

# Bridge Inspection Report

**M3220**  
**SH 34-04- LM 9.99**  
**over**  
**HURRICANE DITCH**



**Inspection Date:**

**Inspected By:**

**Inspection Type(s):**

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Inspector:

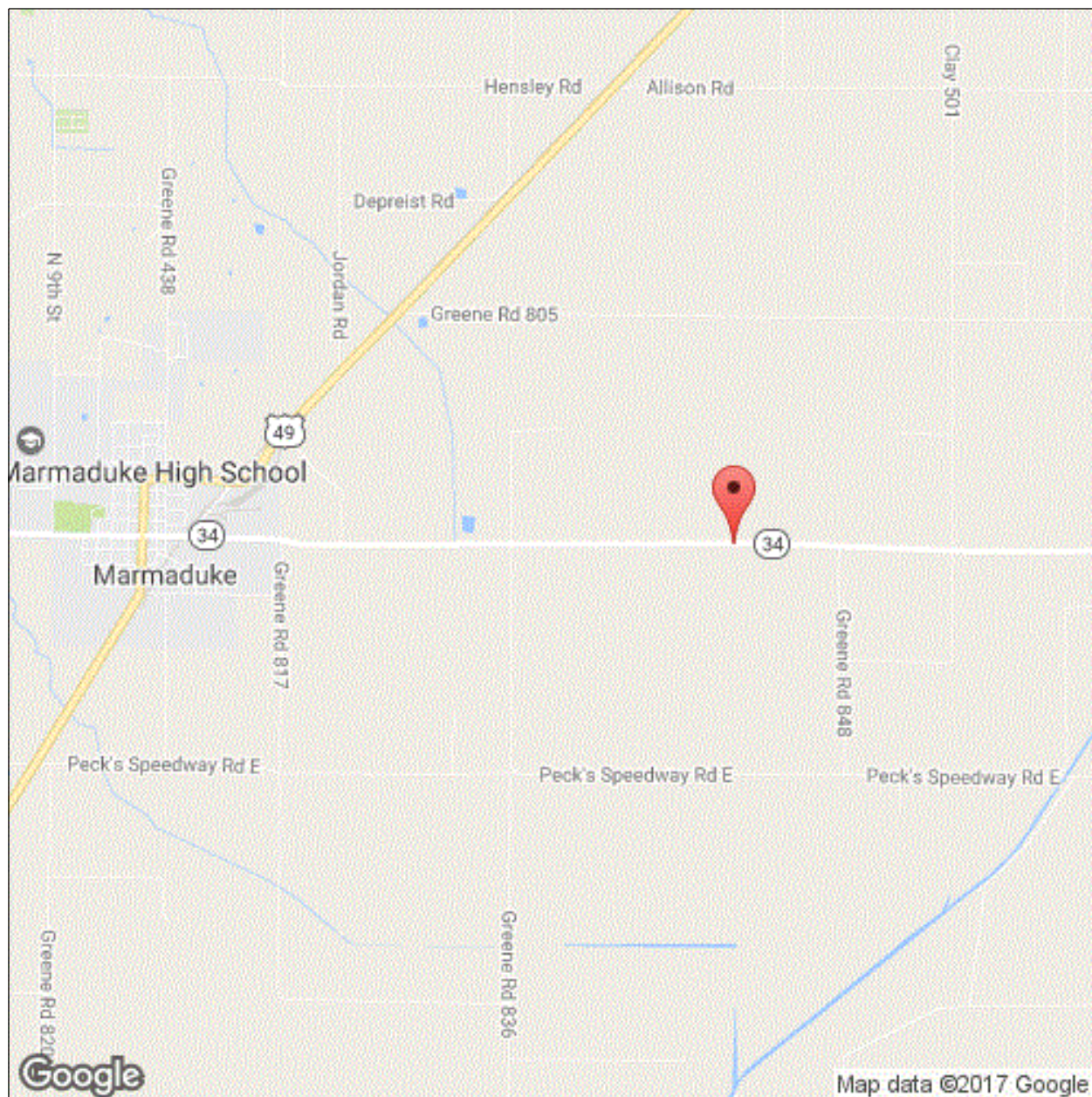
Structure Number: M3220

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Facility Carried: SH 34-04- LM 9.99

## Bridge Inspection Report

### Location Map



Latitude: 36.18634956943682

Longitude: -90.33811764748884



Inspector:

