



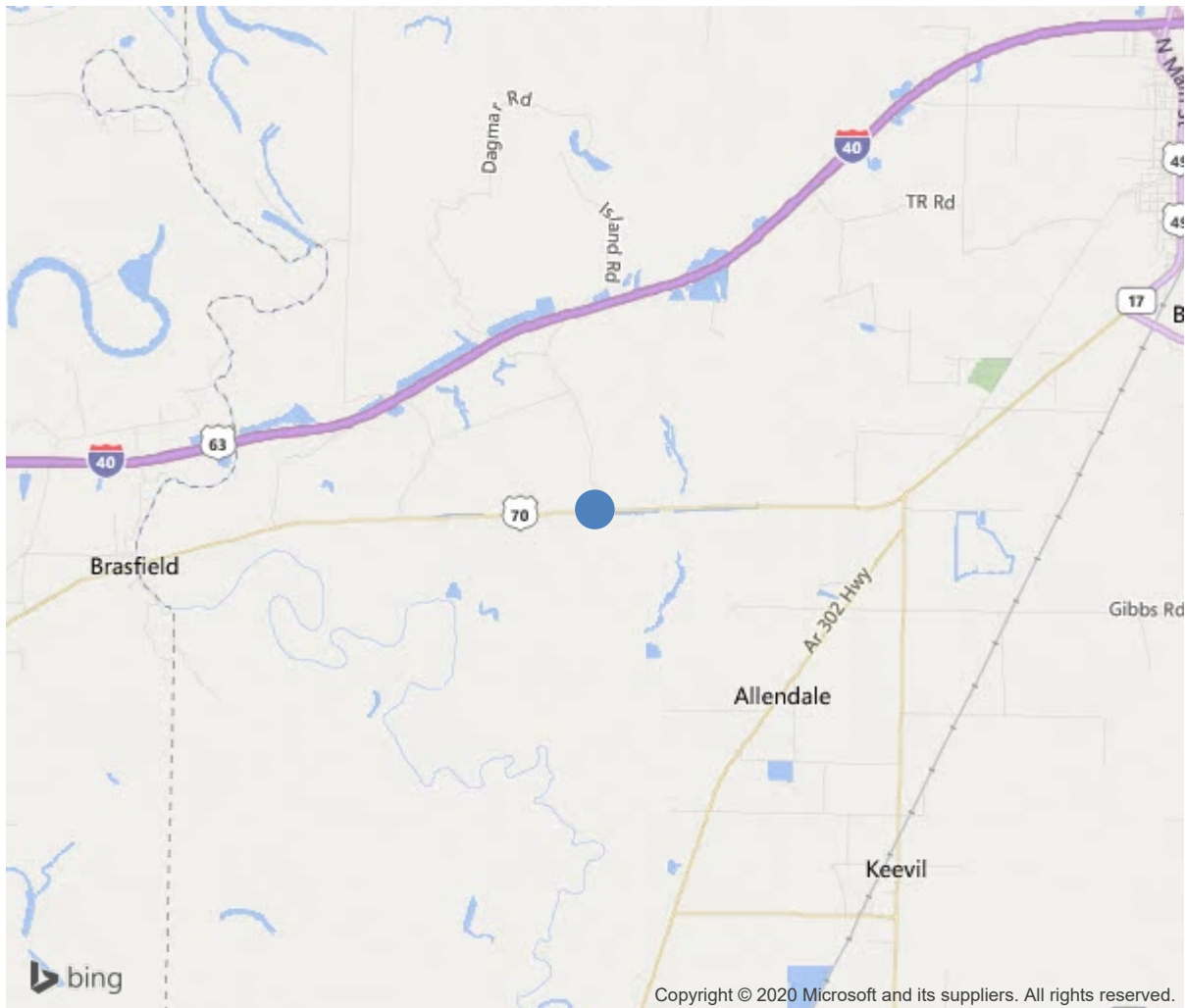
**Bridge #01109**(Routine)

**Us-70/Sec-17/L4.62 over Bayou Deview**

**Location: 4.62 Mi E Prairie Co Line**

**Team Lead:** Joel Davis **Inspection Date:** May 16, 2019

4.62 Mi E Prairie Co Line



34.83882, -91.29675



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IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	01109
(5) Inventory Route	70
(2) Highway Agency District	01
(3) County Code	95-Monroe County, Arkansas
(4) Place Code	0
(6) Features Intersected	Bayou Deview
(7) Facility Carried	Us-70/Sec-17/L4.62
(9) Location	4.62 Mi E Prairie Co Line
(11) Mile Point	4.62 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.83882
(17) Longitude	-91.29675
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	14
Material	1-Concrete
Type	4-Tee beam
(44) Approach Structure Type	00
Material	0-Other
Type	0-Other
(45) No. of Spans in Main Unit	9
(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	1930
(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	1100
(30) Year of ADT	2014
(109) Truck ADT	19 %
(19) Bypass, Detour Length	4 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	34 ft
(49) Structure Length	307 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	26.9 ft
(52) Deck Width Out to Out	30 ft
(32) Approach Roadway Width (W/Shoulders)	37.1 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	27.9 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	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		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		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		2-Bridge is eligible for the NRHP.	
CONDITION			
(58) Deck			7
(59) Superstructure			6
(60) Substructure			6
(61) Channel & Channel Protection			5
(62) Culverts			N
LOAD RATING AND POSTING			
(31) Design Load		2-M 13.5 / H 15	
(63) Operating Rating Method			1
(64) Operating Rating			
Type		1-Load Factor(LF)	
Rating			48
(65) Inventory Rating Method		1-Load Factor(LF)	
(66) Inventory Rating			
Type			9
Rating			29
(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			4
(69) Clearances, Vertical/Horizontal			N
(71) Waterway Adequacy			8
(72) Approach Roadway Alignment			8
(36) Traffic Safety Features			0000
A) Bridge Railings		0-Inspected feature does not meet cur	
B) Transitions		0-Inspected feature does not meet cur	
C) Approach Guardrail		0-Inspected feature does not meet cur	
D) Approach Guardrail Ends		0-Inspected feature does not meet cur	
(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			1167
(115) Year of Future ADT			2028
INSPECTIONS			
(90) Inspection Date			
(91) Frequency			24 Months
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No	24	
B: Underwater Inspection	No	0	
C: Other Special Inspection	No	0	



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	9210	9154	50	6	0
1090	Exposed Rebar	SF	6	0	0	6	0
1120	Efflorescence/Rust Staining	SF	50	0	50	0	0
510	Wearing Surfaces	SF	8258	7691	567	0	0
3220	Crack (Wearing Surface)	SF	567	0	567	0	0
(16)							
Curbs have 40' of area that is scaling and breaking off. Gutters are full of dirt and debris with vegetation growing in them. Wearing surface has cracked at all bents transverse and has longitudinal crack down center full length of bridge. Soffit has transverse cracks sporadically with a few with light efflorescence. Soffit span 3, bay 1, mid span spalled with 2' exposed rebar with 5% section loss. Soffit span #7 between girders #4,5 has a 4' area of spalling with rebar exposed 5% section loss.							
110	Reinforced Concrete Open Girder/Beam	LF	1535	1503	13	19	0
1080	Delamination/Spall/Patched Area	LF	10	0	10	0	0
1090	Exposed Rebar	LF	19	0	0	19	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(110)							
Girders all spans have vertical hairline flexure cracks in stems spaced 2' apart. Bent #3 span #2 girder #2 has 1' delamination right side. Bent #3 span #2 girder #4 has 1' spall with exposed rebar 15% section loss. Bent #3 span #3 girder #3,5 has 1' spall with exposed rebar 5% section loss. Bent #5 span #4 girder #5 has 3' of cracks and delaminations on bottom. Bent #5 span #5 girder #1,3 has delamination with 1' spall with exposed rebar 5% section loss. Bent #7 span #6 girders #2,4,5 all have 1' spalls with exposed rebar 5% section loss. Bent #7 spans #6,7 girders #1,2 have 1' spalls with exposed rebar 5% section loss. Bent #7 spans #6,7 girders #5 has 1' delamination on right side. Bent #9 span #8 girder #2 has 1' spall with exposed rebar right side with 5% section loss. Bent #9 span #9 girders #1,2,5 all have 1' spall with exposed rebar 5% section loss. Bent #9 span #9 girders #3,4,5 cracked and delaminated.							
215	Reinforced Concrete Abutment	LF	64	0	64	0	0
6000	Scour	LF	64	0	64	0	0
(215)							
Abutment #1,2 has 2' of erosion under cap exposing all piles. Abutment #2 below girder #4 back face near top has two 1' spalls with rebar exposed no section loss.							
227	Reinforced Concrete Pile	EA	40	28	11	1	0
1080	Delamination/Spall/Patched Area	EA	1	0	1	0	0
1090	Exposed Rebar	EA	1	0	0	1	0
1130	Cracking (RC and Other)	EA	10	0	10	0	0

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(227)							
Bent #3 piles #2,3,5 are all cracked at top. Bent #4 pile #1 has a delamination at top. Bent #5 pile #5 has 2' spall at top with exposed rebar 10% section loss. Bent #6 pile #3,5 is cracked at top. Bent #7 piles #3,4,5 are cracked at top. Bent #9 pile #5 is cracked at top.							
234	Reinforced Concrete Pier Cap	LF	204	193	8	3	0
1080	Delamination/Spall/Patched Area	LF	5	0	5	0	0
1090	Exposed Rebar	LF	5	0	2	3	0
1130	Cracking (RC and Other)	LF	1	0	1	0	0
(234)							
Bent #3 cap back face has 2' delamination above pile #1 and between piles 2 and 3. Bent #3 cap ahead face right end has 1' spall with exposed rebar 5% section loss. Bent #3 cap ahead face has 2' delamination between piles #2,3. Bent #4 cap ahead face above pile #2 has 6" spall with exposed rebar no section loss. Bent #5 cap back face above piles #2,3 have 1' spall with exposed rebar 10% section loss. Bent #7 cap ahead face right end is cracked and delaminated. Bent #8 cap back face has two 6" spalls above pile #2 with exposed rebar no section loss. Bent #9 cap right end back face has 1' spall with exposed rebar 10% section loss.							
305	Assembly Joint without Seal	LF	150	0	0	150	0
2350	Debris Impaction	LF	150	0	0	150	0
(305)							
Asphalt has impacted joints allowing little movement.							
311	Movable Bearing	EA	20	20	0	0	0
331	Reinforced Concrete Bridge Railing	LF	614	613	1	0	0
1090	Exposed Rebar	LF	1	0	1	0	0
(331)							
Monument post abutment #2 left side spalled at bottom with exposed rebar.							



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## **Maintenance Needs**



## Inspection Comments

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### Deck Notes

Deck: Curbs have 40' of area that is scaling and breaking off. Gutters are full of dirt and debris with vegetation growing in them. Wearing surface has cracked at all bents transverse and has longitudinal crack down center full length of bridge. Soffit has transverse cracks sporadically with a few with light efflorescence. Soffit span 3, bay 1, mid span spalled with 2' exposed rebar with 5% section loss. Soffit span #7 between girders #4,5 has a 4' area of spalling with rebar exposed 5% section loss. Assembly joints:

Asphalt has impacted joints allowing little movement.

Bridge railing:

Monument post abutment #2 left side spalled at bottom with exposed rebar.

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### Superstructure Notes

Girders: Girders all spans have vertical hairline flexure cracks in stems spaced 2' apart. Bent #3 span #2 girder #2 has 1' delamination right side. Bent #3 span #2 girder #4 has 1' spall with exposed rebar 15% section loss. Bent #3 span #3 girder #3,5 has 1' spall with exposed rebar 5% section loss. Bent #5 span #4 girder #5 has 3' of cracks and delaminations on bottom. Bent #5 span #5 girder #1,3 has delamination with 1' spall with exposed rebar 5% section loss. Bent #7 span #6 girders #2,4,5 all have 1' spalls with exposed rebar 5% section loss. Bent #7 spans #6,7 girders #1,2 have 1' spalls with exposed rebar 5% section loss. Bent #7 spans #6,7 girders #5 has 1' delamination on right side. Bent #9 span #8 girder #2 has 1' spall with exposed rebar right side with 5% section loss. Bent #9 span #9 girders #1,2,5 all have 1' spall with exposed rebar 5% section loss. Bent #9 span #9 girders #3,4,5 cracked and delaminated.

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### Substructure Notes

Abutments: Abutment #1,2 has 2' of erosion under cap exposing all piles. Abutment #2 below girder #4 back face near top has two 1' spalls with rebar exposed no section loss. RC piles: Bent #3 piles #2,3,5 are all cracked at top. Bent #4 pile #1 has a delamination at top. Bent #5 pile #5 has 2' spall at top with exposed rebar 10% section loss. Bent #6 pile #3,5 is cracked at top. Bent #7 piles #3,4,5 are cracked at top. Bent #9 pile #5 is cracked at top. RC caps: Bent #3 cap back face has 2' delamination above pile #1 and between piles 2 and 3. Bent #3 cap ahead face right end has 1' spall with exposed rebar 5% section loss. Bent #3 cap ahead face has 2' delamination between piles #2,3. Bent #4 cap ahead face above pile #2 has 6" spall with exposed rebar no section loss. Bent #5 cap back face above piles #2,3 have 1' spall with exposed rebar 10% section loss. Bent #7 cap ahead face right end is cracked and delaminated. Bent #8 cap back face has two 6" spalls above pile #2 with exposed rebar no section loss. Bent #9 cap right end back face has 1' spall with exposed rebar 10% section loss.