

Inspector: Banaszak, Ken  
 Inspection Date: 09/29/2022

Structure Number: 1807730  
 Facility Carried: DETROIT RD - SR254

Bridge Inspection Report

**Ohio Bridge Inspection Summary Report**

**CUY-00002-0597 (1807730)**

2: District 68056 - ROCKY RIVER (CUY county)  
 District 12

5A: Inventory Route 1 00002

21: Major Maint A/B 01 - State Highway Agency /  
 225 Routine Main A/B 04 - City or Municipal Highway /  
 Agency  
 221 Inspection A/B 01 - State Highway Agency /  
 220: Inv. Location DISTRICT 12

7: Facility On DETROIT RD - SR254  
 6: Feature Ints IR-90(CUY-90-0595)  
 9: Location IR90 AND JCT SR254  
 Lat, Lon 41.472528 , -81.857206

Condition	Structure Type
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**58: Deck**                      **5 - Fair Condition**  
 58.01 Wearing Surface      6 - Satisfactory (1-10% distress)  
 58.02 Joint                    4- Poor (heavy leaking, offset)  
**59: Superstructure**        **7 - Good Condition**  
 59.01 Paint & PCS            5 - Fair (10-15% corr.)  
**60: Substructure**            **4 - Poor 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)  
     1- Super Plasticized

67.01 GA                      4

Appraisal
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Sufficiency Rating            45.6                    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                    07/01/1993  
 423: WS Thick (in)            2.0  
 482: Protective Coating      5 - Paint System OZEU  
 483: PCS Date                    09/22/2000  
 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
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48: Max Span Length (ft)      94.0  
 49: Structure Length (ft)      249.0  
 52: Deck Width, Out-To-Out (ft)    68.0  
 424: Deck Area (sf)            16932  
 32: Appr Roadway Width (ft)      54.0  
 51: Road Width, Curb-Curb (ft)    54.0  
 50A: Curb/SW Width: Left (ft)      6  
 50A: Curb/SW Width: Right (ft)    6  
 34: Skew (deg)                    45  
 33: Bridge Median                0 - No median  
 54B: Min Vert Underclearance (ft)    14.51  
 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
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27: Year Built/ 106 Rehab    1977                    /    0000  
 42A: Service On                5 - Highway-pedestrian  
 42B: Service Under            1 - Highway, with or w/out pedestrian  
 28A: Lanes on                    04  
 28B: Lanes Under                06  
 19: Bypass Length                3  
 29: ADT                            9734  
 109: % Trucks (%)                4

Load Posting
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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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90: Routine Insp.	<i>Months</i>	12      09/29/2022
92A: FCM Insp.	N	0
92B: Dive Insp.	N	0
92C: Special Insp.	N	0
92D: UBIT Insp.	N	0

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734: Percent Legal (%) 150

704: Analysis Date 08/11/2020

63: Analysis Method 8 - Load and Resistance Factor Rating (LRFR) rating report by rating factor (RF) method using HL-93 loadings.

92E: Drone Insp. N 0

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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.	16932	sq. ft.	11194	4230	1500	8
	CS 2 - Cracks. CS 3 - Delams, spalls (mostly over WB traffic). Rear-right corner spalled off. Wide cracks. CS 4 - Two spalls in span 2 with 4 or more rebar exposed.						
<b>510-Wearing Surfaces</b>		13446	sq. ft.	11796	1575	75	0
	CS 2 - A few shallow spalls. Map cracks and other cracks. CS 3 - Some wide cracking.						
<b>107-Steel Open Girder/Beam</b>	3 - Mod.	1944	ft.	1829	100	15	0
	CS 2 - Scrapes & gouges as deep as 1/2" and drilled out crack to right fascia over EB lane 3. Other scrapes to beam 7 over EB lane 3. CS 3 - Isolated areas of moderate rusted section loss.						
<b>515-Steel Protective Coating</b>		23134	sq. ft.	11534	10000	1260	340
	CS 2 - Chalking, faded. CS 3 - Peeling & blistering paint, surface rust. CS 4 - Fire damage at forward abutment, left fascia.						
<b>205-Reinforced Concrete Column</b>	3 - Mod.	10	each	2	2	3	3
	CS 2 - Cracking. CS 3 - Smaller delams, moderate map cracking, and failing patchwork. CS 4 - P2:C2, 4+ continuous rebars exposed. P2:C3, 4+ continuous rebar strands exposed. P1:C5, Severe and deep delaminations beginning to spall in excess of 15 SqFt.						
<b>215-Reinforced Concrete Abutment</b>	3 - Mod.	192	ft.	176	10	6	0
	CS 2 - Cracks. Some scaling. CS 3 - Spall/delaminated area at rear.						
<b>234-Reinforced Concrete Pier Cap</b>	3 - Mod.	180	ft.	130	10	40	0
	CS 2 - Diagonal crack to left cantilever and other wide cracks to top of cap. CS 3 - Crack as deep as 3" and 1" wide on South face of P1 above C5, large delam with shear-type crack to right cantilever of P1. Large delams on P2 cap.						
<b>305-Assembly Joint without Seal</b>	3 - Mod.	136	ft.	0	91	10	35
	CS 2 - Areas of tar and debris in joints. Some minor rusting. CS 3 - Gouges to armor. CS 4 - Areas of header spalled out and asphalt patched. Rusting thru holes as large as 2" x 24" to all four sidewalk cover plates.						

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<b>311-Movable Bearing</b>	3 - Mod.	24	each	0	8	16	0
CS 2 - Minor pack rust between most masonry plates & rockers at abutment. CS 3 - Pack rust to abutment rockers.							
<b>313-Fixed Bearing</b>	3 - Mod.	8	each	0	8	0	0
CS 2 - All have surface rust.							
<b>321-Reinforced Concrete Approach Slab</b>	3 - Mod.	2700	sq. ft.	2160	450	60	30
CS 2 - Other cracks. CS 3 - Cracks as wide as 1/2" at rear. CS 4 - Asphalt patches.							
<b>331-Reinforced Concrete Bridge Railing</b>	3 - Mod.	588	ft.	373	215	0	0
CS 2 - Cracks. Rust stains. CS 3 - Spalls & delams.							
<b>815-Drainage</b>	3 - Mod.	12	each	0	7	5	0
CS 2 - Partially plugged scuppers. CS 3 - Scuppers beginning to plug.							
<b>830-Abutment Backwall</b>	3 - Mod.	192	ft.	171	15	6	0
CS 2 - Leached cracks. CS 3 - Large spall in rear bay 5. Delams. Other spalls.							

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ODOT District: District 12

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Date Built: 07/01/1977

Major Maint: 01 - State Highway Agency

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Traffic On: 5 - Highway-pedestrian

Rehab Date:

Routine Maint: 04 - City or Municipal Highway

Feature Inters: IR-90(CUY-90-0595)

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

Insp. 01 - State Highway Agency

FIPS Code: 68056 - ROCKY RIVER (CUY county)

Location: DISTRICT 12

IR90 AND JCT SR254

Resp A:

Insp

Resp B:

Inspector

Banaszak, Ken

Inspection Date

09/29/2022

Reviewer Seif, Youssef

## Inspector Comments - Deck and Approach

### Deck

#### Floor/Slab (SF)

Spalls over Westbound traffic in bay 1 over lane 1, bay 7 over high speed berm and bay 4 over lane 2. Spalls over Eastbound traffic in bay 7 over lane 3 and bay 4 over lane 2 and bay 6 over lane 2.

#### Curbs/Sidewalk (LF)

Cracks. Concrete patches. Scaling. Delams. Spall with exposed rebar to left curb near forward. Other spalls.

### Approach

#### Approach Wearing Surface (EA)

A few sealed cracks.

#### Approach Guardrail (EA)

Some rusting through holes to rails. Post rot.

#### Signs (EA)

No bridge end markers.

## Inspector Comments - General Appraisal

### Superstructure

#### Superstructure Alignment (EA)

Right fascia bent 1" east over EB traffic (at old collision damage).

#### Diaphragm/X-Frames (EA)

Rusted section loss with rusted thru holes in forward bays 1 & 7 and rear bay 7. Collision damage to horizontal angle in bay 7 over EB lane 3.

#### Utilities (LF)

Some disconnected conduits in bays 6. Some broken straps. Disconnected junction box laying on P2 in bay 1. Rusting section loss to hardware. Under bridge lighting at rear abutment is missing 1 lamp & another is hanging from wire.

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## **Fencing**

Bent post to left rail over WB lane 1. Broken post to right rail over WB low speed berm. Fence posts at forward right removed by accident damage.

## **Substructure**

### **Slope Protection (EA)**

Slight uneven settlement at forward.

## **Culvert**

## **Inspector Comments - Waterway**

### **Waterway Adequacy**

## **Channel**

## **Scour Critical**

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**Pictures**