

# Bridge Inspection Report

**05387**

**SH 23-Logan Co.**

**over**

**Little Six Mile Creek**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

## TABLE OF CONTENTS

	PAGE NUMBER
LOCATION MAP	3
NATIONAL BRIDGE INVENTORY	8
ELEMENTS	9
PICTURES	11
SKETCHES	12

Inspector:

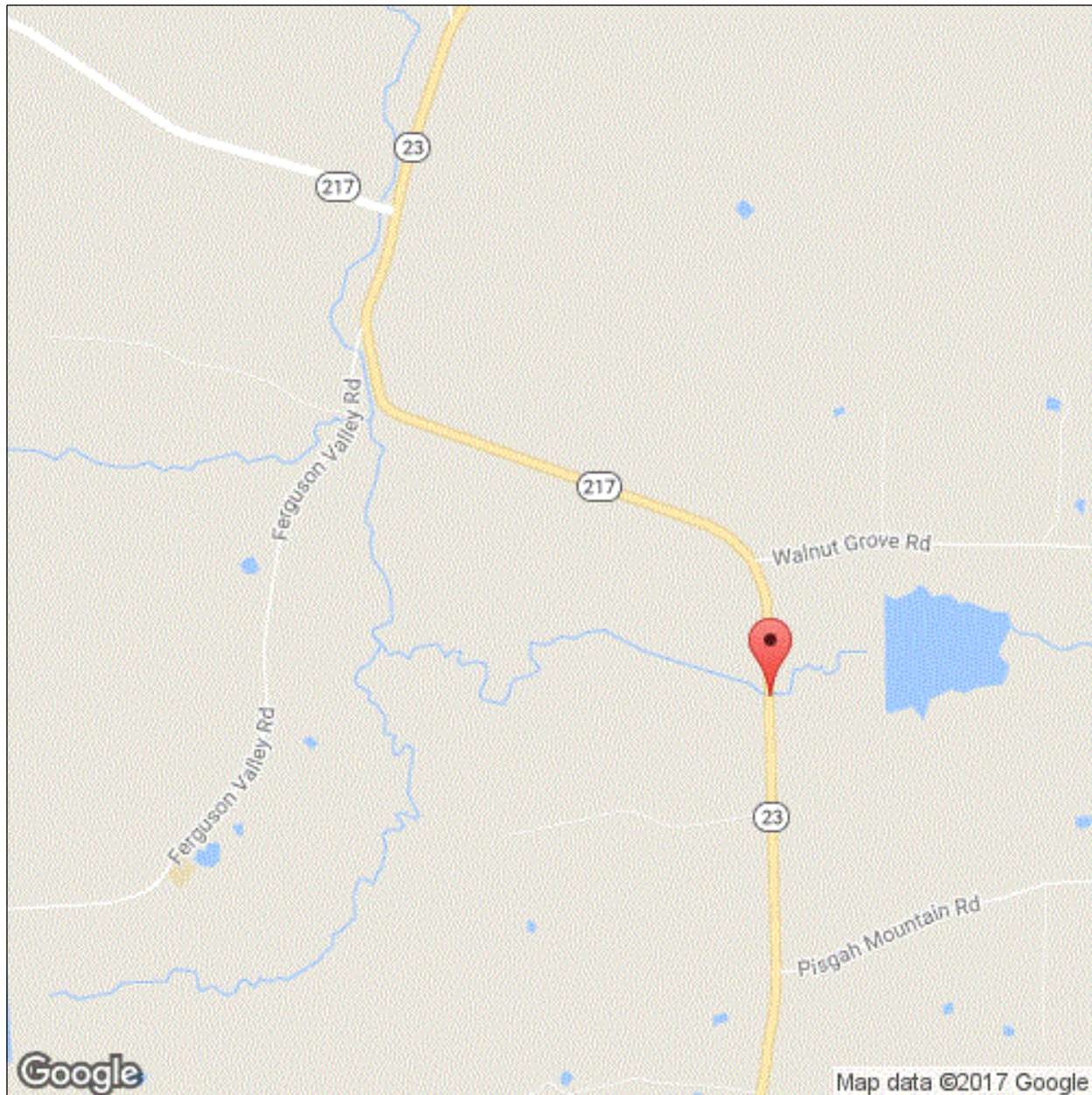
Structure Number: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

## Bridge Inspection Report

### Location Map



Latitude: 35.20481

Longitude: -93.92430

Inspector:

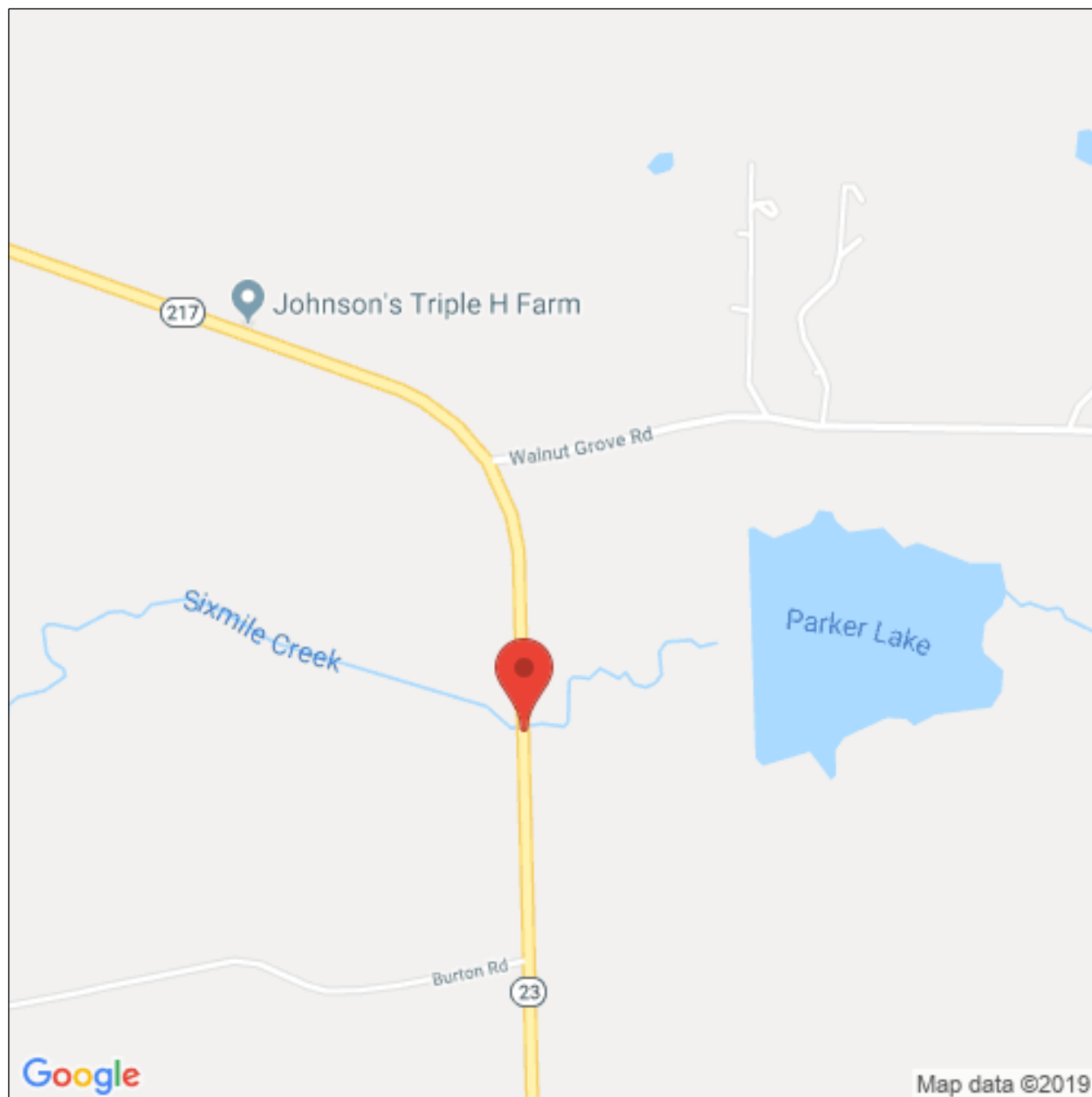
Structure Number: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

## Bridge Inspection Report

### Location Map



Latitude: 35.20481

Longitude: -93.92430



Inspector:

Structure Number: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

## Bridge Inspection Report

### Location Map



Latitude: 35.20481

Longitude: -93.92430

Inspector:

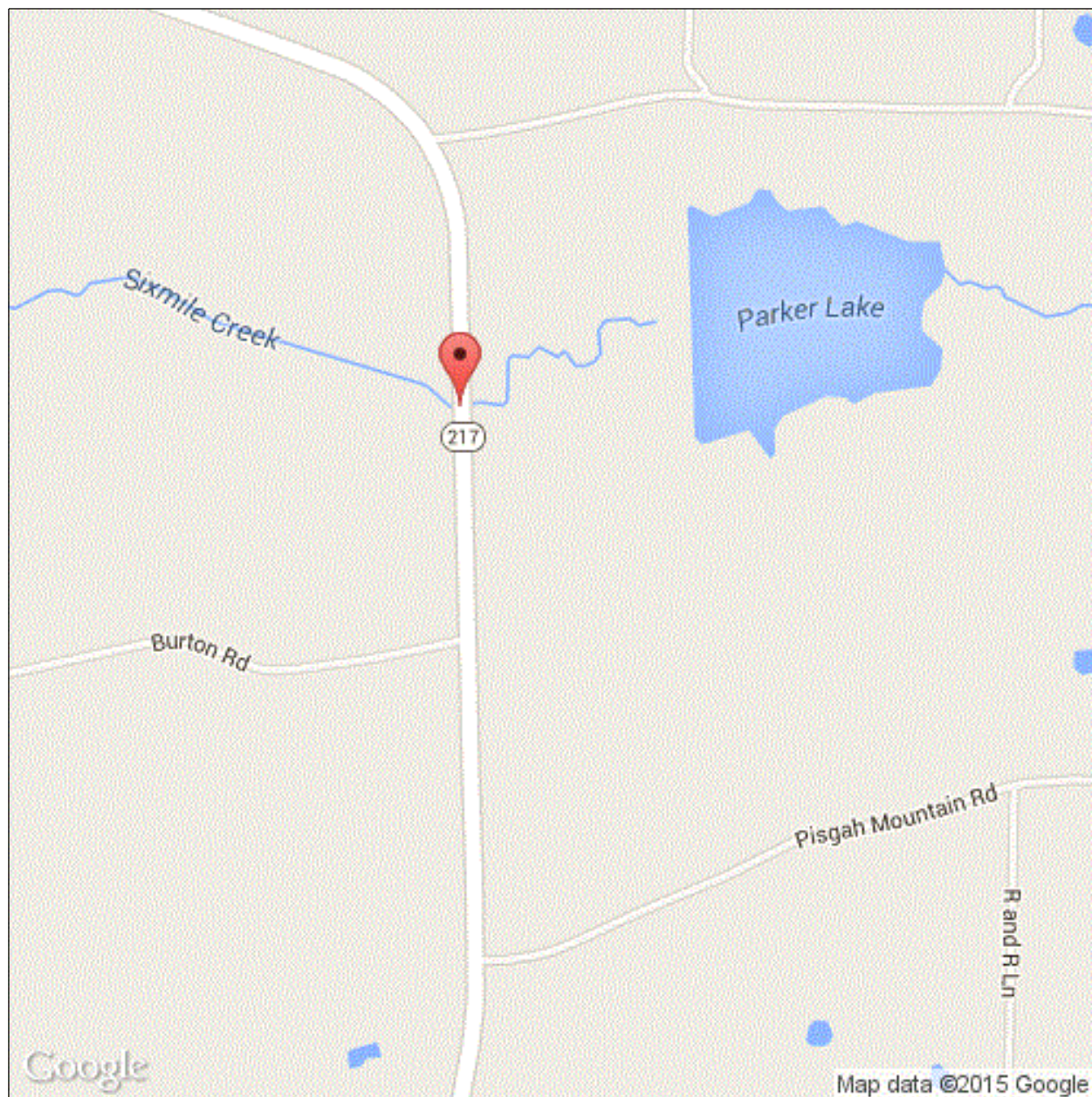
Structure Number: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

## Bridge Inspection Report

### Location Map



Latitude: 35.20481

Longitude: -93.92430

**Inspector:**

**Structure Number:** 05387

**Inspection Date:**

**Facility Carried:** SH 23-Logan Co.

**Bridge Inspection Report**

**Executive Summary**

08/14/2019 - EJW & JPW - Type 2 Underwater Inspection- Visual observation during low water conditions indicate that the footings have cover with no apparent scour problems at this inspection.

Inspector:

Structure Number: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	08/14/2019
(8) STRUCTURE NUMBER	05387	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 23 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	04 (3) COUNTY CODE 083	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	Little Six Mile Creek	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 23-Logan Co.		
(9) LOCATION	2.26 MI S FRANKLIN CO.LN.		
(11) MILEPOINT 7.600	(12) BASE HIGHWAY NETWORK 1		
(13A) LRS INVENTORY ROUTE	0000023030 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 35.20481	(17) LONGITUDE -93.92430		
(98A) BORDER BRIDGE CODE			
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT		
STRUCTURE TYPE AND MATERIAL		CONDITION	
(43) STRUCTURE TYPE, MAIN		(58) DECK	6
A) KIND OF MATERIAL/DESIGN: 1 - Concrete		(59) SUPERSTRUCTURE	6 (60) SUBSTRUCTURE 5
B) TYPE OF DESIGN/CONSTR: 01 - Slab		(61) CHANNEL & CHANNEL PROTECTION	7 (62) CULVERT N
(44) STRUCTURE TYPE, APPROACH SPANS			
A) KIND OF MATERIAL/DESIGN: 0 - Other			
B) TYPE OF DESIGN/CONSTR: 00 - Other			
(45) NUMBER OF SPANS IN MAIN 3	(46) NUMBER OF APPROACH 0		
(107) DECK STRUCTURE TYPE 1	(108A) WEARING SURFACE 1		
(108B) DECK MEMBRANE 0	(108C) DECK PROTECTION 0		
AGE OF SERVICE		LOAD RATING AND POSTING	
(27) YEAR BUILT 1971	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	5
(42) TYPE OF SERVICE ON 1 UNDER 5		(63) METHOD USED TO DETERMINE OPERATING RATING	1
(28) LANES ON 02 UNDER 00		(64) OPERATING RATING	60.0
(29) AVERAGE DAILY TRAFFIC 3000	(19) BYPASS DETOUR LENGTH 13	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	36.0
(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.) 30	(49) STRUCTURE LENGTH (ft.) 90	(67) STRUCTURAL EVALUATION	5
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0.5 RIGHT 0.5		(68) DECK GEOMETRY	5
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.) 39.0		(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.) 42.3		(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.) 27.9		(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 0	(36) TRAFFIC SAFETY FEATURE	
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99	36A) BRIDGE RAILINGS:	1
(47) TOTAL HORIZONTAL CLEARANCE (ft.) 40.0		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	82.6 STATUS 0
PROPOSED IMPROVEMENTS		CLASSIFICATION	
(75A) TYPE OF WORK PROPOSED	(75B) WORK DONE BY	(112) NBIS BRIDGE LENGTH	Y
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.) 0		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	06
(95) ROADWAY IMPROVEMENT COST (\$)	0	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	0	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE		(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 4027	(115) YEAR OF FUTURE ADT 2028	(103) TEMP STRUCTURE	
		(105) FEDERAL LANDS HIGHWAYS	0
		(110) DESIGNATED NATIONAL NETWORK	1
		(20) TOLL	3
		(21) MAINTENANCE RESPONSIBILITY	01
		(22) OWNER	01
		(37) HISTORICAL	5
		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: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

## Bridge Inspection Report

## Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
<b>38 - Reinforced Concrete Slab</b>	1- Ben.	3803	sq. ft.	2254	1538	11	0
	-There is a 1' X 12' spalled and delaminated area In the Lt side of Span 1 adjacent to the expansion joint over Bent 2. -There is a transverse crack that propagates from the spalled area and extends to through the Lt gutter line and connects with a vertical crack on the Lt exterior side of the deck. -The Rt side of the deck at Span 1 over Bent 2 has a vertical crack on the exterior side. -State maintenance forces have sealed the deck with epoxy in the past, but there are existing sealable cracks during this inspection. -Water stains on the substructure caps indicate that the deck joints are leaking. -There is vegetation growing out of the deck joints over the intermediate bents this inspection. -There are isolated areas of soft deteriorated concrete visible in the exterior edges of the deck at the deck / bridge rail juncture. -There are a few isolated longitudinal hairline cracks visible from the undersurface of the deck.						
1080 - Delamination/Spall/Patched Area		11		0	8	3	0
1130 - Cracking (RC and Other)		818		0	810	8	0
1190 - Abrasion/Wear (PSC/RC)		720		0	720	0	0
<b>205 - Reinforced Concrete Column</b>	1- Ben.	6	each	3	1	2	0
	-There is light to medium abrasion at the base of columns in the channel.						
1190 - Abrasion/Wear (PSC/RC)		3		0	1	2	0
<b>215 - Reinforced Concrete Abutment</b>	1- Ben.	86	ft.	82	4	0	0
	-There is one 18" shallow spall with exposed reinforcing steel with no section loss in the Rt side of Bent 1.						
1090 - Exposed Rebar		1		0	1	0	0
1130 - Cracking (RC and Other)		3		0	3	0	0
<b>234 - Reinforced Concrete Pier Cap</b>	1- Ben.	85	ft.	65	10	10	0
	-There are numerous spalls with exposed reinforcing steel and delaminated areas in the substructure caps. -Bents # 2 & 3 have several small spalls with exposed reinforcing steel on the undersurface of the cap. -Bent 3, Span 2 side has a shallow spall to the Rt of Column 3. -Water stains on the caps indicate that the deck joints leak. -There is light scale on the ends of the caps.						
1080 - Delamination/Spall/Patched Area		9		0	5	4	0
1090 - Exposed Rebar		6		0	0	6	0
1130 - Cracking (RC and Other)		5		0	5	0	0

Inspector:

Structure Number: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

### Bridge Inspection Report

#### Element Inspection

<b>301 - Pourable Joint Seal</b>	1- Ben.	85	ft.	0	0	85	0
	-The joints between the slabs over the intermediate bents appear to be filled with Craft-Co asphalt crack sealant. -Stains on the substructure caps indicate that the deck joint sealant is leaking.						
2310 - Leakage		49		0	0	49	0
2350 - Debris Impaction		36		0	0	36	0
<b>330 - Metal Bridge Railing</b>	1- Ben.	180	ft.	180	0	0	0
	-There are no apparent noteworthy deficiencies in the bridge rail this inspection.						
<b>331 - Reinforced Concrete Bridge Railing</b>	1- Ben.	180	ft.	180	0	0	0
	-There are no apparent noteworthy deficiencies in the bridge rail this inspection.						

**Inspector:**

**Inspection Date:**

**Structure Number:** 05387

**Facility Carried:** SH 23-Logan Co.

**Bridge Inspection Report**

**Pictures**

PHOTO 1

Description

PHOTO 2

Description

**Inspector:**

**Inspection Date:**

**Structure Number:** 05387

**Facility Carried:** SH 23-Logan Co.

**Bridge Inspection Report**

**Sketches**



Inspector:

Structure Number: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

## Bridge Inspection Report

### Maintenance Needs

Date Reported: 08/31/2015

Priority: D - Routine

Work Code:

---

#### Deficiency Description:

Substructure

The Rt side of the South abutment stem has shallow spalling with exposed reinforcing steel. Bents 2 and 3 have spalling in the bearing areas. The undersurfaces of the caps have isolated areas of spalling with exposed reinforcing steel.

#### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Open



PHOTO 1      Description      Bent 1 Rt spalling with exposed reinforcing steel in the end of the abutment.

Stage: Open



PHOTO 2      Description      Bent 2 Span 2 shallow spalling in the bearing area.

Inspector:

Inspection Date:

Structure Number: 05387

Facility Carried: SH 23-Logan Co.

## Bridge Inspection Report

### Maintenance Needs

Stage: Open



PHOTO 3      Description      Bent 3 Rt spalling with exposed reinforcing steel.



Inspector:

Structure Number: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

### Bridge Inspection Report

## Maintenance Needs

Date Reported: 08/31/2015

Priority: D - Routine

Work Code:

---

### Deficiency Description:

Deck Joints

The deck joint sealant over Bents # 2 & 3 is failing and leak water and incompressible material in the joints. The driving surface of the deck has sealable cracking in all spans.

### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Open



PHOTO 1      Description      Bent 2 failing joint seal.

Stage: Open



PHOTO 2      Description      Bent 3 failing joint seal.

Inspector:

Structure Number: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

### Bridge Inspection Report

## Maintenance Needs

Date Reported: 08/31/2015

Priority: D - Routine

Work Code:

---

### Deficiency Description:

Superstructure, Rt & Lt sides of Span 1

The concrete slab has vertical fractures visible in the Rt and Lt exterior vertical faces of the slab over Bent 2. The fracture on the Lt side propagates into the concrete parapet and continues transversely into the Lt driving lane of the deck adjacent to Bent 2. The deck has spalling adjacent to Bent 2 expansion joint assembly as a result of the cracking.

### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Open



PHOTO 1      Description      Span 1 Lt spalling and delaminated concrete adjacent to the deck joint.

Stage: Open



PHOTO 2      Description      Span 1 @ Bent 2 Lt Vertical crack in the edge of the slab.



Inspector:

Structure Number: 05387

Inspection Date:

Facility Carried: SH 23-Logan Co.

### Bridge Inspection Report

## Maintenance Needs

Date Reported: 08/31/2015

Priority: D - Routine

Work Code: Repair

---

### Deficiency Description:

R.C. Slab Span

There is a 1' X 12' spalled / delaminated area In the Left side of Span 1 adjacent to the expansion joint over Bent 2.

### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1      Description      Span 1 Lt spalling and delaminated concrete adjacent to the deck joint.



PHOTO 2      Description      Span 1 over Bent 2