



**Office of Bridges and Structures
Bridge Maintenance and Inspection Unit**



Bridge Condition Report

Bridge ID: 10TH ST SW NBI Number: 8920
District: 0 Inspection Group: IIW, P.C.
Inspection Type: Routine
Inspection Date: 03/08/2021
Carrying: 10TH ST SW over OTTER CREEK
Location: 000000000
Approved By: Miller, Nathan





Structure Inventory and Appraisal

Bridge ID: 10TH ST SW
FHWA No.: 8920

Official SR: 48.1 SD/FO: Structurally Deficient
Unofficial SR: 48.1 SD/FO: Structurally Deficient

IDENTIFICATION

7 Facility Carried: 10TH ST SW
5B Rte. Signing Prefix: 5
5C Level of Service: 1 - MAINLINE
5D Inventory Route: 00000
City: Oelwein
3 County: 033 - Fayette
9 Location: 000000000
5E Directional Suffix: 0 - NOT APPLICABLE
6 Feature Intersected: OTTER CREEK
2 District: 0
Garage: 000
98 Border Bridge Code:
% Responsibility: 0
99 Border Bridge No.:

INSPECTION

90 Inspection Date: 03/08/2021 Inspection Type: Routine
Next Routine Insp Date: 03/08/2023 91 Frequency: 24
Next Insp Type: Regular
Inspection Agency: 5 - Consultant Inspection Group: IIV, P.C.
93A FC Inspection Date:
92A FC Frequency: 0 Next FC Insp.: NA
93B UW Inspection Date:
92B UW Frequency: 0 Next UW Insp.: NA
93C SI Date:
92C SI Frequency: 0 Next Spec. Insp.: NA
Other Non-NBI Date:
Other Non-NBI Freq.: Next Other Insp.: NA

STRUCTURE TYPE AND MATERIALS

43A Main Span Material: 4 - Steel Continuous
43B Main Span Design: 02 - Stringer/Multi-beam or Girder
45 No. Spans Main Unit: 3
44A Appr. Span 000 - NA
44B Appr. Span Design: 000 - NA
46 No. of Appr. Spans: Near 0 Far 0
107 Deck Type: 1 - Concrete Cast-in-Place
108A Wearing Surface: 6 - Bituminous
108B Membrane: 0 - None
108C Deck Protection: 0 - None

CONDITION

58 Deck: 4 - Poor Condition (advanced deterioration)
59 Super: 6 - Satisfactory Condition (minor deterioration)
60 Sub: 5 - Fair Condition (minor section loss)
61 Channel/Channel Prot.: 6 - Bank slump. widespread minor damage
62 Culvert: N - Not Applicable

APPRAISAL

67 Str. Evaluation: 4 - Meets minimum tolerable limits
68 Deck Geometry: 4 - Meets minimum tolerable limits
69 Underclear Vert & Horiz: N - Not applicable
71 Waterway Adequacy: 8 - Bridge Above Approaches
72 Approach Alignment: 8 - Equal to present desirable criteria
36A Bridge Rail: 1 - MEETS CURRENT SAFETY STANDARDS.
36B Transition: 0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
36C Approach Rail: 0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
36D Approach Rail Ends: 0 - DOES NOT MEET CURRENT SAFETY STANDARDS, OR IS NOT THERE AND IS NEEDED
113 Scour Critical: 8 - Stable - Excellent Condition

GEOMETRIC DATA

48 Length Max Span: 59 ft.
49 Structure Length: 154 ft.
34 Skew: 0°
Deck Area: 4004.0 sq. ft.
50B Curb/Sdwk Width R: 1 ft.
50A Curb/Sdwk Width L: 1 ft.
51 Width Curb to Curb: 24.0 ft.
52 Width Out to Out: 26.0 ft.
32 Appr. Roadway width: 30 ft.
(w/ Shoulders)
33 Median: 0 - No median
35 Structure Flared: 00 - No flare
10 Vertical Clearance: 99'99"
47 Horiz. Clearance: 24'00"
53 Min. Vert. Clearance Over: 99'99"
54B Min. Vert. Underclearance: 00'00"
55 Min. Lat. Underclearance R: 00'00"
56 Min. Lat. Underclearance L: 00'00"

LOAD RATING AND POSTING

31 Design Load: 2 - H 15
63 Rating Method: 2 - Allowable Stress (AS) reported in english tons using HS-20 loading.
64 Operating Rating: 29.7 Tons
65 Rating Method: 2 - Allowable Stress (AS) reported in english tons using HS-20 loading.
66 Inventory Rating: 18.8 Tons
70 Posting: 2 - 20.0-29.9% below legal loads
41 Posting Status: P - Posted for Load

AGE AND SERVICE

27 Year Built: 1963 Design No.: 0
106 Year Reconstructed: 0
42A Type of Service on: 1 - Highway
42B Type of Service Under: 5 - Waterway
28A Lanes on: 2 28B Lanes under: 0
29 ADT: 760 30 Year of ADT: 2013
109 Truck ADT: 0 % Speed Limit: 35
19 Detour Length: 3 mi.

NAVIGATION DATA

38 Navigation Control:
0 - No navigation control on waterway (bridge permit not required)
111 Pier Protection:
39 Vertical Clearance: 00'00"
40 Horiz. Clearance: 000'00"

CLASSIFICATION

112 NBIS Length: Y
26 Functional Class: 17 - Urban - Collector
100 STRAHNET: 0 - Not a defense highway
101 Parallel Structure: N - No parallel structure
102 Direction of Traffic: 2 - 2-way traffic
22 Owner: 04 - City or Municipal Highway Agency
21 Custodian: 04 - City or Municipal Highway Agency
37 Historical Significance: 5 - Not eligible
75A Type of Work Proposed: 31 - Replacement - Load/Geometry
75B Work Done by: 1 - Work to be done by contract

16 Latitude: 42.66372815 17 Longitude: -91.92055739

FRA No. (if RR Bridge):
Mile Post:

Bridge Data Tab

Bridge Name:	8920	Bridge ID:	10TH ST SW
43. Main Structure Type:	402	90. Inspection Date:	03/08/2021
8. FHWA No.:	8920	9. Location:	000000000
3. County:	033 - Fayette	City:	Oelwein
6. Feature Intersected:	OTTER CREEK		
Est. Remaining Life:	10 Yrs	29 ADT:	760
		22. Owner:	04
41 Open, Posted Or Closed	P	106. Yr. Reconst.:	0
		27. Year Built:	1963
Lat.:	42.66372815	Long	-91.92055739
		<input type="checkbox"/> Fracture Critical	
28. Lanes On:	Multi-Lane		
Consulting Firm:	IIW, P.C.		

LOAD POSTING TABLE

Type	Recommended Tons	Actual Tons	REMARKS
Straight Truck or Gross Weight Limit		21	"WEIGHT LIMITS 21T-30T-31T"
Truck - Semi-trailer		30	14T TRIPLE AXLE
Truck - Full-trailer		31	
Emergency Vehicle			
Implement of Husbandry			

SIGNING

Type	Legibility	Visibility	REMARKS
Advanced Posting	Sign Missing	Sign Missing	NONE
Posted Loads	Fair	Good	FADED/WORN
Narrow			NONE
One Lane			NONE
Object Markers	Fair	Good	FADED/WORN

APPROACH

	CONDITION RATING	REMARKS
1. Approach Slab	6	AC ROADWAY.
2. Relief Joints	N	
3. Approach - Guardrail	5	MISSING BLOCKING / DECAYED POSTS.
Embankment	6	
ITEM 72 APPROACH		Left Bridge Rail: Metal Tube Bridge Rail
ROADWAY ALIGNMENT	8	Right Bridge Rail: Metal Tube Bridge Rail

