

Inspector: Gerstenslager,Michael

Inspection Date: 08/17/2023

Structure Number: 1808109

Facility Carried: ST CLAIR AVE NE(CR)

### Ohio Bridge Inspection Summary Report

**CUY-00090-1786 (1808109)**

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

5A: Inventory Route 1 00009

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

7: Facility On ST CLAIR AVE NE(CR)

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

6: Feature Ints IR-90 (ST. CLAIR)

221 Inspection A/B 01 - State Highway Agency /

9: Location .18 MI. E. OF JCT. US-6

220: Inv. Location DISTRICT 12

Lat, Lon 41.512164 , -81.673258

#### Condition

**58: Deck** **6 - Satisfactory 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 5 - Fair (10-15% corr.)

**60: Substructure** **7 - Good 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 4 / 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)  
 N- Not Applicable

67.01 GA 7

#### Appraisal

Sufficiency Rating 76.1 SD/FO 2 - FO

36: Rail, Tr, Gd, Term Std 1 N N N

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 01/01/2001

423: WS Thick (in) 2.5

482: Protective Coating 0 - Other Paint

483: PCS Date 01/01/1987

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) 71.0

49: Structure Length (ft) 250.0

52: Deck Width, Out-To-Out (ft) 79.1

424: Deck Area (sf) 19775

32: Appr Roadway Width (ft) 60.0

51: Road Width, Curb-Curb (ft) 60.0

50A: Curb/SW Width: Left (ft) 8

50A: Curb/SW Width: Right (ft) 8

34: Skew (deg) 18

33: Bridge Median 0 - No median

54B: Min Vert Underclearance (ft) 15.24

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 1959 / 0000

42A: Service On 1 - Highway

42B: Service Under 1 - Highway, with or w/out pedestrian

28A: Lanes on 06

28B: Lanes Under 08

19: Bypass Length 1

29: ADT 6788

109: % Trucks (%) 5

#### Load Posting

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

7 - Allowable Stress (AS) rating reported

#### Inspections

90: Routine Insp. 12 Months 08/17/2023

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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63: Analysis Method	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.	19315	sq. ft.	18040	1170	85	20
CS2 - Leached cracks. A few lightly mottled areas. CS3 - Some delams and spalls. Mottled areas at deck ends with rust stains . CS4 - 360° rebar exposure in bay 6 above rear abutment. 10 sf spall with 4 exposed rebar in bay 7 over Eastbound entrance ramp lane.							
805-Wearing Surface - Monolithic Concrete		14640	sq. ft.	13724	750	140	26
CS2 - Cracks. CS3 - Wide cracks. CS4 - 2 sf spall and asphalt patch in #1 EB lane near forward. 6 sf asphalt patch surrounded by 18 sf of unsound area near rear along center double yellow line.							
<b>107-Steel Open Girder/Beam</b>	3 - Mod.	2400	ft.	2200	125	75	0
CS2 - Areas of surface rust throughout. CS3 - Areas of section loss at beam ends in utility bays and to some lower flanges.							
515-Steel Protective Coating		25700	sq. ft.	0	24375	1200	125
CS2 - Surface dulling throughout. Fire damaged paint in right bay at forward abutment. Initiated surface rust. CS3 - Peeling coats. CS4 - Unprotected steel.							
<b>205-Reinforced Concrete Column</b>	3 - Mod.	18	each	18	0	0	0
CS1 - A few cracks to a few columns.							
521-Concrete Protective Coating		2592	sq. ft.	2592	0	0	0
<b>215-Reinforced Concrete Abutment</b>	3 - Mod.	166	ft.	146	20	0	0
Heavy dirt and debris on both seats. CS2 - Cracks, some leaching.							
521-Concrete Protective Coating		664	sq. ft.	604	0	0	60
CS4 - Coating not effective.							
<b>234-Reinforced Concrete Pier Cap</b>	3 - Mod.	267	ft.	72	193	2	0
CS2: All pier caps fiber wrapped except above columns. CS3 - Delams above P1C5.							
521-Concrete Protective Coating		3204	sq. ft.	3114	0	0	90
CS4 - Coating not effective.							

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<b>305-Assembly Joint without Seal</b>	3 - Mod.	134	ft.	79	45	5	5
<p>Spall under rear left curb plate exposes armor anchorage.</p> <p>CS2 - Cracks to exjt headers. Some areas of debris in joint. Gouges in both deck armors and areas of surface rust.</p> <p>CS3 - Pitting to deck armor at forward in lane 2 Westbound.</p> <p>CS4 - 2' of riser bar missing from forward joint in EB lane #2. Rusting thru holes as large as 3" in both rear curb plates. Deep spall to header at rear right fully exposes riser bar.</p>							
<b>311-Movable Bearing</b>	3 - Mod.	40	each	0	20	20	0
<p>CS2 - Surface rust.</p> <p>CS3 - Heavy pack rust forming between rocker and masonry plate at abutments. Most rockers are engulfed in debris. Section loss.</p>							
<b>313-Fixed Bearing</b>	3 - Mod.	10	each	8	2	0	0
<p>CS2 - Surface rust to fascia bearings.</p>							
<b>321-Reinforced Concrete Approach Slab</b>	3 - Mod.	1800	sq. ft.	1723	75	2	0
<p>Paved over.</p> <p>CS2 - A few cracks in asphalt.</p> <p>CS3 - Asphalt patch at rear in right lane E/B.</p>							
<b>331-Reinforced Concrete Bridge Railing</b>	3 - Mod.	480	ft.	423	55	0	2
<p>CS2 - Cracks, some leaching. Areas of map cracking. A few shallow spalls.</p> <p>CS4 - 1/2" wide thru crack in right railing near rear ExJt.</p>							
<b>521-Concrete Protective Coating</b>		2716	sq. ft.	2446	0	0	270
<p>CS4 - Coating not effective.</p>							
<b>815-Drainage</b>	3 - Mod.	4	each	4	0	0	0
<p>Downspouts at P3 are slightly misaligned relative to the scuppers. Bottom of downspout at P3C2 is buried.</p>							
<b>830-Abutment Backwall</b>	3 - Mod.	166	ft.	101	35	30	0
<p>Hole thru to surface in rear bay 1. Plywood forms at forward bay 3.</p> <p>CS2 - Cracks.</p> <p>CS3 - Spalls (most with exposed rebar) in rear bays 8 &amp; 9 and forward bays 1, 5 - 9. Delams.</p>							
<b>521-Concrete Protective Coating</b>		664	sq. ft.	598	0	0	66
<p>CS4 - Coating not effective.</p>							

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ODOT District: District 12

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Date Built: 07/01/1959

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-90 (ST. CLAIR)

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

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 16000 - CLEVELAND (CUY county)

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Insp Resp B:

Inspector

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Reviewer Seif,Youssef

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

### **Deck**

**Inspection Note:** East is rear.

**Wearing Surface:** Note zone on bridge taking lane 1 in both directions near East end for sewer work.

### **Floor/Slab**

Spalls forming over traffic - Over EB: bays 1, 2 and 8 over lane #3, bay 4 over lane #2, bays 5, 6, 7 and 8 over entrance ramp lane. Over WB in bay 8 over lane #4 and Bay 2, Lane 3 over utilities.

### **Curbs/Sidewalk**

Transverse cracks, concrete patches, shallow spalls, a few delams. Breaking up area at forward-left. 4 of 6 utility cover plates missing in sidewalks which have filled with dirt & vegetation.

### **Approach**

#### **Approach Wearing Surface**

Few cracks.

#### **Approach Embankment**

Minor erosion at rear left and forward right, partially obscured by vegetation

#### **Approach Guardrail**

Forward-left concrete approach parapet is cracked & spalled at ExJt. two thru cracks in rear right approach parapet.

#### **Signs**

No bridge end markers.

## **Inspector Comments - General Appraisal**

### **Superstructure**

#### **Beams/Girders**

Uncoped intersecting welds above piers. Utility support beams welded to girder web. Split web welds at P1 & P3.

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

End frame rusting section loss with thru holes in forward bays 1, 2 & 7 and rear bay 1.

#### **Fatigue**

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Welded moment plates at piers.

## **Utilities**

Some steel bands that hold bank of 6 conduits on wood supports have broken. The conduits have shifted and have separated in bay 2 over EB & WB traffic. Exposed wires in conduit at PIC1. Ring hanging from utility line in bay 1 at forward abutment.

## **Substructure**

### **Wingwalls**

Spall to rear-right wingwall.

### **Slope Protection**

Cracks, uneven settlement, bottom of forward slope protection has partially collapsed.

## **Culvert**

## **Inspector Comments - Waterway**

### **Waterway Adequacy**

### **Channel**

### **Scour Critical**

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**Pictures**