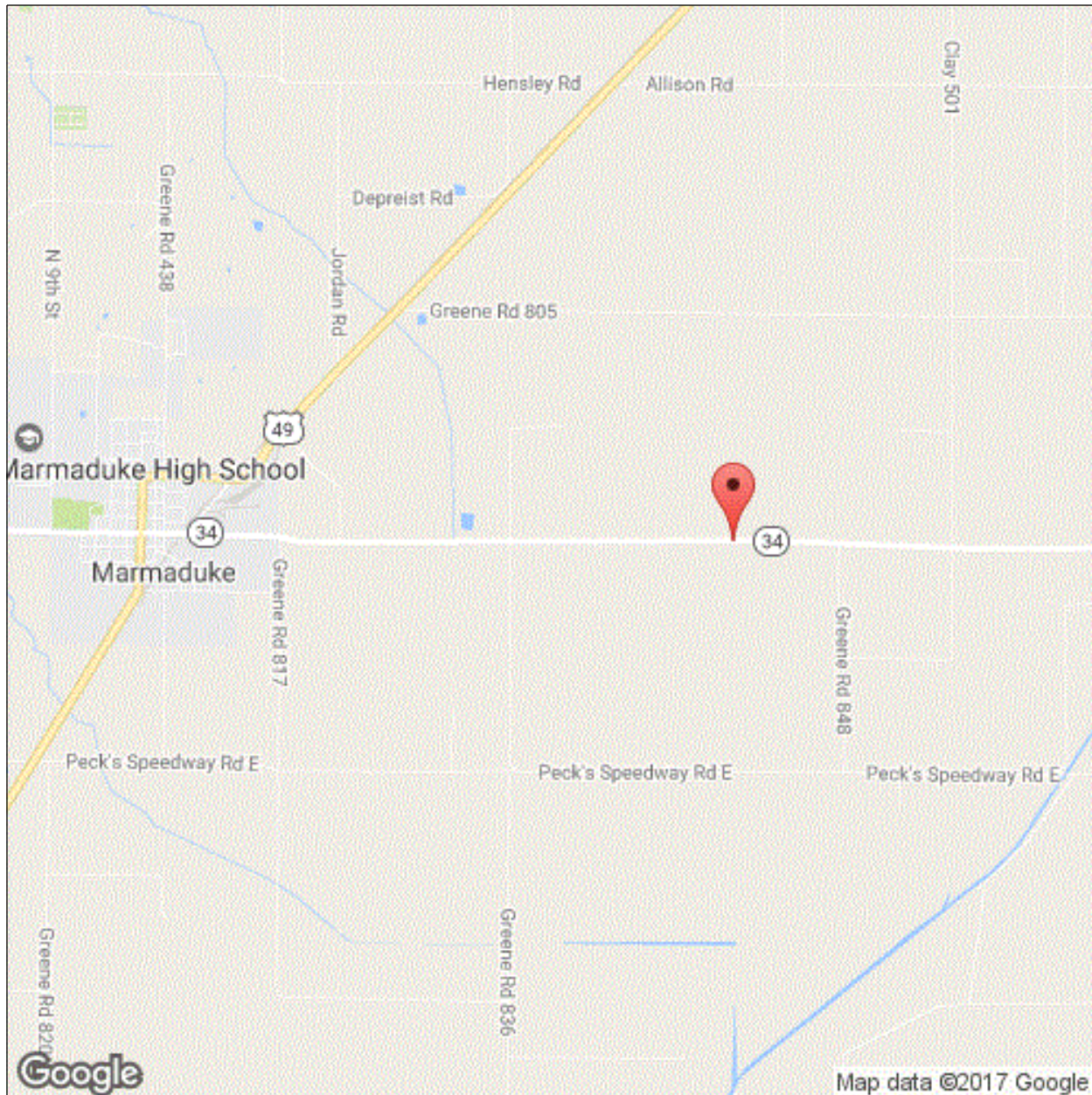
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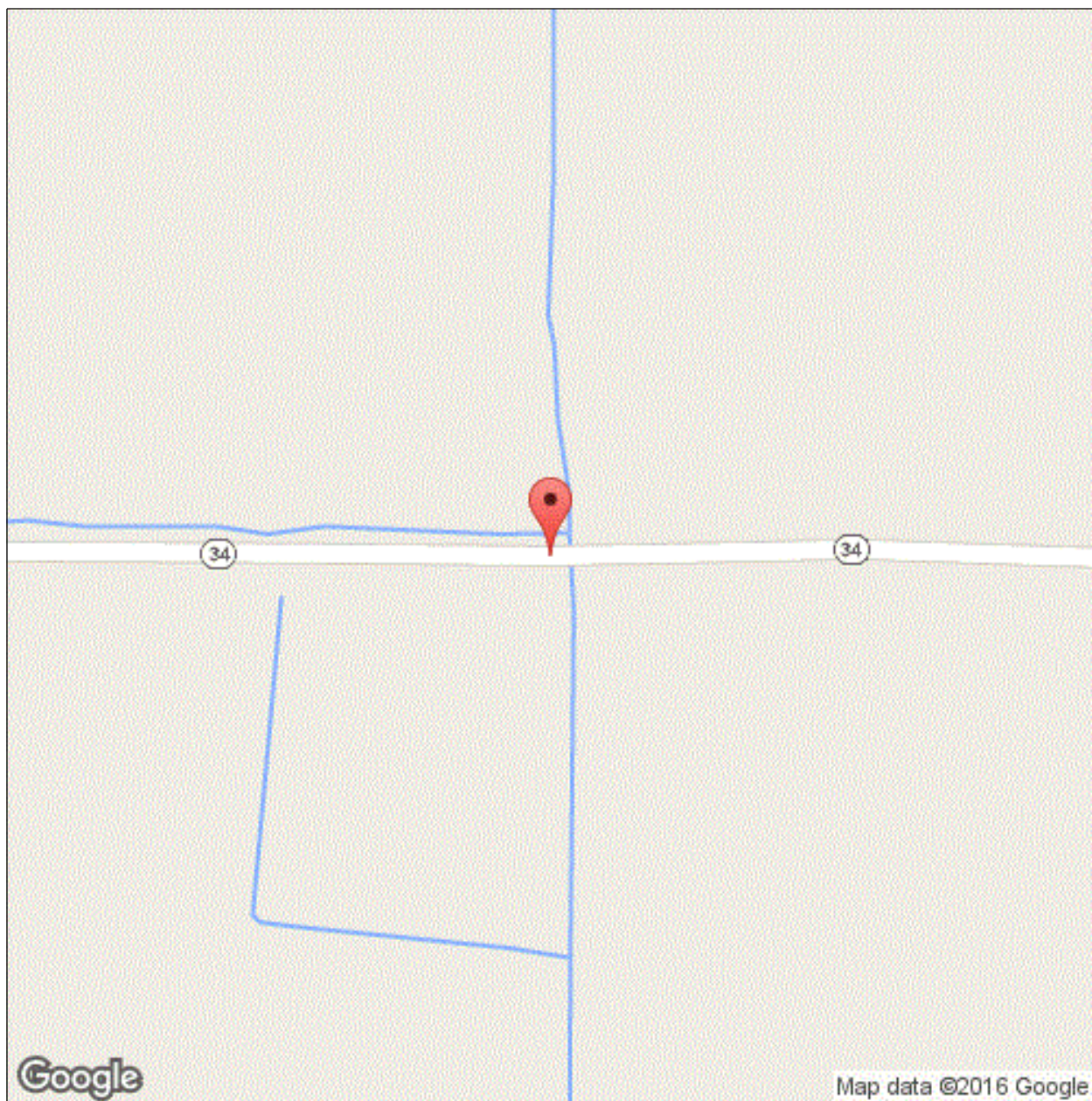
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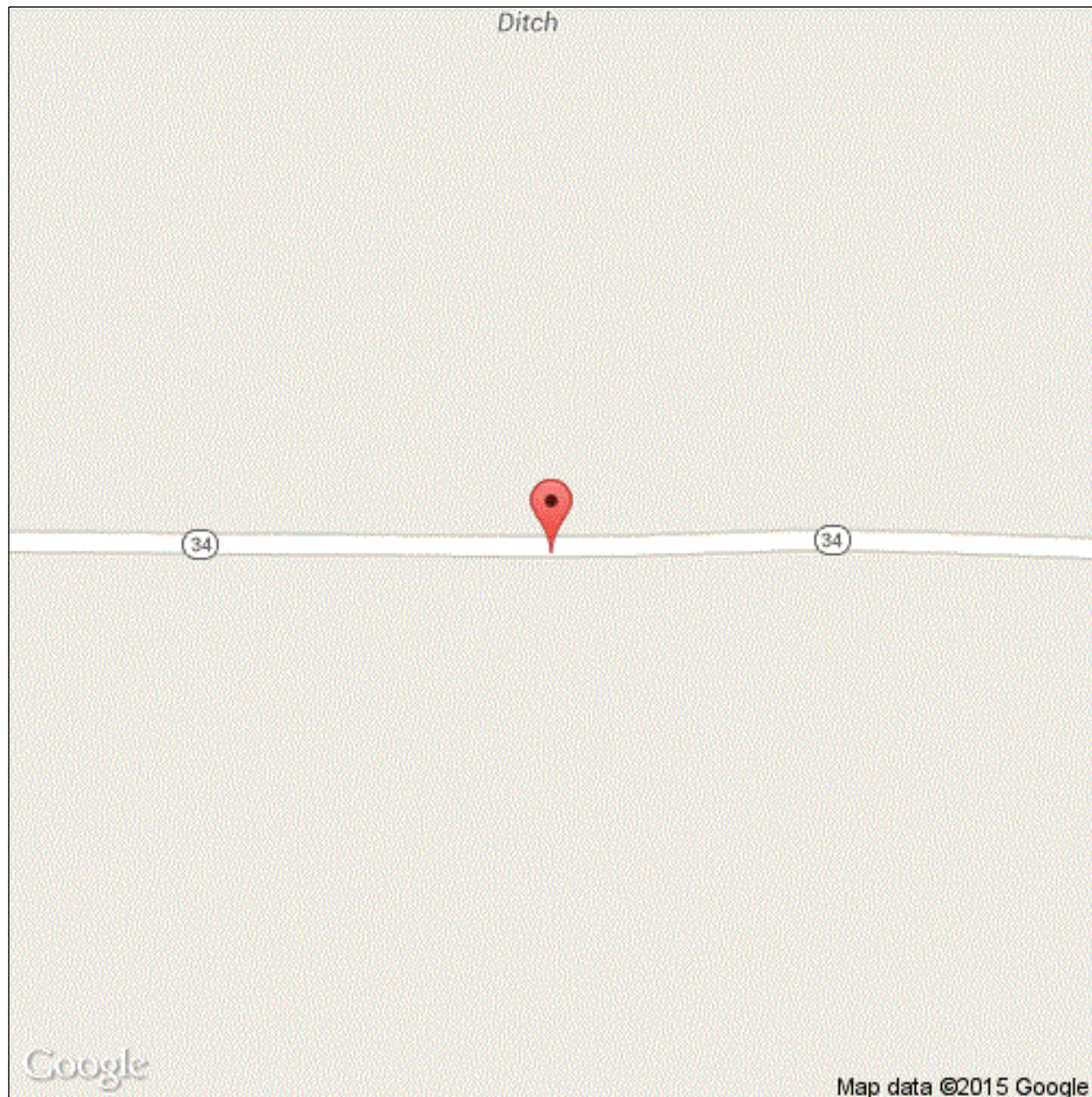
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## Bridge Inspection Report

### Executive Summary

Inspector:

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## Bridge Inspection Report

## National Bridge Inventory

IDENTIFICATION		INSPECTIONS	
(1) STATE CODE	056 - Arkansas	(90) INSPECTION DATE	05/09/2018
(8) STRUCTURE NUMBER	M3220	(91) DESIGNATED INSPECTION FREQUENCY	24
(5) INV. ROUTE (ON/UNDER)	1 3 1 34 0	(92) CRITICAL FEATURE INSPECTION	(93) CFI DATE
(2) HIGHWAY AGENCY	10 (3) COUNTY CODE 055	A. FRACTURE CRITICAL DETAIL	N
(4) PLACE CODE	00000	B. UNDERWATER INSPECTION	N
(6) FEATURES INTERSECTED	HURRICANE DITCH	C. OTHER SPECIAL	N
(7) FACILITY CARRIED	SH 34-04- LM 9.99		
(9) LOCATION	2.95 MI W JCT SH 139 & 34		
(11) MILEPOINT 9.990	(12) BASE HIGHWAY NETWORK 0		
(13A) LRS INVENTORY ROUTE	0000000000 (13B) SUBROUTE NUMBER 00		
(16) LATITUDE 36.18634956943682	(17) LONGITUDE -90.33811764748884		
(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: 3 - Steel		(59) SUPERSTRUCTURE	6
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder		(60) SUBSTRUCTURE	5
(44) STRUCTURE TYPE, APPROACH SPANS		(61) CHANNEL & CHANNEL PROTECTION	6
A) KIND OF MATERIAL/DESIGN: 7 - Wood or Timber		(62) CULVERT	N
B) TYPE OF DESIGN/CONSTR: 02 - Stringer/Multi-beam or Girder			
(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 1969	(106) YEAR RECONSTRUCTED 0000	(31) DESIGN LOAD	0
(42) TYPE OF SERVICE ON 1	UNDER 5	(63) METHOD USED TO DETERMINE OPERATING RATING	2
(28) LANES ON 02	UNDER 00	(64) OPERATING RATING	10.0
(29) AVERAGE DAILY TRAFFIC 490	(19) BYPASS DETOUR LENGTH 2	(65) METHOD USED TO DETERMINE INVENTORY RATING	2
(30) YEAR OF AVERAGE DAILY TRAFFIC 2014		(66) INVENTORY RATING	5.0
(109) AVERAGE DAILY TRUCK TRAFFIC 1		(70) BRIDGE POSTING	0
GEOMETRIC DATA		(41) STRUCTURE OPEN/POSTED/CLOSED	P
(48) LENGTH OF MAX SPAN (ft.) 62	(49) STRUCTURE LENGTH (ft.) 132		
(50) CURB/SIDEWALK WIDTHS (ft.) LEFT 0.7	RIGHT 0.7		
(51) BRDG RDWY WIDTH CURB-TO-CURB (ft.)	28.0		
(52) DECK WIDTH, OUT-TO-OUT (ft.)	29.8		
(32) APPROACH ROADWAY WIDTH (ft.)	32.2		
(33) BRIDGE MEDIAN 0	(34) SKEW (DEG.) 0		
(35) STRUCTURE FLARED 0	(10) INV RTE, MIN VERT CLEAR (ft.) 99.99		
(47) TOTAL HORIZONTAL CLEARANCE (ft.)	28.5		
(53) VERTICAL CLEARANCE OVER BRIDGE ROADWAY (ft.)	99.99		
(54) VERTICAL UNDER CLEARANCE (ft.)	N 0		
(55) LATERAL UNDER CLEARANCE RIGHT (ft.)	N 99.9		
(56) MIN LATERAL UNDER CLEARANCE (ft.)	0		
PROPOSED IMPROVEMENTS		APPRAISAL	
(75A) TYPE OF WORK PROPOSED 35	(75B) WORK DONE BY 1	(67) STRUCTURAL EVALUATION	3
(76) LENGTH OF STRUCTURE IMPROVEMENT (ft.)	132.0	(68) DECK GEOMETRY	5
(94) BRIDGE IMPROVEMENT COST (\$)	0	(69) UNDERCLEARANCES, VERTICAL & HORIZONTAL	N
(95) ROADWAY IMPROVEMENT COST (\$)	0	(71) WATERWAY ADEQUACY	8
(96) TOTAL PROJECT COST	176	(72) APPROACH ROADWAY ALIGNMENT	8
(97) YEAR OF IMPROVEMENT COST ESTIMATE	2003	(36) TRAFFIC SAFETY FEATURE	
(114) FUTURE ADT 763	(115) YEAR OF FUTURE ADT 2028	36A) BRIDGE RAILINGS:	0
		36B) TRANSITIONS:	0
		36C) APPROACH GUARDRAIL:	0
		36D) APPROACH GUARDRAIL ENDS:	0
		(113) SCOUR CRITICAL BRIDGES	5
		SUFFICIENCY RATING	34.7
		STATUS	2
		CLASSIFICATION	
		(112) NBIS BRIDGE LENGTH	Y
		(104) HIGHWAY SYSTEM OF THE INVENTORY ROUTE	0
		(26) FUNCTIONAL CLASSIFICATION OF INVENTORY ROUTE	07
		(100) STRAHNET HIGHWAY DESIGNATION	0
		(101) PARALLEL STRUCTURE DESIGNATION	N
		(102) DIRECTION OF TRAFFIC	2
		(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



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## 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.	3934	sq. ft.	3335	599	0	0
1080 - Delamination/Spall/Patched Area		527		0	527	0	0
1130 - Cracking (RC and Other)		72		0	72	0	0
510 - Wearing Surfaces		3102	sq. ft.	2670	0	432	0
3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces)		226		0	0	226	0
3220 - Crack (Wearing Surface)		206		0	0	206	0
107 - Steel Open Girder/Beam	1- Ben.	372	ft.	139	200	33	0
1000 - Corrosion		224		0	200	24	0
1020 - Connection		9		0	0	9	0
515 - Steel Protective Coating		3962	sq. ft.	845	1112	1700	305
3440 - Effectiveness (Steel Protective Coatings)		3117		0	1112	1700	305
111 - Timber Open Girder/Beam	1- Ben.	1020	ft.	944	68	5	3
1140 - Decay/Section Loss		8		0	0	5	3
1150 - Check/Shake		68		0	68	0	0
216 - Timber Abutment	1- Ben.	60	ft.	0	59	1	0
1140 - Decay/Section Loss		60		0	59	1	0
228 - Timber Pile	1- Ben.	48	each	34	13	1	0
1140 - Decay/Section Loss		14		0	13	1	0
235 - Timber Pier Cap	1- Ben.	239	ft.	232	0	3	4
1140 - Decay/Section Loss		7		0	0	3	4
330 - Metal Bridge Railing	1- Ben.	264	ft.	264	0	0	0

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## Element Inspection

### Main - Deck and Super at span 3

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	1848	sq. ft.	1489	359	0	0
1080 - Delamination/Spall/Patched Area		335			335		
1130 - Cracking (RC and Other)		24			24		
510 - Wearing Surfaces		1457	sq. ft.	1222	0	235	0
3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces)		132				132	
3220 - Crack (Wearing Surface)		103				103	
107 - Steel Open Girder/Beam	1- Ben.	372	ft.	139	200	33	0
1000 - Corrosion		224			200	24	0
1020 - Connection		9				9	
515 - Steel Protective Coating		3962	sq. ft.	845	1112	1700	305
3440 - Effectiveness (Steel Protective Coatings)		3117			1112	1700	305
330 - Metal Bridge Railing	1- Ben.	124	ft.	124			



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## Bridge Inspection Report

## Element Inspection

## Approach - Substructure and timber girder spans

	Environment	Total Quantity	Units	Condition State 1	Condition State 2	Condition State 3	Condition State 4
12 - Reinforced Concrete Deck	1- Ben.	2086	sq. ft.	1846	240	0	0
1080 - Delamination/Spall/Patched Area		192			192		
1130 - Cracking (RC and Other)		48			48		
510 - Wearing Surfaces		1645	sq. ft.	1448	0	197	0
3210 - Delamination/Spall/Patched Area/Pothole (Wearing Surfaces)		94				94	
3220 - Crack (Wearing Surface)		103				103	
111 - Timber Open Girder/Beam	1- Ben.	1020	ft.	944	68	5	3
1140 - Decay/Section Loss		8				5	3
1150 - Check/Shake		68			68		
216 - Timber Abutment	1- Ben.	60	ft.	0	59	1	0
1140 - Decay/Section Loss		60			59	1	
228 - Timber Pile	1- Ben.	48	each	34	13	1	0
1140 - Decay/Section Loss		14			13	1	
235 - Timber Pier Cap	1- Ben.	239	ft.	232	0	3	4
Quantity reflects 3 caps each at bents 3 and 4							
1140 - Decay/Section Loss		7				3	4
330 - Metal Bridge Railing	1- Ben.	140	ft.	140			

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## Bridge Inspection Report

### Pictures

#### PHOTO 1

Description M3220 Drawings 2010

#### PHOTO 1

Description



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## Bridge Inspection Report

Sketches

Inspector:

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### Bridge Inspection Report

## Maintenance Needs

Date Reported: 6/6/2012 12:00:00 AM

Priority: D - Routine

Work Code:

---

#### Deficiency Description:

##### Steel girders

Ends of girders at span 3 have 3' of rust with initial to 1/8" section loss along bottom of web and some freckled rust to bottom flange throughout.

Stiffeners and x brace diaphragms over bent 3 have section loss. Several angles on X braces have rusted into.

Span 3 bent 3 girder 2 has a 6" x 3" areas of heavy section loss at bottom of web ahead of stiffener with a 3" x 2" hole thru web.

Span 3 diaphragms have several bolts loose or missing.

Diaphragm 2 between girders 2 and 3 has cracked welds at connection to girders. Diaphragm is twisted and rotated back.

Span 3 splice 1 girder 3 has 1 rivet on top row of web not pulled up.

Span 3 splice 2 girder 3 has 1 bolt in the top row of web and 5 in the bottom flange not pulled up.

Span 3 splice 2 girder 4 has 2 bolts in the web not pulled up.

Span 3 splice 2 girder 5 has 2 bolts in the top row of web not pulled up.

Span 3 splice 2 girder 6 has 1 loose bolts in the middle row of web.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

---



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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 5/28/2013 12:00:00 AM

Priority: C - Important

Work Code:

---

#### Deficiency Description:

Bent 1 cap has 1' on Lt end that is decayed and hollow. Rt end has been spliced in the past. Cap has some outside decay with an edge split over pile 3.

Bent 3A cap has been replaced. A few spacer blocks have decay and checking with up to 40% section loss. Some spacers/sub caps have been replaced.

Bent 3A spacer (sub cap) over pile 6 has core decay and is partially hollow with 20% section loss.

Bent 4B cap is decayed, hollow, and crushing for 4' on Rt end.

Bent 4 spacers/sub caps 1 through 5 have been replaced.

Bent 4 spacer/sub cap over pile 6 is decayed and hollow with 20% section loss 7.5" deep into cap.

Bent 4B spacers/sub caps are decayed and partially hollow.

#### Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1 Description

Inspector:

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 5/28/2013 12:00:00 AM

Priority: G - General/ Preventive maintenance

Work Code:

---

Deficiency Description:

Embankment has some erosion under spans 1, 2, 4, & 5. Bent 2 piles have some reduced penetration.

Work Description:

---

Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1 Description

Inspector:

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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 5/28/2013 12:00:00 AM

Priority: D - Routine

Work Code:

---

#### Deficiency Description:

Concrete deck with Asphalt Overlay has insignificant size and density cracks.  
Left and Right Gutter Lines have spalled out areas, some up to 1in. deep no rebar exposed at this time.  
Gutter Lines have 150sqft. of patched areas, mainly Spans 1&2.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1 Description



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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 5/14/2014 12:00:00 AM

Priority: C - Important

Work Code:

---

#### Deficiency Description:

Timber girders

Span 1 bent 1 girders 5 and 6 are decayed and partially hollow at end.

Span 2 girders 1 and 15 have some decay and checking throughout.

Span 2 bent 3 girder 1 is decayed and partially hollow for 2' on end

Span 4 bent 4 girder 4 has some decay and is partially hollow on end.

Span 4 bent 4 girder 15 is decayed and rotted with some crushing.

Span 5 bent 5 girder 6 has some decay on end.

Work Description:

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Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description



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## Bridge Inspection Report

### Maintenance Needs

Date Reported: 5/14/2014 12:00:00 AM

Priority: D - Routine

Work Code:

---

#### Deficiency Description:

Bent 1 pile 2 has 1/2" of outside decay near ground line.

Bent 1 pile 6 has 3" of outside decay near ground line.

Bent 2 pile 1 has 1/2" of outside decay near ground line.

Bent 2 pile 6 has 1" of outside decay near ground line.

Bent 3 pile 4B has 2" of outside decay and is partially hollow near ground line.

Bent 3 pile 4A has some outside decay and is partially hollow

Bent 4 pile 5B has 1" of outside decay at ground line.

Bent 4 pile 6B has outside decay and checking.

Bent 6 piles 1 – 4, and 6 have up to 1" of outside decay near groundline.

Bent 6 pile 2 has up to 2" of outside decay near groundline.

#### Work Description:

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Date Repairs Completed:

Maintenance Comments:

---

Stage: Monitor



PHOTO 1 Description

Stage: Monitor



PHOTO 2 Description

Inspector:

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Inspection Date:

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### Bridge Inspection Report

#### Maintenance Needs

Date Reported: 05/09/2017

Priority: G - General/ Preventive maintenance

Work Code:

---

Deficiency Description:

Approach roadways have up to 1/2" settlement at each end.

Work Description:

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Date Repairs Completed:

Maintenance Comments:

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