



NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 BRIDGE MANAGEMENT UNIT

ATTENTION

PRIORITY MAINT. SUBMITTED.  
 SIGN NOTICE SUBMITTED.  
 SHORED.

# BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY SAMPSON BRIDGE NUMBER 810034 INSPECTION CYCLE 2 YRS  
BRANCH SIX RUNS CREEK  
 ROUTE SR1945 ACROSS BRANCH SIX RUNS C M.P. 0

LOCATION 0.2 MI E JCT SR1960

SUPERSTRUCTURE RC FLOOR ON TIM.JOIST;(BMD-10)

SUBSTRUCTURE EBTS&BTS:TIM.CAPS/TIM.PILES;E.BT1:STL CRUTCH

SPANS 1@17'6;1@17';1@17'7

LONGITUDE 78° 14' 10.9"

LATITUDE 34° 50' 50.8"

PRESENT CONDITION FAIR

INVENTORY RATING H5-01

INSPECTION DATE 08/04/2010

OPERATING RATING H5-01

PRESENT POSTING SV 32 TTST 36 **NOT POSTED**

PROPOSED POSTING SV 20 TTST 27 TOWS

COMPUTER UPDATE 9-1-10

ANALYSIS DATE 8-25-10

POSTING LETTER DATE 9-1-10

SUFFICIENCY RATING \_\_\_\_\_

OTHER SIGNS PRESENT 4 DELINEATORS



LOOKING EAST

SIGN NOTICE ISSUED FOR	NUMBERED REQUIRED
Yes WEIGHT LIMIT	<u>2</u>
Yes DELINEATORS	<u>1</u>
No NARROW BRIDGE	_____
No ONE LANE BRIDGE	_____
No LOW CLEARANCE	_____

NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL Run Date: 09/02/2010

IDENTIFICATION				CLASSIFICATION			
(1) STATE NAME -NORTH CAROLINA	BRIDGE	810034		SUFFICIENCY RATING =			25.3
(8) STRUCTURE NUMBER(FEDERAL)		00000001630034		STATUS =	Structurally Deficient		
INVENTORY ROUTE (ON/UNDER) - ON		131019450					
(2) STATE HIGHWAY DEPARTMENT DISTRICT		3					
(3) COUNTY CODE 163	(4) PLACE CODE	00000		(112)NBIS BRIDGE SYSTEM -			YES
(6) FEATURE INTERSECTED - BRANCH SIX RUNS C				(104)HIGHWAY SYSTEM NON NHS Route			0
(7) FACILITY CARRIED SR1945				(26) FUNCTIONAL CLASS - Local			09
(9) LOCATION 0.2 MI E JCT SR1960				(100)STRAHNET HIGHWAY - Not a STRAHNET Route			0
(11)MILEPOINT		0		(101)PARALLEL STRUCTURE - No Parallel Structure			N
(16)LAT 34° 50' 50.8"	(17)LONG 78° 14' 10.9"			(102)DIRECTION OF TRAFFIC - 2-way Traffic			2
(98)BORDER BRIDGE STATE CODE	PCT SHARE			(103)TEMPORARY STRUCTURE - Temporary			T
(99)BORDER BRIDGE STRUCTURE NO				(110)DESIGNATED NATIONAL NETWORK - Not Part of			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				(58) DECK			5
TYPE - Stringer Multibeam or Girder	CODE	702		(59) SUPERSTRUCTURE			5
(44) STRUCTURE TYPE APPR :				(60) SUBSTRUCTURE			4
TYPE -	CODE			(61) CHANNEL & CHANNEL PROTECTION			6
(45) NUMBER OF SPANS IN MAIN UNIT		3		(62) CULVERTS			N
(46) NUMBER OF APPROACH SPANS							
(107)DECK STRUCTURE TYPE - Concrete cast-in-place	CODE	1		LOAD RATING AND POSTING			
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(31) DESIGN LOAD Other or Unknown			0
(A) TYPE OF WEARING SURFACE - Concrete	CODE	1		(64) OPERATING RATING - HS-1			101
(B) TYPE OF MEMBRANE - None	CODE	0		(66) INVENTORY RATING - HS-1			101
(C) TYPE OF DECK PROTECTION - None	CODE	0		(70) BRIDGE POSTING - Posting Required			1
				(41) STRUCTURE OPEN, POSTED, OR CLOSED			P
				DESCRIPTION - Posted for Load			
AGE AND SERVICE				APPRAISAL			
(27) YEAR BUILT		1950		(67) STRUCTURAL EVALUATION			2
(106)YEAR RECONSTRUCTED				(68) DECK GEOMETRY			4
(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			8
(29) AVERAGE DAILY TRAFFIC		620		(36) TRAFFIC SAFETY FEATURES			0000
(30) YEAR OF ADT 2008	(109) TRUCK ADT PCT	6 %		(113)SCOUR CRITICAL BRIDGES			U
(19) BYPASS OR DETOUR LENGTH		9 MI		SCOUR PLAN OF ACTION			
GEOMETRIC DATA				PROPOSED IMPROVEMENTS			
(48) LENGTH OF MAXIMUM SPAN		18 FT		(75) TYPE OF WORK -	CODE	311	
(49) STRUCTURE LENGTH		52 FT		(76) LENGTH OF STRUCTURE IMPROVEMENT		75 FT	
(50)CURB OR SIDEWALK: LEFT 0.8 FT RIGHT 0.8 FT				(94) BRIDGE IMPROVEMENT COST		\$161,000	
(51) BRIDGE ROADWAY WIDTH CURB TO CURB		24.0 FT		(95) ROADWAY IMPROVEMENT COST		\$40,000	
(52) DECK WIDTH OUT TO OUT		25.3 FT		(96) TOTAL PROJECT COST		\$242,000	
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)		18.0 FT		(97) YEAR OF IMPROVEMENT COST ESTIMATE		2007	
(33) BRIDGE MEDIAN - No Median	CODE	0		(114)FUTURE ADT 1240	(115) YEAR FUTURE ADT	2025	
(34) SKEW 0° (35) STRUCTURE FLARED		NO		INSPECTIONS			
(10) INVENTORY ROUTE MIN VERT CLEAR		99 FT 99 IN		(90) INSPECTION DATE		08/04/2010	
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR		24.0 FT		(92) CRITICAL FEATURE INSPECTION :		(93) CFI DATE	
(53) MIN VERT CLEAR QVER BRIDGE RDWY		99 FT 99 IN		A) FRACTURE CRIT DETAIL -	NO	A)	
(54) MIN VERT UNDERCLEAR REF Not a Highway or Railroad				B) UNDERWATER INSP -	NO	B)	
(55) MIN LAT UNDERCLEAR RT REF Not a Highway or Railroad		99.9 FT		C) OTHER SPECIAL INSP	NO	C)	
(56) MIN LAT UNDERCLEAR LT REF -		0.0 FT		SCOUR			
NAVIGATION DATA							
(38) NAVIGATION CONTROL - No Navigational Control	CODE	0					
(111)PIER PROTECTION - Not Applicable	CODE						
(39) NAVIGATION VERTICAL CLEARANCE		0					
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR							
(40) NAVIGATION HORIZONTAL CLEARANCE		0					



# BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection  
 BRIDGE NO. 810034 COUNTY SAMPSON ROUTE SR1945 OVER BRANCH SIX RUNS C  
 STRUCTURE TYPE RC FLOOR ON TIM. JOIST; (BMD-10)  
 ROUTE ORIENTATION W - E SPANS 1@17'6"; 1@17'; 1@177

EVALUATION CODE: 0-2 CRITICAL, 3 & 4 POOR, 5 & 6 FAIR, 7-9 GOOD

INSPECTION ITEM			ITEM 61		
DECK ITEMS		GRADES			
1. WEARING SURFACE			45. CHANNEL & CHANNEL PROT.	a. WATERWAY	6
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58		3      5		b. ALIGNMENT	7
a. CONCRETE				c. SCOUR	6
b. TIMBER				d. SLOPE PROT., RIP-RAP, DIKES, ETC.	
c. STEEL PLANK			50. APPROACH ROADWAY CONDITION	5	
d. OPEN GRID			51. APPROACH SLABS		
3. RAILING			52. PAINT SYSTEM	CODE	
a. CONCRETE		6	53. UTILITIES		
b. TIMBER			54. RESPONSE TO LIVE LOAD	7	
c. ALUMINUM			55. ESTIMATED REMAINING LIFE	7	
d. STEEL					
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS		5			
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)			60. REGULATORY SIGN NOTICE ISSUED	NO	
6. DECK EXP JTS. OR DEVICES. NO. OF EACH			61. PROMPT-ACTION NOTICE ISSUED	NO	
a. STEEL PL OR FINGER			62. PRESENTLY POSTED	NO	
b. MISC PREFAB			63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)	16	
c. COMPRESSION SEAL			64. TOTAL SNOOPER INSP. TIME (HRS)		
d. STANDARD JOINTS		2      5	65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		
e. OPEN JOINTS					
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)		5	70. SI&A GENERAL CONDITION RATINGS		
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59			a. DECK	ITEM 58	5
10. LONGITUDINAL BEAMS OR GIRDERS			b. SUPERSTRUCTURE	ITEM 59	5
11. LONGITUDINAL JOIST OR STRINGERS		5	c. SUBSTRUCTURE	ITEM 60	5
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			d. CHANNEL & CHANNEL PROT.	ITEM 61	6
13. END DIAP'S, CURTAIN WALLS, & CONN'S		7	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)		5			
17. MOVABLE SPAN MACHINERY			72. FIELD SCOUR EVALUATION	0	
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)			USE OF INSP. ACCESSIBILITY EQUIPMENT		
35. TIM SUB STR.			a. ABUT. & INT. BENT CAPS & RISERS	5	
b. PILES, POST, SILLS, & BRACING		5	SNOOPER (CODE S, 4, OR N)	HRS	NO
c. BULKHEADS, WING'S, & TIE BACKS		5	LADDER		NO
36. CONC SUB STR.			BUCKET TRUCK		NO
a. ABUT. & INT. BENT CAPS			BOAT		YES
b. ABUT. & BENT COL'S BREASTWALLS			OTHER		NO
c. ABUT. & INT. BENT PILES					
d. BACKWALLS, WING'S, RETAIN. WALLS					
e. ABUT. & BENT FOOTINGS & SILLS					
37. STEEL SUB STR.			SPECIAL INSPECTION REQUESTED FOR		
a. ABUT. & INT. BENT CAPS & RISERS		7			
b. PILES, BRACING, AND BULKHEADS		7			
38. FOUNDATION PILES TYPE MATERIAL			NOTE		
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)					
40. FENDER SYSTEMS			80. INSPECTED BY:	<i>Byron Cook</i>	
41. DRIFT		7	81. REVIEWED BY:		

# BRIDGE INSPECTION RECORD AND SUMMARY FOR SHORED STRUCTURES

BRIDGE # 810034 COUNTY SAMPSON DATE 8-26-02

THE FOLLOWING SI & A ITEMS ARE TO BE CODED TO REFLECT THE FACT THAT THE STRUCTURE IS SHORED UP:

		<u>CODE</u>	<u>BY</u>
SI & A ITEM 103 - TEMPORARY STRUCTURE DESIGNATION		<u>T</u>	<u>JRJ</u>
SI & A ITEM 59 - SUPERSTRUCTURE		<u>—</u>	<u>—</u>
SI & A ITEM 60 - SUBSTRUCTURE		<u>4</u>	<u>JRJ</u>
SI & A ITEM 64 - OPERATING RATING	BS <u>00</u> BY <u>SML</u>	<u>01</u>	<u>VPP</u>
SI & A ITEM 66 - INVENTORY RATING	BS <u>00</u> BY <u>SML</u>	<u>01</u>	<u>VPP</u>

COMMENTS:

ADDED CRUTCH BELT @ END BELT # 1

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Bridge I&A Form 1(82)H		<b>FIELD INSPECTION REPORT</b> <u>Bridge Inspection &amp; Analysis</u>
State of North Carolina Dept. of Transportation Division of Highways		
Team Leader <b>BRYAN CROOM</b>		
Assisted By <b>RGM</b>		
Item No.	Grade	
2a	5	TRANSVERSE CRACKING IN DECK OVER END BENTS UP TO 1/8" WIDE. HAIRLINE MAPCRACKING IN DECK IN ALL SPANS. PATCHED AREAS IN SPAN 1 DECK OVER END BENT 1. SPAN 3 DECK AT CENTERLINE ALONG BENT 2 CRACKED AND SPALLED AREA 4" WIDE X 12" LONG X 1" DEEP. LONGITUDINAL CRACKING IN SPAN 2 DECK UP TO .013" WIDE. SPAN 3 DECK CRACKED AND DELAMINATED AREA ALONG BENT 2 JOINT IN WEST BOUND LANE 18" LONG X 2" WIDE.
3a	6	HORIZONTAL CRACKING ALONG NORTH RAIL BAR. RAILS WEATHERED WITH EXPOSED AGGREGATE.
4	5	CURBS WEATHERED WITH EXPOSED AGGREGATE.
6d	5	BENT 2 JOINT MATERIAL MISSING AND LOOSE IN A 2' LONG AREA. THERE ARE SIGNS OF JOINT LEAKAGE ALONG BENT 1 AND 2 CAPS.
7	5	GROWTH AND DEBRIS ALONG SOUTH CURB IN SPAN 1. GROWTH AND DEBRIS BUILDUP AT CORNERS OF BRIDGE.
11	5	LONGITUDINAL CRACKING ALONG JOIST UP TO 1/8" WIDE. JOIST 1 IN SPAN 1 AT END BENT 1 SECTION LOSS 38" LONG X 2" WIDE X 2" HIGH.
16	5	GROWTH AND DEBRIS ALONG SOUTH CURB IN SPAN 1. GROWTH AND DEBRIS BUILDUP AT CORNERS OF BRIDGE.
35a	5	TIMBER CAPS                    4 NORTH END OF BENT 1 CAP DECAYED 5" WIDE X 10" HIGH X 12" DEEP. (A PRIORITY MAINT. SUBMITTED FOR THIS CONDITION)
		REMAINING TIMBER CAPS                    5 BENT 1 CAP AT SOUTH END 2 DECAYED AREAS 2" DIA. X 6" DEEP. BENT 1 CROWNSTRIIP AT SOUTH END DECAYED 1" WIDE X 20" LONG. LONGITUDINAL CRACKING ALONG CAPS UP TO 1/8" WIDE. SOUTH END OF END BENT 2 CAP DECAYED 10" WIDE X 3" HIGH X 2" DEEP. END BENT 2 CAP ROLLED BACK 1/4". END BENT 2 SUBCAP ROLLED BACK 2". NORTH END OF END BENT 2 CAP DECAYED 12" LONG X 4" WIDE X 2" HIGH.

Bridge I&A Form 1(82)H State of North Carolina Dept. of Transportation Division of Highways	<h2 style="margin: 0;">FIELD INSPECTION REPORT</h2> <p style="margin: 0;"><u>Bridge Inspection &amp; Analysis</u></p>	
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Team Leader **BRYAN CROOM**

