



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY SURRY BRIDGE NUMBER 850213 INSPECTION CYCLE 2 YRS
ROUTE SR1600 ACROSS LOW GAP CREEK M.P. 0

LOCATION 0.3 MI.N.JCT.NC89

SUPERSTRUCTURE TIMBER FLOOR ON CONT. I-BEAMS

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

SPANS 1 @ 30'-7

LONGITUDE 80° 52' 1.0"

LATITUDE 36° 31' 55.0"

PRESENT CONDITION FAIR

INVENTORY RATING

INSPECTION DATE 10/04/2011

OPERATING RATING

PRESENT POSTING SV 14 TTST 19 **NOT POSTED**

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT 3 DELINEATORS



SOUTH TO NORTH

SIGN NOTICE ISSUED FOR		NUMBERED REQUIRED
<u>Yes</u>	WEIGHT LIMIT	<u>2</u>
<u>Yes</u>	DELINEATORS	<u>1</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: 02/10/2012

IDENTIFICATION					
(1) STATE NAME -NORTH CAROLINA	BRIDGE	850213	SUFFICIENCY RATING =		36.2
(8) STRUCTURE NUMBER(FEDERAL)	000000001710213	STATUS =		Functionally Obsolete	
(5) INVENTORY ROUTE (ON/UNDER) - ON	31016000				
(2) STATE HIGHWAY DEPARTMENT DISTRICT	1				
(3) COUNTY CODE 171	(4) PLACE CODE 00000				
(6) FEATURE INTERSECTED - LOW GAP CREEK					
(7) FACILITY CARRIED SR1600					
(9) LOCATION 0.3 MI.N.JCT.NC89					
(11)MILEPOINT	0				
(16)LAT 36° 31' 55.0"	(17)LONG 80° 52' 1.0"				
(98)BORDER BRIDGE STATE CODE	PCT SHARE				
(99)BORDER BRIDGE STRUCTURE NO					
STRUCTURE TYPE AND MATERIAL				CLASSIFICATION	
(43) STRUCTURE TYPE MAIN: Steel Continuous			(112)NBIS BRIDGE SYSTEM -	YES	
TYPE - Stringer Multibeam or Girder	CODE 402	(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 -			
(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		5	
		(60) SUBSTRUCTURE		5	
		(61) CHANNEL & CHANNEL PROTECTION		7	
		(62) CULVERTS		N	
				LOAD RATING AND POSTING	
		(31) DESIGN LOAD Other or Unknown		0	
		(63) OPERATING RATING METHOD - Load Factor			
		(64) OPERATING RATING - HS-13		123	
		(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			
				APPRAISAL	
		(67) STRUCTURAL EVALUATION		5	
		(68) DECK GEOMETRY		3	
		(69) UNDERCLEARANCES,VERTI & HORIZ		N	
		(71) WATERWAY ADEQUACY		7	
		(72) APPROACH ROADWAY ALIGNMENT		7	
		(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 760		(115) YEAR FUTURE ADT 2025	
				INSPECTIONS	
		(90) INSPECTION DATE		10/04/2011	
		(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: 02/10/2012

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
SURRY	11	1	850213	31	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1600	LOW GAP CREEK

LOCATED :	BRIDGE NAME :	CITY :
0.3 MI.N.JCT.NC89		

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 :
	BMU		TAN	90	ON 2 UNDER

NAVIGATION :	HT. CRN. TO BED :	WATER DEPTH :
VC 0 FT HC 0 FT	9 FT	1 FT

SUPERSTRUCTURE : TIMBER FLOOR ON CONT. I-BEAMS

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

SPANS : 1 @ 30'-7

BEAMS OR GIRDERS : 8 LINES 14 I-BEAMS @ 2'-7 CENTERS

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

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
19.2 FT	19.8 FT	LT .3 FT RT .3 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	DATE
HS-7	HS-13	Int Bm	SV 14	19	06/29/1999

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. 850213 COUNTY SURRY ROUTE SR1600 OVER LOW GAP CREEK
 STRUCTURE TYPE TIMBER FLOOR ON CONT. I-BEAMS
 ROUTE ORIENTATION S - N SPANS 1 @ 30'-7

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	F	
					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 A P
	d. OPEN GRID			53. UTILITIES			
3. RAILING	a. CONCRETE			54. RESPONSE TO LIVE LOAD			G
	b. TIMBER		G	55. ESTIMATED REMAINING LIFE			22
	c. ALUMINUM						
	d. STEEL						
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			G				
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)				60. REGULATORY SIGN NOTICE ISSUED			YES
6. DECK EXP JTS. OR DEVICES. NO. OF EACH	a. STEEL PL OR FINGER			61. PROMPT-ACTION NOTICE ISSUED			NO
	b. MISC PREFAB			62. PRESENTLY POSTED			NO
	c. COMPRESSION SEAL			63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)			6
	d. STANDARD JOINTS			64. TOTAL SNOOPER INSP. TIME (HRS)			0
	e. OPEN JOINTS			65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)			0
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			F				
				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			F	b. SUPERSTRUCTURE	ITEM 59	5	
11. LONGITUDINAL JOIST OR STRINGERS				c. SUBSTRUCTURE	ITEM 60	5	
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			G	d. CHANNEL & CHANNEL PROT.	ITEM 61	7	
13. END DIAP'S, CURTAIN WALLS, & CONN'S							
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)			F	b. APPR. RDWY. ALIGNMENT		7	
17. MOVABLE SPAN MACHINERY							
				72. FIELD SCOUR EVALUATION			L
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)							
35. TIM SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		G	USE OF INSP. ACCESSIBILITY EQUIPMENT			
	b. PILES, POST, SILLS, & BRACING		G	SNOOPER (CODE S, 4, OR N)	HRS	NO	
	c. BULKHEADS, WING'S, & TIE BACKS		F	LADDER		NO	
36. CONC SUB STR.	a. ABUT. & INT. BENT CAPS			BUCKET TRUCK			NO
	b. ABUT. & BENT COL'S BREASTWALLS			BOAT			NO
	c. ABUT. & INT. BENT PILES			OTHER			NO
	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:			
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 MAX FORD			
Assisted By RAP			
Item No.	Grade		
7	F	EXCESS SOIL ALONG EACH SIDE BLOCKS DECK DRAINAGE...	
10	F	RUST AND SCALE ALONG ALL BEAMS... SEE PAINT	
10A	NO	NO CURVED GIRDERS...	
16	F	SEE DECK DEBRIS...	
52	P	RUST AND SCALE THROUGHOUT ALONG ALL BEAMS...	
35c	F	END OF ONE BOARD AT (NE) BULKHEAD... APPROX. 4 LF REMAINING BULKHEAD IS GOOD AT THIS TIME...	
45c	F	TIMBER SILL EXPOSURE... NO UNDERMINING AT THIS TIME...	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 850213

County SURRY

Date: 10/04/2011

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3342	Clean and Paint Structural Steel	SF	744	RUST AND SCALE THROUGHOUT ALONG ALL BEAMS...	
3346	Repair / Maintain Timber Wings & Blkhds	SF	4	END OF ONE BOARD AT (NE) BULKHEAD... APPROX. 4 LF	
3376	Clean/Wash Bridge Decks	SF	62	EXCESS SOIL ALONG EACH SIDE BLOCKS DECK DRAINAGE...	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined



RUST AND SCALE THROUGHOUT ALONG ALL BEAMS...



END OF ONE BOARD AT (NE) BULKHEAD... APPROX. 4 LF

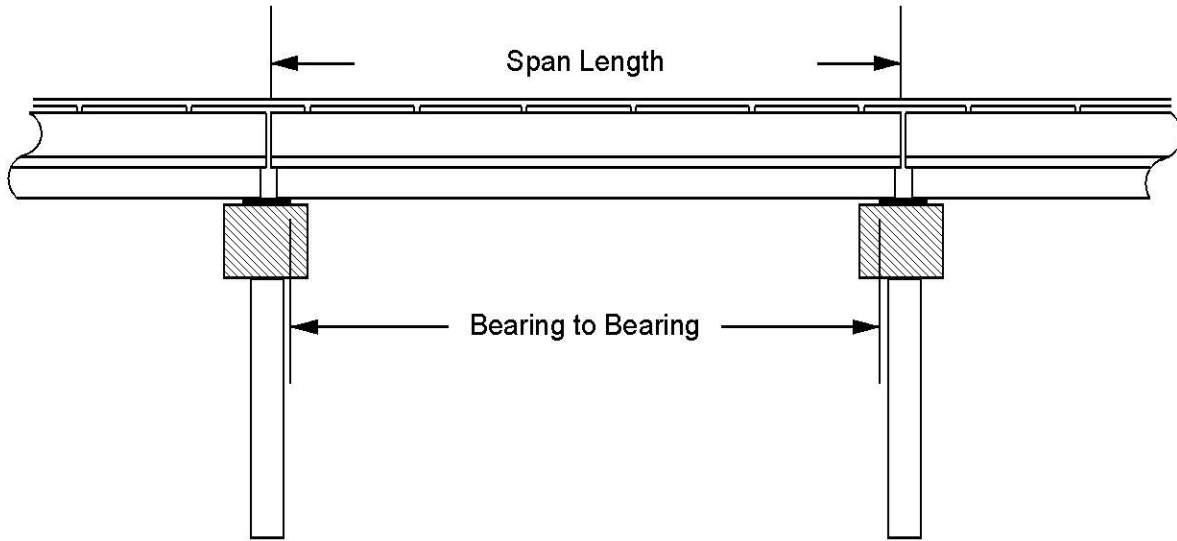


EXCESS SOIL ALONG EACH SIDE BLOCKS DECK DRAINAGE...

Structure Data Worksheet

Spans

County: SURRY Structure No: 850213 Date: 10/04/2011 Inspected By: MF



Span No	Span Length	Bearing to Bearing	Comments
1	30.583 FT.	29.333 ft.	FACE OF CAP TO FACE OF CAP = 28.417

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 850213 County: SURRY Date: 10/04/2011 By: MF

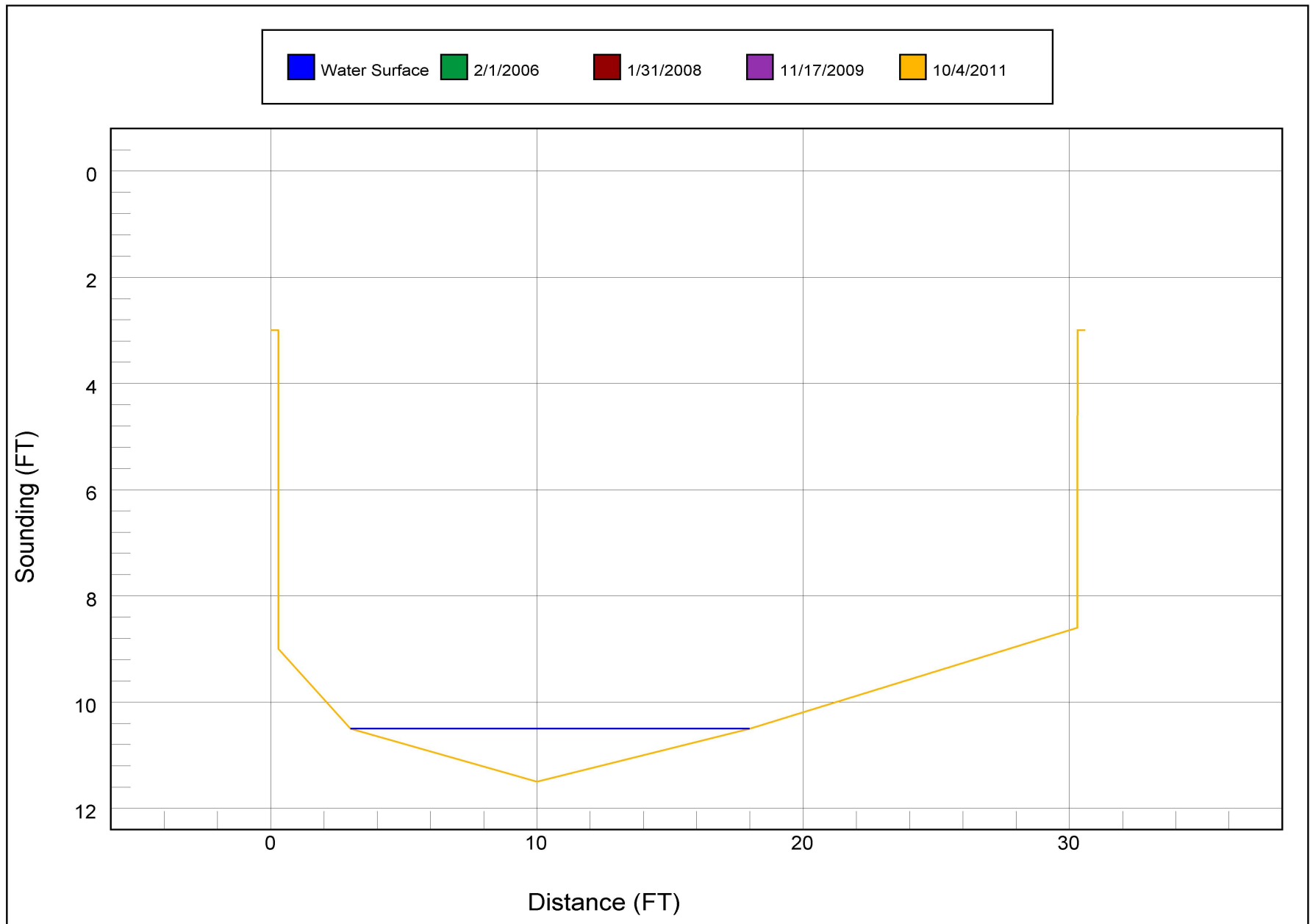
Record sounding from top of rail. Other location if needed: _____

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	3	TOP OF FILLFACE			
0.28	3	TOP OF FILLFACE			
0.29	4.6	TOP OF CAP			
0.3	9	FACE OF ABUT	0.3	11	FACE OF ABUT
3	10.5	WSWE			
10	11.5	BED FLOW EAST			
18	10.5	WSWE			
30.3	8.6	FACE OF ABUT	30.3	7.3	FACE OF ABUT
30.31	4.6	TOP OF CAP			
30.32	3	TOP OF FILLFACE			
30.6	3	TOP OF FILLFACE			

