



Latitude:33.81078, Longitude:-91.26599

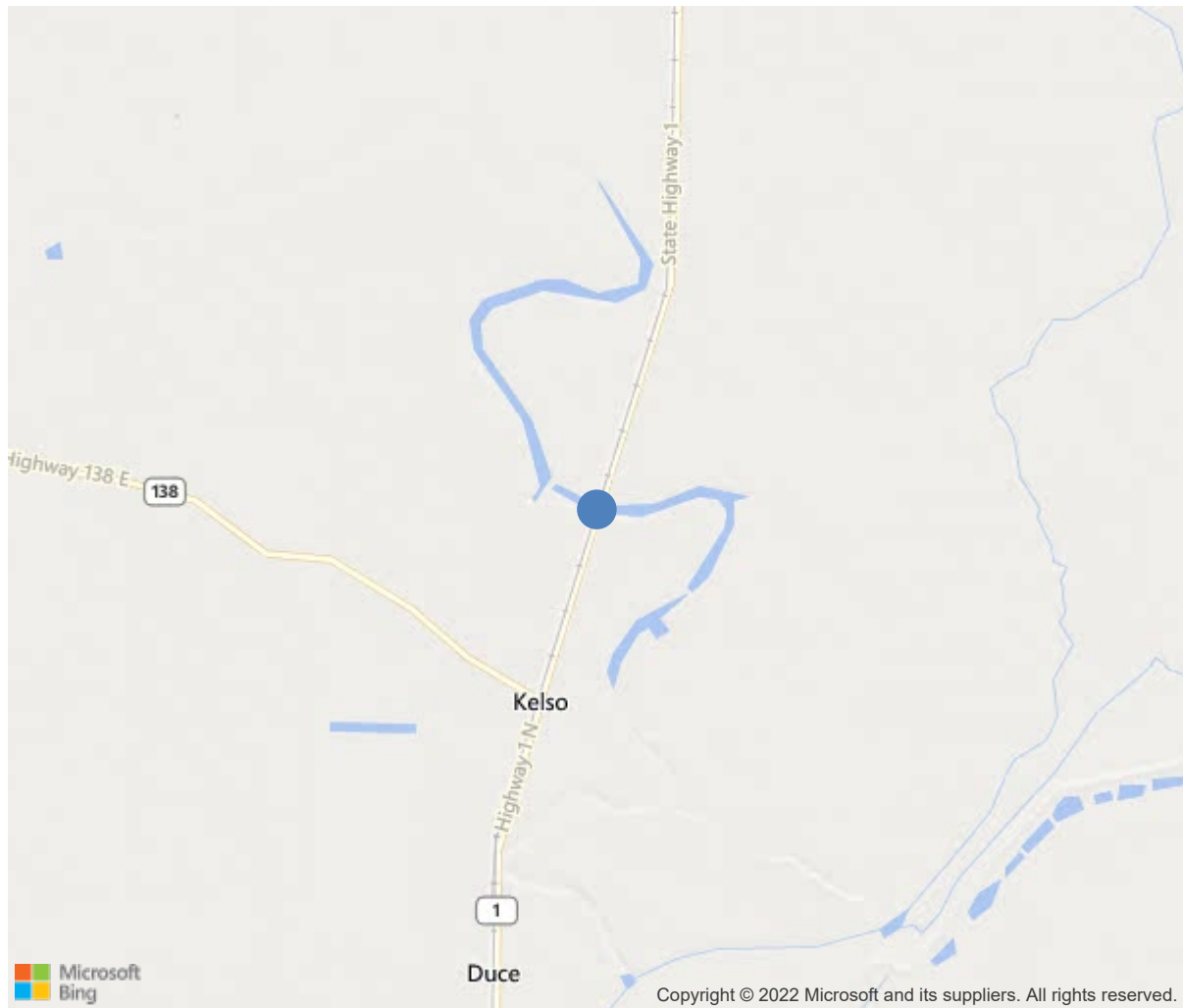
Route:1 Section:01 Log:15.45

Arnold Road ID:21x1x1xA, Arnold Log mile:15.45

District 02, Desha County

Owner: 1-State Highway Agency

1.0 Mi N SH 138-Kelso



33.81078, -91.26599

Inspection Direction : S to N



Bridge #02840(Routine, Underwater type 2)

SH 1-01 LM 15.45 over Amos Bayou

Location: 1.0 Mi N SH 138-Kelso

Team Lead: Sharon Hooks Inspection Date: January 20, 2021

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	02840
(5) Inventory Route	1
(2) Highway Agency District	02
(3) County Code	41-Desha County, Arkansas
(4) Place Code	0
(6) Features Intersected	Amos Bayou
(7) Facility Carried	SH 1-01 LM 15.45
(9) Location	1.0 Mi N SH 138-Kelso
(11) Mile Point	15.45 mi
(12) Base Highway Network	No
(13) LRS Inventory Rte & Subrte	0000000000
(16) Latitude	33.81078
(17) Longitude	-91.26599
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	122
Material	1-Concrete
Type	22-Channel beam
(44) Approach Structure Type	00
Material	0-Other
Type	0-Other
(45) No. of Spans in Main Unit	3
(46) No. of Approach Spans	0
(107) Deck Structure Type	2-Concrete Precast Panels
(108) Wearing Surface/Protective System	
Type of Wearing Surface	6-Bituminous
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1952
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	2
Under	0
(29) Average Daily Traffic	620
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	31 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	19 ft
(49) Structure Length	57 ft
(50) Curb or Sidewalk Width	
Left	0.5 ft
Right	0.5 ft
(51) Bridge Roadway Width Curb to Curb	23 ft
(52) Deck Width Out to Out	24.6 ft
(32) Approach Roadway Width (W/Shoulders)	29.9 ft
(33) Bridge Median	0-No median
(34) Skew	0 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	24.3 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	99.9 ft
Ref:	
(56) Min Lat Underclear LT	0 ft
NAVIGATION DATA	
(38) Navigation Control	0-No navigation control on water
(111) Pier Protection	1-Navigation protection not requ
(39) Navigation Vertical Clearance	0 ft
(116) Vert-Lift Bridge Nav Min Vert Clear	0 ft
(40) Navigation Horizontal Clearance	0 ft

CLASSIFICATION	
(112) NBIS Bridge Length	Y
(104) Highway System	0
(26) Functional Class	7-Rural Major Collector
(100) Defense Highway	0-The inventory route is not a S
(101) Parallel Structure	N-No parallel structure exists.
(102) Direction of Traffic	2 - way traffic
(103) Temporary Structure	
(105) Federal Lands Highways	0-N/A
(110) Designated National Network	0-The inventory route is not part of
(20) Toll	3-On free road. The structure is toll-
(21) Maintain	1-State Highway Agency
(22) Owner	1-State Highway Agency
(37) Historical Significance	5-Bridge is not eligible for the NRHP
CONDITION	
(58) Deck	6
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	7
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	2-M 13.5 / H 15
(63) Operating Rating Method	1
(64) Operating Rating	
Type	1-Load Factor(LF)
Rating	60
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	3
Rating	36
(70) Bridge Posting	5-Equal to or above legal loads
(41) Structure Open/Posted/Closed	A-Open, no restriction
APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	0-Inspected feature does not meet cur
(36B) Transitions	0-Inspected feature does not meet cur
(36C) Approach Guardrail	0-Inspected feature does not meet cur
(36D) Approach Guardrail Ends	0-Inspected feature does not meet cur
(113) Scour Critical Bridges	5-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	Bridge rehabilitation because
(76) Length of Structure Improvement	57 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 69
(97) Year of Improvement Cost Estimate	2001
(114) Future ADT	565
(115) Year of Future ADT	2028

INSPECTIONS *			
(90) Inspection Date			01/2021
(91) Frequency			24 Months
(92) Critical Feature Inspection	Done	Freq. (Mon)	Date
A: Fracture Critical Detail	No		
B: Underwater Inspection	No		
C: Other Special Inspection	No		
* The inspection date and frequency information in this box contains the current NBI date and frequency information. Please refer to the report header for the date this inspection was conducted.			

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
16	Reinforced Concrete Top Flange	SF	1402	1396	6	0	0
1080	Delamination/Spall/Patched Area	SF	6	0	6	0	0
510	Wearing Surfaces	SF	1254	854	0	400	0
3220	Crack (Wearing Surface)	SF	400	0	0	400	0
(16)							
Deck 24.6' wide x 57' long. Wearing surface: Large cracks at span/unit joints - edges (@ gutterlines & joints) are deteriorating and becoming brittle. Soffit: Spans 1-3 Units 1 & 7 have spalls with exposed rebar bottom of deck of units that have been patched (possible as-built/drains?) - CS2 patch 6 sqft total.							
110	Reinforced Concrete Open Girder/Beam	LF	399	371	0	28	0
1080	Delamination/Spall/Patched Area	LF	11	0	0	11	0
1090	Exposed Rebar	LF	17	0	0	17	0
(110)							
Girders: 7 precast units per span / Spans 1-3 (19' per span = 57' total). Units are bolted transversely and longitudinally - no noted missing or loose bolts.							
Span 2 Unit 1: Spalling with exposed rebar (section loss), delamination, and cracking on entire right leg - CS3 exposed rebar 8', CS3 delamination 11'. Span 3 Unit 3: Spalling with exposed rebar (section loss) on right leg - half of leg near Bent 3 - CS3 exposed rebar 9'. Remaining units have some scattered longitudinal cracking/beginning to delaminate along bottom of legs.							
215	Reinforced Concrete Abutment	LF	68	65	2	1	0
1080	Delamination/Spall/Patched Area	LF	2	0	2	0	0
1090	Exposed Rebar	LF	1	0	0	1	0
(215)							
Abutments: 34' each / Bents 1 & 4. Bent 4 has small contact spalls with exposed rebar.							
228	Timber Pile	EA	10	1	0	9	0
1020	Connection	EA	5	0	0	5	0
1140	Decay/Section Loss	EA	4	0	0	4	0
(228)							
Piling: 5 per bent / Bents 2 & 3.							
Bent 2 Pile 1: Moderate-sized checking with some moderate surface decay along waterline - CS3 decay. Bent 2 Pile 2: Moderate-sized checking with moderate decay (hole rotten on back side near waterline) - CS3 decay.							
Bent 3 Pile 3: Large-sized checking with moderate decay (hole rotten on back side near waterline) - CS3 decay. *Bent 3 Pile 5: Decay in new spliced section with heavy checking - CS3 decay.							
Remaining pile (Bent 2 Piles 4 & 5 and Bent 3 Piles 1, 2, 4 & *5) have all been repaired/replaced with new sections of pile being							

ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
spliced in. CS3 connection ,no collars. (due to no reinforcing/stabilizing at splice) x 5.							
234	Reinforced Concrete Pier Cap	LF	48	48	0	0	0
(234)							
Caps: 24' each / Bents 2 & 3. Some staining from leaking.							
330	Metal Bridge Railing	LF	114	114	0	0	0
515	Steel Protective Coating	SF	285	0	143	142	0
3410	Chalking (Steel Protective Coatings)	SF	214	0	143	71	0
3440	Effectiveness (Steel Protective Coatings)	SF	71	0	0	71	0
(330)							
Railing: 57' each side. Coating: 2.5 square feet per linear feet of railing. Metal railing on concrete post.							
Railing has some very light freckled rust, with majority of primer wearing off.							



Bent 4 abutment left side has spall.



Overview of soffit and girders.



Deck overview.



Approach.

Maintenance Needs

Date Reported: 02/01/2011
Priority: C - Important
Type of Work: N/A
Status: Assigned
Inspection Direction S to N
Component:

Deficiency Description

Bent 3 Pile 3: Large-sized checking with moderate decay (hole rotten on back side near waterline).

Remarks



Bet 3 pile 3 hollow area 2' down from cap.

Date Reported: 01/08/2015
Priority: B - Pressing; 6 month completion goal
Type of Work: N/A
Status: Monitor
Inspection Direction S to N
Component:

Deficiency Description

Bent 2 Pile 1: Moderate-sized checking with some moderate surface decay along waterline.

Bent 2 Pile 2: Moderate-sized checking with moderate decay (hole rotten on back side near waterline).

Changed from priority "C" to "B" SDH 2021.

Remarks



Bent 2 pile 2 hollow area 2' down from cap.



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SH 1-01 LM 15.45 over Amos Bayou

Location: 1.0 Mi N SH 138-Kelso

Team Lead: Sharon Hooks **Inspection Date:** January 20, 2021

Date Reported: 01/20/2021
Priority: C - Important
Type of Work: Repair
Status: Open
Inspection Direction S to N
Component: Bridge

Deficiency Description

Bent 2 pile 3-4 have been repaired in past with no collars in place.

Remarks



Bent 3 pile 1 no collar.



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SH 1-01 LM 15.45 over Amos Bayou

Location: 1.0 Mi N SH 138-Kelso

Team Lead: Sharon Hooks **Inspection Date:** January 20, 2021

Date Reported: 01/20/2021
Priority: C - Important
Type of Work: Repair
Status: Open
Inspection Direction S to N
Component: Bridge

Deficiency Description

Bent 2 unit 1 and bent 3 unit 3 have spalls with exposed rebar on channel legs.

Remarks



Span 3 unit 3 spall with exposed rebar from bent 3 ahead to mid span.



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Location: 1.0 Mi N SH 138-Kelso

Team Lead: Sharon Hooks **Inspection Date:** January 20, 2021

Inspection Comments

Beginning of structure toward US 65, McGehee, South End.