

Bridge Inspection Report

04183
SH 4-18 LM 9.42
over
Lake Isaacs



Inspection Date:

Inspected By:

Inspection Type(s):

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Inspector:

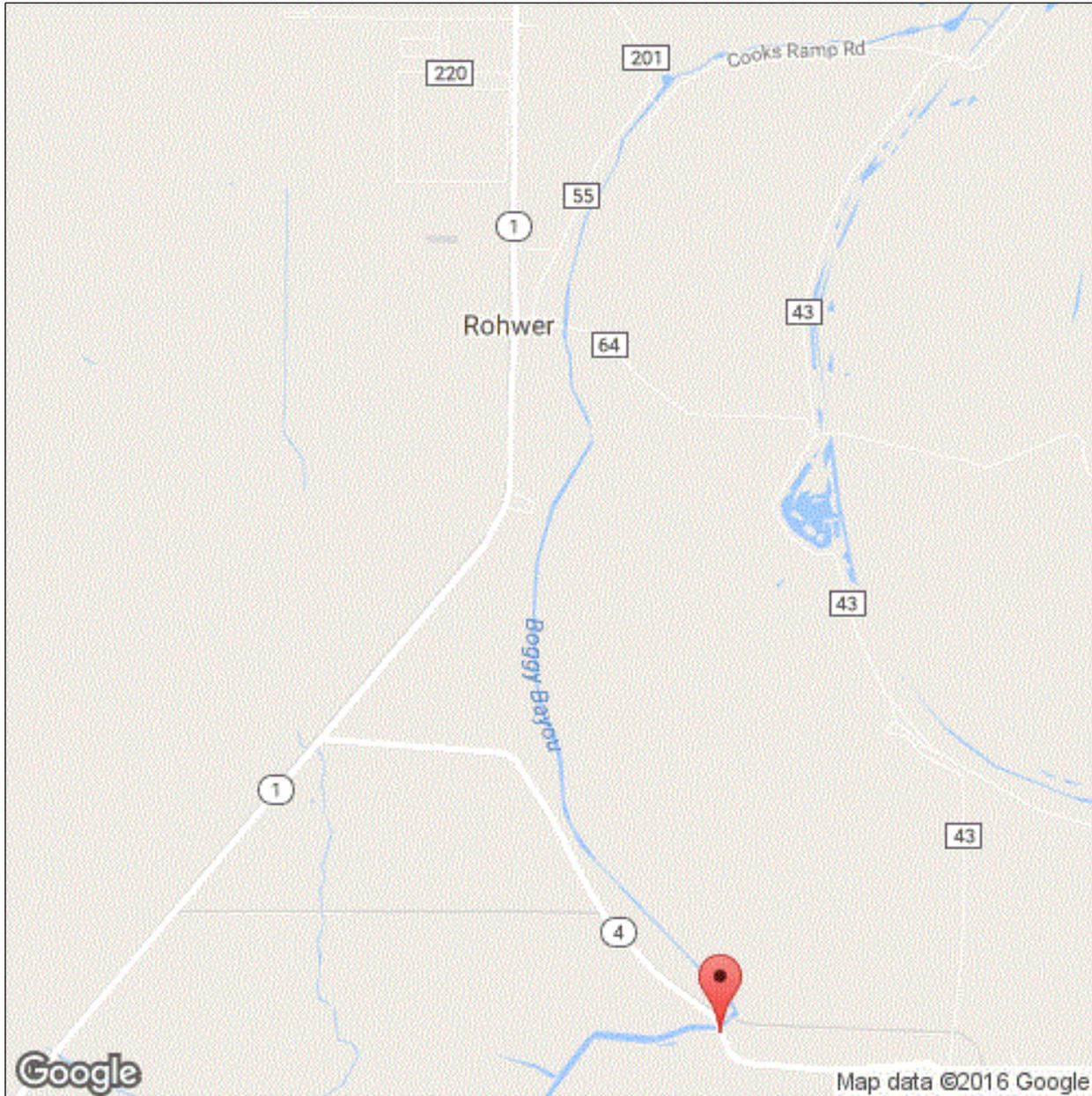
Structure Number: 04183

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Bridge Inspection Report

Location Map



Latitude: 33.714793624374906

Longitude: -91.25888034688103

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Bridge Inspection Report

Executive Summary

Beginning of structure toward Arkansas City, South End.