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

VERIFIED 10/4/11 R.A. PIERCE, M. FORD

S.R. 1600

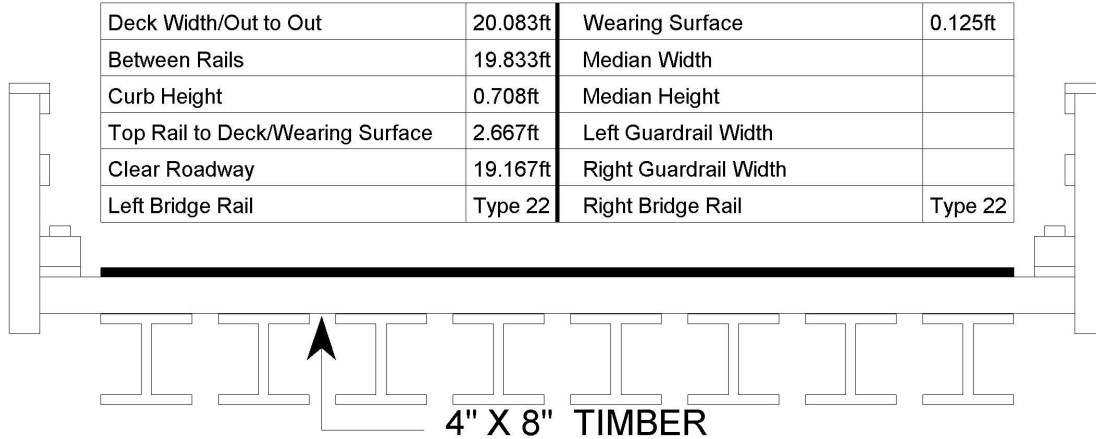
LOOKING NORTH

Roadway	16ft Wide	2 Paved Lanes	Looking North
Left Shoulder	4ft Wide		4ft Unpaved
Right Shoulder	4ft Wide		4ft Unpaved
Left Guardrail			
Right Guardrail			

Title APPR. RDWY.		Description APPR. RDWY.	
Bridge No: 850213	Drawn By: RAP	Date: 01/23/2006	File Name: S0138000837

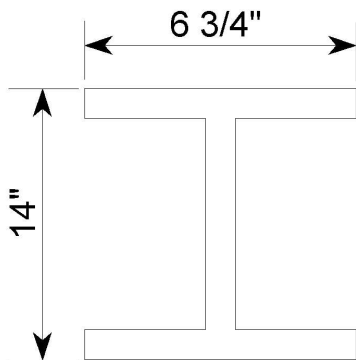
Bridge Inspection Field Sketch

VERIFIED 10/4/11 R.A. PIERCE, M. FORD



Measurements for Span #	1		
Deck Thickness	0.333	Left Overhang	1
Top of Rail to Bottom of Beam	4.583	Right Overhang	1

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	2.583ft	
2	Steel I Beam	2.583ft	
3	Steel I Beam	2.583ft	
4	Steel I Beam	2.583ft	
5	Steel I Beam	2.583ft	
6	Steel I Beam	2.583ft	
7	Steel I Beam	2.583ft	
8	Steel I Beam		



FLANGE THICKNESS: 3/8"
 WEB THICKNESS: 5/16"

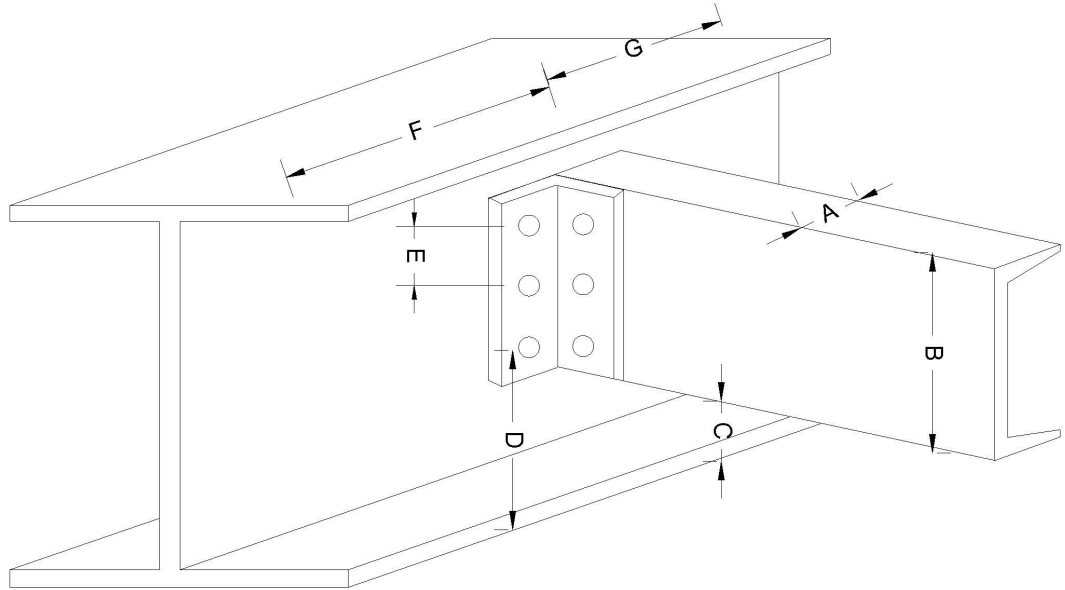
Title SUPER.		Description DECK SECTION	
Bridge No: 850213	Drawn By: RAP	Date: 01/23/2006	File Name: S0138000838

Bridge Inspection Field Sketch

VERIFIED 10/4/11 R.A. PIERCE, M. FORD

SPAN: 1

LOCATION: 1/3 POINTS



THREE BOLTS

SPAN	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E	DIM. F	DIM. G	BOLT SIZE
1	2 5/8"	10"	2 1/4"	4 3/4"	2 1/2"	10'	10'	3/4"

Title

DIAPH.

Description

DIAPH.

Bridge No: 850213

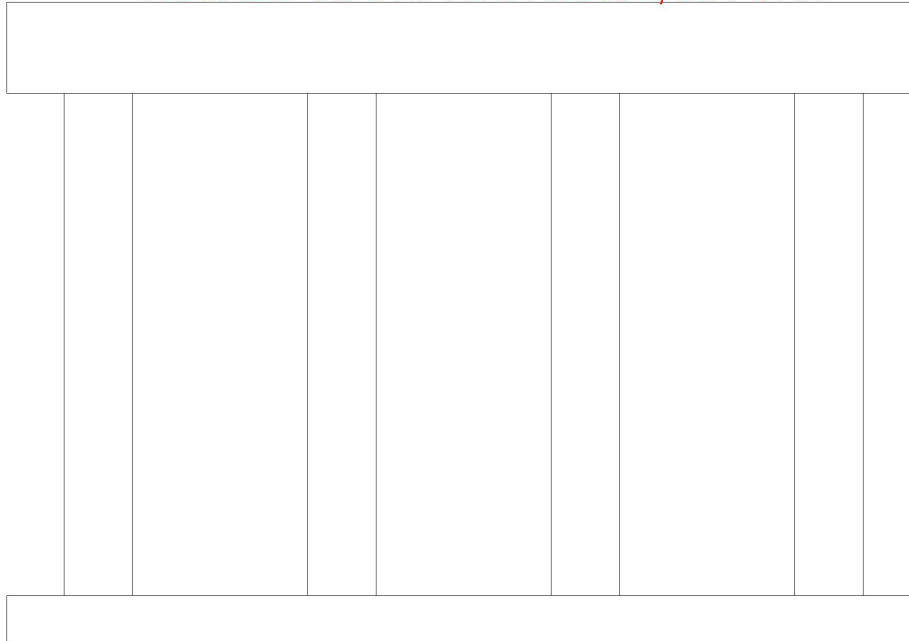
Drawn By: RAP

Date: 01/23/2006

File Name: S0138000839

Bridge Inspection Field Sketch

VERIFIED 10/4/11 R.A. PIERCE, M. FORD



Abutment #	1	Abutment 2 similar	
Cap - Beam Type (Wood or Steel)			
Cap Size	20ft Long	0.833ft Wide	0.812ft High
Left Overhang	1ft	Lt Cap/Beam Overhang	0.917ft
Right Overhang	1ft	Rt Cap/Beam Overhang	1ft
Sill - Sill			
Sill Size	20ft Long	0.833ft Wide	0.833ft 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. & RT.: 12"

Title		Description	
SUBST.		ABUTS.	
Bridge No:	850213	Drawn By:	RAP
Date:	01/23/2006	File Name:	S0138000840



SOUTH TO NORTH



UPSTREAM



DOWNSTREAM



LOOKING SOUTH



WEST PROFILE



ABUT. (B)



ABUT. (A)



EAST PROFILE