

Inspector: Persanyi,Andrea
 Inspection Date: 10/31/2022

Structure Number: 1806874
 Facility Carried: IR 77

Bridge Inspection Report

Ohio Bridge Inspection Summary Report

CUY-00077-1562 (1806874)

2: District 16000 - CLEVELAND (CUY county)
 District 12

5A: Inventory Route 1 00077

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 IR 77
 6: Feature Ints E 22 ST
 9: Location 1.53 MI. N. OF JCT. SR-14
 Lat, Lon 41.492383 , -81.675578

Condition	Structure Type
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58: Deck **4 - Poor Condition**
 58.01 Wearing Surface 7 - Good (1% distress)
 58.02 Joint 6- Satisfactory (isolated leaking)
59: Superstructure **7 - Good Condition**
 59.01 Paint & PCS 6 - Satisfactory (5-10% 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 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

67.01 GA **6**

Appraisal	Inspection
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Sufficiency Rating 81.8 SD/FO 1 - SD
 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 07/01/2003
 423: WS Thick (in) 1.2
 482: Protective Coating 5 - Paint System OZEU
 483: PCS Date 01/01/1986
 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	Inspection
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48: Max Span Length (ft) 93.0
 49: Structure Length (ft) 210.0
 52: Deck Width, Out-To-Out (ft) 114.3
 424: Deck Area (sf) 24003
 32: Appr Roadway Width (ft) 110.0
 51: Road Width, Curb-Curb (ft) 110.3
 50A: Curb/SW Width: Left (ft) 0
 50A: Curb/SW Width: Right (ft) 0
 34: Skew (deg) 0
 33: Bridge Median 1 - Open median
 54B: Min Vert Underclearance (ft) 15.33
 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	Inspection
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27: Year Built/ 106 Rehab 1962 / 0000
 42A: Service On 1 - Highway
 42B: Service Under 1 - Highway, with or w/out pedestrian
 28A: Lanes on 06
 28B: Lanes Under 06
 19: Bypass Length 2
 29: ADT 59893
 109: % Trucks (%) 19

Load Posting	Inspection
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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

Inspections		
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		Months	
90: Routine Insp.		12	10/31/2022
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	

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734: Percent Legal (%) 130
704: Analysis Date 05/27/2020
63: Analysis Method 8 - Load and Resistance Factor Rating (LRFR) rating report by rating factor (RF) method using HL-93 loadings.

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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.	24014	sq. ft.	12007	7203	4372	432
CS2- Cracks, most leaching. CS3- Mottled areas. Spalls with exposed rebar, delams. Rear-left corner broken off. CS4- Spalls with 4+ consecutive bars of rebar exposed.							
805-Wearing Surface - Monolithic Concrete		23170	sq. ft.	21838	1158	150	24
CS2- Cracks. CS3- Small spalls near forward NB joint. Map cracking in SB berm. CS4- Asphalt patch in SB lane 2 along forward joint.							
107-Steel Open Girder/Beam	3 - Mod.	3360	ft.	3158	168	34	0
CS2- Areas of surface rust. CS3- Rusting section loss at beam ends.							
515-Steel Protective Coating		30512	sq. ft.	0	29507	975	30
CS2- Faded, chalking throughout. CS3- Areas of surface rust. Peeling and blistering paint. CS4- Small areas of PCS failure at beam ends.							
205-Reinforced Concrete Column	3 - Mod.	16	each	15	1	0	0
CS2- Delam on P2C8.							
215-Reinforced Concrete Abutment	3 - Mod.	229	ft.	162	45	17	5
CS2- Leaching cracks. CS3- Other spalls. Delams. Some delams & spalls to cheekwalls. CS4- Large spall with 4+consecutive rebar exposed at right end of rear abutment.							
234-Reinforced Concrete Pier Cap	3 - Mod.	229	ft.	207	22	0	0
CS2- A few delams.							
305-Assembly Joint without Seal	3 - Mod.	228	ft.	0	181	35	12
NOTE: No movement detected on top_ CS2- Gouges in armor throughout. Dirt, debris & asphalt in joint openings. CS3- Rusting section loss. Impact damage to rear riser bar in NB lane 1 with banging joint (in rear bay 10). Leaking in rear bays 10, 11 & 13. CS4- Missing riser bar in SB lane #2 at rear. Thru holes in curb plates.							
311-Movable Bearing	3 - Mod.	64	each	32	0	32	0
CS3- Surface rust to all & rusting section loss with pack rust to abutment bearings.							
321-Reinforced Concrete Approach Slab	3 - Mod.	5500	sq. ft.	5500	0	0	0
Paved over with asphalt							

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
331-Reinforced Concrete Bridge Railing	3 - Mod.	420	ft.	69	214	137	0
	CS2- Cracks. CS3- Spalls with exposed rebar. Delams. Collision damage to left steel rail.						
815-Drainage	3 - Mod.	8	each	0	2	6	0
	CS2- Partially plugged scuppers. CS3- Plugged scuppers. damaged grate at forward-right.						
830-Abutment Backwall	3 - Mod.	229	ft.	68	115	39	7
	NOTE: Hole thru to berm in rear median bay plugged with asphalt. CS2- Leaching & rust stained cracks. Backwall repair in rear bay 12. CS3- Large delams. Deep spalls with exposed rebar in rear bays 8, 14 & 15. Other spalls with exposed rebar. CS4- Spalls with 4+ bars of consecutive rebar exposed.						

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ODOT District: District 12

CUY-00077-1562 _(1806874)

Date Built: 07/01/1962

Major Maint: 01 - State Highway Agency

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Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 01 - State Highway Agency

Feature Inters: E 22 ST

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

Insp. 01 - State Highway Agency

FIPS Code: 16000 - CLEVELAND (CUY county)

Location: DISTRICT 12

1.53 MI. N. OF JCT. SR-14

Resp A:

Insp

Resp B:

Inspector

Persanyi,Andrea

Inspection Date 10/31/2022

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Floor

Spalls forming in bays 2 over the south pier/sidewalk and bay 7 over the south sidewalk. SOT- {EB#2- Bay 2,4,6}{WB#2- Bay 10,15}

Curbs/Sidewalk (LF)

Many cracks to right curb. Other cracks. Many spalls with exposed rebar & delams.

Approach

Approach Wearing Surface (EA)

Cracks & asphalt break up along exjts. Small asphalt patch in NB lane 1 at rear.

Approach Guardrail (EA)

Collision damage to forward-left guardrail. Spalls & delams to concrete approach railings.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames (EA)

Areas of surface rust & endframe rusting section loss. Rusting thru holes in rear bay 12 (nearly severed).

Fatigue (LF)

Welded cover plates at piers.

Utilities (LF)

Areas of disconnected conduit. Open utility box in bay 5 near P2 (span 2). Note: CPP wires attached to lower flanges over E. 22nd St. wires droop & reduce minimum vertical clearance over WB lane 3.

Substructure

Slope Protection (EA)

Top of concrete slope protection slightly undermined at rear-right.

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Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical