

Inspector: Lentz,Stephanie

Inspection Date: 11/06/2025

Structure Number: 3106802

Facility Carried: NB IR 71

Ohio Bridge Inspection Summary Report

HAM-00071-0248R (3106802)

B.L.04: District District 0815000 - CINCINNATI (HAM county)

B.CL.02: Major Maint 01 - State Highway Agency /

225 Routine Main A/B 01 - State Highway Agency /

221 Inspection A/B 01 - State Highway Agency /

5A: Inventory Route 1 00071

7: Facility On NB IR 71

6: Feature Ints EDEN PRK ENT;FLORENC AVE

9: Location .2 MI N OF US 42

Lat, Lon 39.116089 ,-84.499839

Condition

B.C.01: Deck 6

58.01: Wearing Surface 7

B.C.08: Joint 5

B.C.02: Superstructure 6

59.01: Paint & PCS 7

B.C.03: Substructure 7

B.C.09: Channel N

B.C.11: Scour N

B.C.10: Channel Prot. N

B.C.05: Bridge Railing 7

B.C.06: Transitions 7

B.C.07: Bearings 7

B.C.04: Culverts N

Ohio GA 6

Appraisal

B.AP.03: Scour Vul. Not over Waterway

Geometric

48: Max Span Length (ft) 134.0

49: Structure Length (ft) 1158.0

52: Deck Width, Out-To-Out (ft) 82.4

424: Deck Area (sf) 95419.2

32: Appr Roadway Width (ft) 78.0

51: Road Width, Curb-Curb (ft) 78.0

50A: Curb/SW Width: Left (ft) 0

50A: Curb/SW Width: Right (ft) 0

34: Skew (deg) 0

33: Bridge Median 0 - No median

54B: Min Vert Underclearance (ft) 15

336A: Min Vert Clrnce IR Cardinal (ft) 99

336B: Min V Clr IR Non-Cardinal (ft) 0

578: Culvert Length (ft) 0

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 07/23/2024

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

Structure Type

43: Bridge Type 3 - Steel

03 - Girder and Floorbeam System

N- Not Applicable

45: Spans Main / Approach 13 / 0

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

408: Composite Deck U - Unknown

414A Joint Type 1 8 - Elastomeric Strip Seal

414B: Joint Type 2 N - None

108A: Wearing Surface 3 - Latex Concrete or similar additive

N - Not Applicable

422: WS Date 06/30/1996

423: WS Thick (in) 1.7

482: Protective Coating 5 - Paint System OZEU

483: PCS Date 07/01/2011

453: Bearing Type 1 2 - Rockers & Bolsters

455: Bearing Type 2 N - None

528: Foundn: Abut Fwd 1 - Steel H Piles (Other size)

533: Foundn: Abut Rear 1 - Steel H Piles (Other Size)

536: Foundn: Pier 1 1 - Steel H Piles (Other size)

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

Age and Service

27: Year Built/ 106 Rehab 1970 / 0000

42A: Service On 1 - Highway

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

28A: Lanes on 04

28B: Lanes Under 06

19: Bypass Length 0

29: ADT 49038

109: % Trucks (%) 14

Inspections

B.IE.03 Routine Insp. 12 Months 11/06/2025

B.IE.03: NSTM Insp. Y 24 06/21/2025

B.IE.03: UW Insp. 0

B.IE.03: Special Insp.

UBIT Insp. N 0

Drone Insp. N 0

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[illegible]

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ODOT District: District 08

HAM-00071-0248R_(3106802)

Date Built: 07/01/1970

Major Maint: 01 - State Highway Agency

Facility Carried: NB IR 71

Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 01 - State Highway Agency

Feature Inters: EDEN PRK ENT;FLORENC
AVE

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

Insp. 01 - State Highway Agency

FIPS Code: 15000 - CINCINNATI (HAM county)

Location: DISTRICT 08

.2 MI N OF US 42

Insp
Resp B:

Inspector

Lentz,Stephanie

Inspection Date 11/06/2025

Reviewer Collett,Brandon

Inspector Comments - Deck and Approach

Deck, Wearing Surface, Joints, Railing

Floor/Slab

Spans 1-10, areas of through cracks (map), with efflor, stalactites up to 8"l and dampness, some with rust stains, and some mottling. Sound full depth patches. Transverse cracks, some with efflor to edges. A few areas of unconsolidated concrete to floor. Spall left edge, at top of steel floor beam and at right rear deck end. Fire dmage 1545sf. span 1, right rear. Several delams and spalls with resteel exposed at intermediate joints. Random areas of spalls/delams throughout.

Previous Notes; Deck hydro-demo in 2018, few full depth repairs, need to monitor existing areas of efflor and cracking (should dry up). Past 2017 notes: Hairline transverse cracks, with efflorescence, spaced at 4'-18', less than 5% saturation. (Note from 2017 was moved from CS3 to CS2 because of the rehab):

Bridge Wearing Surface

Surface has been milled leaving low areas with light tining. Areas of hairline transverse cracking mainly in fast lane but also visible in right lanes, wider cracks north and south of second intermediate joint., 5' to 10 spacing. Shallow spalling in tining in randoms areas thru out surface.

Bridge Railing

Vertical cracks, most with efflorescence, 2' to 3' spacing. Left rear railing back side has delams/spalls, resteel exposed. A few sealed spalls at rt railing. Areas of 2' to 3' lengths of map cracking at vertical joints.

Deck Drainage

Plugged left side and right side. Right rear downspout clogged.

Expansion Joint

HL cracks to slab headers rear and fwd. Leakage in several bays at rear and fwd. abutments and tears in glands at intermediate joints above piers 4 and 8.

Approach

Approach Wearing Surface

Milled for smooth transition. Small potholes along both rear and fwd., slabs with map cracking, most potholes have been patched.

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Approach Slab

Small concrete and asphalt piles left in right rear and fwd. shoulders along concrete rail. Small spalls/delams along pavement joints. Few short HL longitudinal cracks.

Approach Embankment

Previous run off from pier 4 downspout has been corrected with placement of RCP. Span 6, left concrete protection has a 24'l by 2"w crack and erosion undermining concrete protection at column 1.

Approach Guardrail

Inspector Comments - General Appraisal

Superstructure, Bearings

Beams/Girders

Old and new loss of section to lower webs and bottom flanges at piers #4 and #8 and fwd. abutment; pier #4 ends with 1/2" steel plates welded to webs for repairs; out of plane bending cracks retrofitted in 2011 by drilling relief holes (spans 9-13). Beam 12 by rear abut, 1' of lt side of bottom flange cut off for downspout installation. Perf in fwd. stiffener at beam 1.

NSTM Comments for Steel Pier Conditions:

Pier Cap 9: There was no change in the 1 1/2" long crack and the 2 3/4" long crack in the fillet weld between the south web stiffener between the east bearing and the Gider J diaphragm and do not reach the end of the weld. Previously reported 2023 crack extension was not observed after removing paint.

Pier Cap 12: During the 2025 inspection paint was removed at the bottom of knee brace fillet welds of the south web below Girder J to verify extent of potential crack propagation. Upon removing the paint, cracked weld indications were observed on the surface of weld material and no crack propagation was observed (Photos 51 & 52). Monitor this area for activity during future inspections.

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Diaphragm/X-Frames

Piers 4 and 8 intermediate expansion joint end frames have old loss of section to most angles. Corrosion visible on end frames at abutments and under intermediate joints. A few small perforations to bottom horizontal angles. Few end frames at piers 8 with slight distortion from pack rust.

Bearings Devices

Abutment bearings and few bearings under steel caps with light corrosion, some pitting. Spherical pier bearings have minor surface rust.

Protective Coating System

Random areas of light to moderate corrosion to interior and exterior surfaces of floor-beams and along top flanges of beams. Fire damage to several beams in span 1. Up to 2% rust/corrosion throughout.

2025 NSTM Inspection Comments for PCS of Steel Pier Caps

Pier 9: The exterior paint is in GOOD CONDITION [7] with active corrosion on the top flange ends and minor pitting on the top of the bottom flange on both ends.

Pier 10: The interior paint is in VERY GOOD CONDITION [8]. The exterior paint is in GOOD CONDITION [7]. Moderate pitting was also noticed on the west end plate around the access hatch.

Pier 11: The interior paint is in VERY GOOD CONDITION [8]. The exterior paint is in VERY GOOD CONDITION [8].

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Pier Cap 12: The interior paint is in VERY GOOD CONDITION [8]. On the north and south face, there is active corrosion and staining noted along the top flange adjacent to Girder J.

Substructure

Abutment Walls

Minor vertical cracks in rustification grooves. Few horizontal and diagonal in fwd. abutment. Heat from previous fire popped grouted top of right rear abutment and exposed aggregate below. Large delam, right rear. Left rear cracking with seepage/efflor at corner. Fwd. abutment has horizontal crack with rust staining and map cracking extending from bay 2 to 3. Bay 8 has a 4'L delam and delam in bay 9.

Concrete Pier Caps

HL vertical cracks in caps. Spalls/delams in bottom and north face of pier 4 and in bottom of pier 8. Delam in cap, P5.

Steel Pier Caps

2025 NSTM Inspection Performed by Gannett Fleming (See attached report)

Pier Cap 9: Pier Cap 9 is in GOOD CONDITION [7] overall. The condition rating has been raised in 2019 due to the designed repairs being constructed in 2017 returning the condition close to the original condition. Previously noted cracks were removed and dog bone crack arrest holes installed as specified in the repair plans in the appendix below.

Pier Cap 10: Pier Cap 10 is in GOOD CONDITION [7] overall (Photo 17). The condition rating was raised in 2019 due to the designed repairs being constructed in 2017 returning the condition close to the original condition.

Pier Cap 11: Pier Cap 11 is in GOOD CONDITION [7] overall. At the time of the inspection the cap was free from moisture.

Pier Cap 12: Pier Cap 12 is in GOOD CONDITION [7] overall (Photo 41). The interior of the cap was dry at the time of inspection.

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Pier Columns/Bents

Few vertical cracks. A few delam/spall with resteel exposed on pier 4 column 1; pier 10, column 1 has spall with steel exposed and spall bottom of col 2.

Backwalls

Few vertical cracks. Small spall fwd., bay 6. Map cracking to right rear BW with efflor.

Wingwalls

Left rear WW has diagonal cracks/map cracks with efflor.

Slope Protection

Erosion from downspout, pier 4, corrected with RCP. Pier 6, column 1 slope protection undermined at 1.5"+ crack. Pier 3 column 2 slope protection undermined.

Culvert

Inspector Comments - Waterway

Channel Protection

Channel

Scour

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Pictures