



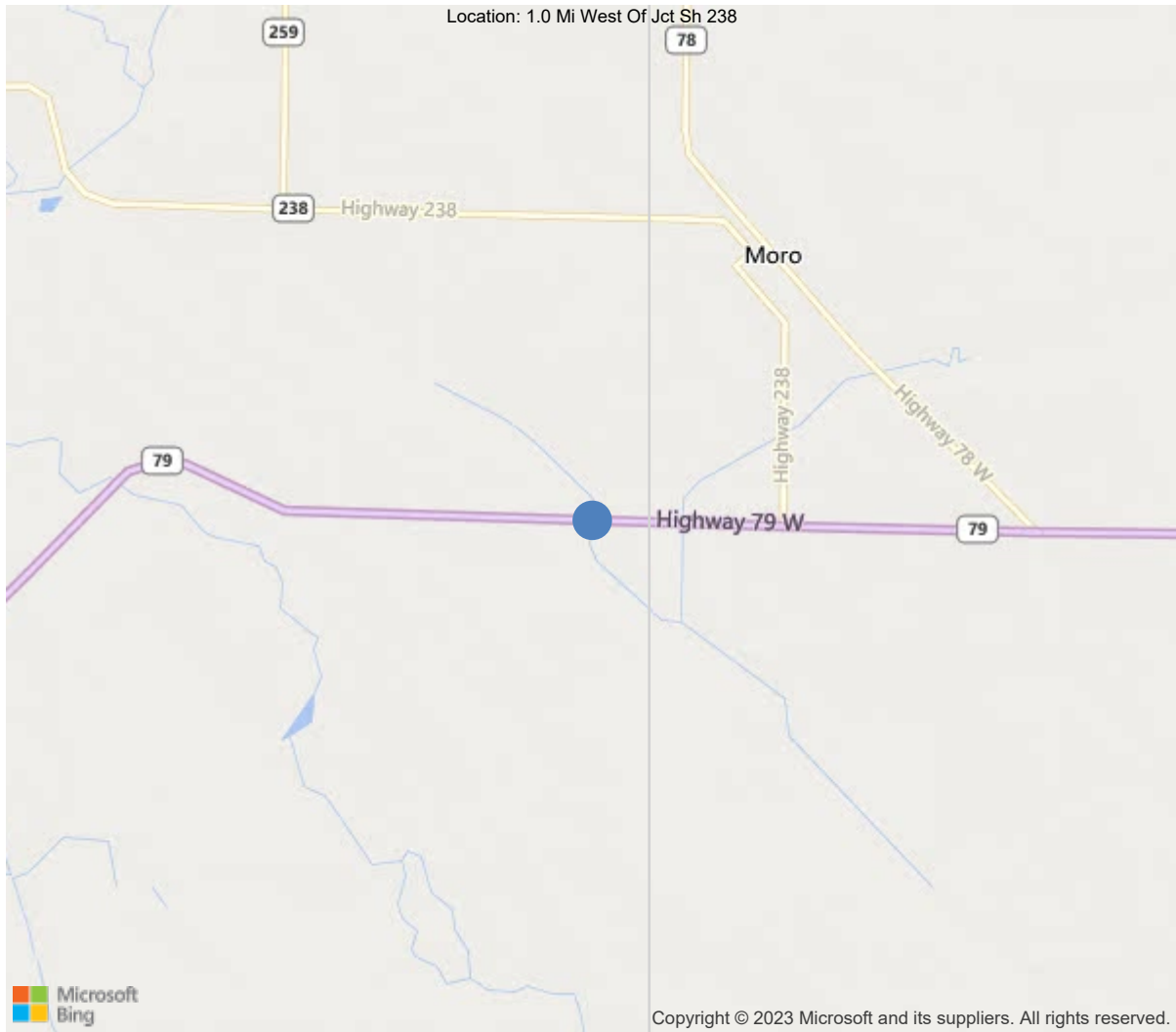
Latitude:34.77648, Longitude:-91.00501

Route:79 Section:15 Log:6.77

Arnold Road ID:39x79x15xA, Arnold Log mile:6.772

District 01, 77 - Lee County

Owner: 1 - State Highway Agency



34.77648, -91.00501



Asset #02396(Routine, Underwater type 2)
Us-79/Sec-15/L6.77 over Little Hog Tusk Creek

Location: 1.0 Mi West Of Jct Sh 238

Team Lead: Myron Futrell, Inspection Date: 11/09/2022

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	02396
(5) Inventory Route	1
(2) Highway Agency District	01 - District 01
(3) County Code	77 - Lee County
(4) Place Code	0
(6) Features Intersected	Little Hog Tusk Creek
(7) Facility Carried	Us-79/Sec-15/L6.77
(9) Location	1.0 Mi West Of Jct Sh 238
(11) Mile Point	6.77 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000079150
(16) Latitude	34.77648
(17) Longitude	-91.00501
(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	27 %
(19) Bypass, Detour Length	21 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	30 ft
(49) Structure Length	92.2 ft
(50) Curb or Sidewalk Width	
Left	1 ft
Right	1 ft
(51) Bridge Roadway Width Curb to Curb	26 ft
(52) Deck Width Out to Out	30.5 ft
(32) Approach Roadway Width (W/Shoulders)	26 ft
(33) Bridge Median	0 - No median
(34) Skew	0 Deg
(35) Structure Flared	0 - 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	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 w
(111) Pier Protection	1 - Navigation protection not
(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 -
(100) Defense Highway	0 - The inventory route is not
(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 par
(20) Toll	3 - On free road. The structu
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	8
(59) Superstructure	4
(60) Substructure	7
(61) Channel & Channel Protection	6
(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	54
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	32
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	5
(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
(36B) Transitions	0 - Inspected feature does not meet
(36C) Approach Guardrail	0 - Inspected feature does not meet
(36D) Approach Guardrail Ends	0 - Inspected feature does not meet
(113) Scour Critical Bridges	5 - Bridge foundations determined t
PROPOSED IMPROVEMENTS	
(75) Type of Work	31 - Replacement of bridge or
(76) Length of Structure Improvement	119 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 235
(96) Total Project Cost	\$ 541
(97) Year of Improvement Cost Estimate	2003
(114) Future ADT	700
(115) Year of Future ADT	2038

INSPECTIONS *			
(90) Inspection Date	11/09/2022		
(91) Frequency	12		
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection			
* 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.			



Asset #02396(Routine, Underwater type 2)

District: 01, County: 77 - Lee County

Team Lead: Myron Futrell, Inspection Date: 11/09/2022

General Observation

Drawing numbers:6585-86,6590,5252a,c,
11/08/2021-Special inspection to monitor corrosion on girder ends, corrosion and section loss continue to worsen.
Approach rail at abutment #1, #2 left side and abutment #1 right side has collision damage.
Abutment #2 slope right side has erosion vein up to one foot deep running down slope.
Small trees and vegetation are growing beside and under bridge.

59 - Superstructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

11/1/2020 lowered superstructure from 5 to 4 due to girder condition.

60 - Substructure (7 - GOOD CONDITION - some minor problems.)

10/26/2016 lowered substructure from 8 to 7 due to local scour around bent #2,3 piles.

A-46 - Asset Files

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A-108 - Load Rating Requested (Yes)

Load rating requested due to section loss in webs of girders #2 and 3 in span #3 at bent #3 and slight crushing of girder #2 span #3 at bent #3.

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	2537	2517	20	0	0
1090	Exposed Rebar	SF	20	0	20	0	0
510	Wearing Surfaces	SF	2399	2317	81	1	0
3210	Delam/Spall/Patched Area/Pothole	SF	4	0	3	1	0
3220	Crack (Wearing Surface)	SF	78	0	78	0	0
(12) Soffit overhangs have small spalls 20 total with exposed rebar due to poor coverage. Wearing surface has cracks at joints.							
107	Steel Open Girder/Beam	LF	369	0	327	36	6
1000	Corrosion	LF	357	0	315	36	6
1900	Distortion	LF	12	0	12	0	0
515	Steel Protective Coating	SF	2517	0	1511	503	503
3440	Effectiveness (Steel Protective Coatings)	LF	2517	0	1511	503	503
(107) Outside girders webs are bowed out about 1/2" due to corrosion with laminations at bents. Girder ends are corroded with section loss up to 50%. Diaphragms have large amounts of section loss some with holes. Girders have surface rust full length with 40% bare steel, 20% little effectiveness. Abutment #1 girder #1 has a 36" long 6" long for two feet and 18" tall for one foot t-splice Span #1 abutment 1 girder #4 has section loss on lower flange and migrating into web first 2' 50% section loss. Span #1 , girder #1 at bent #2 bottom flange has 35% section loss for 2'. Span #2 bent #2 girder #1 first one foot of web corroded with laminations, first four feet of bottom flange and lower web corroded with laminations. Span #2 bent #2 girder #2 has a three inch hole in web at diaphragm , and a five inch hole at haunch, bottom flange and lower web corroded with laminations for four feet. Span #2 bent #2 girder #3 has a four inch hole in web at diaphragm connection and a one inch hole in web at haunch, bottom flange and lower web corroded with laminations for first three feet. Span #2 bent #2 girder #4 corroded at haunch with up to 70% section loss, first two feet of bottom flange and lower web corroded with laminations. Span #3 bent #3 girder #1 has 1 1/2" hole rusted through at haunch. Span #3 bent #3 girder #4 has 1 1/2" hole at haunch. Span #3 bent #3 girder #2 has a eight inch long hole in web at diaphragm, appears to be slightly crushing, and a one and a half inch hole at expansion dam haunch. Span #3 bent #3 girder #3 has a eight inch long hole in web at diaphragm connection. Span #3, girder 1,3,4 at bent #3 first foot bottom flange has 50% section loss. Span #3 abutment 2 girder 1,4 has section loss on lower flange and migrating into web first 1' 35% section loss.							
215	Reinforced Concrete Abutment	LF	82	79	0	3	0
1130	Cracking (RC and Other)	LF	3	0	0	3	0
(215) Abutment #1 left wing wall cracked and spalled for three feet under monument post.							
227	Reinforced Concrete Pile	EA	8	0	8	0	0
1190	Abrasion/Wear (PSC/RC)	EA	8	0	8	0	0
(227) Piles have light abrasion							



Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
107	Steel Open Girder/Beam	LF	369	0	327	36	6
1000	Corrosion	LF	357	0	315	36	6
1900	Distortion	LF	12	0	12	0	0
515	Steel Protective Coating	SF	2517	0	1511	503	503
3440	Effectiveness (Steel Protective Coatings)	LF	2517	0	1511	503	503

(107) Outside girders webs are bowed out about 1/2" due to corrosion with laminations at bents.
 Girder ends are corroded with section loss up to 50%.
 Diaphragms have large amounts of section loss some with holes.
 Girders have surface rust full length with 40% bare steel, 20% little effectiveness.
 Abutment #1 girder #1 has a 36" long 6" long for two feet and 18" tall for one foot t-splice
 Span #1 abutment 1 girder #4 has section loss on lower flange and migrating into web first 2' 50% section loss.
 Span #1 , girder #1 at bent #2 bottom flange has 35% section loss for 2'.
 Span #2 bent #2 girder #1 first one foot of web corroded with laminations, first four feet of bottom flange and lower web corroded with laminations.
 Span #2 bent #2 girder #2 has a three inch hole in web at diaphragm , and a five inch hole at haunch, bottom flange and lower web corroded with laminations for four feet.
 Span #2 bent #2 girder #3 has a four inch hole in web at diaphragm connection and a one inch hole in web at haunch, bottom flange and lower web corroded with laminations for first three feet.
 Span #2 bent #2 girder #4 corroded at haunch with up to 70% section loss, first two feet of bottom flange and lower web corroded with laminations.
 Span #3 bent #3 girder #1 has 1 1/2" hole rusted through at haunch.
 Span #3 bent #3 girder #4 has 1 1/2" hole at haunch.
 Span #3 bent #3 girder #2 has a eight inch long hole in web at diaphragm, appears to be slightly crushing, and a one and a half inch hole at expansion dam haunch.
 Span #3 bent #3 girder #3 has a eight inch long hole in web at diaphragm connection.
 Span #3, girder 1,3,4 at bent #3 first foot bottom flange has 50% section loss.
 Span #3 abutment 2 girder 1,4 has section loss on lower flange and migrating into web first 1' 35% section loss.

59 - Superstructure (4 - POOR CONDITION - advanced section loss, deterioration, spalling or scour.)

Comment: 11/1/2020 lowered superstructure from 5 to 4 due to girder condition.



Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
215	Reinforced Concrete Abutment	LF	82	79	0	3	0
1130	Cracking (RC and Other)	LF	3	0	0	3	0
(215) Abutment #1 left wing wall cracked and spalled for three feet under monument post.							
227	Reinforced Concrete Pile	EA	8	0	8	0	0
1190	Abrasion/Wear (PSC/RC)	EA	8	0	8	0	0
(227) Piles have light abrasion							
234	Reinforced Concrete Pier Cap	LF	57	57	0	0	0
(234) Faces of caps have form wires exposed. Bent #2 cap ahead face above pile #2 has small spall with no exposed rebar and six inches of cracking.							

60 - Substructure (7 - GOOD CONDITION - some minor problems.)

Comment: 10/26/2016 lowered substructure from 8 to 7 due to local scour around bent #2,3 piles.



Asset #02396(Routine, Underwater type 2)
Us-79/Sec-15/L6.77 over Little Hog Tusk Creek

Location: 1.0 Mi West Of Jct Sh 238

Team Lead: Myron Futrell, **Inspection Date:** 11/09/2022

Culvert

ELEMENTS	DESCRIPTION	UNITS	TOTAL				
				CS1	CS2	CS3	CS4



Side view / elevation

Maintenance Needs

Date Reported: 11/11/2022

Priority: A - Safety deficiency; requires prompt action

Status: Open

Type of Work: Repair (General)

Component: Element

Deficiency Description

Span #3 bent #3 girder #2 has a eight inch long hole in web at diaphragm, appears to be slightly crushing, and a one and a half inch hole at expansion dam haunch.

Span #3 bent #3 girder #3 has a eight inch long hole in web at diaphragm connection.

Remarks



Span #3 bent #3 girder #3 web at diaphragm connection



Span #3 bent #3 girder #2 web at diaphragm connection



Span #3 bent #3 girder #3 has a eight inch hole in web at diaphragm connection.



Span #3 bent #3 girder #2 has a eight inch hole in web at diaphragm and a one and a half inch hole at expansion dam haunch.

Maintenance Needs

Date Reported: 11/04/2020

Priority: B - Pressing

Type of Work: Repair (General)

Status: Assigned

Component: Element

Deficiency Description

Span #2 bent #2 girder #2 has a three inch hole in web at diaphragm, and a five inch hole at haunch, bottom flange and lower web corroded with laminations for four feet.

Span #2 bent #2 girder #3 has a four inch hole in web at diaphragm connection and a one inch hole in web at haunch, bottom flange and lower web corroded with laminations for first three feet.

Span #3 bent #3 girder #1 has 1 1/2" hole rusted through at haunch.

Span #3 bent #3 girder #4 has 1 1/2" hole at haunch.

Remarks



Span #3 bent #3 girder #4 has 1 1/2" hole at haunch.



Span #3 bent #3 girder #1 has 1 1/2" hole rusted through at haunch



Span #2 bent #2 girder #3 has a four inch hole in web at diaphragm connection and a one inch hole in web at haunch, bottom flange and lower web corroded with laminations for first three feet.



Span #2 bent #2 girder #2 has a three inch hole in web at diaphragm , and a five inch hole at haunch, bottom flange and lower web corroded with laminations for four feet.



Span #2 bent #2 girder #3 has a three inch hole in web at diaphragm connection.



Span #2 bent #2 girder #2 has a two inch hole in web at diaphragm , and a five inch hole at haunch.



Span #2 bent #2 girder #3



Span #2 bent #2 girder #2 hole at diaphragm connection



Span #2 bent #2 girder #2 hole at haunch



Span #3 bent #3 girder #4 has 1 1/2" hole at haunch.



Span #3 bent #3 girder #1

Maintenance Needs

Date Reported: 10/26/2016

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

Span #1 abutment 1 girders 1,4 has section loss on lower flange and migrating into web first 2' 50% section loss.

Span #1 , girder #1 at bent #2 bottom flange has 35% section loss for 2'.

Span #3, girder 1,3,4 at bent #3 first foot bottom flange has 50% section loss.

Span #3 abutment 2 girder 1,4 has section loss on lower flange and migrating into web first 1' 35% section loss.

Remarks



Span #3 abutment #2 girder #1



Span #2 bent #2 girder #4 corroded at haunch with up to 70% section loss, first two feet of bottom flange and lower web corroded with laminations.



Span #1 abutment 1 girder #4 has section loss on lower flange and migrating into web first 2' 50% section loss.



Span #1 , girder #1 at bent #2 bottom flange has 35% section loss for 2'.



Span #1 abutment #1 girder #1 bottom flange section loss.

Maintenance Needs

Date Reported: 11/08/2012

Priority: C - Important

Type of Work: Repair (General)

Status: Monitor

Component: Approach

Deficiency Description

Approach rail at abutment #1, #2 left side has collision damage.

Remarks



Abutment #2 left approach rail



Abutment #1 left approach rail

Maintenance Needs

Date Reported: 11/10/2014

Priority: C - Important

Type of Work: (Inactive) (Inactive) 1 - Clean

Status: Monitor

Component: Element

Deficiency Description

Girder ends are corroded with section loss up to 50%.

Remarks



Typical girder ends.



Span #2 bent #3 girder #1



Span #3 bent #3 girder #3



Span #3 bent #3 girder #4

Maintenance Needs

Date Reported: 11/10/2014

Priority: C - Important

Type of Work: (Inactive) (Inactive) 0 - N/A

Status: Monitor

Component:

Deficiency Description

BENT #2, #3 LEFT AND RIGHT SIDES EROSION UP TO 2' DEEP BY PILES EXPOSING PILES 2' MORE THAN GROUND LEVEL.

Remarks



Erosion bent 3.



Asset #02396(Routine, Underwater type 2)

Us-79/Sec-15/L6.77 over Little Hog Tusk Creek

Location: 1.0 Mi West Of Jct Sh 238

Team Lead: Myron Futrell, Inspection Date: 11/09/2022

Maintenance Needs

Date Reported: 11/09/2022

Priority: C - Important

Type of Work: Repair (General)

Status: Open

Component: Element

Deficiency Description

ACHM overlay at bent #2 joint has one foot spall and six feet cracked and delaminated.

Remarks



Bent #2 joint

Maintenance Needs

Date Reported: 10/26/2016

Priority: D- Routine

Type of Work: Repair (General)

Status: Monitor

Component: Element

Deficiency Description

Right side abutment 1 monument post has been broken and posts 1,2,3,5 have spalls.
Abutment #2 monument wall has collision damage on left side.

Remarks



Abutment #1 right monument post spalled with exposed rebar



Abutment #1 right side post damage



Abutment #2 left monument post.

Maintenance Needs

Date Reported: 11/03/2020

Priority: D- Routine

Type of Work: Repair (General)

Status: Forward State

Component: Channel

Deficiency Description

Abutment #2 slope right side has erosion vein up to two-foot deep running down slope.

Remarks



Abutment #2 slope right side has erosion vein up to two-foot deep running down slope.



Abutment #2 slope right side has erosion vein up to one foot deep running down slope.



Asset #02396(Routine, Underwater type 2)

Us-79/Sec-15/L6.77 over Little Hog Tusk Creek

Location: 1.0 Mi West Of Jct Sh 238

Team Lead: Myron Futrell, Inspection Date: 11/09/2022

Maintenance Needs

Date Reported: 11/03/2020

Priority: D- Routine

Type of Work: (Inactive) (Inactive) 1 - Clean

Status: Forward State

Component: Element

Deficiency Description

Girders have surface rust full length with 40% bare steel, 20% little effectiveness.

