



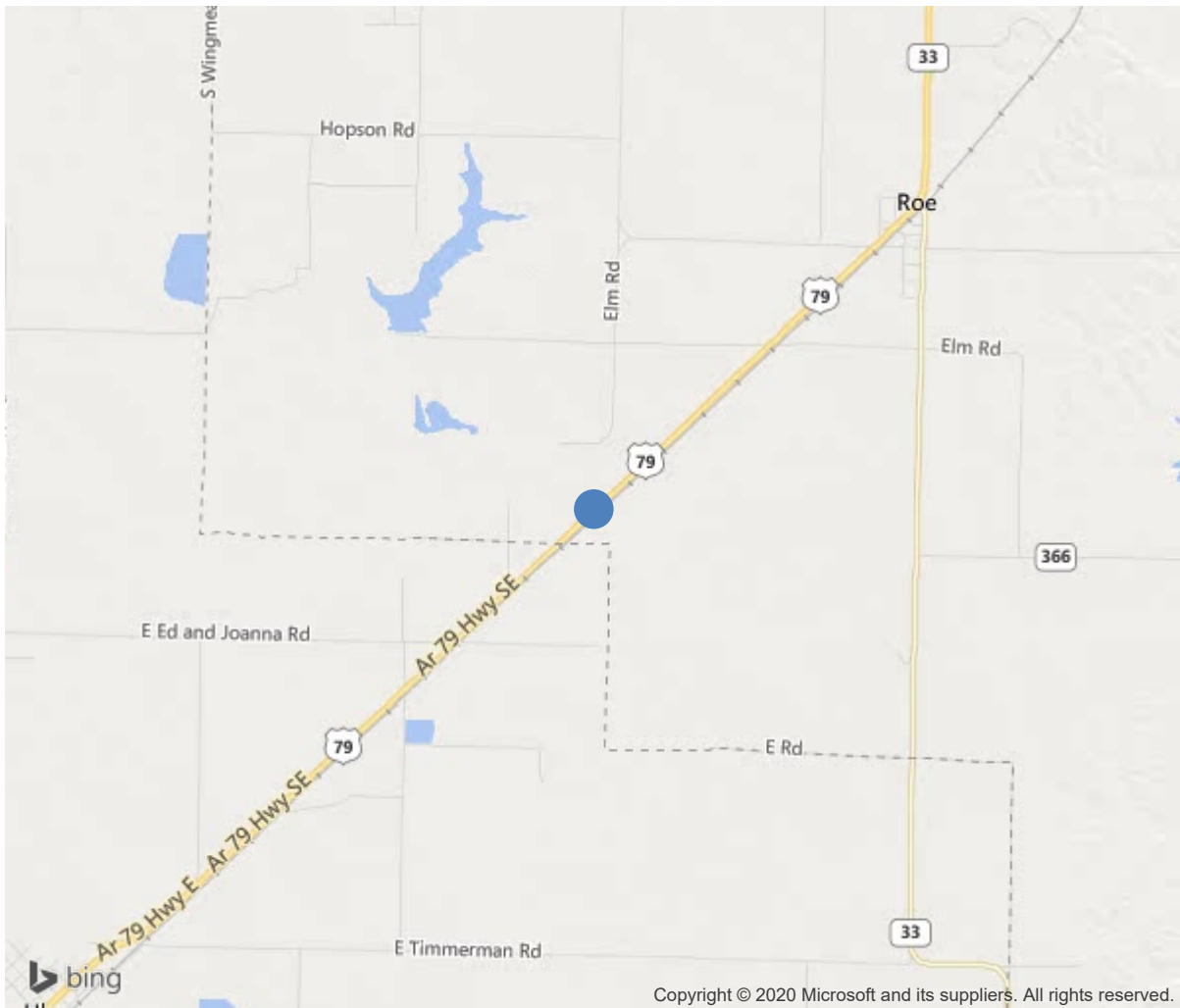
Bridge #02391 (Routine)

Us-79/Sec-13/L0.23 over Bayou Lagrue

Location: .23 Mi Ne Of Prairie Co

Team Lead: Joel Davis **Inspection Date:** January 25, 2017

.23 Mi Ne Of Prairie Co



34.61091, -91.41360



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IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	02391
(5) Inventory Route	79
(2) Highway Agency District	01
(3) County Code	95-Monroe County, Arkansas
(4) Place Code	0
(6) Features Intersected	Bayou Lagrue
(7) Facility Carried	Us-79/Sec-13/L0.23
(9) Location	.23 Mi Ne Of Prairie Co
(11) Mile Point	0.23 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000079130
(16) Latitude	34.61091
(17) Longitude	-91.41360
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3-Steel
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	6-Bituminous
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1950
(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	3500
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	33 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	30 ft
(49) Structure Length	242 ft
(50) Curb or Sidewalk Width	
Left	1.5 ft
Right	1.5 ft
(51) Bridge Roadway Width Curb to Curb	26 ft
(52) Deck Width Out to Out	27.5 ft
(32) Approach Roadway Width (W/Shoulders)	28 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	28.9 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			6
(59) Superstructure			4
(60) Substructure			6
(61) Channel & Channel Protection			8
(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			42
(65) Inventory Rating Method		1-Load Factor(LF)	
(66) Inventory Rating			
Type			8
Rating			26
(70) Bridge Posting	5-Equal to or above legal loads		
(41) Structure Open/Posted/Closed	A-Open, no restriction		
APPRAISAL			
(67) Structural Evaluation			3
(68) Deck Geometry			3
(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	Replacement of bridge or other		
(76) Length of Structure Improvement			277 ft
(94) Bridge Improvement Cost			\$ 0
(95) Roadway Improvement Cost			\$ 400
(96) Total Project Cost			\$ 1443
(97) Year of Improvement Cost Estimate			2003
(114) Future ADT			4127
(115) Year of Future ADT			2028
INSPECTIONS			
(90) Inspection Date			201901
(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	

SUFFICIENCY RATING	13.5
STATUS (SD/FO/None)	Structurally Deficient

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	7024	6909	20	95	0
1120	Efflorescence/Rust Staining	SF	20	0	20	0	0
1190	Abrasion/Wear (PSC/RC)	SF	95	0	0	95	0
510	Wearing Surfaces	SF	6292	6031	0	261	0
3220	Crack (Wearing Surface)	SF	261	0	0	261	0
3210	Delam/Spall/Patched Area/Pothole	SF	0	0	0	0	0
3230	Effectiveness (Wearing Surface)	SF	0	0	0	0	0
(12)							
SPAN # 7 LEFT & RIGHT CURB AND SPAN #6 LEFT CURB SEVERLY SCALED SOFFIT HAS HAIRLINE CRACKS IN ALL SPANS SOME ARE STARTING TO HAVE EFFLORESCENCE							
107	Steel Open Girder/Beam	LF	968	922	0	45	1
1000	Corrosion	LF	46	0	0	45	1
515	Steel Protective Coating	SF	6601	0	0	6556	45
3440	Effectiveness (Steel Protective Coatings)	SF	6601	0	0	6556	45
(107)							
GIRDERS ENDS CORRODED ON WEBS AT CONCRETE HAUNCH AND AT DIAPHRAGM CONNECTIONS WITH UP TO 50% SECTION LOSS. SPAN #7 BENT #8 GIRDER #3 HAS AREA OF 100% SECTION LOSS.							
215	Reinforced Concrete Abutment	LF	64	60	1	3	0
1080	Delamination/Spall/Patched Area	LF	3	0	0	3	0
1130	Cracking (RC and Other)	LF	1	0	1	0	0
(215)							
ABUTMENT #1 CAP HAS 1' CRACK/DELAMINATION AT TOP CENTER. ONE VERTICAL CRACK UNDER GIRDER #1							
227	Reinforced Concrete Pile	EA	28	0	28	0	0
1130	Cracking (RC and Other)	EA	1	0	1	0	0
1190	Abrasion/Wear (PSC/RC)	EA	27	0	27	0	0
(227)							
BENT #4 PILE #4 HAS 1' CRACK AT TOP. ALL PILES HAVE MODERATE SCALING AT BOTTOM.							
234	Reinforced Concrete Pier Cap	LF	177	157	3	17	0
1080	Delamination/Spall/Patched Area	LF	9	0	0	9	0
1090	Exposed Rebar	LF	8	0	0	8	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(234)							

