



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

SKETCH ADDED FOR END BENT 1

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY ROWAN

BRIDGE NUMBER 790260

INSPECTION CYCLE 2 YRS

ROUTE SR1535

ACROSS LITTLE CREEK

M.P. 0

LOCATION 0.5 MI. N. JCT. SR1541

SUPERSTRUCTURE TIMBER DECK ON I-BEAMS

SUBSTRUCTURE END BENTS:TIMBER CAPS, POSTS & SILLS, TIMBER BULKHEADS

SPANS 1@25'6"

LONGITUDE 80° 37' 11.18"

LATITUDE 35° 36' 51.32"

INSPECTION DATE 07/29/2014

PRESENT CONDITION FAIR

PRESENT POSTING Y

SV 18 - TTST 24

PROPOSED POSTING

OTHER SIGNS PRESENT 4 DELINEATORS, 2 NARROW BRIDGE



LOOKING NORTH

Fracture Critical	No
Temporary Shoring	No
Scour Critical	No
Scour POA	Yes

SIGN NOTICE
ISSUED FOR

NUMBERED
REQUIRED

No	WEIGHT LIMIT	
No	DELINEATORS	
No	NARROW BRIDGE	
No	ONE LANE BRIDGE	
No	LOW CLEARANCE	

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

Run Date: 08/19/2014

IDENTIFICATION					
(1) STATE NAME -NORTH CAROLINA	BRIDGE	790260		SUFFICIENCY RATING =	47.44
(8) STRUCTURE NUMBER(FEDERAL)		000000001590260		STATUS =	Functionally Obsolete
(5) INVENTORY ROUTE (ON/UNDER) - ON		31015350			
(2) STATE HIGHWAY DEPARTMENT DISTRICT		1		CLASSIFICATION	CODE
(3) COUNTY CODE 159	(4) PLACE CODE	0		(112)NBIS BRIDGE SYSTEM -	YES
(6) FEATURE INTERSECTED - LITTLE CREEK				(104)HIGHWAY SYSTEM Is not on NHS	0
(7) FACILITY CARRIED SR1535				(26) FUNCTIONAL CLASS - Local	09
(9) LOCATION 0.5 MI. N. JCT. SR1541				(100)STRAHNET HIGHWAY - Not a STRAHNET Route	0
(11)MILEPOINT		0		(101)PARALLEL STRUCTURE - No Parallel Structure	N
(16)LAT 35° 36' 51.32"	(17)LONG 80° 37' 11.18"			(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					
(43) STRUCTURE TYPE MAIN: Steel					
TYPE - Stringer Mutlibeam or Girder		CODE 302			
(44) STRUCTURE TYPE APPR :				CONDITION	CODE
TYPE -		CODE 000		(58) DECK	7
(45) NUMBER OF SPANS IN MAIN UNIT		1		(59) SUPERSTRUCTURE	5
(46) NUMBER OF APPROACH SPANS				(60) SUBSTRUCTURE	5
(107)DECK STRUCTURE TYPE - 8		CODE		(61) CHANNEL & CHANNEL PROTECTION	7
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(62) CULVERTS	N
(A) TYPE OF WEARING SURFACE -		CODE			
(B) TYPE OF MEMBRANE -		CODE		LOAD RATING AND POSTING	CODE
(C) TYPE OF DECK PROTECTION -		CODE		(31) DESIGN LOAD Unknown	0
				(63) OPERATING RATING METHOD - Load Factor	1
				(64) OPERATING RATING - HS-18	32
				(65) INVENTORY RATING METHOD - Load Factor	1
				(66) INVENTORY RATING - HS-11	19
				(70) BRIDGE POSTING - Posting Required	0
				(41) STRUCTURE OPEN, POSTED ,OR CLOSED	P
				DESCRIPTION - Posted for Load	
AGE AND SERVICE					
(27) YEAR BUILT		1955			
(106)YEAR RECONSTRUCTED					
(42) TYPE OF SERVICE : ON - Highway					
UNDER - Waterway		CODE 15			
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE		0			
(29) AVERAGE DAILY TRAFFIC		240		APPRAISAL	CODE
(30) YEAR OF ADT 1979	(109) TRUCK ADT PCT	6%		(67) STRUCTURAL EVALUATION	5
(19) BYPASS OR DETOUR LENGTH		2 MI		(68) DECK GEOMETRY	3
				(69) UNDERCLEARANCES,VERTI & HORIZ	N
GEOMETRIC DATA					
(48) LENGTH OF MAXIMUM SPAN		24 FT		(71) WATERWAY ADEQUACY	7
(49) STRUCTURE LENGTH		26 FT		(72) APPROACH ROADWAY ALIGNMENT	8
(50)CURB OR SIDEWALK: LEFT .333 FT RIGHT .333 FT				(36) TRAFFIC SAFETY FEATURES	0000
(51) BRIDGE ROADWAY WIDTH CURB TO CURB		19.167 FT		(113)SCOUR CRITICAL BRIDGES	U
(52) DECK WIDTH OUT TO OUT		20.083 FT			
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)		18 FT		PROPOSED IMPROVEMENTS	
(33) BRIDGE MEDIAN - No Median		CODE 0		(75) TYPE OF WORK -	CODE
(34) SKEW 0°	(35) STRUCTURE FLARED	0		(76) LENGTH OF STRUCTURE IMPROVEMENT	
(10) INVENTORY ROUTE MIN VERT CLEAR		999.9 FT		(94) BRIDGE IMPROVEMENT COST	
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR		19.167 FT		(95) ROADWAY IMPROVEMENT COST	
(53) MIN VERT CLEAR OVER BRIDGE RDWY		999.9 FT		(96) TOTAL PROJECT COST	
(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad		0 FT		(97) YEAR OF IMPROVEMENT COST ESTIMATE	
(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad		000 FT		(114)FUTURE ADT 480	(115) YEAR FUTURE ADT 2025
(56) MIN LAT UNDERCLEAR LT REF -		000 FT			
NAVIGATION DATA					
(38) NAVIGATION CONTROL - No Navigational Control		CODE 0		(90) INSPECTION DATE	07/29/2014
(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: 08/19/2014

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
ROWAN	9	1	790260	26	FEET
ROUTE CARRIED :		FEATURE INTERSECTED :			
SR1535		LITTLE CREEK			
LOCATED :		BRIDGE NAME :		CITY :	
0.5 MI. N. JCT. SR1541					
FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :	
09	NFA	NFA	240 1979	LT 227	RT 227
BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :	
1955	BMU			Unknown	
REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :
			TAN	90	ON 2 UNDER 0
NAVIGATION :		HT. CRN. TO BED :		WATER DEPTH :	
VC 0 FT	HC 0 FT	10 FT		1 FT	
SUPERSTRUCTURE : TIMBER DECK ON I-BEAMS					
SUBSTRUCTURE : END BENTS:TIMBER CAPS, POSTS & SILLS, TIMBER BULKHEADS					
SPANS : 1@25'6"					
BEAMS OR GIRDERS : 10 LINES OF W12X27 I-BEAMS @ VARIOUS CENTERS					
FLOOR :	ENCROACHMENT :		DECK (OUT TO OUT) :		
4X8" TIM, 2.5" AWS			20.083 FT		
CLEAR ROADWAY :	BETWEEN RAILS :		SIDEWALK OR CURB :		
19.167 FT	19.833 FT		LT .333 FT	RT .333 FT	
VERT.CL.OVER : 999.9 FT					
INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	DATE
HS-11	HS-18	Int Beam	SV 18	24	10/11/2010
SYSTEM : Secondary S.R. Route			GREEN LINE ROUTE : N		
UNDER ROUTES AND CLEARANCES					

REMARKS :

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection
 BRIDGE NO. 790260 COUNTY ROWAN ROUTE SR1535 OVER LITTLE CREEK
 STRUCTURE TYPE TIMBER DECK ON I-BEAMS
 ROUTE ORIENTATION S - N SPANS 1@25'6

