

Inspector: Cooper, Kenneth

Inspection Date: 05/24/2023

Structure Number: 7706871

Facility Carried: SR 82

Ohio Bridge Inspection Summary Report

SUM-00082-0000 (7706871)

2: District 69428 - SAGAMORE HILLS TWP (SUM county)
ict
04

5A: Inventory Route 1 00082

21: Major Maint A/B 01 - State Highway Agency /
225 Routine Main A/B 01 - State Highway Agency /
221 Inspection A/B 01 - State Highway Agency /
220: Inv. Location DISTRICT 04

7: Facility On SR 82
6: Feature Ints CUY RIV-B&O RR-BIKE PATH
9: Location 3.43 MI W OF SR 8
Lat, Lon 41.321292 , -81.587194

Condition	Structure Type
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58: Deck **6 - Satisfactory Condition**
58.01 Wearing Surface 6 - Satisfactory (1-10% distress)
58.02 Joint 5- Fair (obvious leaking, 1" offset)
59: Superstructure **6 - Satisfactory Condition**
59.01 Paint & PCS N - Not Applicable
60: Substructure **5 - Fair Condition**
61: Channel **8**
61.01 Scour **7 - Good**
62: Culverts **N - Not Applicable**

43: Bridge Type 1 - Concrete
11 - Arch - Deck
N- Not Applicable
45: Spans Main / Approach 5 / 2
107: Deck Type 1 - Concrete Cast-in-Place
408: Composite Deck U - Unknown
414A Joint Type 1 3 - Compression Seal
414B: Joint Type 2 N - None
108A: Wearing Surface 2 - Integral Concrete (separate non-modified layer of concrete added to structural deck)
2- MicroSilica

67.01 GA 5

Appraisal

Sufficiency Rating 80.4 SD/FO 2 - FO
36: Rail, Tr, Gd, Term Std 1 1 1 1
72: Approach Alignment 7 - Better than present minimum criteria
113: Scour Critical 7 - Countermeasures installed to correct scour problem
71: Waterway Adequacy 9 - Bridge Above Flood Water Elevations

422: WS Date 09/01/2013
423: WS Thick (in) 2.5
482: Protective Coating N - None or Not Applicable
483: PCS Date
453: Bearing Type 1 4 - Elastomeric (Plain)
455: Bearing Type 2 N - None
528: Foundn: Abut Fwd 4 - Spread Footing (on soil)
533: Foundn: Abut Rear 4 - Spread Footing (on Soil)
536: Foundn: Pier 1 4 - Spread Footing (on soil)
539: Foundn: Pier 2 N - None (Such as most Culverts)

Geometric

48: Max Span Length (ft) 181.0
49: Structure Length (ft) 1133.0
52: Deck Width, Out-To-Out (ft) 43.5
424: Deck Area (sf) 49285.5
32: Appr Roadway Width (ft) 40.0
51: Road Width, Curb-Curb (ft) 40.0
50A: Curb/SW Width: Left (ft) 0
50A: Curb/SW Width: Right (ft) 0
34: Skew (deg) 0
33: Bridge Median 0 - No median
54B: Min Vert Underclearance (ft) 0
336A: Min Vert Clrnce IR Cardinal (ft) 99
336B: Min V Clr IR Non-Cardinal (ft) 0
578: Culvert Length (ft) 0

Age and Service

27: Year Built/ 106 Rehab 1931 / 1989
42A: Service On 1 - Highway
42B: Service Under 7 - Railroad - waterway
28A: Lanes on 02
28B: Lanes Under 00
19: Bypass Length 4
29: ADT 10523
109: % Trucks (%) 4

Load Posting

41: Op/Post/Closed A - Open
70: Posting 5 - Equal to or above legal loads
70.01: Date
70.02: Sign Type
734: Percent Legal (%) 150
704: Analysis Date 07/01/1992
63: Analysis Method 7 - Allowable Stress (AS) rating reported by rating factor (RF) method using MS18 loading.

Inspections

	Months	
90: Routine Insp.	12	06/08/2023
92A: FCM Insp.	N	0
92B: Dive Insp.	N	0
92C: Special Insp.	N	0
92D: UBIT Insp.	Y	12 06/08/2023
92E: Drone Insp.	N	0

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
16-Reinforced Concrete Top Flange	3 - Mod.	45320	sq. ft.	36256	9064	0	0
<p>CS2 - The wearing surface has developed tight cracks both transverse and longitudinal.</p> <p>Snooper Inspection 2021, 2022, 2023</p> <p>Pictures - 2021, 2022, 2023</p>							
510-Wearing Surfaces		45320	sq. ft.	36238	9064	18	0
<p>CS2 - The wearing surface has developed tight cracks both transverse and longitudinal.</p> <p>CS3 - There are 9 failures, 18 sf near the 4th intermediate joint from the Rr abutment. The failures are in both the EB and WB directions.</p>							
104-Prestressed Concrete Closed Web/Box Girder	3 - Mod.	48600	ft.	46170	2430	0	0
<p>CS2 - Approximately 5% of the beams have some evidence of leakage with some efflorescence at the joints.</p>							
144-Reinforced Concrete Arch	3 - Mod.	1818	ft.	1535	182	101	0
<p>CS2 - The arches have developed multiple spots of delamination. Second arch from rear has large crack with efflorescence.</p> <p>CS3 - All of the arches have small spalls with exposed rebar. The top of the arch at pier 13 from the Fwd abutment has spalled concrete with rusted rebar exposed, 50 sf.</p>							
155-Reinforced Concrete Floor Beam	3 - Mod.	2580	ft.	2580	0	0	0
205-Reinforced Concrete Column	3 - Mod.	20	each	10	8	2	0
<p>CS2 - Eight of the columns have cracks with some spalls.</p> <p>CS3 - The columns between the 3rd and 4th span of the arch have large spalled areas with rusting rebar exposed. Spalls were removed from these columns, with the help of the snooper, in 2021 when the snooper was in the district.</p>							
210-Reinforced Concrete Pier Wall	3 - Mod.	132	ft.	0	112	20	0
<p>CS2 - The concrete pier walls have cracks and some spalls.</p> <p>CS3 - There areas in the pier walls where rebar has been exposed underneath the spalls; rebar in these areas is rusting</p>							
215-Reinforced Concrete Abutment	3 - Mod.	87	ft.	87	0	0	0
<p>Lots of graffiti has been painted on both abutments.</p>							
234-Reinforced Concrete Pier Cap	3 - Mod.	609	ft.	609	0	0	0
302-Compression Joint Seal	3 - Mod.	131	ft.	0	131	0	0
<p>CS2 - All of the expansion joints are leaking causing substantial concrete damage underneath the joints.</p> <p>2023 - The concrete end cap of the piers under the intermediate joints is failing, some of the concrete has completely failed. End strands are exposed, see pictures.</p>							
310-Elastomeric Bearing	3 - Mod.	2420	each	2420	0	0	0

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321-Reinforced Concrete Approach Slab	3 - Mod.	1600	sq. ft.	1600	0	0	0
Approach slabs have been sealed.							
331-Reinforced Concrete Bridge Railing	3 - Mod.	2266	ft.	1816	450	0	0
Vandal fence has been added to entire length of the bridge 2021. CS2 - Railing has developed symmetrical vertical cracks with efflorescence. The left concrete railing has 235' of vertical cracks with some horizontal cracks. The right railing has 215' of vertical cracks.							
815-Drainage	3 - Mod.	6	each	6	0	0	0
830-Abutment Backwall	3 - Mod.	87	ft.	69	18	0	0
CS2 - The top of the Fwd and Rr back walls have developed cracks with some failures. Fwd - 2' Rr - 16'							

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Pictures