Remarks



Typical paint on girders.

Maintenance Needs

Date Reported: 11/03/2020

Priority: D- Routine

Type of Work: (Inactive) (Inactive) 1 - Clean

Status: Forward State

Component: Element

Deficiency Description

All bearings are corroded with laminations with section loss up to 15%

Remarks



Typical bearings.

Maintenance Needs

Date Reported: 11/03/2020

Priority: D- Routine

Type of Work: (Inactive) (Inactive) 1 - Clean

Status: Forward State

Component: Channel

Deficiency Description

Small trees and vegetation are growing beside and under bridge.

Remarks



Vegetation growing beside and under bridge



Small trees growing beside bridge



Asset #02396(Routine, Underwater type 2)
Us-79/Sec-15/L6.77 over Little Hog Tusk Creek

Location: 1.0 Mi West Of Jct Sh 238

Team Lead: Myron Futrell, **Inspection Date:** 11/09/2022

Routine Maintenance

Check Box Maintenance Items

Type of Maintenance	Is recommended?
A-54 - Sealable Deck Cracks	
A-55 - Deck Washing Needed	
A-56 - Joint Cleaning/Flushing Needed	
A-57 - Beam End and Bearing Paint Needed	
A-58 - Cap Cleaning/Flushing Needed	
A-59 - Joint Repair Needed	
A-60 - Full Beam Painting Needed	
A-61 - Polymer Overlay Advised	
A-62 - Hydro and LMC Advised	
A-63 Missing/Incorrect Log Mile Signage	
A-64 - Vegetation Removal Requested	