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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
BENT #3 RIGHT END & FRONT FACE HAS LARGE SPALL WITH EXPOSED REBAR, ALSO 1' SPALL WITH REBAR ON BOTTOM CENTER DUE TO POOR CONCRETE COVERAGE AND A VERTICAL CRACK UNDER GIRDER #1							
BENT #4 CAP AHEAD FACE HAS 3'+- DELAMINATION OVER PILE #2.							
BENT #5 RIGHT END BACKFACE HAS 2' VERTICAL CRACK.							
BENT #5 RIGHT END FRONT FACE HAS 2' VERTICAL CRACK.							
BENT #5 HAS SMALL SPALL N BOTTOM WITH EXPOSED REBAR							
BENT #7 LT AND RT END OF CAP CRACKED, DELAMINATED AND SPALLED.							
BENT #7 LEFT END BACKFACE HAS 2' DELAM.							
BENT #7 RIGHT END SPALLED , CRACKED, DELAMED WITH REBAR EXPOSED.							
BENT #8 RT END OF CAP SPALLED WITH EXPOSED REBAR.							
BENT #8 CAP HAS 2' DELAM ON BOTTOM AT PILE #4							
MULTIPLE HAIRLINE CRACKS ALL CAPS VARIOUS LOCATIONS.							
304	Open Expansion Joint	LF	234	234	0	0	0
(304)							
JOINTS NEGATED FUNCTION DUE TO ACHM OVERLAY. SURFACE JOINTS HAVE BEEN SEALED.							
311	Movable Bearing	EA	32	0	0	32	0
1000	Corrosion	EA	32	0	0	32	0
515	Steel Protective Coating	SF	64	0	0	0	64
3440	Effectiveness (Steel Protective Coatings)	SF	64	0	0	0	64
(311)							
ALL BEARING HAVE CORROSION WITH LAMINATIONS & SECTION LOSS.							
313	Fixed Bearing	EA	32	0	0	32	0
1000	Corrosion	EA	32	0	0	32	0
515	Steel Protective Coating	SF	64	0	0	0	64
3440	Effectiveness (Steel Protective Coatings)	SF	64	0	0	0	64
(313)							
ALL BEARING HAVE CORROSION WITH LAMINATIONS & SECTION LOSS.							
330	Metal Bridge Railing	LF	484	0	479	5	0
1000	Corrosion	LF	479	0	479	0	0
7000	Damage	LF	5	0	0	5	0
515	Steel Protective Coating	SF	1452	0	0	1452	0
3440	Effectiveness (Steel Protective Coatings)	SF	1452	0	0	1452	0
(330)							



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
SPAN #4	LEFT SIDE 2ND POST BROKEN						
SPAN #8	RIGHT SIDE 1ST POST BROKEN AT BASE.						
SPAN #2	RIGHT SIDE POST #4,5 HAVE COLLISION DAMAGE.						
SPAN #1	RIGHT SIDE 1ST POST BROKEN.						
	BOTH SIDES HAS SURFACE RUST ENTIRE LENGTH						



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Maintenance Needs



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Inspection Comments

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Deck Notes

SPAN # 7 LEFT & RIGHT CURB AND SPAN #6 LEFT CURB SEVERLY SCALED JOINTS NEGATED FUNCTION DUE TO ACHM OVERLAY. SURFACE JOINTS HAVE BEEN SEALED. SOFFIT HAS HAIRLINE CRACKS IN ALL SPANS. SPAN #4 LEFT SIDE 2ND POST BROKEN. SPAN #8 RIGHT SIDE 1ST POST BROKEN AT BASE. SPAN #2 RIGHT SIDE POST #4,5 HAVE COLLISION DAMAGE. SPAN #1 RIGHT SIDE 1ST POST BROKEN.

Superstructure Notes

GIRDERS ENDS CORRODED ON WEBS AT CONCRETE HAUNCH AND AT DIAPHRAGM CONNECTIONS WITH UP TO 50% SECTION LOSS. SPAN #7 BENT #8 GIRDER #3 HAS AREA OF 100% SECTION LOSS. ALL BEARING HAVE CORROSION WITH LAMINATIONS & SECTION LOSS.

Substructure Notes

BENT #4 PILE #4 HAS 1' CRACK AT TOP. ALL PILES HAVE MODERATE SCALING AT BOTTOM. ABUTMENT #1 CAP HAS 1' CRACK/DELAMINATION AT TOP CENTER. BENT #3 RIGHT END & FRONT FACE HAS LARGE SPALL WITH EXPOSED REBAR, ALSO 1' SPALL WITH REBAR ON BOTTOM CENTER DUE TO POOR CONCRETE COVERAGE AND A VERTICAL CRACK UNDER GIRDER #1. BENT #4 CAP AHEAD FACE HAS 3'+- DELAMINATION OVER PILE #2. BENT #5 RIGHT END BACKFACE HAS 2' VERTICAL CRACK. BENT #5 RIGHT END FRONT FACE HAS 2' VERTICAL CRACK. 1' SPALL ON BOTTOM CHORD WITH EXPOSED REBAR. BENT #6 HAS 2' DELAMINATION ON BOTTOM CHORD AT PILE #2. BENT #7 LT AND RT END OF CAP CRACKED, DELAMINATED AND SPALLED. BENT #7 LEFT END BACKFACE HAS 2' DELAM. BENT #7 RIGHT END SPALLED, CRACKED, DELAMINATED WITH REBAR EXPOSED. BENT #8 RT END OF CAP SPALLED WITH EXPOSED REBAR. BOTTOM CHORD HAS 2' DELAMINATION AT PILE #4. MULTIPLE HAIRLINE CRACKS ALL CAPS VARIOUS LOCATIONS.