Inspection Date: 09/21/2023 Facility Carried: SR 84 Ohio Bridge Inspection Summary Report 12 LAK-0 2: DistricDistr 85484 - WILLOUGHBY (LAK county) ict 12 5A: Inventory Route 1 21: Major Maint A/B 01 - State Highway Agency 7: Facility On SR 84 225 Routine Main A/B 04 - City or Municipal Highway 6: Feature Ints CHAGRIN R Agency 221 Inspection A/B 01 - State Highway Agency 9: Location 0.5 MI E SR: 220: Inv. Location DISTRICT 12 Lat, Lon 41:630103 Condition Strue Strue 6: Feature Ints CHAGRIN R Agency 38: Deck 5 - Fair Condition 43: Bridge Type 6 - Pres 58: 01 Wearing Surface 5 - Fair (Choious leaking, 1° offset) N - Not Applicable 107: Deck Type 6 - Satisfactory 61: Channel 6 61414A Joint Type 1 61 61: Channel 6 61: Channel 6 Sufficiency Rating 79.7 SD/FO 0 - ND 43: Protective Coating 43: Protective Coati	0084-0633 (4302915) 00084 . 1.81 MI W 306 174 ,-81.400317 cture Type tressed concrete continuous < Beam or Girders - Multiple Applicable n 3 / 0 I - Concrete Cast-in-Place V - Non-composite Construction 3 - Compression Seal V - None
Ohio Bridge Inspection Summary Report LAK-0 2: DistricDistr 85484 - WILLOUGHBY (LAK county) ict 5A: Inventory Route 1 12 12 7: Facility On SR 84 25: Routine Main A/B 01 - State Highway Agency 7: Facility On SR 84 225 Routine Main A/B 01 - State Highway Agency 7: Facility On SR 84 221 Inspection A/B 01 - State Highway Agency 9: Location 0.5 MI E SR: 220: Inv. Location DISTRICT 12 Lat, Lon 41.630103 Condition Stru 43: Bridge Type 6 - Pres 58.01 Wearing Surface 5 - Fair Condition 43: Bridge Type 6 - Pres 58.01 Wearing Surface 5 - Fair Condition 43: Bridge Type 6 - Pres 59: Superstructure 5 - Fair Condition 45: Spans Main / Approac 59. Obstructure 6 - Satisfactory 414A Joint Type 1 56.01 Na; Wearing Surface 6 61: Channel 6 6 414A Joint Type 1 43: Protective Coating 1 43	0084-0633 (4302915) 00084 . 1.81 MI W 306 174 ,-81.400317 Cture Type tressed concrete continuous < Beam or Girders - Multiple Applicable n 3 / 0 I - Concrete Cast-in-Place N - Non-composite Construction 3 - Compression Seal N - None
2: DistricDistr 85484 - WILLOUGHBY (LAK county) 5A: Inventory Route 1 12 12 21: Major Maint A/B 01 - State Highway Agency 7: Facility On SR 84 225 Routine Main A/B 04 - City or Municipal Highway 6: Feature Ints CHAGRIN R 221 Inspection A/B 01 - State Highway Agency 9: Location 0.5 MI E SR 220: Inv. Location DISTRICT 12 Lat, Lon 41.630103 Condition Stru State Highway Agency 9: Location 0.5 MI E SR 220: Inv. Location DISTRICT 12 Lat, Lon 41.630103 Condition Stru Stru Stru Stru Stru Stru Structure 5 - Fair Condition 43: Bridge Type 6 - Pres Superstructure 5 - Fair Condition 45: Spans Main / Approac 60: Substructure 6 - Satisfactory Condition 408: Composite Deck 1 61: Ota Structure 6 - Satisfacto	00084 . 1.81 MI W 306 174
11: Major Maint A/B01 - State Highway Agency/7: Facility OnSR 84225 Routine Main A/B04 - City or Municipal Highway/6: Feature IntsCHAGRIN R221 Inspection A/B01 - State Highway Agency/9: Location0.5 MI E SR:220: Inv. LocationDISTRICT 12Lat, Lon41.630103StructS - Fair ConditionStructure5 - Fair Condition43: Bridge Type6 - Pres58.01 Wearing Surface5 - Fair (10-15%, 2% asphalt patch)05 - Bo.58.02 Joint5 - Fair Condition45: Spans Main / Approac59.01 Paint & PCSN - Not Applicable107: Deck Type60: Substructure6 - Satisfactory Condition408: Composite Deck61: Channel6414A Joint Type 161: Channel6414A Joint Type 267: Ol GA51Sufficiency Rating79.7SD/FO 0 - ND36: Rail, Tr, Gd, Term Std1113: Scour Critical5 - Scour within limits of footing or piles71: Waterway Adequacy6 - Occasional Overtopping of Approach72: Approach Alignment6 - Equal to present minimum criteria73: Structure Length (ft)64.074: Deck Area (sf)776077: Year Built/ 106 Rehab72: Appr Roadway Width (tft)40.072: Appr Roadway Width (tft)40.074: Deck Area (sf)776077: Year Built/ 106 Rehab70: Curb/SW Widt	. 1.81 MI W 306 174 ,-81.400317 cture Type tressed concrete continuous < Beam or Girders - Multiple Applicable n 3 / 0 I - Concrete Cast-in-Place N - Non-composite Construction 3 - Compression Seal N - None
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34: Skew (deg)1028B: Lanes Under33: Bridge Median0 - No median19: Bypass Length54B: Min Vert Underclearance (ft)029: ADT336A: Min Vert CIrnce IR Cardinal (ft)99109: % Trucks (%)336B: Min V CIr IR Non-Cardinal (ft)0Inspective578: Culvert Length (ft)0Inspective	1931 / 1984 1 - Highway 5 - Waterway 02 00 2 7042 2 ections
	Months
Load Posting90: Routine Insp.41: Op/Post/ClosedA - Open92A: FCM Insp.N70: Posting 5 - Equal to or above legal loads92B: Dive Insp.N70.01: Date92D: UBIT Insp.N70.02: Sign Type92D: UBIT Insp.N734: Percent Legal (%)15092E: Drone Insp.N704: Analysis Date07/01/1995Inspector Ropelewski,R63: Analysis Method6 - Load Factor (LF) rating reported by rating factor (RF) method using MS18 loading.Inspector Ropelewski,R	0 0 0 0 0 0 0

Inspector:	Ropelewski, Robert	Structure Number:	4302915
Inspection Date:	09/21/2023	Facility Carried:	SR 84

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4	
15-Prestressed Concrete Top Flange	3 - Mod.	7761	sq. ft.	7284	0	477	0	
_	See EL #104.							
510-Wearing Surfaces		6494	sq. ft.	0	5244	1250	0	
	 Water leaking thru box beam joints. CS2 - Many cracks. Asphalt wearing surface over 5 years old. CS3 - Asphalt spalling off right edge over drip strip. Areas of asphalt break up thru out. Wide cracks over box beam joints. Asphalt patches, potholes. 							
104-Prestressed Concrete Closed Web/Box Girder	3 - Mod.	1910	ft.	1133	300	477	0	
	CS2 - Lightly mottled areas.							
	CS3 - Leaking joints with efflorescence & rust stains in all spans. Numerous wet, mottled areas thru out. Spall/delam locations on box beams: span 1 = beam 3 and beam 10 near P1, span 2= beam 6, span 3 = beam 3 near mid-span (with one broken exposed strand), beam 4 rust stained delamination, beam 6 at P2, beam 7 two locations near mid-span. Fascia beams 1 and 10 spalled at grout plug over P1. Delams & spalls (with rebar/stirrup exposure) along top edge of right fascia box beam.							
210-Reinforced Concrete Pier Wall	all 3 - Mod. 76 ft. 56 15 5 0							
	CS2 - Cracks. Scaling, heavier at waterline. Concrete patches. Rust stains, efflorescence and moisture. A few delams. CS3 - A few spalls. A few wide vertical cracks to both.							
215-Reinforced Concrete Abutment	3 - Mod.	80	ft.	32	36	10	2	
	 CS2 - Leaching cracks. Rust stains, efflorescence and moisture. Concrete patches. Honeycombed areas. Minor delams. CS3 - Rust stained cracks. Spall to forward-right near top. CS4- Void with exposed 360° rehar in rear abutment below right beam. 							
234-Reinforced Concrete Pier Cap	3 - Mod.	80	ft.	62	18	0	0	
	CS2 - Cracks.							
302-Compression Joint Seal	3 - Mod.	80	ft.	20	30	10	20	
	 CS2 - Cracks to ExJt headers. Areas of surface rust and shallow section loss. Few light gouges. Minor shallow spalls. CS3 - Areas of pushed up & torn seals to both. CS4 - Joint leaks to most of rear and minor spots to forward. 							
310-Elastomeric Bearing	3 - Mod.	120	each	119	1	0	0	
	CS2 - Bearing p	oad has shi	fted und	ler left fascia	box beam at	forward abut	tment.	
321-Reinforced Concrete Approach Slab	3 - Mod.	1700	sq. ft.	1700	0	0	0	
	Paved over.							

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
330-Metal Bridge Railing	3 - Mod.	382	ft.	0	257	45	80
	 CS2 - Bolts missing on right rail posts 12-14 and left rail post 7 (holes in railing do not line up with holes in posts). Collision damage thru out. Galvanization has lost effectiveness throughout. CS3 - A few spalls at right rail post anchors, some with section loss to rail anchor bolts. CS4 - Many rusting thru holes in right rail. 						
815-Drainage	3 - Mod. 2 each 1 0 1						0
	CS3 - Areas of right edge.	bent or loos	e drip s	trips. Severa	al sections of	drip strips mi	issing from

Inspec	tor:	Ropelews	ski, Robert			Stru	cture Nu	mber:	4302915		
Inspec	tion Date:	09/21/20)23			Faci	lity Carrie	ed:	SR 84		
ODOT District:	District 12		L	.AK-00	084	-0633 _	_(4302	915)		Date Built:	07/01/1931
Major Maint:	01 - State Highway Age	ency	Facility Carried:	SR 84			Traffic On:	1 - Highwa	у	Rehab Date	01/01/1984 e:
Routine Maint:	04 - City or Municipal H Agency	lighway	Feature Inters:	CHAGRIN F	R. 1.81 M	I W 306	Traffic Under:	5 - Waterw	ray	Insp. 0 Resp A:	01 - State Highway Agency
FIPS Code:	85484 - WILLOUGHBY	(LAK county)		Location:	DISTRIC	T 12	0.5 MI E	SR174		Insp Bosp B:	
	Inspecto	or Rope	elewski,Robert	Inspection	n Date	09/21/2023	I	Reviewer S	eif,Youssef	Resp B.	

Inspector Comments - Deck and Approach

Deck

Curbs/Sidewalk

Transverse cracks, some leaching and rust stained. Many shallow spalls, some with exposed rebar. Some delams.

Approach

Approach Wearing Surface

Approach Embankment

Cantilevered portion of forward-right wingwall is undermined as deep as 36". Both left approach walks have been ramped with asphalt.

Approach Guardrail

Minor collision damage thru out with several missing spacers at rear right and one at rear left. Some post rot throughout. Rusted thru holes at rear right. Galvanization losing effectiveness.

Signs

No bridge end markers.

Inspector Comments - General Appraisal

Superstructure

Substructure

Wingwalls

Many leaching cracks, rust stains, 10 sf of spalls with exposed rebar at forward-right. Both forward wingwalls are thru cracked. 2023 QAR sticker FWD right

Substructure Scour

3' deep scour holes at both piers. Pier 1 footing is exposed on East side most length with up to 6" of vertical face exposed with no undermining. Up to 10" of East side of of pier 2 footing vertical face is exposed with no undermining. Rear abutment footing exposed along entire length. Areas of loose sediment around piers. Note: All substructure units on rock.

Inspector: Inspection Date: Ropelewski, Robert 09/21/2023

<u>Culvert</u>

Inspector Comments - Waterway

Waterway Adequacy

Channel Hydraulic Opening

A few logs hung up on upstream nose of P1.

<u>Channel</u>

Channel Alignment

Flow is mostly through spans 1 & 2 with debris and silting up in span 3.

Channel Protection

Some stone has washed away.

Scour Critical

Inspector:	Robert I	Ropelewski		Structure Number:	4302915
Inspection Date	e: (9/21/2023		Facility Carried:	SR 84
			Bridge Inspection Report		

Pictures