



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

TEMPORARY REPAIRS

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY DAVIDSON BRIDGE NUMBER 280095 INSPECTION CYCLE 2 YRS
ROUTE SR1838 ACROSS CREEK M.P. 0

LOCATION 0.4 MI. W. JCT. SR1813

SUPERSTRUCTURE TIMBER DECK ON I-BEAMS

SUBSTRUCTURE END BENTS:TIMBER CAPS & PILES,CONCRETE ENCASED

SPANS 1@26'0

LONGITUDE 80° 12' 39.93"

LATITUDE 35° 52' 58.80"

INSPECTION DATE 04/08/2013

PRESENT CONDITION GOOD

PRESENT POSTING SV 16 TTST 21 SV 16 TTST 21

PROPOSED POSTING

OTHER SIGNS PRESENT (4) DELINEATORS



LOOKING EAST

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

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

BRIDGE INSPECTION RECORD AND SUMMARY FOR SHORED STRUCTURES OR STRUCTURES WITH TEMPORARY REPAIRS MADE TO KEEP A BRIDGE OPEN

BRIDGE: **280095** County **Davidson** DATE: **5/13/2013**

THE FOLLOWING S. I. & A ITEMS ARE TO BE CODED TO REFLECT THE FACT THAT THE STRUCTURE IS SHORED OR HAS HAD TEMPORARY REPAIRS MADE TO KEEP THE BRIDGE OPEN :

	<u>CODE</u>	<u>BY</u>
S I & A ITEM 103 - TEMPORARY STRUCTURE DESIGNATION	T	TSE
S I & A ITEM 59 - SUPERSTRUCTURE		
S I & A ITEM 60 - SUBSTRUCTURE	3	TSE <i>5/13/13</i>
S I & A ITEM 64 OPERATING RATING		
HS <i>01</i>		BY:
S I & A ITEM 66 - INVENTORY RATING		
HS <i>01</i>		BY:

COMMENTS

Some pile have been supplemented and some are encased with concrete.

Temporary Repairs

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

Run Date: 05/13/2013

IDENTIFICATION							
(1) STATE NAME -NORTH CAROLINA	BRIDGE	280095		SUFFICIENCY RATING =	18.95		
(8) STRUCTURE NUMBER(FEDERAL)		00000000570095		STATUS =	Structurally Deficient		
(5) INVENTORY ROUTE (ON/UNDER) - ON		31018380					
(2) STATE HIGHWAY DEPARTMENT DISTRICT		1					
(3) COUNTY CODE	57	(4) PLACE CODE	0				
(6) FEATURE INTERSECTED - CREEK							
(7) FACILITY CARRIED SR1838							
(9) LOCATION	0.4 MI. W. JCT. SR1813						
(11) MILEPOINT		0					
(16) LAT	35° 52' 58.80"	(17) LONG	80° 12' 39.93"				
(98) BORDER BRIDGE STATE CODE		PCT SHARE					
(99) BORDER BRIDGE STRUCTURE NO							
STRUCTURE TYPE AND MATERIAL				CLASSIFICATION			
(43) STRUCTURE TYPE MAIN: Steel				(112) NBIS BRIDGE SYSTEM -	YES		
TYPE - Stringer Multibeam or Girder		CODE	302	(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 -	Load Factor					1	
(64) OPERATING RATING -	HS-1					1	
(65) INVENTORY RATING METHOD -	Load Factor					1	
(66) INVENTORY RATING -	HS-1					1	
(70) BRIDGE POSTING -	Posting Required					0	
(41) STRUCTURE OPEN, POSTED ,OR CLOSED						P	
DESCRIPTION -	Posted for Load						
				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	600	(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							
AGE AND SERVICE							
(27) YEAR BUILT		1953					
(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			300				
(30) YEAR OF ADT	2011	(109) TRUCK ADT PCT	6%				
(19) BYPASS OR DETOUR LENGTH		1 MI					
GEOMETRIC DATA							
(48) LENGTH OF MAXIMUM SPAN		25 FT					
(49) STRUCTURE LENGTH		26 FT					
(50) CURB OR SIDEWALK: LEFT	.333 FT	RIGHT	.333 FT				
(51) BRIDGE ROADWAY WIDTH CURB TO CURB		19.167 FT					
(52) DECK WIDTH OUT TO OUT		20.167 FT					
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)		16 FT					
(33) BRIDGE MEDIAN -	No Median	CODE	0				
(34) SKEW	30°	(35) STRUCTURE FLARED	0				
(10) INVENTORY ROUTE MIN VERT CLEAR		999.9 FT					
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR		19.167 FT					
(53) MIN VERT CLEAR OVER BRIDGE RDWY		999.9 FT					
(54) MIN VERT UNDERCLEAR REF	Not a Highway or Railroad	0 FT					
(55) MIN LAT UNDERCLEAR RT REF	Not a Highway or Railroad	000 FT					
(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: 05/13/2013

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :		
DAVIDSON	9	1	280095	26	FEET	
ROUTE CARRIED :		FEATURE INTERSECTED :				
SR1838		CREEK				
LOCATED :		BRIDGE NAME :			CITY :	
0.4 MI. W. JCT. SR1813						
FUNC. CLASS :		SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :	
09		NFA	NFA	300 2011	LT 227 RT 227	
BUILT :		BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :	
1953		BMU			Unknown	
REHAB :		BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :
				TAN	60	ON 2 UNDER 0
NAVIGATION :		HT. CRN. TO BED :		WATER DEPTH :		
VC 0 FT HC 0 FT		11 FT		1 FT		
SUPERSTRUCTURE : TIMBER DECK ON I-BEAMS						
SUBSTRUCTURE : END BENTS:TIMBER CAPS & PILES,CONCRETE ENCASED						
SPANS : 1@26'0						
BEAMS OR GIRDERS : 9 LINES OF W12X27 I-BEAMS @ 2'6 1/2 CENTERS						
FLOOR :		ENCROACHMENT :		DECK (OUT TO OUT) :		
4X8 TIM,2.0 AWS				20.167 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 :	DATE	
HS-1		HS-1	Int W 12 x 27	SV 16 TTST 21	06/06/2007	
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. 280095 COUNTY DAVIDSON ROUTE SR1838 OVER CREEK
 STRUCTURE TYPE TIMBER DECK ON I-BEAMS
 ROUTE ORIENTATION W - E SPANS 1@26'0

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	F	
					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			F
	b. TIMBER	1	G	51. APPROACH SLABS			
	c. STEEL PLANK			52. PAINT SYSTEM			CODE A G
	d. OPEN GRID			53. UTILITIES			
3. RAILING	a. CONCRETE			54. RESPONSE TO LIVE LOAD			G
	b. TIMBER		G	55. ESTIMATED REMAINING LIFE			20
	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)			5
	c. COMPRESSION SEAL			64. TOTAL SNOOPER INSP. TIME (HRS)			0
	d. STANDARD JOINTS			65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)			0
	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			G	b. SUPERSTRUCTURE	ITEM 59	7	
11. LONGITUDINAL JOIST OR STRINGERS				c. SUBSTRUCTURE	ITEM 60	7	
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			O
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 NO
	b. PILES, POST, SILLS, & BRACING		F	LADDER			NO
	c. BULKHEADS, WING'S, & TIE BACKS		G	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		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:	BT H. D. 2006		
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 BRIAN HEDRICK			
Assisted By TIM POOLE			
Item No.	Grade		
1	F	CRACKS IN AWS UP TO 1/8 IN. Wx FULL WIDTH OF DECK THRU-OUT.	
10A	NO	NO CURVED GIRDERS	
35b	F	TIMBER POST 1 IN ABUT 2 IS 1/4 IN. SOFT AND CHECKING. THE FOLLOWING TIMBER POST HAVE TEMPORARY REPAIRS. ABUT 1 TIMBER POST 1, 1 FT. TIMBER POST BOLTED TO RIGHT SIDE. ABUT 1 TIMBER POST 2, 1 FT. TIMBER POST BOLTED TO RIGHT SIDE. ABUT 1 TIMBER POST 3, 1 FT. TIMBER POST BOLTED TO LEFT SIDE. (7) GOOD- TIMBER POST 2 AND 3 IN ABUT 2 REPLACED WITH 1 FT. TIMBER POST.	
35c	G	4 FT. TOP SECTION OF ABUT 1 BACKWALL REPLACED AND ALL OF ABUT 2 BACKWALL REPLACED. (5) FAIR- BOTTOM SECTION OF ABUT 1.	
36e	F	ABUT 1 ENCASEMENT IS PITTED UP TO 1/2 IN DEEP. ABUT 2 ENCASEMENT NOT VISIBLE.	
45b	F	STREAM FLOWS ALONG ABUT 1 ENCASEMENT.	
50	F	BOTH APPROACHES CRACKED AND SETTLED UP TO 1 IN.	
62	YES	SV 16 TTST 21	
72	O	SEE BRIDGE SCOUR ASSESSMENT 5-20-10	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 280095

County DAVIDSON

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
2816	Asphalt Surface Repair or Replacement	SY	10	BOTH APPROACHES CRACKED AND SETTLED. CRACKS IN ASPHALT WEARING SURFACE.	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined



EAST APPROACH SETTLED UP TO 1 IN.

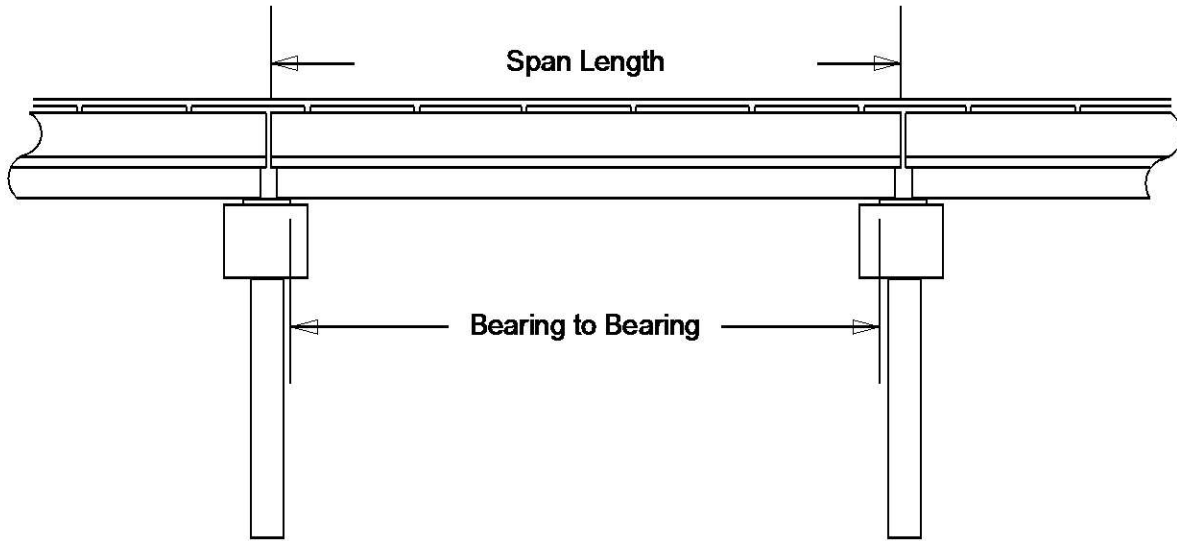


CRACKS IN ASPHALT WEARING SURFACE

Structure Data Worksheet

Spans

County: DAVIDSON Structure No: 280095 Date: 04/08/2013 Inspected By: BTH



Span No	Span Length	Bearing to Bearing	Comments
1	26	25.167	NBIS BL : 22.833 FT

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 280095 County: DAVIDSON Date: 04/08/2013 By: BTH

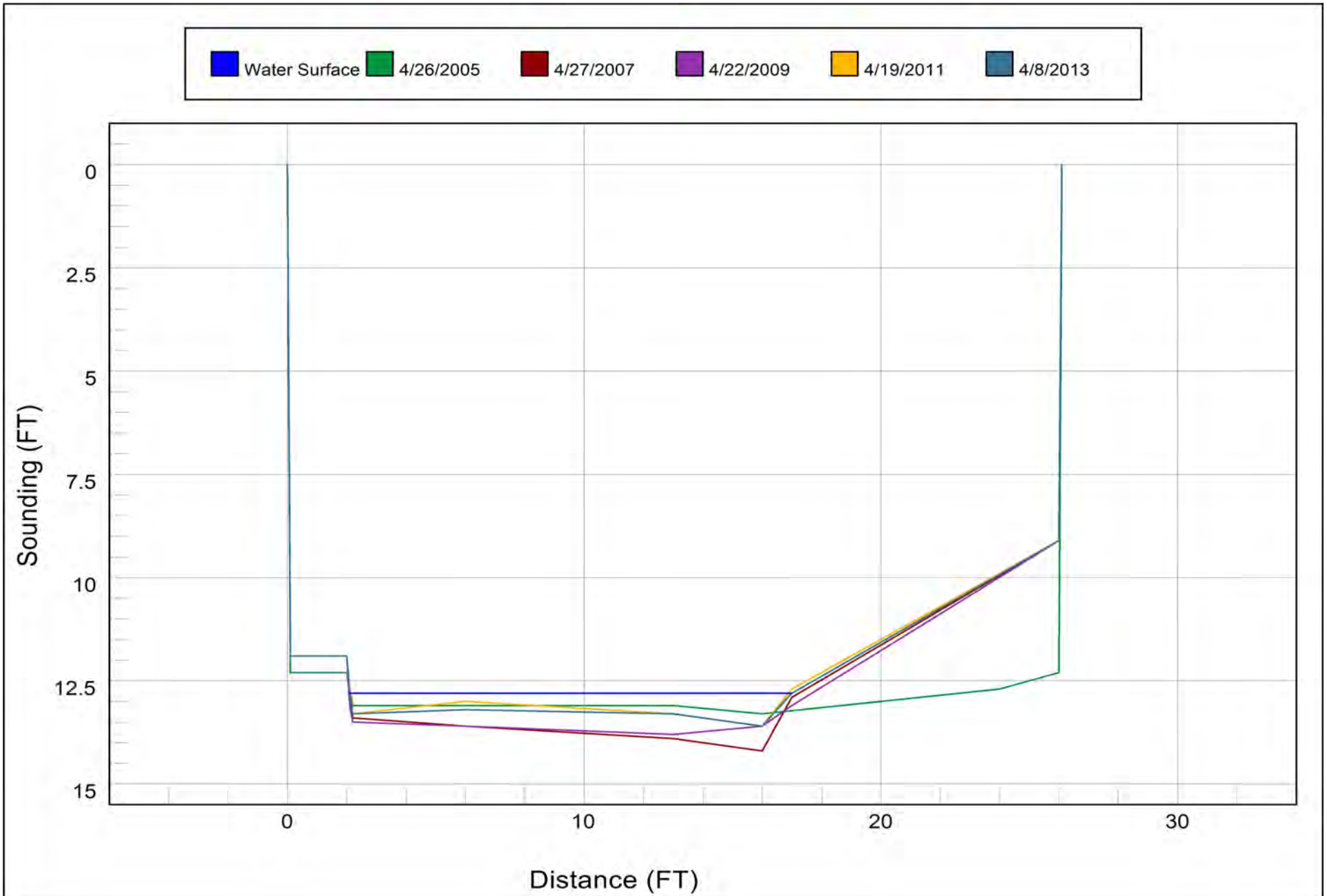
Record sounding from top of rail. Other location if needed: _____

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

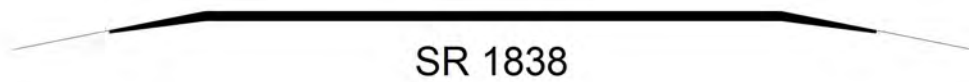
DOWNSTREAM			UPSTREAM		
Distance (Station) (ft)	Sounding (ft)	Description	Distance (Station) (ft)	Sounding (ft)	Description
0	0	ABUT 1	0	0.0	ABUT 1
0.1	11.9				
2	11.9				
2.1	12.8	WS WE	2.1	13.6	
2.2	13.3				
6	13.2				
13	13.3				
16	13.6				
17	12.8	WS WE			
26	9.1		26	10.2	
26.1	0	ABUT 2	26.1	0.0	ABUT 2

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch

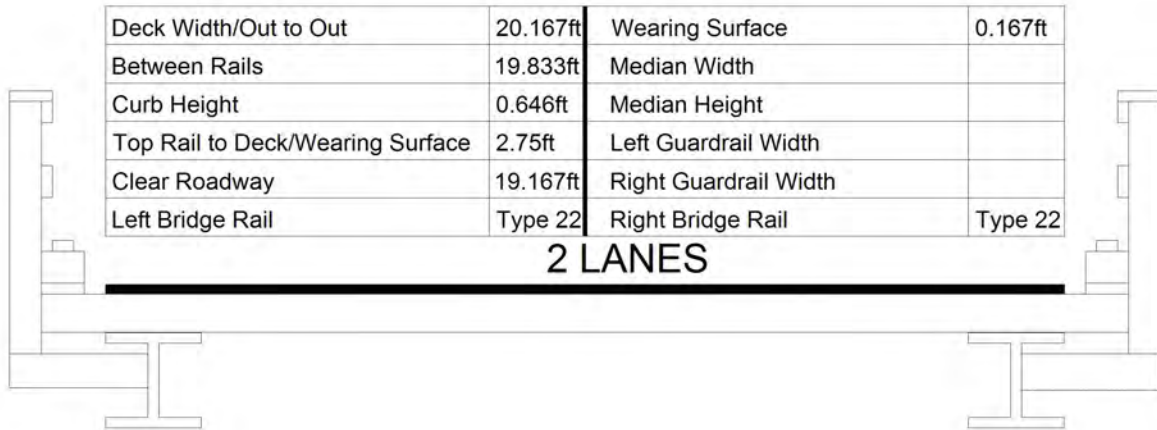


Roadway	16ft Wide	2 Paved Lanes	Looking East
Left Shoulder	6ft Wide		6ft Unpaved
Right Shoulder	6ft Wide		6ft Unpaved
Left Guardrail			
Right Guardrail			

MEASUREMENTS VERIFIED 4-08-13 BTH
MEASUREMENTS VERIFIED 4-19-11 BTH
MEASUREMENTS VERIFIED 4-22-09 BTH

Title APPROACH ROADWAY		Description SHEET 1	
Bridge No: 280095	Drawn By: BTH	Date: 04/26/07	File Name: S0090000119

Bridge Inspection Field Sketch



Measurements for Span #	1		
Deck Thickness	0.313	Left Overhang	1.083
Top of Rail to Bottom of Beam	4.583	Right Overhang	1.083

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	2.25	
2	Steel I Beam	2.25	
3	Steel I Beam	2.25	
4	Steel I Beam	2.25	
5	Steel I Beam	2.25	
6	Steel I Beam	2.25	
7	Steel I Beam	2.25	
8	Steel I Beam	2.25	
9	Steel I Beam		

