

Bridge Inspection Report

06453
US 82-08 LM 1.76
over
Ouachita River Relief



Inspection Date:

Inspected By:

Inspection Type(s):

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Location Map



Latitude: 33.152082545719686

Longitude: -92.08308301313093

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Executive Summary

Beginning of structure toward Union County Line, Quachita River, West End.

04-30-2019 GGL-KLR: NBI and element quantities field measured and verified against plans.

05-01-2007, Dropping UW inspection due to sub-str. elements are not continuously submerged. Normal water depth appears less than 1 foot deep. Durations of high water events occur. No signs of channel scour up or down stream. Rock riprap on slopes at Abt's. NBI Items #60 and #61 will represent all elements that occasionally stand in water. RLW.

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National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	04/30/2019
(8) STRUCTURE NUMBER	06453	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 2 1 82 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	02 (3) COUNTY CODE 003	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Ouachita River Relief	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	US 82-08 LM 1.76	CONDITION	
(9) LOCATION	1.76 Mi E UnionCo-Crosstt	(58) DECK	6
(11) MILEPOINT 1.760	(12) BASE HIGHWAY NETWORK 1	(59) SUPERSTRUCTURE	6 (60) SUBSTRUCTURE 7
(13A) LRS INVENTORY ROUTE	0000082080 (13B) SUBROUTE NUMBER 00	(61) CHANNEL & CHANNEL PROTECTION	7 (62) CULVERT N
(16) LATITUDE 33.15208254571968	(17) LONGITUDE -92.08308301313093	LOAD RATING AND POSTING	
(98A) BORDER BRIDGE CODE		(31) DESIGN LOAD	5
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(63) METHOD USED TO DETERMINE OPERATING RATING	1
STRUCTURE TYPE AND MATERIAL		(64) OPERATING RATING	60
(43) STRUCTURE TYPE, MAIN		(65) METHOD USED TO DETERMINE INVENTORY RATING	1
A) KIND OF MATERIAL/DESIGN:	1 - Concrete	(66) INVENTORY RATING	36
B) TYPE OF DESIGN/CONSTR:	04 - Tee Beam	(70) BRIDGE POSTING	5
(44) STRUCTURE TYPE, APPROACH SPANS		(41) STRUCTURE OPEN/POSTED/CLOSED	A
A) KIND OF MATERIAL/DESIGN:	0 - Other	APPRAISAL	
B) TYPE OF DESIGN/CONSTR:	00 - Other	(67) STRUCTURAL EVALUATION	6
(45) NUMBER OF SPANS IN MAIN	7 (46) NUMBER OF APPROACH	(68) DECK GEOMETRY	6
(107) DECK STRUCTURE TYPE	1 (108A) WEARING SURFACE	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(108B) DECK MEMBRANE	0 (108C) DECK PROTECTION	(71) WATERWAY ADEQUACY	8
AGE OF SERVICE		(72) APPROACH ROADWAY ALIGNMENT	8
(27) YEAR BUILT	1997 (106) YEAR RECONSTRUCTED	(36) TRAFFIC SAFETY FEATURE	
(42) TYPE OF SERVICE	ON 1 UNDER 9	36A) BRIDGE RAILINGS:	1
(28) LANES	ON 02 UNDER 00	36B) TRANSITIONS:	1
(29) AVERAGE DAILY TRAFFIC	2700 (19) BYPASS DETOUR LENGTH	36C) APPROACH GUARDRAIL:	0
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	36D) APPROACH GUARDRAIL ENDS:	1
(109) AVERAGE DAILY TRUCK TRAFFIC	1	(113) SCOUR CRITICAL BRIDGES	5
GEOMETRIC DATA		SUFFICIENCY RATING	84.2 STATUS 0
(48) LENGTH OF MAX SPAN (ft.)	35 (49) STRUCTURE LENGTH (ft.)	245	
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 0 RIGHT 0	CLASSIFICATION	
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	40.0	(112) NBIS BRIDGE LENGTH	Y
(52) DECK WIDTH, OUT-TO-OUT (ft.)	42.8	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(32) APPROACH ROADWAY WIDTH (ft.)	40.0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02
(33) BRIDGE MEDIAN	0 (34) SKEW (DEG.)	(100) STRAHNET HIGHWAY DESIGNATION	0
(35) STRUCTURE FLARED	0 (10) INV RTE, MIN VERT CLEAR (ft.)	(101) PARALLEL STRUCTURE DESIGNATION	N
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	41.3	(102) DIRECTION OF TRAFFIC	2
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(103) TEMP STRUCTURE	
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	(105) FEDERAL LANDS HIGHWAYS	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(110) DESIGNATED NATIONAL NETWORK	1
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	(20) TOLL	3
PROPOSED IMPROVEMENTS		(21) MAINTENANCE RESPONSIBILITY	01
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(22) OWNER	01
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	0	(37) HISTORICAL	5
(94) BRIDGE IMPROVEMENT COST (\$)	0	NAVIGATION DATA	
(95) ROADWAY IMPROVEMENT COST (\$)	0	(38) NAVIGATION CONTROL	0
(96) TOTAL PROJECT COST	0	(111) PIER OR ABUTMENT PROTECTION	5
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(39) NAV VERT CLEARANCE (ft.)	0
		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0

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(114) FUTURE ADT 3042

(115) YEAR OF FUTURE ADT 2027

(40) NAV HORIZONTAL CLEARANCE (ft.) 0

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Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
16 - Reinforced Concrete Top Flange	1- Ben.	10577	sq. ft.	9366	295	916	0
	Deck: 43.17' wide x 245' long. Some unsealed hairline- to moderate-sized cracks, mostly longitudinal along edges of Girders 2-4 (in main lanes) – heavier and larger cracking on Spans 1-5 and Span 7 (less and smaller cracks on Span 6), with a few diagonal (corner) cracks near bents. Span 7: Heavy cracking (longitudinal, diagonal, and transverse) in the 3-feet closest to Bent 8. A couple scattered transverse cracks. Soffit: Some minor to moderate efflorescence reflective of diagonal (corner) cracks. Some moisture and staining from joint leakage at stage construction joint in Span 7 near Bent 8.						
1120 - Efflorescence/Rust Staining		16		0	15	1	0
1130 - Cracking (RC and Other)		1195		0	280	915	0
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	1225	ft.	1015	210	0	0
	Girders: 5 per span / Span 1-7 (35' each span = 245' total span). Scattered hairline- to minor-sized vertical (flexure) cracks – from 4 to 10 cracks per span with some efflorescence beginning to show. Some scattered cracking in diaphragm walls with considerable efflorescence at cracks and at girders.						
1130 - Cracking (RC and Other)		210		0	210	0	0
215 - Reinforced Concrete Abutment	1- Ben.	96	ft.	88	8	0	0
	Abutments: 48' each (with wingwalls) / Bents 1 & 8. Hairline vertical cracks in both abutments with light efflorescence at diaphragms.						
1130 - Cracking (RC and Other)		8		0	8	0	0
227 - Reinforced Concrete Pile	1- Ben.	30	each	30	0	0	0
	Pile: 5 per bent / Bents 2-7.						
234 - Reinforced Concrete Pier Cap	1- Ben.	264	ft.	257	6	1	0
	Caps: 44' each / Bents 2-7. Bent 5: Two large delaminations on ahead side. Bent 6: Very small spall with exposed rebar on ahead side.						
1080 - Delamination/Spall/Patched Area		6		0	6	0	0
1090 - Exposed Rebar		1		0	0	1	0

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Element Inspection

301 - Pourable Joint Seal	1- Ben.	352	ft.	342	0	10	0
Joints: 44' each / Bents 1-8. All bents: Poured joint material is mostly intact but has lost adhesion in some places and allowing storm-water to leak through onto ends of deck and girders and onto cap. Stage construction joint on left side (between Girders 1 & 2): Poured joint material is mostly intact but has lost adhesion in some places and allowing storm-water to leak through joint, especially on Span 7 near Bent 8 (Not included in element quantities).							
2320 - Seal Adhesion		10		0	0	10	0
321 - Reinforced Concrete Approach Slab	1- Ben.	1776	sq. ft.	1726	10	40	0
Approach slab: 2 each (24.33' wide x 36.5' long = 888 sqft each) / Bents 1 & 8.. Both approach slabs have scattered cracks, heaviest at Bent 8.							
1130 - Cracking (RC and Other)		50		0	10	40	0
331 - Reinforced Concrete Bridge Railing	1- Ben.	490	ft.	490	0	0	0
Railing: 245' each side.							

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Pictures

PHOTO 1

Description

PHOTO 1

Description

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Pictures



PHOTO 1

Description

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Bridge Inspection Report

Sketches

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 04/12/2017

Priority: D - Routine

Work Code: N/A

Deficiency Description:

Joints -

All bents: Poured joint material is mostly intact but has lost adhesion in some places and allowing storm-water to leak through onto ends of deck and girders and onto cap.

Stage construction joint on left side (between Girders 1 & 2): Poured joint material is mostly intact but has lost adhesion in some places and allowing storm-water to leak through joint, especially on Span 7 near Bent 8.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description Soffit, Span 7 near bent 8 between girders 1 & 2 the soffit has moisture seeping from the deck at the construction joint.

Stage: Monitor



PHOTO 1 Description Joint - Bent 2 : Loss of adhesion

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Maintenance Needs

Stage: Open



PHOTO 2 Description Deck joint at soffit crack, joint material has lost bond allowing moisture to seep through deck. (See soffit photo).

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Maintenance Needs

Date Reported: 04/30/2019

Priority: D - Routine

Work Code: N/A

Deficiency Description:

Deck:

Some unsealed hairline- to moderate-sized cracks, mostly longitudinal along edges of Girders 2-4 (in main lanes) – heavier and larger cracking on Spans 1-5 and Span 7 (less and smaller cracks on Span 6), with a few diagonal (corner) cracks near bents.

Span 7: Heavy cracking (longitudinal, diagonal, and transverse) in the 3-feet closest to Bent 8.

A couple scattered transverse cracks.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description Deck - Span 4: Cracking

Stage: Open



PHOTO 1 Description Deck - Span 7: Cracking

Inspector:

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Maintenance Needs

Stage: Open



PHOTO 2 Description Deck - Span 5: Cracking

Stage: Open



PHOTO 4 Description Deck - Span 7: Cracking

Stage: Open



PHOTO 3 Description Deck - Span 7: Cracking

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Bridge Inspection Report

Maintenance Needs

Date Reported: 04/12/2017

Priority: D - Routine

Work Code: N/A

Deficiency Description:

All spans have trees and vegetation growing under bridge.

Work Description:

David: catch this one this summer when it is dry and remove all the vegetation

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description End-slope - Span 6 right : Vegetation

Stage: Open



PHOTO 2 Description Elevation.

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Maintenance Needs

Stage: Open



PHOTO 3 Description Span 2 trees growing under the bridge.
Common all spans.

Stage: Open



PHOTO 4 Description Span 1 vegetation and vines growing
under bridge.