



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY HAYWOOD BRIDGE NUMBER 430310 INSPECTION CYCLE 2 YRS
ROUTE SR1348 ACROSS LAUREL BRANCH M.P. 0

LOCATION .3 MI.N.JCT.SR1338

SUPERSTRUCTURE TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE E.BTS:TIM.CAPS/TIM.POST&CONC.SILLS @ 7'CTS.

SPANS 1 @ 20'-6

LONGITUDE 82° 59' 57.65"

LATITUDE 35° 38' 69.97"

INSPECTION DATE 03/05/2013

PRESENT CONDITION FAIR

PRESENT POSTING SV 15 TTST 21 SV 15 TTST 21 PROPOSED POSTING

OTHER SIGNS PRESENT DELINEATORS [4] AND NARROW BRIDGE [2]



LOOKING NORTH

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: 04/12/2013

IDENTIFICATION				CLASSIFICATION			
(1) STATE NAME -NORTH CAROLINA	BRIDGE	430310		SUFFICIENCY RATING =		57.16	
(8) STRUCTURE NUMBER(FEDERAL)		00000000870310		STATUS =	Not Deficient		
(5) INVENTORY ROUTE (ON/UNDER) - ON		31013480					
(2) STATE HIGHWAY DEPARTMENT DISTRICT		2					
(3) COUNTY CODE	87	(4) PLACE CODE	0	(112)NBIS BRIDGE SYSTEM -		NO	
(6) FEATURE INTERSECTED - LAUREL BRANCH				(104)HIGHWAY SYSTEM	Is not on NHS	0	
(7) FACILITY CARRIED SR1348				(26) FUNCTIONAL CLASS -	Local	09	
(9) LOCATION .3 MI.N.JCT.SR1338				(100)STRAHNET HIGHWAY -	Not a STRAHNET Route	0	
(11)MILEPOINT		0		(101)PARALLEL STRUCTURE -	No Parallel Structure	N	
(16)LAT 35° 38' 69.97"	(17)LONG	82° 59' 57.65"		(102)DIRECTION OF TRAFFIC -	2-way Traffic	2	
(98)BORDER BRIDGE STATE CODE	PCT SHARE			(103)TEMPORARY STRUCTURE -			
(99)BORDER BRIDGE STRUCTURE NO				(110)DESIGNATED NATIONAL NETWORK -	Not on the National Network	0	
				(20) TOLL	On Free Road	3	
				(31) MAINTAIN -	State Highway Agency	01	
				(22) OWNER -	State Highway Agency	01	
				(37) HISTORICAL SIGNIFICANCE -	Not Eligible	5	
STRUCTURE TYPE AND MATERIAL				CONDITION			
(43) STRUCTURE TYPE MAIN: Wood or Timber							
TYPE - Stringer Mutlibeam or Girder	CODE	702					
(44) STRUCTURE TYPE APPR :							
TYPE -	CODE	000					
(45) NUMBER OF SPANS IN MAIN UNIT		1		(58) DECK		7	
(46) NUMBER OF APPROACH SPANS				(59) SUPERSTRUCTURE		7	
(107)DECK STRUCTURE TYPE - 8	CODE			(60) SUBSTRUCTURE		5	
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(61) CHANNEL & CHANNEL PROTECTION		7	
(A) TYPE OF WEARING SURFACE -	CODE			(62) CULVERTS		N	
(B) TYPE OF MEMBRANE -	CODE						
(C) TYPE OF DECK PROTECTION -	CODE						
AGE AND SERVICE				LOAD RATING AND POSTING			
(27) YEAR BUILT		1963		(31) DESIGN LOAD	Unknown	0	
(106)YEAR RECONSTRUCTED				(63) OPERATING RATING METHOD -	Allowable Stress	2	
(42) TYPE OF SERVICE : ON - Highway				(64) OPERATING RATING -	HS-14	26	
UNDER - Waterway	CODE	15		(65) INVENTORY RATING METHOD -	Allowable Stress	2	
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE		0		(66) INVENTORY RATING -	HS-10	18	
(29) AVERAGE DAILY TRAFFIC		50		(70) BRIDGE POSTING -	Posting Required	0	
(30) YEAR OF ADT 1995	(109) TRUCK ADT PCT	%		(41) STRUCTURE OPEN, POSTED ,OR CLOSED		P	
(19) BYPASS OR DETOUR LENGTH		99 MI		DESCRIPTION -	Posted for Load		
GEOMETRIC DATA				APPRAISAL			
(48) LENGTH OF MAXIMUM SPAN		19 FT		(67) STRUCTURAL EVALUATION		5	
(49) STRUCTURE LENGTH		21 FT		(68) DECK GEOMETRY		4	
(50)CURB OR SIDEWALK: LEFT .3 FT RIGHT .3 FT				(69) UNDERCLEARANCES,VERTI & HORIZ		N	
(51) BRIDGE ROADWAY WIDTH CURB TO CURB		19.167 FT		(71) WATERWAY ADEQUACY		7	
(52) DECK WIDTH OUT TO OUT		20 FT		(72) APPROACH ROADWAY ALIGNMENT		8	
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)		18 FT		(36) TRAFFIC SAFETY FEATURES		0000	
(33) BRIDGE MEDIAN - No Median	CODE	0		(113)SCOUR CRITICAL BRIDGES		U	
(34) SKEW 50°	(35) STRUCTURE FLARED	0					
(10) INVENTORY ROUTE MIN VERT CLEAR		999.9 FT		PROPOSED IMPROVEMENTS			
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR		19.167 FT		(75) TYPE OF WORK -		CODE	
(53) MIN VERT CLEAR OVER BRIDGE RDWY		999.9 FT		(76) LENGTH OF STRUCTURE IMPROVEMENT			
(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad		0 FT		(94) BRIDGE IMPROVEMENT COST			
(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad		000 FT		(95) ROADWAY IMPROVEMENT COST			
(56) MIN LAT UNDERCLEAR LT REF -		000 FT		(96) TOTAL PROJECT COST			
				(97) YEAR OF IMPROVEMENT COST ESTIMATE			
				(114)FUTURE ADT 100	(115) YEAR FUTURE ADT	2025	
NAVIGATION DATA				INSPECTIONS			
(38) NAVIGATION CONTROL - No Navigational Control	CODE	0		(90) INSPECTION DATE		03/05/2013	
(111)PIER PROTECTION -	CODE			(92) CRITICAL FEATURE INSPECTION :		(93) CFI DATE	
(39) NAVIGATION VERTICAL CLEARANCE		0		A) FRACTURE CRIT DETAIL -	NO	A)	
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR		FT		B) UNDERWATER INSP -	NO	B)	
(40) NAVIGATION HORIZONTAL CLEARANCE		0 FT		C) OTHER SPECIAL INSP	NO	C)	
				SCOUR			