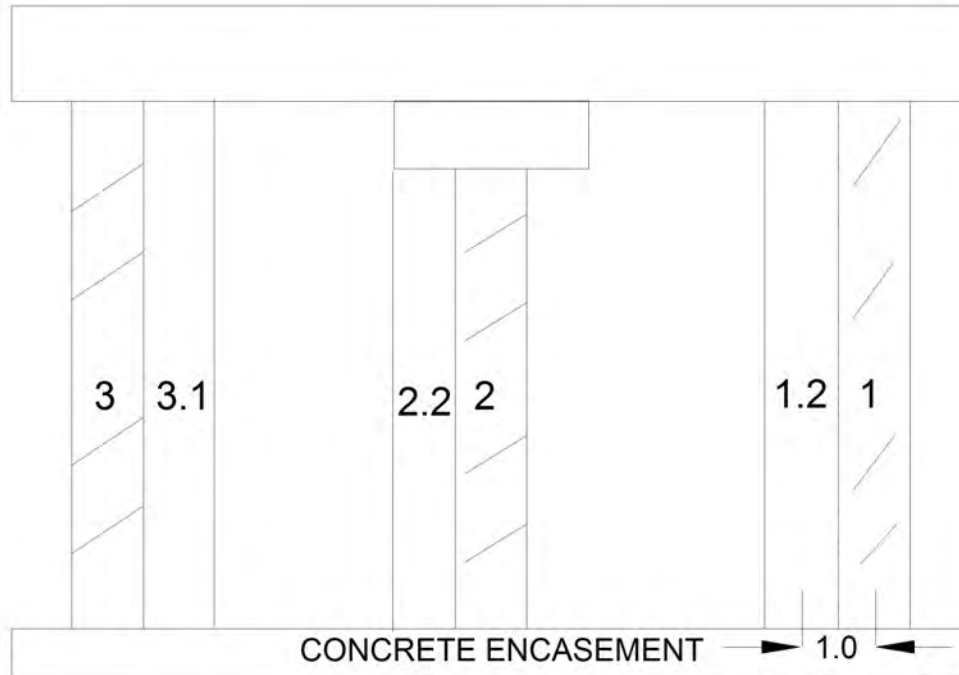


BEAMS	WIDTH	HEIGHT	FLANGE	WEB
ALL	.542	1.0	.026	.020

MEASUREMENTS VERIFIED 4-08-13 BTH
 MEASUREMENTS VERIFIED 4-19-11 BTH
 MEASUREMENTS VERIFIED 4-22-09 BTH

Title SUPERSTRUCTURE		Description SHEET 2	
Bridge No: 280095	Drawn By: BTH	Date: 04/26/07	File Name: S0090000120

Bridge Inspection Field Sketch



Abutment #	1		
Cap - Beam Type (Wood or Steel)			
Cap Size	25ft Long	.959ft Wide	0.833ft High
Left Overhang	3.583ft	Lt Cap/Beam Overhang	2.667ft
Right Overhang	4ft	Rt Cap/Beam Overhang	1.833ft
Timber Sub Cap			
Size	3ft Long	.980ft Wide	0.833ft High
Left pile to splice			
Left Overhang	2.5ft		
Right Overhang	.5ft		
Sill - Sill			
Sill Size	28ft Long	2ft Wide	2ft High

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Pile Bent	9.583		1.0 ft. Dia.		Vertical
2	Wood or Timber	Pile Bent	7.417		1.0 ft. Dia.		Vertical
3	Wood or Timber	Pile Bent			1.0 ft. Dia.		Vertical

MEASUREMENTS VERIFIED 4-08-13 BTH
 MEASUREMENTS VERIFIED 4-19-11 BTH
 MEASUREMENTS VERIFIED 4-22-09 BTH

Title

ABUT 1

Description

SHEET 3

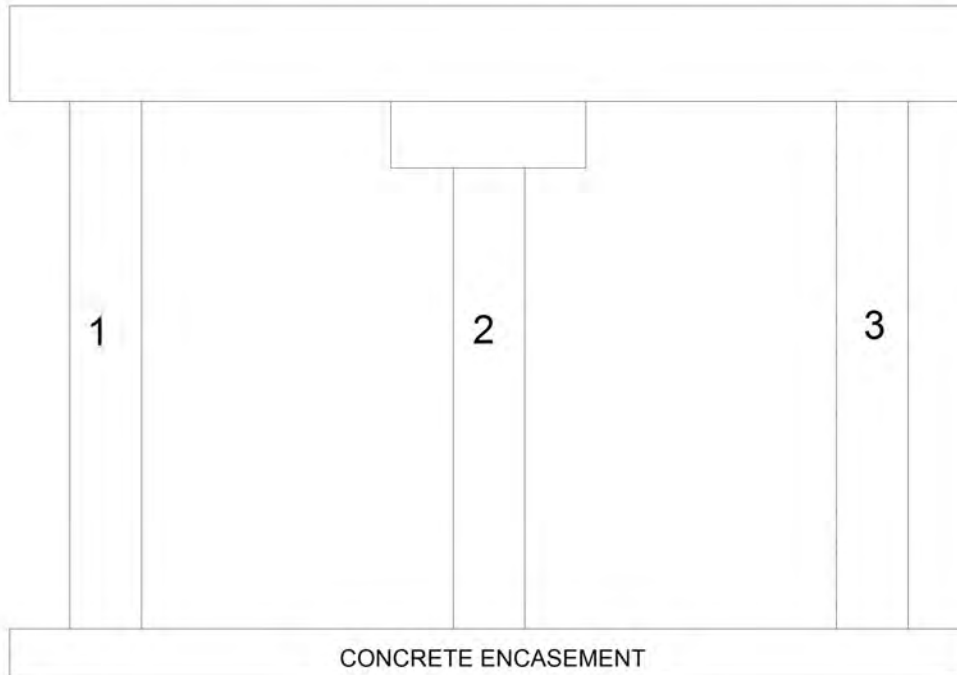
Bridge No: 280095

Drawn By: BTH

Date: 04/26/07

File Name: S0090000121

Bridge Inspection Field Sketch



Abutment #	2		
Cap - Beam Type (Wood or Steel)			
Cap Size	24ft Long	1ft Wide	0.833ft High
Left Overhang	3.417ft	Lt Cap/Beam Overhang	1ft
Right Overhang	3.333ft	Rt Cap/Beam Overhang	2.75ft
Timber Sub Cap			
Size	3ft Long	1ft Wide	0.792ft High
Left pile to splice			
Left Overhang	1.5ft		
Right Overhang	1.5ft		
Sill - Sill			
Sill Size	28ft Long	2ft Wide	2ft High

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Pile Bent	8.417 ft.		1.0 ft.Dia.		Vertical
2	Wood or Timber	Pile Bent	8.75 ft.		1.0 ft.Dia.		Vertical
3	Wood or Timber	Pile Bent			1.0 ft.Dia.		Vertical

MEASUREMENTS VERIFIED 4-08-13 BTH
 MEASUREMENTS VERIFIED 4-19-11 BTH
 MEASUREMENTS VERIFIED 4-22-09 BTH

Title ABUT 2		Description SHEET 4	
Bridge No: 280095	Drawn By: BTH	Date: 04/26/2007	File Name: S0090000157



LOOKING WEST



EAST POSTING



LOOKING NORTH



DOWNSTREAM



UPSTREAM



LOOKING EAST



LOOKING SOUTH



WEST POSTING



ABUT 2



UPSTREAM



ABUT 1 WITH TEMPORARY REPAIRS



SUPERSTRUCTURE SPAN



DOWNSTREAM