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
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58	a. CONCRETE				c. SCOUR	G
	b. TIMBER	1	G		d. SLOPE PROT., RIP-RAP, DIKES, ETC.	G
	c. STEEL PLANK			50. APPROACH ROADWAY CONDITION		
	d. OPEN GRID			51. APPROACH SLABS		
3. RAILING	a. CONCRETE			52. PAINT SYSTEM		CODE A F
	b. TIMBER		G	53. UTILITIES		
	c. ALUMINUM			54. RESPONSE TO LIVE LOAD		
	d. STEEL			55. ESTIMATED REMAINING LIFE		
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	a. STEEL PL OR FINGER			61. PROMPT-ACTION NOTICE ISSUED		
	b. MISC PREFAB			62. PRESENTLY POSTED		
	c. COMPRESSION SEAL			63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)		
	d. STANDARD JOINTS			64. TOTAL SNOOPER INSP. TIME (HRS)		
	e. OPEN JOINTS			65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		
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			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				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)			G	b. APPR. RDWY. ALIGNMENT		8
17. MOVABLE SPAN MACHINERY						
				72. FIELD SCOUR EVALUATION		
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		F	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)			F			
40. FENDER SYSTEMS				80. INSPECTED BY:	<i>Tom Mfg</i>	
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 DREW HACKNEY			
Assisted By WC			
Item No.	Grade		
1	F	AWS CRACKING ALONG TIMBER DECKING PLANK EDGES.	
2b	G	SOME DISCOLORATION ON UNDERSIDE DECAY ON EAST END OF BOARD, 3' FROM END BENT 2	
4	G	TIMBERS WEATHERED AND CHECKED, LEFT WHEEL GUARD HAS BURN AREA 28"LONG X 2" DEEP AT MID-SPAN.	
10	F	BEAMS SHOWING SURFACE RUST ON FLANGES, BEAMS 6 AND 10 HAVE RUST SCALE ALONG TOP FLANGE EDGES, WITH FLANGE EDGES REDUCED TO 5/16" THROUGH OUT LENGTH. BEAM 10 HAS BOTTOM FLANGE DING, THAT IS BENT UPWARD 1" AT END BENT 2.	
10A	NO	NO CURVED GIRDERS	
52	F	SURFACE RUST ON BEAMS	
35a	G	TIMBERS WEATHERED AND CHECKED, SOFT ON ENDS.	
35b	F	TIMBERS WEATHERED AND CHECKED, SOFT AROUND GROUND LINES.	
35c	F	TIMBER BOARDS ARE WEATHERED WITH SOME DECAY ON WINGS	
39	F	BANKS HAVE WASHOUT AREAS AT CORNERS	
45c	G	POA HAS BEEN ADDED, IF SILLS HAVE MORE THAN 10% UNDERMINE CONTACT HYDRAULICS	
62	YES	SV 18; TTST 24	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 790260

County ROWAN

Date: 07/29/2014

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
5603	Partial Cleaning and Painting of Structural Steel	SF	400	SURFACE RUST ON BEAMS, RUST SCALE ON TOP FLANGE OF BEAMS 6 AND 10	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined



WEAR SURFACE CRACKING AT TIMBER DECKING BOARD JOINTS



RUST SCALE WITH SECTION LOSS ON TOP FLANGE OF BEAM 6



SURFACE RUST ON BEAM 6

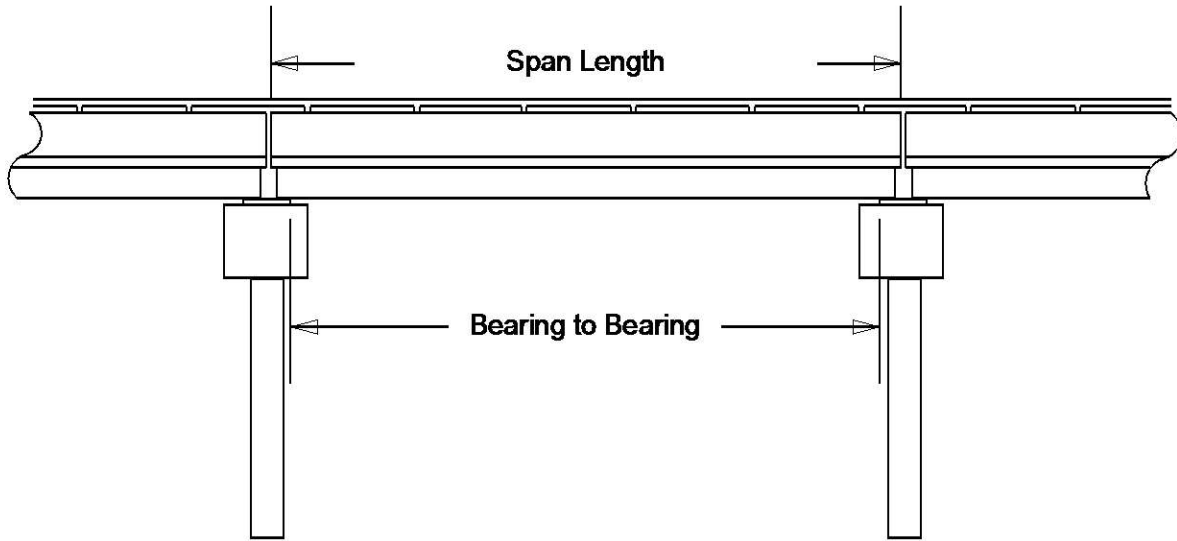


DECAY ON EAST END OF DECKING BOARD, 3' FROM END BENT 2

Structure Data Worksheet

Spans

County: ROWAN Structure No: 790260 Date: 07/29/2014 Inspected By: DH



Span No	Span Length	Bearing to Bearing	Comments
1	25.5	24.167	NBIS BL 23.5

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 790260 County: ROWAN Date: 07/29/2014 By: DH

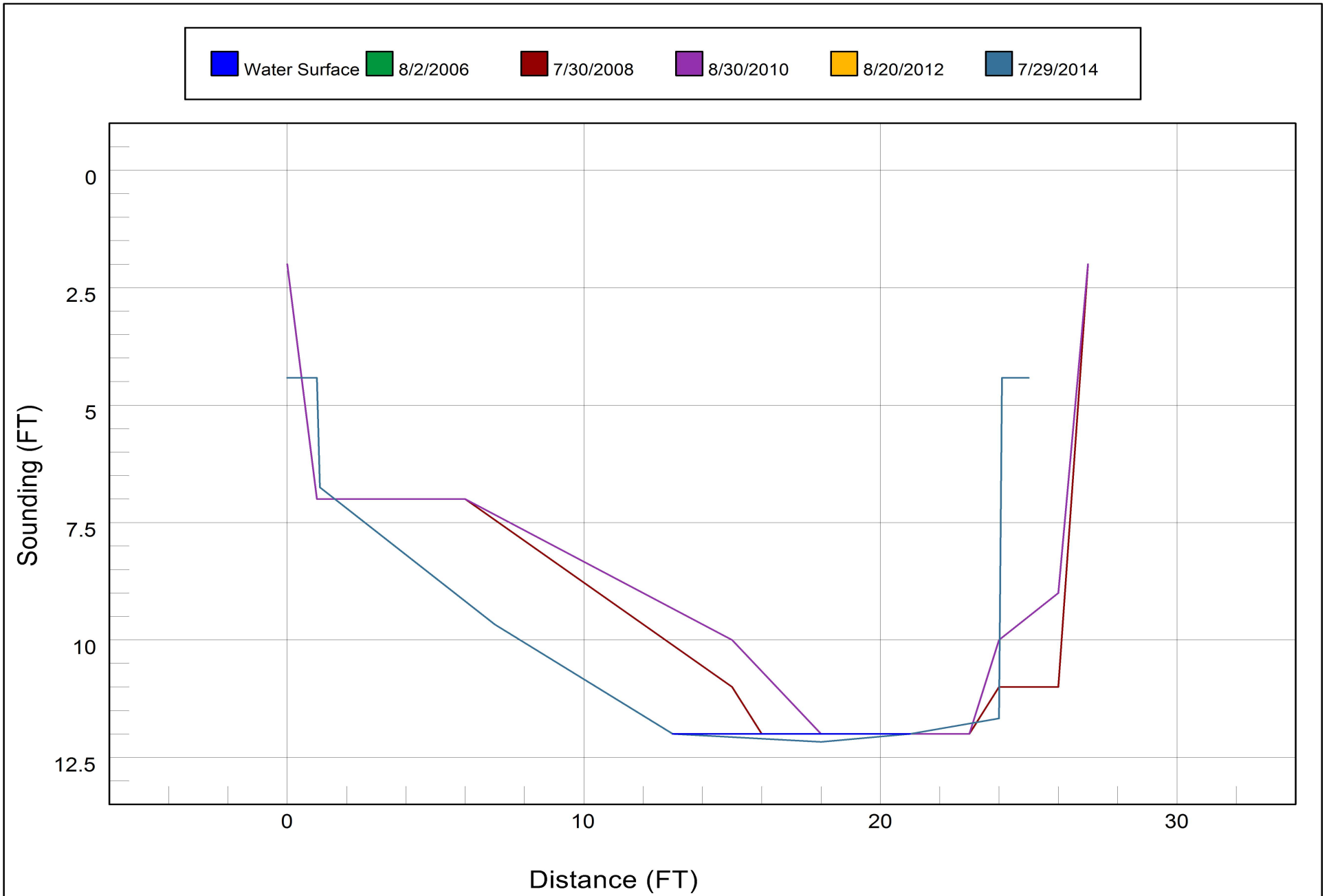
Record sounding from top of rail. Other location if needed: _____

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	4.42	Top of Cap			
1	4.42	Top of Cap	1	8	END BENT 1
1.1	6.75				
7	9.67				
13	12	WSWE			
18	12.17				
21	12	Water Surface/Water Edge (WSWE)			
24	11.67	GAC			
24.1	4.42	Top of Cap			
25	4.42	Top of Cap			

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch



Roadway	18ft Wide	2 Paved Lanes	Looking North
Left Shoulder	4ft Wide		4ft Unpaved
Right Shoulder	4ft Wide		4ft Unpaved
Left Guardrail			
Right Guardrail			

MEASUREMENTS VERIFIED BY DH 7/29/2014

Title

APPROACH ROADWAY SKETCH

Description

APPROACH ROADWAY SKETCH

Bridge No: 790260

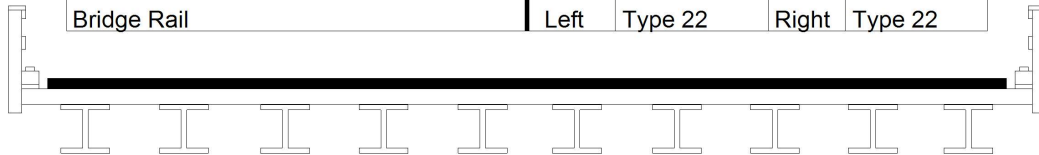
Drawn By: GDP

Date: 07/30/08

File Name: S0066001608

Bridge Inspection Field Sketch

Deck Width/Out to Out	20.083ft	Between Rails	19.833ft
Clear Roadway	19.167ft	Wearing Surface	.209ft
Median Width		Median Height	
Curb Height		Left .6ft	Right .6ft
Sidewalk Width		Left	Right
Clear Roadway (Rail to Median)		Left	Right
Guardrail Width		Left .5ft	Right .5ft
Top of Rail to Deck/Wearing Surface		Left 2.583ft	Right 2.583ft
Bridge Rail		Left Type 22	Right Type 22



Measurements for Span #	1		
Deck Thickness	.313	Left Overhang	.792
Top of Rail to Bottom of Beam	4.5	Right Overhang	.792

Beam Number	Beam Type	Spacing	Comments
1	Steel I Beam	2.063ft	
2	Steel I Beam	2.123ft	
3	Steel I Beam	2.063ft	
4	Steel I Beam	2.073ft	
5	Steel I Beam	1.98ft	
6	Steel I Beam	2.093ft	
7	Steel I Beam	2.052ft	
8	Steel I Beam	2.052ft	
9	Steel I Beam	2ft	
10	Steel I Beam	ft	

BEAM SIZE: 1ft HIGH X .542ft WIDE X .031ft FLANGE X .026ft WEB

MEASUREMENTS VERIFIED BY DH 7/29/2014

Title STRUCTURE DATA SKETCH		Description STRUCTURE DATA SKETCH	
Bridge No: 790260	Drawn By: GDP	Date: 07/30/08	File Name: S0066001609

[illegible]

[illegible]



NARROW BRIDGE SIGN



LOOKING SOUTH



WEIGHT LIMIT SIGN



NORTH APPROACH



WEST PROFILE



LOOKING DOWNSTREAM FROM TOP



LOOKING UPSTREAM FROM TOP



SOUTH APPROACH



LOOKING NORTH



EAST PROFILE



END BENT 1



LOOKING DOWNSTREAM



LOOKING UPSTREAM



UNDERSIDE OF DECK



END BENT 2