

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

Structure Number: 1806815
 Facility Carried: IR 77

Bridge Inspection Report

Ohio Bridge Inspection Summary Report

CUY-00077-1546 (1806815)

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 US-422 WB (CUY-422-0125)
 9: Location 1.37 MI. N. OF JCT. SR-14
 Lat, Lon 41.491742 , -81.672478

Condition

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

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

67.01 GA **5**

Appraisal

Sufficiency Rating 72.9 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

48: Max Span Length (ft) 93.0
 49: Structure Length (ft) 214.0
 52: Deck Width, Out-To-Out (ft) 114.3
 424: Deck Area (sf) 24460.2
 32: Appr Roadway Width (ft) 112.0
 51: Road Width, Curb-Curb (ft) 112.0
 50A: Curb/SW Width: Left (ft) 0
 50A: Curb/SW Width: Right (ft) 0
 34: Skew (deg) 56
 33: Bridge Median 1 - Open median
 54B: Min Vert Underclearance (ft) 15
 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 1962 / 0000
 42A: Service On 1 - Highway
 42B: Service Under 1 - Highway, with or w/out pedestrian
 28A: Lanes on 06
 28B: Lanes Under 02
 19: Bypass Length 1
 29: ADT 59893
 109: % Trucks (%) 19

Load Posting

41: Op/Post/Closed A - Open
 70: Posting 5 - Equal to or above legal loads
 70.01: Date
 70.02: Sign Type

Inspections

	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 (%) 145
704: Analysis Date 06/04/2020
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.	24468	sq. ft.	11701	8564	3953	250
CS2- Leached cracks CS3- leaching cracks with many stalactites. Many mottled areas, spalls & delams. CS4- Spalls with 4 bars of rebar exposed.							
805-Wearing Surface - Monolithic Concrete		23968	sq. ft.	23468	500	0	0
CS2- A few cracks. Large concrete patch to NB side near rear.							
107-Steel Open Girder/Beam	3 - Mod.	3424	ft.	2909	343	172	0
CS2- Areas of surface rust. Scrapes to lower flange of left fascia in span 2. CS3- Rusting section loss, mainly to beam ends & lower flanges.							
515-Steel Protective Coating		30512	sq. ft.	26887	3500	125	0
CS2- Chalking/faded. CS3- peeling paint. Areas of surface rust.							
205-Reinforced Concrete Column	3 - Mod.	24	each	24	0	0	0
215-Reinforced Concrete Abutment	3 - Mod.	409	ft.	240	143	24	2
CS2- Many cracks, some leaching. Rust stains. CS3- Delams. Spalls. CS4- Spall at rear-left undermining corner of masonry plate 1.							
234-Reinforced Concrete Pier Cap	3 - Mod.	409	ft.	385	20	4	0
CS2- Concrete patches. CS3- Delams under and near median joint.							
305-Assembly Joint without Seal	3 - Mod.	229	ft.	0	184	35	10
CS2- Gouges to deck armor. Areas of dirt, debris & asphalt in joint openings. CS3- Rusting section loss with. CS4- Rear riser bar disconnected in NB lane 3 - no movement detected at 2022 inspection. Areas of missing riser bar. Thru holes in all curb plates							
311-Movable Bearing	3 - Mod.	48	each	16	0	31	1
CS3- Surface rust. Heavy rust to abutment rockers. Keeper plate broken off of rear rocker 15. CS4- Loss of bearing under rear masonry plate 1 (see abutment comments).							
313-Fixed Bearing	3 - Mod.	16	each	16	0	0	0
321-Reinforced Concrete Approach Slab	3 - Mod.	5600	sq. ft.	5600	0	0	0
330-Metal Bridge Railing	3 - Mod.	428	ft.	22	192	214	0
CS2- Cracks. Minor collision damage to steel rail. CS3- delams & many spalls with exposed rebar to concrete parapets.							

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
815-Drainage	3 - Mod.	8	each	0	8	0	0
CS2- Partially plugged scuppers. Bent grate at rear-right. Dirt & debris in berms.							
830-Abutment Backwall	3 - Mod.	409	ft.	202	123	82	2
CS2- Leaching cracks.							
CS3- Delams. Deep spall with exposed rebar behind beam 14 at rear. Other spalls with exposed rebar, some large. Water, dirt & rust stains.							
CS4- Thru hole to surface in rear bay 11.							

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ODOT District: District 12

CUY-00077-1546 _(1806815)

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: US-422 WB (CUY-422-0125)

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

Insp. 01 - State Highway Agency

FIPS Code: 16000 - CLEVELAND (CUY county)

Location: DISTRICT 12

1.37 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

Spall forming over traffic in bay 10 over lane 3, lane #2 in Bay 3

Curbs/Sidewalk (LF)

Cracks. Many spalls with exposed rebar (nearly entire right curb spalled).

Approach

Approach Wearing Surface (EA)

A few cracks.

Approach Slab (SF)

Paved over with asphalt.

Approach Embankment (EA)

Minor erosion at forward-right.

Approach Guardrail (EA)

Cracks & spalls to concrete approach rails. Collision damage to rear-right & forward-right guardrails.

Signs (EA)

NB median bridge end marker missing.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames (EA)

Minor surface rust. Endframe rusting section loss.

Fatigue (LF)

Welded cover plates at piers. Possible crack to lower flange cover plate of beam 14 above P2.

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Substructure

Wingwalls (EA)

Cracks.

Slope Protection (EA)

Top surface of both abutment footings exposed in places. 6" vertical face of rear footing exposed under beam 8. Both rear drainage troughs breaking up.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical