90 Inspection Date - 4/15/15 Inspector - LBOLLER (284)

## **Inspection Report with SI&A Data**

Milepoint: 0.220

**Structure Description:** 71.83 Foot - Single Span Concrete Frame (except frame culverts)

**2 District:** 05 **3 County:** Jefferson **16 Latitude:** 38°14′32.00″ **7 Longitude:** 85°41′15.00″

7 Facility Carried ALTA VISTA RD

**6A Feature Intersected:** I-64 WB **9 Location:** .25 MI S OF JCT US 60

NBI	Х
Element	Х
Fracture Critical	
Underwater	
Special	

Sti	NBI CONDITION RATINGS									
58	Deck:	6	61 Channel:	N						
59	Superstructure:	6	62 Culvert:	N						
<b>60</b>	Substructure:	6	Sufficiency Rating:	78.8						

	DESIGN								
Subs	tandard:	No							
Fract	ure Critical:	No FC Details							
43A	Main Span Material:	(1) Concrete							
43B	Main Span Design:	(07) Frame							
45	Number of Spans Main:	1							
44A	Approach Span Material:	Not Applicable							
44B	Approach Span Design:	Not Applicable							
46	<b>Number of Approach Spans</b>	: 0							
107	Deck Type:	(1) Concrete-Cast-in-Place							
108A	Wearing Surface:	(1) Monolithic Concrete							
108B	Membrane:	(0) None							
108C	Deck Protection:	(0) None							
Overl	ay Y/N:	No							
Overl	ау Туре:	None							
Overl	ay Thickness:	0.000 in							
Overl	ay Date:								

	APPRA	AISAL
36A	Bridge Railings:	(0) Substandard
36B	Transitions	(0) Substandard
36C	Approach Guardrail:	(1) Meets Standards
36D	Approach Guardrail Ends:	(0) Substandard
71	Waterway Adequacy:	(N) Not Applicable
<b>72</b>	Approach Alignment:	(8) Equal Desirable Crit
113	Scour Critical:	(N) Not over Waterway
Reco	mmended Scour Critical:	(N) Not over Waterway

		LOAD RATINGS
63	Operating Type:	(1) Load Factor (LF)
64	Operating Rating:	60.0 tons
65	Inventory Type:	(1) Load Factor (LF)
66	Inventory Rating:	36.0 tons
Truck	Capacity Type I:	tons
Truck	Capacity Type II:	tons
Truck	Capacity Type III:	tons
Truck	Capacity Type IV:	tons

		<u> </u>
ot fran	me culverts)  GEOMETRI	IC DATA
48	Max Length Span:	64.531 ft
49	Structure Length:	71.826 ft
<del>43</del> 32	Approach Roadway:	27.900 ft
32 33	Median:	(0) No Median
34	Skew:	6°
35	Flare:	o No Flare
	Curb/Sidewalk Width L:	
		0.750 ft
	Curb/Sidewalk Width R:	0.750 ft
47 	Horiz. Clearance:	28.500 ft
51	Width Curb to Curb:	28.500 ft
52	Width Out to Out:	32.666 ft
48	Max Length Span:	64.531 ft
	ADMINIST	RATIVE
27	Year Built:	1970
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:	(L) Left Of II Structure
52	Width Out to Out:	32.666 ft
	CLEARA	NCES
10	Vert. Clearance:	99.999 ft
53	Min. Vert. Clearance Over:	99.999 ft
54A	Vert. Under Reference:	(H) Hwy beneath struct.
54B	Min. Vert. Underclearance:	21.909 ft
55A	Lateral Under Reference:	(H) Hwy beneath struct.
		•

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								

55B Min. Lat. Underclearance R: 20.000 ft56 Min. Lat. Underclearance L: 20.000 ft

90 Inspection Date - 4/15/15 Inspector - LBOLLER (284)

# **Inspection Report with SI&A Data**

38: Re Concrete Slab									
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	2,346	1,446	62%	900	38%	0	0%	0	0%

The top of the slab has exposed aggregate with wear and some transverse, random, and map cracking. There are longitudinal cracks at the south end in the center of both lanes. Deck has deterioration/minor spalling beginning adjacent the the steel angle armored edge at the north bridge end.

Soffit copings have some minor deterioration/spalling, some with exposed reinforcement. There is a small spalled area near the south abutment over the south lane on the east end (2 SF).

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	66	58	88%	8	12%	0	0%	0	0%

Minor cracks and small areas of deterioration/spalling in legs/stems of rigid frame (considered as abutments for this element level inspection). South abutment (A1) has 2 minor spalls near the east end. (2 LF A1, 6 LF A2) Stone facings have some minor deterioration and/or scaling.

301: Po	ourable Joint Sea	I							
Units	Total Qty	Qty. St. 1	% in 1	Qty. St. 2	% in 2	Qty. St. 3	% in 3	Qty. St. 4	% in 4
FT	29	0	0%	0	0%	29	100%	0	0%

South bridge end has a pourable joint seal between the approach slab and the end of the bridge deck over the south abutment (A1). Joint is in poor condition - the sealant has been pulled out of the joint across the northbound/east lane and the remainder of the seal still in place is torn, deteriorated and has loss of adhesion.

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	144	144	100%	0	0%	0	0%	0	0%

Bridge railing is composed of a concrete plinth with a stone cap and aluminum tubular railing. NDN.

90 Inspection Date - 4/15/15 Inspector - LBOLLER (284)

Inspection Report with SI&A Data

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	144	126	88%	18	13%	0	0%	0	0%

Bridge railing is composed of a concrete plinth with a stone cap and aluminum tubular railing. Minor cracking/deterioration of the concrete and cap stones. (10 LF West, 8 LF East). The NE approach guardrail has collision damage.

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)	144	90	63%	54	38%	0	0%	0	0%

Curbs have exposed aggregate, popouts, and minor cracks/deterioration. West curb has about 6 ft. of cracking along the top around mid-span. (35 LF West. 19 LF East)

851: Transitions									
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%	0	0%	0	0%	1	100%

Asphalt approach has deterioration/settlement with an elevation difference of approximately 1 in. at the north abutment (A2). Concrete approach slab at A1 has a 1 ft x 1 ft x 1 in spall in the SB lane.

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%

Trees and brush need to be cut around abutments, especially A2.

### **Inspection Report with SI&A Data**

#### STRUCTURE NOTES

-Alta Vista Road runs from south to north, Maple Road to the south and Shelbyville Road/US 60 to the north (this agrees with I-64 EB going east). TK 4/10/2013

-This bridge is actually a single span rigid frame over I-64 WB.

-Immediately south of it is a "structural slab" and bridge 056B00146R over I-64 EB. (Plans show the structural slab supported by the paving notches of both bridges.) TK 4/10/2013

-There is no specific element level condition state assessment of concrete rigid frame bridges. Elements utilized to best describe this rigid frame during this inspection comply with the 2012 BIRM recommendations. TK 4/10/2013

#### **INSPECTION NOTES**

Some minor erosion around the right-of-way fence and the outside of the northwest wing. I-64 WB guardrail on the north side under the bridge is deteriorated with section loss and needs to be replaced. Standard inspection performed on 04/15/2015 by L. Boller and A. Porter (DLZ).

#### **WORK**

Action:

1000 - Approach Railing-Repair

Generated by user "LBOLLER" on 4/15/2015 - Replace portion of NE approach railing that has collision damage.