

Bridge Inspection Report

03909
SH 22-Logan Co.
over
Little Shoal Creek



Inspection Date:

Inspected By:

Inspection Type(s):

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Inspector:

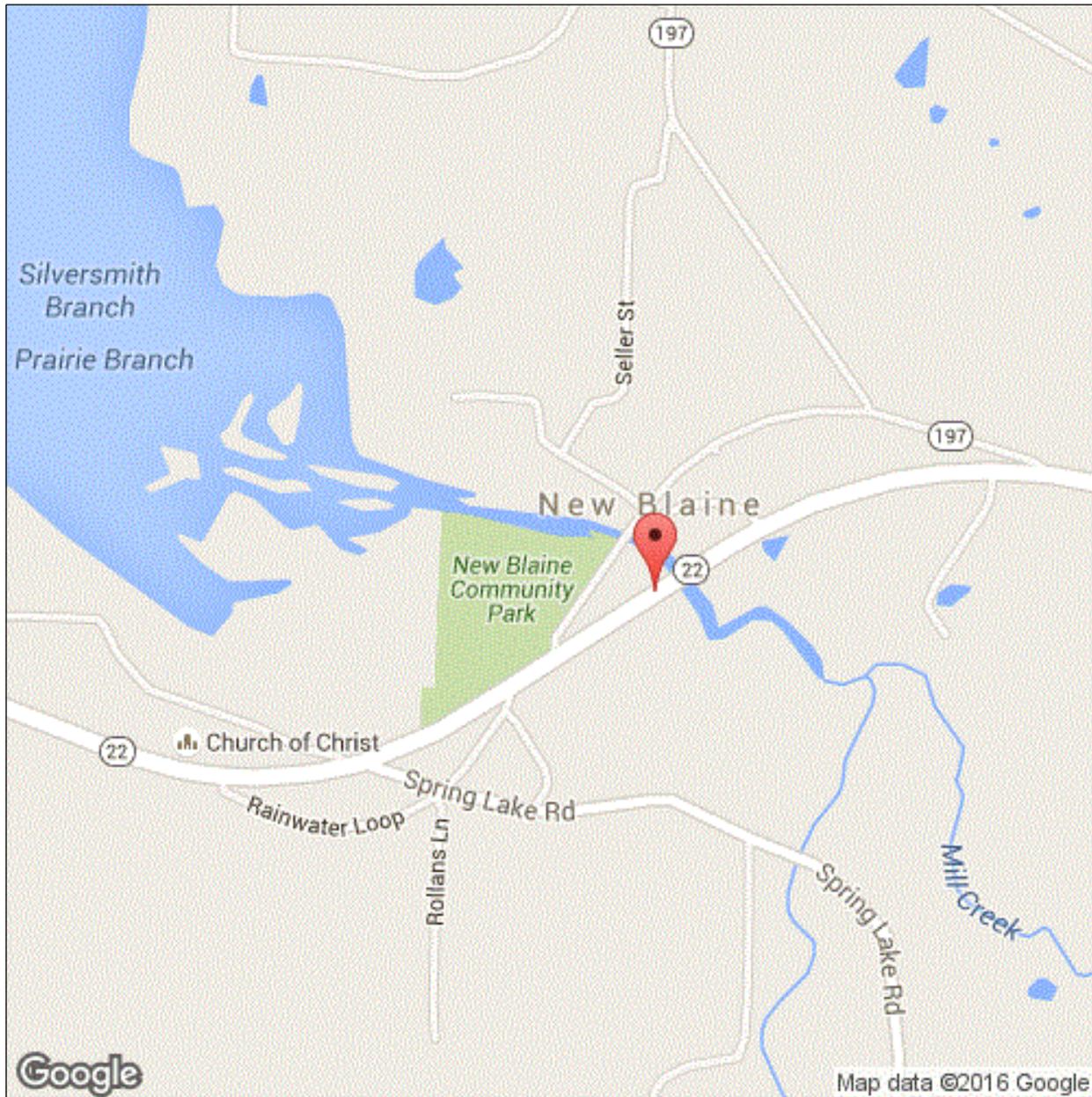
Structure Number: 03909

Inspection Date:

Facility Carried: SH 22-Logan Co.

Bridge Inspection Report

Location Map



Latitude: 35.28809

Longitude: -93.41973

Inspector:

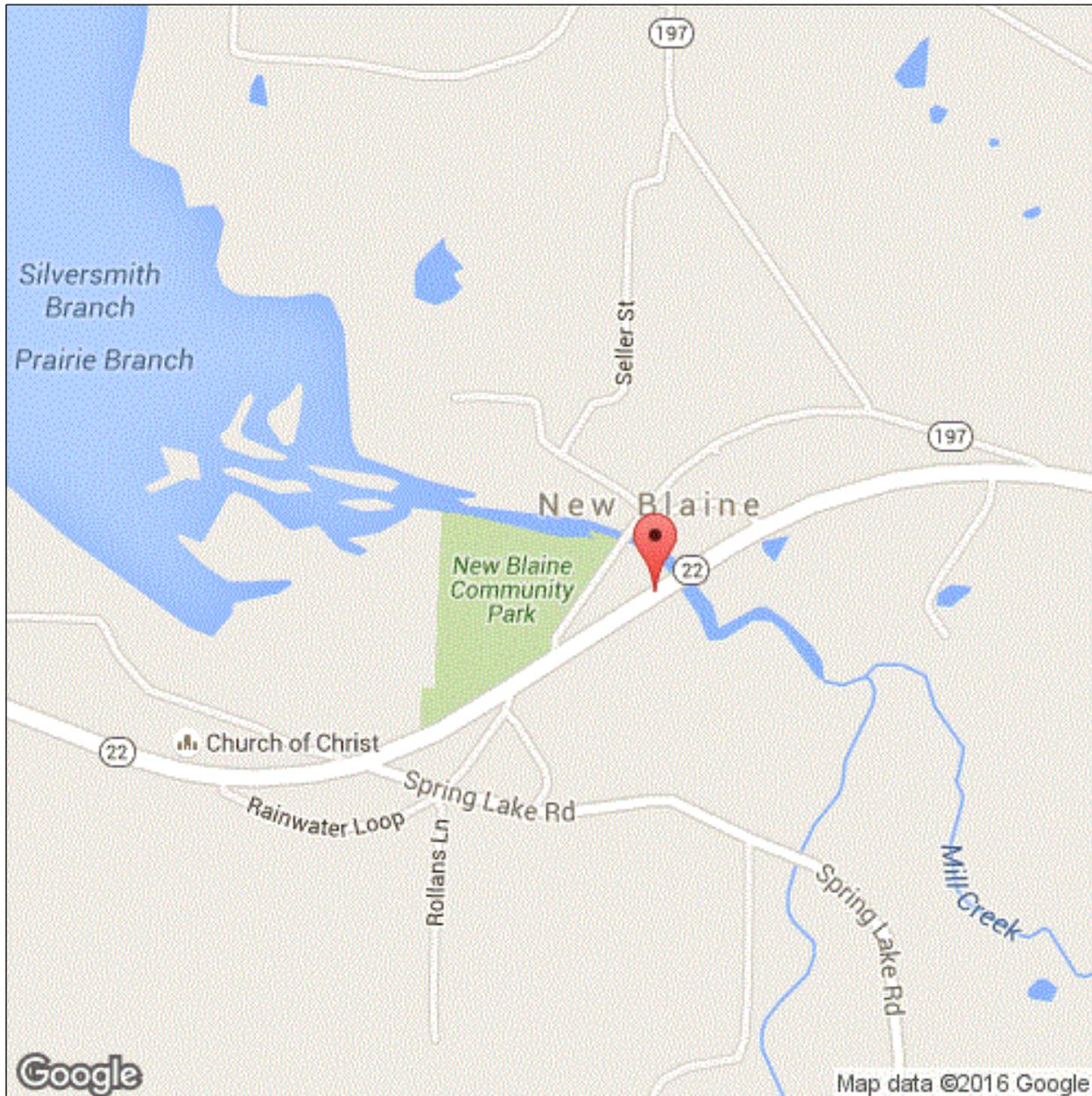
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Location Map



Latitude: 35.28809

Longitude: -93.41973

Inspector:

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Bridge Inspection Report

Executive Summary

Inspector:

Structure Number: 03909

Inspection Date:

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Bridge Inspection Report

National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	06/18/2018
(8) STRUCTURE NUMBER	03909	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 22 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 Shoal Creek	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 22-Logan Co.	CONDITION	
(9) LOCATION	0.4 MI SW JCT SH 197 & 22	(58) DECK	5
(11) MILEPOINT 6.279	(12) BASE HIGHWAY NETWORK 1	(59) SUPERSTRUCTURE 6	(60) SUBSTRUCTURE 7
(13A) LRS INVENTORY ROUTE	0000022040 (13B) SUBROUTE NUMBER 00	(61) CHANNEL & CHANNEL PROTECTION 7	(62) CULVERT N
(16) LATITUDE 35.28809	(17) LONGITUDE -93.41973	LOAD RATING AND POSTING	
(98A) BORDER BRIDGE CODE		(31) DESIGN LOAD	5
PERCENT RESPONSIBILITY	(99) BORDER BRIDGE STRUCT	(63) METHOD USED TO DETERMINE OPERATING RATING	1
STRUCTURE TYPE AND MATERIAL		(64) OPERATING RATING	60.0
(43) STRUCTURE TYPE, MAIN		(65) METHOD USED TO DETERMINE INVENTORY RATING	1
A) KIND OF MATERIAL/DESIGN:	3 - Steel	(66) INVENTORY RATING	36.0
B) TYPE OF DESIGN/CONSTR:	02 - Stringer/Multi-beam or Girder	(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	6
(45) NUMBER OF SPANS IN MAIN	5 (46) NUMBER OF APPROACH	(68) DECK GEOMETRY	4
(107) DECK STRUCTURE TYPE	1 (108A) WEARING SURFACE	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(108B) DECK MEMBRANE	0 (108C) DECK PROTECTION	(71) WATERWAY ADEQUACY	8
AGE OF SERVICE		(72) APPROACH ROADWAY ALIGNMENT	8
(27) YEAR BUILT	1967 (106) YEAR RECONSTRUCTED	(36) TRAFFIC SAFETY FEATURE	
(42) TYPE OF SERVICE	ON 1 UNDER 5	36A) BRIDGE RAILINGS:	1
(28) LANES	ON 02 UNDER 00	36B) TRANSITIONS:	1
(29) AVERAGE DAILY TRAFFIC	2300 (19) BYPASS DETOUR LENGTH	36C) APPROACH GUARDRAIL:	1
(30) YEAR OF AVERAGE DAILY TRAFFIC	2014	36D) APPROACH GUARDRAIL ENDS:	1
(109) AVERAGE DAILY TRUCK TRAFFIC	1	(113) SCOUR CRITICAL BRIDGES	8
GEOMETRIC DATA		SUFFICIENCY RATING	84.5 STATUS 0
(48) LENGTH OF MAX SPAN (ft.)	45 (49) STRUCTURE LENGTH (ft.)	227	
(50) CURB/SIDEWALK WIDTHS (ft.)	LEFT 1.5 RIGHT 1.5	CLASSIFICATION	
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	27.9	(112) NBIS BRIDGE LENGTH	Y
(52) DECK WIDTH, OUT-TO-OUT (ft.)	33.9	(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
(32) APPROACH ROADWAY WIDTH (ft.)	40.0	(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	06
(33) BRIDGE MEDIAN	0 (34) SKEW (DEG.)	(100) STRAHNET HIGHWAY DESIGNATION	0
(35) STRUCTURE FLARED	0 (10) INV RTE, MIN VERT CLEAR (ft.)	(101) PARALLEL STRUCTURE DESIGNATION	N
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	30.8	(102) DIRECTION OF TRAFFIC	2
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99	(103) TEMP STRUCTURE	
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0	(105) FEDERAL LANDS HIGHWAYS	0
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9	(110) DESIGNATED NATIONAL NETWORK	0
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0	(20) TOLL	3
PROPOSED IMPROVEMENTS		(21) MAINTENANCE RESPONSIBILITY	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	3087 (115) YEAR OF FUTURE ADT	(40) NAV HORIZONTAL CLEARANCE (ft.)	0

Inspector:

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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
12 - Reinforced Concrete Deck	1- Ben.	6750	sq. ft.	0	5293	1457	0
	-The driving surface of the deck has a sealable cracks. -Span 1 has shallow spalling with exposed reinforcing at the centerline of the bridge. -Spans 1, 2 & 5 have shallow spalls and delaminated areas of concrete. - Medium scale in the gutters of Spans 1, 2, 4 & 5. Minor deterioration of the deck joint seals. - There are transverse cracks visible on the undersurface of the deck.						
1080 - Delamination/Spall/Patched Area		700		0	19	681	0
1090 - Exposed Rebar		19		0	5	14	0
1120 - Efflorescence/Rust Staining		64		0	0	64	0
1130 - Cracking (RC and Other)		661		0	494	167	0
1190 - Abrasion/Wear (PSC/RC)		5306		0	4775	531	0
107 - Steel Open Girder/Beam	1- Ben.	1125	ft.	0	1035	90	0
	-The paint system is failing with light rust showing through the paint system. -Active corrosion at the beam ends. -No visible cracks in the beams.						
1000 - Corrosion		1125		0	1035	90	0
515 - Steel Protective Coating		8800	sq. ft.	703	5609	2441	47
3440 - Effectiveness (Steel Protective Coatings)		8097		0	5609	2441	47
205 - Reinforced Concrete Column	1- Ben.	8	each	0	7	1	0
	-The columns have light abrasion at the water line.						
1190 - Abrasion/Wear (PSC/RC)		8		0	7	1	0
215 - Reinforced Concrete Abutment	1- Ben.	70	ft.	70	0	0	0
	-No apparent noteworthy problems at this inspection.						
220 - Reinforced Concrete Pile Cap/Footing	1- Ben.	84	ft.	84	0	0	0
	-Probing by boat indicate that the top of Bent 3 and 4 footings are exposed. -Probing indicates that solid rock channel floor is exposed. Plans indicate that Footings are 2.5 feet thick and keyed into hard blue shale. -Bent 3, Lt and Rt Column footings field measure 16" from the top of footing to the Channel floor. -Bent 4, Lt Column footing field measures 11" from the top of footing to the Channel floor and Rt Column footing field measures 6" from the top of footing to the Channel floor. Footings appear to be well keyed at this inspection.						

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Element Inspection

234 - Reinforced Concrete Pier Cap	1- Ben.	112	ft.	112	0	0	0
-No noteworthy deficiencies at this inspection.							
305 - Assembly Joint without Seal	1- Ben.	180	ft.	180	0	0	0
-The assembly joint seals are anchored solid at this inspection. -No apparent problems at this inspection.							
311 - Movable Bearing	1- Ben.	25	each	0	0	25	0
-The bearings have active corrosion and layers of rust. The paint system has failed and is providing little protection.							
1000 - Corrosion		25		0	0	25	0
515 - Steel Protective Coating		25	sq. ft.	0	0	0	25
3440 - Effectiveness (Steel Protective Coatings)		25		0	0	0	25
313 - Fixed Bearing	1- Ben.	25	each	0	0	25	0
-The bearings have active corrosion and layers of rust. The paint system has failed and is providing little protection.							
1020 - Connection		25		0	0	25	0
515 - Steel Protective Coating		25	sq. ft.	0	0	0	25
3440 - Effectiveness (Steel Protective Coatings)		25		0	0	0	25
330 - Metal Bridge Railing	1- Ben.	454	ft.	447	7	0	0
-Collision damage on the Rt side of Span 4 over Bent 4 with a fractured post base on the undersurface of the deck. -The end post at Bent 6 Rt has been impacted by traffic and is twisted with large spalls.							
7000 - Damage		7		0	7	0	0

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Pictures

PHOTO 1
Description

PHOTO 1
Description

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Bridge Inspection Report

Pictures

PHOTO 2

Description

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Facility Carried: SH 22-Logan Co.

Bridge Inspection Report

Sketches

Inspector:

Structure Number: 03909

Inspection Date:

Facility Carried: SH 22-Logan Co.

Bridge Inspection Report

Maintenance Needs

Date Reported: 5/9/2012 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Deck-

Driving surface of the deck has a few delaminated areas and shallow spalls with exposed reinforcing steel.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Span # 1 concrete deterioration.

Inspector:

Structure Number: 03909

Inspection Date:

Facility Carried: SH 22-Logan Co.

Bridge Inspection Report

Maintenance Needs

Date Reported: 5/9/2012 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code:

Deficiency Description:

Approach guard rail posts-

Approach guard rail posts are deteriorated with areas of collision damage.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Northeast bridge rail damage.

Inspector:

Structure Number: 03909

Inspection Date:

Facility Carried: SH 22-Logan Co.

Bridge Inspection Report

Maintenance Needs

Date Reported: 5/9/2012 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Superstructure-

The ends of beams have active corrosion adjacent to the bearings.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Active corrosion at the beam ends. No visible cracks in the beams.

Inspector:

Structure Number: 03909

Inspection Date:

Facility Carried: SH 22-Logan Co.

Bridge Inspection Report

Maintenance Needs

Date Reported: 5/8/2014 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code:

Deficiency Description:

Deck-

The gutters have areas with medium scale.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Concrete delamination in the gutters.

Inspector:

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Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 5/8/2014 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Bridge Rail-

Minor collision damage on the right side of Span # 3. The end post at Bent # 6 right has been impacted by traffic and is twisted with large spalls.

Work Description:

Repaired bridge railing only at this time 11/1/2017. Will schedule the end post at a later date. By Crew #04001

Date Repairs Completed:

Maintenance Comments:

Partial Complete

Stage: Monitor



PHOTO 1 Description

Stage: Assigned



PHOTO 2 Description Southeast bridge rail damage.

Inspector:

Structure Number: 03909

Inspection Date:

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Bridge Inspection Report

Maintenance Needs

Stage: Monitor



PHOTO 3 Description

Stage: Assigned



PHOTO 4 Description Span # 4 RT bridge rail damage.

Inspector:

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Bridge Inspection Report

Maintenance Needs

Date Reported: 5/8/2014 12:00:00 AM

Priority: D - Routine

Work Code:

Deficiency Description:

Superstructure-

The paint system is failing with a light rust coating showing through the paint.

Work Description:

Date Repairs Completed:

Maintenance Comments:

Stage: Assigned



PHOTO 1 Description Typical underside of the deck.