

Bridge Inspection Report

M0683
SH 28-Scott Co.
over
Lookout Creek



Inspection Date:

Inspected By:

Inspection Type(s):

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Inspector:

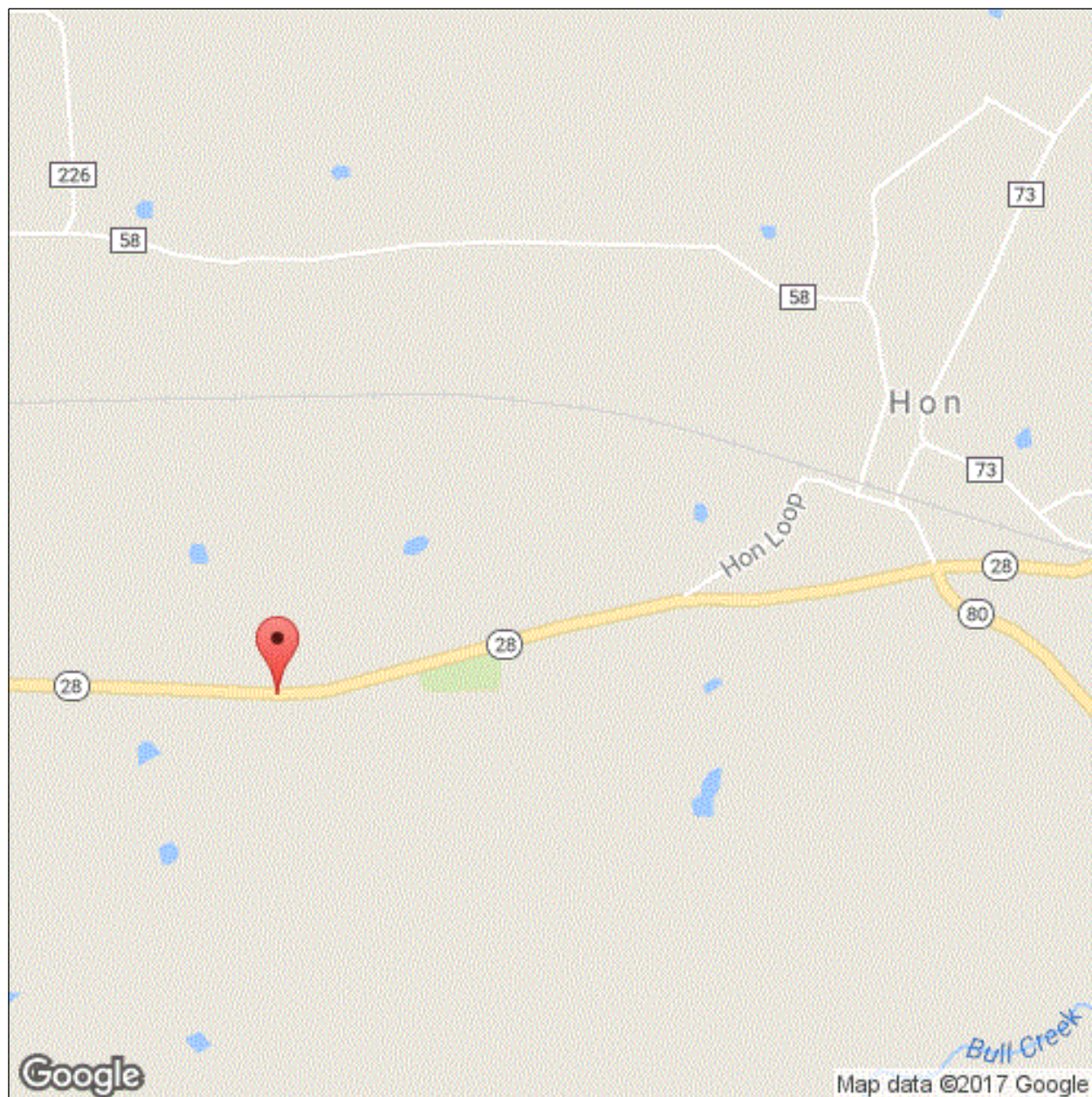
Structure Number: M0683

Inspection Date:

Facility Carried: SH 28-Scott Co.

Bridge Inspection Report

Location Map



Latitude: 34.93458

Longitude: -94.19412

Inspector:

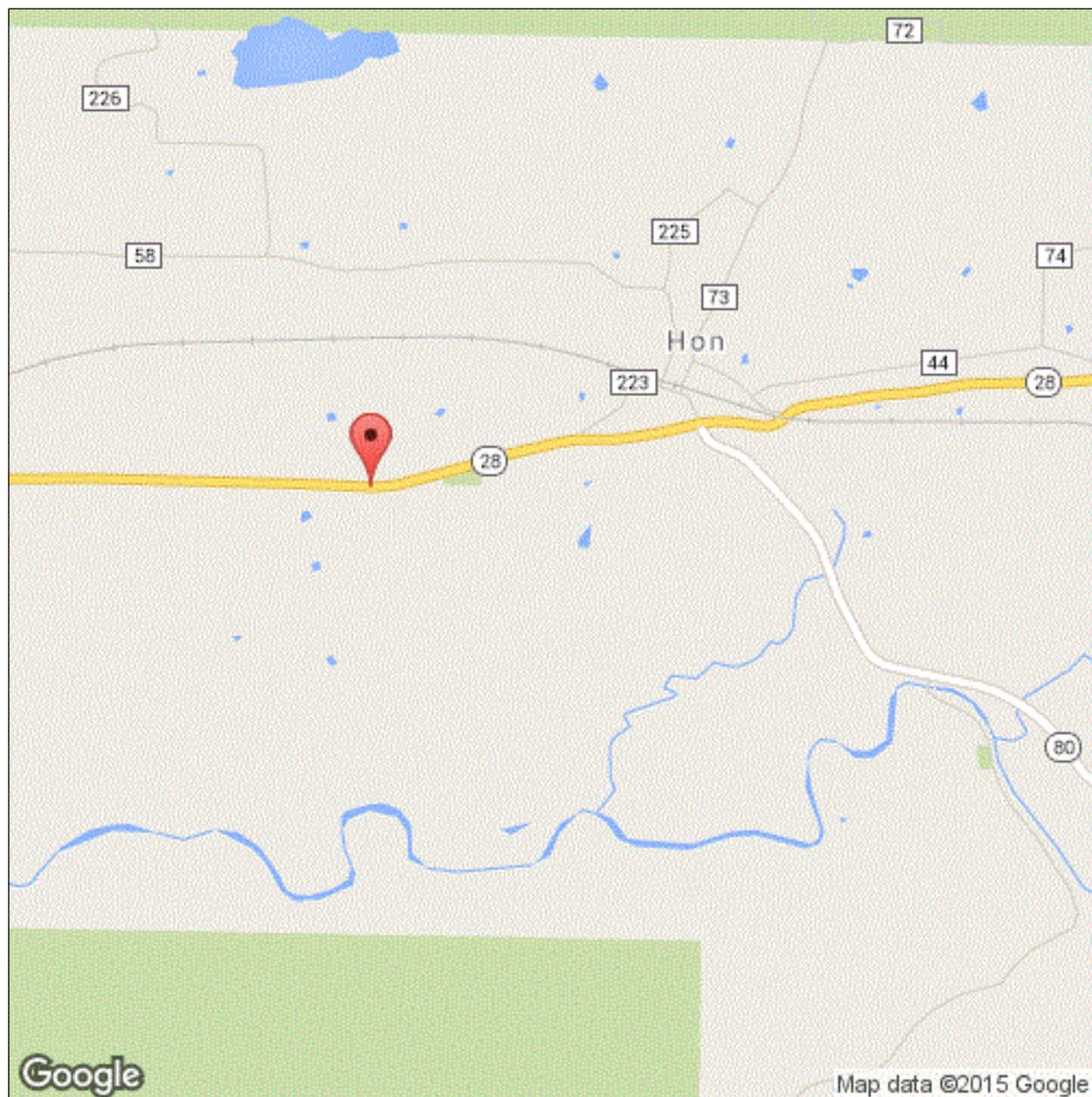
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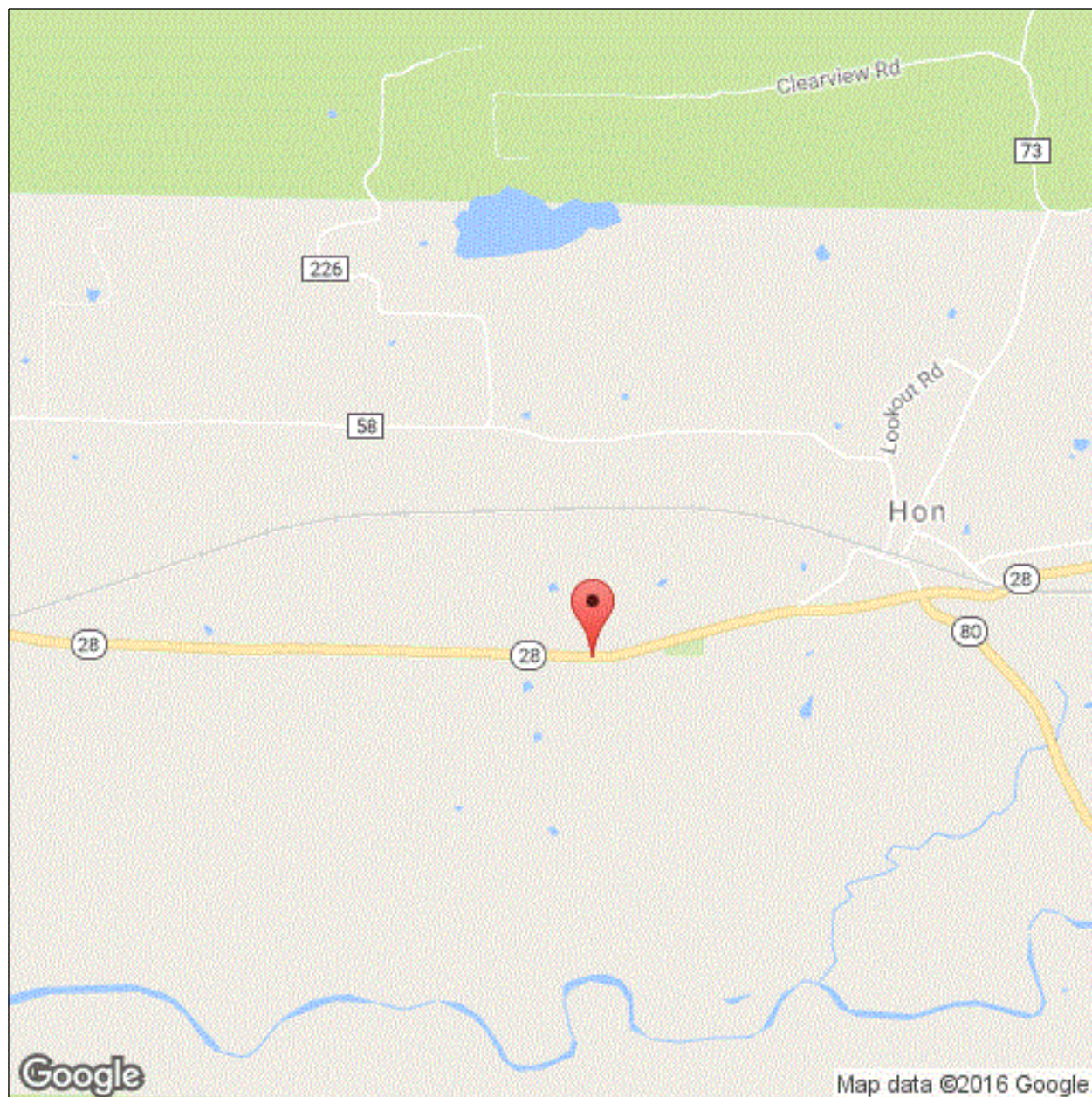
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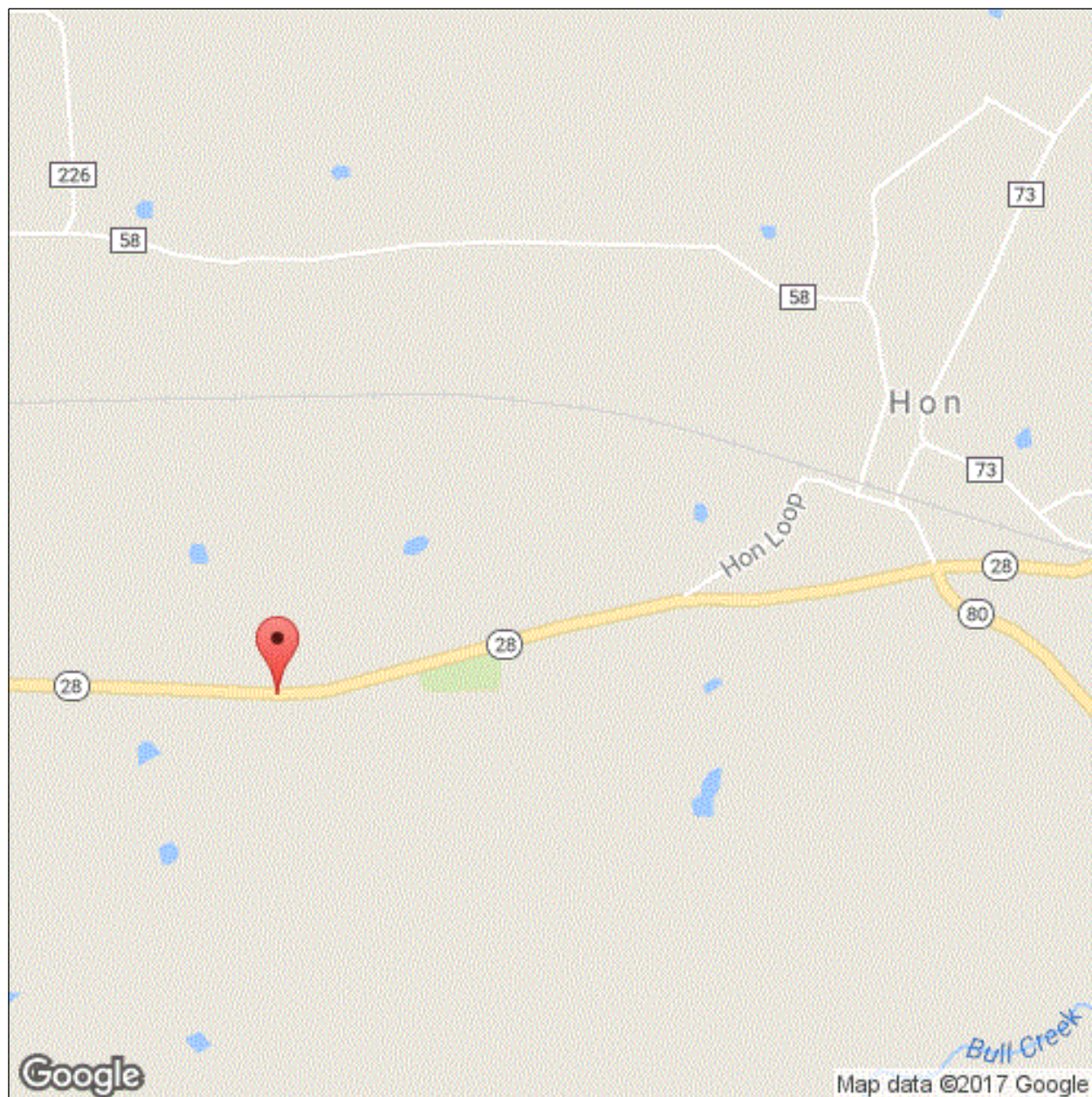
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Bridge Inspection Report

Executive Summary

10/18/2017 JPB & SPC-Routine Inspection conducted on this date.

08/17/2016 JPB & JCJ-Special Inspection conducted on this date.

Special Inspection: Superstructure rated a "4".

Numerous areas with longitudinal concrete cracking, spalling, & delamination in the stems of Channels. The most extreme examples are located as follows:

- Span 1-Rt Leg of Channel 2
- Span 2-Lt Leg of Channel 3
- Span 2-Lt Leg of Channel 4
- Span 3-Rt Leg of Channel 2
- Span 3-Rt Leg of Channel 3
- Span 3-Lt Leg of Channel 4.

-Span 4-right stem of Channel 3.

-Unit 4 of Span 3 has exposed reinforcing steel that has caulking smeared over the reinforcing steel as a type of repair. Up to 1/16" section loss to exposed primary longitudinal reinforcing steel.

-Bolts used to connect the channels together have active corrosion with layers of rust.

-Transverse cracks in the concrete diaphragms in the ends of units over the bearing areas.

-Vertical hairline flexure cracks that range from approximately 6" to 12" centers

10/15/2015 - JCJ & JML - Type 2 Underwater Inspection - Wading and probing during low water conditions indicate that footings have cover with no apparent scour problems at this inspection.

"Special Recurring" inspection added this date with a 24 month inspection frequency offset 12 months from the "Routine" inspection.

