



Bridge #05863(Routine)
US 270 -7 Log 0.55 over TIGRE CREEK
Location: .55 E OF GARLAND CO LN

Team Lead: Bryan Saunders **Inspection Date:** December 09, 2019



Latitude:34.46334, Longitude:-92.90533

Route:270 Section:07 Log:0.55

Arnold Road ID:30x270x7xA, Arnold Log mile:0.555

District 06, Hot Spring County

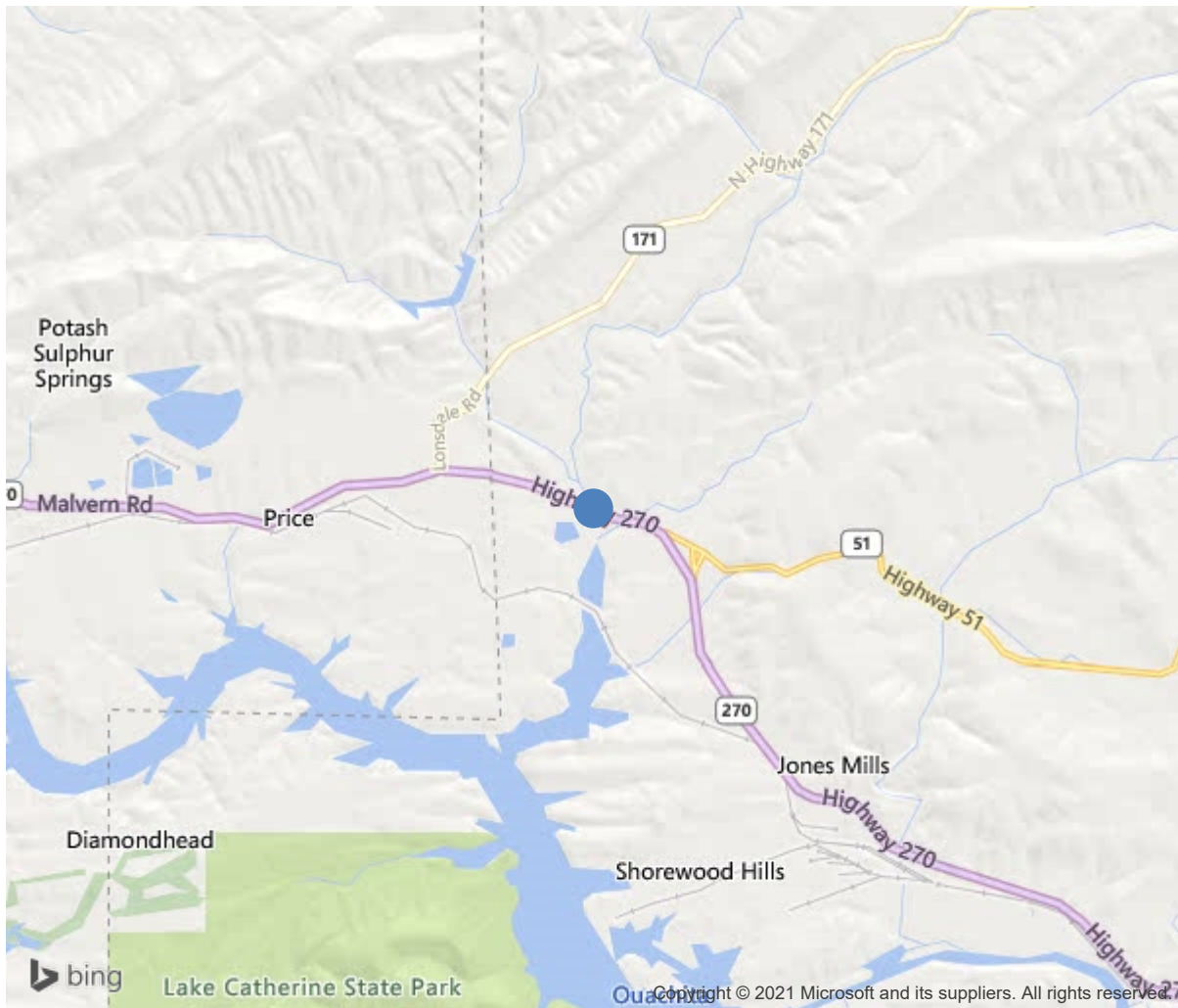
Owner: 1-State Highway Agency



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IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	05863
(5) Inventory Route	270
(2) Highway Agency District	06
(3) County Code	59-Hot Spring County, Arkansas
(4) Place Code	0
(6) Features Intersected	TIGRE CREEK
(7) Facility Carried	US 270 -7 Log 0.55
(9) Location	.55 E OF GARLAND CO LN
(11) Mile Point	0.55 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000270070
(16) Latitude	34.46334
(17) Longitude	-92.90533
(98) Border Bridge State Code	
(99) Border Bridge Structure No.	
STRUCTURE TYPE AND MATERIAL	
(43) Main Structure Type	32
Material	3-Steel
Type	2-Stringer/Multi-beam or girder
(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	1-Concrete Cast-in-Place
(108) Wearing Surface/Protective System	
Type of Wearing Surface	1-Monolithic Concrete (concurrently placed
Type of Membrane	0-None
Type of Deck Protection	0-None
AGE AND SERVICE	
(27) Year Built	1981
(106) Year Reconstructed	0
(42) Type of Service	15
On	1-Highway
Under	5-Waterway
(28) Lane	
On	4
Under	0
(29) Average Daily Traffic	14000
(30) Year of ADT	2014
(109) Truck ADT	1 %
(19) Bypass, Detour Length	10 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	60 ft
(49) Structure Length	183 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	67.9 ft
(52) Deck Width Out to Out	70.8 ft
(32) Approach Roadway Width (W/Shoulders)	67.9 ft
(33) Bridge Median	0-No median
(34) Skew	30 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	69.6 ft
(53) Min Vert Clear Over Bridge Rdwy	99.99 ft
(54) Min Vert Underclear	0 ft
Ref:	
(55) Min Lat Underclear RT	0 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	1
(26) Functional Class	2-Rural Principal Arterial - Oth
(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	6
(61) Channel & Channel Protection	6
(62) Culverts	N
LOAD RATING AND POSTING	
(31) Design Load	5-MS 18 / HS 20
(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	6
(68) Deck Geometry	9
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36A) Bridge Railings	1-Inspected feature meets currently a
(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	8-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	
(76) Length of Structure Improvement	0 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 0
(97) Year of Improvement Cost Estimate	0
(114) Future ADT	17207
(115) Year of Future ADT	2027
INSPECTIONS	
(90) Inspection Date	12/2019
(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



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	12749	9608	2929	212	0
1080	Delamination/Spall/Patched Area	SF	2	0	0	2	0
1120	Efflorescence/Rust Staining	SF	165	0	165	0	0
1130	Cracking (RC and Other)	SF	2734	0	2524	210	0
1190	Abrasion/Wear (PSC/RC)	SF	240	0	240	0	0
(12)	Longitudinal and transverse cracks in all spans. Soffit of deck between beams 5 and 6 have transverse cracks with efflorescence. Scattered areas of abrasion in span 3.						
107	Steel Open Girder/Beam	LF	1800	1673	120	7	0
1000	Corrosion	LF	127	0	120	7	0
515	Steel Protective Coating	SF	13200	7300	3650	2178	72
3440	Effectiveness (Steel Protective Coatings)	SF	5900	0	3650	2178	72
(107)	All beam ends have active corrosion on the bottom flange and web at the deck haunches. Beams 6 and 10 at bent 4 have section loss to the bottom flange and lower web. Scattered areas of freckling rust on the webs & lower flanges of all beams. The paint system is failing.						
205	Reinforced Concrete Column	EA	8	0	6	2	0
1190	Abrasion/Wear (PSC/RC)	EA	8	0	6	2	0
(205)	All eight columns has some abrasion at the bottom due to wave action from the lake. Bt. 2 column 1 has severe abrasion. Bt. 3 column 1 has severe abrasion & exposed rebar.						
215	Reinforced Concrete Abutment	LF	188	169	19	0	0
1120	Efflorescence/Rust Staining	LF	19	0	19	0	0
(215)	Both abutments have vertical cracks with efflorescence.						
234	Reinforced Concrete Pier Cap	LF	164	158	6	0	0
1080	Delamination/Spall/Patched Area	LF	3	0	3	0	0
1130	Cracking (RC and Other)	LF	3	0	3	0	0
(234)	Bt. 2 bottom of the cap has small delams. Bt. 3 has 3 small cracks.						
302	Compression Joint Seal	LF	314	0	308	0	6



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2310	Leakage	LF	284	0	278	0	6
2360	Adjacent Deck or Header	LF	30	0	30	0	0
(302)	All of the joints leak. Sections of the seal are missing at bent 3. Some small spalls are present in the deck along the joint armor.						
310	Elastomeric Bearing	EA	60	0	58	2	0
1000	Corrosion	EA	60	0	58	2	0
(310)	Sole plates & anchor bolts of all bearing have active corrosion.						
331	Reinforced Concrete Bridge Railing	LF	360	360	0	0	0



Bent 3 column 1, severe abrasion.



Eastbound approach



Bent 1 bearing 10, severe corrosion to sole plate.



Span 3, abrasion



Deck overview



Bent 3, joint is missing in three areas of the westbound lanes.



Bent 3 column 1, severe abrasion.



Large transverse crack in Span 3.



Bent 4 embankment.



Bent 4 bearing 1, severe corrosion on the sole plate.



Large spalls in span 3 near bent 3 joint eastbound lanes.



Large cracks in span 3.



Bent 4 embankment erosion.



Bent 4 beam 10, corrosion with section loss to bottom flange and lower web.



Typical view of under surface.



Span 1, longitudinal cracks.



Transverse crack Span 1.



Span 3 right side.



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Inspection Comments

job 60219 dwg 23392
Approach going east