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Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	01/09/2019
(8) STRUCTURE NUMBER	04183	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 4 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	02 (3) COUNTY CODE 041	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Lake Isaacs	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 4-18 LM 9.42	CONDITION	
(9) LOCATION	1.8 Mi SE SH 1-Rohwer	(58) DECK	6
(11) MILEPOINT 9.420	(12) BASE HIGHWAY NETWORK 0	(59) SUPERSTRUCTURE	6 (60) SUBSTRUCTURE 7
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00	(61) CHANNEL & CHANNEL PROTECTION	7 (62) CULVERT N
(16) LATITUDE 33.71479362437490	(17) LONGITUDE -91.25888034688103	LOAD RATING AND POSTING	
(98A) BORDER BRIDGE CODE		(31) DESIGN LOAD	2
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(63) METHOD USED TO DETERMINE OPERATING RATING	1
STRUCTURE TYPE AND MATERIAL		(64) OPERATING RATING	53
(43) STRUCTURE TYPE, MAIN		(65) METHOD USED TO DETERMINE INVENTORY RATING	1
A) KIND OF MATERIAL/DESIGN:	1 - Concrete	(66) INVENTORY RATING	32
B) TYPE OF DESIGN/CONSTR:	22 - Channel 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	13 (46) NUMBER OF APPROACH 0	(68) DECK GEOMETRY	4
(107) DECK STRUCTURE TYPE	2 (108A) WEARING SURFACE 6	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(108B) DECK MEMBRANE	0 (108C) DECK PROTECTION 0	(71) WATERWAY ADEQUACY	8
AGE OF SERVICE		(72) APPROACH ROADWAY ALIGNMENT	5
(27) YEAR BUILT	1962 (106) YEAR RECONSTRUCTED 0000	(36) TRAFFIC SAFETY FEATURE	
(42) TYPE OF SERVICE	ON 1 UNDER 5	36A) BRIDGE RAILINGS:	0
(28) LANES	ON 02 UNDER 00	36B) TRANSITIONS:	0
(29) AVERAGE DAILY TRAFFIC	1500 (19) BYPASS DETOUR LENGTH 15	36C) APPROACH GUARDRAIL:	0
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	36D) APPROACH GUARDRAIL ENDS:	0
(109) AVERAGE DAILY TRUCK TRAFFIC	1	(113) SCOUR CRITICAL BRIDGES	5
GEOMETRIC DATA		SUFFICIENCY RATING	74.8 STATUS 0
(48) LENGTH OF MAX SPAN (ft.)	19 (49) STRUCTURE LENGTH (ft.) 247	CLASSIFICATION	
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 0.5 RIGHT 0.5	(112) NBIS BRIDGE LENGTH	Y
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	24.0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(52) DECK WIDTH, OUT-TO-OUT (ft.)	25	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(32) APPROACH ROADWAY WIDTH (ft.)	25.9	(100) STRAHNET HIGHWAY DESIGNATION	0
(33) BRIDGE MEDIAN	0 (34) SKEW (DEG.) 0	(101) PARALLEL STRUCTURE DESIGNATION	N
(35) STRUCTURE FLARED	0 (10) INV RTE, MIN VERT CLEAR (ft.) 99.99	(102) DIRECTION OF TRAFFIC	2
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	24.9	(103) TEMP STRUCTURE	
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(105) FEDERAL LANDS HIGHWAYS	0
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	(110) DESIGNATED NATIONAL NETWORK	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(20) TOLL	3
(56) MIN LATERAL UNDER CLEARANCE (ft.)	99.9	(21) MAINTENANCE RESPONSIBILITY	01
PROPOSED IMPROVEMENTS		(22) OWNER	01
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(37) HISTORICAL	5
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	0	NAVIGATION DATA	
(94) BRIDGE IMPROVEMENT COST (\$)	0	(38) NAVIGATION CONTROL	0
(95) ROADWAY IMPROVEMENT COST (\$)	0	(111) PIER OR ABUTMENT PROTECTION	5
(96) TOTAL PROJECT COST	0	(39) NAV VERT CLEARANCE (ft.)	0
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0

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(114) FUTURE ADT 1385

(115) YEAR OF FUTURE ADT 2028

(40) NAV HORIZONTAL CLEARANCE (ft.) 0

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Bridge Inspection Report

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.	6175	sq. ft.	6175	0	0	0
	Deck length 247 .00 x 25 wide = 6,175 Asphalt wearing surface - all spans: Significant deterioration with large cracks along joints of units - few scattered small spalls. Moderate to large transverse cracks at bents and bridge ends.						
510 - Wearing Surfaces		5952	sq. ft.	0	3976	988	988
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	1729	ft.	1304	2	423	0
	7 precast channel beam units per span / 19' each span x 13 spans = 247' total. Various locations: Cracking, delamination, and spalling with steel exposed (some section loss) on bottom of legs of precast channel beams units. Span 4 - Bottom of stem - unit 1 cracking near bent 5, unit 6 small amount of rebar exposed at bent 4. Span 5 - Bottom of stem - unit 1 small amount of rebar exposed on front face of diaphragm Unit 6 cracking at mid-span. Span 6 - Bottom of stem - units 4 & 5 light spalls at mid-span. Span 7 - Bottom of stem - unit 3 cracking at bent 8. Span 9 - Bottom of stem - unit 7 cracking at mid-span. Span 10 - Bottom of stem - unit 4 cracking at mid-span. Span 11 - Bottom of stem - unit 4 cracking at mid-span. Span 12 - Bottom of stem - unit 5 rebar exposed at bent 12 Span 13 - Bottom of stem - units 3 & 4 cracking at bent 12. Span 13 - Bottom of stem - unit 7 exposed rebar from bent 12 out to mid-span. Spalling and cracking to channel legs various location.						
1080 - Delamination/Spall/Patched Area		95		0	0	95	0
1090 - Exposed Rebar		30		0	2	28	0
1130 - Cracking (RC and Other)		300		0	0	300	0
215 - Reinforced Concrete Abutment	1- Ben.	70	ft.	65	5	0	0
	Abutments: 35' each / Bents 1 & 14. Endslope - Bent 1 left: Some erosion beginning at abutment and down slope - bottom of cap and pile exposed.						
1080 - Delamination/Spall/Patched Area		2		0	2	0	0
6000 - Scour		3		0	3	0	0
227 - Reinforced Concrete Pile	1- Ben.	36	each	35	1	0	0
	Piling: 3 per bent / Bents 2-13. Bent 12 pile has damage due to gun shots. Channel - right side: Build-up of large trees, limbs, and other debris against pile at Bents 6-8.						
1080 - Delamination/Spall/Patched Area		1		0	1	0	0

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Element Inspection

234 - Reinforced Concrete Pier Cap	1- Ben.	300	ft.	289	4	7	0
	Caps: 25' each / Bents 2-13. Bents 8, 11 & 12 have small contact spalls and some cracks. Bent 3 back has small spalls with exposed rebar. Bent 5 cap both ends have small spalls.						
1080 - Delamination/Spall/Patched Area		6		0	2	4	0
1090 - Exposed Rebar		3		0	0	3	0
1130 - Cracking (RC and Other)		2		0	2	0	0
330 - Metal Bridge Railing	1- Ben.	494	ft.	494	0	0	0
	Minor collision damage Coating: 2.5 square feet per linear feet of railing. All railing is dull with no luster.						
515 - Steel Protective Coating		1235	sq. ft.	0	1235	0	0
3410 - Chalking (Steel Protective Coatings)		1235		0	1235	0	0

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Pictures

Inspector:

Inspection Date:

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Bridge Inspection Report

Sketches

Inspector:

Structure Number: 04183

Inspection Date:

Facility Carried: SH 4-18 LM 9.42

Bridge Inspection Report

Maintenance Needs

Date Reported: 1/23/2015 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code: N/A

Deficiency Description:

Girder - various locations: Cracking and delaminating on bottom of legs of precast channel beams units.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Span 13 Units 3-4 @ Bent 13 (cracking/delaminating)

Stage: Monitor



PHOTO 2 Description Span 2 Unit 3 (cracking/delaminating)

Inspector:

Structure Number: 04183

Inspection Date:

Facility Carried: SH 4-18 LM 9.42

Bridge Inspection Report

Maintenance Needs

Date Reported: 01/31/2017

Priority: C - Important

Work Code: N/A

Deficiency Description:

Roadway slope - Bent 1 right: Small, narrow area of erosion on the roadway side of winglette - eroded up inside of the curb of the bridge and close to the edge line.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Desha: pack area with soil cement

Stage: Open



PHOTO 1 Description Abutment - Bent 1 right (erosion)

Stage: Open



PHOTO 2 Description Abutment - Bent 1 right (erosion)

Inspector:

Structure Number: 04183

Inspection Date:

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Maintenance Needs

Date Reported: 01/31/2017

Priority: D - Routine

Work Code: N/A

Deficiency Description:

Endslope - Bent 1 left: Some erosion beginning at abutment and down slope - bottom of cap and pile exposed.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description Endslope - Bent 1 left (erosion)

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Maintenance Needs

Date Reported: 01/09/2019

Priority: D - Routine

Work Code: N/A

Deficiency Description:

Girder - various locations: Spalling with steel exposed (some section loss) on bottom of legs of precast channel beams units.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Span 12 Unit 5 @ Bent 13 (rebar exposed/cracking/delaminating)

Stage: Monitor



PHOTO 2 Description Span 12 Unit 1 @ Bent 13 (rebar exposed)

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Maintenance Needs

Stage: Monitor



PHOTO 3 Description Span 10 Unit 4 (rebar exposed)

Stage: Monitor



PHOTO 4 Description Span 4 Unit 6 (rebar exposed)

Stage: Monitor



PHOTO 5 Description Span 2 girder 3 spalling to channel legs.

Stage: Monitor



PHOTO 6 Description Span 12 unit 1 girder legs have spalls with exposed rebar. Common unit 5 this span.

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Maintenance Needs

Stage: Monitor



PHOTO 7 Description Span 2 girder 6 has spalling to channel legs.

Stage: Monitor



PHOTO 8 Description Span 4 girder 5 has cracks and delam in channel legs. Common girder 3 this span.

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Maintenance Needs

Date Reported: 01/09/2019

Priority: C - Important

Work Code: N/A

Deficiency Description:

Asphalt wearing surface - all spans: Significant deterioration with large cracks along joints of units - few scattered small spalls. Moderate to large transverse cracks at bents and bridge ends.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Asphalt wearing surface - Spans 1-2 (deterioration)

Stage: Assigned



PHOTO 1 Description Deck all spans have small spalls in asphalt wear surface at unit ends and key ways.

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Maintenance Needs

Stage: Assigned



PHOTO 2 Description Bent 1 approach roadway has small pothole near centerline.

Stage: Monitor



PHOTO 3 Description Asphalt wearing surface - Spans 4-5 (deterioration)

Stage: Monitor



PHOTO 2 Description Asphalt wearing surface - Spans 9-10 (deterioration)

Stage: Assigned



PHOTO 3 Description Bent 14 approach roadway has small pothole in asphalt.

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Bridge Inspection Report

Maintenance Needs

Date Reported: 01/09/2019

Priority: D - Routine

Work Code: N/A

Deficiency Description:

Channel - right side: Build-up of large trees, limbs, and other debris against pile at Bents 6-8.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Remove trees and debris - work with Charlie -Ronnie if you need help

Stage: Monitor

Stage: Monitor



PHOTO 1 Description Channel - right side (debris build-up)

PHOTO 2 Description Channel - right side (debris build-up)

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Maintenance Needs

Stage: Monitor



PHOTO 3 Description Channel - right side (debris build-up)

Stage: Monitor



PHOTO 4 Description Debris field at piles bents 6-8.

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Maintenance Needs

Date Reported: 01/09/2019

Priority: C - Important

Work Code: N/A

Deficiency Description:

Approach roadway - both ends: Significant deterioration of asphalt wearing surface - numerous large cracks and potholes.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Desha: get a bobcat- mill out his approach and replace with hot mix

Stage: Monitor



PHOTO 1 Description Approach roadway - Bent 1 (deterioration)

Stage: Assigned



PHOTO 1 Description Bent 1 approach roadway has small pothole near centerline.

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Maintenance Needs

Stage: Assigned



PHOTO 2 Description Bent 14 approach roadway has small pothole in asphalt.

Stage: Monitor



PHOTO 2 Description Approach roadway - Bent 14 (deterioration)