

Bridge Inspection Report

02141

SH 77-02- LM 10.42

over

LEFT HAND CHUTE



Inspection Date:

Inspected By:

Inspection Type(s):

Inspector:

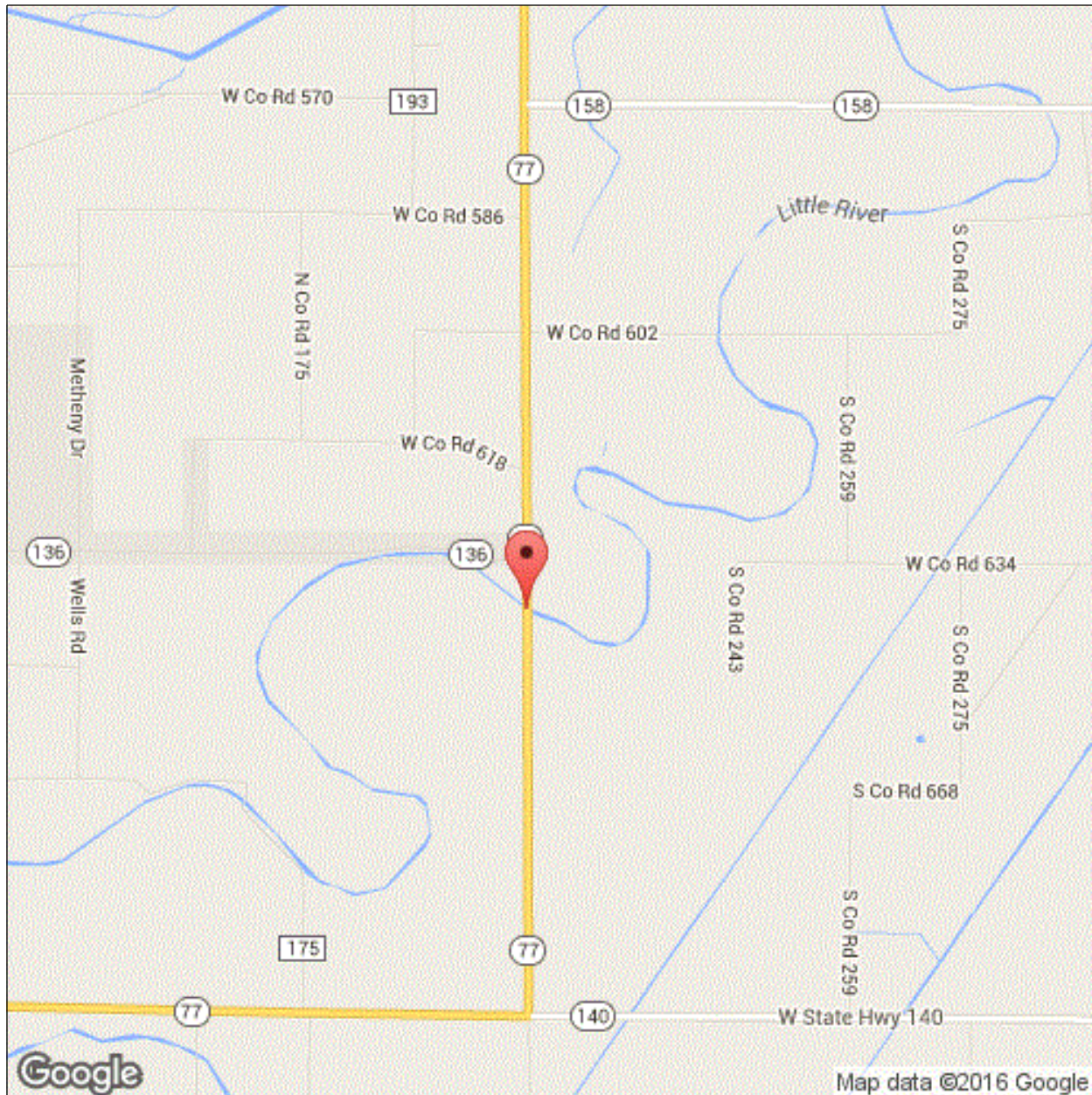
Structure Number: 02141

Inspection Date:

Facility Carried: SH 77-02- LM 10.42

Bridge Inspection Report

Location Map



Latitude: 35.72479

Longitude: -90.17776

Inspector:

Structure Number: 02141

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Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	06/06/2016
(8) STRUCTURE NUMBER	02141	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 77 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	10 (3) COUNTY CODE 093	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	LEFT HAND CHUTE	C. OTHER SPECIAL	Y 24 06/23/2015
(7) FACILITY CARRIED	SH 77-02- LM 10.42		
(9) LOCATION	1.8 MI N JCT SH 140		
(11) MILEPOINT 10.420	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 35.72479	(17) LONGITUDE -90.17776		
(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 4
B) TYPE OF DESIGN/CONSTR: 01 - Slab		(61) CHANNEL & CHANNEL PROTECTION	5 (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 8	(46) NUMBER OF APPROACH 0		
(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 1952	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	0
(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	36.0
(29) AVERAGE DAILY TRAFFIC 1100	(19) BYPASS DETOUR LENGTH 12	(65) METHOD USED TO DETERMINE INVENTORY RATING	1
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	22.0
(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.) 18	(49) STRUCTURE LENGTH (ft.) 144	(67) STRUCTURAL EVALUATION	4
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 1 RIGHT 1		(68) DECK GEOMETRY	4
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	24.0	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(52) DECK WIDTH, OUT-TO-OUT (ft.)	26.6	(71) WATERWAY ADEQUACY	8
(32) APPROACH ROADWAY WIDTH (ft.)	25.9	(72) APPROACH ROADWAY ALIGNMENT	8
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 20	(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.)	25.9	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	5
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	SUFFICIENCY RATING	1 STATUS 38.7
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.)	173.0	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(94) BRIDGE IMPROVEMENT COST (\$)	0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
(95) ROADWAY IMPROVEMENT COST (\$)	117	(100) STRAHNET HIGHWAY DESIGNATION	0
(96) TOTAL PROJECT COST	417	(101) PARALLEL STRUCTURE DESIGNATION	N
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2003	(102) DIRECTION OF TRAFFIC	2
(114) FUTURE ADT 1586	(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	5
		NAVIGATION DATA	
		(38) NAVIGATION CONTROL	0
		(111) PIER OR ABUTMENT PROTECTION	5
		(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: 02141

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Bridge Inspection Report

Element Inspection

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
38 - Reinforced Concrete Slab	1- Ben.	3830	sq. ft.	3441	6	383	0
<p>Left Concrete Curb Span 2 has a 3ft. x 1.5ft. of area deteriorated with section loss.</p> <p>Concrete Slab with Asphalt Overlay has open cracks in asphalt over joints.</p> <p>Right and Left edge of Gutter Line has delamination, spalls and patched areas, see 2015 & 2013 photo of Spans 4-6 photo for typical.</p> <p>Span 4 Slab at left Gutter Line has a 4 ft. x 1.5 ft. area of heavy deterioration and delamination adjacent to previous concrete patch, see 2015 & 2013 photo.</p> <p>Left edge of Asphalt Overlay Gutter line is cracking and shelling out, see 2015 & 2013 photos for typical.</p> <p>Concrete Slab has a 3 1/2 in lateral shift at Joint over Bent 5, no change since 2003 inspection, see 2015 photo.</p> <p>Soffit has insignificant cracking with some light efflorescence, spalls, and some rebar exposed:</p> <p>Soffit Span 3 has 8sqft. of cracks with efflorescence.</p> <p>Soffit Span 3 right Drain Opening has a 6in. x 6in. x 1 1/2in. deep spall with exposed rebar.</p> <p>Soffit Span 3 has 54sqft. of cracks.</p> <p>Soffit Span 4 left Drain Opening has a 6in. diameter spall with exposed rebar.</p> <p>Soffit Span 5 left Drain Opening has an 18in. x 6in. x 1 1/2in. deep spall with exposed rebar.</p> <p>Soffit Span 5 right Drain Opening has a 1ft. x 1ft. delaminated area, impending spall.</p> <p>Soffit Span 6 right Drain Opening has a 4ft. x 8in. delaminated area, impending spall.</p> <p>Soffit Span 6 left Drain Opening has a 1ft. x 1ft. delaminated area, impending spall.</p> <p>Soffit Span 7 has a 1ft. x 6in. spall with exposed rebar.</p>							
1080 - Delamination/Spall/Patched Area		299			6	293	
1090 - Exposed Rebar		5				5	
1120 - Efflorescence/Rust Staining		5				5	
1130 - Cracking (RC and Other)		80				80	
510 - Wearing Surfaces		3096	sq. ft.	2844	0	252	0
3220 - Crack (Wearing Surface)		252				252	

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Element Inspection

215 - Reinforced Concrete Abutment	1- Ben.	84	ft.	68	2	14	0
<p>Bent 1 Cap has a 2ft. x 6in. spall with no rebar exposed, see 2015 photo.</p> <p>Moderate Slope Erosion under Span 1 has undermined 10ft. left of center line 6 inches deep and 2 ft. back under Abutment exposing Piles 1&2, see 2015 photo.</p> <p>Moderate Slope Erosion under Span 8, no berm remaining right of centerline, and Bent 9 Abutment has 4ft. long x up to 1.5ft. deep and up to 2ft. undermining under cap exposing Pile 4, see 2015 photo for typical.</p>							
1080 - Delamination/Spall/Patched Area		2			2		
6000 - Scour		14				14	
228 - Timber Pile	1- Ben.	35	each	7	23	4	1
<p>Majority of Piles have moderate decay and splitting with a few having some section loss:</p> <p>Bent 2 Pile 1 is decayed and partially hollow near groundline.</p> <p>Bent 3 Pile 1 is decayed and partially hollow 4ft. above groundline.</p> <p>Bent 6 Pile 3 is decayed and mostly hollow 1 1/2in. shell and hollow, see 2015 photo.</p> <p>Bent 7 Pile 1 is decayed and partially hollow 3ft. above groundline. (2 piles in state 3, 1 pile state 4)</p> <p>Bent 8 Pile 5 is decayed and partially hollow, see 2016 photo.</p> <p>Intermediate Bents have several Timber Cross Bracing broken or missing from piles.</p>							
1140 - Decay/Section Loss		5				4	1
1150 - Check/Shake		23			23		
234 - Reinforced Concrete Pier Cap	1- Ben.	208	ft.	197	0	11	0
<p>Bent 2 Cap has 1ft. left end with deterioration and 1ft. of delamination area and 1ft. of efflorescence.</p> <p>Bent 4 Cap at left end has some small spalls with no rebar exposed.</p> <p>Bent 5 Cap has 3ft. of efflorescence on Span 4 side.</p> <p>Bent 6 Cap near Pile 3 has 1ft. x 1ft. spall with rebar exposed on the bottom of cap with a delaminated area to the face of cap, see 2015 photo.</p> <p>Bent 7 Cap near Pile 3 has 1ft. x 1ft. delaminated area to the face of cap.</p> <p>Bent 8 Cap near right end has 1ft. x 1ft. delaminated area to face of cap.</p>							
1080 - Delamination/Spall/Patched Area		6				6	
1090 - Exposed Rebar		1				1	
1120 - Efflorescence/Rust Staining		4				4	
333 - Other Bridge Railing	1- Ben.	288	ft.	184	100	4	0
<p>Left side Concrete Bridge Rail Posts have a few shelled out areas with exposed rebar, metal rail is pulled loose from a few post, especially Spans 4&5, see 2015 photo.</p>							
1000 - Corrosion		100			100		
1080 - Delamination/Spall/Patched Area		4				4	

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 9/21/2011 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Conc. Slab w/asp. overlay.

Deck has open cracks thru asphalt at joints.

Asphalt is shelled out on Lt edge of deck at spans 1, 2, 4, 5, and 6.

3 1/2 in. lateral shift of slab at Bt. 5 joint, no significant change this inspection.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description 02141 07292013 Deck at spans 4 - 6

Stage: Monitor



PHOTO 2 Description Bent 5 right curb lateral shift of slab.

Inspector:

Structure Number: 02141

Inspection Date:

Facility Carried: SH 77-02- LM 10.42

Bridge Inspection Report

Maintenance Needs

Date Reported: 9/21/2011 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Metal Bridge Rail

Rail has 30% paint deter. and rust forming.

Lt rail is loose at spans 4 and 5.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Bent 5 left guardrail

Inspector:

Structure Number: 02141

Inspection Date:

Facility Carried: SH 77-02- LM 10.42

Bridge Inspection Report

Maintenance Needs

Date Reported: 9/21/2011 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Soffit has insignificant cracking with some light efflorescence, spalls, and some rebar exposed:

Soffit Span 3 has 8sqft. of cracks with efflorescence.

Soffit Span 3 right Drain Opening has a 6in. x 6in. x 1 1/2in. deep spall with exposed rebar.

Soffit Span 3 has 54sqft. of cracks.

Soffit Span 4 left Drain Opening has a 6in. diameter spall with exposed rebar.

Soffit Span 5 left Drain Opening has an 18in. x 6in. x 1 1/2in. deep spall with exposed rebar.

Soffit Span 5 right Drain Opening has a 1ft. x 1ft. delaminated area, impending spall.

Soffit Span 6 right Drain Opening has a 4ft. x 8in. delaminated area, impending spall.

Soffit Span 6 left Drain Opening has a 1ft. x 1ft. delaminated area, impending spall.

Soffit Span 7 has a 1ft. x 6in. spall with exposed rebar.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Inspector:

Structure Number: 02141

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 9/21/2011 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Bent 1 Cap has a 2ft. x 6in. spall with no rebar exposed, see 2015 photo.

Bent 2 Cap has 1ft. left end with deterioration and 1ft. of delamination area and 1ft. of efflorescence.

Bent 4 Cap at left end has some small spalls with no rebar exposed.

Bent 5 Cap has 3ft. of efflorescence on Span 4 side.

Bent 6 Cap near Pile 3 has 1ft. x 1ft. spall with rebar exposed on the bottom of cap with a delaminated area to the face of cap, see 2015 photo.

Bent 7 Cap near Pile 3 has 1ft. x 1ft. delaminated area to the face of cap.

Bent 8 Cap near right end has 1ft. x 1ft. delaminated area to face of cap.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description Left end bent 1

Stage: Open



PHOTO 2 Description Bent 6 cap over pile 3 span 6 side.

Inspector:

Structure Number: 02141

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 9/21/2011 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Channel

Moderate Slope Erosion under Span 1 has undermined 10ft. left of center line 6 inches deep and 2 ft. back under Abutment exposing Piles 1&2, see 2015 photo.

Moderate Slope Erosion under Span 8, no berm remaining right of centerline, and Bent 9 Abutment has 4ft. long x up to 1.5ft. deep and up to 2ft. undermining under cap exposing Pile 4, see 2015 photo for typical.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Bent 9 embankment erosion.

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 8/1/2013 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code:

Deficiency Description:

Logmile sign missing at bent #1 abutment.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Date Reported: 8/1/2013 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code:

Deficiency Description:

Approach roadway settled 1" at bent 9 end of bridge.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Inspector:

Structure Number: 02141

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 8/1/2013 12:00:00 AM

Priority: C - Important

Work Code:

Deficiency Description:

Left Concrete Curb Span 2 has a 3ft. x 1.5ft. of area deteriorated with section loss.

Right and Left edge of Gutter Line has delamination, spalls and patched areas, see 2015 & 2013 photo of Spans 4-6 photo for typical.

Span 4 Slab at left Gutter Line has a 4 ft. x 1.5 ft. area of heavy deterioration and delamination adjacent to previous concrete patch, see 2015 & 2013 photo.

Left edge of

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description Bent 5 left guardrail

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Bridge Inspection Report

Maintenance Needs

Date Reported: 06/23/2015

Priority: C - Important

Work Code:

Deficiency Description:

Bent 2 Pile 1 is decayed and partially hollow near groundline.

Bent 3 Pile 1 is decayed and partially hollow 4ft. above groundline.

Bent 7 Pile 1 is decayed and partially hollow 3ft. above groundline.

Bent 8 Pile 5 is decayed and partially hollow, see 2016 photo.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Monitor



PHOTO 1 Description

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 06/23/2015

Priority: B - Pressing; 6 month completion goal

Work Code:

Deficiency Description:

Bent 6 Pile 3 is decayed and mostly hollow 1 1/2in. shell and hollow, see 2015 & 2016 photo.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Open



PHOTO 1 Description Bent 6 pile 3

Stage: Monitor



PHOTO 2 Description

Inspector:

Structure Number: 02141

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Maintenance Needs

Date Reported: 06/06/2016

Priority: D - Routine

Work Code:

Deficiency Description:

Large Drift up stream across entire channel lodged on piles; see 2016 photo of upstream channel view.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Copy to Miss 1 crew for removal when they get a chance

Stage: Open



PHOTO 1 Description

Inspector:

Structure Number: 02141

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Bridge Inspection Report

Maintenance Needs

Date Reported: 06/06/2016

Priority: G - General/ Preventive maintenance

Work Code:

Deficiency Description:

Left side Concrete Bridge Rail Posts have a few shelled out areas with exposed rebar, metal rail is pulled loose from a few post, especially Spans 4&5, see 2015 photo.

Work Description:

Date Repairs Completed:

Maintenance Comments:

