

Bridge 06414 Inspection Report



Latitude:34.10088, Longitude:-93.97335

Route:278 Section:03 Log:3.84

Arnold Road ID:31x278x3xA, Arnold Log mile:3.834

District 03, 61 - Howard County

Owner: 1 - State Highway Agency

Inspection Direction: 1 - N to S

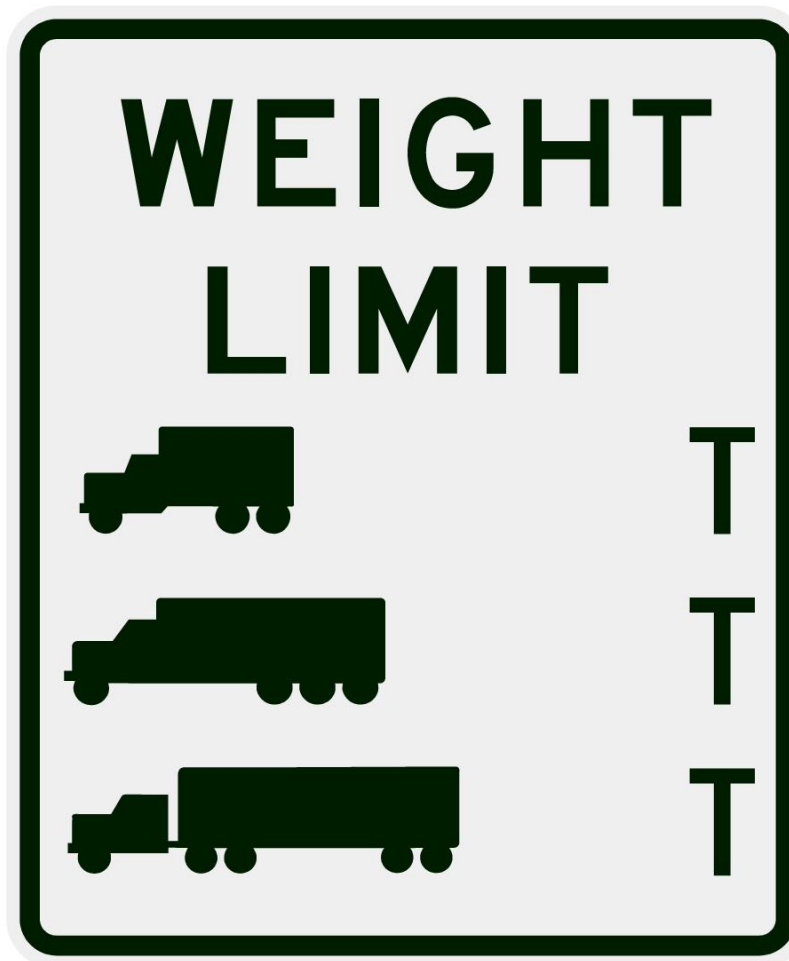
Bridge Posting Information

41 - Structure Open/Posted/Closed: A - Open, no restriction

