

Ohio Bridge Inspection Summary Report

LAK-00090-0711 (4303962)

2: District 85484 - WILLOUGHBY (LAK county)
 12

5A: Inventory Route 1 M0616

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 KIRTLAND RD
 6: Feature Ints IR 90
 9: Location .7 MI W SR 306
 Lat, Lon 41.636447 , -81.383572

Condition	Structure Type
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58: Deck **6 - Satisfactory Condition**
 58.01 Wearing Surface 7 - Good (1% distress)
 58.02 Joint 6- Satisfactory (isolated leaking)
59: Superstructure **6 - Satisfactory Condition**
 59.01 Paint & PCS 6 - Satisfactory (5-10% corr.)
60: Substructure **7 - Good 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 6 / 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 **6**

Appraisal

Sufficiency Rating 82.0 SD/FO 0 - ND
 36: Rail, Tr, Gd, Term Std 1 0 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 08/31/2005
 423: WS Thick (in) 1.2
 482: Protective Coating 5 - Paint System OZEU
 483: PCS Date 10/21/2001
 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 3 - Drilled Shafts
 539: Foundn: Pier 2 1 - Steel H Piles (Other size)

Geometric

48: Max Span Length (ft) 77.0
 49: Structure Length (ft) 433.0
 52: Deck Width, Out-To-Out (ft) 37.3
 424: Deck Area (sf) 16150.9
 32: Appr Roadway Width (ft) 30.0
 51: Road Width, Curb-Curb (ft) 30.0
 50A: Curb/SW Width: Left (ft) 0
 50A: Curb/SW Width: Right (ft) 0
 34: Skew (deg) 23
 33: Bridge Median 0 - No median
 54B: Min Vert Underclearance (ft) 17.14
 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 1960 / 0000
 42A: Service On 1 - Highway
 42B: Service Under 1 - Highway, with or w/out pedestrian
 28A: Lanes on 02
 28B: Lanes Under 04
 19: Bypass Length 1
 29: ADT 8815
 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
 63: Analysis Method 6 - Load Factor (LF) rating reported by rating factor (RF) method using MS18 loading.

Inspections

90: Routine Insp.	<i>Months</i>	12 12/04/2021
92A: FCM Insp.	N	0
92B: Dive Insp.	N	0
92C: Special Insp.	N	
92D: UBIT Insp.	N	0
92E: Drone Insp.		
Inspector	Persanyi,Andrea	

Inspector: Andrea Persanyi
 Inspection Date: 12/04/2021

Structure Number: 4303962
 Facility Carried: KIRTLAND RD

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.	15601	sq. ft.	7321	7500	780	0
	Deck sits on rear-right & forward-left cheekwalls. CS2 - Cracks, some leaching, some stalactites .Mottled areas (appear dry). Edge of floor cracks. CS3 - Haunch spalls.						
805 - Wearing Surface - Monolithic Concrete		13001	sq. ft.	12871	130	0	0
	CS2 - A few cracks. Two small concrete patches at forward-right.						
107 - Steel Open Girder/Beam	3 - Mod.	2164	ft.	1258	856	50	0
	CS2 - Surface rust. CS3 - Rusting section loss near beam ends and at the outside lower flanges of fascia beams.						
515 - Steel Protective Coating		19260	sq. ft.	15330	2800	1100	30
	CS2 - Faded/dulling paint. Initiated surface rust. CS3 - Peeling/bubbling paint with rust underneath. CS4 - Unprotected steel.						
205 - Reinforced Concrete Column	3 - Mod.	15	each	12	3	0	0
	Cracks. Rust stains. Delams <1sf on a few columns. Patches. Peeling sealer. CS2 - P1C1=2 SF spall with collision scrapes. P2C2=3 sf delam and cracks. P5C2=3 sf delam and cracks.						
215 - Reinforced Concrete Abutment	3 - Mod.	80	ft.	64	15	1	0
	Rust stained. CS2 - Some cracks, mostly vertical. CS3 - Spall under weephole near rear beam 1.						
234 - Reinforced Concrete Pier Cap	3 - Mod.	177	ft.	157	20	0	0
	CS2 - A few cracks.						
305 - Assembly Joint without Seal	3 - Mod.	64	ft.	42	16	6	0
	CS2 - Areas of surface rust. Areas of debris in joint. Cracks in ExJt header. CS3 - A few gouges to rear armor. Few areas of rusting section loss. Crack in forward armor in SB lane (no movement detected). Delam to rear ExJt header in NB lane.						

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311 - Movable Bearing	3 - Mod.	30	each	0	20	10	0
rear rockers & forward rocker #5 partially engulfed in debris. CS2 - Surface rusting. CS3 - Rusting section loss with pack rust forming between rear masonry plates and rockers.							
313 - Fixed Bearing	3 - Mod.	5	each	5	0	0	0
CS2 -							
321 - Reinforced Concrete Approach Slab	3 - Mod.	1500	sq. ft.	1193	275	32	0
NB bounce onto bridge. Paved over. CS2 - Cracks, some sealed. CS3 - Pothole at rear in NB lane. Asphalt patches to rear approach slab. Areas of asphalt break up at rear.							
331 - Reinforced Concrete Bridge Railing	3 - Mod.	866	ft.	631	225	10	0
Some missing/cracked nuts of aluminum rail post anchor bolts. One left aluminum rail post & one aluminum rail tube in span 1 and two right aluminum rail posts over median are damaged with one right post broken off. Section of left fence missing over rear slope. CS2 - Cracks, some rust stained. CS3 - Spalls, some with exposed rebar. Delaminations.							
815 - Drainage	3 - Mod.	22	each	0	22	0	0
CS2 - Rusted thru holes in lower ends of some downspouts. Partially plugged scuppers.							
830 - Abutment Backwall	3 - Mod.	64	ft.	14	20	30	0
rust stained. CS2 - Cracks. CS3 - Small spalls along top near exjt.							

ODOT District: District 12

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Date Built: 07/01/1960

Major Maint: 01 - State Highway Agency

Facility Carried: KIRTLAND RD

Traffic On: 1 - Highway

Rehab Date:

Routine Maint: 04 - City or Municipal Highway Agency

Feature Inters: IR 90

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

Insp: 01 - State Highway Agency

FIPS Code: 85484 - WILLOUGHBY (LAK county)

Location: DISTRICT 12

.7 MI W SR 306

Resp A:

Insp

Resp B:

Inspector

Persanyi,Andrea

Inspection Date 12/04/2021

Reviewer Seif,Youssef

Inspector Comments - Deck and Approach

Deck

Curbs/Sidewalk

Cracks, delams, rust stains, concrete patches, scaling.

Approach

Approach Wearing Surface

Cracks, some sealed, asphalt patches along rear ExJt header.

Approach Embankment

Erosion to forward-left embankment (grown over by trees & grass). Both rear approach railings are about 1" higher than bridge railings.

Approach Guardrail

Post rot at forward. Minor collision damage to both rear guardrail. Forward right guardrail is rust severed from post #5. Note: No guardrail transitions.

Signs

No bridge end markers.

Inspector Comments - General Appraisal

Superstructure

Diaphragm/X-Frames

Rusting section loss. Rusted through hole to forward endframe #4 at right fascia.

Fatigue

Welded moment plates at piers.

Utilities

Areas of disconnected conduit. Heavy deterioration to bay 1 utility support angle over rear slope, water drips onto slope here and lane line between 1 and 2 of EB.

Substructure

Wingwalls / Cheekwalls

Rear right cheekwall spalled off. Few leaching cracks to wing walls and cheek walls.

Slope Protection

Up to 10" of rear abutment footer exposed for almost entire length.

Culvert

Inspector Comments - Waterway

Waterway Adequacy

Channel

Scour Critical