Asset #06414(Routine, Underwater type 2)

US 278- 03 - 3.84 over LITTLE HOLLY CREEK

Location: 3.50 MI SE OF DIERKS

Team Lead: John King, **Inspection Date:** 04/11/2022

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

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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

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34.10088, -93.97335

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US 278- 03 - 3.84 over LITTLE HOLLY CREEK

Location: 3.50 MI SE OF DIERKS

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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 exis
(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 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	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.

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)

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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....

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

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

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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

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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(Routine, Underwater type 2)

US 278- 03 - 3.84 over LITTLE HOLLY CREEK

Location: 3.50 MI SE OF DIERKS

Team Lead: John King, **Inspection Date:** 04/11/2022

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

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Deck

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...

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

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

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Location: 3.50 MI SE OF DIERKS

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Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
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.							

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

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

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US 278- 03 - 3.84 over LITTLE HOLLY CREEK

Location: 3.50 MI SE OF DIERKS

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Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
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

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

Comment: 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.)

Comment: 04/22 soundings taken per this inspection…

Asset **#06414**(Routine, Underwater type 2)
District: 03, **County:** 61 - Howard County
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04/22 Elevation

4/22 Alignment

Deck

Underside of deck typical all spans

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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

Asset **#06414**(Routine, Underwater type 2)
District: 03, **County:** 61 - Howard County
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Slope protection at bent 2 end

Bottom of beck span 3

SS

2 ft erosion left side behind back wall beginning of bridge

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AL

EROSION BEGINNING OF BRIDGE LEFT SIDE. 13 ft.

DECK PHOTO

BOTTOM OF DECK TYPICAL ALL SPANS

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Elevation

Hairline cracks

04/22 deck

04/22 Channel

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04/22 typical bottom of deck

04/22 channel

04/22 efflorescence photo

04/22 cracking in top of deck

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04/22 joints

04/22 joint

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Maintenance Needs

Date Reported:	04/11/2022		
Priority:	D- Routine	**Status:**	Open
Type of Work:	Repair (General)	**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

04/22 Erosion starting at end bents under caps

04/22 Erosion starting at end bents under caps

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-54 - Sealable Deck Cracks

A-55 - Deck Washing Needed

A-56 - Joint Cleaning/Flushing Needed

A-57 - Beam End and Bearing Painting 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

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Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
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