90 Inspection Date - 8/28/15
Inspector - KHUMPHREY (294)

114B00059N - **8 Bridge ID**
Standard -**Primary Inspection Type**

Inspection Report with SI&A Data

Structure Description: 275 Foot - 3 Span Steel continuous Frame (except frame culverts)
2 District: 03 **3 County:** Warren **16 Latitude:** 37°01'09.00" **7 Longitude:** 86°31'27.00"
7 Facility Carried GLENN LILY ROAD **Milepoint:** 11.760
6A Feature Intersected: W.H. NATCHER PARKWAY
9 Location: 1 MI N OF JCT KY 3191
Structure Description: 275 Foot - 3 Span Steel continuous Frame (except frame culverts)

NBI	X
Element	X
Fracture Critical	
Underwater	
Special	

NBI CONDITION RATINGS

58 Deck:	6	**61 Channel:**	N
59 Superstructure:	5	**62 Culvert:**	N
60 Substructure:	5	**Sufficiency Rating:**	54.7

DESIGN

Substandard:	No
Fracture Critical:	No FC Details
43A Main Span Material:	(4) Steel Continuous
43B Main Span Design:	(07) Frame
45 Number of Spans Main:	3
44A Approach Span Material:	Not Applicable
44B Approach Span Design:	Not Applicable
46 Number of Approach Spans:	0
107 Deck Type:	(1) Concrete-Cast-in-Place
108A Wearing Surface:	(1) Monolithic Concrete
108B Membrane:	(0) None
108C Deck Protection:	(0) None
Overlay Y/N:	Yes
Overlay Type:	PCC
Overlay Thickness:	1.500 in
Overlay Date:	

APPRAISAL

36A Bridge Railings:	(0) Substandard
36B Transitions	(0) Substandard
36C Approach Guardrail:	(0) Substandard
36D Approach Guardrail Ends:	(0) Substandard
71 Waterway Adequacy:	(N) Not Applicable
72 Approach Alignment:	(5) Abover Tolerable
113 Scour Critical:	(N) Not over Waterway
Recommended Scour Critical:	(N) Not over Waterway

LOAD RATINGS

63 Operating Type:	(1) Load Factor (LF)
64 Operating Rating:	33.3 tons
65 Inventory Type:	(1) Load Factor (LF)
66 Inventory Rating:	20.0 tons
Truck Capacity Type I:	tons
Truck Capacity Type II:	tons
Truck Capacity Type III:	tons
Truck Capacity Type IV:	tons

GEOMETRIC DATA

48 Max Length Span:	111.499 ft
49 Structure Length:	275.000 ft
32 Approach Roadway:	23.950 ft
33 Median:	(0) No Median
34 Skew:	0°
35 Flare:	No Flare
50A Curb/Sidewalk Width L:	0.499 ft
50B Curb/Sidewalk Width R:	0.499 ft
47 Horiz. Clearance:	26.001 ft
51 Width Curb to Curb:	25.919 ft
52 Width Out to Out:	29.501 ft
48 Max Length Span:	111.499 ft

ADMINISTRATIVE

27 Year Built:	1972
106 Year Reconstructed:	0
42A Type of Service On:	(1) Highway
42B Type of Service Under:	(1) Highway
37 Historical Significance:	(5) Not Eligible
21 Maintenance Responsibility:	(01) State Hwy Agency
22 Owner:	(01) State Hwy Agency
101 Parallel Structure:	(N) No II Structure Exists
52 Width Out to Out:	29.501 ft

CLEARANCES

10 Vert. Clearance:	73.999 ft
53 Min. Vert. Clearance Over:	99.999 ft
54A Vert. Under Reference:	(H) Hwy beneath struct.
54B Min. Vert. Underclearance:	73.999 ft
55A Lateral Under Reference:	(H) Hwy beneath struct.
55B Min. Lat. Underclearance R:	23.622 ft
56 Min. Lat. Underclearance L:	19.501 ft
10 Vert. Clearance:	99.999 ft

POSTINGS

41 Posting Status:	(A) Open, No Restriction
Signs Posted Cardinal:	No
Signs Posted Non-Cardinal:	No
Field Postings Gross:	-1 tons
Field Postings Type I:	-1 tons
Field Postings Type II:	-1 tons
Field Postings Type III:	-1 tons
Field Postings Type IV:	-1 tons

Inspection Report with SI&A Data

12: Re Concrete Deck

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
SQ.FT	8,113	8,032	99%	81	1%	0	0%	0	0%

NEW OVERLAY WAS DONE IN AUGUST OF 2011. RTS 8-14-2013

510: Wearing Surfaces

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
SQ.FT	7,133	7,062	99%	71	1%	0	0%	0	0%

1120: Efflorescence/Rust Staining

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
SQ.FT	11	11	100%	0	0%	0	0%	0	0%

TIGHT LONGITUDINAL CRACKING IN MOST OF THE BAYS WITH OCCASIONAL EFFLORESCENCE.

1130: Cracking (RC and Other)

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
SQ.FT	72	0	0%	72	100%	0	0%	0	0%

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Inspection Report with SI&A Data

107: Steel Opn Girder/Beam

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	1,100	1,100	100%	0	0%	0	0%	0	0%

SNOOPER NOTES:

-- THERE ARE 10 LOCATIONS SCATTERED THROUGHOUT BAYS #1 & #3, WHERE THERE ARE LOOSE BOLTS IN THE GUSSET PLATES THAT FRAME INTO THE GIRDER OR INTO VERTICAL STIFFENERS. THE BOLTS ARE LOOSE BECAUSE IMPROPER PLATE ALIGNMENT DISALLOWED ADEQUATE TIGHTENING. THERE ARE NO PROBLEMS ASSOCIATED WITH ANY OF THESE LOCATIONS, AS ALL THE OTHER BOLTS/NUTS IN THE DETAIL ARE SECURE.

-- THERE ARE SEVEN LOCATIONS SCATTERED THROUGHOUT BAYS #1 & #3 THAT HAVE HAD THE ORIGINAL WEATHERING STEEL BOLTS REPLACED WITH STAINLESS STEEL BOLTS IN THE GUSSET PLATE TO WEB TO VERTICAL STIFFENER DETAIL. (CREW 222 - 1987)

-- THERE IS A 1 in. CRACK @ THE BASE OF THE VERTICAL STIFFENER, 3rd DIAPHRAGM EAST OF ABUTMENT #1, IN BAY #3, SPAN #1. THE CRACK IS @ THE TOE OF THE WELD TO V.S. DETAIL. (SEE ATTACHED PHOTO)

-- THE GUSSET PLATE @ THE 5th V.S. EAST OF ABUTMENT #1, IN BAY #3, ON GIRDER #2, WAS CUT/MODIFIED BY TORCH TO ACCOMODATE CONSTRUCTION OF THE DETAIL MISALIGNMENT - STRESS RISER. (SEE ATTACHED PHOTO)

-- A HAIRLINE CRACK INDICATION IS NOTED @ THE END OF THE WELD ON THE V.S. OVER THE TOP OF FRAME LEG #3, WEST SIDE, IN THE in.KNEE in. AREA. WATCH

-- A NUT ON ONE OF THE BOLTS IN THE 4th V.S. WEST OF FRAME LEG #3, EAST SIDE, ON GIRDER #3, IS CRACKED. THE NUT IS STILL SECURE - NO VISIBLE PROBLEMS.

515: Steel Protective Coating

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	2,905.96	2,905.96	100%	0	0%	0	0%	0	0%

Inspection Report with SI&A Data

215: Re Conc Abutment

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	59	48	81%	9	15%	2	3%	0	0%

THERE IS A SMALL CRACK IN THE CONCRETE ON TOP OF THE FRAME LEG FOOTING ACROSS THE ENTIRE WIDTH OF THE CONCRETE ON THE EAST SIDE. THERE IS ALSO SOME DETERIORATION OF THE CONCRETE DUE TO CRACKING AND EFFLORESCENCE ON THE BREASTWALL. THERE IS SOME SEPARATION AND DETERIORATION OF THE CONCRETE DEVELOPING AROUND THE HORIZONTAL COLD JOINT @ THIS SAME LOCATION.

THE BOTTOM PORTION OF THE EAST WALL FOR THE FRAME LEGS APPEARS TO BE SETTLING FORWARD. THIS IS MOST PROMINENT AT THE NORTH END WHERE IT HAS APPROXIMATELY 3/8 in. DIFFERENCE. THERE IS A VERTICAL CRACK IN THE TOP PORTION OF THE WALL THAT IS BULGING AND HAS APPROXIMATELY 1/8 in. OF DIFFERENCE. THIS WALL DOES NOT APPEAR TO BE LOAD BEARING.

ABUTMENT #4 HAS 9 FT. OF LONGITUDINAL CRACKING AND 2 FT. OF LONGITUDINAL CRACKING WITH 1/16 IN. SEPERATION.

234: Re Conc Pier Cap

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	52	0	0%	52	100%	0	0%	0	0%

THE CONCRETE IN ALL FOUR (4) BEARING PEDESTALS (AT THE BASE OF THE FRAME LEGS / EAST & WEST) HAS MODERATE SIZED CRACKING WITH EFFLORESCENCE.

311: Moveable Bearing

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
EACH	8	8	100%	0	0%	0	0%	0	0%

8/28/2015 - THE WEST ROCKER BEARINGS ARE TILED SLIGHTLY MORE THAN THE EAST, BOTH OF WHICH ARE IN EXESS OF WHAT WOULD BE CONSIDERED NORMAL FOR AN 80 DEGREE DAY.

ALL OF THE ROCKER-TYPE BEARINGS ON THE EAST ABUTMENT ARE TILTED A LITTLE EXCESSIVELY.

515: Steel Protective Coating

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
EACH	2.97	2.97	100%	0	0%	0	0%	0	0%

Inspection Report with SI&A Data

313: Fixed Bearing

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
EACH	8	8	100%	0	0%	0	0%	0	0%

DIRT, DEBRIS, & PACK RUST IS ACCUMILATING ON THE TOP SIDE OF THE BEARING DEVICES @ THE BASE OF ALL FOUR FRAME LEGS, EACH PEDESTAL.

515: Steel Protective Coating

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
EACH	2.97	2.97	100%	0	0%	0	0%	0	0%

333: Other Bridge Railing

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	550	550	100%	0	0%	0	0%	0	0%

< none >

803: Curb

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
(LF)	550	550	100%	0	0%	0	0%	0	0%

< none >

Inspection Report with SI&A Data

859: Vegetation

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
(EA)	1	0	0%	1	100%	0	0%	0	0%

THERE ARE CRACKS IN PIER CAPS THAT VEGETATION HAS STARTED TO GROW. RIGHT NOW VEGETATION CONSISTS OF JUST LARGER WEEDS.

THERE ARE VINES GROWING ON AND AROUND THE LEG PEDESTALS.

STRUCTURE NOTES

INSPECTION NOTES

8/28/2015 INSPECTION PERFORMED BY K.HUMPHREY AND OVERSEEN BY J.EDMUNDS.
ITEM 58 DECK LOWERED TO 6 DUE TO CRACKING WITH EFFLOR. IN THE SOFFIT.
ITEM 59 SUPERSTRUCTURE LOWERED TO 5 DUE TO THE NUMEROUS CRACKS NOTED.
ITEM 60 SUBSTRUCTURE LOWERED TO 5 DUE TO THE CRACKING WITH RUST STAINING IN THE ABUTMENTS.
NEW OVERLAY WAS DONE IN AUGUST 2011. RTS 8-14-2013

WORK

Action:	-