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Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION				INSPECTIONS			
(1) STATE CODE	056 - Arkansas			(90) INSPECTION DATE	10/18/2017		
(8) STRUCTURE NUMBER	M0683			(91) DESIGNATED INSPECTION FREQUENCY	24		
(5) INV. ROUTE (ON/UNDER)	1	3	1 28 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE		
(2) HIGHWAY AGENCY	04	(3) COUNTY CODE	127	A. FRACTURE CRITICAL DETAIL	N		
(4) PLACE CODE	00000			B. UNDERWATER INSPECTION	N		
(6) FEATURES INTERSECTED	Lookout Creek			C. OTHER SPECIAL	Y	24	08/17/2016
(7) FACILITY CARRIED	SH 28-Scott Co.			CONDITION			
(9) LOCATION	15.1 M E OF OKLAHOMA SL			(58) DECK	6		
(11) MILEPOINT 15.117	(12) BASE HIGHWAY NETWORK 0			(59) SUPERSTRUCTURE	4	(60) SUBSTRUCTURE	6
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00			(61) CHANNEL & CHANNEL PROTECTION	6	(62) CULVERT	N
(16) LATITUDE 34.93458	(17) LONGITUDE -94.19412			LOAD RATING AND POSTING			
(98A) BORDER BRIDGE CODE				(31) DESIGN LOAD	2		
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT			(63) METHOD USED TO DETERMINE OPERATING RATING	1		
STRUCTURE TYPE AND MATERIAL				(64) OPERATING RATING	51		
(43) STRUCTURE TYPE, MAIN				(65) METHOD USED TO DETERMINE INVENTORY RATING	1		
A) KIND OF MATERIAL/DESIGN:	1 - Concrete			(66) INVENTORY RATING	31		
B) TYPE OF DESIGN/CONSTR:	22 - Channel Beam			(70) BRIDGE POSTING	5		
(44) STRUCTURE TYPE, APPROACH SPANS				(41) STRUCTURE OPEN/POSTED/CLOSED	A		
A) KIND OF MATERIAL/DESIGN:	0 - Other			APPRAISAL			
B) TYPE OF DESIGN/CONSTR:	00 - Other			(67) STRUCTURAL EVALUATION	4		
(45) NUMBER OF SPANS IN MAIN	4	(46) NUMBER OF APPROACH	0	(68) DECK GEOMETRY	4		
(107) DECK STRUCTURE TYPE	2	(108A) WEARING SURFACE	1	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N		
(108B) DECK MEMBRANE	0	(108C) DECK PROTECTION	0	(71) WATERWAY ADEQUACY	7		
AGE OF SERVICE				(72) APPROACH ROADWAY ALIGNMENT	6		
(27) YEAR BUILT	1957	(106) YEAR RECONSTRUCTED	0000	(36) TRAFFIC SAFETY FEATURE			
(42) TYPE OF SERVICE	ON 1	UNDER	5	36A) BRIDGE RAILINGS:	0		
(28) LANES	ON 02	UNDER	00	36B) TRANSITIONS:	0		
(29) AVERAGE DAILY TRAFFIC	790	(19) BYPASS DETOUR LENGTH	124	36C) APPROACH GUARDRAIL:	0		
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014			36D) APPROACH GUARDRAIL ENDS:	1		
(109) AVERAGE DAILY TRUCK TRAFFIC	1			(113) SCOUR CRITICAL BRIDGES	5		
GEOMETRIC DATA				SUFFICIENCY RATING	1	STATUS	38.1
(48) LENGTH OF MAX SPAN (ft.)	19	(49) STRUCTURE LENGTH (ft.)	76	CLASSIFICATION			
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 0.7	RIGHT	0.7	(112) NBIS BRIDGE LENGTH	Y		
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	23.6			(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0		
(52) DECK WIDTH, OUT-TO-OUT (ft.)	25			(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07		
(32) APPROACH ROADWAY WIDTH (ft.)	24.0			(100) STRAHNET HIGHWAY DESIGNATION	0		
(33) BRIDGE MEDIAN	0	(34) SKEW (DEG.)	0	(101) PARALLEL STRUCTURE DESIGNATION	N		
(35) STRUCTURE FLARED	0	(10) INV RTE, MIN VERT CLEAR (ft.)	99.99	(102) DIRECTION OF TRAFFIC	2		
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	25.6			(103) TEMP STRUCTURE			
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99			(105) FEDERAL LANDS HIGHWAYS	0		
(54) VERTICAL UNDER CLEARANCE (ft.)	N		0	(110) DESIGNATED NATIONAL NETWORK	0		
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N		99.9	(20) TOLL	3		
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0			(21) MAINTENANCE RESPONSIBILITY	01		
PROPOSED IMPROVEMENTS				(22) OWNER	01		
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY			(37) HISTORICAL	5		
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	0			NAVIGATION DATA			
(94) BRIDGE IMPROVEMENT COST (\$)	0			(38) NAVIGATION CONTROL	0		
(95) ROADWAY IMPROVEMENT COST (\$)	0			(111) PIER OR ABUTMENT PROTECTION	1		
(96) TOTAL PROJECT COST	0			(39) NAV VERT CLEARANCE (ft.)	0		
(97) YEAR OF IMPROVEMENT COST ESTIMATE				(116) MIN NAVIGATION VERT CLEARANCE, VERT LIFT BRIDGE (ft.)	0		
(114) FUTURE ADT	1342	(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.	1786	sq. ft.	1382	404	0	0
	-No apparent repairs since the last inspection. -The joints between the units leak water that appears to contribute to the spalling with exposed reinforcing steel in the stems of the units. -The driving surface has a few spalls over the intermediate bents that have been temporarily patched with asphalt. -There is light abrasion / wear in the wheel paths.						
1080 - Delamination/Spall/Patched Area		4			4		
1190 - Abrasion/Wear (PSC/RC)		400			400		
110 - Reinforced Concrete Open Girder/Beam	1- Ben.	530	ft.	224	121	180	5
	Numerous areas with longitudinal concrete cracking, spalling with exposed reinforcing steel & delamination in the stems of Channels. The most extreme examples are located as follows: -Span 1-Rt Leg of Channel 2 -Span 1-Rt Leg of Channel 5 -Span 1-Rt Leg of Channel 6 -Span 2-Lt Leg of Channel 2 -Span 2-Lt Leg of Channel 3 -Span 2-Lt Leg of Channel 4 -Span 3-Rt Leg of Channel 2 -Span 3-Rt Leg of Channel 3 -Span 3-Lt Leg of Channel 4 -Span 4-Rt Leg of Channel 3 -Span 4-Rt Leg of Channel 4 -Span 4-Rt Leg of Channel 6 -Span 3, Unit 4 has exposed reinforcing steel that has caulking smeared over the reinforcing steel as a type of repair. The exposed primary longitudinal reinforcing steel in the stem of Span 3, Channel 4 measured 1/16" at this inspection and lost it bond with the concrete along a 5' long area. -Numerous areas with longitudinal cracking and spalls with exposed primary reinforcing steel that has active corrosion. -Bolts used to connect the channels together have active corrosion with layers of rust. -Transverse cracks and spalls with exposed reinforcing steel in the concrete diaphragms in the ends of units over the bearing areas. -Vertical hairline flexure cracks that range from approximately 6" to 12" centers.						
1080 - Delamination/Spall/Patched Area		103			62	41	
1090 - Exposed Rebar		106			14	87	5
1120 - Efflorescence/Rust Staining		10			10		
1130 - Cracking (RC and Other)		87			35	52	
205 - Reinforced Concrete Column	1- Ben.	6	each	0	6	0	0
	-Light abrasion at the base of the columns.						
1190 - Abrasion/Wear (PSC/RC)		6			6		

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Element Inspection

215 - Reinforced Concrete Abutment	1- Ben.	54	ft.	51	3	0	0
-Abutments have a few isolated vertical hairline shrinkage cracks.							
1130 - Cracking (RC and Other)		3			3		
234 - Reinforced Concrete Pier Cap	1- Ben.	75	ft.	60	12	3	0
-Shallow spalls in the bearing areas under the stems of channels. Some spalls have been covered with caulking by maintenance forces as a type of repair.							
1080 - Delamination/Spall/Patched Area		15			12	3	
330 - Metal Bridge Railing	1- Ben.	152	ft.	0	152	0	0
-The bridge railing has areas with superficial rust.							
1000 - Corrosion		152			152		
515 - Steel Protective Coating		304	sq. ft.	0	0	152	152
3440 - Effectiveness (Steel Protective Coatings)		304				152	152

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Bridge Inspection Report

Pictures

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Bridge Inspection Report

Sketches

Inspector:

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Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 11/14/2011 12:00:00 AM

Priority: C - Important

Work Code: Repair

Deficiency Description:

Superstructure.

Superstructure has longitudinal cracks and concrete spalls with exposed primary longitudinal reinforcing steel. Exposed reinforcing steel has active corrosion.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Numerous areas with longitudinal cracking visible on the bottom surface of the channel Unit legs.

Stage: Assigned



PHOTO 2 Description Numerous areas with longitudinal concrete cracking, spalling with exposed reinforcing steel & delamination in the stems of Channels.
-Span 1-Rt Leg of Channel 2 pictured.

Inspector:

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Bridge Inspection Report

Maintenance Needs

Stage: Assigned



PHOTO 3 Description Numerous areas with longitudinal concrete cracking, spalling with exposed reinforcing steel & delamination in the stems of Channels.
-Span 2-Lt Leg of Channel 2
-Span 2-Lt Leg of Channel 3
-Span 2-Lt Leg of Channel 4

Stage: Assigned



PHOTO 4 Description Numerous areas with longitudinal concrete cracking, spalling with exposed reinforcing steel & delamination in the stems of Channels.
-Span 4-Rt Leg of Channel 3
-Span 4-Rt Leg of Channel 4
-Span 4-Rt Leg of Channel 6

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Bridge Inspection Report

Maintenance Needs

Stage: Assigned



PHOTO 5 **Description** Span 3, Unit 4 has exposed reinforcing steel that has caulking smeared over the reinforcing steel as a type of repair. The exposed primary longitudinal reinforcing steel in the stem of Span 3, Channel 4 measured 1/16" at this inspection and lost its bond with the concrete along a 5' long area.

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Bridge Inspection Report

Maintenance Needs

Date Reported: 10/15/2015

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Bridge Deck.

Pre-cast concrete channels have spalls on the driving surface of the deck. Deck joints between units leak water.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Pre-cast concrete channels have spalls on the driving surface of the deck. Span 2 Units 4 & 5 pictured.

Stage: Assigned



PHOTO 2 Description Pre-cast concrete channels have spalls on the driving surface of the deck. Span 3, Unit 4 at Bent 4 pictured.

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Bridge Inspection Report

Maintenance Needs

Date Reported: 10/3/2013 12:00:00 AM

Priority: D - Routine

Work Code: Repair

Deficiency Description:

Substructure

Spalling in the bearing area of some units.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Shallow spalls in the bearing areas under the stems of channels. Bent 2 in Span 2 pictured.

Stage: Assigned



PHOTO 2 Description Shallow spalls in the bearing areas under the stems of channels. Bent 3 in Span 3 pictured.

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Bridge Inspection Report

Maintenance Needs

Stage: Assigned



PHOTO 3 Description Shallow spalls in the bearing areas under the stems of channels. Some spalls have been covered with caulking by maintenance forces as a type of repair. Bent 4 in Span 3 pictured.

Stage: Assigned



PHOTO 4 Description Shallow spalls in the bearing areas under the stems of channels. Bent 2 in Span 1 pictured.