Deck Tab

Bridge ID: 10TH ST SW

NBI 8. FHWA No. 8920

NBI 9. Location: 00000000

DECK ITEM	CONDITION RATING	REMARKS
1. Wearing Surface	4	1/2" BITUMINOUS OVERLAY DETRIMENTAL TO CONCRETE DECK. SPALLED AND PATCHED ACROSS APPROXIMATELY 50% OF DECK.
2. Deck - Structural Condition	4	TRANSVERSE CRACKING WITH EFFLORESCENCE UNDERSIDE OF DECK.
3. Curbs	5	CRACKING AND SPALLING WITH EXPOSED REINFORCING.
4. Median	N	
5. Sidewalks	N	
6. Railings	6	CHANNEL RAIL SET BEHIND CURB.
7. Paint	7	ON RAIL.
8. Drains	5	DO NOT EXTEND BEYOND GIRDERS.
9. Utility Connections	N	
10. Joint leakage	5	
11. Expansion Joints and Devices	5	PACKED WITH A.C.
General Comments		

(Remark required for NBI rating of 5 or less)

ITEM 58 DECK CONDITION RATING 4 SPALLING CONCRETE WITH EXPOSED TRANSVERSE REINFORCING ON WEARING SURFACE. NUMEROUS DECK SPALLS PATCHED WITH AC ARE DETRIMENTAL TO CONCRETE DECK.

Superstructure Tab

Bridge ID: 10TH ST SW

NBI 8. FHWA No. 8920

NBI 9. Location: 00000000

SUPERSTRUCTURE	CONDITION RATING	REMARKS
1. Bearing Devices	6	CORRODED WITH NO SIGNS OF SECTION LOSS.
2. Stringers	N	
Lateral Support ()	N	
3. Girders/Beams	6	(4) ROLLED STEEL BEAMS WITH COVER PLATES AT PIERS.
Lateral Support ()	7	BOLTED DIAPHRAGMS. AT THIRD POINTS IN EXTERIOR SPANS AND FOURTH POINTS IN INTERIOR SPAN.
4. Floor Beams	N	
Lateral Support ()	N	
5. Trusses - General	N	
Portals	N	
Bracing	N	
6. Paint	6	
7. Rivets or Bolts	7	NO MISSING/LOOSE FASTENERS OBSERVED.
8. Welds - Cracks	7	
9. Rust	6	ISOLATED CORROSION AT BACK FACE OF END DIAPHRAGM AND ABUTMENT BEARINGS.
10. Timber Decay	N	
11. Concrete Cracking	N	
12. Collision Damage	8	
13. Deflection Under Load	7	
14. Alignment of Members	8	
15. Vibration Under Load	8	

General Comments

(Remark required for NBI rating of 5 or less)

ITEM 59 SUPERSTRUCTURE CONDITION RATING

6	BEARINGS CORRODED WITH NO OBSERVED SECTION LOSS.
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Substructure Tab

Bridge ID: 10TH ST SW

NBI 8. FHWA No. 8920

NBI 9. Location: 000000000

SUBSTRUCTURE	CONDITION RATING	REMARKS
1. Abutments - Caps	6	
Wings	6	
Backwall	6	
Footing	N	
Piles		NOT EXPOSED.
Erosion	7	
Settlement	8	
2. Piers or Bents - Caps	6	HAIRLINE CRACKING AT EAST PIER
Columns	N	
Footings	N	
Piles	4	SEVERE DETERIORATION OF EAST PIER PILE ENCASEMENTS WITH EXPOSED CIRCUMFERENTIAL REINFORCING.
Scour	6	
Settlement	8	
3. Concrete Cracking	4	EAST PIER PILE ENCASEMENTS SEVERELY CRACKING/SPALLING.
4. Steel Corrosion	5	CORROSION WITH SECTION LOSS OF CIRCUMFERENTIAL REINFORCING AND H PILES IN EAST PIER.
5. Timber Decay	N	
6. Debris on Seats	7	
7. Paint	N	
8. Collision Damage	8	
General Comments		

(Remark required for NBI rating of 5 or less)

ITEM 60 SUBSTRUCTURE CONDITION RATING

5	CONCRETE SPALLING WITH EXPOSED REINFORCING AND H-PILES AT EAST PIER PILE ENCASEMENTS.
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Channel Protection Tab

Bridge ID:

NBI 8. FHWA No.

NBI 9. Location:

CHANNEL AND CHANNEL PROTECTION	CONDITION RATING	REMARKS
1. Channel Scour	<input type="text" value="6"/>	
2. Embankment Erosion	<input type="text" value="6"/>	
3. Drift	<input type="text" value="6"/>	
4. Vegetation	<input type="text" value="6"/>	
5. Channel Change	<input type="text" value="6"/>	UPSTREAM WATERWAY FLOWS THROUGH EAST HALF OF CHANNEL. WATERWAY FLOWS AROUND EAST PIER AND FILLS CENTER SPAN.
6. Fender System	<input type="text" value="N"/>	
7. Spur Dikes and Jetties	<input type="text" value="N"/>	
8. Riprap	<input type="text" value="6"/>	AT BOTH ABUTMENTS AND EAST PIER.
9. Adequacy of Opening	<input type="text" value="7"/>	
General Comments	<input type="text"/>	

(Remark required for NBI rating of 5 or less)

ITEM 61 CHANNEL / CHANNEL PROTECTION CONDITION RATING

Drainage Area square miles

Item 113 Scour Critical Bridges

Scour Critical Bridge

Scour Plan of Action (POA) Implemented for Bridges with Item 113 coded 0, 1, 2, or 3 (Upload POA):

Scour Analysis (Upload Analysis PDF): Level A Level B Level C

Bridge with Unknown Foundation

Unknown Foundation Analysis (Upload Analysis PDF): Level A Level B

Unknown Foundation Risk Level:

Plan of Action (POA) Implemented for Unknown Foundation determined to be Moderate or High Risk (Upload POA):

Pictures

NBI Number: 8920
Facility Carried: 10TH ST SW

Bridge ID: 10TH ST SW
Feature(s) Intersected: OTTER CREEK



Photo Number: 1

Photo Taken: 03/08/2021

ROAD VIEW LOOKING WEST



Photo Number: 2

Photo Taken: 03/08/2021

SIDE VIEW LOOKING SOUTH

Pictures

NBI Number: 8920
Facility Carried: 10TH ST SW

Bridge ID: 10TH ST SW
Feature(s) Intersected: OTTER CREEK



Photo Number: 3

Photo Taken: 03/08/2021

UNDER LOOKING WEST



Photo Number: 4

Photo Taken: 03/08/2021

UNDER LOOKING EAST

Pictures

NBI Number: 8920
Facility Carried: 10TH ST SW

Bridge ID: 10TH ST SW
Feature(s) Intersected: OTTER CREEK



Photo Number: 5

Photo Taken: 03/08/2021

SCALING UNDERSIDE OF DECK



Photo Number: 6

Photo Taken: 03/08/2021

SPALLED AREAS PATCHED WITH AC, DETRIMENTAL TO DECK

Pictures

NBI Number: 8920
Facility Carried: 10TH ST SW

Bridge ID: 10TH ST SW
Feature(s) Intersected: OTTER CREEK



Photo Number: 7

Photo Taken: 03/08/2021

DELAMINATING STEEL AT ABUTMENT DIAPHRAGMS



Photo Number: 8

Photo Taken: 03/08/2021

CRACKING AND DELAMINATING CONCRETE WITH EXPOSED CIRCUMFRENENTIAL REINFORCING AT N5 PILE IN EAST PIER

Pictures

NBI Number: 8920
Facility Carried: 10TH ST SW

Bridge ID: 10TH ST SW
Feature(s) Intersected: OTTER CREEK



Photo Number: 9

Photo Taken: 03/08/2021

CRACKING AND DELAMINATING CONCRETE WITH EXPOSED CIRCUMFRENENTIAL REINFORCING AT N1 AND N2 PILES IN EAST PIER