



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

TEMP. REPAIR - SUPPLEMENTED ABUTMENT POSTS.

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY HAYWOOD BRIDGE NUMBER 430334 INSPECTION CYCLE 2 YRS
ROUTE SR1212 ACROSS CREEK M.P. 0

LOCATION .3 MI.E.JCT.SR1213

SUPERSTRUCTURE TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE E.BTS: TIMBER CAPS/TIMBER POST & SILLS @ 5'-10 CENTERS

SPANS 1 @ 16'-6

LONGITUDE 83° 5' 58.29"

LATITUDE 35° 30' 29.91"

INSPECTION DATE 04/08/2013

PRESENT CONDITION FAIR

PRESENT POSTING Not Posted NOT POSTED

PROPOSED POSTING

OTHER SIGNS PRESENT DELINEATORS [4]



LOOKING EAST

Fracture Critical	<u>No</u>
Temporary Shoring	<u>No</u>
Scour Critical	<u>No</u>
Scour POA	<u>No</u>

SIGN NOTICE ISSUED FOR	NUMBERED REQUIRED
<u>No</u> WEIGHT LIMIT	<u></u>
<u>No</u> DELINEATORS	<u></u>
<u>No</u> NARROW BRIDGE	<u></u>
<u>No</u> ONE LANE BRIDGE	<u></u>
<u>No</u> LOW CLEARANCE	<u></u>

NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL

Run Date: 05/10/2013

IDENTIFICATION					
(1) STATE NAME -NORTH CAROLINA	BRIDGE	430334		SUFFICIENCY RATING =	7
(8) STRUCTURE NUMBER(FEDERAL)		00000000870334		STATUS =	Structurally Deficient
(5) INVENTORY ROUTE (ON/UNDER) - ON		31012120			
(2) STATE HIGHWAY DEPARTMENT DISTRICT		2			
(3) COUNTY CODE	87	(4) PLACE CODE	0		
(6) FEATURE INTERSECTED - CREEK					
(7) FACILITY CARRIED SR1212					
(9) LOCATION .3 MI.E.JCT.SR1213					
(11)MILEPOINT		0			
(16)LAT 35° 30' 29.91"	(17)LONG	83° 5' 58.29"			
(98)BORDER BRIDGE STATE CODE		PCT SHARE			
(99)BORDER BRIDGE STRUCTURE NO					
STRUCTURE TYPE AND MATERIAL				CLASSIFICATION	
(43) STRUCTURE TYPE MAIN: Wood or Timber				(112)NBIS BRIDGE SYSTEM -	NO
TYPE - Stringer Mutlibeam or Girder		CODE 702		(104)HIGHWAY SYSTEM Is not on NHS	0
(44) STRUCTURE TYPE APPR :				(26) FUNCTIONAL CLASS - Local	09
TYPE -		CODE 000		(100)STRAHNET HIGHWAY - Not a STRAHNET Route	0
(45) NUMBER OF SPANS IN MAIN UNIT		1		(101)PARALLEL STRUCTURE - No Parallel Structure	N
(46) NUMBER OF APPROACH SPANS				(102)DIRECTION OF TRAFFIC - 2-way Traffic	2
(107)DECK STRUCTURE TYPE - 8		CODE		(103)TEMPORARY STRUCTURE - Temporary Structure/Conditions	T
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(110)DESIGNATED NATIONAL NETWORK - Not on the National Network	0
(A) TYPE OF WEARING SURFACE -		CODE		(20) TOLL On Free Road	3
(B) TYPE OF MEMBRANE -		CODE		(31) MAINTAIN - State Highway Agency	01
(C) TYPE OF DECK PROTECTION -		CODE		(22) OWNER - State Highway Agency	01
				(37) HISTORICAL SIGNIFICANCE - Not Eligible	5
				CONDITION	
				(58) DECK	7
				(59) SUPERSTRUCTURE	7
				(60) SUBSTRUCTURE	3
				(61) CHANNEL & CHANNEL PROTECTION	7
				(62) CULVERTS	N
				LOAD RATING AND POSTING	
				(31) DESIGN LOAD Unknown	0
				(63) OPERATING RATING METHOD - Allowable Stress	2
				(64) OPERATING RATING - HS-1	1
				(65) INVENTORY RATING METHOD - Allowable Stress	2
				(66) INVENTORY RATING - HS-1	1
				(70) BRIDGE POSTING - No Posting Required	5
				(41) STRUCTURE OPEN, POSTED ,OR CLOSED	D
				DESCRIPTION - Open Temporary Shoring	
				APPRAISAL	
				(67) STRUCTURAL EVALUATION	3
				(68) DECK GEOMETRY	3
				(69) UNDERCLEARANCES,VERTI & HORIZ	N
				(71) WATERWAY ADEQUACY	7
				(72) APPROACH ROADWAY ALIGNMENT	8
				(36) TRAFFIC SAFETY FEATURES	0000
				(113)SCOUR CRITICAL BRIDGES	U
				PROPOSED IMPROVEMENTS	
				(75) TYPE OF WORK -	CODE
				(76) LENGTH OF STRUCTURE IMPROVEMENT	
				(94) BRIDGE IMPROVEMENT COST	
				(95) ROADWAY IMPROVEMENT COST	
				(96) TOTAL PROJECT COST	
				(97) YEAR OF IMPROVEMENT COST ESTIMATE	
				(114)FUTURE ADT 720	(115) YEAR FUTURE ADT 2025
				INSPECTIONS	
				(90) INSPECTION DATE	04/08/2013
				(92) CRITICAL FEATURE INSPECTION :	(93) CFI DATE
				A) FRACTURE CRIT DETAIL - NO	A)
				B) UNDERWATER INSP - NO	B)
				C) OTHER SPECIAL INSP NO	C)
				SCOUR	
NAVIGATION DATA					
(38) NAVIGATION CONTROL - No Navigational Control		CODE 0			
(111)PIER PROTECTION -		CODE			
(39) NAVIGATION VERTICAL CLEARANCE		0			
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR		FT			
(40) NAVIGATION HORIZONTAL CLEARANCE		0 FT			

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 05/10/2013

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
HAYWOOD	14	2	430334	17	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1212	CREEK

LOCATED :	BRIDGE NAME :	CITY :
.3 MI.E.JCT.SR1213		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	360 2000	LT 227 RT 227

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1963	BMU			Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :		
	BMU	5.9451	TAN	50	ON 2	UNDER	0

NAVIGATION :			HT. CRN. TO BED :		WATER DEPTH :		
VC 0 FT	HC 0 FT		6 FT		1		FT

SUPERSTRUCTURE :	TIMBER FLOOR ON TIMBER JOISTS
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SUBSTRUCTURE :	E.BTS: TIMBER CAPS/TIMBER POST & SILLS @ 5'-10 CENTERS
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SPANS :	1 @ 16'-6
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BEAMS OR GIRDERS :	16 LINES 6X12 TIMBER JOISTS @ 1'-2 CENTERS
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FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
4X8 TIM/1.5 AWS		19.5 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
18.5 FT	19.25 FT	LT .4 FT RT .4 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :		DATE
HS-1	HS-1	Int.Joist	SV	TTST	04/18/1996

SYSTEM :	GREEN LINE ROUTE :
Secondary S.R. Route	N

UNDER ROUTES AND CLEARANCES

REMARKS :

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection
 BRIDGE NO. 430334 COUNTY HAYWOOD ROUTE SR1212 OVER CREEK
 STRUCTURE TYPE TIMBER FLOOR ON TIMBER JOISTS
 ROUTE ORIENTATION W - E SPANS 1 @ 16'-6

EVALUATION CODES: CRITICAL (C, 0 - 3); POOR (P, 4); FAIR (F, 5, 6); GOOD (G, 7 - 9)

INSPECTION ITEM				ITEM 61			
DECK ITEMS			GRADES				
1. WEARING SURFACE			G	45. CHANNEL & CHANNEL PROT.	a. WATERWAY	G	
					b. ALIGNMENT	G	
					c. SCOUR	G	
					d. SLOPE PROT., RIP-RAP, DIKES, ETC.		
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58	a. CONCRETE			50. APPROACH ROADWAY CONDITION			G
	b. TIMBER	1	G	51. APPROACH SLABS			
	c. STEEL PLANK			52. PAINT SYSTEM			CODE
	d. OPEN GRID			53. UTILITIES			
3. RAILING	a. CONCRETE			54. RESPONSE TO LIVE LOAD			G
	b. TIMBER		G	55. ESTIMATED REMAINING LIFE			10
	c. ALUMINUM						
	d. STEEL						
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			G	60. REGULATORY SIGN NOTICE ISSUED			NO
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)				61. PROMPT-ACTION NOTICE ISSUED			NO
6. DECK EXP JTS. OR DEVICES. NO. OF EACH	a. STEEL PL OR FINGER			62. PRESENTLY POSTED			NO
	b. MISC PREFAB			63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)			4
	c. COMPRESSION SEAL			64. TOTAL SNOOPER INSP. TIME (HRS)			
	d. STANDARD JOINTS			65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)			
	e. OPEN JOINTS						
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			G	70. SI&A GENERAL CONDITION RATINGS			
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59				a. DECK	ITEM 58	7	
10. LONGITUDINAL BEAMS OR GIRDERS				b. SUPERSTRUCTURE	ITEM 59	7	
11. LONGITUDINAL JOIST OR STRINGERS			G	c. SUBSTRUCTURE	ITEM 60	5	
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S				d. CHANNEL & CHANNEL PROT.	ITEM 61	7	
13. END DIAP'S, CURTAIN WALLS, & CONN'S				71. SI&A FIELD APPRAISAL RATINGS			
14. FLOOR BEAMS AND CONNECTIONS				a. WATERWAY ADAQUACY		7	
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)				b. APPR. RDWY. ALIGNMENT		8	
16. DRAINAGE SYSTEM (ON STRUCTURE)			G	72. FIELD SCOUR EVALUATION			L
17. MOVABLE SPAN MACHINERY							
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)				USE OF INSP. ACCESSIBILITY EQUIPMENT			
35. TIM SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		G	SNOOPER (CODE S, 4, OR N)			HRS
	b. PILES, POST, SILLS, & BRACING		F	LADDER			NO
	c. BULKHEADS, WING'S, & TIE BACKS		F	BUCKET TRUCK			NO
36. CONC SUB STR.	a. ABUT. & INT. BENT CAPS			BOAT			NO
	b. ABUT. & BENT COL'S BREASTWALLS			OTHER			NO
	c. ABUT. & INT. BENT PILES						
	d. BACKWALLS, WING'S, RETAIN. WALLS						
	e. ABUT. & BENT FOOTINGS & SILLS						
37. STEEL SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS			SPECIAL INSPECTION REQUESTED FOR			
	b. PILES, BRACING, AND BULKHEADS						
38. FOUNDATION PILES TYPE MATERIAL				NOTE			
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)							
40. FENDER SYSTEMS				80. INSPECTED BY:	W. By 200		
41. DRIFT			G	81. REVIEWED BY:			

Bridge I&A Form 1(82)H State of North Carolina Dept. of Transportation Division of Highways		FIELD INSPECTION REPORT <u>Bridge Inspeccion & Analysis</u>	
Team Leader BARRY FOXX			
Assisted By DAVID SANDERS			
Item No.	Grade		
35b	F	TIMBER POST; ALL ORIGINAL TIMBERS ARE WEATHERED WITH SCATTERED AREAS OF DECAY UP TO 1" DEEP DECAY. 2 1/2" DEEP X 2" ROUND AREA OF DECAY TO POST 5 AT ABUTMENT 2. [SEE PHOTO]. NO PROBLEMS DUE TO CONDITION AS YET. POST 1 AND POST 5 AT ABUTMENT 1 AND POST 1 AT ABUTMENT 2 HAVE BEEN SUPPLEMENTED SOMETIME IN THE PAST. [SEE DATA WORKSHEET]. THESE ARE CONSIDERED TEMP. REPAIRS.	
35c	F	TIMBER BULKHEAD AND WINGWALLS; ALL ORIGINAL TIMBERS ARE WEATHERED WITH SCATTERED AREAS OF UP TO 1/2" DEEP DECAY. NO PROBLEMS DUE TO CONDITION AS YET. PRI. MAINT. ISSUED LAST INSP. DUE TO SCATTERED AREAS OF COMPLETE DECAY HAS BEEN REPAIRED WITH PLACMENT OF NEW TIMBERS AT THESE LOCATIONS. REPAIR IS WORKING WELL AT THIS TIME.	
61	NO	PROMPT ACTION ISSUED; PRI. MAINT. ISSUED LAST INSP. DUE TO AREAS OF UP TO COMPLETE DECAY TO BULKHEAD AND WINGWALL TIMBERS AT BOTH ABUTMENTS HAS BEEN REPAIRED WITH PLACEMENT OF NEW TIMBERS AT THESE LOCATIONS. REPAIR IS WORKING WELL AT THIS TIME.	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 430334

County HAYWOOD

Date: 04/08/2013

These Repairs Should Be Made Within Twelve Months From Date Of This Inspection

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3344	Repair / Replace Timber Substructure Components	LF	4	AREA OF 2 1/2" DEEP DECAY TO POST 5 AT ABUTMENT 2.	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined



DECAY TO POST 5 ABUTMENT 2.

Structure Data Worksheet

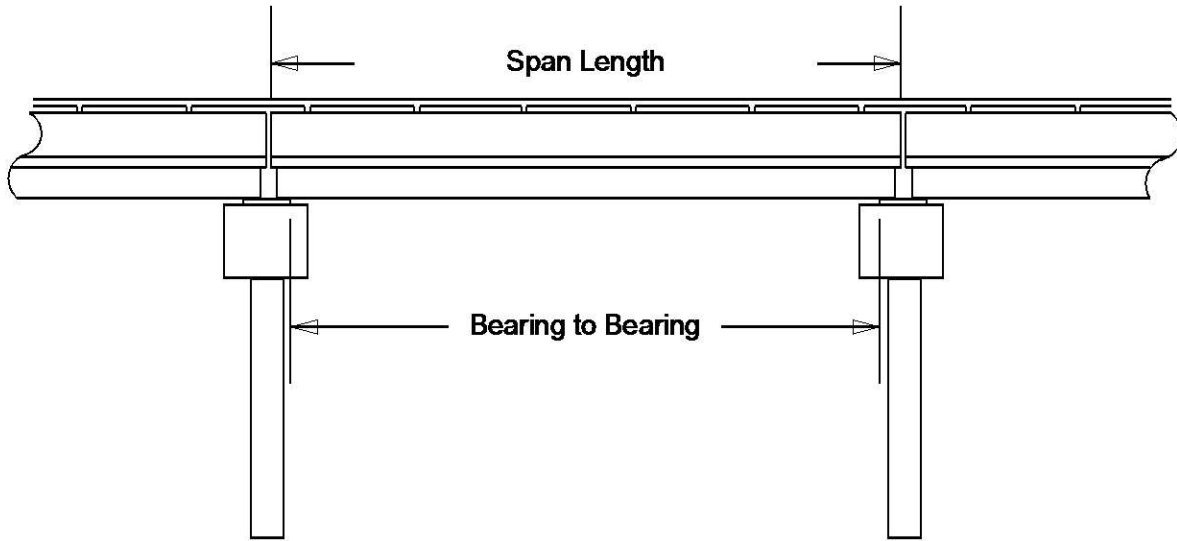
Spans

County: HAYWOOD

Structure No: 430334

Date: 04/08/2013

Inspected By: WBF



Span No	Span Length	Bearing to Bearing	Comments
1	16.5	15.1667	NON NBIS STRUCTURE.

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 430334 County: HAYWOOD Date: 04/08/2013 By: WBF

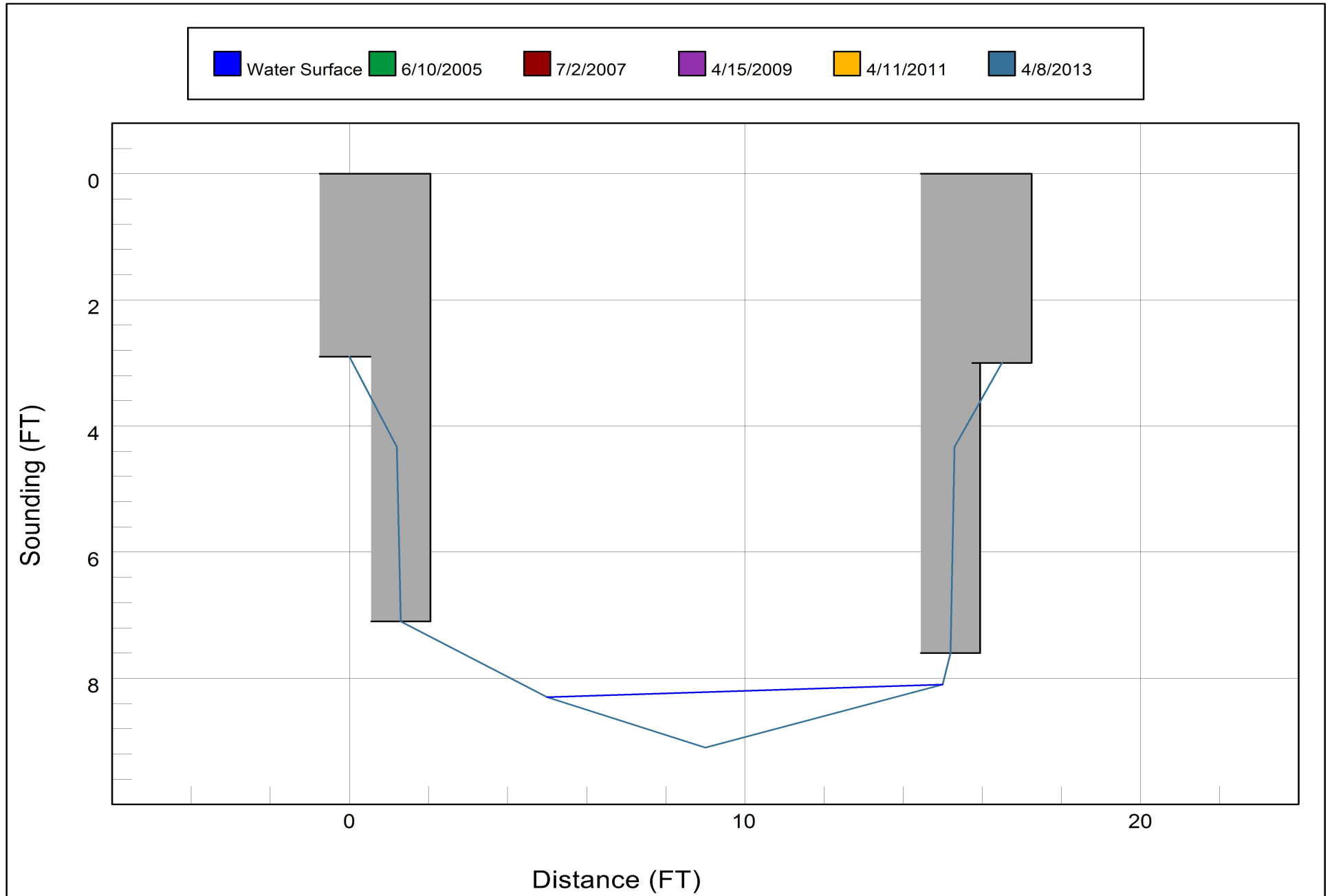
Record sounding from top of rail. Other location if needed: _____

Distance from Highwater Mark to top of rail: _____ Location of Highwater Mark: NOT DETECTED

DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	2.9	FILL FACE ABUTMENT 1	0	2.8	FILL FACE ABUTMENT 1
1.2	4.333	Top of Cap			
1.3	7.1	STREAM FACE ABUTMENT 1	1.3	8	STREAM FACE ABUTMENT 1
5	8.3	Water Surface/Water Edge (WSWE)			
9	9.1				
15	8.1	Water Surface/Water Edge (WSWE)			
15.2	7.6	STREAM FACE ABUTMENT 2	15.2	7.3	STREAM FACE ABUTMENT 2
15.3	4.333	Top of Cap			
16.5	3	FILL FACE ABUTMENT 2	16.5	2.9	FILL FACE ABUTMENT 2

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS 4/8/2013



Roadway	16ft Wide	1 Paved Lanes	Looking East
Left Shoulder	1ft Wide		1ft Unpaved
Right Shoulder	1ft Wide		1ft Unpaved
Left Guardrail			
Right Guardrail			

PAVED ON WEST END ONLY.

Title

APPROACH ROADWAY

Description

APPROACH ROADWAY

Bridge No: 430334

Drawn By: DAVID SANDERS

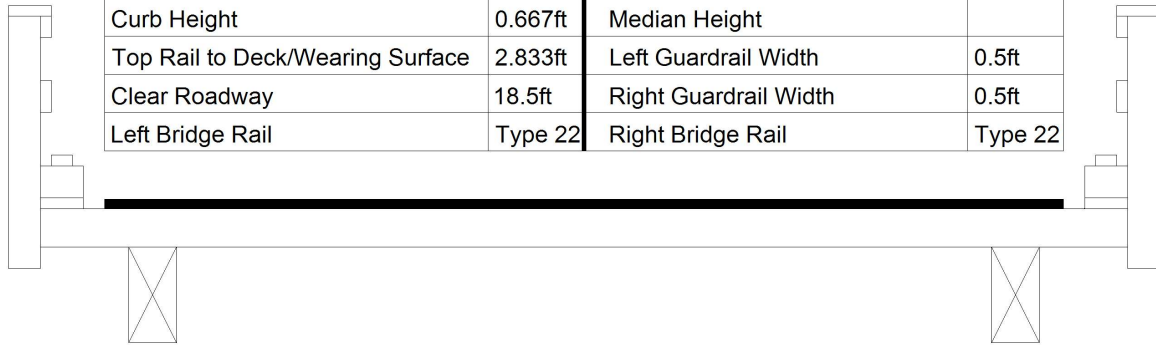
Date: 4/8/2013

File Name: S0118000156

Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS 4/8/2013

Deck Width/Out to Out	19.5ft	Wearing Surface	0.125ft
Between Rails	19.25ft	Median Width	
Curb Height	0.667ft	Median Height	
Top Rail to Deck/Wearing Surface	2.833ft	Left Guardrail Width	0.5ft
Clear Roadway	18.5ft	Right Guardrail Width	0.5ft
Left Bridge Rail	Type 22	Right Bridge Rail	Type 22



Measurements for Span #	1		
Deck Thickness	0.312	Left Overhang	1
Top of Rail to Bottom of Beam	4.333	Right Overhang	1

Beam No	Beam Type	Spacing	Comments
1	Timber (Rectangular)	1.1667ft	ALL JOIST ARE .4792 X .9792
2	Timber (Rectangular)	1.1667ft	
3	Timber (Rectangular)	1.1667ft	
4	Timber (Rectangular)	1.1667ft	
5	Timber (Rectangular)	1.1667ft	
6	Timber (Rectangular)	1.1667ft	
7	Timber (Rectangular)	1.1667ft	
8	Timber (Rectangular)	1.1667ft	
9	Timber (Rectangular)	1.1667ft	
10	Timber (Rectangular)	1.1667ft	
11	Timber (Rectangular)	1.1667ft	
12	Timber (Rectangular)	1.1667ft	
13	Timber (Rectangular)	1.1667ft	
14	Timber (Rectangular)	1.1667ft	
15	Timber (Rectangular)	1.1667ft	
16	Timber (Rectangular)		

Title

SUPER

Description

SUPER

Bridge No: 430334

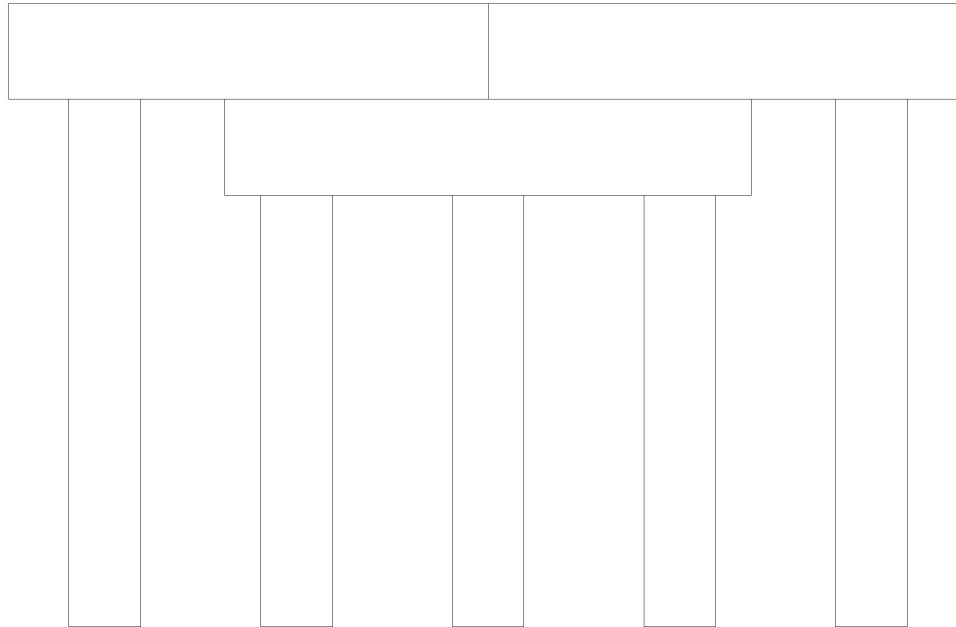
Drawn By: DAVID SANDERS

Date: 4/8/2013

File Name: S0118000157

Bridge Inspection Field Sketch

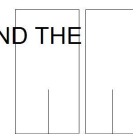
VERIFIED BY DAVID SANDERS 4/8/2013



Abutment #	1	Abutment 2 similar	
Cap - Beam Type (Wood or Steel)			
Cap Size	26.833ft Long	0.833ft Wide	0.979ft High
Left Overhang		Lt Cap/Beam Overhang	1ft
Right Overhang		Rt Cap/Beam Overhang	2.5ft
Timber Sub Cap			
Size	13.667ft Long	0.833ft Wide	0.833ft High
Left pile to splice	5.833ft		
Left Overhang	1ft		
Right Overhang	1ft		

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Post and Sills	5.8333		.8333	.8333	Vertical
2	Wood or Timber	Post and Sills	5.8333		.8333	.8333	Vertical
3	Wood or Timber	Post and Sills	5.8333		.8333	.8333	Vertical
4	Wood or Timber	Post and Sills	5.8333		.8333	.8333	Vertical
5	Wood or Timber	Post and Sills			.8333	.8333	Vertical

NOTE - THE DOWNSTREAM PORTION OF CAP AT ABUTMENT 1 AND THE UPSTREAM PORTION OF ABUTMENT 2 IS 1.0 X 1.0.



POST 1 AND 5 AT ABUTMENT 1 AND POST 1 AT ABUTMENT 2 HAVE BEEN SUPP. WITH A .8333 X .8333 UPSTREAM SIDE OF POST 1 AND DOWNSTREAM SIDE OF POST 5.

.8333

Title		Description	
SUBSTRUCTURE		SUBSTRUCTURE	
Bridge No:	430334	Drawn By:	DAVID SANDERS
Date:	4/8/2013	File Name:	S0118000158



LOOKING WEST



LOOKING UPSTREAM FROM TOP OF BRIDGE.



LOOKING DOWNSTREAM FROM TOP OF BRIDGE.



LOOKING EAST



N



UPSTREAM



ABUTMENT 1 - TEMP. REPAIR TO POST 1 AND 5.



ABUTMENT 2- TEMP. REPAIR TO POST 1.



UNDERSIDE



DOWNSTREAM