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 04/12/2013

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
HAYWOOD	14	2	430310	21	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1348	LAUREL BRANCH

LOCATED :	BRIDGE NAME :	CITY :
.3 MI.N.JCT.SR1338		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	50 1995	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	140	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:TIM.CAPS/TIM.POST&CONC.SILLS @ 7' CTS.
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SPANS :	1 @ 20'-6
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BEAMS OR GIRDERS :	10 LNS. 6X14 TIM.JOISTS @ 2'CTS.
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FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
4X8 TIM/1.5 AWS		20 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
19.167 FT	19.833 FT	LT .3 FT RT .3 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :				
HS-10	HS-14	int Joist	SV 15	TTST 21	DATE	10/07/2008	

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. 430310 COUNTY HAYWOOD ROUTE SR1348 OVER LAUREL BRANCH
 STRUCTURE TYPE TIMBER FLOOR ON TIMBER JOISTS
 ROUTE ORIENTATION S - N SPANS 1 @ 20'-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			F	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			8
	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			YES
	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		G				
	e. ABUT. & BENT FOOTINGS & SILLS		F				
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. J. J.		
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 Inspection & Analysis</u>	
Team Leader BARRY FOXX			
Assisted By DAVID SANDERS			
Item No.	Grade		
1	F	ASPHALT WEARING SURFACE; SEVERAL 1/8" WIDE TRANS. TYPE CRACKS - SCATTERED THROUGHOUT. CONDITION IS NOT CAUSING MUCH OF A PROBLEM AS YET.	
35b	F	TIMBER ABUTMENT POST AND SILLS; WEATHERED WITH A FEW POST HAVING AREAS OF UP TO 1" DEEP DECAY SCATTERED THROUGHOUT FACES. POST 1 AT ABUTMENT 2 HAS AREAS OF UP TO 1 1/2" DEEP DECAY X 2" ROUND TO ITS STREAM AND DOWNSTREAM FACES. [SEE REP. PHOTO]. NO PROBLEMS DUE TO DECAY AS YET.	
35c	F	TIMBER BULKHEAD; SCATTERED AREAS OF UP TO 1" DEEP DECAY TO TIMBERS AT BOTH ABUTMENTS. NO PROBLEMS DUE TO CONDITION AS YET.	
45c	G	SCOUR; VERY SMALL AREA OF POCKET TYPE SCOUR ON THE DOWNSTREAM END OF TIMBER SILL AT ABUTMENT 1 MENTIONED IN LAST REPORT HAS FILLED IN WITH ROCK AND SAND. NO VOIDS AT THIS TIME ONLY SOME VERTICAL SILL EXPOSURE.	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 430310

