



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

(PMN) ISSUED... DECK, (NE) WING...

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY SURRY

BRIDGE NUMBER 850257

INSPECTION CYCLE 2 YRS

ROUTE SR1600

ACROSS CREEK

M.P. 0

LOCATION .5 MI.N.JCT.SR1601

SUPERSTRUCTURE TIMBER FLOOR ON I-BEAMS

SUBSTRUCTURE E.BTS:TIM.CAPS/TIMBER POST&SILLS @ 6' CENTERS

SPANS 1 @ 31'

LONGITUDE 80° 52' 13.7"

LATITUDE 36° 32' 27.2"

PRESENT CONDITION FAIR

INVENTORY RATING

INSPECTION DATE 11/10/2011

OPERATING RATING

PRESENT POSTING SV 14 TTST 19 SV 14 TTST 19

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT 4 DELINEATORS



SOUTH TO NORTH

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: 12/22/2011

IDENTIFICATION				CLASSIFICATION			
(1) STATE NAME -NORTH CAROLINA	BRIDGE	850257		SUFFICIENCY RATING =		36.01723	
(8) STRUCTURE NUMBER(FEDERAL)		000000001710257		STATUS =	Functionally Obsolete		
(5) INVENTORY ROUTE (ON/UNDER) - ON		31016000					
(2) STATE HIGHWAY DEPARTMENT DISTRICT		1					
(3) COUNTY CODE	171	(4) PLACE CODE	00000	(112)NBIS BRIDGE SYSTEM -		YES	
(6) FEATURE INTERSECTED - CREEK				(104)HIGHWAY SYSTEM	Is not on NHS	0	
(7) FACILITY CARRIED SR1600				(26) FUNCTIONAL CLASS -	Local	09	
(9) LOCATION .5 MI.N.JCT.SR1601				(100)STRAHNET HIGHWAY -	Not a STRAHNET Route	0	
(11)MILEPOINT		0		(101)PARALLEL STRUCTURE -	No Parallel Structure	N	
(16)LAT 36° 32' 27.8"	(17)LONG	80° 52' 13.8"		(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: Steel				(58) DECK		5	
TYPE - Stringer Multibeam or Girder		CODE	302	(59) SUPERSTRUCTURE		5	
(44) STRUCTURE TYPE APPR :				(60) SUBSTRUCTURE		5	
TYPE -		CODE	000	(61) CHANNEL & CHANNEL PROTECTION		5	
(45) NUMBER OF SPANS IN MAIN UNIT		1		(62) CULVERTS		N	
(46) NUMBER OF APPROACH SPANS							
(107)DECK STRUCTURE TYPE - 8		CODE		LOAD RATING AND POSTING			
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(31) DESIGN LOAD	Other or Unknown	0	
(A) TYPE OF WEARING SURFACE -		CODE		(63) OPERATING RATING METHOD -	Load Factor		
(B) TYPE OF MEMBRANE -		CODE		(64) OPERATING RATING -	HS-13	123	
(C) TYPE OF DECK PROTECTION -		CODE		(65) INVENTORY RATING METHOD -	Load Factor		
				(66) INVENTORY RATING -	HS-7	113	
				(70) BRIDGE POSTING -	Posting Required	0	
				(41) STRUCTURE OPEN, POSTED ,OR CLOSED		P	
				DESCRIPTION -	Posted for Load		
AGE AND SERVICE				APPRAISAL			
(27) YEAR BUILT		1959		(67) STRUCTURAL EVALUATION		5	
(106)YEAR RECONSTRUCTED				(68) DECK GEOMETRY		2	
(42) TYPE OF SERVICE : ON - Highway				(69) UNDERCLEARANCES,VERTI & HORIZ		N	
UNDER - Waterway		CODE	15	(71) WATERWAY ADEQUACY		7	
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE				(72) APPROACH ROADWAY ALIGNMENT		7	
(29) AVERAGE DAILY TRAFFIC		380		(36) TRAFFIC SAFETY FEATURES		0000	
(30) YEAR OF ADT 2010	(109) TRUCK ADT PCT	6%		(113)SCOUR CRITICAL BRIDGES		U	
(19) BYPASS OR DETOUR LENGTH		3 MI		PROPOSED IMPROVEMENTS			
GEOMETRIC DATA				(75) TYPE OF WORK -		CODE	
(48) LENGTH OF MAXIMUM SPAN		30 FT		(76) LENGTH OF STRUCTURE IMPROVEMENT			
(49) STRUCTURE LENGTH		31 FT		(94) BRIDGE IMPROVEMENT COST			
(50)CURB OR SIDEWALK: LEFT .3 FT RIGHT .3 FT				(95) ROADWAY IMPROVEMENT COST			
(51) BRIDGE ROADWAY WIDTH CURB TO CURB		17 FT		(96) TOTAL PROJECT COST			
(52) DECK WIDTH OUT TO OUT		18 FT		(97) YEAR OF IMPROVEMENT COST ESTIMATE			
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)		14 FT		(114)FUTURE ADT 760	(115) YEAR FUTURE ADT	2025	
(33) BRIDGE MEDIAN - No Median		CODE	0 FT	INSPECTIONS			
(34) SKEW 27°	(35) STRUCTURE FLARED		0	(90) INSPECTION DATE		11/10/2011	
(10) INVENTORY ROUTE MIN VERT CLEAR		999.9 FT		(92) CRITICAL FEATURE INSPECTION :		(93) CFI DATE	
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR		17 FT		A) FRACTURE CRIT DETAIL -	NO	A)	
(53) MIN VERT CLEAR OVER BRIDGE RDWY		999.9 FT		B) UNDERWATER INSP -	NO	B)	
(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad		0 FT		C) OTHER SPECIAL INSP	NO	C)	
(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad		000 FT		SCOUR			
(56) MIN LAT UNDERCLEAR LT REF -		000 FT					
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: 12/22/2011

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
SURRY	11	1	850257	31	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1600	CREEK

LOCATED :	BRIDGE NAME :	CITY :
.5 MI.N.JCT.SR1601		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	380 2010	LT 227 RT 227

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1959	BMU			Other or Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :
			TAN	117	ON 2 UNDER

NAVIGATION :	HT. CRN. TO BED :	WATER DEPTH :
VC 0 FT HC 0 FT	8 FT	1 FT

SUPERSTRUCTURE : TIMBER FLOOR ON I-BEAMS

SUBSTRUCTURE : E.BTS:TIM.CAPS/TIMBER POST&SILLS @ 6' CENTERS

SPANS : 1 @ 31'

BEAMS OR GIRDERS : 8 LINES 14 I-BEAMS @ 2'-3.5 CENTERS

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
		18 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
17 FT	17.7 FT	LT .3 FT RT .3 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	19	DATE	09/25/2008
HS-7	HS-13	Ext Bm	SV 14				

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. 850257 COUNTY SURRY ROUTE SR1600 OVER CREEK
 STRUCTURE TYPE TIMBER FLOOR ON I-BEAMS
 ROUTE ORIENTATION S - N SPANS 1 @ 31'

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

INSPECTION ITEM				ITEM 61		
DECK ITEMS			GRADES	45. CHANNEL & CHANNEL PROT.		
1. WEARING SURFACE			G	a. WATERWAY	G	
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58				b. ALIGNMENT	F	
a. CONCRETE				c. SCOUR	G	
b. TIMBER			1	d. SLOPE PROT., RIP-RAP, DIKES, ETC.		
c. STEEL PLANK				50. APPROACH ROADWAY CONDITION		
d. OPEN GRID				51. APPROACH SLABS		
3. RAILING				52. PAINT SYSTEM CODE A P		
a. CONCRETE				53. UTILITIES		
b. TIMBER			G	54. RESPONSE TO LIVE LOAD		
c. ALUMINUM				55. ESTIMATED REMAINING LIFE		
d. STEEL				30		
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			G			
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)				60. REGULATORY SIGN NOTICE ISSUED		
6. DECK EXP JTS. OR DEVICES. NO. OF EACH				61. PROMPT-ACTION NOTICE ISSUED		
a. STEEL PL OR FINGER				62. PRESENTLY POSTED		
b. MISC PREFAB				63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)		
c. COMPRESSION SEAL				7		
d. STANDARD JOINTS				64. TOTAL SNOOPER INSP. TIME (HRS)		
e. OPEN JOINTS				0		
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			F	65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		
				0		
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59				70. SI&A GENERAL CONDITION RATINGS		
10. LONGITUDINAL BEAMS OR GIRDERS			G	a. DECK	ITEM 58	5
11. LONGITUDINAL JOIST OR STRINGERS				b. SUPERSTRUCTURE	ITEM 59	5
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S				c. SUBSTRUCTURE	ITEM 60	5
13. END DIAP'S, CURTAIN WALLS, & CONN'S				d. CHANNEL & CHANNEL PROT.	ITEM 61	5
14. FLOOR BEAMS AND CONNECTIONS				71. SI&A FIELD APPRAISAL RATINGS		
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			G	a. WATERWAY ADAQUACY	7	
16. DRAINAGE SYSTEM (ON STRUCTURE)			G	b. APPR. RDWY. ALIGNMENT	7	
17. MOVABLE SPAN MACHINERY						
				72. FIELD SCOUR EVALUATION		
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)				L		
35. TIM SUB STR.				USE OF INSP. ACCESSIBILITY EQUIPMENT		
a. ABUT. & INT. BENT CAPS & RISERS			G	SNOOPER (CODE S, 4, OR N) HRS		
b. PILES, POST, SILLS, & BRACING			G	NO		
c. BULKHEADS, WING'S, & TIE BACKS			F	LADDER		
				NO		
36. CONC SUB STR.				BUCKET TRUCK		
a. ABUT. & INT. BENT CAPS				NO		
b. ABUT. & BENT COL'S BREASTWALLS				BOAT		
c. ABUT. & INT. BENT PILES				NO		
d. BACKWALLS, WING'S, RETAIN. WALLS				OTHER		
e. ABUT. & BENT FOOTINGS & SILLS						
37. STEEL SUB STR.				SPECIAL INSPECTION REQUESTED FOR		
a. ABUT. & INT. BENT CAPS & RISERS						
b. PILES, BRACING, AND BULKHEADS						
38. FOUNDATION PILES TYPE MATERIAL				NOTE		
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)						
40. FENDER SYSTEMS				80. INSPECTED BY: 		
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 MAX FORD			
Assisted By RAP			
Item No.	Grade		
2b	F	NAILER OVER BEAM (8) AT ABUT. (B) IS SPLIT ON LT. SIDE FOR APPROX. 8 FT... (PMN) ISSUED FOR THIS ITEM...	
7	F	NAILER IS SPLIT OVER BEAM (3), AND ONE DECK BOARD IS BROKEN NEAR ABUT. (A)... APPROX. 8 LF... (PMN) ISSUED FOR THIS ITEM EXCESS GRAVEL ALONG EACH SIDE...	
10A	NO	NO CURVED GIRDERS...	
52	P	PAINT SYSTEM FAILED WITH SURFACE RUST AND BEGINNING SCALE THROUGHOUT ALONG ALL BEAMS...	
35a	G	ABUT. (A) CAP IS BOWED DOWN IN THE MIDDLE... STRUCTURE APPEARS TO HAVE BEEN CONSTRUCTED IN THIS MANNER...	
35c	F	(1) BOARD DECAYED, RT. END ABUT. (A) BULKHEAD... APPROX. 12 LF (NE) WING IS DETERIORATED... (PMN) ISSUED FOR THIS ITEM... (APPROX. 30 SF)	
45b	F	WATERWAY ALIGNMENT... CREEK ENTERS AT SHARP ANGLE, ROCKS PLACED IN W/W TO DIVERT FLOW AWAY FROM ABUT. (A) BULKHEAD...	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 850257

County SURRY

Date: 11/10/2011

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
 3304	Maintain/Replace Timber Superstructure Components	LF	30	(NE) WING IS DETERIORATED... (PMN) ISSUED FOR THIS ITEM... (APPROX. 30 SF)	
 3324	Maint / Repair / Replace Timber Deck Components	SF	10	ONE DECK BOARD BROKEN, NAILER OVER BEAM (3) IS BROKEN OVER BEAM (3) FOR APPROX. 8 LF NEAR ABUT. (A)	
3342	Clean and Paint Structural Steel	SF	744	SURFACE RUST THROUGHOUT ALONG BEAMS...	
3346	Repair / Maintain Timber Wings & Blkhs	SF	12	(1) BOARD DECAYED, RT. END ABUT. (A) BULKHEAD... APPROX. 12 LF	
3376	Clean/Wash Bridge Decks	SF	62	EXCESS GRAVEL ALONG EACH SIDE...	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 850257

County SURRY

THE FOLLOWING MAINTENANCE ITEMS HAVE BEEN SUBMITTED IN CONJUNCTION WITH A PRIORITY MAINTENANCE REQUEST

MMS Code	MMS Description	Quantity
3304	Maintain/Replace Timber Superstructure Components	30 LF
Location:		
Abutment Substructure	Bent/Span No. 2	(NE) WINGWALL
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
11/15/2011	MAX FORD	ROBERT PIERCE
Details		
(NE) WING IS DETERIORATED... (PMN) ISSUED FOR THIS ITEM... (APPROX. 30 SF)		

MMS Code	MMS Description	Quantity
3324	Maint / Repair / Replace Timber Deck Components	10 SF
Location:		
Deck Structure Type	Bent/Span No. 1	TIMBER DECK AND NAILER NEAR ABUT. (A)
Priority Level	Status	
Priority Maintenance	Division Maintenance Work In Process	
Submitted Date:	Submitted By:	Assisted By:
11/15/2011	MAX FORD	ROBERT PIERCE
Details		
ONE DECK BOARD BROKEN, NAILER OVER BEAM (3) IS BROKEN OVER BEAM (3) FOR APPROX. 8 LF NEAR ABUT. (A)		



EXCESS GRAVEL ALONG EACH SIDE...



SURFACE RUST THROUGHOUT ALONG BEAMS...



(1) BOARD DECAYED, RT. END ABUT. (A) BULKHEAD... APPROX. 12 LF



NAILER IS SPLIT OVER BEAM (3), AND ONE DECK BOARD IS BROKEN NEAR ABUT. (A)... APPROX. 8 LF...
(PMN) ISSUED FOR THIS ITEM



ABUT. (A) CAP IS BOWED DOWN IN THE MIDDLE... STRUCTURE APPEARS TO HAVE BEEN CONSTRUCTED IN THIS MANNER...



WATERWAY ALIGNMENT... CREEK ENTERS AT SHARP ANGLE, ROCKS PLACED IN W/W TO DIVERT FLOW AWAY FROM ABUT. (A) BULKHEAD...



NAILER OVER BEAM (8) AT ABUT. (B) IS SPLIT ON LT. SIDE FOR APPROX. 8 FT...

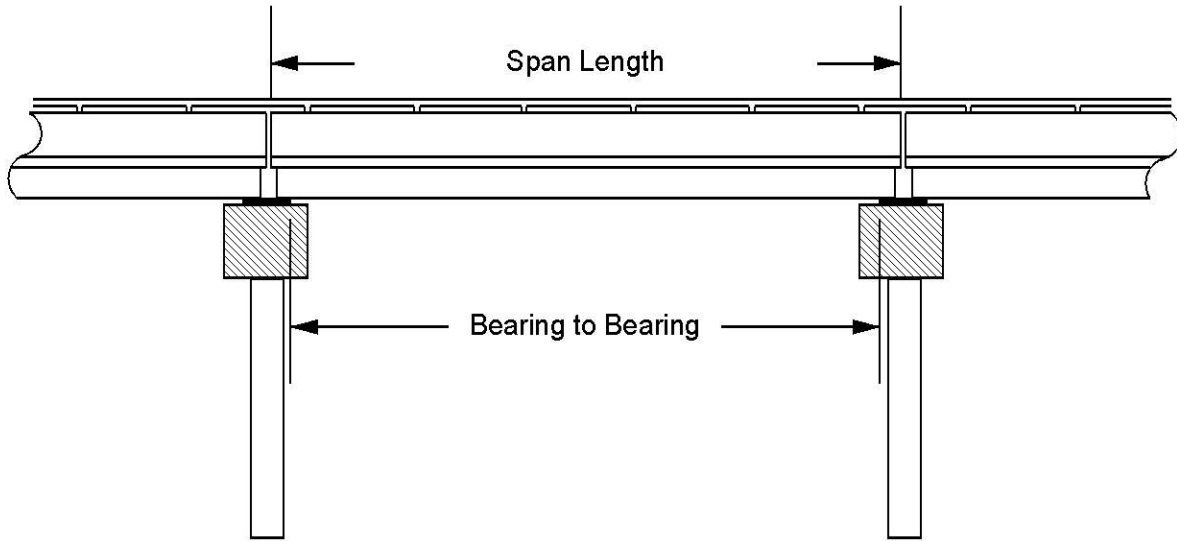


(NE) WING IS DETERIORATED... (PMN) ISSUED FOR THIS ITEM... (APPROX. 30 SF)

Structure Data Worksheet

Spans

County: SURRY Structure No: 850257 Date: 11/10/2011 Inspected By: MF



Span No	Span Length	Bearing to Bearing	Comments
1	31.0 FT.	29.833 ft.	FACE OF CAP TO FACE OF CAP = 28.76

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 850257 County: SURRY Date: 11/10/2011 By: MF

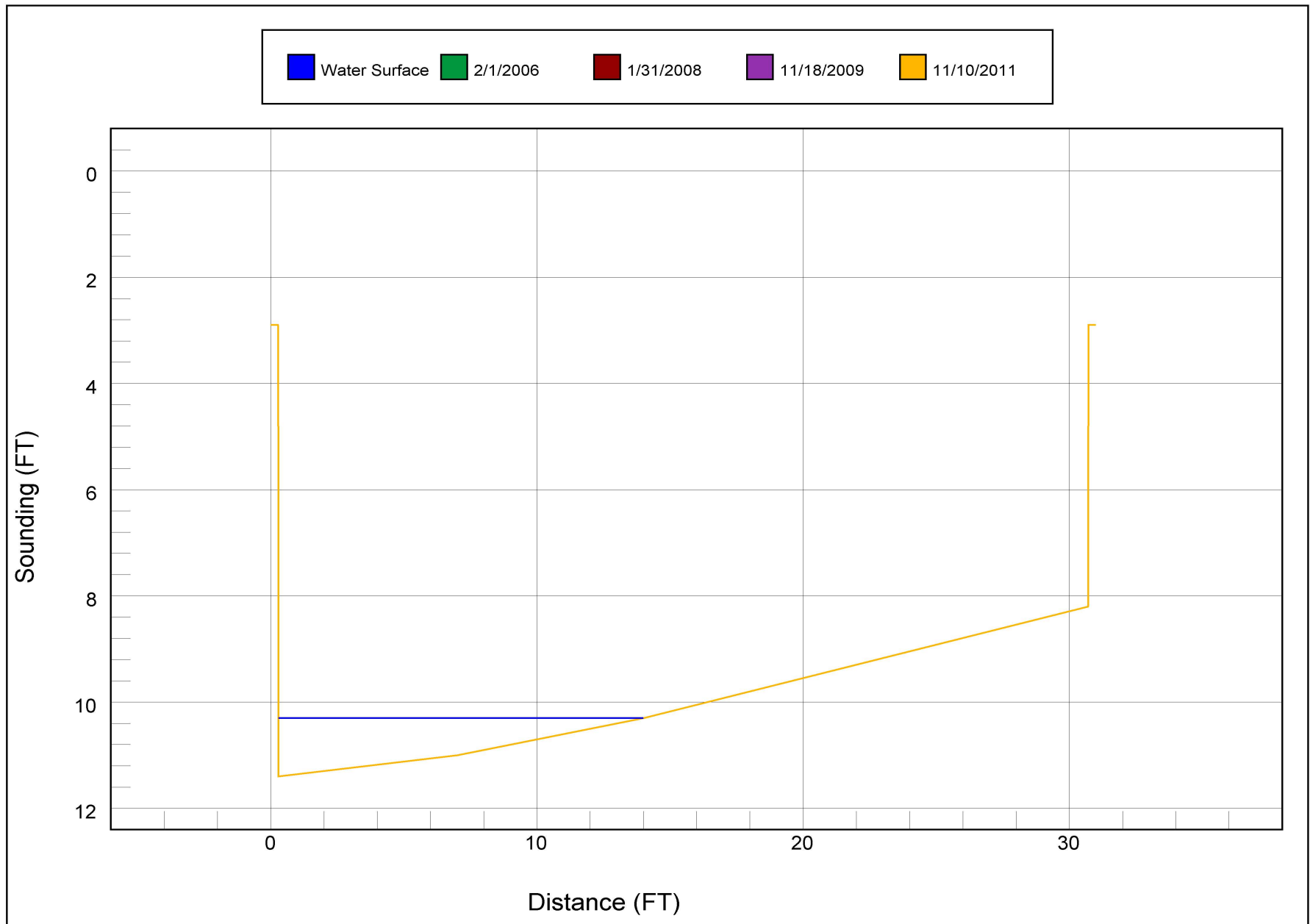
Record sounding from top of rail. Other location if needed: _____

Distance from Highwater Mark to top of rail: _____ Location of Highwater Mark: _____

DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	2.9	TOP OF FILLFACE			
0.27	2.9	TOP OF FILLFACE			
0.28	4.8	TOP OF CAP			
0.29	10.3	WSWE			
0.3	11.4	FACE OF ABUT	0.3	9.7	FACE OF ABUT
7	11	BED			
14	10.3	WSWE			
30.7	8.2	FACE OF ABUT	30.7	9.8	FACE OF ABUT
30.71	4.8	TOP OF CAP			
30.72	2.9	TOP OF FILLFACE			
31	2.9	TOP OF FILLFACE			

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

VERIFIED 11/10/11 R.A. PIERCE, M. FORD



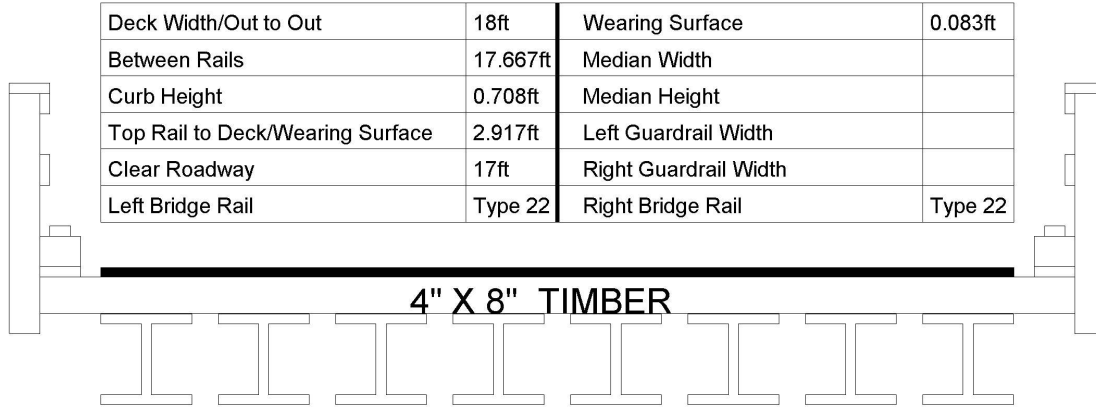
LOOKING NORTH

Roadway	14ft Wide	1 Unpaved Lanes	Looking North
Left Shoulder	2ft Wide		2ft Unpaved
Right Shoulder	2ft Wide		2ft Unpaved
Left Guardrail			
Right Guardrail			

Title APPR. RDWY.		Description APPR. RDWY.	
Bridge No: 850257	Drawn By: RAP	Date: 01/24/2006	File Name: S0138000845

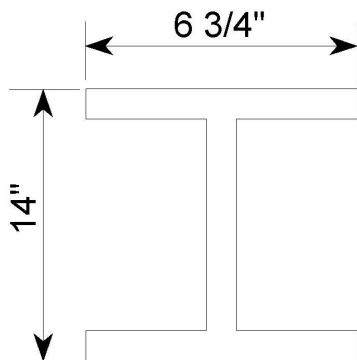
Bridge Inspection Field Sketch

VERIFIED 11/10/11 R.A. PIERCE, M. FORD



Measurements for Span #	1		
Deck Thickness	0.333	Left Overhang	1
Top of Rail to Bottom of Beam	4.75	Right Overhang	1

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	2.292ft	
2	Steel I Beam	2.292ft	
3	Steel I Beam	2.292ft	
4	Steel I Beam	2.292ft	
5	Steel I Beam	2.292ft	
6	Steel I Beam	2.292ft	
7	Steel I Beam	2.292ft	
8	Steel I Beam		

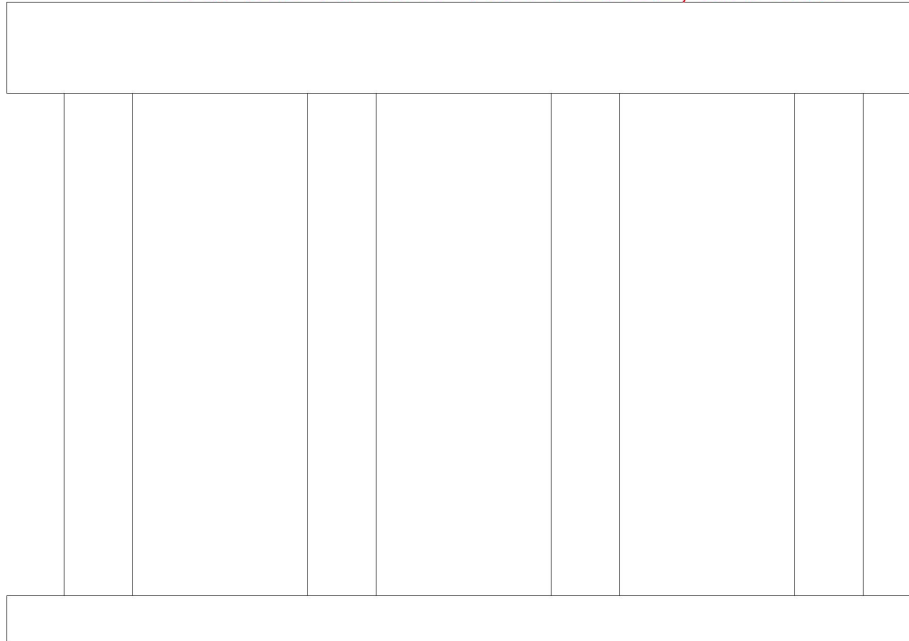


FLANGE THICKNESS: 7/16"
 WEB THICKNESS: 1/4"

Title		Description	
SUPER.		DECK SECTION	
Bridge No:	850257	Drawn By:	RAP
Date:	01/24/2006	File Name:	S0138000846

Bridge Inspection Field Sketch

VERIFIED 11/10/11 R.A. PIERCE, M. FORD



Abutment #	1	Abutment 2 similar	
Cap - Beam Type (Wood or Steel)			
Cap Size	20ft Long	0.812ft Wide	0.812ft High
Left Overhang	1ft	Lt Cap/Beam Overhang	1ft
Right Overhang	1ft	Rt Cap/Beam Overhang	1ft
Sill - Sill			
Sill Size	20ft Long	0.812ft Wide	0.812ft High

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Post and Sills	6		0.812	0.812	Vertical
2	Wood or Timber	Post and Sills	6		0.812	0.812	Vertical
3	Wood or Timber	Post and Sills	6		0.812	0.812	Vertical
4	Wood or Timber	Post and Sills			0.812	0.812	Vertical

ABUT. # 2 BM. OUT LT: 10"; RT.: 12"

Title		Description	
SUBST.		ABUTS.	
Bridge No:	850257	Drawn By:	RAP
Date:	01/24/2006	File Name:	S0138000847



UPSTREAM



DOWNSTREAM



LOOKING SOUTH



SOUTH TO NORTH



EAST PROFILE



ABUT. (B)



ABUT. (A)



WEST PROFILE