

Inspector: Gerstenslager,Michael

Inspection Date: 07/25/2023

Structure Number: 1811967

Facility Carried: SNOW RD CR-87

Ohio Bridge Inspection Summary Report

CUY-00291-0299 (1811967)

2: District 09288 - BROOK PARK (CUY county)
ict
12

5A: Inventory Route 1 18072

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

7: Facility On SNOW RD CR-87

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

6: Feature Ints SR-291 & CSX RR

221 Inspection A/B 01 - State Highway Agency /

9: Location 0.25 MI. WEST OF I-71

220: Inv. Location DISTRICT 12

Lat, Lon 41.402972 ,-81.82524

Condition

58: Deck **5 - Fair Condition**
 58.01 Wearing Surface 5 - Fair (10-15%, 2% asphalt patch)
 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 **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
 07 - Frame (except frame culverts)
 N- Not Applicable

45: Spans Main / Approach 7 / 0

107: Deck Type 1 - Concrete Cast-in-Place

408: Composite Deck X - Not Applicable

414A Joint Type 1 3 - Compression Seal

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 71.1 SD/FO 0 - ND

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

72: Approach Alignment 6 - Equal to present minimum criteria

113: Scour Critical N - Not over waterway

71: Waterway Adequacy N - Not Applicable

422: WS Date 01/01/2001

423: WS Thick (in) 2.0

482: Protective Coating 5 - Paint System OZEU

483: PCS Date 01/01/2002

453: Bearing Type 1 2 - Rockers & Bolsters

455: Bearing Type 2 B - Fixed

528: Foundn: Abut Fwd 4 - Spread Footing (on soil)

533: Foundn: Abut Rear 4 - Spread Footing (on Soil)

536: Foundn: Pier 1 0 - Other

539: Foundn: Pier 2 N - None (Such as most Culverts)

Geometric

48: Max Span Length (ft) 137.0

49: Structure Length (ft) 878.0

52: Deck Width, Out-To-Out (ft) 64.0

424: Deck Area (sf) 56192

32: Appr Roadway Width (ft) 54.0

51: Road Width, Curb-Curb (ft) 54.0

50A: Curb/SW Width: Left (ft) 4

50A: Curb/SW Width: Right (ft) 4

34: Skew (deg) 35

33: Bridge Median 0 - No median

54B: Min Vert Underclearance (ft) 20.84

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 / 0000

42A: Service On 1 - Highway

42B: Service Under 4 - Highway - railroad

28A: Lanes on 04

28B: Lanes Under 02

19: Bypass Length 0

29: ADT 28403

109: % Trucks (%) 7

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 03/18/2022

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

Inspections

	Months	
90: Routine Insp.	12	07/25/2023
92A: FCM Insp.	N 0	
92B: Dive Insp.	N 0	
92C: Special Insp.	N 12	
92D: UBIT Insp.	N 24	
92E: Drone Insp.	Y 24	07/11/2023

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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.	56188	sq. ft.	51723	3250	1075	140
<p>CS2- Cracks, some leaching . Areas of moderate pattern map cracking in bays 2-5 north of tracks and up to Engle Rd. Some wet or mottled areas. Delaminations near hangers and downspouts.</p> <p>CS3- Spalls many near hangers and around drainage downspouts. Area at forward with heavy mottling, leaching and rust staining. Matches failed wearing surface on top. Deck edge spalled off at forward-right corner.</p> <p>CS4- Spalling with 4+ consecutive rebar exposed with section loss. Along expansion joint over RR tracks.</p>							
510-Wearing Surfaces		47412	sq. ft.	22542	22400	2400	70
<p>CS2- Longitudinal & transverse cracks. Minor spalls. Areas of scaling. Concrete patches.</p> <p>CS3- Some spalling. Heavy pattern map cracking. 1/8" wide cracks surrounded by wet spots.</p> <p>CS4- Asphalt patches. Cracks as wide as 3/4" at hinge 1 in eastbound lane 1 and 2. Wearing surface completely spalled off in Lane 2 EB near mid span.</p>							
107-Steel Open Girder/Beam	3 - Mod.	8332	ft.	8234	85	13	0
<p>TQ includes length of beam plus length of bents until bearings, taken from plans.</p> <p>CS2- Some minor pitted section loss.</p> <p>CS3- As much as 1/8" section loss to rear beams 3,4,5,6,7.</p>							
515-Steel Protective Coating		72858	sq. ft.	35998	36725	120	15
<p>CS2- Surface rust in spots. Some fading. Surface dulling</p> <p>CS3- Peeling of paint at some beam ends, bearings and around hanger locations.</p> <p>CS4- Rust to bear metal.</p>							
205-Reinforced Concrete Column	3 - Mod.	42	each	41	1	0	0
<p>CS2- P2C1- 2 SF spall.</p>							
521-Concrete Protective Coating		1344	sq. ft.	1336	0	0	8
<p>CS4- Coating not effective.</p>							
215-Reinforced Concrete Abutment	3 - Mod.	156	ft.	135	14	7	0
<p>CS2- Cracks, some leaching. Minor delams.</p> <p>CS3- Spall and delam to FWD right. Other small delams.</p>							
521-Concrete Protective Coating		780	sq. ft.	702	0	0	78
<p>CS4- Coating not effective.</p>							
302-Compression Joint Seal	3 - Mod.	312	ft.	0	219	55	38
<p>CS2- Minor popouts to header. Debris in joint.</p> <p>CS3- Areas of rusting section loss to armor. Deep gouges / damage to hinge #2 armor in EB & WB lanes. Other minor gouges. Pop outs.</p> <p>CS4- Areas of missing seal at hinge #1 in Eb lane #2, near centerline of hinge #2 & at both sidewalk joints of hinge #2. Asphalt patches to headers, especially at hinge 1.</p>							