County HAYWOOD

Date: 03/05/2013

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	3	AREAS OF UP TO 1 1/2" DEEP DECAY TO POST 1 AT ABUTMENT 2.	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined



DECAY TO POST 1 ABUTMENT 2.

Structure Data Worksheet

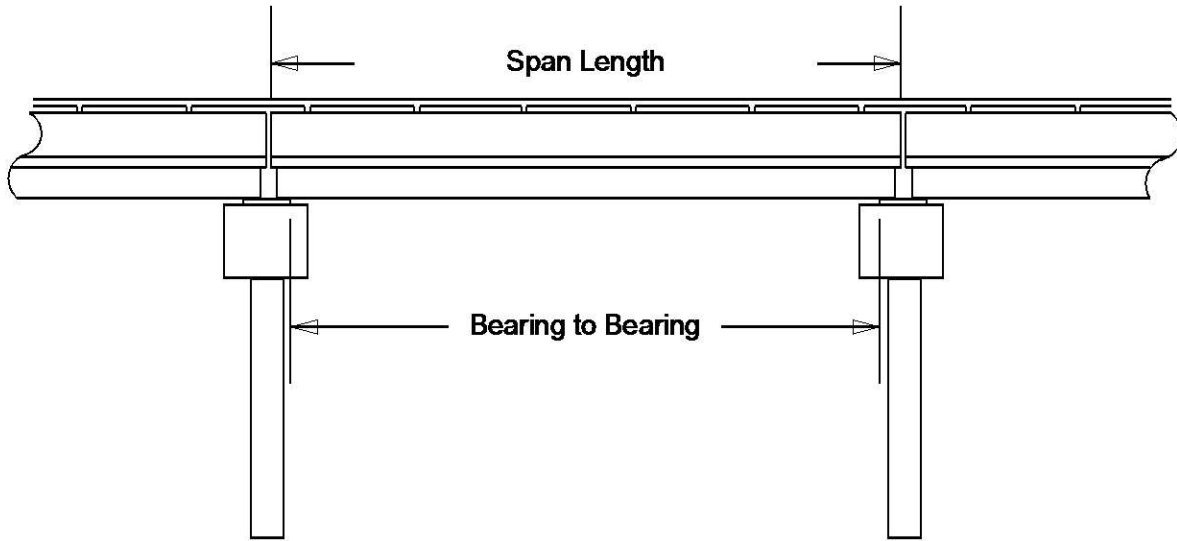
Spans

County: HAYWOOD

Structure No: 430310

Date: 03/05/2013

Inspected By: WBF



Span No	Span Length	Bearing to Bearing	Comments
1	20.5	19.166	

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 430310 County: HAYWOOD Date: 03/05/2013 By: WBF

