



Latitude:34.76469, Longitude:-91.06458

Route:79 Section:15 Log:2.88

Arnold Road ID:39x79x15xA, Arnold Log mile:2.884

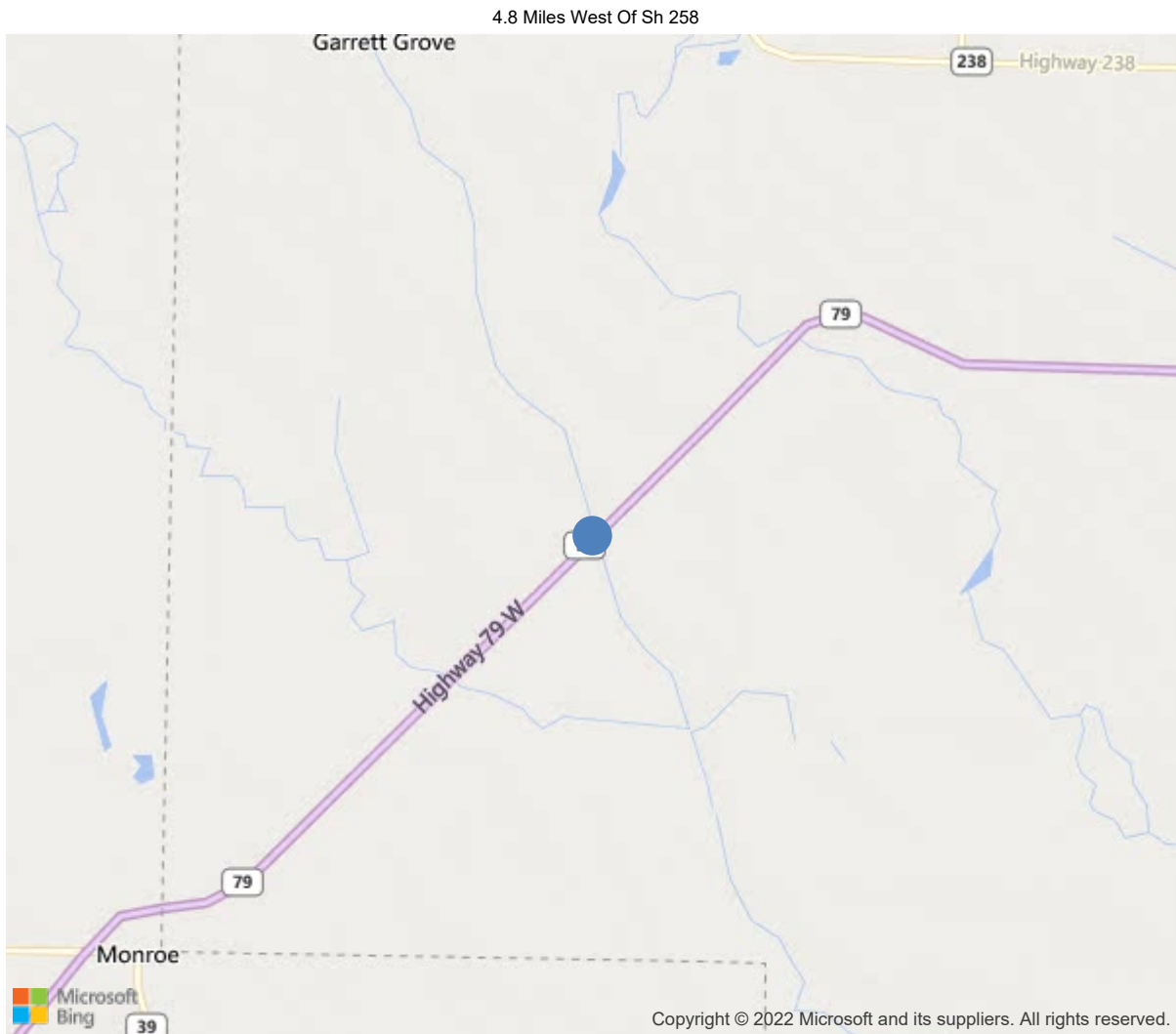
District 01, Lee County

Owner: 1-State Highway Agency



Bridge #02394(Routine)  
Us-79/Sec-15/L2.88 over Little Piney Creek  
Location: 4.8 Miles West Of Sh 258

Team Lead: Drew Melton Inspection Date: September 14, 2020



34.76469, -91.06458

Inspection Direction : S to N



**Bridge #02394(Routine)**  
**Us-79/Sec-15/L2.88 over Little Piney Creek**

**Location: 4.8 Miles West Of Sh 258**

**Team Lead: Drew Melton Inspection Date: September 14, 2020**

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	02394
(5) Inventory Route	79
(2) Highway Agency District	01
(3) County Code	77-Lee County, Arkansas
(4) Place Code	0
(6) Features Intersected	Little Piney Creek
(7) Facility Carried	Us-79/Sec-15/L2.88
(9) Location	4.8 Miles West Of Sh 258
(11) Mile Point	2.88 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000079150
(16) Latitude	34.76469
(17) Longitude	-91.06458
(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	3
(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	1952
(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	580
(30) Year of ADT	2019
(109) Truck ADT	23 %
(19) Bypass, Detour Length	21 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	30 ft
(49) Structure Length	92.6 ft
(50) Curb or Sidewalk Width	
Left	1.5 ft
Right	1.5 ft
(51) Bridge Roadway Width Curb to Curb	25.9 ft
(52) Deck Width Out to Out	31.5 ft
(32) Approach Roadway Width (W/Shoulders)	29 ft
(33) Bridge Median	0-No median
(34) Skew	30 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	8
(59) Superstructure	4
(60) Substructure	8
(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	50
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	3
Rating	30
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	4
(68) Deck Geometry	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(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	5-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	Replacement of bridge or other
(76) Length of Structure Improvement	120 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 235
(96) Total Project Cost	\$ 545
(97) Year of Improvement Cost Estimate	2004
(114) Future ADT	700
(115) Year of Future ADT	2038

INSPECTIONS *			
(90) Inspection Date			09/2020
(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	Yes		10/2021
* 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 #02394(Routine)

Us-79/Sec-15/L2.88 over Little Piney Creek

Location: 4.8 Miles West Of Sh 258

Team Lead: Drew Melton, Inspection Date: September 14, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	2546	2546	0	0	0
510	Wearing Surfaces	SF	2418	0	2316	102	0
3210	Delam/Spall/Patched Area/Pothole	SF	12	0	10	2	0
3220	Crack (Wearing Surface)	SF	2406	0	2306	100	0
(12)	Wearing surface has lots of cracks longitudinal and transverse, at bents joints are raveling creating pot holes for a total of two feet. Vegetation is growing in gutters and beside bridge.						
107	Steel Open Girder/Beam	LF	370	0	317	49	4
1000	Corrosion	LF	354	0	317	33	4
1900	Distortion	LF	16	0	0	16	0
515	Steel Protective Coating	SF	2526	0	0	240	2286
3440	Effectiveness (Steel Protective Coatings)	SF	2526	0	0	240	2286
(107)	<p>Paint has failed in many areas exposing bare metal allowing corrosion and section loss especially at girder ends and bearings. Active corrosion at girder ends in web and bottom flange with large section loss corrosion has been painted over. Pack rust at diaphragm connections has caused webs of outside girders to bow out. All girders web of beam at diaphragm connection &amp; at haunch has section loss up to 50%. Abutment #1 girder #1 bottom one foot tall by three feet long has t-splice. Abutment #1 girder #4 lower flange and lower web at lower flange has corrosion with laminations and section loss up to 25% for two feet. Bent #2 span #1 girder #1 corrosion at haunch and diaphragm connections with 70% section loss. Bent #2 span #1 girder #4 corrosion at haunch and diaphragm connections with 70% section loss. Bent #2 span #2 girder #1 has a full height t-splice that is three feet long. Bent #2 span #2 girder #2 has corrosion at haunch and diaphragm connections with a two inch hole at diaphragm and a three inch hole at haunch. Bent #2 span #2 girder #3 has corrosion at haunch and diaphragm connections with a small hole under diaphragm. Bent #2 span #2 girder #3 lower flange for the first one foot has 25% section loss. Bent #2 span #2 girder #4 for first two foot bottom flange has corrosion with up to 50% section loss on the inside of the girder and up to 70% at diaphragm and 100% at joint. Bent #2 Span #3 girder #3 at haunch has area corroded with up to 50% section loss. Bent #3 span #2 girder #1 has corrosion at haunch and diaphragm connections with up to 60% section loss. Bent #3 span #2 girder #4 has corrosion at haunch and diaphragm connections with up to 70% section loss. Bent #3 span #3 girder #1 has corrosion with section loss around haunch with a small hole. Girder has been t-spliced for one foot tall three feet long. Bent #3 span #3 girder #2 has corrosion at haunch and diaphragm connections with up to 70% section loss and corrosion at lower web with up to 10% section loss for one foot. Bent #3 span #3 girder #3 has corrosion at haunch and diaphragm connections with up to 70% section loss. Bent #3 span #3 girder #3 lower flange first two feet is corroded and laminated with section loss up to 20%. Bent #3 span #3 girder #4 has corrosion at haunch and diaphragm connections with up to 70% section loss. Diaphragms between units #3,4 in span #2,3 have corrosion with section loss on bottom flange with up to 50% section loss with one small hole between girders #3,4. Abutment #2 girder #1 bottom flange into the lower web has up to 75% section loss for first foot of girder both sides. Abutment #2 girder #4 bottom flange has 25% section loss last one foot.</p>						
215	Reinforced Concrete Abutment	LF	82	82	0	0	0

**Team Lead:** Drew Melton, **Inspection Date:** September 14, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(215)							
Slope at abutment two is beginning to erode.							
227	Reinforced Concrete Pile	EA	8	8	0	0	0
234	Reinforced Concrete Pier Cap	LF	58	58	0	0	0
305	Assembly Joint without Seal	LF	126	110	0	16	0
2370	Metal Deterioration or Damage	LF	16	0	0	16	0
(305)							
Joints are corroded with laminations with up to 10% section loss on last three feet of each bent all other joints are have surface rust with no paint left.							
311	Movable Bearing	EA	12	0	4	8	0
1000	Corrosion	EA	4	0	0	4	0
2210	Movement	EA	4	0	0	4	0
2220	Alignment	EA	4	0	4	0	0
515	Steel Protective Coating	SF	24	0	0	0	24
3440	Effectiveness (Steel Protective Coatings)	SF	24	0	0	0	24
(311)							
No paint is left on bearings. All bearings are corroded with laminations with up to 50% section loss. Movable bearing are rocked forward approximately five degrees. Bent #3 girder #1 bearing retaining nut missing.							
313	Fixed Bearing	EA	12	0	1	11	0
1000	Corrosion	EA	11	0	0	11	0
1020	Connection	EA	1	0	1	0	0
515	Steel Protective Coating	SF	16	0	0	0	16
3440	Effectiveness (Steel Protective Coatings)	SF	16	0	0	0	16
(313)							
No paint is left on bearings. All bearing have corrosion with laminations and section loss up to 50% Bent #1 girder #1 left anchor nut missing.							
330	Metal Bridge Railing	LF	186	0	186	0	0
1000	Corrosion	LF	186	0	186	0	0
515	Steel Protective Coating	SF	558	0	0	279	279
3440	Effectiveness (Steel Protective Coatings)	SF	558	0	0	279	279
(330)							

**Bridge #02394(Routine)**  
**Us-79/Sec-15/L2.88 over Little Piney Creek**  
**Location: 4.8 Miles West Of Sh 258**

**Team Lead:** Drew Melton, **Inspection Date:** September 14, 2020

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
Bridge rails have spotty rust full length. No paint left on back side of rail.							