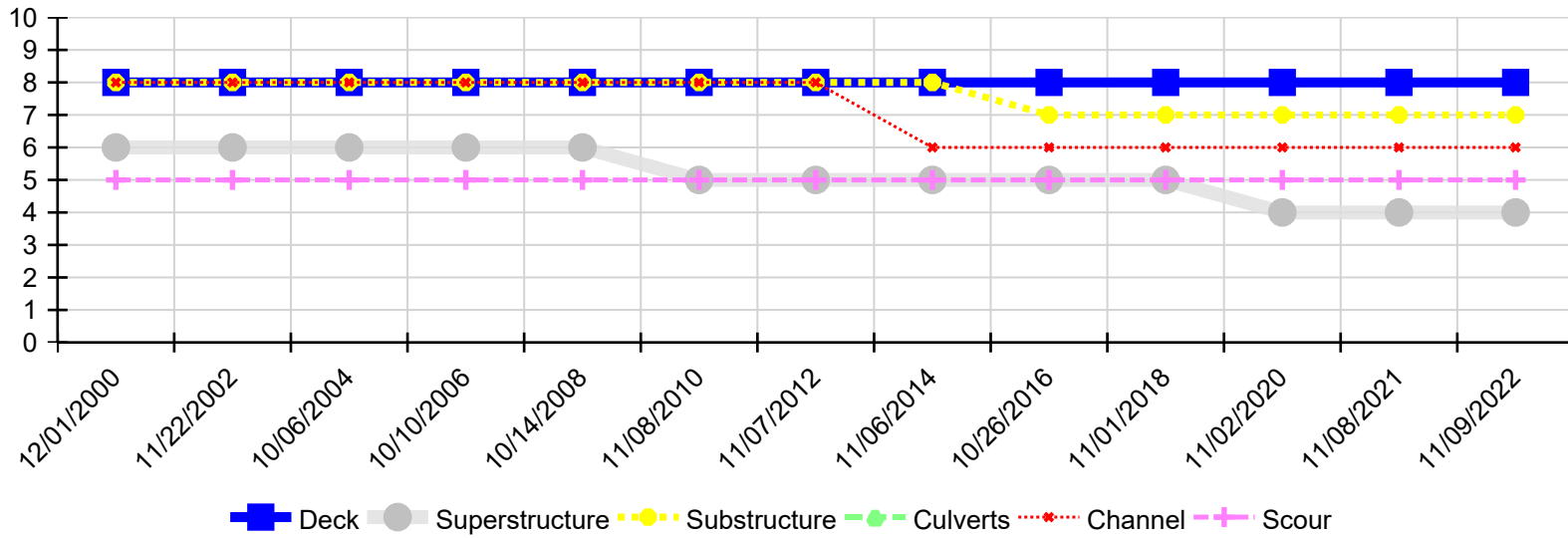


Asset #02396(Routine, Underwater type 2)
Us-79/Sec-15/L6.77 over Little Hog Tusk Creek

Location: 1.0 Mi West Of Jct Sh 238

Team Lead: Myron Futrell, Inspection Date: 11/09/2022

Condition History

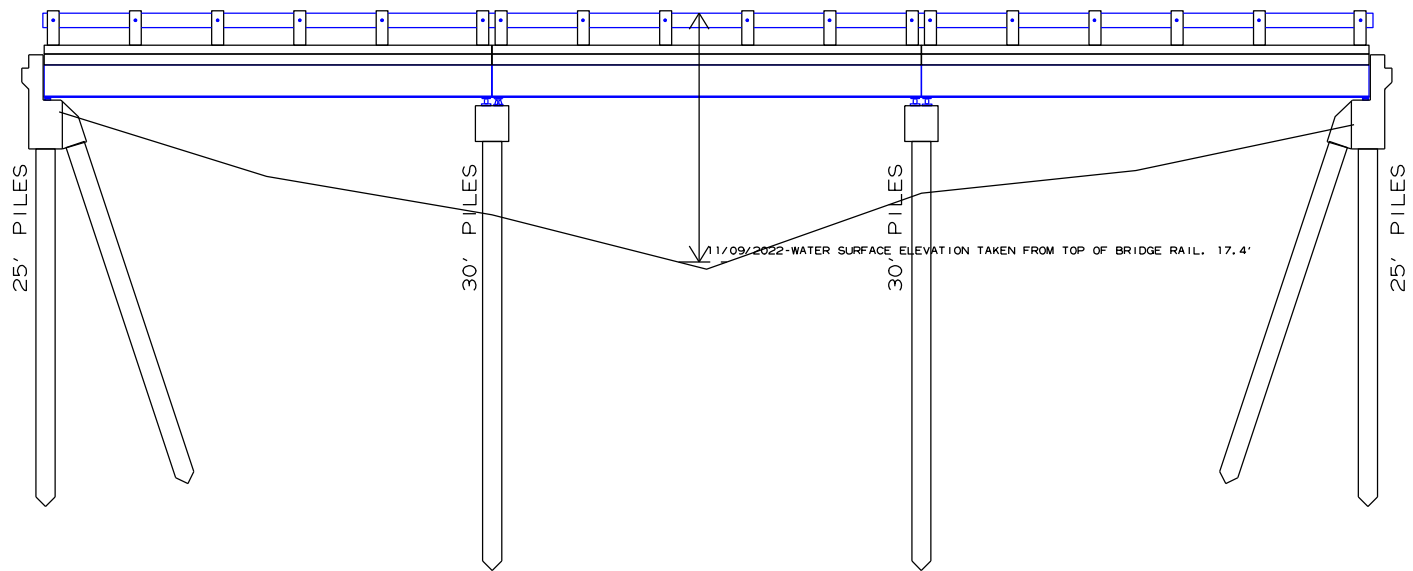


Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
11/09/2022	8	4	7	N	6	5
11/08/2021	8	4	7	N	6	5
11/02/2020	8	4	7	N	6	5
11/01/2018	8	5	7	N	6	5
10/26/2016	8	5	7	N	6	5
11/06/2014	8	5	8	N	6	5
11/07/2012	8	5	8	N	8	5
11/08/2010	8	5	8	N	8	5
10/14/2008	8	6	8	N	8	5
10/10/2006	8	6	8	N	8	5
10/06/2004	8	6	8	N	8	5
11/22/2002	8	6	8	N	8	5
12/01/2000	8	6	8	N	8	5

BRIDGE 02396

CHANNEL PROFILE

RIGHT SIDE



BENT1 MID SPAN BENT2 MID SPAN BENT3 MID SPAN BENT4

11/09/2022 6.9' 11.4' 14.1' 17.9' 13.6' 11.0' 7.8'

*Not to Scale

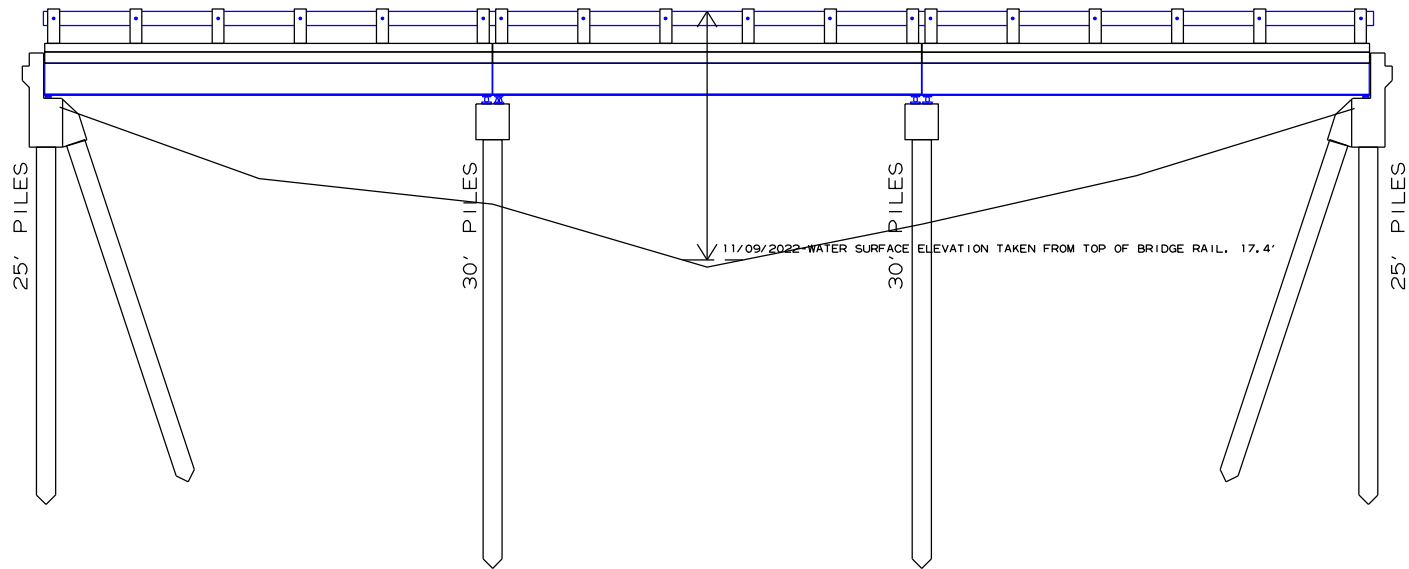
Bridge No. 02396	Dist. 1	Co. LEE/39
Logmile 6.77	Rt. 79	Sect/Zone - 15/00
Date Drawn 06/18/2018 Date Redrawn 11/09/2022 By DMF		

READINGS TAKEN FROM TOP OF BRIDGE RAIL, RIGHT SIDE.

BRIDGE 02396

CHANNEL PROFILE

LEFT SIDE



	BENT1	MID SPAN	BENT2	MID SPAN	BENT3	MID SPAN	BENT4
11/09/2022	6.7'	11.7'	13.5'	17.9'	14.9'	11.5'	6.8'

*Not to Scale

Bridge No. 02396	Dist. 1	Co. LEE/39
Logmile 6.77	Rt. 79	Sect/Zone - 15/00
Date Drawn 06/18/2018 Date Redrawn 11/09/2022 By DMF		

READINGS TAKEN FROM TOP OF BRIDGE RAIL, LEFT SIDE.