Asset #06413(Routine)

US 278- 03- 0.68 over HOLLY CREEK

Location: .25 MI E OF DIERKS

Team Lead: John King, **Inspection Date:** 04/06/2022

Latitude:34.12335, Longitude:-94.00838

Route:278 Section:03 Log:0.68

Arnold Road ID:31x278x3xA, Arnold Log mile:0.667

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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34.12335, -94.00838

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IDENTIFICATION	
(1) State Names	5 - Arkansas
(8) Structure Number	06413
(5) Inventory Route	1
(2) Highway Agency District	03 - District 03
(3) County Code	61 - Howard County
(4) Place Code	0
(6) Features Intersected	HOLLY CREEK
(7) Facility Carried	US 278- 03- 0.68
(9) Location	.25 MI E OF DIERKS
(11) Mile Point	0.68 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	34.123348
(17) Longitude	-94.008377
(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	4
(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	1 - Epoxy Coated Reinforcing
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	2000
(30) Year of ADT	2018
(109) Truck ADT	19 %
(19) Bypass, Detour Length	32 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	35 ft
(49) Structure Length	140 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	40 ft
(52) Deck Width Out to Out	42.8 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	40.4 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	8
(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	6
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(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	2050
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			04/06/2022
(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

4/18/2018 AL,SS,DECK,DEF. PHOTOS TAKEN PER THIS INSPECTION....4/20/2020...AL, Elevation, Deck, Def. Photos taken. Soundings taken this inspection...04/6/2022… Alignment and Elevation photos taken per this inspection. Maintenance need added to replace rip rap on slope

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

Joints: adhered 50% or less of joint but still some adhesion..Underside of Deck: CONCRETE..Wearing Surface: SMALL CRACKS IN DECKS....04/2022… little to no change per this inspection

---

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

Girders/Beams: CONCRETE TEE BEAMS SMALL CRACKS IN TEE BEAMS AT ABUTMENT 1… 04/2022. Hairline cracking in T beams various locations

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

Other: PILES AT ABUTMENTS SEE PLANS
Slope Protection: Good at both abutments
Piles: NO PILE UNDER FOOTINGS SEE PLANS
Footing: SEE PLANS JOB #3922
04/2022… little to no change

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ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	5992	5772	200	20	0
1120	Efflorescence/Rust Staining	SF	20	0	0	20	0
1130	Cracking (RC and Other)	SF	200	0	200	0	0
(16) DECK CRACKS SEALED 2016.							
110	Reinforced Concrete Open Girder/Beam	LF	700	650	50	0	0
1130	Cracking (RC and Other)	LF	50	0	50	0	0
(110) .005 cracks in tee beams at bent 1 end first 10 ft. Of each beam total of 50 ft							
205	Reinforced Concrete Column	EA	9	9	0	0	0
215	Reinforced Concrete Abutment	LF	132	132	0	0	0
234	Reinforced Concrete Pier Cap	LF	215	215	0	0	0
(234) EFFLORESCENCE ON CAPS.							
301	Pourable Joint Seal	LF	129	0	0	129	0
2320	Seal Adhesion	LF	129	0	0	129	0
(301) adhered 50% or less of joint but still some adhesion							
331	Reinforced Concrete Bridge Railing	LF	280	280	0	0	0

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Deck

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	5992	5772	200	20	0
1120	Efflorescence/Rust Staining	SF	20	0	0	20	0
1130	Cracking (RC and Other)	SF	200	0	200	0	0
(16) DECK CRACKS SEALED 2016.							

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

Comment: Joints: adhered 50% or less of joint but still some adhesion..Underside of Deck: CONCRETE..Wearing Surface: SMALL CRACKS IN DECKS....04/2022… little to no change per this inspection

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Location: .25 MI E OF DIERKS

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Superstructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
110	Reinforced Concrete Open Girder/Beam	LF	700	650	50	0	0
1130	Cracking (RC and Other)	LF	50	0	50	0	0
(110) .005 cracks in tee beams at bent 1 end first 10 ft. Of each beam total of 50 ft							

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

Comment: Girders/Beams: CONCRETE TEE BEAMS SMALL CRACKS IN TEE BEAMS AT ABUTMENT 1… 04/2022. Hairline cracking in T beams various locations

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Substructure

ELEMENTS	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
205	Reinforced Concrete Column	EA	9	9	0	0	0
215	Reinforced Concrete Abutment	LF	132	132	0	0	0
234	Reinforced Concrete Pier Cap	LF	215	215	0	0	0
(234) EFFLORESCENCE ON CAPS.							

60 - Substructure (8 - VERY GOOD CONDITION - no problems noted.)
Comment: Other: PILES AT ABUTMENTS SEE PLANS
Slope Protection: Good at both abutments
Piles: NO PILE UNDER FOOTINGS SEE PLANS
Footing: SEE PLANS JOB #3922
04/2022… little to no change

Asset **#06413**(Routine)

District: 03, **County:** 61 - Howard County

Team Lead: John King, **Inspection Date:** 04/06/2022

04/2022… elevation

04/2022… alignment

Deck

Underside of deck typical all spans

Asset **#06413**(Routine)

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Alignment

SS

BOTTOM OF DECK TYPICAL ALL SPANS.

AL

Asset **#06413**(Routine)

District: 03, **County:** 61 - Howard County

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DECK PHOTO

EFFLORESCENCE ON CAPS.

Elevation

04/2022… underside of deck typical all spans

04/2022… deck photo typical of all spans

04/2022… cracking in deck various locations

Cracks at various locations

Joint seals all spans

Asset #06413(Routine)

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Team Lead: John King, **Inspection Date:** 04/06/2022

Maintenance Needs

Date Reported: 04/06/2022

Priority: D- Routine

Status: Open

Type of Work: Replace (General)

Component: Channel

Deficiency Description

04/2022… both bridge ends have loss of rip rap into channel and need replaced

Remarks

Loss of rip rap showing filter fabric

Rip rap in channel

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Maintenance Needs

Date Reported: 04/20/2016

Priority: (Inactive) (Inactive) G - General/ Preventive maintenance

Status: Monitor

Type of Work: (Inactive) (Inactive) 9 - None

Component:

Deficiency Description

JOINT SEAL ADHESION LOSS ON ALL JOINTS
adhered 50% or less of joint but still some adhesion

Remarks

Joints

Joints

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

A-64 - Vegetation Removal Requested

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Inspection Date	Deck	Superstructure	Substructure	Culverts	Channel	Scour
04/06/2022	7	7	8	N	8	5
04/20/2020	7	7	8	N	8	5
04/18/2018	7	7	8	N	8	5
04/20/2016	7	7	8	N	8	5
04/09/2014	7	7	8	N	8	5
05/31/2012	7	7	8	N	8	5
06/01/2010	7	7	8	N	8	5
06/02/2008	7	7	8	N	8	5
05/24/2006	8	8	8	N	8	5
05/25/2004	8	8	8	N	8	5
06/04/2002	8	8	8	N	8	5
05/01/2000	8	8	8	N	8	5