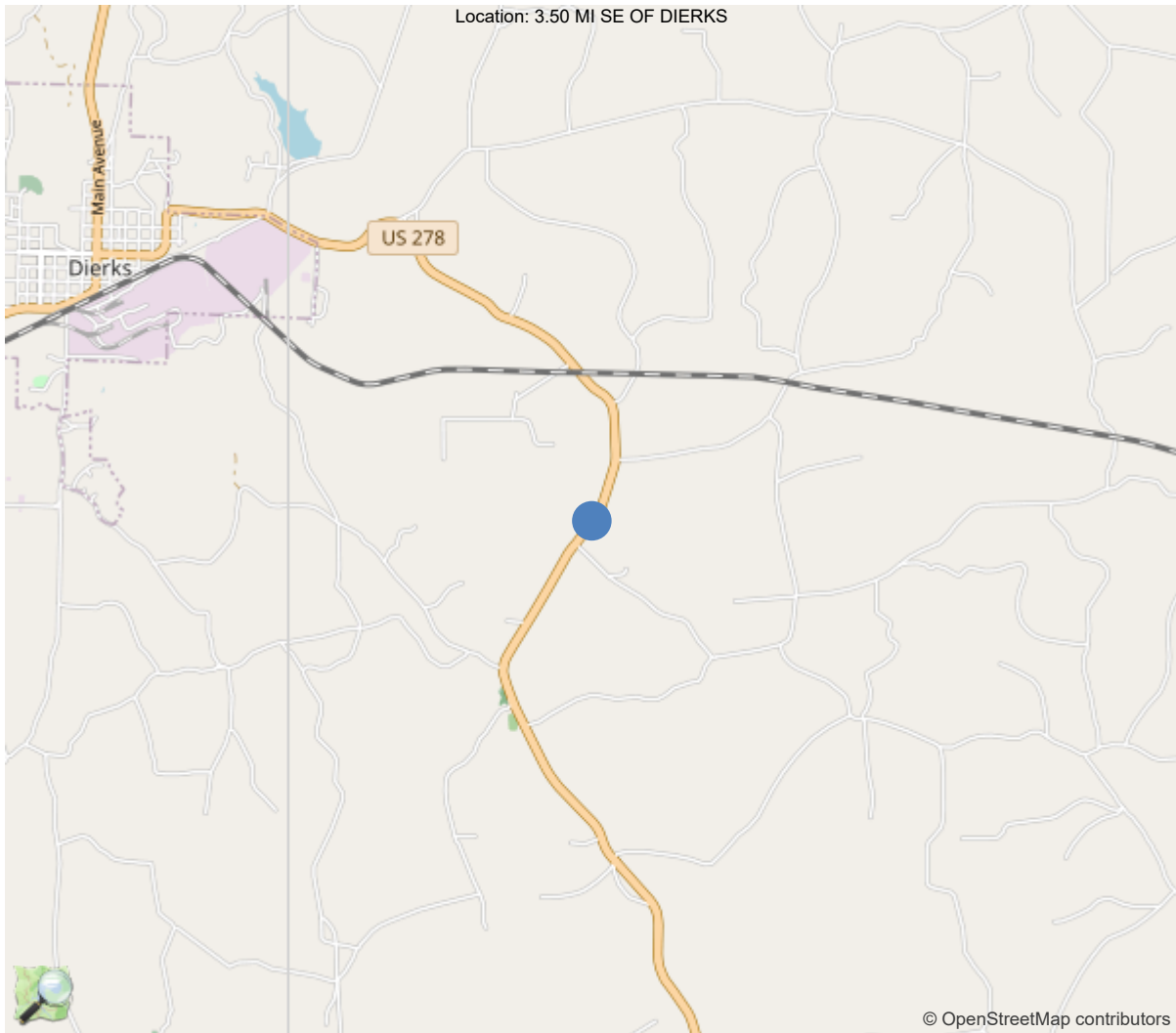
70 - Bridge Posting: 5 - Equal to or above legal loads

Legal Load	Calculated Capacity	Beginning of Bridge Sign Current Value	End of Bridge Sign Current Value
Code 4 (22 Tons)	40		
Code 9 (31 Tons)	50		
Code 5 (40 Tons)	60		

If calculated capacity is less than the Legal Load Listed, the Bridge Legally Requires Posting Signs to be installed by the Bridge Owner.



30"x36" AR



34.10088, -93.97335

National Bridge Inventory Data Sheet

IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	06414
(5) Inventory Route	1
(2) Highway Agency District	03 - District 03
(3) County Code	61 - Howard County
(4) Place Code	0
(6) Features Intersected	LITTLE HOLLY CREEK
(7) Facility Carried	US 278- 03 - 3.84
(9) Location	3.50 MI SE OF DIERKS
(11) Mile Point	3.84 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.10088
(17) Longitude	-93.973351
(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	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	1 - Monolithic Concrete (concurrently pl
Type of Membrane	0 - None
Type of Deck Protection	0 - None
AGE AND SERVICE	
(27) Year Built	1993
(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	1600
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	32 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	35 ft
(49) Structure Length	105 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	32.2 ft
(52) Deck Width Out to Out	34.8 ft
(32) Approach Roadway Width (W/Shoulders)	40 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	32.5 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 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	0
(26) Functional Class	7 - Rural Major Collector
(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	0 - The inventory route is not
(20) Toll	3 - On free road. The structure
(21) Maintain	1 - State Highway Agency
(22) Owner	1 - State Highway Agency
(37) Historical Significance	5 - Bridge is not eligible for
CONDITION	
(58) Deck	7
(59) Superstructure	7
(60) Substructure	8
(61) Channel & Channel Protection	7
(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	60
(65) Inventory Rating Method	1 - Load Factor(LF)
(66) Inventory Rating	
Type	
Rating	36
(70) Bridge Posting	5 - Equal to or above legal loads
(41) Structure Open/Posted/Closed	A - Open, no restriction
APPRAISAL	
(67) Structural Evaluation	
(68) Deck Geometry	5
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	6
(36A) Bridge Railings	1 - Inspected feature meets current
(36B) Transitions	1 - Inspected feature meets current
(36C) Approach Guardrail	1 - Inspected feature meets current
(36D) Approach Guardrail Ends	1 - Inspected feature meets current
(113) Scour Critical Bridges	5 - Bridge foundations determined t
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	0
(114) Future ADT	1809
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			04/11/2022
(91) Frequency			24
(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.			

Team Lead: Roger Hawthorne, Inspection Date: 12/13/2022

Specifications for National Bridge Inventory Sheets

IDENTIFICATION	
B.ID.01 Bridge Number	06414
B.ID.02 Bridge Name	
B.ID.03 Previous Bridge No.	
B.W.01 Year Built	

LOCATION	
B.L.01 State Code	5 - Arkansas
B.L.02 County Code	61 - Howard County
B.L.03 Place Code	00000 - N/A
B.L.04 Highway Agency District	03 - District 03
B.L.05 Latitude	34.10088
B.L.06 Longitude	-93.973351
B.L.07 Border Bridge Number	
B.L.08 Border Bridge State or Country Code	
B.L.09 Border Bridge Insp. Resp.	
B.L.10 Border Bridge Designated Lead State	
B.L.11 Bridge Location	
B.L.12 Metropolitan Planning Organization	

CLASSIFICATION	
B.CL.01 Owner	
B.CL.02 Maint. Responsibility	
B.CL.03 Federal or Tribal Land Access	
B.CL.04 Historic Significance	
B.CL.05 Toll	
B.CL.06 Emergency Evacuation Designation	

ROADSIDE HARDWARE	
B.RH.01A Bridge Railing Type	
B.RH.01B Bridge Railing Year (YY)	
B.RH.01C Bridge Railing Test Level	
B.RH.02A Transition Type	
B.RH.02B Transition Year (YY)	
B.RH.02C Transition Test Level	

BRIDGE GEOMETRY	
B.G.01 NBIS Bridge Length	
B.G.02 Total Bridge Length	
B.G.03 Max Span Length	
B.G.04 Min Span Length	
B.G.05 Bridge Width Out-to-Out	
B.G.06 Bridge Width Curb-to-Curb	
B.G.07 Left Curb or Sidewalk Width	
B.G.08 Right Curb or Sidewalk Width	
B.G.09 Approach Roadway Width	

B.G.10 Bridge Median	
B.G.11 Skew	
B.G.12 Curved Bridge	
B.G.13 Max Bridge Height	
B.G.14 Sidehill Bridge	
B.G.15 Irregular Deck Area	
B.G.16 Calculated Deck Area	

