

Bridge Inspection Report

05278

US 165-05 LM 2.45

over

Moore Bayou



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

Structure Number: 05278

Inspection Date:

Facility Carried: US 165-05 LM 2.45

Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	08/29/2017
(8) STRUCTURE NUMBER	05278	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 2 1 165 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	02 (3) COUNTY CODE 001	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Moore Bayou	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	US 165-05 LM 2.45		
(9) LOCATION	2.45 Mi N AR Rvr-Pndleton		
(11) MILEPOINT 2.450	(12) BASE HIGHWAY NETWORK 1		
(13A) LRS INVENTORY ROUTE	0000165050 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 34.01811	(17) LONGITUDE -91.38167		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	7
A) KIND OF MATERIAL/DESIGN: 4 - Steel continuous		(59) SUPERSTRUCTURE	6 (60) SUBSTRUCTURE 8
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(61) CHANNEL & CHANNEL PROTECTION	8 (62) CULVERT N
(44) STRUCTURE TYPE, APPROACH SPANS			
A) KIND OF MATERIAL/DESIGN: 0 - Other			
B) TYPE OF DESIGN/CONSTR: 00 - Other			
(45) NUMBER OF SPANS IN MAIN 16	(46) NUMBER OF APPROACH 0		
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 6		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1983	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	5
(42) TYPE OF SERVICE ON 1 UNDER 5		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 02 UNDER 00		(64) OPERATING RATING	45.0
(29) AVERAGE DAILY TRAFFIC 1600	(19) BYPASS DETOUR LENGTH 124	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	27.0
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(70) BRIDGE POSTING	5
		(41) STRUCTURE OPEN/POSTED/CLOSED	A
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 65	(49) STRUCTURE LENGTH (ft.) 962	(67) STRUCTURAL EVALUATION	6
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0 RIGHT 0		(68) DECK GEOMETRY	7
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 40.0		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.) 43		(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.) 40.0		(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN 0 (34) SKEW (DEG.) 0		(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0 (10) INV RTE, MIN VERT CLEAR (ft.) 99.99		36A) BRIDGE RAILINGS:	1
(47) TOTAL HORIZONTAL CLEARANCE (ft.) 41.3		36B) TRANSITIONS:	0
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.) 99.99		36C) APPROACH GUARDRAIL:	0
(54) VERTICAL UNDER CLEARANCE (ft.) N 0		36D) APPROACH GUARDRAIL ENDS:	1
(55) LATERAL UNDER CLEARANCE RIGHT (ft.) N 99.9		(113) SCOUR CRITICAL BRIDGES	5
(56) MIN LATERAL UNDER CLEARANCE (ft.) 0		SUFFICIENCY RATING	0 STATUS 71.8
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 0		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	1
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	02
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	0	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 1703	(115) YEAR OF FUTURE ADT 2028	(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	1
		(20) TOLL	3
		(21) MAINTENANCE RESPONSIBILITY	01
		(22) OWNER	01
		(37) HISTORICAL	5
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	0
		(111) PIER OR ABUTMENT PROTECTION	5
		(39) NAV VERT CLEARANCE (ft.)	0
		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
		(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
12 - Reinforced Concrete Deck	1- Ben.	41365	sq. ft.	41365			
<div style="border: 1px solid red; padding: 5px; display: inline-block; color: red;">Note: 2" of ACHM overlay on deck</div>	Deck: 43' wide x 962' long. Some scattered areas of minor- to moderate sized cracking in asphalt wearing surface, with moderate-sized transverse cracks at bents (20%) Some very small areas of potholing (asphalt wearing surface peeling up) at various bents along centerline (2%). A few scattered asphalt patches filling potholes in wheel ruts in various locations.						
510 - Wearing Surfaces		38480	sq. ft.	30014	8466	0	0
3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces)		770			770		
3220 - Crack (Wearing Surface)		7696			7696		
107 - Steel Open Girder/Beam	1- Ben.	5760	ft.	5280	96	384	0
	Girders: 6 per span / 960' total span. Coating: 7.3 square feet/linear feet of girder. Girders 1-6 @ Bents 1, 5, 9, 13, & 17: Ends of girders at open joints are corroding with initial section loss (flaking and pitting) of top and bottom and bottom flange and web at bottom flange and haunch - 6-10' from the joint at each location (6 girders x 8' x 8 locations = 384' CS3 / 6 girders x 2' x 8 locations = 96' CS2).						
1000 - Corrosion		480			96	384	
515 - Steel Protective Coating		42048	sq. ft.	26398	15000	130	520
3430 - Oxide Film Degradation Color/Texture Adherence(Steel Protective Coatings)		15650			15000	130	520
205 - Reinforced Concrete Column	1- Ben.	10	each	10			
	Columns: 5 per bent / Bents 9 & 10.						
215 - Reinforced Concrete Abutment	1- Ben.	106	ft.	106			
	Abutments: 53' each / Bents 1 & 17.						
220 - Reinforced Concrete Pile Cap/Footing	1- Ben.	80	ft.	80			
	Bents 9&10 are 40' each for 80' total .						
227 - Reinforced Concrete Pile	1- Ben.	100	each	99	1	0	0
	Piling: 8 per bent / Bents 2-4, 6-8, 11-12, 14-16; 6 per bent / Bents 5 & 13. Bent 7 Pile 5: Small spall on back right side.						
1080 - Delamination/Spall/Patched Area		1			1		
234 - Reinforced Concrete Pier Cap	1- Ben.	600	ft.	600			
	Caps: 40' each / Bents 2-16. Bents 1, 5, 9, 13, & 17: Build-up of dirt and debris on top of caps and around bearings, holding moisture on top of caps and around bearings.						

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Element Inspection

300 - Strip Seal Expansion Joint	1- Ben.	200	ft.	0	0	0	200
Joints: 40' each / Bents 1, 5, 9, 13, & 17. No joint material in place, allowing dirt and debris to build up on top of caps and around bearings and allowing stormwater through on top of caps, around bearings, and on ends of girders.							
2330 - Seal Damage		200					200
310 - Elastomeric Bearing	1- Ben.	120	each	120			
Bearings: 6 per bent / Bents 1-4, 5 back, 5 ahead, 6-8, 9 back, 9 ahead, 10-12, 13 back, 13 ahead, 14-17.							
331 - Reinforced Concrete Bridge Railing	1- Ben.	1924	ft.	1924			
Railing: 962' each side.							

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Maintenance Needs

Date Reported: 08/26/2015

Priority: D - Routine

Work Code: N/A

Deficiency Description:

Caps – Bents 1, 5, 9, 13, & 17:

Build-up (4-8" deep) of dirt and debris on top of caps and around bearings, holding moisture on top of caps and around bearings.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Cap - Bent 13 (debris)

Stage: Monitor



PHOTO 2 Description Cap - Bent 1 (debris)

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Maintenance Needs

Date Reported: 08/26/2015

Priority: D - Routine

Work Code: N/A

Deficiency Description:

Joints – Bents 1, 5, 9, 13, & 17:

No joint material in place, allowing dirt and debris to build up on top of caps and around bearings and allowing stormwater through on top of caps, around bearings, and on ends of girders.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Remove old material, clean joint, and re-apply new joint material.

Stage: Monitor



PHOTO 1 Description Joint - Bent 1

Stage: Monitor



PHOTO 2 Description Joint - Bent 17 right side

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Maintenance Needs

Date Reported: 08/26/2015

Priority: G - General/ Preventive maintenance

Work Code: N/A

Deficiency Description:

Deck – all spans: Some scattered areas of minor- to moderate sized cracking in asphalt wearing surface, with moderate-sized transverse cracks at bents.

Some very small areas of potholing (asphalt wearing surface peeling up) at various bents along centerline. A few scattered asphalt patches filling potholes in wheel ruts in various locations.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Wearing surface - Span 13

Stage: Monitor



PHOTO 2 Description Joint - Bent 17 right side

Inspector:

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Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 3 Description Wearing surface - Span 7

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Maintenance Needs

Date Reported: 08/29/2017

Priority: C - Important

Work Code: N/A

Deficiency Description:

Girders 1-6 @ Bents 1, 5, 9, 13, & 17: Ends of girders at open joints are corroding with initial section loss (flaking and pitting) of top and bottom and bottom flange and web at bottom flange and haunch - 6-10' from the joint at each location.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description

Stage: Open



PHOTO 2 Description

Inspector:

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Maintenance Needs

Stage: Open



PHOTO 3 Description

Stage: Monitor

Stage: Monitor



PHOTO 5 Description Bent 13 expansion joint is missing .

Stage: Monitor



PHOTO 4 Description Bent 5 expansion joint is missing .



PHOTO 6 Description Bent 9 expansion joint is missing .

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Maintenance Needs

Stage: Monitor



PHOTO 7 Description Bent 17 expansion joint is missing .