

Inspector: Gerstenslager,Michael

Inspection Date: 08/22/2024

Structure Number: 1804650

Facility Carried: IR 71 SB

## Ohio Bridge Inspection Summary Report

**CUY-00071-1016L (1804650)**

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

5A: Inventory Route 1 00071

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 71 SB  
6: Feature Ints NSC,RTA91, AIRPT FRWY  
9: Location .17 MI. N. OF JCT. IR 480  
Lat, Lon 41.421914 ,-81.820108

Condition		Structure Type	
<b>58: Deck</b>	<b>7 - Good Condition</b>	43: Bridge Type	4 - Steel continuous
58.01 Wearing Surface	7 - Good (1% distress)		02 - Stringer/Multi-beam or Girder
58.02 Joint	6- Satisfactory (isolated leaking)		N- Not Applicable
<b>59: Superstructure</b>	<b>7 - Good Condition</b>	45: Spans Main / Approach	20 / 6
59.01 Paint & PCS	6 - Satisfactory (5-10% corr.)	107: Deck Type	1 - Concrete Cast-in-Place
<b>60: Substructure</b>	<b>7 - Good Condition</b>	408: Composite Deck	Y - Composite Construction
<b>61: Channel</b>	<b>N</b>	414A Joint Type 1	8 - Elastomeric Strip Seal
61.01 Scour	<b>N - Not Applicable</b>	414B: Joint Type 2	N - None
<b>62: Culverts</b>	<b>N - Not Applicable</b>	108A: Wearing Surface	1 - Monolithic Concrete (concurrently placed with structural deck)

67.01 GA 7

Appraisal		422: WS Date	06/30/2000
Sufficiency Rating	60.8 SD/FO 2 - FO	423: WS Thick (in)	1.0
36: Rail, Tr, Gd, Term Std	1 1 1 1	482: Protective Coating	9 - Paint System IZEU
72: Approach Alignment	8 - Equal to present desirable criteria	483: PCS Date	01/01/2000
113: Scour Critical	N - Not over waterway	453: Bearing Type 1	2 - Rockers & Bolsters
71: Waterway Adequacy	N - Not Applicable	455: Bearing Type 2	C - Elastomeric (laminated)

Geometric		528: Foundn: Abut Fwd	4 - Spread Footing (on soil)
48: Max Span Length (ft)	123.0	533: Foundn: Abut Rear	4 - Spread Footing (on Soil)
49: Structure Length (ft)	1382.5	536: Foundn: Pier 1	8 - Steel H Piles (HP 12 x 53)
52: Deck Width, Out-To-Out (ft)	42.0	539: Foundn: Pier 2	8 - Steel H Piles (HP 12 x 53)

Age and Service	
27: Year Built/ 106 Rehab	1969 / 2000
42A: Service On	1 - Highway
42B: Service Under	4 - Highway - railroad
28A: Lanes on	03
28B: Lanes Under	06
19: Bypass Length	2
29: ADT	41171
109: % Trucks (%)	3

Load Posting		Inspections	
41: Op/Post/Closed	A - Open	90: Routine Insp.	12 Months 08/22/2024
70: Posting 5 - Equal to or above legal loads		92A: FCM Insp.	Y 24 08/23/2024
70.01: Date		92B: Dive Insp.	N 0
70.02: Sign Type		92C: Special Insp.	N 0
734: Percent Legal (%)	146	92D: UBIT Insp.	N 0
704: Analysis Date	03/05/2024	92E: Drone Insp.	Y 24
63: Analysis Method	8 - Load and Resistance Factor Rating (LRFR) rating report by rating factor (RF) method using HL-93 loadings.	Inspector	Gerstenslager,Michael

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**Facility Carried:** IR 71 SB

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
<b>12-Reinforced Concrete Deck</b>	3 - Mod.	74703	sq. ft.	69583	5120	0	0
	CS2 - Cracks. Full-depth patch in bay 7 span 3. A few epoxy filled spalls scattered throughout.						
<b>805-Wearing Surface - Monolithic Concrete</b>		69301	sq. ft.	66049	3200	52	0
	CS2 - Cracks. Popouts long joint armor.  CS3 - A few, wide, transverse cracks to ramp over north tracks. Spall in mainline lane 2 over span 12. Some spalling along joint with mainline.						
<b>107-Steel Open Girder/Beam</b>	3 - Mod.	10120	ft.	10019	54	45	2
	Girders  CS2 - Surface rust & areas of minor rusting section loss. Gouge in lower flange of left girder near P8. Bent bearing stiffeners at seated hinges.  CS3 - Areas of heavy rusting section loss to some beam ends at abutments, near hinges & fascias.  CS4 - Small rusted through hole in web of beam 8, at hinge, in span 4. Rusted through hole in bearing stiffener on east face of beam 2, in span 12.  Through girders  Weld material fills cope holes at intersecting welds.  CS2 - Some surface rust. Areas of poor-quality welds throughout. Scrapes to bottom of P16 through girder. A few steel end plates are bowed. A few possible cracks near stiffeners, marked with no growth detected at 2024 NSTM inspection.  CS3 - Areas of section loss at base of some stiffeners & top of lower flanges that are not under the deck.						
<b>515-Steel Protective Coating</b>		105605	sq. ft.	99735	5280	550	40
	CS2 - Surface dulling.  CS3 - Cracked & peeling paint coats. Blistered paint with rust underneath.  CS4 - Unprotected steel.						

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
<b>300-Strip Seal Expansion Joint</b>	3 - Mod.	321	ft.	225	80	0	16
	CS2 - Sediment & debris in joints. Surface rust. Popouts to headers along joint armor.  CS4 - Strip seal of the hinge near P12 is torn causing water to leak onto the hinge below. Evidence of the free flow of water at rear abutment over left fascia & forward mainline in bays 3 & 4 from torn seal.						
<b>311-Movable Bearing</b>	3 - Mod.	98	each	77	12	9	0
	CS2 - Surface rust. Forward, mainline, bearing 3 is loose with some loss of bearing.  CS3 - P13 bearing 1 has a loose fastener. Some laminate rust to abutment bearings. Pack rust forming between rocker & masonry plate of rear abutment bearings and forward bearings 4 & 5.						
<b>313-Fixed Bearing</b>	3 - Mod.	25	each	8	17	0	0
	Fixed at P2, P5, P9, P17 & Ramp P3.  CS2 - Surface rust has initiated.						
<b>321-Reinforced Concrete Approach Slab</b>	3 - Mod.	3115	sq. ft.	2515	600	0	0
	Slight bounce onto bridge at ramp.  CS2 - Some scaling to rear-left. A few, full-length, longitudinal cracks.						
<b>331-Reinforced Concrete Bridge Railing</b>	3 - Mod.	3515	ft.	3145	310	50	10
	CS2 - Collision scrapes throughout & gouges on ramp parapets. Horizontal & vertical cracks. Cracks & delamination to light pole bases.  CS3 - Some wide cracks & spalls at rear-left. Wide, horizontal, leaching cracks with delamination to right parapet over northbound Berea Fwy.  CS4 - Areas of concrete deterioration with 360° exposed rebar to top of left parapet near forward.						
<b>521-Concrete Protective Coating</b>		28120	sq. ft.	27750	0	0	370
	CS4 - PCS is ineffective.						
<b>815-Drainage</b>	3 - Mod.	7	each	1	1	0	5
	CS2 - Sediment & debris along lowspeed berm of mainline.  CS4 - All 5 forward-left scuppers, on the ramp, are plugged.						
<b>820-Steel Seated-Hinge Assembly</b>	3 - Mod.	19	each	16	3	0	0
	CS2 - Areas of surface rust & minor rusting section loss.						
<b>830-Abutment Backwall</b>	3 - Mod.	128	ft.	78	50	0	0
	CS2 - Vertical cracks, some leaching.						
<b>521-Concrete Protective Coating</b>		640	sq. ft.	590	0	0	50
	CS4 - PCS is ineffective.						

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ODOT District: District 12

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Date Built: 07/01/1969

Major Maint: 01 - State Highway Agency

Facility Carried: IR 71 SB

Traffic On: 1 - Highway

Rehab Date: 06/30/2000

Routine Maint: 01 - State Highway Agency

Feature Inters: NSC,RTA91, AIRPT FRWY

Traffic Under: 4 - Highway - railroad

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 16000 - CLEVELAND (CUY county)

Location: DISTRICT 12

.17 Mi. N. OF JCT. IR 480

Insp  
Resp B:

Inspector

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Reviewer Seif,Youssef

## **Inspector Comments - Deck and Approach**

### **Deck**

### **Approach**

#### **Approach Wearing Surface**

Uneven pavemant, transverse cracks, potholes & asphalt patches to ramp approach. A few cracks to concrete approaches.

#### **Approach Guardrail**

Minor collision damage to forward-right guardrail, on ramp. Some scaling to forward-right concrete approach parapet.

#### **Signs**

No bridge end markers on ramp.

#### **Sign Supports**

Merge sign at junction of ramp & mainline.

## **Inspector Comments - General Appraisal**

### **Superstructure**

#### **Diaphragm/X-Frames**

A few bent angles. Areas of rusting section loss.

#### **Fatigue**

Welded moment plates at some piers, 6 on mainline, 3 on ramp.

#### **Utilities**

Rusting section loss to bridge lighting conduit. Under bridge lighting over railroad tracks is out, some have fallen down.

### **Substructure**

#### **Wingwalls**

Vertical, leaching cracks. A few small, shallow spalls.

### **Culvert**

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**Inspector Comments - Waterway**

**Waterway Adequacy**

**Channel**

**Scour Critical**