

Ohio Bridge Inspection Summary Report

CUY-00422-1627L (1814907)

2: District 72928 - SOLON (CUY county)
 District 12

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-18 (HARPER RD)
 9: Location 3.1 MI E I-27
 Lat, Lon 41.406436 , -81.466944

Condition		Structure Type	
58: Deck	5 - Fair Condition	43: Bridge Type	4 - Steel continuous
58.01 Wearing Surface	6 - Satisfactory (1-10% distress)		02 - Stringer/Multi-beam or Girder
58.02 Joint	7- Good (no leaking)		N- Not Applicable
59: Superstructure	6 - Satisfactory Condition	45: Spans Main / Approach	4 / 0
59.01 Paint & PCS	7 - Good (1-5% corr.)	107: Deck Type	1 - Concrete Cast-in-Place
60: Substructure	7 - Good Condition	408: Composite Deck	N - Non-composite Construction
61: Channel	N	414A Joint Type 1	2 - Sliding Metal Plate Angle
61.01 Scour	N - Not Applicable	414B: Joint Type 2	N - None
62: Culverts	N - Not Applicable	108A: Wearing Surface	2 - Integral Concrete (separate non-modified layer of concrete added to structural deck)
			1- Super Plasticized
67.01 GA	6		

Appraisal	
Sufficiency Rating	97.0 SD/FO 0 - ND
36: Rail, Tr, Gd, Term Std	1 1 1 1
72: Approach Alignment	8 - Equal to present desirable criteria
113: Scour Critical	N - Not over waterway
71: Waterway Adequacy	N - Not Applicable

422: WS Date	
423: WS Thick (in)	1.8
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

Geometric	
48: Max Span Length (ft)	76.0
49: Structure Length (ft)	256.0
52: Deck Width, Out-To-Out (ft)	72.5
424: Deck Area (sf)	18560
32: Appr Roadway Width (ft)	71.0
51: Road Width, Curb-Curb (ft)	69.5
50A: Curb/SW Width: Left (ft)	0
50A: Curb/SW Width: Right (ft)	0
34: Skew (deg)	40
33: Bridge Median	0 - No median
54B: Min Vert Underclearance (ft)	15.92
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	1975 / 0000
42A: Service On	1 - Highway
42B: Service Under	1 - Highway, with or w/out pedestrian
28A: Lanes on	03
28B: Lanes Under	04
19: Bypass Length	0
29: ADT	24975
109: % Trucks (%)	6

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	07/01/1976
63: Analysis Method	7 - Allowable Stress (AS) rating reported by rating factor (RF) method using MS18 loading.

Inspections		
	Months	
90: Routine Insp.	12	06/14/2022
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
 Inspection Date: 06/14/2022

Structure Number: 1814907
 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.	18560	sq. ft.	15776	1856	928	0
	CS2- Transverse cracks, some leaching. CS3- Spalls. 5 sf spall with 360 degree rebar exposure in bay 4 over SB lane 2. A few delams, a few mottled areas with stalactites.						
510 - Wearing Surfaces		17792	sq. ft.	16878	889	10	15
	CS2- A few cracks, concrete patches. CS3- Various potholes/shallow spalls throughout and delaminated area in lane 2 near rear expansion joint. Some wide cracks. CS4- Asphalt patches.						
107 - Steel Open Girder/Beam	3 - Mod.	2304	ft.	2036	23	245	0
	CS2- Isolated rust. CS3- Areas of section loss near beam ends.						
515 - Steel Protective Coating		26598	sq. ft.	26330	265	3	0
	CS2- A few areas of chalking on outside of fascia beams. CS3- A few spots of rust						
205 - Reinforced Concrete Column	3 - Mod.	21	each	18	3	0	0
	Note: P1 & P3 columns fiber wrapped. CS2- P2C1- 4 SF delam P2C2- 2 SF delam P2C7- 2 SF delam						
215 - Reinforced Concrete Abutment	3 - Mod.	190	ft.	163	18	9	0
	CS2- Cracks. A few rust stains. Some concrete deterioration to abutment seats. CS3- Small spalls in bay 2 at both abutments.						
234 - Reinforced Concrete Pier Cap	3 - Mod.	284	ft.	279	2	3	0
	CS2- Cracks. CS3- Minor spalls and delams.						
305 - Assembly Joint without Seal	3 - Mod.	145	ft.	80	60	5	0
	CS2- Dirt and debris in joints. CS3 -A few gouges to armor. Spalls and wide cracks to headers.						
311 - Movable Bearing	3 - Mod.	36	each	18	18	0	0
	CS2- Areas of surface rust. Section loss. Neoprene pad under forward bearing #5 starting to slide out.						
313 - Fixed Bearing	3 - Mod.	9	each	9	0	0	0

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Element Inspection

321 - Reinforced Concrete Approach Slab	3 - Mod.	3550	sq. ft.	2275	950	195	130
CS2- Cracks. CS3- Some cracks as wide as 1/8". CS4- Asphalt patches and broken up concrete areas.							
331 - Reinforced Concrete Bridge Railing	3 - Mod.	512	ft.	114	384	10	4
CS2- Horizontal cracks. Scaling. CS3- Minor delams. Rust stained cracks. CS4- Collision damage, 4' of top 6" of railing missing from left side near west end.							
815 - Drainage	3 - Mod.	13	each	0	4	0	9
Note: Two scuppers at forward intentionally plugged. CS2- Partially plugged scuppers. Dirt & debris in low speed berm. CS4- Fully plugged scupper.							
830 - Abutment Backwall	3 - Mod.	190	ft.	170	10	10	0
CS 2 - Cracks. Construction joints open as wide as 1" in bays 2, 5 & 7 at both abutments filled with Great Stuff. CS 3 - Construction joint repair in bay 2 at rear failed and fill beginning to leak through onto abutment. Spall at construction joint in rear bays 2 (thru to exjt armor) . A few other spalls. Small void (3" x 12") at top of forward bay 3.							

ODOT District: District 12

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Date Built: 07/01/1975

Major Maint: 01 - State Highway Agency

Facility Carried: USR 422

Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 01 - State Highway Agency

Feature Inters: CR-18 (HARPER RD)

Traffic Under: 1 - Highway, with or w/out pedestrian

Insp: 01 - State Highway Agency

FIPS Code: 72928 - SOLON (CUY county)

Location: DISTRICT 12

3.1 MI E I-27

Resp A:

Insp

Resp B:

Inspector

Persanyi,Andrea

Inspection Date 06/14/2022

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Floor/Slab (SF)

SOT- SB lane #1 Bay 7

NB lane #1 Bay 5

NB lane #2- Bays 4 and 6

Approach

Approach Wearing Surface (EA)

Cracks. Asphalt break up with small asphalt and epoxy patches along both slabs.

Approach Embankment (EA)

Erosion at rear-right as deep as 16".

Approach Guardrail (EA)

Collision damage with missing spacers to forward-left guardrail. Minor collision damage at forward right.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames (EA)

Areas of section loss with some rusted thru holes & rust severed endframes. A few damaged xframes over nb traffic.

Fatigue (LF)

Welded moment plates at piers.

Substructure

Slope Protection (EA)

Cracks. Uneven settlement with areas of undermining at forward. Gap at rear abutment as wide as 3.5". Gap at forward abutment as wide as 14". Tufa deposit below weep hole at rear-left.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical