Inspector: Adamrovich,Jake
Inspection Date: 05/05/2025
Structure Number: 0704210
Facility Carried: SR 148

Ohio Bridge Inspection Summary Report

BEL-00148-1414 (0704210)

B.L.04: District	District 11	81088 - WASHINGTON TWP (BEL 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	00148	
7: Facility On	SR 148		
6: Feature Ints	CAPTINA CREEK		
9: Location	2.18 MI. E OF JCT SR 145		
Lat, Lon	39.904361	,-80.964411	

Condition

B.C.01: Deck	**6**
58.01: Wearing Surface	7
B.C.08: Joint	2
B.C.02: Superstructure	**6**
59.01: Paint & PCS	6
B.C.03: Substructure	**7**
B.C.09: Channel	**6**
B.C.11: Scour	**6**
B.C.10: Channel Prot.	**5**
B.C.05: Bridge Railing	**7**
B.C.06: Transitions	**8**
B.C.07: Bearings	**4**
B.C.04: Culverts	**N**
Ohio GA	**6**

Appraisal

B.AP.03: Scour Vul.	C - Scour appraisal completed. Bridge could become unstable for scour. Temporary (not designed) countermeasure installed to mitigate scour. Bridge is scour critical.

Geometric

48: Max Span Length (ft)	80.0
49: Structure Length (ft)	208.0
52: Deck Width, Out-To-Out (ft)	33.3
424: Deck Area (sf)	6926.4
32: Appr Roadway Width (ft)	32.0
51: Road Width, Curb-Curb (ft)	32.0
50A: Curb/SW Width: Left (ft)	0
50A: Curb/SW Width: Right (ft)	0
34: Skew (deg)	45
33: Bridge Median	0 - No median
54B: Min Vert Underclearance (ft)	0
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	01/24/2025
63: Analysis Method	8 - Load and Resistance Factor Rating

Structure Type

43: Bridge Type	4 - Steel continuous 02 - Stringer/Multi-beam or Girder N- Not Applicable
45: Spans Main / Approach	3 / 0
107: Deck Type	1 - Concrete Cast-in-Place
408: Composite Deck	Y - Composite Construction
414A Joint Type 1	3 - Compression Seal
414B: Joint Type 2	N - None
108A: Wearing Surface	1 - Monolithic Concrete (concurrently placed with structural deck) N - Not Applicable
422: WS Date	01/01/1987
423: WS Thick (in)	1.2
482: Protective Coating	2 - Unpainted Weathered Steel
483: PCS Date	
453: Bearing Type 1	2 - Rockers & Bolsters
455: Bearing Type 2	B - Fixed
528: Foundn: Abut Fwd	7 - Steel H Piles (HP 10 x 42)
533: Foundn: Abut Rear	7 - Steel H Piles (HP 10 x 42)
536: Foundn: Pier 1	6 - Rock (including Spread Footing on Rock)
539: Foundn: Pier 2	6 - Rock (Including Spread Footing on Rock)

Age and Service

27: Year Built/ 106 Rehab	1987 / 0000
42A: Service On	1 - Highway
42B: Service Under	5 - Waterway
28A: Lanes on	02
28B: Lanes Under	00
19: Bypass Length	40
29: ADT	1733
109: % Trucks (%)	44

Inspections

		Months	
B.IE.03 Routine Insp.		12	05/05/2025
B.IE.03: NSTM Insp.	N	0	
B.IE.03: UW Insp.	N	0	
B.IE.03: Special Insp.			
UBIT Insp.	N	0	
Drone Insp.	N	0	

Inspector Adamrovich,Jake

Inspector:	Adamrovich,Jake	**Structure Number:**	0704210
Inspection Date:	05/05/2025	**Facility Carried:**	SR 148

(LRFR) rating report by rating factor (RF) method using HL-93 loadings.

Inspector: Adamrovich,Jake
Inspection Date: 05/05/2025

Structure Number: 0704210
Facility Carried: SR 148

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12-Reinforced Concrete Deck	3 - Mod.	6926	sq. ft.	6794	122	10	0
	CS2: - Medium width transverse cracks with efflorescence spaced 4'-6' apart in Span 2 (75 SF). - Diagonal construction joint with efflorescence along the full length in Span 2 (47 SF). CS3: - Up to 20" long by 24" wide by 4" deep spall with exposed reinforcement in the forward left corner below the joint armor (4 SF). - 12" long by 2' wide by 4" deep spalls with exposed reinforcement in the remaining three corners of the bridge deck below the joint armor (6 SF).						
805-Wearing Surface - Monolithic Concrete		6926	sq. ft.	5387	1539	0	0
	CS2: - Medium width transverse cracks spaced 1'-4' apart in the rear half of the wearing surface (1,331 SF). - Medium width longitudinal cracks in the rear half of the wearing surface (208 SF).						
107-Steel Open Girder/Beam	3 - Mod.	1045	ft.	977	52	16	0
	CS2: - Surface corrosion throughout the beam ends (52 LF). CS3: - Laminar corrosion at the beam ends with up to 1/8” deep section loss to the bottom flange and 1/16” deep section loss to the web: Beam 4, Rear Abutment - 10 LF Beam 1, Forward Abutment (web only) - 3 LF Beam 5, Forward Abutment - 3 LF						
515-Steel Protective Coating		9227	sq. ft.	8922	60	165	80
	CS2: - Areas of dark patina on the exterior faces of the fascia beams: Beam 1 - 30 SF Beam 5 - 30 SF CS3: - Areas of surface corrosion and flaking patina: Rear Abutment, Beams 1 to 5 - 75 SF Forward Abutment, Beams 1 to 5 - 90 SF CS4: - Areas of paint failure and section loss at the beam ends: Rear Abutment, Beams 1 to 5 - 60 SF Forward Abutment, Beams 1 to 5 - 20 SF						
210-Reinforced Concrete Pier Wall	3 - Mod.	44	ft.	44	0	0	0
215-Reinforced Concrete Abutment	3 - Mod.	94	ft.	90	4	0	0
	CS2: - Isolated medium width vertical cracks: Rear Abutment - 2 LF Forward Abutment - 2 LF						
234-Reinforced Concrete Pier Cap	3 - Mod.	94	ft.	94	0	0	0

Inspector: Adamrovich,Jake
Inspection Date: 05/05/2025

Structure Number: 0704210
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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
300-Strip Seal Joint	3 - Mod.	94	ft.	23	24	0	47
	Joint Opening Measurements: (taken at the centerline) Rear Abutment = 4-3/8" Forward Abutment = 3" CS2: - Debris accumulation in the Forward Abutment joint (24 LF). CS4: - Rear Abutment joint seal has failed with most of the strip seal falling out and lying on the abutment seat (47 LF).						
311-Movable Bearing	3 - Mod.	15	each	5	9	0	1
	CS2: - Surface corrosion throughout Beam 1 bearing at the Rear Abutment (1 EA). - Laminar corrosion to the following bearing assemblies: Rear Abutment, Beams 2 - 5 (4 EA) Forward Abutment, Beams 1, 3 - 5 (4 EA) CS4: - Beam 2 Bearing is rotated to the limit with the rocker overhanging the right rear corner by 2 1/4” at the Forward Abutment (1 EA).						
313-Fixed Bearing	3 - Mod.	5	each	5	0	0	0
321-Reinforced Concrete Approach Slab	3 - Mod.	1600	sq. ft.	1449	120	31	0
	The rear approach slab is paved over with asphalt. CS2: - Medium width diagonal cracks in the travel lanes of the forward approach slab (120 SF). CS3: - Spalls near expansion joint headers/abutment backwalls: Forward Approach Slab - 1' L x 3' W x 3" D, 8" L x 3' W x 1" D, 8" L x 2' W x 1" D (11 SF) Rear Approach - 1'-6" L x 2' W, 1'-6" L x 4' W, 1'-6" L x 3' W, and 1' L x 2' W (20 SF)						
330-Metal Bridge Railing	3 - Mod.	416	ft.	410	6	0	0
	CS2: - 4' long area of impact damage to the bottom rail of the left railing in Span 3 (4 LF). - 2' long area of impact damage to the bottom rail of the right railing in Span 3 (2 LF).						
815-Drainage	3 - Mod.	2	each	2	0	0	0
	Drainage is over the side without drip strips.						
830-Abutment Backwall	3 - Mod.	94	ft.	89	5	0	0
	CS2: - Isolated medium width cracks throughout the Rear Abutment backwall (5 LF).						

Inspector: Adamrovich,Jake **Structure Number:** 0704210

Inspection Date: 05/05/2025 **Facility Carried:** SR 148

BEL-00148-1414 _(0704210)

ODOT District: District 11 Date Built: 07/01/1987

Major Maint: 01 - State Highway Agency Facility Carried: SR 148 Traffic On: 1 - Highway Rehab Date:

Routine Maint: 01 - State Highway Agency Feature Inters: CAPTINA CREEK Traffic Under: 5 - Waterway Insp. Resp A: 01 - State Highway Agency

FIPS Code: 81088 - WASHINGTON TWP (BEL county) Location: DISTRICT 11 2.18 MI. E OF JCT SR 145 Insp Resp B:

Inspector Adamrovich,Jake Inspection Date 05/05/2025 Reviewer Griessmann,Ann

Inspector Comments - Deck and Approach

Deck, Wearing Surface, Joints, Railing

Approach

WEARING SURFACE

Up to 1/8" wide cracking throughout the left lane of the forward approach wearing surface.

GUARDRAIL

There two rotated blockouts and one leaning steel post in the rear left approach guardrail. There is also a 5' long area of impact damage where the rail is bent outward 12" in the rear left approach guardrail.

EMBANKMENT

No deficiencies noted.

Inspector Comments - General Appraisal

Superstructure, Bearings

DIAPHRAGMS/X-FRAMES

Some locations of section loss and laminar corrosion to the crossframe members at the interface with the Abutments.

Substructure

Inspector:	Adamrovich,Jake	**Structure Number:**	0704210
Inspection Date:	05/05/2025	**Facility Carried:**	SR 148

Culvert

Inspector Comments - Waterway

Channel Protection

CHANNEL PROTECTION

Some riprap is missing from the east bank and from the right end of the Forward Abutment.

Channel

CHANNEL ALIGNMENT

The channel is mostly straight, however the flow is pushed to the west before and after the bridge. The channel flows from south to north.

HYDRAULIC OPENING

Large timber and flood debris accumulated on the upstream side of Pier 1. There is a log against the upstream side of Pier 1. 6” to 12” of Pier 1 footing is exposed. Minor flood debris is lodged between the crossframes and on the pier caps.

Scour

SCOUR

14' of the top of the footer and 32" of the side exposed at the right side of the Forward Abutment with undermining of the forward right wingwall. Scour hole along the rear face of Pier 2 approximately 12” deep.

Inspector: Jake Adamrovich **Structure Number:** 0704210

Inspection Date: 05/05/2025 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 1

Description North elevation (looking south)



PHOTO 1

Description Rear Abutment east elevation (looking west)

Inspector: Jake Adamrovich **Structure Number:** 0704210

Inspection Date: 05/05/2025 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 1

Description Typical underside of framing in Span 1 (looking west)



PHOTO 1

Description Downstream channel looking away from the bridge (looking north)

Inspector: Jake Adamrovich **Structure Number:** 0704210

Inspection Date: 05/05/2025 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 1

Description Typical bridge railing (looking southeast at the right railing in Span 1)



PHOTO 1

Description Bridge identification sign in the rear right approach (looking east)

Pictures



PHOTO 2

Description Rear approach wearing surface (looking south)



PHOTO 2

Description Rear Abutment expansion joint (looking southwest)

Pictures



PHOTO 2

Description Upstream channel looking away from the bridge (looking south)



PHOTO 2

Description Pier 1 east elevation (looking west)

Pictures



PHOTO 2

Description Typical underside of framing in Span 2 (looking west)



PHOTO 2

Description South elevation (looking north)

Pictures



PHOTO 3

Description Pier 2 east elevation (looking west)



PHOTO 3

Description Typical underside of framing in Span 3 (looking east)

Inspector: Jake Adamrovich **Structure Number:** 0704210

Inspection Date: 05/05/2025 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 3

Description Downstream channel looking towards the bridge (looking south)



PHOTO 3

Description Typical top of deck in Span 1 (looking southwest)

Pictures



PHOTO 3

Description Rear approach slab (looking southwest)



PHOTO 4

Description The Beam 2 bearing is fully rotated and overhanging the masonry plate by 2-1/4" in the right corner at the Forward Abutment (looking east)

Inspector: Jake Adamrovich **Structure Number:** 0704210

Inspection Date: 05/05/2025 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 4

Description Upstream channel looking towards the bridge (looking north)



PHOTO 4

Description Forward Abutment west elevation (looking east)

Inspector: Jake Adamrovich **Structure Number:** 0704210

Inspection Date: 05/05/2025 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 4

Description Typical top of deck in Span 2 (looking southwest)



PHOTO 4

Description Rear approach looking away from the bridge (looking west)

Inspector: Jake Adamrovich **Structure Number:** 0704210

Inspection Date: 05/05/2025 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 5

Description Rear approach looking towards the bridge (looking east)



PHOTO 5

Description Typical top of deck in Span 3 (looking southwest)

Inspector: Jake Adamrovich **Structure Number:** 0704210

Inspection Date: 05/05/2025 **Facility Carried:** SR 148

Bridge Inspection Report

Pictures



PHOTO 5

Description Laminar corrosion and up to 1/8" deep section loss to the bottom flange and web of Beam 5 at the Forward Abutment (looking north)



PHOTO 5

Description Large timber and flood debris accumulated on the upstream side of Pier 1 (looking northwest)

Pictures



PHOTO 5

Description 15' of the Forward Abutment footing is exposed up to 2' high at the right end (looking east)



PHOTO 6

Description Typical laminar corrosion throughout the end crossframes at the abutments (looking east between Beams 4 and 5 at the Forward Abutment)

Inspector: Jake Adamrovich **Structure Number:** 0704210

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Bridge Inspection Report

Pictures



PHOTO 6

Description Up to 4" deep undermining of the forward right wingwall (looking east)



PHOTO 6

Description Forward approach looking towards the bridge (looking west)

Pictures



PHOTO 6

Description Forward Abutment expansion joint (looking south)



PHOTO 7

Description Forward approach looking away from the bridge (looking east)

Pictures



PHOTO 7

Description 4' long area of impact damage to the bottom rail of the left railing in Span 3 (looking north)



PHOTO 7

Description Up to 12" deep scour hole at the rear right end of Pier 2 (looking east)

Pictures



PHOTO 7

Description Laminar corrosion and section loss along the web and bottom flange of Beam 4 at the Rear Abutment (looking south)



PHOTO 8

Description Forward approach slab (looking southwest)

Pictures



PHOTO 8

Description 2' long area of impact damage to the bottom rail of the right railing in Span 3 (looking south)



PHOTO 9

Description Forward approach wearing surface (looking southwest)

Pictures



PHOTO 9

Description Rear Abutment strip seal laying on the abutment seat (looking south near the Beam 1 bearing)



PHOTO 10

Description Up to 20" long by 24" wide by 4" deep spall with exposed reinforcement in the forward left corner of the deck (looking south)

Pictures



PHOTO 10

Description Up to 1/8" wide cracking near the edge line in the left lane of the forward approach wearing surface (looking southwest)

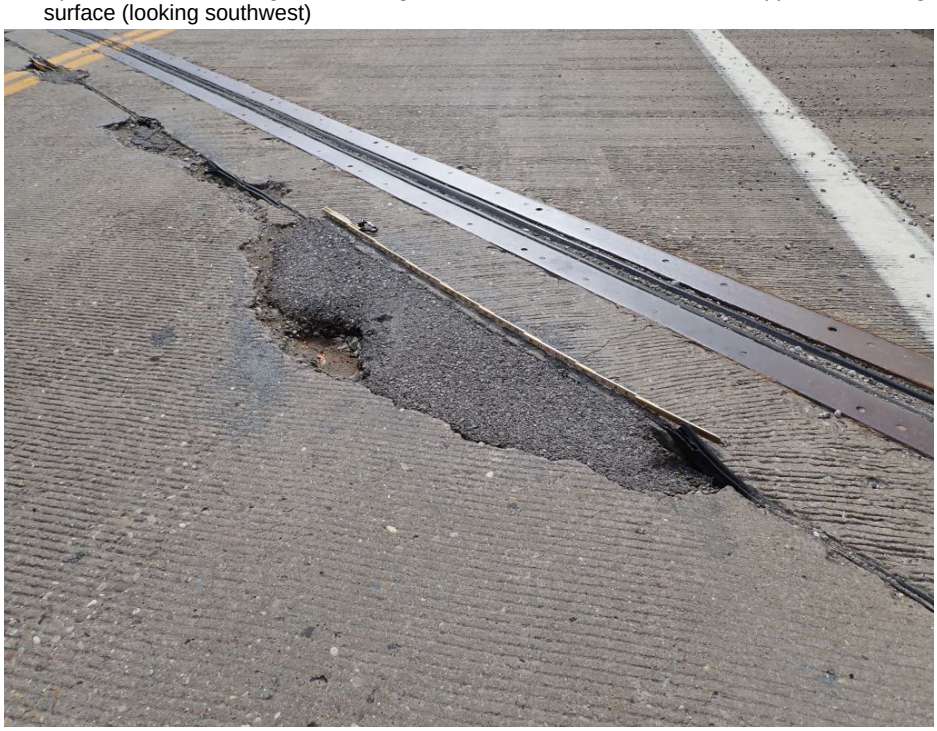

PHOTO 11

Description 3' wide by 12" long by 3" spall filled with asphalt in the left lane of the forward approach slab near the edge line (looking west)

Pictures



PHOTO 11

Description Spall with exposed reinforcement in the forward right corner of the deck (looking north)



PHOTO 12

Description 12" long by 24" wide by 4" deep spall with exposed reinforcement in the rear left corner of the deck (looking south)

Pictures



PHOTO 12

Description Up to 3' wide by 8" long by 1" deep spall along the Forward Abutment backwall in the center of the left lane of the forward approach slab (looking west)



PHOTO 13

Description 2' wide by 8" long by 1" deep spall filled with asphalt at the centerline of the forward approach slab near the abutment joint (looking west)

Pictures



PHOTO 14

Description Typical bridge railing transition (looking northeast at the forward left transition)



PHOTO 15

Description Multiple patched potholes along the Rear Abutment expansion joint in the rear approach slab (looking south)

Pictures



PHOTO 16

Description The third post and blockout from the end is bent/twisted in the rear left approach guardrail (looking east)



PHOTO 17

Description Impact damage to the rear left approach guardrail (looking west)