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311-Movable Bearing	3 - Mod.	56	each	35	19	2	0
CS2- Most abutment bearings have surface rust. CS3- A couple rear abutment bearings have pack rust and section loss.							
321-Reinforced Concrete Approach Slab	3 - Mod.	2700	sq. ft.	480	2000	100	120
CS2- Longitudinal cracks, some leaching. Map cracks. CS3- Large broken up concrete areas at rear. Heavy map cracking at rear. Wide transverse crack in rear. CS4- Asphalt patches.							
331-Reinforced Concrete Bridge Railing	3 - Mod.	1756	ft.	913	800	43	0
CS2- Many cracks, some with rust stains, some leaching. Cracks along top face of rail. Delams. CS3- Spalls.							
521-Concrete Protective Coating		7024	sq. ft.	6300	0	0	724
CS4- Coating not effective.							
815-Drainage	3 - Mod.	35	each	18	0	10	7
CS3- Partially plugged scuppers CS4- 7 scuppers fully clogged with vegetation growing out of them.							
820-Steel Seated-Hinge Assembly	3 - Mod.	14	each	9	5	0	0
CS2- Start of heavy rusting around hangers. Note: Expansion hinge is the West, fixed is East.							
830-Abutment Backwall	3 - Mod.	156	ft.	123	27	6	0
CS2- Cracks, some leaching. CS3- Spall to rear right and left. Minor delams and other small spalls.							
521-Concrete Protective Coating		624	sq. ft.	576	0	0	48
CS4- Coating not effective.							

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ODOT District: District 12

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Date Built: 07/01/1968

Major Maint: 01 - State Highway Agency

Facility Carried: SNOW RD CR-87

Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 04 - City or Municipal Highway Agency

Feature Inters: SR-291 & CSX RR

Traffic Under: 4 - Highway - railroad

Insp. Resp A: 01 - State Highway Agency

FIPS Code: 09288 - BROOK PARK (CUY county)

Location: DISTRICT 12

0.25 MI. WEST OF I-71

Insp
Resp B:

Inspector

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Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Floor/Slab

Spalls over traffic.

Over Five Points Rd: Bay 1 and 2, north edge of deck over lane 2.

Over SR-291(Engle Road): South Rail check all lanes, but especially over NB #1/2 lane line. Deck Edge under South Rail, Lanes 2 and 3. Bay 1 over Southbound low speed curb. North Rail over all lanes.

Curbs/Sidewalk

Cracks. Minor spalls. Concrete patches. Breaking up area to right at forward joint.

Railing

Some post damage. Areas of section loss to fence hardware. Some post connections are rust severed.

Approach

Approach Pavement

Some cracks.

Approach Guardrail

Broken spacer #5 at forward-left. Collision damage at rear-left with 3 missing spacers.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames

Rusted section loss. 2 rusted thru holes & 2 un-blunted cracks in west diaphragm of west hinge in bay 3, grew by 1" at 2021 drone inspection, No growth at 2023 drone inspection, last marked 2001. Warped lower flanges of diaphragms in forward abutment bays 3 & 4. Drilled out cracks in webs at forward abutment & in several diaphragms near west hinge. Small rusted through hole at forward in bay 3.

Pins/Hangers/Hinges

Rusting section loss.

Fatigue

Welded cover plate ends in positive moment areas (some have missing welds at nose of plate). Base

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metal at net section of eyebar head (pin hangers). Longitudinal stiffener with uncoped ends. Old & new channels for drainage welded to areas of webs in positive moment areas.

Utilities

Damaged utility conduit on left rail at hinge #2.

Substructure

Wingwalls

Cracks, some leaching.

Slope Protection

Cracks. Some uneven settlement, mainly at rear-left. Some under mining to areas.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical