Ohio Bridge Inspection Summary Report — CUY-00422-1597R_(1814893)

2: District	District 12	72928 - SOLON (CUY county)	
5A: Inventory Route	1	00422	
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 12		
7: Facility On	USR 422		
6: Feature Ints	CR-99 (CANNON RD)		
9: Location	3 MI E I-27		
Lat, Lon	41.409447	,-81.470358	

Condition

58: Deck	**6 - Satisfactory Condition**
58.01 Wearing Surface	6 - Satisfactory (1-10% distress)
58.02 Joint	4- Poor (heavy leaking, offset)
59: Superstructure	**7 - Good Condition**
59.01 Paint & PCS	7 - Good (1-5% corr.)
60: Substructure	**6 - Satisfactory Condition**
61: Channel	**N**
61.01 Scour	**N - Not Applicable**
62: Culverts	**N - Not Applicable**
67.01 GA	**6**

Appraisal

Sufficiency Rating	98.0 SD/FO 0 - ND
36: Rail, Tr, Gd, Term Std	1 1 1 0
72: Approach Alignment	8 - Equal to present desirable criteria
113: Scour Critical	N - Not over waterway
71: Waterway Adequacy	N - Not Applicable

Geometric

48: Max Span Length (ft)	75.0
49: Structure Length (ft)	185.0
52: Deck Width, Out-To-Out (ft)	54.0
424: Deck Area (sf)	9990
32: Appr Roadway Width (ft)	42.0
51: Road Width, Curb-Curb (ft)	50.5
50A: Curb/SW Width: Left (ft)	0
50A: Curb/SW Width: Right (ft)	0
34: Skew (deg)	32
33: Bridge Median	0 - No median
54B: Min Vert Underclearance (ft)	14.58
336A: Min Vert Clrnce IR Cardinal (ft)	99
336B: Min V Clr IR Non-Cardinal (ft)	0
578: Culvert Length (ft)	0

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	07/01/1975
63: Analysis Method	7 - Allowable Stress (AS) rating reported by rating factor (RF) method using MS18 loading.

Structure Type

43: Bridge Type	4 - Steel continuous 02 - Stringer/Multi-beam or Girder N- Not Applicable
45: Spans Main / Approach	3 / 0
107: Deck Type	1 - Concrete Cast-in-Place
408: Composite Deck	N - Non-composite Construction
414A Joint Type 1	2 - Sliding Metal Plate Angle
414B: Joint Type 2	N - None
108A: Wearing Surface	2 - Integral Concrete (separate non-modified layer of concrete added to structural deck) 2- MicroSilica
422: WS Date	07/01/1975
423: WS Thick (in)	2.0
482: Protective Coating	5 - Paint System OZEU
483: PCS Date	11/07/2009
453: Bearing Type 1	2 - Rockers & Bolsters
455: Bearing Type 2	N - None
528: Foundn: Abut Fwd	2 - Cast-in-Place Reinforced Concrete Piles (Other diameter)
533: Foundn: Abut Rear	2 - Cast-in-Place reinforced Concrete Piles (Other diameter)
536: Foundn: Pier 1	2 - Cast-in-Place Reinforced Concrete Piles (Other diameter)
539: Foundn: Pier 2	0 - Other

Age and Service

27: Year Built/ 106 Rehab	1975 / 0000
42A: Service On	1 - Highway
42B: Service Under	1 - Highway, with or w/out pedestrian
28A: Lanes on	02
28B: Lanes Under	02
19: Bypass Length	0
29: ADT	37654
109: % Trucks (%)	5

Inspections

		Months	
90: Routine Insp.		12	04/15/2022
92A: FCM Insp.	N	0	
92B: Dive Insp.	N	0	
92C: Special Insp.	N	0	
92D: UBIT Insp.	N	0	
92E: Drone Insp.	N	0	

Inspector Persanyi,Andrea

Inspector: Andrea Persanyi **Structure Number:** 1814893

Inspection Date: 04/15/2022 **Facility Carried:** USR 422

Bridge Inspection Report

Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	3 - Mod.	9990	sq. ft.	8186	1504	300	0
	CS2- Transverse leaching cracks, delams, slight movement of forward deck end with live load at beams 4 & 5. CS3- Spalls, 5 SF of spalls with 360 degree rebar exposure, a few mottled areas in bay 4 spans 2 & 3.						
510 - Wearing Surfaces		9343	sq. ft.	7702	1401	180	60
	CS2- Transverse & longitudinal cracks. 35 SF of concrete patches. CS3- Some cracks as wide as 1/8". CS4- Asphalt patches and breaking up areas.						
107 - Steel Open Girder/Beam	3 - Mod.	1260	ft.	1121	13	126	0
	CS2- Minor rust in areas. CS3- Rusted section loss at some beam ends, scrapes to edges of lower flanges over NB traffic.						
515 - Steel Protective Coating		14047	sq. ft.	13324	702	21	0
	CS2- Chalking on exterior of fascia beams. CS3- Minor rust.						
205 - Reinforced Concrete Column	3 - Mod.	8	each	6	2	0	0
	CS2- P2C1- 1 SF delam/spall P2C3- 6 SF delam						
215 - Reinforced Concrete Abutment	3 - Mod.	128	ft.	78	25	25	0
	CS2- Cracks, rust stains, minor delams. CS3- Deep spalls with exposed rebar in forward bays 4 & 5 (one of which undermines 25% of bearing #5). Spall that goes into seat in rear bay 4.						
234 - Reinforced Concrete Pier Cap	3 - Mod.	128	ft.	128	0	0	0
305 - Assembly Joint without Seal	3 - Mod.	108	ft.	97	5	6	0
	CS2- A few gouges to forward armor. CS3- Broken/removed riser bar in lane #1 of forward exjt. Rear broken at lane line with thru holes.						
311 - Movable Bearing	3 - Mod.	21	each	2	13	6	0
	CS2- Areas of surface rust. CS3- Areas of rusted section loss, air gaps between some abutment rockers & masonry plates, approximately 25% of forward bearing #5 undermined (see abutment comments).						
313 - Fixed Bearing	3 - Mod.	7	each	7	0	0	0

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Bridge Inspection Report

Element Inspection

321 - Reinforced Concrete Approach Slab	3 - Mod.	2100	sq. ft.	1872	210	15	3
	CS2- Long cracks. CS3- Breaking up areas in lane #2 in both slabs.						
331 - Reinforced Concrete Bridge Railing	3 - Mod.	370	ft.	332	37	1	0
	CS2- A few cracks, collision scrapes & gouges to left rail. CS3- Spall to rail.						
815 - Drainage	3 - Mod.	8	each	8	0	0	0
830 - Abutment Backwall	3 - Mod.	128	ft.	62	63	3	0
	CS2- Cracks, top of both backwalls concrete patched in areas. CS3- A few spalls.						

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Routine Maint:	01 - State Highway Agency	Feature Inters:	CR-99 (CANNON RD)	Traffic Under:	1 - Highway, with or w/out pedestrian	Insp. Resp A:	01 - State Highway Agency
FIPS Code:	72928 - SOLON (CUY county)	Location:	DISTRICT 12	3 MI E I-27		Insp Resp B:	
Inspector	Persanyi,Andrea	Inspection Date	04/15/2022	Reviewer	Seif,Youssef		

Inspector Comments - Deck and Approach

Deck

Floor (SF)

Spalls Over Traffic - WB lanes in bay 6

EB lanes in bays 2 and 3.

Approach

Approach Wearing Surface (EA)

Cracks, asphalt break up with shallow spalls along both slabs.

Approach Guardrail (EA)

Minor cracks & rust stains to concrete approach rails, collision damage to rear-left & forward-right guardrails.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames (EA)

Endframe rusted section loss with thru holes, bent up horizontal angle in bay 5 over NB traffic, horizontal endframe angles cut out in rear bays 3-5.

Fatigue (LF)

Welded cover plates at piers.

Substructure

Slope Protection (EA)

Cracks, uneven settlement, rear-left bottom section has collapsed. Concrete slid as much as 7.5" at rear & as much as 5" at forward, areas of vegetation growing thru csp.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical