

Bridge Inspection Report

00811
SH 105
over
Isabell Creek



Inspection Date:

Inspected By:

Inspection Type(s):

TABLE OF CONTENTS

	PAGE NUMBER
LOCATION MAP	3
NATIONAL BRIDGE INVENTORY	8
ELEMENTS	9
PICTURES	13
SKETCHES	17

Inspector:

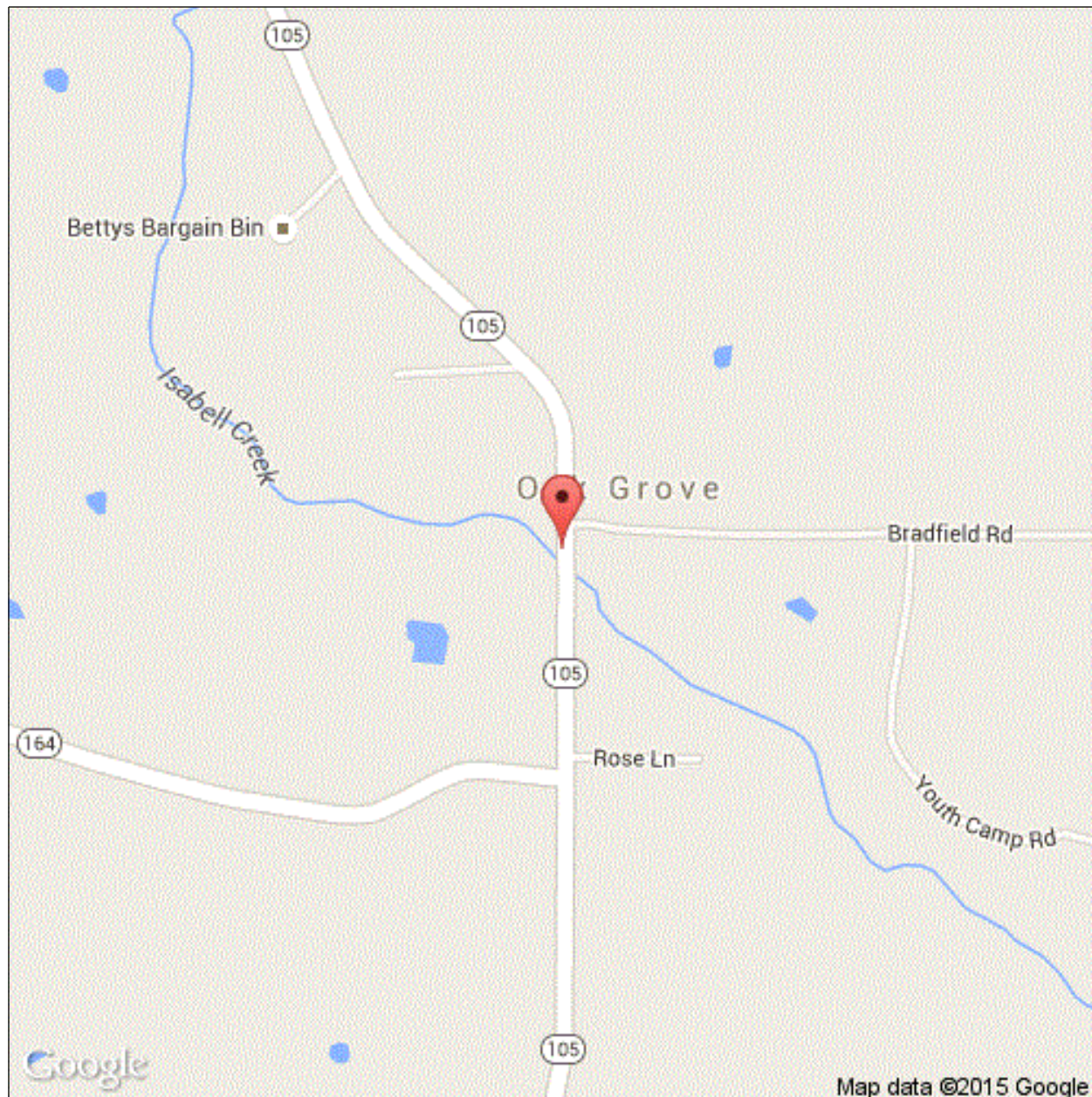
Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Location Map



Latitude: 35.35902

Longitude: -92.95911

Inspector:

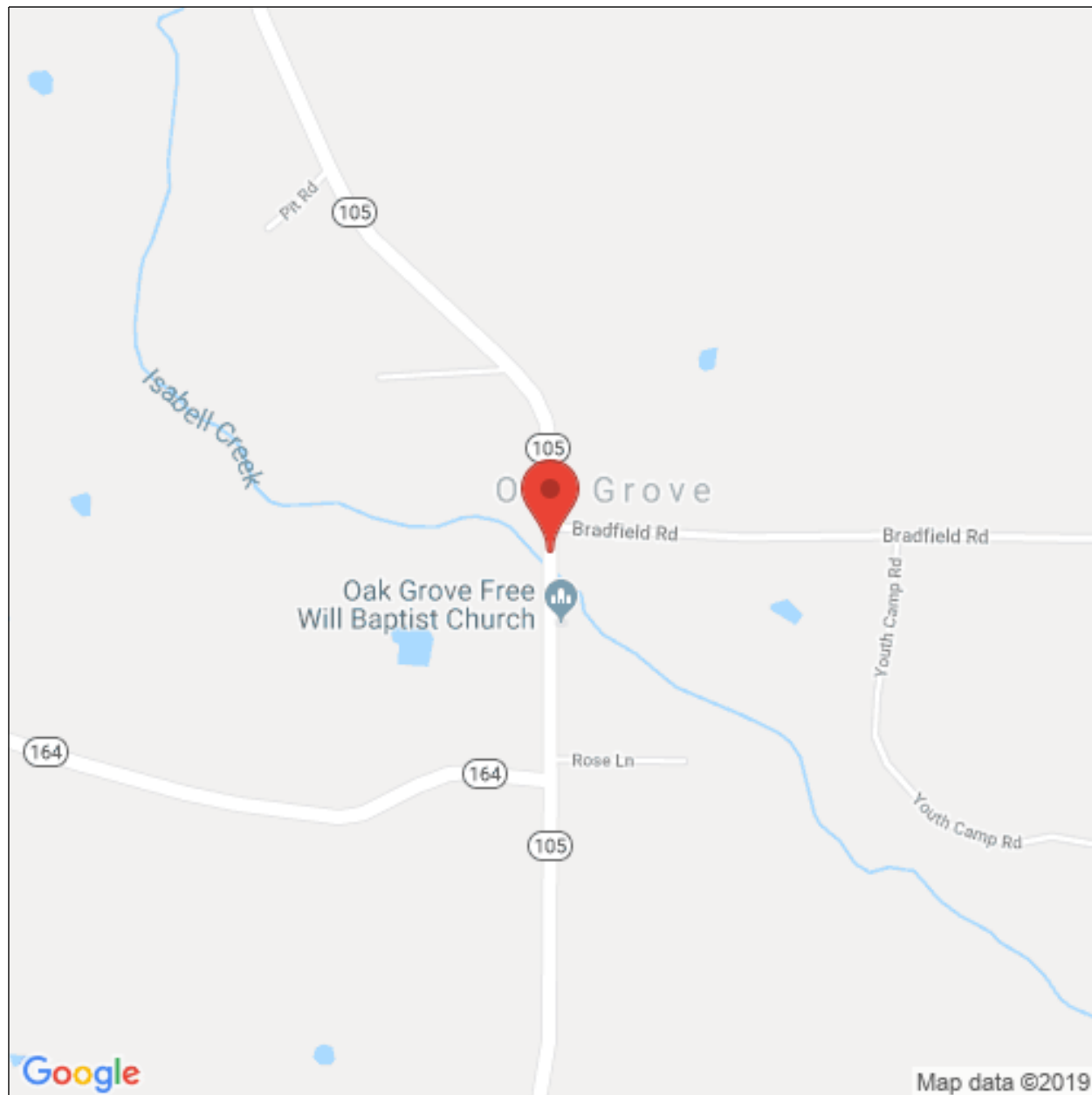
Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Location Map



Latitude: 35.35902

Longitude: -92.95911

Inspector:

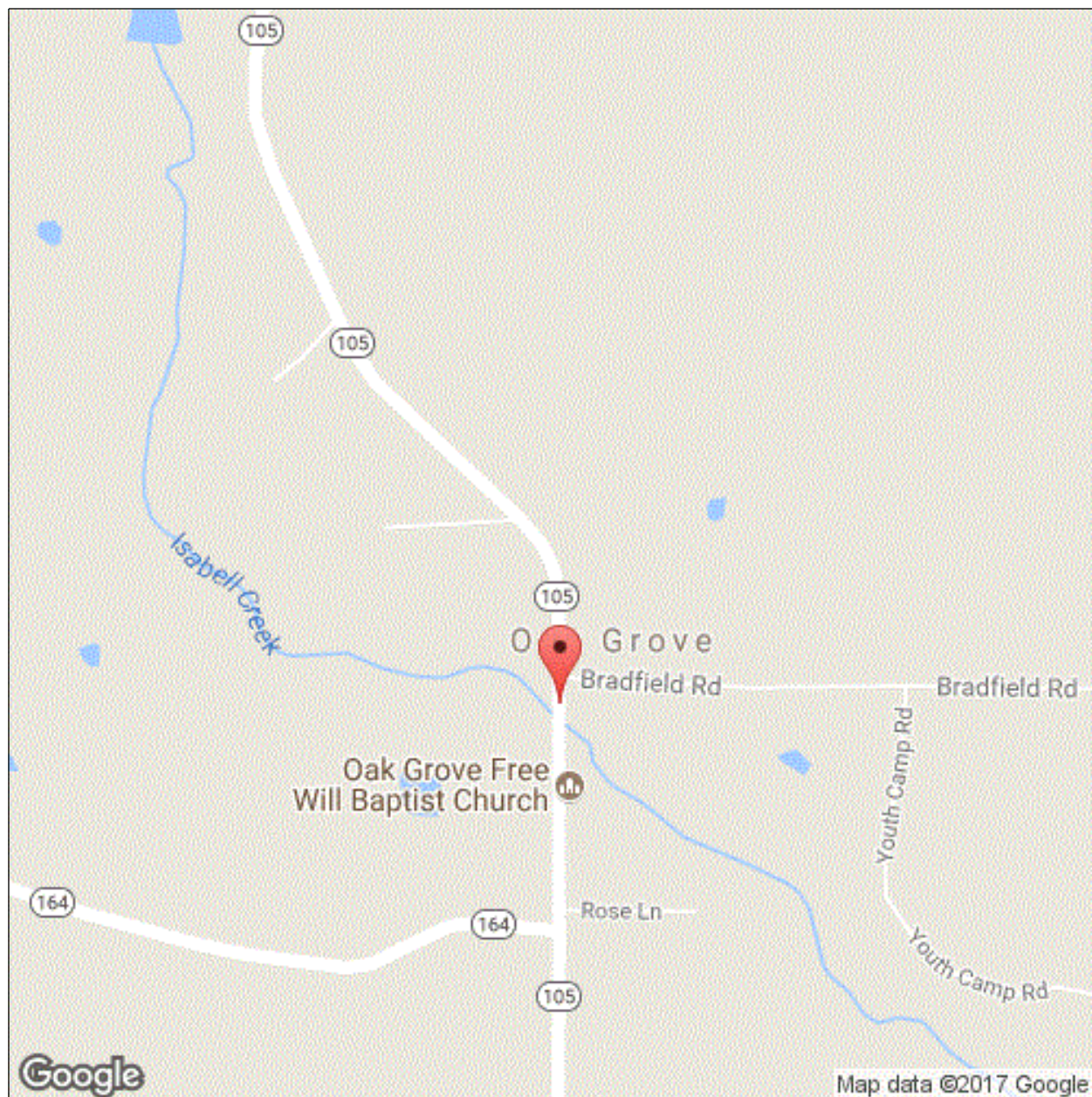
Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Location Map



Latitude: 35.35902

Longitude: -92.95911

Inspector:

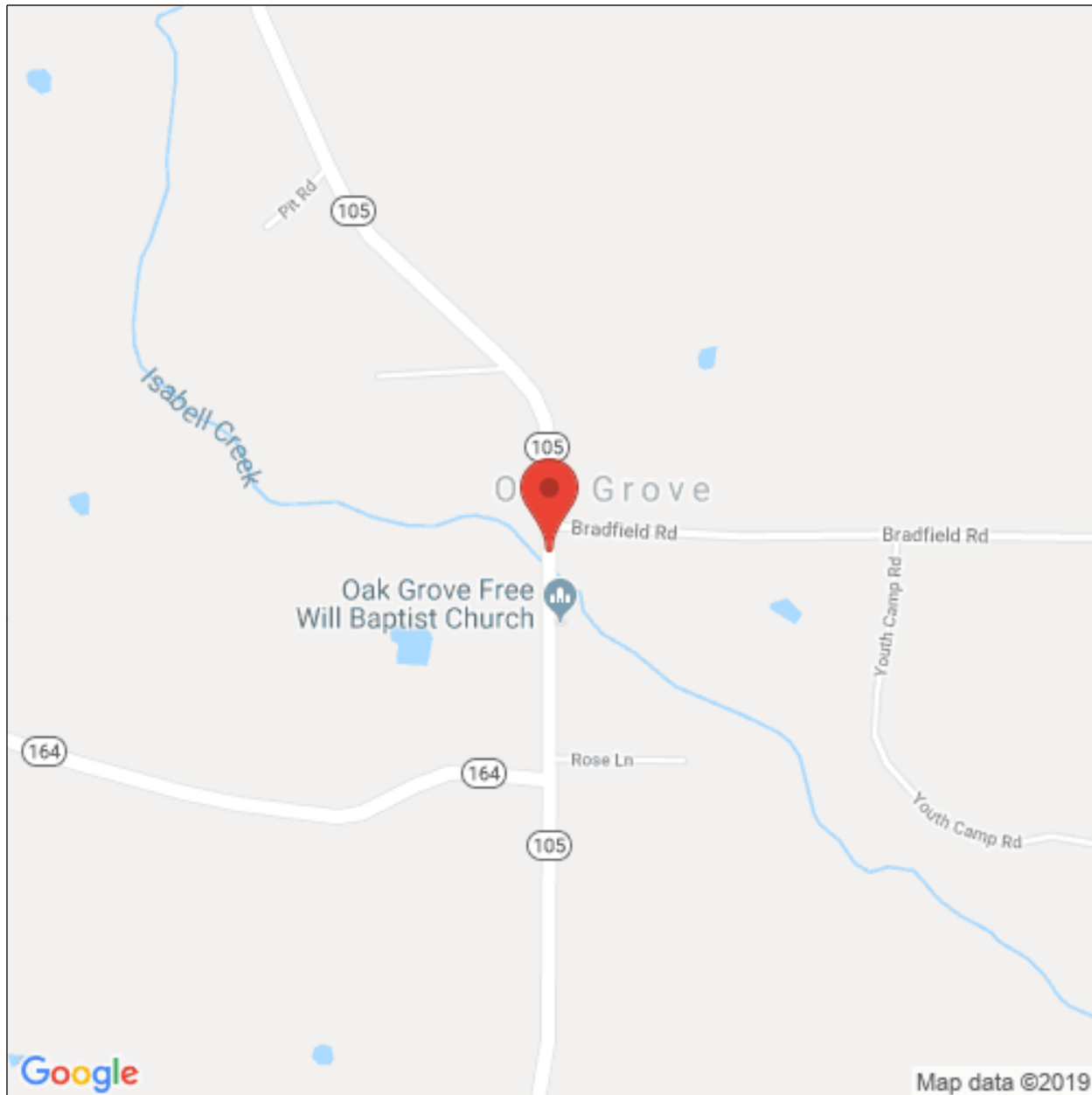
Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Location Map



Latitude: 35.35902

Longitude: -92.95911

Inspector:

Inspection Date:

Structure Number: 00811

Facility Carried: SH 105

Bridge Inspection Report

Executive Summary

Inspector:

Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	07/17/2019
(8) STRUCTURE NUMBER	00811	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 105 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	08 (3) COUNTY CODE 115	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Isabell Creek	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 105		
(9) LOCATION	Community of Oak Grove		
(11) MILEPOINT 6.969	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 35.35902	(17) LONGITUDE -92.95911		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	7
A) KIND OF MATERIAL/DESIGN: 1 - Concrete		(59) SUPERSTRUCTURE	6 (60) SUBSTRUCTURE 6
B) TYPE OF DESIGN/CONSTR: 11 - Arch - Deck		(61) CHANNEL & CHANNEL PROTECTION	7 (62) CULVERT N
(44) STRUCTURE TYPE, APPROACH SPANS			
A) KIND OF MATERIAL/DESIGN: 1 - Concrete			
B) TYPE OF DESIGN/CONSTR: 04 - Tee Beam			
(45) NUMBER OF SPANS IN MAIN 1	(46) NUMBER OF APPROACH 4		
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 6		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1928	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	2
(42) TYPE OF SERVICE ON 1 UNDER 5		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 01 UNDER 00		(64) OPERATING RATING	48.0
(29) AVERAGE DAILY TRAFFIC 870	(19) BYPASS DETOUR LENGTH 5	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	29.0
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(70) BRIDGE POSTING	5
		(41) STRUCTURE OPEN/POSTED/CLOSED	A
GEOMETRIC DATA		APPRAISAL	
(48) LENGTH OF MAX SPAN (ft.) 70	(49) STRUCTURE LENGTH (ft.) 179	(67) STRUCTURAL EVALUATION	6
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0 RIGHT 0		(68) DECK GEOMETRY	2
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 18.0		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.) 21		(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.) 19.0		(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 35	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99	36A) BRIDGE RAILINGS:	0
(47) TOTAL HORIZONTAL CLEARANCE (ft.) 19.4		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	8
(56) MIN LATERAL UNDER CLEARANCE (ft.) 0		SUFFICIENCY RATING 87.7	STATUS 2
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED 31	(75B) WORK DONE BY 1	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 210		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(95) ROADWAY IMPROVEMENT COST (\$)	109	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	437	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2003	(102) DIRECTION OF TRAFFIC	3
(114) FUTURE ADT 1137	(115) YEAR OF FUTURE ADT 2028	(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	1
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	0
		(111) PIER OR ABUTMENT PROTECTION	1
		(39) NAV VERT CLEARANCE (ft.)	0
		(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0
		(40) NAV HORIZONTAL CLEARANCE (ft.)	0

Inspector:

Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Element Inspection

Rollup

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	1454	sq. ft.	1454	0	0	0
510 - Wearing Surfaces		1247	sq. ft.	1247	0	0	0
16 - Reinforced Concrete Top Flange	1- Ben.	1751	sq. ft.	1751	0	0	0
510 - Wearing Surfaces		1501	sq. ft.	1501	0	0	0
38 - Reinforced Concrete Slab	1- Ben.	398	sq. ft.	398	0	0	0
510 - Wearing Surfaces		349	sq. ft.	349	0	0	0
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	250	ft.	247	3	0	0
1090 - Exposed Rebar		3		0	3	0	0
144 - Reinforced Concrete Arch	1- Ben.	140	ft.	140	0	0	0
205 - Reinforced Concrete Column	1- Ben.	16	each	14	0	2	0
1090 - Exposed Rebar		2		0	0	2	0
215 - Reinforced Concrete Abutment	1- Ben.	122	ft.	119	3	0	0
1120 - Efflorescence/Rust Staining		3		0	3	0	0
234 - Reinforced Concrete Pier Cap	1- Ben.	80	ft.	80	0	0	0
304 - Open Expansion Joint	1- Ben.	113	ft.	113	0	0	0
331 - Reinforced Concrete Bridge Railing	1- Ben.	359	ft.	358	1	0	0
1090 - Exposed Rebar		1		0	1	0	0

Inspector:

Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Element Inspection

Main

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	1454	sq. ft.	1454	0	0	0
Deck - A few minor cracks in overlay.							
510 - Wearing Surfaces		1247	sq. ft.	1247	0	0	0
144 - Reinforced Concrete Arch	1- Ben.	140	ft.	140	0	0	0
A few minor vertical cracks in places throughout the arch.							
205 - Reinforced Concrete Column	1- Ben.	12	each	10	0	2	0
Minor cracks in a few places on some columns. Bent #3, column #2 - minor spall, exposed rebar with minor section loss at the bottom of the column. 1ea.C3 rebar Bent #7, column #2 (Beginning of T-beam span #3) - Moderate spall, exposed rebar with minor section loss and minor to moderate cracks some with efflorescence near the bottom of the column. 1ea. C3 rebar							
1090 - Exposed Rebar		2		0	0	2	0
234 - Reinforced Concrete Pier Cap	1- Ben.	48	ft.	48	0	0	0
304 - Open Expansion Joint	1- Ben.	47	ft.	47	0	0	0
331 - Reinforced Concrete Bridge Railing	1- Ben.	140	ft.	140	0	0	0
Rail - good							

Inspector:

Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Element Inspection

Approach 1 (R/C TEE BEAM)

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
16 - Reinforced Concrete Top Flange	1- Ben.	1751	sq. ft.	1751	0	0	0
Deck - A few minor cracks in overlay.							
510 - Wearing Surfaces		1501	sq. ft.	1501	0	0	0
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	250	ft.	247	3	0	0
A few minor vertical cracks in beams in places throughout. Bent #8 (2nd. Pier of T beam span), back side - beams 1 and 2 have moderate spalls with exposed rebar in the bearing . 2 Lf. C2 rebar Bent #9 (3rd. Pier on T beam span), back side - beam #2 has a minor spall with exposed rebar in the bearing area. 1Lf. C2 rebar							
1090 - Exposed Rebar		3		0	3	0	0
205 - Reinforced Concrete Column	1- Ben.	4	each	4	0	0	0
215 - Reinforced Concrete Abutment	1- Ben.	59	ft.	56	3	0	0
added quantities for wings. Abut. #10, right side - moderate density of minor to moderate cracks with efflorescence. 3 ft. C2 efflorescence							
1120 - Efflorescence/Rust Staining		3		0	3	0	0
234 - Reinforced Concrete Pier Cap	1- Ben.	32	ft.	32	0	0	0
304 - Open Expansion Joint	1- Ben.	42	ft.	42	0	0	0
331 - Reinforced Concrete Bridge Railing	1- Ben.	166	ft.	165	1	0	0
2nd post from the end of the bridge. (South/east) corner. - Minor spall with rebar exposed at the bottom of post.							
1090 - Exposed Rebar		1		0	1	0	0

Inspector:

Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Element Inspection

Approach 2 (R/C SLAB)

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
38 - Reinforced Concrete Slab	1- Ben.	398	sq. ft.	398	0	0	0
R/C slab - good Wearing surface - Few minor cracks in overlay.							
510 - Wearing Surfaces		349	sq. ft.	349	0	0	0
215 - Reinforced Concrete Abutment	1- Ben.	63	ft.	63	0	0	0
Added quantities for wings.							
304 - Open Expansion Joint	1- Ben.	24	ft.	24	0	0	0
331 - Reinforced Concrete Bridge Railing	1- Ben.	53	ft.	53	0	0	0
Rail - good							

Structure Number: 00811

Facility Carried: SH 105

Bridge Inspection Report

Pictures

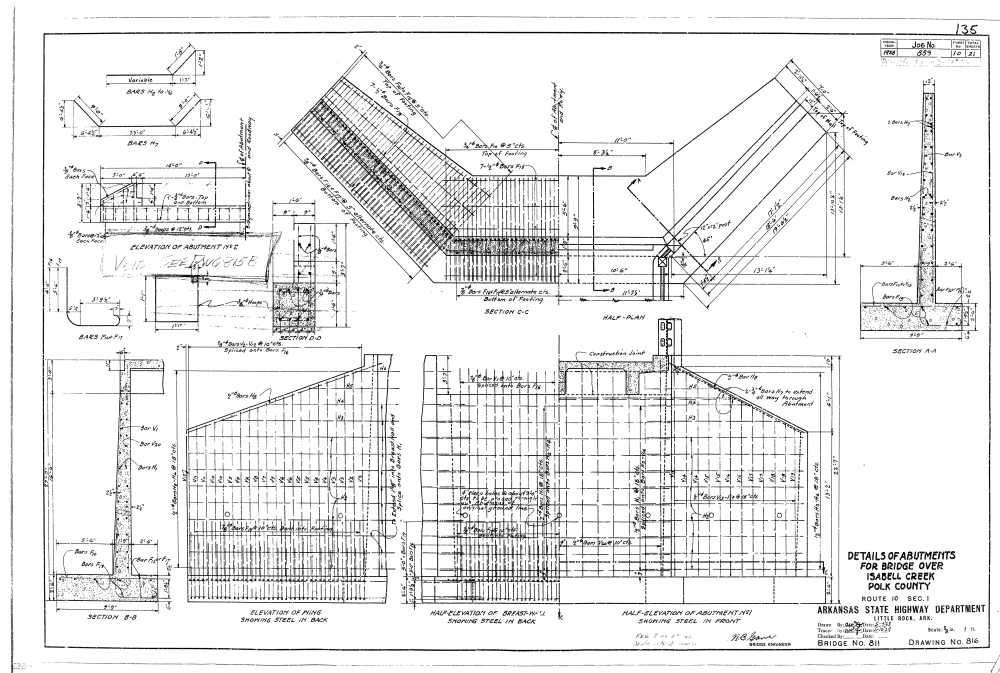


PHOTO 1

Description	Details of Abutments
-------------	----------------------

PHOTO 1

Description

Inspector:
Inspection Date:

Structure Number: 00811
Facility Carried: SH 105

Bridge Inspection Report

Pictures

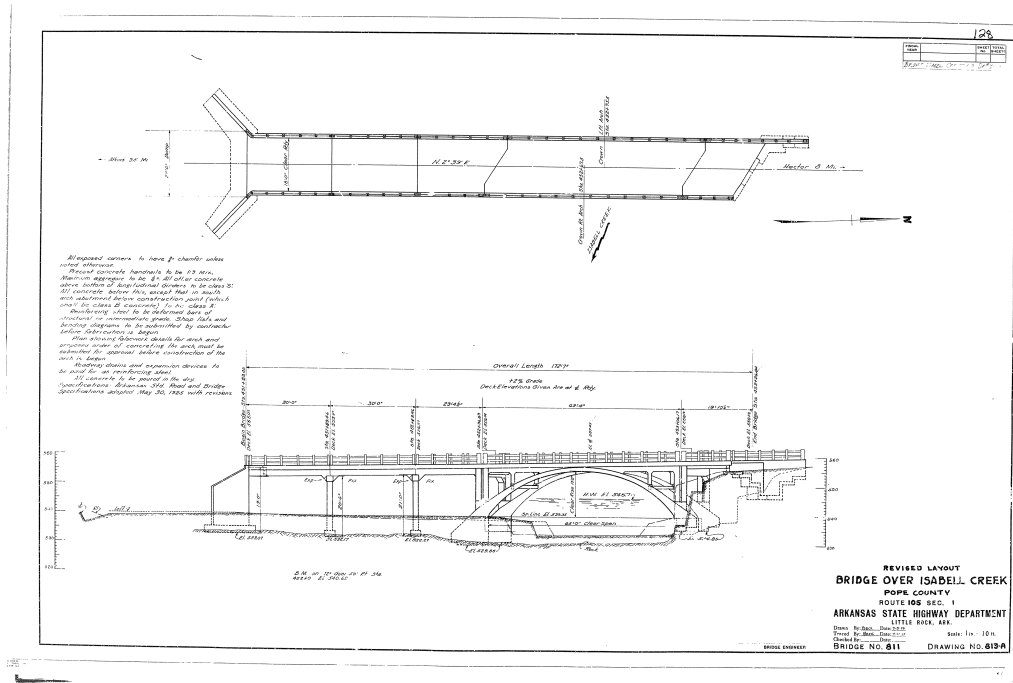


PHOTO 2

Description Revised Layout

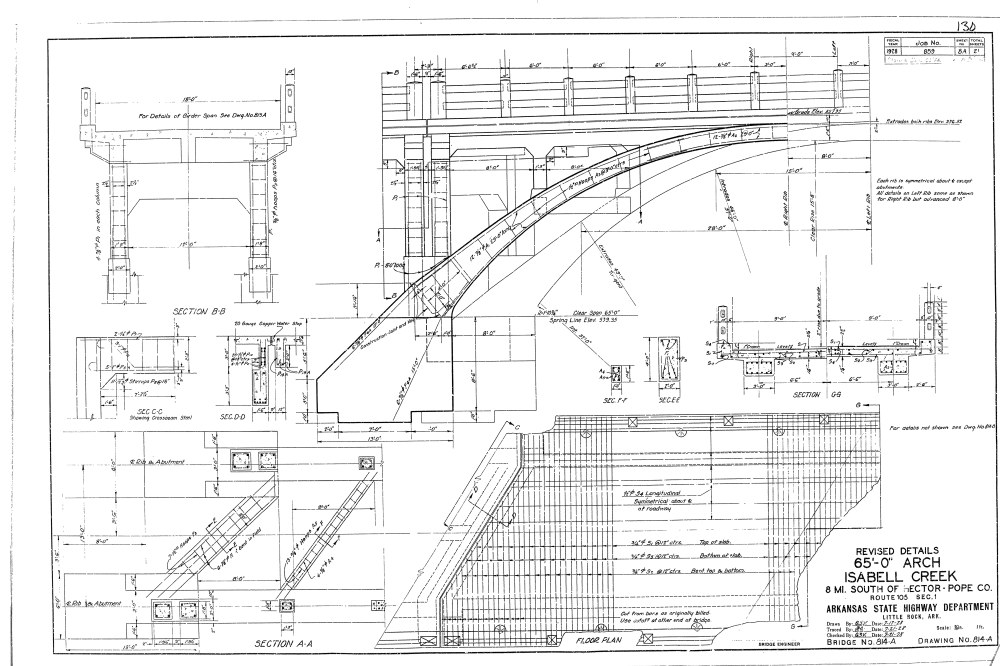


PHOTO 3

Description Revised Details 65'-0" Arch

Inspector:

Inspection Date:

Structure Number: 00811

Facility Carried: SH 105

Bridge Inspection Report

Pictures

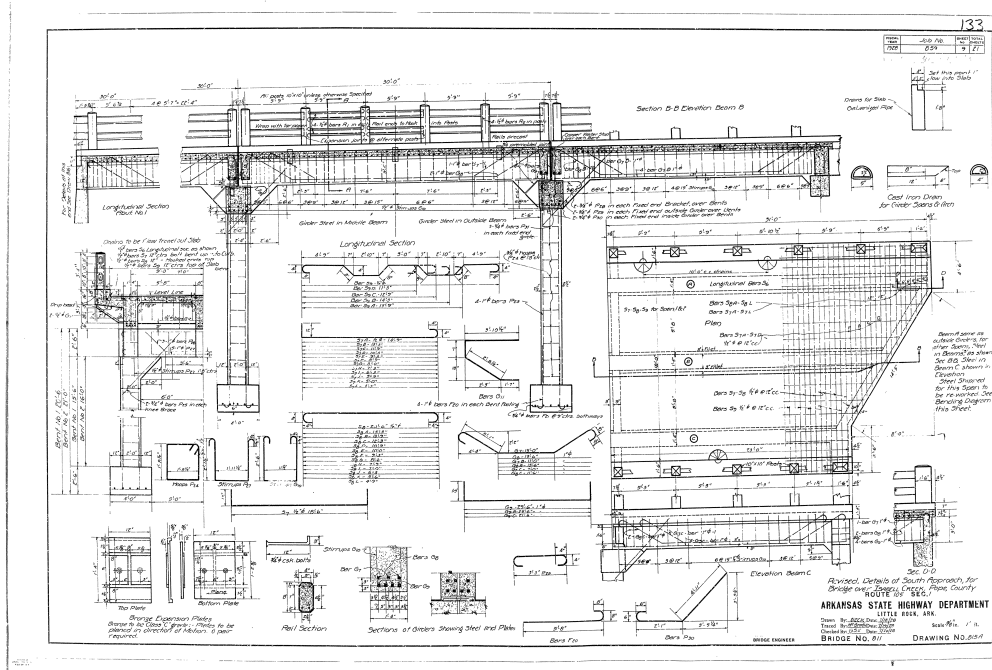


PHOTO 4

Description Revised Details South Approach

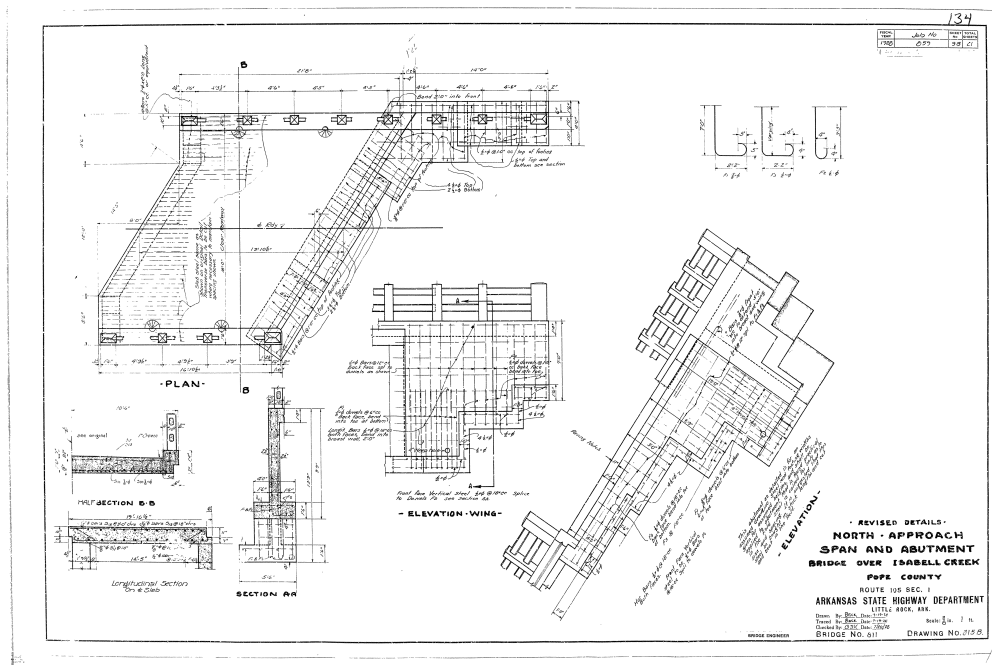


PHOTO 5

Description Revised Details North Approach Span and Abutment

Inspector:

Inspection Date:

Structure Number: 00811

Facility Carried: SH 105

Bridge Inspection Report

Pictures

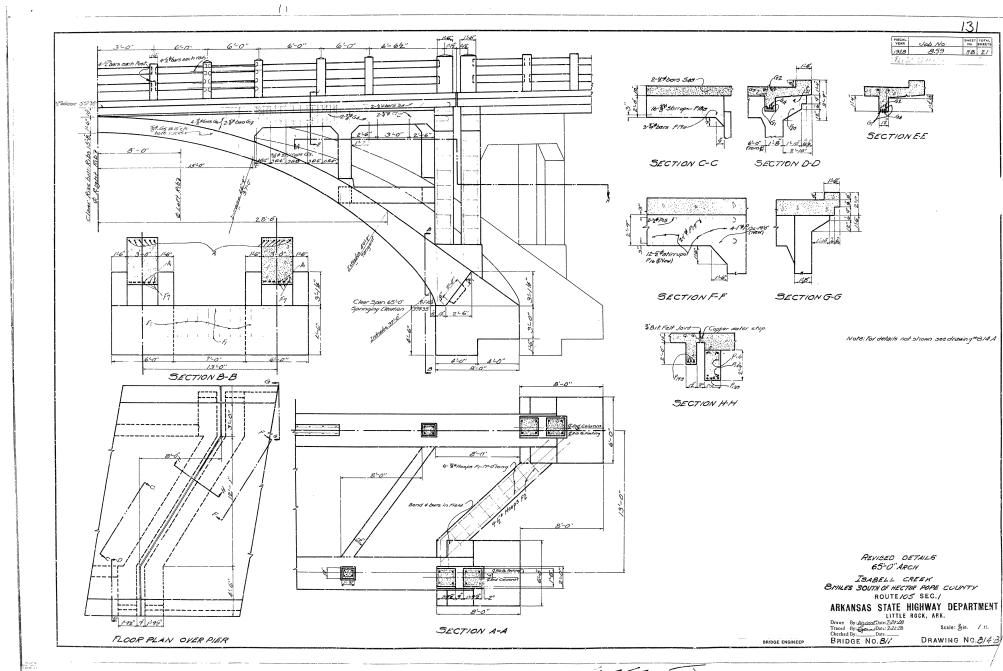


PHOTO 6

Description Revised Details 65'-0" Arch

Inspector:

Inspection Date:

Structure Number: 00811

Facility Carried: SH 105

Bridge Inspection Report

Sketches

Inspector:

Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Maintenance Needs

Date Reported: 7/11/2011 12:00:00 AM

Priority: B - Pressing; 6 month completion goal

Work Code:

Deficiency Description:

MODERATE DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN COLUMN 6 & PEDESTAL ON RT. SIDE AT END OF ARCH AT PIER 3. MINOR SECTION LOSS ON REBAR.

Work Description:

item reviewed. Will continue to monitor.

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description DELAM CRACKING And SPALLING In COLUMN 7 And PEDESTAL AT PIER 3 ON RT SIDE.

Stage: Monitor



PHOTO 2 Description DELAM CRACKING And SPALLING In COLUMN 7 And PEDESTAL AT PIER 3 ON RT SIDE.

Inspector:

Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Maintenance Needs

Date Reported: 7/11/2013 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN BEARING AREAS OF BEAMS 1 & 2 AT PIER 4 BK. SIDE & BEAM 2 AT PIER 5 BK. SIDE.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description DELAM, CRACKING & SPALLING W /
REBAR EXPOSED IN BEARING
AREAS OF BEAMS.

Inspector:

Structure Number: 00811

Inspection Date:

Facility Carried: SH 105

Bridge Inspection Report

Maintenance Needs

Date Reported: 07/10/2011

Priority: D - Routine

Work Code:

Deficiency Description:

MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN COLUMN 5 ON RT. SIDE AT END OF ARCH AT PIER 3. MINOR SECTION LOSS ON REBAR.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description MINOR DELAM, CRACKING & SPALLING W / REBAR EXPOSED IN COLUMN 6 ON RT. SIDE AT END OF ARCH AT PIER 3. MINOR SECTION LOSS ON REBAR.