LOADS AND LOAD RATING	
B.LR.01 Design Load	
B.LR.02 Design Method	
B.LR.03 Load Rating Date	
B.LR.04 Load Rating Method	
B.LR.05 Inventory Load Rating Factor	
B.LR.06 Operating Load Rating Factor	
B.LR.07 Controlling Legal Load Rating Factor	
B.LR.08 Routine Permit Loads	

INSPECTION REQUIREMENTS	
B.IR.01 NSTM Inspection Required	
B.IR.02 Fatigue Details	
B.IR.03 UW Inspection Required	
B.IR.04 Complex Feature	

COMPONENT CONDITION RATINGS	
B.C.01 Deck Condition Rating	
B.C.02 Superstructure Condition	
B.C.03 Substructure Condition	
B.C.04 Culvert Condition	
B.C.05 Bridge Railing Condition	
B.C.06 Bridge Railing Transitions Condition	
B.C.07 Bridge Bearings Cond.	
B.C.08 Bridge Joints Condition	
B.C.09 Channel Condition Rating	
B.C.10 Channel Protection Condition	
B.C.11 Scour Condition Rating	
B.C.12 Bridge Condition Classification	
B.C.13 Lowest Condition Rating	
B.C.14 NSTM Insp. Condition	
B.C.15 UW Inspection Condition	

APPRAISAL	
B.AP.01 Approach Roadway Alignment	
B.AP.02 Overtopping Likelihood	
B.AP.03 Scour Vulnerability	
B.AP.04 Scour Plan of Action	
B.AP.05 Seismic Vulnerability	



Team Lead: Roger Hawthorne, Inspection Date: 12/13/2022

HIGHWAY ROUTES					
Highway Parent	B.RT.01 Route Designation	B.RT.02 Route Number	B.RT.03 Route Direction	B.RT.04 Route Type	B.RT.05 Service Type

POSTING STATUS DATA	
B.PS.01 Load Posting Status	B.PS.02 Posting Status Change Date

LOAD EVALUATION AND POSTING			
B.EP.01 Legal Load Configuration	B.EP.02 Legal Load Rating Factor	B.EP.03 Posting Type	B.EP.04 Posting Value



Inspection Notes

General Observation

4/04/2018 AL,SS,DECK,DEF. PHOTOS TAKEN PER THIS INSPECTION...SOUNDINGS TAKEN ...4/23/2020...AL, Elevation, Deck photos taken. Soundings checked this inspection. Bent 4 riprap starting to slide into channel, riprap was placed in 2019 from flooding, no maintenance need at this time but need to monitor, see photos...02/22 alignment, elevation, soundings taken per this inspection...

6A - Features Intersected (LITTLE HOLLY CREEK)

-

58 - Deck (7 - GOOD CONDITION - some minor problems.)

Joints: Seal Adhesion bad typ. All joints. Underside of Deck: Efflorescence bottom side deck at abutment. Wearing Surface: Small deck cracks....

59 - Superstructure (7 - GOOD CONDITION - some minor problems.)

Girders/Beams: CONCRETE TEE BEAMS 04/22 photo taken bottom side of deck.....

60 - Substructure (8 - VERY GOOD CONDITION - no problems noted.)

Other: PILES AT ABUTMENTS SEE PLANS JOB #03922
Slope Protection: Good
Pier Cap: CONCRETE
Piles: NO PILES UNDER FOOTINGS
Footing: CONCRETE SEE PLANS JOB #03922

61 - Channel/Channel Protection (7 - Bank protection is in need of minor repairs. River control devices and embankment protection have a little minor damage. Banks and/or channel have minor amounts of drift.)

04/22 soundings taken per this inspection...

