

Inspection Report with SI&A Data

Structure Description: 32.15 Foot - Single Span Prestressed concrete Box Beam or Girders - Multiple

2 District: 10 **3 County:** Perry **16 Latitude:** 37°09'19.00" **7 Longitude:** 83°11'33.00"

7 Facility Carried: KY-1166

Milepoint: 0.640

6A Feature Intersected: RT. FK. MACES CREEK

9 Location: .1 MI S OF JCT CR 5229

NBI	X
Element	X
Fracture Critical	
Underwater	
Special	

NBI CONDITION RATINGS			
58 Deck:	6	61 Channel:	6
59 Superstructure:	5	62 Culvert:	N
60 Substructure:	4	Sufficiency Rating:	26.8

GEOMETRIC DATA		
48 Max Length Span:		29.856 ft
49 Structure Length:		32.152 ft
32 Approach Roadway:		18.045 ft
33 Median:		(0) No Median
34 Skew:		0°
35 Flare:		No Flare
50A Curb/Sidewalk Width L:		0.667 ft
50B Curb/Sidewalk Width R:		0.667 ft
47 Horiz. Clearance:		21.982 ft
51 Width Curb to Curb:		21.982 ft
52 Width Out to Out:		24.278 ft

DESIGN	
Substandard:	Not Sub-Standard
43A Main Span Material:	(5) Prestressed Concrete
43B Main Span Design:	(05) Multiple Box Beam
45 Number of Spans Main:	1
44A Approach Span Material:	Not Applicable (0)
44B Approach Span Design:	Not Applicable (00)
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:	(8) Unknown
Overlay Y/N:	Yes
Overlay Type:	PCC
Overlay Thickness:	5.000 in
Overlay Date:	

ADMINISTRATIVE		
27 Year Built:		1975
106 Year Reconstructed:		0
42A Type of Service On:		(1) Highway
42B Type of Service Under:		(5) Waterway
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

APPRAISAL	
36A Bridge Railings:	(0) Substandard
36B Transitions	(0) Substandard
36C Approach Guardrail:	(0) Substandard
36D Approach Guardrail Ends:	(0) Substandard
71 Waterway Adequacy:	(8) Equal Desirable
72 Approach Alignment:	(8) Equal Desirable Crit
92A Fracture Critical Inspection:	Not Coded
92B Under Water Inspection:	No
113 Scour Critical:	(4) Stable, needs action
Recommended Scour Critical:	(8) Stable Above Footing

CLEARANCES		
10 Vert. Clearance:		99.999 ft
53 Min. Vert. Clearance Over:		99.999 ft
54A Vert. Under Reference:		(N) Feature not hwy or RR
54B Min. Vert. Underclearance:		0.000 ft
55A Lateral Under Reference:		(N) Feature not hwy or RR
55B Min. Lat. Underclearance R:		0.000 ft
56 Min. Lat. Underclearance L:		0.000 ft

LOAD RATINGS	
63 Operating Type:	(2) Allowable Stress (AS)
64 Operating Rating:	35.1 tons
65 Inventory Type:	(2) Allowable Stress (AS)
66 Inventory Rating:	22.0 tons
Truck Capacity Type I:	35 tons
Truck Capacity Type II:	37 tons
Truck Capacity Type III:	43 tons
Truck Capacity Type IV:	71 tons

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

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15: Pre Concrete Top Flange									
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	780.6	780.6	100%	0	0%	0	0%	0	0%
< none >									

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	712.14	712.14	100%	0	0%	0	0%	0	0%

104: Pre Clsd Box Girder									
Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	256	227	89%	20	8%	9	4%	0	0%
B5 has had holes drilled through the bottom to release water standing in the beam. Deck surface was compromised and leaking into the beam core. Drilled holes cut two pre-stress cable and resulting spall exposed a third. B3 has one exposed cable, for a total of four throughout the bridge. B2 has some cracking along the joint with B3 and B5 has a 6' crack near midspan with rust staining, possibly from a prestress cable.									

1100: Exposed Prestressing									
Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	3	0	0%	0	0%	3	100%	0	0%
-									

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1110: Cracking (PSC)									
Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	26	0	0%	20	77%	6	23%	0	0%
-									

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	84	24	29%	57	68%	3	4%	0	0%
Both abutments have spalling with heavy efflorescence. The spalling is heaviest on the SE corner. Several areas have exposed rebar. The spalling at the NE wingwall is approaching the bearing area.									

1080: Delamination/Spall/Patched Area									
Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	84	24	29%	57	68%	3	4%	0	0%
-									

330: Metal 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	64	0	0%	64	100%	0	0%	0	0%
Guardrail has light to moderate rust throughout but no section loss. About 25% of the coating has rust showing through.									

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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	97.54	73.15	75%	0	0%	24.38	25%	0	0%

3440: Eff (Stl Protect Coat)									
Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	24.38	0	0%	0	0%	24.38	100%	0	0%
-									

1000: Corrosion									
Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	64	0	0%	64	100%	0	0%	0	0%
-									

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)	64	52	81%	12	19%	0	0%	0	0%
Minor cracking, small popouts. Four small holes have been drilled through the curbs to act as drains (the deck has none). There is a serious spall on the DS curb.									

1080: Delamination/Spall/Patched Area									
Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
(LF)	12	0	0%	12	100%	0	0%	0	0%
-									

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805: Trans Rods

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

3/3 tension rods in place with no grout.

857: Embankment Erosion

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 is some erosion at the SE corner that has encroached into the roadway 1 ft. but it is not a major concern at this time.

858: Channel Alignment

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%

The upstream channel alignment is poor. Minor erosion has exposed the wingwall footer at the N/W corner. Footer is not undermined.

STRUCTURE NOTES

INSPECTION NOTES

WORK

Action: