

Inspector: Miller,Jason

Inspection Date: 08/16/2024

Structure Number: 1805460

Facility Carried: W. 14TH ST

## Ohio Bridge Inspection Summary Report

**CUY-00071-1829 (1805460)**

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

5A: Inventory Route 1 18078

21: Major Maint A/B 01 - State Highway Agency /

7: Facility On W. 14TH ST

225 Routine Main A/B 04 - City or Municipal Highway /  
Agency

6: Feature Ints IR 71

221 Inspection A/B 01 - State Highway Agency /

9: Location .77 MI. N. OF JCT. US-42

220: Inv. Location DISTRICT 12

Lat, Lon 41.464646 , -81.694262

Condition		Structure Type	
58: Deck	5 - Fair Condition	43: Bridge Type	4 - Steel continuous
58.01 Wearing Surface	5 - Fair (10-15%, 2% asphalt patch)		02 - Stringer/Multi-beam or Girder
58.02 Joint	5- Fair (obvious leaking, 1" offset)		N- Not Applicable
59: Superstructure	5 - Fair Condition	45: Spans Main / Approach	7 / 0
59.01 Paint & PCS	4 - Poor PCS (15-20% corr.)	107: Deck Type	1 - Concrete Cast-in-Place
60: Substructure	6 - Satisfactory Condition	408: Composite Deck	N - Non-composite Construction
61: Channel	N	414A Joint Type 1	8 - Elastomeric Strip Seal
61.01 Scour	N - Not Applicable	414B: Joint Type 2	N - None
62: Culverts	N - Not Applicable	108A: Wearing Surface	1 - Monolithic Concrete (concurrently placed with structural deck)
			N- Not Applicable
67.01 GA	5		

Appraisal		422: WS Date	
Sufficiency Rating	83.2 SD/FO 2 - FO	423: WS Thick (in)	1.2
36: Rail, Tr, Gd, Term Std	1 1 1 0	482: Protective Coating	8 - Paint System A with intermediate tie coat
72: Approach Alignment	8 - Equal to present desirable criteria	483: PCS Date	10/01/1986
113: Scour Critical	N - Not over waterway	453: Bearing Type 1	2 - Rockers & Bolsters
71: Waterway Adequacy	N - Not Applicable	455: Bearing Type 2	N - None
Geometric		528: Foundn: Abut Fwd	1 - Steel H Piles (Other size)
48: Max Span Length (ft)	105	533: Foundn: Abut Rear	2 - Cast-in-Place reinforced Concrete Piles (Other diameter)
49: Structure Length (ft)	605	536: Foundn: Pier 1	2 - Cast-in-Place Reinforced Concrete Piles (Other diameter)
52: Deck Width, Out-To-Out (ft)	51.1	539: Foundn: Pier 2	N - None (Such as most Culverts)
424: Deck Area (sf)	30915.5		
32: Appr Roadway Width (ft)	49		
51: Road Width, Curb-Curb (ft)	49.1		
50A: Curb/SW Width: Left (ft)	5		
50A: Curb/SW Width: Right (ft)	2		
34: Skew (deg)	0		
33: Bridge Median	2 - Closed median (no barrier)		
54B: Min Vert Underclearance (ft)	15.19		
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	1968 / 0
42A: Service On	1 - Highway
42B: Service Under	1 - Highway, with or w/out pedestrian
28A: Lanes on	2
28B: Lanes Under	10
19: Bypass Length	1
29: ADT	6702
109: % Trucks (%)	5

Load Posting		Inspections	
41: Op/Post/Closed	A - Open	90: Routine Insp.	Months 12 08/16/2024
70: Posting	5 - Equal to or above legal loads	92A: FCM Insp.	N 0
70.01: Date		92B: Dive Insp.	N 0
70.02: Sign Type		92C: Special Insp.	N 0
734: Percent Legal (%)	150	92D: UBIT Insp.	N 0
704: Analysis Date	07/01/1973	92E: Drone Insp.	N 0
		Inspector	Miller,Jason

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

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
<b>12-Reinforced Concrete Deck</b>	3 - Mod.	30905	sq. ft.	21375	9000	450	80
	Timber subdeck over traffic.  CS2 - Transverse leaching cracks. Other cracks. Lightly mottled areas. Delams  CS3 - Spalls. Heavy mottled areas.  CS4 - Spalls with 4+ consecutive bars of rebar exposed.						
<b>805-Wearing Surface - Monolithic Concrete</b>		29695	sq. ft.	15845	13200	650	0
	CS2 - Many cracks. Areas of map cracks. Areas of longitudinal cracking < 1' spacing. Sound concrete patches.  CS3 - Some cracks as wide as 1/8th of an inch.						
<b>107-Steel Open Girder/Beam</b>	3 - Mod.	3630	ft.	3083	500	45	2
	CS2 - Scrapes to other lower flanges over 71 NB mainline lane #2. Surface rusting.  CS3 - Lower flange of right fascia is gouged & bent up over 71 NB mainline lane #2. Heavier section loss to some beam ends. Flange thickness on beam 4 at forward abutment is as thin as 1/4" over bearing (plans dimension 7/8").  CS4 - 8" x 3" thru hole to right rear fascia behind bearing stiffener. 3.5" x 3.5" thru hole to left forward fascia behind bearing.						
<b>515-Steel Protective Coating</b>		49913	sq. ft.	0	46963	2800	150
	CS2 - Surface dulling/ chalking throughout.  CS3 - Blistered paint. Peeling paint coats.  CS4 - Unprotected steel.						
<b>205-Reinforced Concrete Column</b>	3 - Mod.	24	each	16	2	6	0
	CS2- P3C1- 6 SF delam and 1 SF spall. P6C2- 8 SF delam.  CS3 - P1C2- 3 SF shallow spall with exposed rebar. P1C3- 6 SF shallow spall with exposed rebar. P1C4- 4 SF delam and 4 SF shallow spall with exposed rebar. P3C4- 9 SF delam and 2 SF spall. P3C2- 17 SF delam and cracking. P4C4- 6 SF spall with exposed rebar.						
<b>521-Concrete Protective Coating</b>		5652	sq. ft.	5492	0	0	160
	CS4 - Coating not effective. Rust stains to P5						
<b>215-Reinforced Concrete Abutment</b>	3 - Mod.	102	ft.	86	16	0	0
	CS2 - Some vertical cracks.						
<b>521-Concrete Protective Coating</b>		408	sq. ft.	360	0	0	48
	CS4 - Coating not effective. Rust stained.						
<b>234-Reinforced Concrete Pier Cap</b>	3 - Mod.	306	ft.	250	56	0	0
	CS2 - Vertical and other cracks. small delams.						
<b>521-Concrete Protective Coating</b>		3487	sq. ft.	3477	0	0	10
	CS4 - Coating not effective.						

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<b>300-Strip Seal Expansion Joint</b>	3 - Mod.	102	ft.	0	14	70	18
	<p>Construction affecting a portion of the rear joint at 23 inspection.</p> <p>CS2 - Evidence of leakage down forward backwall. Cracks to exjt headers. Debris in seals.</p> <p>CS3 - Spalls to Exjt headers. Areas of torn and partially pulled out seals to both. Areas of section loss.</p> <p>CS4 - Areas of torn and leaking seal. Asphalt patches to both headers.</p>						
<b>311-Movable Bearing</b>	3 - Mod.	42	each	22	10	10	0
	<p>CS2 - Some bearings at P5 and P6 with surface rust. P1 bearing 1 tipped inconsistent with conditions and nearing travel limit.</p> <p>CS3 - Most abutment bearings have section loss and pack rust forming between bearing and masonry plate.</p>						
<b>313-Fixed Bearing</b>	3 - Mod.	6	each	6	0	0	0
<b>321-Reinforced Concrete Approach Slab</b>	3 - Mod.	2450	sq. ft.	1740	600	100	10
	<p>Rear slab newly paved at 2024 inspection.</p> <p>CS2 - Paved over with scaling and distress thru out. Cracks. Hump at forward approach side.</p> <p>CS3- Wide cracks.</p> <p>CS4- Start of broken up asphalt.</p>						
<b>331-Reinforced Concrete Bridge Railing</b>	3 - Mod.	1210	ft.	440	720	50	0
	<p>Rusting section loss &amp; damage to some fence posts and hardware.</p> <p>CS2 - Many vertical &amp; horizontal leaching cracks. Delaminations.</p> <p>CS3 - Spalls. Wide cracks.</p>						
<b>521-Concrete Protective Coating</b>		7657	sq. ft.	5260	0	0	2397
	CS4 - Coating not effective. Heavily rust stained.						
<b>815-Drainage</b>	3 - Mod.	8	each	4	4	0	0
	<p>Two scuppers at rear have been intentionally plugged and have rubber extensions. Dirt and debris on left sidewalk and along left curb.</p> <p>CS2 - Rusting section loss to downspouts. Partially plugged scuppers.</p>						
<b>830-Abutment Backwall</b>	3 - Mod.	102	ft.	77	24	0	1
	<p>Tops of some beam ends into rear backwall.</p> <p>CS2 - Cracks, some leaching.</p> <p>CS3-</p> <p>CS4- Deep spall in bay 1 at rear that exposes curb above.</p>						
<b>521-Concrete Protective Coating</b>		408	sq. ft.	357	0	0	51
	CS4- Coating not effective. Rust stains.						

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ODOT District: District 12

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Date Built: 07/01/1968

Major Maint: 01 - State Highway Agency

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Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 04 - City or Municipal Highway  
Agency

Feature Inters: IR 71

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

Insp. 01 - State Highway Agency

FIPS Code: 16000 - CLEVELAND (CUY county)

Location: DISTRICT 12

.77 Mi. N. OF JCT. US-42

Insp  
Resp B:

Inspector

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Reviewer Seif,Youssef

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

### **Deck**

#### **Curbs/Sidewalk**

Cracks. Delams. Spalls, some with exposed rebar. Debris on left sidewalk.

#### **Bridge Median**

Concrete patches. Cracks. Spalls / crumbling concrete.

#### **Bridge Railing**

Spalls forming over traffic. South rail over 71 NB to W.14th exit ramp low speed berm. South rail over 176N to 90E ramp. North rail over ramp to 90/490 West from 176 North.

### **Approach**

#### **Approach Wearing Surface**

Cracks to asphalt at rear. Cracks to concrete at forward.

#### **Approach Guardrail**

Some post rot.

#### **Signs**

No bridge end markers.

## **Inspector Comments - General Appraisal**

### **Superstructure**

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

Rusting section loss. Bay 3 diagonal endframe rust severed to beam 4.

#### **Fatigue**

Small plates welded to tops of lower flanges and bottom of top flanges at some x-frames. Note: Possible cracks called out in previous reports can not be detected through the rust.

### **Substructure**

#### **Slope Protection**

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A few shallow ruts to forward slope.

**Culvert**

**Inspector Comments - Waterway**

**Waterway Adequacy**

**Channel**

**Scour Critical**

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**Pictures**