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Asset #06414(Record Change)
 US 278- 03 - 3.84 over LITTLE HOLLY CREEK
 Location: 3.50 MI SE OF DIERKS
 Team Lead: Roger Hawthorne Inspection Date: 12/13/2022

National Bridge Element Quantities and Notes

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	3654	3607	15	32	0
1120	Efflorescence/Rust Staining	SF	32	0	0	32	0
1130	Cracking (RC and Other)	SF	15	0	15	0	0
(16) SEALABLE DECK CRACKS, EFFLORESCENCE UNDER SIDE DECK AT SKEWED CORNERS..4/04/2018 DECK CRACKS HAVE BEEN SEALED PER THIS INSPECTION...							
110	Reinforced Concrete Open Girder/Beam	LF	420	420	0	0	0
1130	Cracking (RC and Other)	LF	20	20	0	0	0
(110) Small hair like cracking.							
205	Reinforced Concrete Column	EA	4	4	0	0	0
215	Reinforced Concrete Abutment	LF	186	186	0	0	0
234	Reinforced Concrete Pier Cap	LF	140	140	0	0	0
301	Pourable Joint Seal	LF	40	0	40	0	0
2320	Seal Adhesion	LF	40	0	40	0	0
(301) 04 22 joints starting to deteriorate.no maintenance at this time....							
331	Reinforced Concrete Bridge Railing	LF	210	210	0	0	0

Inspection Photos and Notes



04/11/2022

04/22 Elevation



04/11/2022

4/22 Alignment



04/23/2020

Deck



04/23/2020

Underside of deck typical all spans



Bent 4 riprap starting to slide into channel, riprap was placed in 2019 from flooding.



Bent 4 riprap starting to slide into channel, riprap was placed in 2019 from flooding.



Alignment



04/11/2022 alignment



Slope protection at bent 2 end



Bottom of back span 3



SS



2 ft erosion left side behind back wall beginning of bridge



AL



EROSION BEGINNING OF BRIDGE LEFT SIDE. 13 ft.



DECK PHOTO



BOTTOM OF DECK TYPICAL ALL SPANS



Elevation



Hairline cracks



04/22 deck



04/22 Channel



04/22 typical bottom of deck



04/22 channel



04/22 efflorescence photo



04/22 cracking in top of deck



04/22 joints



04/22 joint



Asset #06414(Record Change)
US 278- 03 - 3.84 over LITTLE HOLLY CREEK

Location: 3.50 MI SE OF DIERKS

Team Lead: Roger Hawthorne **Inspection Date:** 12/13/2022

Maintenance Needs

Date Reported: 04/12/2022

Priority: D- Routine

Type of Work: Repair (General)

Status: Repair Documented

Component: Miscellaneous

Deficiency Description

Bent 4 riprap starting to slide into channel, riprap was placed in 2019 from flooding
04/22 Erosion starting at end bents under caps or both abutments

Remarks

Sand and cement mix in bags placed around abutment per Howard County Area Maintenance Supervisor Jim Bob Lamb



Asset #06414(Record Change)

US 278- 03 - 3.84 over LITTLE HOLLY CREEK

Location: 3.50 MI SE OF DIERKS

Team Lead: Roger Hawthorne Inspection Date: 12/13/2022

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	
A-65 - Clogged deck drains?	
A-66 - Approach minor pothole/leveling needed	

A-54 - Sealable Deck Cracks

A-55 - Deck Washing Needed

A-56 - Joint Cleaning/Flushing Needed



Asset #06414(Record Change)
US 278- 03 - 3.84 over LITTLE HOLLY CREEK

Location: 3.50 MI SE OF DIERKS

Team Lead: Roger Hawthorne **Inspection Date:** 12/13/2022

A-57 - Girder End and Bearing Painting Needed

A-58 - Cap Cleaning/Flushing Needed

A-59 - Joint Repair Needed

A-60 - Full Girder 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

A-65 - Clogged deck drains?



Asset #06414(Record Change)
US 278- 03 - 3.84 over LITTLE HOLLY CREEK
Location: 3.50 MI SE OF DIERKS

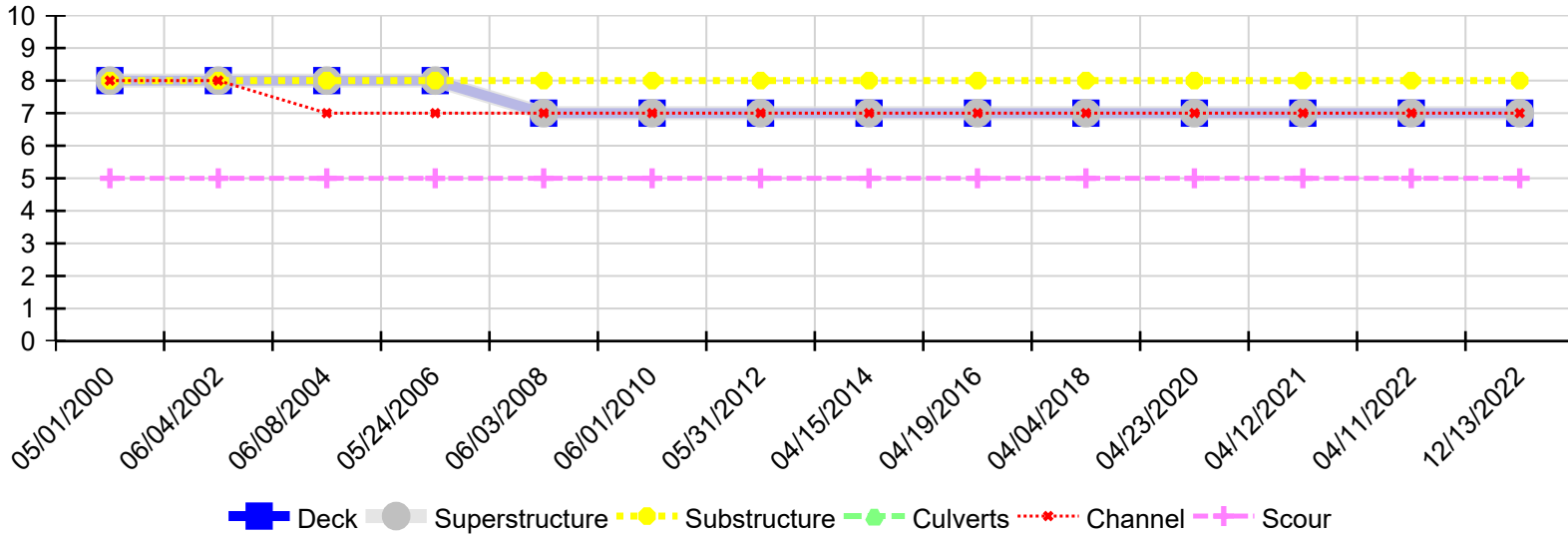
Team Lead: Roger Hawthorne **Inspection Date:** 12/13/2022

A-66 - Approach minor pothole/leveling needed



Asset #06414(Record Change)
US 278- 03 - 3.84 over LITTLE HOLLY CREEK
Location: 3.50 MI SE OF DIERKS
Team Lead: Roger Hawthorne **Inspection Date:** 12/13/2022

Condition History



Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
12/13/2022	7	7	8	N	7	5
04/11/2022	7	7	8	N	7	5
04/12/2021	7	7	8	N	7	5
04/23/2020	7	7	8	N	7	5
04/04/2018	7	7	8	N	7	5
04/19/2016	7	7	8	N	7	5
04/15/2014	7	7	8	N	7	5
05/31/2012	7	7	8	N	7	5
06/01/2010	7	7	8	N	7	5
06/03/2008	7	7	8	N	7	5
05/24/2006	8	8	8	N	7	5
06/08/2004	8	8	8	N	7	5
06/04/2002	8	8	8	N	8	5
05/01/2000	8	8	8	N	8	5