**Maintenance Needs**

**Date Reported:** 11/08/2012

**Priority:** D- Routine

**Type of Work:** Repair

**Status:** Monitor

**Component:** Approach

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**Deficiency Description**

Abutment #1 left approach rail has minor collision damage.

**Remarks**

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Abutment 1 left approach rail.



Abutment one left approach rail.

**Date Reported:** 10/15/2014  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** 311 - Movable Bearing

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**Deficiency Description**

All bearings are corroded with laminations and section loss up to 50%.

**Remarks**

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Typical movable bearing.



Typical bearing.

**Date Reported:** 10/14/2015  
**Priority:** C - Important  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** 107 - Steel Open Girder/Beam

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**Deficiency Description**

Paint has failed in many areas exposing bare metal allowing corrosion and section loss especially at girder ends and bearings.

**Remarks**

9/15/16 crews have painted over girder ends not cleaning pact rust off first.

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Typical paint on girder.



Typical paint



Typical girder.

**Date Reported:** 09/15/2016  
**Priority:** C - Important  
**Type of Work:** Repair  
**Status:** Monitor  
**Component:** 107 - Steel Open Girder/Beam

### Deficiency Description

Abutment #1 girder #4 lower flange and lower web at lower flange has corrosion with laminations and section loss up to 25% for two feet.  
Bent #2 span #1 girder #1 corrosion at haunch and diaphragm connections with 70% section loss.  
Bent #2 span #1 girder #4 corrosion at haunch and diaphragm connections with 70% section loss.  
Bent #2 span #2 girder #3 lower flange for the first one foot has 25% section loss.  
Bent #2 span #2 girder #4 for first two foot bottom flange has corrosion with up to 50% section loss on the inside of the girder and up to 70% at diaphragm and 100% at joint.  
Bent #2 Span #3 girder #3 at haunch has area corroded with up to 50% section loss.  
Bent #3 span #2 girder #1 has corrosion at haunch and diaphragm connections with up to 60% section loss.  
Bent #3 span #2 girder #4 has corrosion at haunch and diaphragm connections with up to 70% section loss.  
Bent #3 span #3 girder #1 has corrosion with section loss around haunch with a small hole. Girder has been t-spliced for one foot tall three feet long.  
Bent #3 span #3 girder #2 has corrosion at haunch and diaphragm connections with up to 70% section loss and corrosion at lower web with up to 10% section loss for one foot.  
Bent #3 span #3 girder #3 has corrosion at haunch and diaphragm connections with up to 70% section loss.  
Bent #3 span #3 girder #3 lower flange first two feet is corroded and laminated with section loss up to 20%.  
Bent #3 span #3 girder #4 has corrosion at haunch and diaphragm connections with up to 70% section loss.  
Abutment #2 girder #1 bottom flange into the lower web has up to 75% section loss for first foot of girder both sides.  
Abutment #2 girder #4 bottom flange has 25% section loss.

### Remarks



Bent #3 span #3 girder #3 corrosion at haunch and diaphragm connections with 70% sect. loss.



Bent #3 girder #1 span #2 corrosion at haunch and diaphragm connections with 60% sect. loss.



Bent #3 span #3 girder #2 corrosion at haunch and diaphragm connections with 70% sect. loss.



ABUTMENT # 2 GIRDER #1 LOWER FLANGE FOR FIRST 2' HAS SECTION LOSS UP TO 75% GROWING INTO WEB.



Bent #2 span #2 girder #4 has first 2' long area bottom flange inside with up to 50% section loss.



