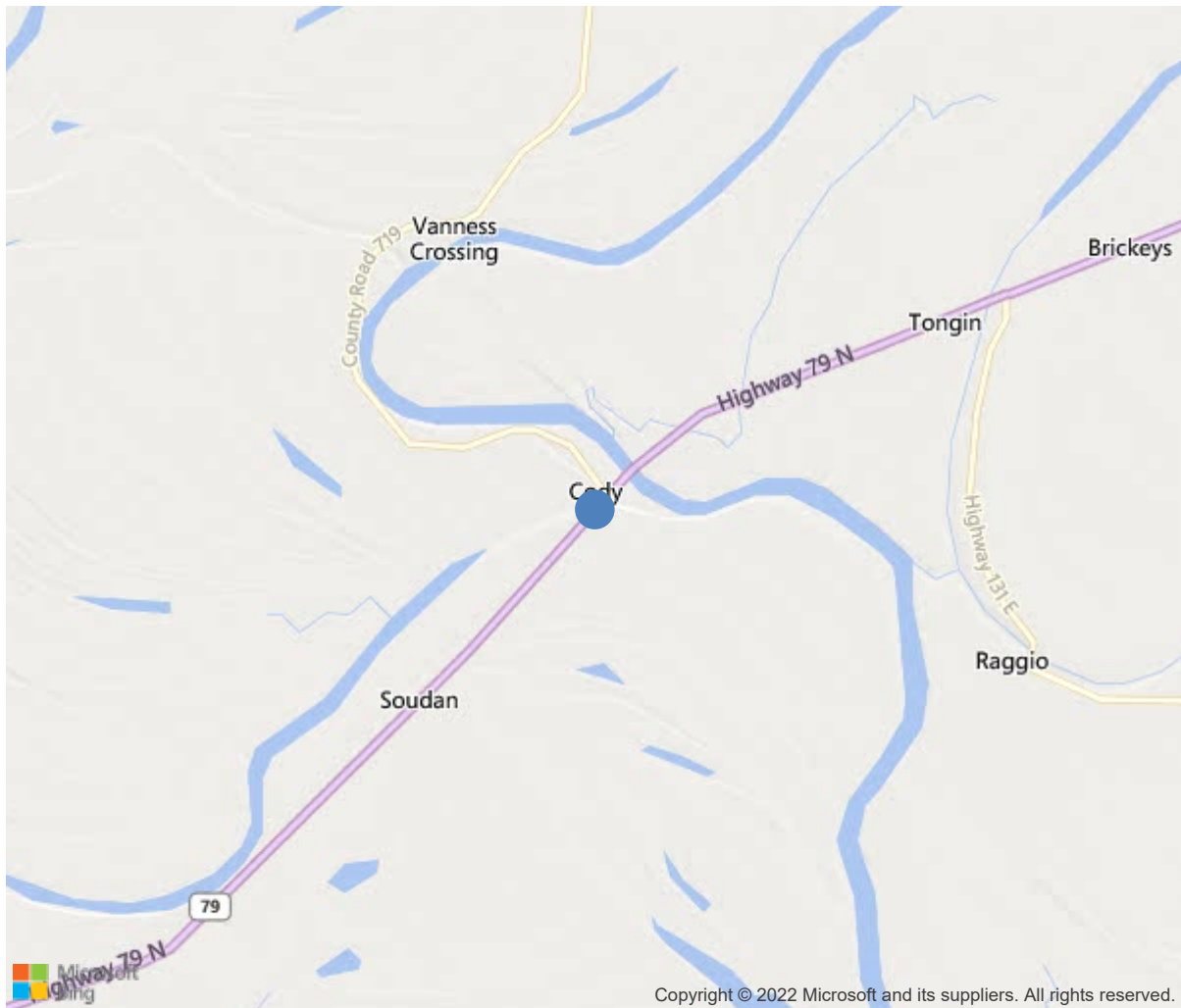
Route:79 Section:16 Log:9.3

Arnold Road ID:39x79x16xA, Arnold Log mile:9.3

District 01, Lee County

Owner: 1-State Highway Agency

9.0 Miles Ne Of Jct Sh 1



34.84241, -90.64010



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IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	05951
(5) Inventory Route	79
(2) Highway Agency District	01
(3) County Code	77-Lee County, Arkansas
(4) Place Code	0
(6) Features Intersected	Cow Bayou
(7) Facility Carried	Us-79/Sec-16/L9.30
(9) Location	9.0 Miles Ne Of Jct Sh 1
(11) Mile Point	9.3 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000079160
(16) Latitude	34.84241
(17) Longitude	-90.6401
(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	8
(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	1983
(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	1900
(30) Year of ADT	2019
(109) Truck ADT	1 %
(19) Bypass, Detour Length	14 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	55 ft
(49) Structure Length	422.1 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	42.8 ft
(32) Approach Roadway Width (W/Shoulders)	41.3 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	40 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	0 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	1
(26) Functional Class	2-Rural Principal Arterial - Oth
(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	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	7
(59) Superstructure	7
(60) Substructure	6
(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	42
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	8
Rating	25
(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	N
(71) Waterway Adequacy	8
(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	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	
(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	1936
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			08/2020
(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.			



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	17990	11941	6049	0	0
1090	Exposed Rebar	SF	1	0	1	0	0
1120	Efflorescence/Rust Staining	SF	422	0	422	0	0
1130	Cracking (RC and Other)	SF	5626	0	5626	0	0
