



Latitude:36.48782, Longitude:-93.92730

Route:62 Section:02 Log:19.176

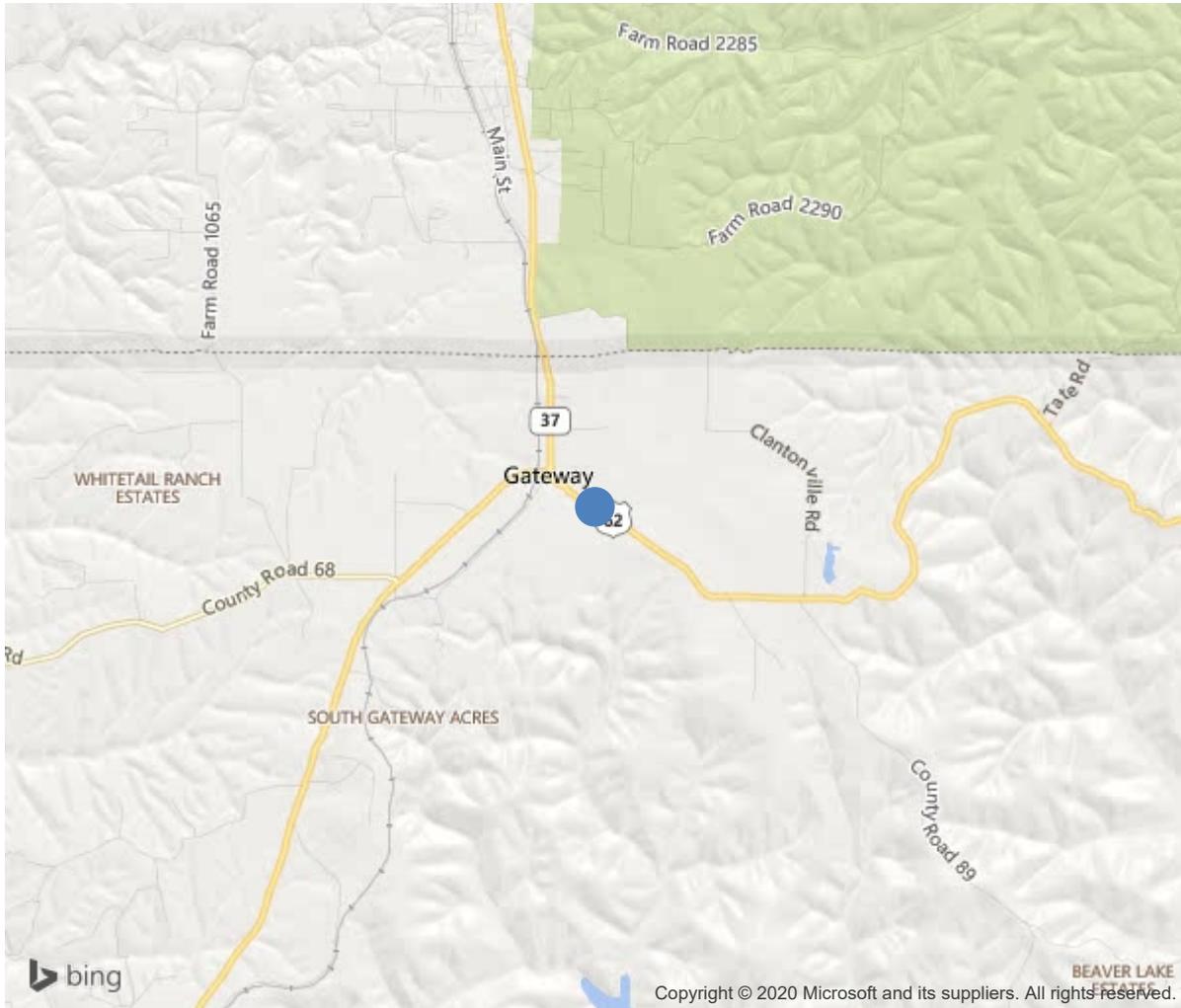
Arnold Road ID:4x62x2xA, Arnold Log mile:19.115

District 09, Benton County

Owner: 1-State Highway Agency

Place Code: 25540 - GATEWAY

.3MI E OF SH 37



36.48782, -93.92730



Bridge #M1096(Routine)
US 62 Benton 1 over DITCH
Location: .3MI E OF SH 37

Team Lead: Nathan Rowland Inspection Date: May 01, 2019

IDENTIFICATION	
(1) State Names	Arkansas
(8) Structure Number	M1096
(5) Inventory Route	62
(2) Highway Agency District	09
(3) County Code	7-Benton County, Arkansas
(4) Place Code	25540
(6) Features Intersected	DITCH
(7) Facility Carried	US 62 Benton 1
(9) Location	.3MI E OF SH 37
(11) Mile Point	19.176 mi
(12) Base Highway Network	Yes
(13) LRS Inventory Rte & Subrte	0000062020
(16) Latitude	36.48782
(17) Longitude	-93.92730
(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	1
(46) No. of Approach Spans	0
(107) Deck Structure Type	1-Concrete Cast-in-Place
(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	1927
(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	2565
(30) Year of ADT	2018
(109) Truck ADT	1 %
(19) Bypass, Detour Length	15 mi
GEOMETRIC DATA	
(48) Length of Maximum Span	26 ft
(49) Structure Length	28 ft
(50) Curb or Sidewalk Width	
Left	0 ft
Right	0 ft
(51) Bridge Roadway Width Curb to Curb	31.5 ft
(52) Deck Width Out to Out	36 ft
(32) Approach Roadway Width (W/Shoulders)	24 ft
(33) Bridge Median	0-No median
(34) Skew	45 Deg
(35) Structure Flared	No flare
(10) Inventory Route Min Vert Clear	99.99 ft
(47) Inventory Route Total Horiz Clear	31.5 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	6-Rural Minor Arterial
(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	1-The inventory route is part of the
(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	7
(59) Superstructure	6
(60) Substructure	5
(61) Channel & Channel Protection	8
(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	36
(65) Inventory Rating Method	1-Load Factor(LF)
(66) Inventory Rating	
Type	1
Rating	22
(70) Bridge Posting	3-10.0 - 19.9 % below
(41) Structure Open/Posted/Closed	P-Posted for load (may include o
APPRAISAL	
(67) Structural Evaluation	5
(68) Deck Geometry	4
(69) Clearances, Vertical/Horizontal	N
(71) Waterway Adequacy	8
(72) Approach Roadway Alignment	8
(36) Traffic Safety Features	0001
A) Bridge Railings	0-Inspected feature does not meet cur
B) Transitions	0-Inspected feature does not meet cur
C) Approach Guardrail	0-Inspected feature does not meet cur
D) Approach Guardrail Ends	1-Inspected feature meets currently a
(113) Scour Critical Bridges	5-Bridge foundations determined to be
PROPOSED IMPROVEMENTS	
(75) Type of Work	Bridge rehabilitation because
(76) Length of Structure Improvement	28 ft
(94) Bridge Improvement Cost	\$ 0
(95) Roadway Improvement Cost	\$ 0
(96) Total Project Cost	\$ 48
(97) Year of Improvement Cost Estimate	2003
(114) Future ADT	2821
(115) Year of Future ADT	2028
INSPECTIONS	
(90) Inspection Date	201905
(91) Frequency	24 Months
(92) Critical Feature Inspection	Done Freq. (Mon) Date
A: Fracture Critical Detail	No 24
B: Underwater Inspection	No 0
C: Other Special Inspection	No 0

SUFFICIENCY RATING	65.7
STATUS (SD/FO/None)	Not Deficient



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
12	Reinforced Concrete Deck	SF	885	730	143	12	0
1080	Delamination/Spall/Patched Area	SF	1	0	1	0	0
1090	Exposed Rebar	SF	12	0	0	12	0
1130	Cracking (RC and Other)	SF	142	0	142	0	0
(12)							
5/1/2019 - WNR & DBM:							
- The West approach roadway has approximately 1" of settlement at the bridge end in the left and right lanes.							
-The left deck overhang has several spalls with exposed reinforcing steel near abutment #2.							
-The right deck overhang has a softball sized spall with exposed reinforcing steel.							
-The undersurface of the deck has hairline transverse, longitudinal and mapcracking in all bays.							
-The undersurface of the deck in bay #7 has an area of shallow spalling with exposed reinforcing steel adjacent to abutment #1.							
-The undersurface of the deck in bay #11 has three areas of shallow spalling with exposed reinforcing steel adjacent to abutment #2.							
-All exposed reinforcing steel has section loss.							
107	Steel Open Girder/Beam	LF	364	0	345	19	0
1000	Corrosion	LF	364	0	345	19	0
515	Steel Protective Coating	SF	1336	1297	0	20	19
3420	Peeling/Bubbling/Cracking	SF	20	0	0	20	0
3440	Effectiveness (Steel Protective Coatings)	SF	19	0	0	0	19
(107)							
5/1/2019 - WNR & DBM:							
-The ends of beams over abutments #1 and #2 have active corrosion, flaking rust and initial section loss on the bottom flanges (Not On All Beams).							
-Beams #1, 2, 13 and 14 have welded splices with cover plates on the bottom flanges. The majority of beams have torch cut holes in the webs and top flanges in random locations. No visible cracks at this inspection.							
-The webs of beams #1, 2 and 14 have large areas of old section loss scars from pitting.							
215	Reinforced Concrete Abutment	LF	80	24	7	41	8
1080	Delamination/Spall/Patched Area	LF	28	0	6	18	4
1130	Cracking (RC and Other)	LF	7	0	1	2	4
1190	Abrasion/Wear (PSC/RC)	LF	21	0	0	21	0
(215)							
5/1/2019 - WNR & DBM:							
-Abutment #1 has large areas of heavy concrete deterioration in the breastwall with areas of spalling in the bearing areas of several beams.							
-Abutment #2 has a full height vertical settlement crack near the centerline with heavy concrete deterioration and large holes in the breastwall that appear to be the full depth of the breastwall.							
220	Reinforced Concrete Pile Cap/Footing	LF	28	10	0	18	0
1080	Delamination/Spall/Patched Area	LF	6	0	0	6	0
1190	Abrasion/Wear (PSC/RC)	LF	12	0	0	12	0



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ELEM	DESCRIPTION	UNITS	TOTAL	CS1	CS2	CS3	CS4
(220)							
5/1/2019 - WNR & DBM:							
-The footing of original portion of structure at abutment #1 has concrete deterioration with large areas of spalling on both ends.							
-The exposed portions of footings on the widened portions of the structure have concrete deterioration / spalling.							
330	Metal Bridge Railing	LF	52	0	52	0	0
1000	Corrosion	LF	52	0	52	0	0
515	Steel Protective Coating	SF	165	0	0	0	165
3440	Effectiveness (Steel Protective Coatings)	SF	165	0	0	0	165
(330)							
5/1/2019 - WNR & DBM:							
-Metal bridge railing has a failing paint system with a rust coating over the entire surface of the railing.							



East Load posting sign



Abutment #2 has large spalled areas.



Right overhang adjacent abutment #1 spalling with steel exposed.



Elevation looking South.



View of abutment #1



Inventory looking East



Left overhang adjacent abutment #2 steel exposed with section loss.



General view of undersurface.



Corrosion at the end of girders.



West load posting sign.



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Maintenance Needs



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Inspection Comments

Structure is logged from West to East, and is accessible from the ground.No bat activity noted.

Deck Notes

5/1/2019 - WNR & DBM: Routine inspections conducted this date. See elements tab for documentation.05/23/2017 - RSM & WNR: Routine and Underwater Type II inspections conducted this date. See element notes for documentation. Underwater Type II inspection added this date.Underwater Type II inspection: Visual observation in low water conditions revealed no apparent scour problems at this inspection.Logged West to East. MLA/BDS 6/30/16 Routine inspection only. Load posting signs were correct and in place at time of inspection. Deck soffit- Small spalls with rebar exposed at right soffit overhang located 8' ahead of abutment #1 also small spalls with rebar exposed at left soffit overhang located 6' back of abutment #2. Spalls with rebar exposed in soffit between beams #11,12. Beams have general surface and pin point rusting on bottom flanges and webs with mild section loss at bearing areas of abutments #1,2. Special attention was paid to spliced and notched top flange areas of beams-no cracking was noted. Original abutment sections have moderate deterioration with loss of mortar and aggregate. No scour was noted and footings were not exposed. TAD/BDS/MFF 4/2/15 Structure has deep spalls and moderate deterioration with settlement cracking in several locations of both abutment walls. Painted steel girders have corrosion with mild section loss to bottom flange and web for the first few inches at the abutments. Girders have sporadic general rusting on bottom flanges thru-out. Girders #1, #13, #14 are spliced at mid span.(see plan drawing) Girder #1 has inactive corrosion with slight pitting thru-out outside web. Small spalls with rebar exposed in deck soffit between girders #11 and #12 due to inadequate concrete coverage. Small spall with rebar exposed 8' back of abutment #1 right side in deck soffit overhang.
