# **Ohio Bridge Inspection Summary Report**

# TUS-00039-1294 (7901534)

		<del></del>				<del></del>	
2: DistrictDistr 55216 - NEW ict 11	PHILADELPH	HIA (TUS county)	5A	: Inventory Ro	oute 1	00039	
	State Highwa	ay Agency /	7:	Facility On	SR 39		
	City or Munic	cipal Highway /		Feature Ints		WAS RIVER	
	State Highwa	av Agencv /	9:	Location	0.10 MI. E.	OF IR 77	
220: Inv. Location DISTRIC				Lat, Lon	40.493511	,-81.476597	
	Condition				Str	ucture Type	
58: Deck	7 - Good Co			43: Bridge T		eel continuous	
				.oago .	,,	stringer/Multi-beam or Girder	
<del>-</del>						t Applicable	
	•	ory Condition		45: Spans M	/lain / Approa		
	7 - Good (1-5			107: Deck T		1 - Concrete Cast-in-Place	
	7 - Good Co	,		408: Compo	• •	Y - Composite Construction	
61: Channel	6			414A Joint 7		8 - Elastomeric Strip Seal	
61.01 Scour	7 - Good			414B: Joint		N - None	
62: Culverts	N - Not Appl	icable		108A: Wear	ing Surface	Monolithic Concrete     (concurrently placed with structural deck)	
67.01 GA	6					N- Not Applicable	
	Appraisal			422: WS Da	te	11/22/1996	
Sufficiency Rating	92.2	SD/FO 0 - ND		<b>4</b> 23: WS Th	ick (in)	1.0	
36: Rail, Tr, Gd, Term Std	1 1	1 1		482: Protect	tive Coating	9 - Paint System IZEU	
	-	n present minimum crite	ria	483: PCS D	ate	05/15/1997	
		scour conditions	, iiu	453: Bearing		2 - Rockers & Bolsters	
		ove Approaches		455: Bearing	g Type 2	B - Fixed	
71: Waterway Adoquaey	Geometric			1 528: Foundr	n: Abut Fwd	A - Cast-in-Place Reinforced	
	Geometric			] - 533: Foundr	n: Abut Rear	Concrete Piles (12" diameter) A - Cast-in-Place Reinforced	
48: Max Span Length (ft)		80.0		ooo. i ouiiui	/ wat i toui	Concrete Piles (12" diameter)	
49: Structure Length (ft)		452.5		536: Foundr	n: Pier 1	A - Cast-in-Place Reinforced Concrete Piles (12" diameter)	
52: Deck Width, Out-To-Out (	(ft)	69.0		539: Foundr	n: Pier 2	N - None (Such as most Culverts)	
424: Deck Area (sf)		31222.5			Δαε	and Service	
32: Appr Roadway Width (ft) 61.0			27: Year Built/ 106 Rehab 1956 / 1996				
51: Road Width, Curb-Curb (f	ft)	61.0		42A: Service	e On	5 - Highway-pedestrian	
50A: Curb/SW Width: Left (ft)	-	0		42B: Service		5 - Waterway	
50A: Curb/SW Width: Right (f		5		28A: Lanes		04	
34: Skew (deg)	,	0		28B: Lanes		00	
33: Bridge Median		0 - No median		19: Bypass	Length	6	
54B: Min Vert Underclearance	e (ft)	0		29: ADT	-	16740	
336A: Min Vert Clrnce IR Car		99		109: % Truc	ks (%)	10	
336B: Min V Clr IR Non-Card	` '	0					
578: Culvert Length (ft)		0			Ins	pections	

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	07/01/1996				
63: Analysis Method	6 - Load Factor (LF) rating reported by				

0

578: Culvert Length (ft)

Inspector	Bardall,Jay
Inspector	Bardall,Jay

90: Routine Insp.

92A: FCM Insp.

92B: Dive Insp.

92D: UBIT Insp.

92E: Drone Insp.

92C: Special Insp.

Months

12

0

60

0

60

24

Ν

Ν

Ν

Υ

Υ

10/24/2023

06/29/2022

04/11/2022

03/15/2021

Bardall,Jay Inspector: **Structure Number:** 7901534 10/24/2023 SR 39 Inspection Date: **Facility Carried:** 

rating factor (RF) method using MS18 loading.

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4	
12-Reinforced Concrete Deck	3 - Mod.	31223	sq. ft.	29543	1680	0	0	
	CS2- Minor tran	sverse cra	cks w/ef	flo, some 2'-	4' spacing.			
805-Wearing Surface - Monolithic Concrete		27450	sq. ft.	27423	15	12	0	
	CS2- HL CRACKS OVER PIERS. CS3- 12SF SPALL AT RT FWD, NEAR EXPANSION JOINT, PATCHED WITH ASPHALT.							
107-Steel Open Girder/Beam	3 - Mod.	3620	ft.	3600	0	20	0	
	CS3 -Severe old loss of section on 3rd beams in from right and left sides, would have been outside beams on original structure.							
515-Steel Protective Coating		31977	sq. ft.	31977	0	0	0	
210-Reinforced Concrete Pier Wall	3 - Mod.	345	ft.	322	18	5	0	
210 Remorada denorate Fior Wan	CS2- Vertical cracks in old pier sections. CS3- Rust stains. Vertical crack in all walls at center with widest in fwd pier 1/8".							
215-Reinforced Concrete Abutment	3 - Mod.	138	ft.	113	25	0	0	
	CS2- Horizontal	I cracks in f	orward	abutment wit	h delamination	on at edge. V	ertical cracl	
	with delamination	on in rear a	t center	of abutment.				
300-Strip Seal Expansion Joint	with delamination	on in rear a	ft.	of abutment.	138	0	0	
300-Strip Seal Expansion Joint	with delamination	138 48 rosion. CS3	ft. each	of abutment.  0  40 earing 7 and	138 3 8 are tilted to	0 5	0	
300-Strip Seal Expansion Joint 311-Movable Bearing	3 - Mod. 3 - Mod. CS2- Minor corr	138 48 rosion. CS3	ft. each	of abutment.  0  40 earing 7 and	138 3 8 are tilted to	0 5	0	
300-Strip Seal Expansion Joint 311-Movable Bearing 313-Fixed Bearing 321-Reinforced Concrete	3 - Mod. 3 - Mod. CS2- Minor corron many. Bearing	138 48 rosion. CS3	ft. each B- Fwd b	of abutment.  0 40 earing 7 and ear, excessive	138 3 8 are tilted to e tilting.	0 5 owards rear.	0 0 Rust dust	
300-Strip Seal Expansion Joint 311-Movable Bearing 313-Fixed Bearing 321-Reinforced Concrete	3 - Mod. 3 - Mod. CS2- Minor corron many. Bearin 3 - Mod.	138 48 rosion. CS3 ngs 1,4,and 8 1830 F LONGITU	ft. each 8- Fwd b 15, at re each sq. ft.	0 40 earing 7 and ar, excessive 8 1669	138 3 8 are tilted to e tilting. 0 97 CS3- (40 SF)	0 5 owards rear. 0 64 OF ASPHAL	0 0 Rust dust 0	
300-Strip Seal Expansion Joint 311-Movable Bearing 313-Fixed Bearing 321-Reinforced Concrete Approach Slab	3 - Mod. 3 - Mod. CS2- Minor corron many. Bearin 3 - Mod. 3 - Mod. CS2- (97 SF) O	138 48 rosion. CS3 ngs 1,4,and 8 1830 F LONGITU	ft. each 8- Fwd b 15, at re each sq. ft.	0 40 earing 7 and ar, excessive 8 1669	138 3 8 are tilted to e tilting. 0 97 CS3- (40 SF)	0 5 owards rear. 0 64 OF ASPHAL	0 0 Rust dust 0	
300-Strip Seal Expansion Joint 311-Movable Bearing 313-Fixed Bearing 321-Reinforced Concrete Approach Slab	3 - Mod. 3 - Mod. CS2- Minor corron many. Bearin 3 - Mod. 3 - Mod. CS2- (97 SF) OPATCHES AT F	138 48 rosion. CS3 ngs 1,4,and 8 1830 F LONGITI WD. (24 S 450 JBULAR AL	ft. each B-Fwd b I 5, at re each sq. ft.  JDINAL F) OF A ft.	of abutment.  0 40 earing 7 and ear, excessive 8 1669 CRACKS (SPHALT PA	138 3 8 are tilted to etilting. 0 97 CS3- (40 SF) TCHES AT F	0 5 owards rear. 0 64 OF ASPHALREAR. 0 SIDE HAS C	0 0 Rust dust 0 0 T 0 OLLISION	
	with delamination  3 - Mod.  3 - Mod.  CS2- Minor corron many. Bearin  3 - Mod.  3 - Mod.  CS2- (97 SF) OPATCHES AT F  3 - Mod.  CS2- (20LF) TU	138 48 rosion. CS3 ngs 1,4,and 8 1830 F LONGITI WD. (24 S 450 JBULAR AL	ft. each B-Fwd b I 5, at re each sq. ft.  JDINAL F) OF A ft.	of abutment.  0 40 earing 7 and ear, excessive 8 1669 CRACKS (SPHALT PA	138 3 8 are tilted to etilting. 0 97 CS3- (40 SF) TCHES AT F	0 5 owards rear. 0 64 OF ASPHALREAR. 0 SIDE HAS C	0 0 Rust dust 0 0 TT 0 OLLISION	
300-Strip Seal Expansion Joint 311-Movable Bearing 313-Fixed Bearing 321-Reinforced Concrete Approach Slab 330-Metal Bridge Railing 331-Reinforced Concrete Bridge	3 - Mod. 3 - Mod. CS2- Minor corron many. Bearin 3 - Mod. 3 - Mod. CS2- (97 SF) O PATCHES AT F 3 - Mod. CS2- (20LF) TU DAMAGE BENI	138 48 rosion. CS3 ngs 1,4,and 8 1830 F LONGITI FWD. (24 S 450 BULAR AL DING ONE 900 L ON STR.	ft. each B- Fwd b I 5, at re each sq. ft.  JDINAL F) OF A ft. UMINU SECTIO ft. CS2- M	of abutment.  0 40 earing 7 and ear, excessive 8 1669 CRACKS (SPHALT PA 430 M TOP RAIL DN OUTWAF 790 INOR VERT	138 3 8 are tilted to etilting. 0 97 CS3- (40 SF) TCHES AT F 20 ON RIGHT: RD AT REAR 108	0 5 owards rear. 0 64 OF ASPHALREAR. 0 SIDE HAS CIN 2ND SPA	0 0 Rust dust 0 0 T 0 CLLISION N.	
300-Strip Seal Expansion Joint 311-Movable Bearing 313-Fixed Bearing 321-Reinforced Concrete Approach Slab 330-Metal Bridge Railing 331-Reinforced Concrete Bridge	with delamination  3 - Mod.  3 - Mod.  CS2- Minor cornon many. Bearin  3 - Mod.  CS2- (97 SF) OPATCHES AT F  3 - Mod.  CS2- (20LF) TUDAMAGE BENI  3 - Mod.  3 - Mod.  3 - Mod.	138 48 rosion. CS3 ngs 1,4,and 8 1830 F LONGITI FWD. (24 S 450 BULAR AL DING ONE 900 L ON STR.	ft. each B- Fwd b I 5, at re each sq. ft.  JDINAL F) OF A ft. UMINU SECTIO ft. CS2- M	of abutment.  0 40 earing 7 and ear, excessive 8 1669 CRACKS (SPHALT PA 430 M TOP RAIL DN OUTWAF 790 INOR VERT	138 3 8 are tilted to etilting. 0 97 CS3- (40 SF) TCHES AT F 20 ON RIGHT: RD AT REAR 108	0 5 owards rear. 0 64 OF ASPHALREAR. 0 SIDE HAS CIN 2ND SPA	0 0 Rust dust 0 0 T 0 CLLISION N.	
300-Strip Seal Expansion Joint 311-Movable Bearing 313-Fixed Bearing 321-Reinforced Concrete Approach Slab 330-Metal Bridge Railing 331-Reinforced Concrete Bridge Railing	3 - Mod. 3 - Mod. CS2- Minor corron many. Bearin 3 - Mod. CS2- (97 SF) O PATCHES AT F 3 - Mod. CS2- (20LF) TU DAMAGE BENI 3 - Mod. 33" HIGH WALL OUT PLACE @	138 48 rosion. CS3 ngs 1,4,and 8 1830 F LONGITU FWD. (24 S 450 JBULAR AL DING ONE 900 - ON STR. BOTTOM	ft. each 3- Fwd b 15, at re each sq. ft.  JDINAL F) OF A ft.  UMINU SECTIO ft.  CS2- M LT SIDE each	of abutment.  0 40 earing 7 and ar, excessive 8 1669 CRACKS (SPHALT PA 430 M TOP RAIL DN OUTWARD 790 INOR VERTE, TOWARD 14	138 3 8 are tilted to e tilting. 0 97 CS3- (40 SF) TCHES AT F 20 ON RIGHT: RD AT REAR 108 ICAL CRACKS FWD END 0	0 5 owards rear.  0 64 OF ASPHAL REAR.  0 SIDE HAS C IN 2ND SPA 2 (S. CS3- SM	0 0 Rust dust 0 0 T 0 OLLISION N. 0 BROKEN	

Structure Number: Inspector: Bardall, Jay 7901534 10/24/2023 SR 39 **Facility Carried: Inspection Date:** 

TUS-00039-1294 (7901534) ODOT District: District 11

07/01/1956 Date Built: 11/22/1996 Facility Carried: SR 39 Rehab Date: Major Maint: 01 - State Highway Agency Traffic On: 5 - Highway-pedestrian

Insp. 01 - State Highway Agency Resp A: Routine Maint: 04 - City or Municipal Highway Feature Inters: TUSCARAWAS RIVER Traffic Under: 5 - Waterway Agency
FIPS Code: 55216 - NEW PHILADELPHIA (TUS county) Location: DISTRICT 11 0.10 MI. E. OF IR 77

Resp B:

Inspector Bardall, Jay Inspection Date 10/24/2023 Reviewer Trivoli.Raymond

## <u>Inspector Comments - Deck and Approach</u>

#### Deck

#### Floor/Slab (SF)

HAIRLINE TRANSVERSE CRACKS W/EFFLOR SHOWING, SOME 2'-4' SPACING. CRACKING ON OUTSIDE EDGES WITH EFFLOR.

### **WEARING SURFACE (SF)**

CS2-HL CRACKS OVER PIERS. CS3-6SF SPALL AT RT FWD, NEAR EXPANSION JOINT, PATCHED WITH ASPHALT.

## Curbs/Sidewalk (LF)

Walk rt only. Small spalls top edge of curb mid span and some hairline vertical and transverse cracks. Curb broken and humped up at fwd right end of approach. Dirt on the right sidewalk.

## Bridge Railing (LF)

33" HIGH WALL ON STR. CS2- MINOR VERTICAL CRACKS. TUBULAR ALUMINUM TOP RAIL ON RIGHT SIDE HAS

COLLISION DAMAGE BENDING ONE SECTION OUTWARD AT REAR IN2ND SPAN. CS3- SM BROKEN OUT PLACE @ BOTTOM LT SIDE, TOWARDS FWD END

#### Deck Drainage (EA)

WATER PONDING ALONG OUTSIDE LT EDGE (60LF).

## **Expansion Joint (LF)**

DIRT CLOGGED IN BOTH JOINTS. MINOR RUST ALONG EDGES

## **Approach**

## **Approach Wearing Surface (EA)**

New asphalt in 2020.

## APPROACH SLABS (SF)

CS2- (97 SF) OF LONGITUDINAL CRACKS CS3- (40 SF) OF ASPHALT PATCHES AT FWD. (24

SF) OF ASPHALT PATCHES AT REAR.

## **Approach Embankment (EA)**

Washing out and erosion of slopes just off the bridge. Much washing out of embankment at right forward by storm sewer pipe outlet, the end pipe @ this outlet has come apart.

## Approach Guardrail (EA)

MINOR COLLISION DAMAGE TO LT REAR (2 PANELS) AND RT REAR (1 PANEL). MINOR COLISION DAMAGE TO LT FWD. Broken block at rt fwd turn radius.

## **Inspector Comments - General Appraisal**

## <u>Superstructure</u>

### Beams/Girders (LF)

8 BEAMS. SEVERE OLD LOSS OF SECTION ON 3RD BEAMS IN FROM RIGHT AND LEFT SIDES, WOULD HAVE BEEN OUTSIDE BEAMS ON ORIGINAL STRUCTURE. SEE PHOTOS  $4.5.7\,$ 

## **Diaphragm/X-Frames (EA)**

Bent crossframe in forward span.

#### **Bearing Devices (EA)**

FWD 1ST AND 2ND ROCKER FROM RIGHT HAS SEVERE TILT TOWARDS REAR. RUST DUST ON MANY. BEARINGS 1,4, AND 5, AT REAR, EXCESSIVE TILTING.2023 INSP: CS2- Minor corrosion. CS3- Fwd bearing 7 and 8 are tilted towards rear. Rust dust on many. Bearings 1,4, and 5, at rear, excessive tilting.

## **Protective Coating System (LF)**

IZEU, 5-97. A LITTLE RUST, LESS THAN 1%.

## Fatigue (LF)

Beam weld over piers on 4 interior beams.

### **Utilities (LF)**

In good condition, light rust on cover. Re-wrapped some joints of the 4" gas line in 2018.

#### Substructure

Abutment Walls (LF)

HORIZONTAL CRACKS IN FORWARD ABUTMENT WITH DELAMINATION AT EDGE (14LF). VERTICAL CRACK WITH DELAMINATION IN REAR AT CENTER OF ABUTMENT. RUST STAINS.

## Pier Walls (LF)

VERTICAL CRACKS IN OLD SECTIONS. SEE PHOTOS 10,15. CS3- RUST STAINS. VERTICAL CRACK IN ALL

WALLS AT CENTER WITH WIDEST IN FWD PIER 1/8".

#### Backwalls (LF)

VERTICAL CRACKS W/EFFLOR. CRACKS ON TOP WITH BREAKING OUT AT EDGES.

### **Substructure Scour (EA)**

Probed 2014. No footers exposed. Probed pier 3, 4, & 5 from rear 19, 2020, 2023. Could not get to 1 & 2 high water.

## **Slope Protection (EA)**

Washing away of slope protection at right forward. 2 sections of storm sewer are dislocated due to the erosion of the slope.

## 2022: Piers 2 through 6: The

submerged portions of the pier exhibited light scaling up to 1/16 in. deep from the channel bottom to 1 ft above the waterline. **Pier** 

5: Moderate

timber debris accumulation consisting of logs up to 24 in. diameter from the channel bottom to 4 ft above the waterline was observed on the upstream nose, east face, and west face of the pier.**Pier** 

6: Light

timber debris accumulation consisting of branches up to 6 in. diameter from the channel bottom to 2 ft above the waterline was observed on the upstream nose and east face of the pier. A

scour depression up to 6 ft diameter by 3 ft deep was observed at the downstream nose of Pier 6.

#### Culvert

## **Inspector Comments - Waterway**

**Waterway Adequacy** 

## **Channel Hydraulic Opening (EA)**

TREE LODGED IN BAY 2 FROM REAR.

**Channel** 

**Scour Critical** 

**Bridge Inspection Report** 

# **Pictures**