

Inspector: Trivoli,Raymond

Inspection Date: 06/27/2024

Structure Number: 3403157

Facility Carried: SR 646

## Ohio Bridge Inspection Summary Report

**HAS-00646-2020 (3403157)**

2: District 29890 - GERMAN TWP (HAS county)  
ict  
11

5A: Inventory Route 1 00646

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 DISTRICT 11

7: Facility On SR 646  
6: Feature Ints SALEM CREEK  
9: Location 0.29 MI S OF JEF CO LINE  
Lat, Lon 40.411314 , -80.8716

Condition	Structure Type
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**58: Deck** **6 - Satisfactory Condition**  
58.01 Wearing Surface 4 - Poor (advanced)  
58.02 Joint N- Not Applicable  
**59: Superstructure** **4 - Poor Condition**  
59.01 Paint & PCS N - Not Applicable  
**60: Substructure** **4 - Poor Condition**  
**61: Channel** **5**  
61.01 Scour **7 - Good**  
**62: Culverts** **N - Not Applicable**  
**67.01 GA** **4**

43: Bridge Type 7 - Wood or Timber  
01 - Slab  
N- Not Applicable  
45: Spans Main / Approach 1 / 0  
107: Deck Type 8 - Wood or Timber  
408: Composite Deck U - Unknown  
414A Joint Type 1 N - None  
414B: Joint Type 2 N - None  
108A: Wearing Surface 6 - Bituminous  
N- Not Applicable

Appraisal
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Sufficiency Rating 54.9 SD/FO 1 - SD  
36: Rail, Tr, Gd, Term Std 1 1 1 1  
72: Approach Alignment 8 - Equal to present desirable criteria  
113: Scour Critical 5 - Scour within limits of footing or piles  
71: Waterway Adequacy 8 - Bridge Above Approaches

422: WS Date 10/31/2016  
423: WS Thick (in) 6.5  
482: Protective Coating N - None or Not Applicable  
483: PCS Date  
453: Bearing Type 1 N - None  
455: Bearing Type 2 N - None  
528: Foundn: Abut Fwd U - Unknown  
533: Foundn: Abut Rear U - Unknown  
536: Foundn: Pier 1 N - None (Such as most Culverts)  
539: Foundn: Pier 2 N - None (Such as most Culverts)

Geometric
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48: Max Span Length (ft) 16.0  
49: Structure Length (ft) 18.0  
52: Deck Width, Out-To-Out (ft) 23.5  
424: Deck Area (sf) 423  
32: Appr Roadway Width (ft) 26.0  
51: Road Width, Curb-Curb (ft) 23.0  
50A: Curb/SW Width: Left (ft) 0  
50A: Curb/SW Width: Right (ft) 0  
34: Skew (deg) 0  
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

Age and Service
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27: Year Built/ 106 Rehab 1928 / 1990  
42A: Service On 1 - Highway  
42B: Service Under 5 - Waterway  
28A: Lanes on 02  
28B: Lanes Under 00  
19: Bypass Length 13  
29: ADT 552  
109: % Trucks (%) 6

Load Posting
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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 7 - Allowable Stress (AS) rating reported by rating factor (RF) method using MS18 loading.

Inspections
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	Months	
90: Routine Insp.	12	06/18/2024
92A: FCM Insp.	N	0
92B: Dive Insp.	N	0
92C: Special Insp.	N	0
92D: UBIT Insp.	N	0
92E: Drone Insp.	N	0

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	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
<b>54-Timber Slab</b>	3 - Mod.	423	sq. ft.	411	0	3	9
	<p>CS4- STRINGER #1, CRACK ON OUTSIDE FACE (9 SF)</p> <p>CS3- STRINGERS #19, # 32 AND #57 CRACKED AND DISPLACED IN REAR 1/3 OF SPAN (2 LF EACH) (3 SQ FT)</p> <p>STEEL BRACKETS ATTACHED TO FLOOR AND TIMBER SEAT HAVE PACK RUST WITH MINOR SECTION LOSS, WITH RT REAR THE WORST.</p>						
<b>510-Wearing Surfaces</b>		414	sq. ft.	294	0	120	0
	<p>6.5" ASPHALT CONCRETE</p> <p>CS3- WIDE OPEN MAP CRACKING 5' WIDE ON LT SIDE NEAR DECK EDGE WITH RUTTING, DURAPATCHED. ADDITIONAL 1 FT WIDE ON RT SIDE WITHIN WHEEL TRACK. WIDE TRANSVERSE CRACKS NEAR MIDSPAN, PART AND FULL WIDTH. (120 SF)</p>						
<b>156-Timber Floor Beam</b>	3 - Mod.	23	ft.	0	16	4	3
	<p>CS4- (3 LF) CRACK ON RT SIDE OF FLOOR BEAM AND NOT MAKING CONTACT WITH ALL STRINGERS.</p> <p>CS3- (4 LF) CRACK ON LT SIDE ABOUT 4 FT FROM DECK EDGE.</p> <p>CS2- (16 LF) REMAINING FLOOR BEAM LENGTH IS EXHIBITING NEGATIVE CAMBER (SAGGING) ACROSS THE WIDTH OF THE BRIDGE DECK.</p>						
<b>215-Reinforced Concrete Abutment</b>	3 - Mod.	71	ft.	45	0	22	4
	<p>REAR: 22 LF CONCRETE ON RIGHT SIDE, 14 LF MASONRY ON LEFT SIDE WITH THREE COURSES OF STONES EXPOSED.</p> <p>CS4- (2 LF TOTAL), 1 FT TRIANGULAR CRACKED PORTION OF STONE IN TOP COURSE, 1 FT CRACKED/MISSING PORTION OF 2ND STONE FROM LT IN TOP COURSE.</p> <p>CS3- 22 LF - REMAINING MASONRY ABUTMENT EXHIBITING WIDE OPEN JOINTS BETWEEN STONES. CONCRETE ABOVE SANDSTONE &amp; BELOW TIMBER SEAT HAS HORIZONTAL &amp; VERTICAL CRACKS.</p> <p>FWD 35 LF CONCRETE:</p> <p>CS4- (2 LF) SPALL 4" DEEP ON RIGHT SIDE.</p>						
<b>330-Metal Bridge Railing</b>	3 - Mod.	36	ft.	36	0	0	0
	<p>30" RAILING HEIGHT</p> <p>DEEP BEAM RAIL WITH TUBULAR BACKUP SPAN DESIGN ON LT MGS SPAN DETAIL ON RIGHT WITHOUT TUBLAR BACKUP.</p> <p>NEW PANELS THROUGHOUT ON BOTH SIDES.</p>						
<b>815-Drainage</b>	3 - Mod.	2	each	0	0	2	0
	<p>CS3- 2 EA, RUTTING OF ASPHALT IN BOTH LANES NOT ALLOWING WATER TO DRAIN OFF OF STRUCTURE.</p>						

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ODOT District: District 11

**HAS-00646-2020\_(3403157)**

Date Built: 07/01/1928

Major Maint: 01 - State Highway Agency

Facility Carried: SR 646

Traffic On: 1 - Highway

Rehab Date: 01/01/1990

Routine Maint: 01 - State Highway Agency

Feature Inters: SALEM CREEK

Traffic Under: 5 - Waterway

Insp. 01 - State Highway Agency

FIPS Code: 29890 - GERMAN TWP (HAS county)

Location: DISTRICT 11

0.29 MI S OF JEF CO LINE

Insp  
Resp B:

Inspector

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## **Inspector Comments - Deck and Approach**

### **Deck**

### **Approach**

#### **Approach Wearing Surface**

NEW ASPHALT 2016.

CS2- SETTLEMENT AT EDGES AT ALL 4 CORNERS. RANDOM MAP CRACKING AND RUTTING ON BOTH FWD /REAR.

#### **GUARDRAIL**

NEW MGS RAILING.

#### **SIGNS**

WARNING SIGNS PRESENT.

## **Inspector Comments - General Appraisal**

### **Superstructure**

### **Substructure**

#### **Wingwalls**

MINOR SCALING THROUGHOUT.

CS3- 1 LF VERT CR WITH MINOR EFFLO.

### **Culvert**

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**Inspector Comments - Waterway**

**Waterway Adequacy**

**Channel Hydraulic Opening (EA)**

HEAVY BUILD UP AT OUTLET ON REAR SIDE. MUCH EROSION OF OUTLET CHANNEL AT RT FWD.

**SCOUR CRITICAL**

PROBED IN 2022 AND 2023, 2024 NO SCOUR.

**Channel**

**Scour Critical**