

Bridge Inspection Report

M3808
SH 69-10- LM 4.49
over
VILLAGE CREEK



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

Structure Number: M3808

Inspection Date:

Facility Carried: SH 69-10- LM 4.49

Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	03/28/2017
(8) STRUCTURE NUMBER	M3808	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 69 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	10 (3) COUNTY CODE 055	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	VILLAGE CREEK	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 69-10- LM 4.49		
(9) LOCATION	3.0 MI S JCT US 412 & 69		
(11) MILEPOINT 4.490	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 36.009346351507226	(17) LONGITUDE -90.48643601554232		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	5
A) KIND OF MATERIAL/DESIGN: 3 - Steel		(59) SUPERSTRUCTURE	4 (60) SUBSTRUCTURE 5
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(61) CHANNEL & CHANNEL PROTECTION	5 (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	4 (46) NUMBER OF APPROACH		
(107) DECK STRUCTURE TYPE	1 (108A) WEARING SURFACE		
(108B) DECK MEMBRANE	0 (108C) DECK PROTECTION		
	0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT	1974 (106) YEAR RECONSTRUCTED	(31) DESIGN LOAD	0
(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	13
(29) AVERAGE DAILY TRAFFIC	1800 (19) BYPASS DETOUR LENGTH	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	(66) INVENTORY RATING	8
(109) AVERAGE DAILY TRUCK TRAFFIC	1	(70) BRIDGE POSTING	0
		(41) STRUCTURE OPEN/POSTED/CLOSED	P
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.)	29 (49) STRUCTURE LENGTH (ft.)	(67) STRUCTURAL EVALUATION	3
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 0 RIGHT 0	(68) DECK GEOMETRY	5
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	31.9	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.)	34.7	(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.)	32.2	(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN	0 (34) SKEW (DEG.)	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED	0 (10) INV RTE, MIN VERT CLEAR (ft.)	36A) BRIDGE RAILINGS:	1
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	33.0	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:	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(113) SCOUR CRITICAL BRIDGES	5
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	SUFFICIENCY RATING	1 STATUS 36.6
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED	35 (75B) WORK DONE BY	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	116.0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	180	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2000	(102) DIRECTION OF TRAFFIC	2
		(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	0
		(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

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(114) FUTURE ADT 2543

(115) YEAR OF FUTURE ADT 2028

(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.	4032	sq. ft.	2734	20	1276	2
1080 - Delamination/Spall/Patched Area		1210				1208	2
1090 - Exposed Rebar		58				58	
1120 - Efflorescence/Rust Staining		10				10	
1130 - Cracking (RC and Other)		20			20		
510 - Wearing Surfaces		3707	sq. ft.	1947	359	1401	0
3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces)		790				790	
3220 - Crack (Wearing Surface)		970			359	611	
107 - Steel Open Girder/Beam	1- Ben.	1044	ft.	0	660	240	144
1000 - Corrosion		1044			660	240	144
515 - Steel Protective Coating		6937	sq. ft.	260	0	4059	2618
3440 - Effectiveness (Steel Protective Coatings)		6677				4059	2618
216 - Timber Abutment	1- Ben.	70	ft.	55	0	15	0
1140 - Decay/Section Loss		15				15	
228 - Timber Pile	1- Ben.	45	each	18	20	7	0
1140 - Decay/Section Loss		27			20	7	
235 - Timber Pier Cap	1- Ben.	105	ft.	61	0	35	9
1140 - Decay/Section Loss		44				35	9
331 - Reinforced Concrete Bridge Railing	1- Ben.	233	ft.	121	52	60	0
1080 - Delamination/Spall/Patched Area		40				40	
1090 - Exposed Rebar		20				20	
1130 - Cracking (RC and Other)		52			52		

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Bridge Inspection Report

Maintenance Needs

Date Reported: 6/14/2012 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Ends of Majority Girders
are rusted with pitting up to 1/4 in. section loss to bottom flange and web, especially 4 ft. on ends.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Inspector:

Structure Number: M3808

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 6/14/2012 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Concrete Deck with Asphalt Overlay has minor size and density sealable cracks in asphalt.

Spans 3&4 have severe cracks with areas of delamination, especially at joints.

3ft of right and left gutters has the asphalt spalled, delaminated or missing.

Concrete Deck has excessive map cracking and delaminated areas with rebar exposed, especially near joints at Bents 3&4 and drains, see 2017 photo of right side of Span 3 for typical.

Bottom of Deck, Soffit has several spalled and honeycombed areas with exposed rebar, especially at overhangs and joints.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description

Inspector:

Structure Number: M3808

Inspection Date:

Facility Carried: SH 69-10- LM 4.49

Bridge Inspection Report

Maintenance Needs

Date Reported: 6/14/2012 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Bent 2 Piles 1, 2, 3, & 9 have the top foot of pile decayed and hollow, see 2017 photo of Bent 2 Pile 9 for typical.

Bent 2 Pile 2 has minor outside decay at ground line.

Bent 2 Pile 5 is decayed and partially hollow.

Bent 3 Piles 4&5 has some outside decay at ground line.

Bent 3 Pile 8 has the top 2ft. of pile decayed and hollow.

Bent 4 Pile 1 has 3 inches of outside decay and section loss on bottom 2ft., see 2017 photo.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description

Inspector:

Structure Number: M3808

Inspection Date:

Facility Carried: SH 69-10- LM 4.49

Bridge Inspection Report

Maintenance Needs

Date Reported: 5/29/2013 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code:

Deficiency Description:

All Steel Girders
are rusted with some pitting.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Date Reported: 5/29/2013 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Several Diaphragms are rusted with pitting and some Diaphragms have holes rusted thru webs with a few diaphragms with complete section loss.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Inspector:

Structure Number: M3808

Inspection Date:

Facility Carried: SH 69-10- LM 4.49

Bridge Inspection Report

Maintenance Needs

Date Reported: 4/22/2014 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Left end of Bent 1 Cap has 3 inches of outside decay, see 2017 photo.

Right end of Bent 1 Cap is decayed & rotted with some section loss.

Bent 1 Cap is rotted, decayed and hollow between Girders 3&4, see 2017 photo.

Bent 2 Cap is rotted, decayed and partially hollow, up to 4in. section loss, see 2017 photo of Bent 2 near Girder 4.

Bent 2 Spacer Block under Girder 5 spans 1&2 is rotted, decay, and hollow, see 2017 photo.

Bent 3 Cap has 2 feet between girders 3&4 that is rotted and decayed with 50% section loss at splice with some crushing under Girders 2, 3, 4, 5, & 7, see 2014 photo at splice.

Bent 4 Cap Splice between Piles 6&7 is decayed and hollow, 1ft. typical.

Bent 5 Cap Splice between Piles 3&4 is decayed and partially hollow, 1ft. typical of each end.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description

Inspector:

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 3 Description

Stage: Monitor



PHOTO 5 Description

Stage: Monitor



PHOTO 4 Description

Inspector:

Structure Number: M3808

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Bridge Inspection Report

Maintenance Needs

Date Reported: 4/22/2014 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Span 1 Girder 2 Bent 1 has a 1 1/4in. diameter hole in web near top flange near diaphragm.

Span 1 Girder 3 Bent 1 has a 2in. x 1in. hole in web near top flange near diaphragm.

Span 1 Girder 7 Bent 1 has a 4in. x 1 1/2in. hole in web near top flange near diaphragm.

Span 1 Girder 2 Bent 2 has a 1in. diameter hole in web near top flange near diaphragm.

Span 2 Girder 1 Bent 2 has a 1in. diameter hole in web near top flange near diaphragm.

Span 2 Girder 7 Bent 3 has a 1in. x 5 1/2in. hole in web near top flange near diaphragm.

Span 3 Girder 3 Bent 3 has heavy section loss in web above T-Splice with a 1in. diameter hole in web.

Span 3 Girder 5 Bent 3 has heavy section loss in web above T-Splice with a 1in. x 3in. hole in web at end of girder.

Span 3 Girder 8 Bent 3 has heavy section loss in web above T-Splice with several holes up to 1/2in. diameter in web.

Span 3 Girder 3 Bent 4 has heavy section loss to the web with a knife edge near the end of girder and a 1 1/2in. diameter hole near the diaphragm.

Span 4 Girder 3 Bent 4 has heavy section loss to the web with a knife edge near the end of girder and a 1 1/2in. diameter hole near the diaphragm.

Span 4 Girder 1 Bent 4 has heavy section loss in web and bottom flange.

Span 4 Girder 4 Bent 5 has a 2in. x 1in. hole in top web near diaphragm.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description

Inspector:

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 3 Description

Stage: Monitor



PHOTO 4 Description

Stage: Monitor



PHOTO 5 Description

Stage: Monitor



PHOTO 6 Description

Inspector:

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Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 7 Description

Stage: Monitor



PHOTO 9 Description

Stage: Monitor



PHOTO 8 Description

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 03/28/2017

Priority: D - Routine

Work Code:

Deficiency Description:

Bents 1&5 Cap has dirt and debris on top of cap, see 2017 photos.

Ends of Girders over Bents 1&5 Cap has dirt and debris on flanges and bottom of web.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description

Inspector:

Structure Number: M3808

Inspection Date:

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Maintenance Needs

Date Reported: 03/28/2017

Priority: B - Pressing; 6 month completion goal

Work Code:

Deficiency Description:

Left Gutter Line at Bent 2 has a 4in. x 18in. hole thru deck.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description

Inspector:

Structure Number: M3808

Inspection Date:

Facility Carried: SH 69-10- LM 4.49

Bridge Inspection Report

Maintenance Needs

Date Reported: 03/28/2017

Priority: B - Pressing; 6 month completion goal

Work Code:

Deficiency Description:

4 feet on ends of Girders are rusted with pitting and up to 3/8 inch section loss to bottom flange and web with some girders having holes in web, see 2017 pictures:

Span 1 Girder 5 Bent 1 has a 1 1/4in. x 2in. hole in web near top flange near diaphragm and a 2in. x 1/2in. hole in bottom of web 8in. from end of girder.

Span 2 Girder 2 Bent 2 has a crack or a 1 1/2in. x 1/16in. hole in web at end of girder.

Span 2 Girder 8 Bent 3 has heavy section loss in web above T-Splice with several holes up to 1/2in. diameter in web.

Span 2 Girder 9 Bent 3 has heavy section loss in web above T-Splice with a 1in. x 4in. hole in web.

Span 3 Girder 4 Bent 3 has a 12in. x 1in. hole in bottom of web 6in. from end of girder.

Span 3 Girder 6 Bent 3 has a 1 1/2in. diameter hole in web near diaphragm and a 5in. x 1 1/2in. hole in web near bottom flange 2 1/2in. from end of girder with a knife edge bottom flange at bearing.

Span 3 Girder 7 Bent 3 has a 1 1/2in. x 3in. hole in web near top flange near diaphragm and a 10in. x 3/4in. hole in web near bottom flange at end of girder over bearing with little support.

Span 3 Girder 9 over Bent 3 has a 9in. x 3in. hole in bottom of web 11in. from end of girder, see 2017 photo.

Span 3 Girder 5 Bent 4 has heavy section loss in web with a 15in. x 1/2in. hole in bottom of web with some crushing.

Span 3 Girder 6 Bent 4 has heavy section loss in web with a 19in. x up to a 1in. hole in bottom of web with some crushing.

Span 3 Girder 7 Bent 4 has a 20in. area heavy section loss in web with holes up to a 1in. diameter and beginning to crush.

Span 4 Girder 2 Bent 4 has heavy section loss in web with a 16in. x up to a 1 1/2in. hole in bottom of web 14in. from end of girder.

Span 4 Girder 5 Bent 4 has heavy section loss in web with a 14in. x 1/2in. hole in bottom of web with some crushing.

Span 4 Girder 7 Bent 4 has heavy section loss in web with a 20in. x up to 3in. holes with some crushing.

Span 4 Girder 8 Bent 4 has a 20in area of heavy section loss in web with a knife edge web and a 12in. area of holes up to 1in. diameter with some crushing.

Span 4 Girder 5 Bent 5 has a 18in. x 1 1/4in. hole at bottom flange 5in. from end of girder.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Will review crushing locations for temporary blocking - Bridge crew busy with other repairs at this time - KAW

Stage: Open



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Bridge Inspection Report

Maintenance Needs



PHOTO 1 Description

Stage: Open



PHOTO 2 Description

Stage: Open



PHOTO 3 Description

Stage: Open



PHOTO 4 Description

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Bridge Inspection Report

Maintenance Needs

Stage: Open



PHOTO 5 Description

Stage: Open



PHOTO 6 Description

Stage: Open



PHOTO 7 Description

Stage: Open



PHOTO 8 Description

Inspector:

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Bridge Inspection Report

Maintenance Needs

Stage: Open



PHOTO 9 Description

Stage: Open



PHOTO 10 Description

Stage: Open



PHOTO 11 Description

Stage: Open



PHOTO 12 Description

Inspector:

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Bridge Inspection Report

Maintenance Needs

Stage: Open



PHOTO 13 Description

Stage: Open



PHOTO 14 Description