

Ohio Bridge Inspection Summary Report

CUY-00017-1350 (1802437)

2: District 12 09274 - BROOKLYN HEIGHTS (CUY county)
 21: Major Maint A/B 01 - State Highway Agency /
 225 Routine Main A/B 01 - State Highway Agency /
 221 Inspection A/B 01 - State Highway Agency /
 220: Inv. Location CUY

5A: Inventory Route 1 C0097
 7: Facility On SCHAAF RD CR-97
 6: Feature Ints SR-17 GRANGER RD
 9: Location APPROX 4000FT W I-77

Condition

58: Deck **5 - Fair Condition**
 58.01 Wearing Surface 6 - Satisfactory (1-10% distress)
 58.02 Joint 4- Poor (heavy leaking, offset)
59: Superstructure **5 - Fair Condition**
 59.01 Paint & PCS 4 - Poor PCS (15-20% corr.)
60: Substructure **4 - Poor Condition**
61: Channel **N**
61.01 Scour **N - Not Applicable**
62: Culverts **N - Not Applicable**

67.01 GA **4**

Appraisal

Sufficiency Rating 55.0 SD/FO 1 - SD
 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

Geometric

48: Max Span Length (ft) 94.0
 49: Structure Length (ft) 320.0
 52: Deck Width, Out-To-Out (ft) 39.0
 424: Deck Area (sf) 12480
 32: Appr Roadway Width (ft) 39.0
 51: Road Width, Curb-Curb (ft) 30.0
 50A: Curb/SW Width: Left (ft) 4.5
 50A: Curb/SW Width: Right (ft) 4.5
 34: Skew (deg) 57
 33: Bridge Median 3 - Closed median with non-mountable barriers
 54B: Min Vert Underclearance (ft) 14.5
 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 07/01/1973
 63: Analysis Method 7 - Allowable Stress (AS) rating reported by rating factor (RF) method using MS18 loading.

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 U - Unknown
 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

422: WS Date 07/01/1991
 423: WS Thick (in) 3.0
 482: Protective Coating 4 - Paint System B
 483: PCS Date 01/01/1983
 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 4 - Spread Footing
 539: Foundn: Pier 2 0 - Other

Age and Service

27: Year Built/ 106 Rehab 1957 / 0000
 42A: Service On 5 - Highway-pedestrian
 42B: Service Under 1 - Highway, with or w/out pedestrian
 28A: Lanes on 02
 28B: Lanes Under 04
 19: Bypass Length 0
 29: ADT 3769
 109: % Trucks (%) 5

Inspections

90: Routine Insp. ^{Months} 12 01/13/2021
 92A: FCM Insp. N
 92B: Dive Insp. N
 92C: Special Insp. N
 92D: UBIT Insp. N
 92E: Drone Insp.
 Inspector Gerstenslager,Michael

Inspector: Michael Gerstenslager

Structure Number: 1802437

Inspection Date: 01/13/2021

Facility Carried: SCHAAF RD CR-97

Bridge Inspection Report

Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	3 - Mod.	13120	sq. ft.	11541	1100	245	234
510 - Wearing Surfaces		9600	sq. ft.	7900	1700	0	0
107 - Steel Open Girder/Beam	3 - Mod.	1600	ft.	1495	45	60	0
515 - Steel Protective Coating		18560	sq. ft.	0	17435	750	375
205 - Reinforced Concrete Column	3 - Mod.	15	each	11	2	2	0
215 - Reinforced Concrete Abutment	3 - Mod.	286	ft.	260	26	0	0
234 - Reinforced Concrete Pier Cap	3 - Mod.	215	ft.	180	20	15	0
305 - Assembly Joint without Seal	3 - Mod.	78	ft.	56	15	7	0
311 - Movable Bearing	3 - Mod.	20	each	14	3	3	0
313 - Fixed Bearing	3 - Mod.	5	each	5	0	0	0
321 - Reinforced Concrete Approach Slab	3 - Mod.	1950	sq. ft.	1930	20	0	0
331 - Reinforced Concrete Bridge Railing	3 - Mod.	640	ft.	610	30	0	0
815 - Drainage	3 - Mod.	6	each	0	5	0	1
830 - Abutment Backwall	3 - Mod.	286	ft.	274	10	2	0

ODOT District: 12

CUY-00017-1350_(1802437)

Date Built: 07/01/1957

Major Maint: 01 - State Highway Agency

Facility Carried: SCHAAF RD CR-97

Traffic On: 5 - Highway-pedestrian

Rehab Date:

Routine Maint: 01 - State Highway Agency

Feature Inters: SR-17 GRANGER RD

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

Insp: 01 - State Highway Agency

FIPS Code: 09274 - BROOKLYN HEIGHTS (CUY county)

Location: CUY

APPROX 4000FT W I-77

Resp A:

Insp

Resp B:

Inspector

Gerstenslager,Michael

Inspection Date 01/13/2021

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Floor/Slab (SF)

Approx 425 sf of spalls with exposed rebar, mainly in bays 1 & 4. Transverse cracks, some leaching. Large delams. Mottled areas. Three full depth repairs. Spalls forming over EB traffic in bay 1 over center line, and bay 2 over lane 2.

Edge of Floor/Slab (LF)

Spalls & delams, mainly near abutments.

Bridge Wearing Surface (SF)

Cracking throughout. Minor delams.

Curbs/Sidewalk (LF)

Transverse cracks. Areas of scaling. Concrete patches. Rust stains, delams & spalls, mainly to right curb.

Bridge Railing (LF)

Cracks, some leaching. A few spalls & delams. Minor collision damage to fence fabric at forward-left.

Deck Drainage (EA)

Disconnected downspout in rear bay 4 (causing erosion in slope). Heavy rusting section loss with some through holes to drainage hoppers & mounting brackets. Areas of debris in bulb angles along wearing surface.

Expansion Joint (LF)

Rusting section loss. Gouges to deck armor. Small rusting through hole in forward deck armor near center line. Several rusting through holes as long as 23" to all 4 sidewalk cover plates & some curb plates.

Approach

Approach Wearing Surface (EA)

Many cracks, some sealed.

Approach Slab (SF)

A few cracks as wide as 1/8".

Approach Embankment (EA)

Approx 2" of settlement to forward-left approach walk.

Approach Guardrail (EA)

Minor collision damage at forward-right. Post rot.

Signs (EA)

No bridge end marker at forward-left.

Inspector Comments - General Appraisal

Superstructure

Beams/Girders (LF)

Areas of heavy rusting section loss. Pack rust scalloped lower flanges. Lower flange of girder 4 bent up 1/2" over EB lane 2. Scrapes to lower flanges of beams 4 & 5 over EB lanes.

Diaphragm/X-Frames (EA)

Endframe rusting section loss, some heavy. Endframes completely rust severed in bays 1 & 4 at both abutments. Broken gusset plate weld to forward endframe 1.

Bearing Devices (EA)

Areas of rusting section loss & pack rust.

Protective Coating System (LF)

Rust with active pack rust. PCS failing at beam ends. Chalking. Peeling paint.

Substructure

Abutment Walls (LF)

Cracks. A few delams. Concrete deterioration in rear bays 1 & 2. Areas of scaling.

Pier Caps (LF)

Through crack with spalls & delams in diaphragm between columns 1 & 2 of P1. Deep spalling with exposed rebar in P2 & P3 diaphragms between columns 1 & 2 and columns 4 & 5.

Pier Columns/Bents (EA)

Delams. Spalls with exposed rebar as large as 20 sf to P2C5, P3C2 & C5.

Backwalls (LF)

Cracks, some leaching. A few spalls.

Wingwalls (EA)

Cracks.

Slope Protection (EA)

Both slopes have slid. Rear abutment undermined as much as 27" over a length of 7.5' below bay 1 with a 24" deep erosion rut down the slope. Other areas of erosion below rear bays 2 & 4. Forward abutment undermined as much as 20" below bay 4. Erosion ruts as deep as 36" below forward bays 1, 2 & 4.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical