

Inspector: Miller,Jason
 Inspection Date: 03/28/2023

Structure Number: 1814788
 Facility Carried: USR 422

Ohio Bridge Inspection Summary Report

CUY-00422-1390L (1814788)

2: District 80990 - WARRENSVILLE HTS (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 SR 175(02.35)RICHMOND RD
 9: Location 0.4 MI. EAST OF JCT I-271
 Lat, Lon 41.429797 ,-81.497852

Condition	Structure Type
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58: Deck **6 - Satisfactory Condition**
 58.01 Wearing Surface 6 - Satisfactory (1-10% distress)
 58.02 Joint N- Not Applicable
59: Superstructure **7 - Good Condition**
 59.01 Paint & PCS 4 - Poor PCS (15-20% corr.)
60: Substructure **6 - Satisfactory Condition**
61: Channel **N**
 61.01 Scour **N - Not Applicable**
62: Culverts **N - Not Applicable**

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 U - Unknown
 414A Joint Type 1 N - None
 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 6

Appraisal	422: WS Date
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Sufficiency Rating 98.0 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

10/01/1999
 423: WS Thick (in) 1.5
 482: Protective Coating 6 - Galvanized
 483: PCS Date 01/01/1992
 453: Bearing Type 1 0 - Other
 455: Bearing Type 2 4 - Elastomeric (Plain)
 528: Foundn: Abut Fwd U - Unknown
 533: Foundn: Abut Rear U - Unknown
 536: Foundn: Pier 1 U - Unknown
 539: Foundn: Pier 2 U - Unknown

Geometric	Age and Service
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48: Max Span Length (ft) 73.0
 49: Structure Length (ft) 153.0
 52: Deck Width, Out-To-Out (ft) 66.0
 424: Deck Area (sf) 10098
 32: Appr Roadway Width (ft) 44.0
 51: Road Width, Curb-Curb (ft) 63.0
 50A: Curb/SW Width: Left (ft) 0
 50A: Curb/SW Width: Right (ft) 0
 34: Skew (deg) 17
 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	Inspections
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27: Year Built/ 106 Rehab 1971 / 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 8038
 109: % Trucks (%) 3

Load Posting	Inspections
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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 07/01/1973
 63: Analysis Method 7 - Allowable Stress (AS) rating reported by rating factor (RF) method using MS18 loading.

Inspections	Inspections
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90: Routine Insp.	Months 12	03/28/2023
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

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12-Reinforced Concrete Deck	3 - Mod.	10098	sq. ft.	9033	1010	55	0
	CS2- Cracks, some leaching, some delams. CS3- Mottled areas. Some haunch spalls.						
510-Wearing Surfaces		9639	sq. ft.	2229	5850	1500	60
	CS2- Many cracks, epoxy patches at rear in lanes 2 and 3. Areas of moderate map cracking. CS3- Wide cracks. Areas of heavy map cracking. A few spalls. CS4- Asphalt patches.						
107-Steel Open Girder/Beam	3 - Mod.	1384	ft.	664	692	28	0
	CS2- Surface rust, mainly along lower flanges. CS3- Rusting section loss at some embedded beam ends.						
515-Steel Protective Coating		12580	sq. ft.	0	11190	1350	40
	CS2- Some peeling. Faded areas. CS3- Surface rust, mainly along lower flanges. CS4- Some pcs failure.						
205-Reinforced Concrete Column	3 - Mod.	12	each	2	6	3	1
	CS2- P1C1- ~7 SF delam P1C2- ~4 SF delam P2C1- ~2 SF delam P2C2- ~10 SF delam P2C4- ~4 SF delam P2C6- ~4 SF delam CS3- P1C3- ~12 SF delam P1C6- ~15 SF delam, ~3 SF spall P2C3- ~14 SF delam, ~4 SF spall CS4- P2C5- ~8 SF delam, ~7 SF spalled with 4+ bars of rebar exposed						
521-Concrete Protective Coating		2260	sq. ft.	0	0	0	2260
	CS4- Not effective.						
215-Reinforced Concrete Abutment	3 - Mod.	138	ft.	83	41	14	0
	CS2- Leaching cracks. Evidence of water leaking thru construction joints with areas of efflorescence. Delams CS3- Spalls. Rust leaching cracks. Wide cracking.						
521-Concrete Protective Coating		276	sq. ft.	256	0	0	20
	CS4- Not effective.						
234-Reinforced Concrete Pier Cap	3 - Mod.	138	ft.	132	6	0	0
	CS2- Cracks.						
521-Concrete Protective Coating		1242	sq. ft.	0	0	0	1242
	CS4- Not effective.						
310-Elastomeric Bearing	3 - Mod.	18	each	0	18	0	0
	CS2- Surface rust to pier sole plates.						

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
312-Enclosed/Concealed Bearing	3 - Mod.	18	each	18	0	0	0
321-Reinforced Concrete Approach Slab	3 - Mod.	2200	sq. ft.	780	770	300	350
	CS2- Cracks and concrete patches. Moderate map cracking. CS3- Spalls. Wide cracking. CS4- Failed patches and concrete break up.						
331-Reinforced Concrete Bridge Railing	3 - Mod.	306	ft.	113	153	40	0
	CS2- Vertical & horizontal cracks. Some delams. CS3- Spalls along outside rails, some with exposed rebar.						
521-Concrete Protective Coating		2448	sq. ft.	0	0	0	2448
	CS4- Not effective.						
815-Drainage	3 - Mod.	6	each	6	0	0	0
	Heavy dirt build up along both railings.						
840-Approach Slab: Termination or Joint	3 - Mod.	138	ft.	118	20	0	0
	CS2- Cracks in asphalt.						

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Facility Carried: USR 422

ODOT District: District 12

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Date Built: 07/01/1971

Major Maint: 01 - State Highway Agency

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Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 01 - State Highway Agency

Feature Inters: SR 175(02.35)RICHMOND RD

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

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 80990 - WARRENSVILLE HTS (CUY county)

Location: DISTRICT 12

0.4 MI. EAST OF JCT I-271

Insp Resp B:

Inspector

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Inspection Date 03/28/2023

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Approach

Approach Wearing Surface

Cracks. Areas of asphalt break up and small pothole along forward slab.

Approach Guardrail

Spall to outside of rear-left concrete rail, both forward concrete rails have settled 1", rear-left & both forward concrete rails tip out as much as 2.5".

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frame

Surface rust, cracks & minor spalls to concrete diaphragms.

Fatigue

Welded cover plates at piers.

Utilities

Support cable for utility pole attached to P1C1.

Substructure

Slope Protection

Cracks, uneven settlement, rear slope has slid 2" & rear-left corner is undermined, forward slope has slid 3" & forward-left corner is slightly undermined/buckled, minor spalls, areas of vegetation growing thru CSP.

Culvert

Inspector Comments - Waterway

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Waterway Adequacy

Channel

Scour Critical

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Bridge Inspection Report

Pictures