90 Inspection Date - 5/11/15
Inspector - AGREINER (154)

006B00056R - **8 Bridge ID**
Standard -**Primary Inspection Type**

Inspection Report with SI&A Data

Structure Description: 305.12 Foot - 3 Span Steel continuous Stringer/Multi-beam or Girder
2 District: 09 **3 County:** Bath **16 Latitude:** 38°09'20.00" **7 Longitude:** 83°37'07.00"
7 Facility Carried I-64 **Milepoint:** 128.930
6A Feature Intersected: LICKING RIVER
9 Location: EBL ON ROWAN - BATH CL

NBI	X
Element	X
Fracture Critical	
Underwater	
Special	

NBI CONDITION RATINGS

58 Deck:	6	**61 Channel:**	7
59 Superstructure:	6	**62 Culvert:**	N
60 Substructure:	6	**Sufficiency Rating:**	96

DESIGN

Substandard:	No
Fracture Critical:	No
43A Main Span Material:	(4) Steel Continuous
43B Main Span Design:	(02) Stringer / Girder
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:	(3) Latex Concrete/Similar
108B Membrane:	(0) None
108C Deck Protection:	(0) None
Overlay Y/N:	Yes
Overlay Type:	Latex
Overlay Thickness:	1.000 in
Overlay Date:	

APPRAISAL

36A Bridge Railings:	(1) Meets Standards
36B Transitions	(1) Meets Standards
36C Approach Guardrail:	(1) Meets Standards
36D Approach Guardrail Ends:	(1) Meets Standards
71 Waterway Adequacy:	(8) Equal Desirable
72 Approach Alignment:	(8) Equal Desirable Crit
113 Scour Critical:	(8) Stable above footing
Recommended Scour Critical:	(8) Stable above footing

LOAD RATINGS

63 Operating Type:	(1) Load Factor (LF)
64 Operating Rating:	110.0 tons
65 Inventory Type:	(1) Load Factor (LF)
66 Inventory Rating:	51.0 tons
Truck Capacity Type I:	66 tons
Truck Capacity Type II:	67 tons
Truck Capacity Type III:	70 tons
Truck Capacity Type IV:	79 tons

GEOMETRIC DATA

48 Max Length Span:	120.079 ft
49 Structure Length:	305.118 ft
32 Approach Roadway:	37.073 ft
33 Median:	(0) No Median
34 Skew:	20°
35 Flare:	No Flare
50A Curb/Sidewalk Width L:	0.000 ft
50B Curb/Sidewalk Width R:	0.000 ft
47 Horiz. Clearance:	35.000 ft
51 Width Curb to Curb:	35.000 ft
52 Width Out to Out:	37.999 ft

ADMINISTRATIVE

27 Year Built:	1967
106 Year Reconstructed:	-4
42A Type of Service On:	(1) Highway
42B Type of Service Under:	(5) Waterway
37 Historical Significance:	(5) Not Eligible
21 Custodian:	(01) State Hwy Agency
22 Owner:	(01) State Hwy Agency
101 Parallel Structure:	(R) Right of II Structure

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

POSTINGS

41 Posting Status:	(A) Open, No Restriction
Signs Posted Cardinal:	No
Signs Posted Non-Cardinal:	No
Field Postings Gross:	tons
Field Postings Type I:	tons
Field Postings Type II:	tons
Field Postings Type III:	tons
Field Postings Type IV:	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	11,594.09	11,494.09	99%	100	1%	0	0%	0	0%

The deck underside and overhangs have areas of minor cracking with efflorescence. The fillet above girder 2 from upstream at abutment 4 is spalled along the upstream edge of the top flange. Under truck loading this location squeaks and appears to move (slightly) independent of the beam. See photos.

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	10,679	10,571	99%	100	1%	8	0%	0	0%

The wearing surface in the slow lane (right lane) in span 1 has a couple areas of moderate sized cracking with efflorescence. The wearing surface in slow lane of span 2 has several minor sized transverse cracks. Some minor sized longitudinal cracking is present near the abutments.

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	1	1	100%	0	0%	0	0%	0	0%

See wearing surfaces (510) for details.

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	1	1	100%	0	0%	0	0%	0	0%

See element 12 for details.

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	1,220	1,020	84%	200	16%	0	0%	0	0%

All of the steel beams have areas of widespread paint failure. A large amount of paint is lying on the slopes in front of the abutments. The paint failure is more widespread in spans 1 and 3. This paint has recently pop off and the exposed steel has only some minor surface rust. The exposed steel at previous noted areas of localized paint is completely rusty. The ends of the exterior beams at the abutments have some flaking, peeling, bubbling paint with minor to moderate rust and corrosion. See photos.

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	7,010.4	4,998.72	71%	609.6	9%	0	0%	1,402.08	20%

The steel girders have large areas of widespread paint failure throughout. The failures are more widespread in spans 1 and 3, but are still present in span 2. The coatings on the exterior girders are dulling and near the abutments these coatings are cracking, peeling, and bubbling. The steel protective coating quantity is courtesy of Tom Mathews in Central Office. See photos for details.

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	1	1	100%	0	0%	0	0%	0	0%

See element 107 for details.

210: Re Conc Pier Wall

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

The portions of the piers that are above the water are in good condition at this time. Probing was not possible during this inspection due to elevated water levels. See photos.

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	81	69	85%	12	15%	0	0%	0	0%

The backwalls of the abutments have some areas of minor cracking with efflorescence and rust staining, particularly at the exterior ends. Both abutments are in good condition at this time. See photos.

300: Strip Seal Exp Joint

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	40.5	0	0%	40.5	100%	0	0%	0	0%

This bridge has a strip seal expansoin joint over abutment 4. It is mostly full of debris. See photos.

302: Compressn Joint Seal

Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	40.5	0	0%	40.5	100%	0	0%	0	0%

This bridge has a compression seal joint over abutment 1. This joint is impacted with debris and has adhesion failure. The temperature during this inspection was ~ 73 degress, 1-3/4in. was measured at the roadway centerline. See photos.

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	12	4	33%	8	67%	0	0%	0	0%

The exterior moveable bearings at abutment 1 and 4 have flaking paint and the exposed steel is rusted with minor to moderate corrosion. Bearings at these locations need to be cleaned and painted. The bearings at abutment 4 are slightly tilted toward the backwall. The bearings at abutment 1 are also tilted back toward the backwall, but to a lesser degree than those at abutment 4. See photos.

Inspection Report with SI&A Data

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	5.57	0	0%	5.2	93%	0	0%	0.37	7%
See element 311.									

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	4	4	100%	0	0%	0	0%	0	0%
Fixed bearings at pier 2 appear to be in good condition at this time. See photos.									

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	1.86	1.86	100%	0	0%	0	0%	0	0%
The protective coatings appear to be in good condition.									

331: Re Conc 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	665	659	99%	6	1%	0	0%	0	0%
Concrete bridge railing has vertical cracking throughout. This is typical for this type of barrier wall. See photos.									

90 Inspection Date - 5/11/15
Inspector - AGREINER (154)

006B00056R - **8 Bridge ID**
Standard -**Primary Inspection Type**

Inspection Report with SI&A Data

850: 2nd Elem									
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%
Some of the diaphragms at the abutments have some rust and corrosion, but overall the crossframes are in good condition. See photos									

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%
A lot of poison ivy is present around/under the structure and needs to be cut and sprayed. See photos.									

STRUCTURE NOTES
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INSPECTION NOTES
This is a standard 24 month walk over inspection and the NBI ratings reflect only what can be reasonably observed during this type of inspection. Binoculars were utilized for a better visual inspection. Inspected by A.Greiner.

WORK	
Action:	1009 - Bearings-Clean Assemblies / Paint
The bearings should be cleaned and coated. Generated by user "agreiner" on 5/12/2015	

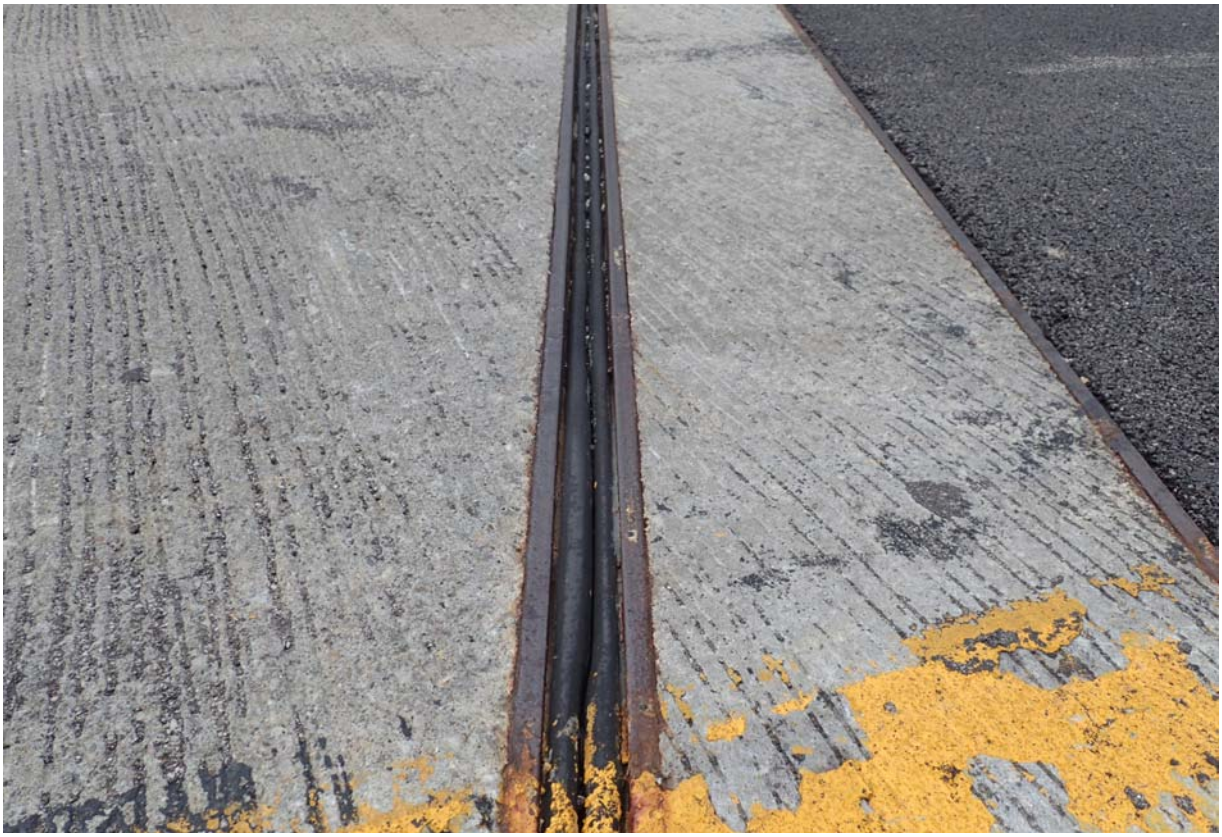
Action:	1029 - Deck-Patch spalls->Deck-Repair (Potholes)
The deck will probably need to be patched in the slow lane in span 1. Generated by user "agreiner" on 5/12/2015	

Action:	1046 - Joints-Repair
The joint seal should be replaced at abutment 1. by user "agreiner" on 5/12/2015	

Action:	7 - Paint Bridge
The girders should be cleaned and painted. Generated by user "agreiner" on 5/12/2015	

View from the downstream end of abutment 1.

View of the stamps on the downstream face of the barrier/beam at abutment 1.

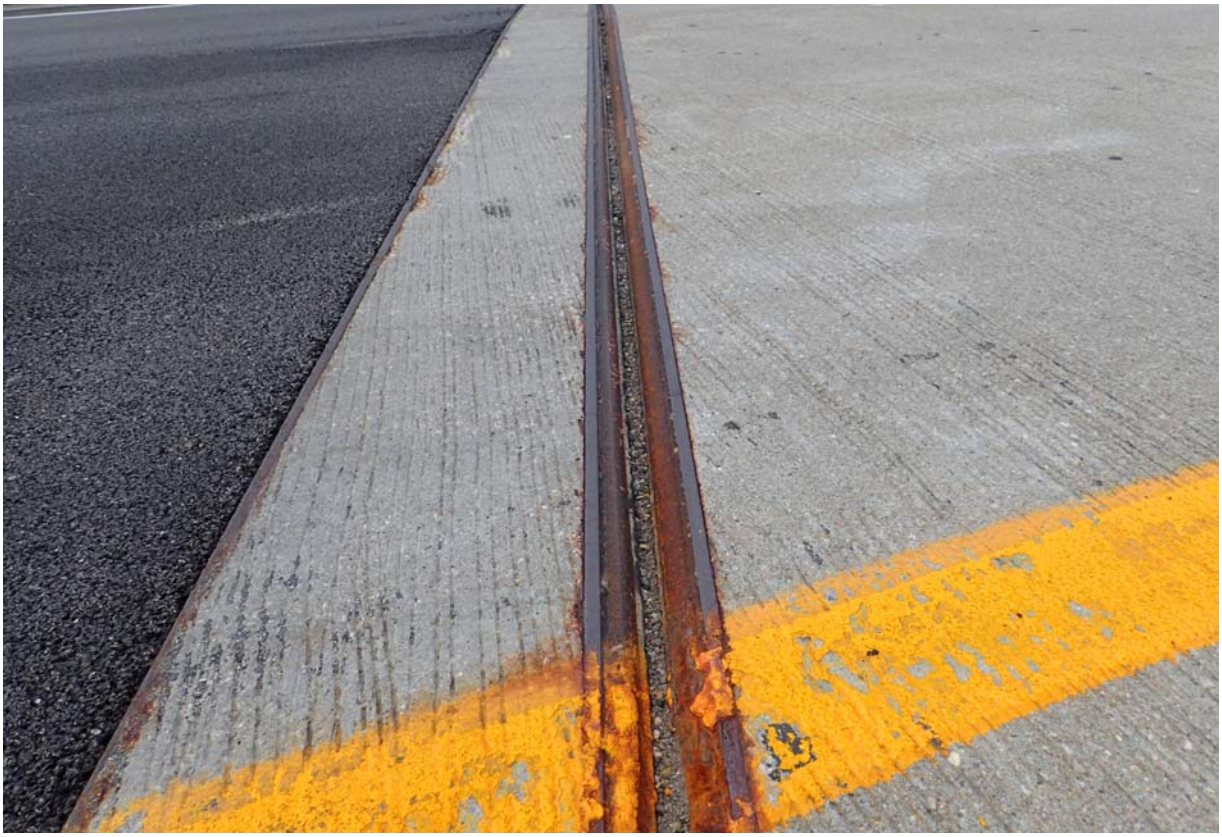


View of the transverse joint at abutment 1. It is impacted with minor debris and has some adhesion failure.

View from the approach to abutment 1.

View of some minor sized diagonal cracking in the wearing surface near abutment 1.

View of several minor sized transverse cracks in the wearing surface of the slow lane



View of the transverse joint at abutment 4.

View of widespread paint failure on the exterior face of the downstream girder in span 3.

View of widespread paint failure on the downstream face of girder 3 in span 3.

View of paint lying on the ground in span 3.

Typical view of bearing 3 from upstream at abutment 4.

View of widespread paint failure on the downstream face of girder 2 in span 3.

View of spalling along the fillet above girder 2 from upstream at abutment 4.

View of minor sized cracking with efflorescence and rust staining in the upstream backwall of abutment 4.

Upstream bearing at abutment 4; flaking paint with some moderate corrosion.

Upstream view from abutment 4.

View of minor sized longitudinal cracking in the wearing surface of the slow lane at abutment 4.

View of an area of moderate cracking with efflorescence in the wearing surface of the slow lane in span 1.

Downstream abutment 1 bearing; flaking paint with moderate corrosion. Notice the flaking paint along the girders bottom flange and the exposed steel has moderate rusty corrosion.

Upstream abutment 1 bearing; flaking paint with moderate corrosion.

Several large areas of paint failure on the downstream face of the upstream girder near abutment 1.

Several large areas of paint failure on the upstream face of girder 2 from upstream near abutment 1.

Paint scattered across the ground in span 1.

Typical view of pier 2.

Typical view of span 2.

Typical view of span 2 and pier 2.