(12)	Deck has open transverse cracks spaced three feet apart. Soffit over hangs have hairline transverse cracks some with light efflorescence spaced six feet apart. Span #1 left lane has a one foot spall with exposed rebar.						
107	Steel Open Girder/Beam	LF	2520	2385	126	9	0
1000	Corrosion	LF	135	0	126	9	0
515	Steel Protective Coating	SF	17086	0	0	16228	858
3410	Chalking (Steel Protective Coatings)	SF	16228	0	0	16228	0
3440	Effectiveness (Steel Protective Coatings)	SF	858	0	0	0	858
(107)	Girder paint is beginning to fail with surface rusting on all girders with 5% bare steel rest of paint is dull, chalky. and has lost its color pigment. Span #5 bent #5 girders #1,5,6 have corrosion on bottom flange at bearing connection with section loss up to 10%.						
205	Reinforced Concrete Column	EA	40	40	0	0	0
215	Reinforced Concrete Abutment	LF	122	116	6	0	0
1120	Efflorescence/Rust Staining	LF	6	0	6	0	0
(215)	Abutment back walls have hairline vertical cracks spaced six feet apart some with light efflorescence.						
220	Reinforced Concrete Pile Cap/Footing	LF	243	0	203	40	0
6000	Scour	LF	243	0	203	40	0
(220)	Bent #3 footing is exposed full length. Bent #4 footing is exposed full length with undermining at left end up to two feet. Bent #5 footing is exposed and undermined two feet on right end to four feet on left end. Bent #6 footing is exposed and undermined three feet on left end to four feet on right end. Bent #7 footing is exposed on right end. Bent #8 footing is exposed full length.						
227	Reinforced Concrete Pile	EA	15	15	0	0	0
234	Reinforced Concrete Pier Cap	LF	280	280	0	0	0
301	Pourable Joint Seal	LF	86	84	2	0	0

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
2320	Seal Adhesion	LF	1	0	1	0	0
2330	Seal Damage	LF	1	0	1	0	0
(301)							
Joint armor has corrosion with laminations with section loss up to 5%.							
50% paint left on joint steel.							
Bent #5 seal has lost adhesion for one foot in left lane.							
Abutment #2 seal has two one inch holes in the right lane and shoulder.							
310	Elastomeric Bearing	EA	60	60	0	0	0
331	Reinforced Concrete Bridge Railing	LF	844	834	10	0	0
1090	Exposed Rebar	LF	10	0	10	0	0
(331)							
Bridge rails both sides full length have hairline vertical cracks spaced six feet apart.							
Rails have 10 pieces total of rebar exposed due to poor concrete coverage.							



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Maintenance Needs

Date Reported: 08/06/2012
Priority: C - Important
Type of Work: Clean
Status: Monitor
Component: Channel

Deficiency Description

Vines and vegetation are growing under and beside bridge with vines growing up columns and onto caps.

Remarks



Typical vegetation

Date Reported: 08/04/2014
Priority: C - Important
Type of Work: Repair
Status: Monitor
Component: Channel

Deficiency Description

Span #1, 2,8 slopes are eroded with depths up to two feet extending down slopes.

Remarks



Span #1 slope erosion



Slope #2 erosion



Span #2 erosion



Abutment #2 slope



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Date Reported: 08/04/2014
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: Approach

Deficiency Description

Abutment #2 right approach rail has collision damage.

Remarks



Abutment #2 right approach rail has collision damage.

Date Reported: 08/04/2014
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: Channel

Deficiency Description

Bent #3 footing is exposed full length.
Bent #4 footing is exposed full length with undermining at left end up to two feet.
Bent #5 footing is exposed and undermined two feet on right end to four feet on left end.
Bent #6 footing is exposed and undermined three feet on left end to four feet on right end.
Bent #7 footing is exposed on right end.
Bent #8 footing is exposed full length.

Remarks



Bent 2 footing



Bent 3,4 footing.



Bent 4 footing.

Date Reported: 08/16/2018
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: 301 - Pourable Joint Seal

Deficiency Description

Bent #5 seal has lost adhesion for one foot in left lane.
Abutment #2 seal has two one inch holes in the right lane and shoulder.

Remarks



Bent #5 seal has lost adhesion for one foot in left lane.



Abutment #2 seal has two one inch holes in the right lane and shoulder.

Date Reported: 08/16/2018
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: Approach

Deficiency Description

Abutment #2 approach rail right side four feet from bridge end has three foot deep hole around rail post.

Remarks

Abutment #2 right approach rail hole around post has been filled in since last inspection.



Abutment #2 approach rail right side fourth feet from bridge end has three foot deep hole around rail post.



Abutment #2 right approach rail hole around post has been filled in since last inspection.

Date Reported: 08/16/2018
Priority: D- Routine
Type of Work: Clean
Status: Monitor
Component: 515 - 107 - Steel Open Girder/Beam

Deficiency Description

Girder paint is beginning to fail with surface rusting on all girders with 5% bare steel rest of paint is dull, chalky. and has lost its color pigment.

Remarks



Typical interior girder paint condition



Typical paint outside girder

Date Reported: 08/04/2014
Priority: C - Important
Type of Work: Repair
Status: Monitor
Component: Approach

Deficiency Description

Abutment #2 approach roadway has settled one inch increasing impact loading on bridge.

Remarks

Abutment #2 approach roadway has been repaired since last inspection.



Abutment 2 approach roadway.



Abutment #2 approach roadway has been repaired since last inspection.



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Date Reported: 10/06/2016
Priority: D- Routine
Type of Work: Repair
Status: Monitor
Component: Deck

Deficiency Description

Deck has open transverse cracks spaced three feet apart.

Remarks



Typical deck crack

Date Reported: 08/25/2020
Priority: D- Routine
Type of Work: Repair
Status: Open
Component: Deck

Deficiency Description

Span #1 left lane has a one foot spall with exposed rebar.

Remarks



Span #1 left lane has a one foot spall with exposed rebar.



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Inspection Comments

Drawing numbers: 25098, 25100-111, 25099, 15101-102, 25127-36.

Abutment #2 approach roadway has settled one inch increasing impact loading on bridge.

Vines and vegetation are growing under and beside bridge with vines growing up columns and onto caps.

Span #1, 2,8 slopes are eroded with depths up to two feet extending down slopes.

Abutment #2 right approach rail has collision damage.

Deck Notes

08/16/2018 lowered deck from 8 to 7 due to deck cracks.

Substructure Notes

08/16/2018 lowered substructure from 7 to 6 due to shallow local scour.