Abutment #1 girder #4 lower flange and lower web at lower flange has corrosion with laminations and section loss up to 25% for two feet.



Bent 3 girder 1 span 3 has section loss up to 80% around haunch with small hole.



Bent #2 girder #1 span #1 corrosion at haunch and diaphragm connections with 70% sect. loss.



Abutment #2 girder #4 bottom flange has 25% section loss last one foot.



Bent #3 span #3 girder #4 corrosion at haunch and diaphragm connections with 70% sect. loss.



Bent #3 girder #1 span #3 has section loss up to 80% around haunch with small hole. Girder has been t-spliced for one foot tall three feet long.



Bent #3 span #3 girder #3 lower flange first 2' corroded & laminated with section loss up to 20%.



Abutment one girder four.



Bent two span one girder one.



Bent two span three girder three.



Bent two span one girder four.



Bent two span two girder four.



Bent two span two girder four.



Bent three span two girder one.



Bent three span two girder four.



Bent three span three girder four.



Bent three span three girder three.



Bent three span three girder two.



Bent three span three girder one.



**Bridge #02394**(Routine)  
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**Location: 4.8 Miles West Of Sh 258**

**Team Lead:** Drew Melton **Inspection Date:** September 14, 2020



Abutment two girder four.

**Date Reported:** 10/09/2019  
**Priority:** B - Pressing; 6 month completion goal  
**Type of Work:** Repair  
**Status:** Assigned  
**Component:** 107 - Steel Open Girder/Beam

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### Deficiency Description

Bent #2 span #2 girder #2 has corrosion at haunch and diaphragm connections with a two inch hole at diaphragm and a three inch hole at haunch.

Bent #2 span #2 girder #3 has corrosion at haunch and diaphragm connections with a small hole under diaphragm.  
Abutment #2 girder #1 bottom flange into the lower web has up to 75% section loss for first foot of girder both sides.

### Remarks

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Bent #2 span #2 girder #3 corrosion at haunch and diaphragm connections with a small hole under diaphragm.



Abutment #2 girder #1 bottom flange into the lower web has up to 75% section loss for first foot of girder both sides.



Abutment #2 girder #1 bottom flange Into the lower web has up to 75% section loss for first foot of girder both sides.



Bent #2 span #2 girder #2 corrosion at haunch and diaphragm connections with a two inch hole at diaphragm and a three inch hole at haunch.



Span two bent two girder two.



Span two bent two girder two.



Bent two span two girder three.



Abutment two girder one.



**Bridge #02394**(Routine)  
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**Location: 4.8 Miles West Of Sh 258**

**Team Lead:** Drew Melton **Inspection Date:** September 14, 2020

**Date Reported:** 09/14/2020  
**Priority:** D- Routine  
**Type of Work:** Clean  
**Status:** Open  
**Component:** Bridge

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#### Deficiency Description

Vegetation is growing in gutters and beside bridge.

#### Remarks

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Vegetation is growing in gutters.



Vegetation growing beside the bridge.



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**Team Lead:** Drew Melton **Inspection Date:** September 14, 2020

**Date Reported:** 09/14/2020  
**Priority:** D- Routine  
**Type of Work:** Repair  
**Status:** Open  
**Component:** 510 - 12 - Reinforced Concrete Deck

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#### **Deficiency Description**

Overlay at joints is cracked and beginning to spall.

#### **Remarks**

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Joint at bent three.



Joint at bent two.



**Bridge #02394**(Routine)

**Us-79/Sec-15/L2.88 over Little Piney Creek**

**Location: 4.8 Miles West Of Sh 258**

**Team Lead:** Drew Melton **Inspection Date:** September 14, 2020

### **Inspection Comments**

Drawing numbers: 6585-86, 6588,A,C, 5280,A.

Special inspection to monitor superstructure. Girders continue to get more section loss.

Abutment #1 left approach rail has minor collision damage.

Vegetation is growing in gutters and beside bridge.