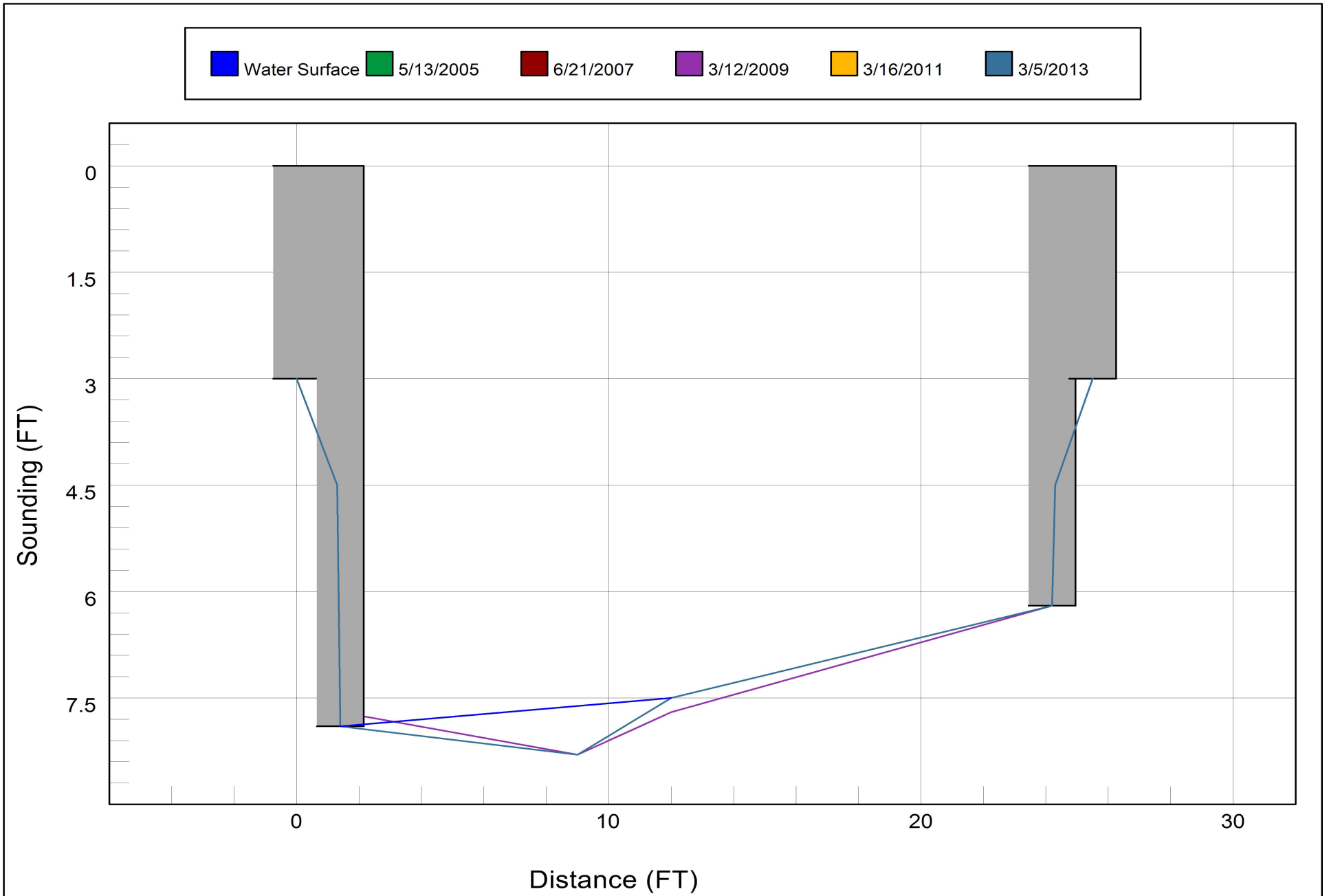
Record sounding from top of rail. Other location if needed: _____

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	3	FILL FACE ABUTMENT 1	0	2.9	FILL FACE ABUTMENT 1
1.3	4.5	Top of Cap			
1.4	7.9	STREAM FACE ABUTMENT 1 AND WE AND WS	1.4	7.8	STREAM FACE ABUTMENT 1
9	8.3	STREAM BED			
12	7.5	Water Surface/Water Edge (WSWE)			
24.2	6.2	STREAM FACE ABUTMENT 2	24.2	6.3	STREAM FACE ABUTMENT 2
24.3	4.5	Top of Cap			
25.5	3	FILL FACE ABUTMENT 2	25.5	2.9	FILL FACE ABUTMENT 2

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS 3/5/2013



Roadway	18ft Wide	2 Paved Lanes	Looking North
Left Shoulder	2ft Wide		2ft Unpaved
Right Shoulder	2ft Wide		2ft Unpaved
Left Guardrail			
Right Guardrail			

Title

APPROACH ROADWAY

Description

APPROACH ROADWAY

Bridge No: 430310

Drawn By: DAVID SANDERS

Date: 3/5/2013

File Name: S0118000049

Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS 3/5/2013

Out to Out	20ft	Wearing Surface	0.125ft
Between Rails	19.833ft	Median Width	
Curb Height	0.667ft	Median Height	
Guardrail Height	2.833ft	Left Guardrail Width	0.5ft
Clear Roadway	19.167ft	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	4.5	Right Overhang	1

Beam No	Beam Type	Spacing	Comments
1	Timber (Rectangular)	2 ft.	
2	Timber (Rectangular)	2 ft.	
3	Timber (Rectangular)	2 ft.	
4	Timber (Rectangular)	2 ft.	
5	Timber (Rectangular)	2 ft.	
6	Timber (Rectangular)	2 ft.	
7	Timber (Rectangular)	2 ft.	
8	Timber (Rectangular)	2 ft.	
9	Timber (Rectangular)	2 ft.	
10	Timber (Rectangular)		



JOIST ARE 0.489583 WIDE X 1.145833 HIGH

SKEW 140 DEG.

Title

SUPER

Description

SUPER

Bridge No: 430310

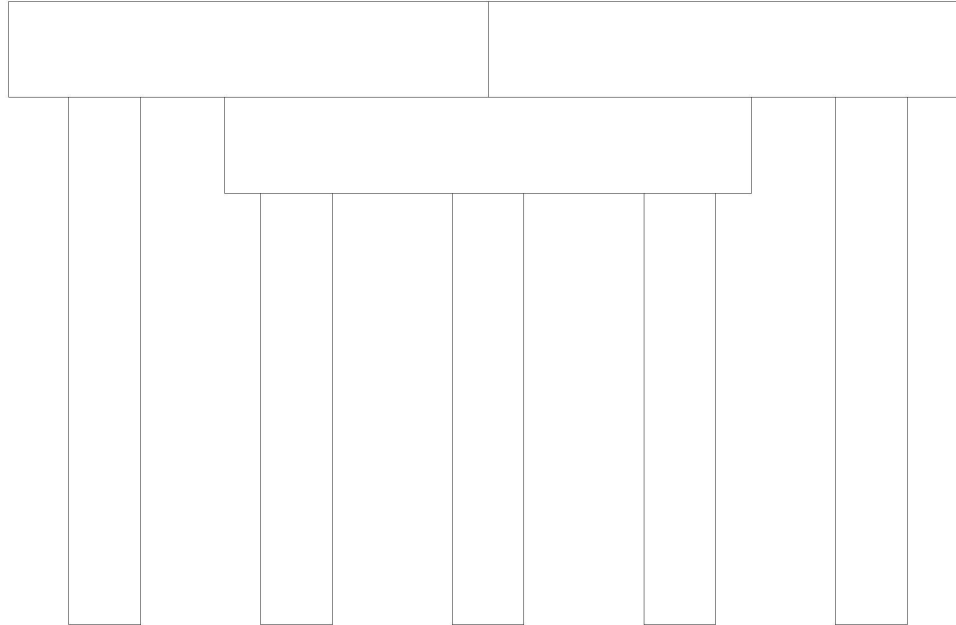
Drawn By: DAVID SANDERS

Date: 3/5/2013

File Name: S0118000050

Bridge Inspection Field Sketch

VERIFIED BY DAVID SANDERS 3/5/2013



Abutment #	1	Abutment 2 similar	
Cap - Beam Type (Wood or Steel)			
Cap Size	31ft Long	0.823ft Wide	0.979ft High
Left Overhang	1.5ft	Lt Cap/Beam Overhang	1ft
Right Overhang	1.5ft	Rt Cap/Beam Overhang	1ft
Timber Sub Cap			
Size	16.25ft Long	0.833ft Wide	0.833ft High
Left pile to splice	7ft		
Left Overhang	0.667ft		
Right Overhang	0.667ft		

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Post and Sills	7'		0.82291	0.82291	Vertical
2	Wood or Timber	Post and Sills	7'		0.82291	0.82291	Vertical
3	Wood or Timber	Post and Sills	7'		0.82291	0.82291	Vertical
4	Wood or Timber	Post and Sills	7'		0.82291	0.82291	Vertical
5	Wood or Timber	Post and Sills			0.82291	0.82291	Vertical

Title

SUBSTRUCTURE

Description

SUBSTRUCTURE

Bridge No: 430310

Drawn By: DAVID SANDERS

Date: 3/5/2013

File Name: S0118000051



LOOKING NORTH



LOOKING UPSTREAM FROM TOP OF BRIDGE.



LOOKING DOWNSTREAM FROM TOP OF BRIDGE.



LOOKING SOUTH - BRIDGE IS POSTED SV 15 TTST 21 TONS.



DOWNSTREAM



REP. OF ABUTMENTS 1 AND 2. PHOTO WAS TAKEN OF ABUTMENT 1.



UNDERSIDE



UPSTREAM