Assisted By **RGM**

Item No.	Grade	
35b	5	<p>TIMBER PILES 4 PILE 2 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE.            PILE 3 AT END BENT 2 DECAYED AT TOP PORTION 12" WIDE X 12" HIGH X 8" DEEP.            PILE 1 AT END BENT 2 PUSHED OUT 1" DUE TO BULKHEAD PRESSURE.            PILE 1 AT BENT 1 EAST SIDE DECAYED 32" HIGH X 6" DEEP X 1/2 CIRCUMFERENCE.            PILE 5 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE.            PILE 3 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE.</p> <p>REMAINING TIMBER PILES 5            LONGITUDINAL CRACKING IN PILES UP TO 1/8" WIDE.            CROSSBRACE AT BENT 1 EAST SIDE AT PILE 4 SPLIT AT CONNECTION BOLT 1" WIDE X 15" LONG.            BENT 1 CROSSBRACE SPAN 1 SIDE AT PILE 1 DECAYED 4' LONG.</p>
35c	5	<p>SOUTHWEST WINGWALL DISPLACED AND DECAYED BOARDS WITH FILL LEAKAGE AT TOP PORTION.            SOUTHEAST EXTERIOR BULKHEAD/WINGWALL DECAYED AND DISPLACED BOARDS.            END BENT 2 BULKHEAD AT PILE 5 DECAYED AREA WITH EXPOSED FILL.            END BENT 2 BULKHEAD BOARDS PUSHED OUT UP TO 1".</p>
37a	7	<p>THERE IS A STEEL CAP AT THE END BENT 1 CRUTCHBENT.</p>
37b	7	<p>THERE ARE STEEL "H" PILES AT THE END BENT 1 CRUTCHBENT.            PAINT PEELING WITH SURFACE RUST ON TOP PORTION OF STEEL PILES AT END BENT 1.</p>
41	7	<p>DRIFT COLLECTING AT PILE 3 OF BENT 1.</p>
45a	6	<p>HIGH WATER LEVEL IS ON TOP OF DECK.</p>
50	5	<p>WEST APPROACH ASPHALT WEARING SURFACE CRACKED AND SETTLED UP TO 2".            NORTHEAST DELINEATOR DAMAGED.</p>

# BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 810034

County SAMPSON

Date: 08/04/2010

**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	1	WEST APPROACH ASPHALT WEARING SURFACE CRACKED AND SETTLED UP TO 2"	
3310 <i>(520)</i>	Maintenance/Repair/Replacement of Standard Bridge Expansion Joints	LF	50	BENT 2 JOINT MATERIAL MISSING AND LOOSE IN A 2' LONG AREA. THERE ARE SIGNS OF JOINT LEAKAGE ON THE UNDERSIDE.	
3326 <i>(560)</i>	Maintain Concrete Deck	SF	3	SPAN 3 DECK AT CENTERLINE ALONG BENT 2 CRACKED AND SPALLED AREA 4" WIDE X 12" LONG X 1" DEEP. SPAN 3 DECK CRACKED AND DELAMINATED AREA ALONG BENT 2 JOINT IN WEST BOUND LANE 18" LONG X 2" WIDE.	
3342 <i>(554)</i>	Clean and Paint Structural Steel	SF	20	PAINT PEELING WITH SURFACE RUST ON TOP PORTION OF STEEL PILES AT END BENT 1	
3344 <i>(580)</i>	Repair / Replace Timber Substructure Components	LF	10	PILE 1 AT BENT 1 EAST SIDE DECAYED 32" HIGH X 6" DEEP X 1/2 CIRCUMFERENCE.	
3344	Repair / Replace Timber Substructure Components	LF	10	PILE 1 AT END BENT 2 PUSHED OUT 1" DUE TO BULKHEAD PRESSURE.	
3344	Repair / Replace Timber Substructure Components	LF	10	PILE 2 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE.	
3344	Repair / Replace Timber Substructure Components	LF	10	PILE 3 AT END BENT 2 DECAYED AT TOP PORTION 12" WIDE X 12" HIGH X 8" DEEP.	
3344	Repair / Replace Timber Substructure Components	LF	10	PILE 3 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE.	
3344 <i>(580)</i>	Repair / Replace Timber Substructure Components	LF	10	PILE 5 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE.	

**Key**



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined



# BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 810034

County SAMPSON

Date: 08/04/2010

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3344 <i>(580)</i>	Repair / Replace Timber Substructure Components	LF	25	NORTH END OF BENT 1 CAP DECAYED 5" WIDE X 10" HIGH X 12" DEEP.	
3344 <i>(580)</i>	Repair / Replace Timber Substructure Components	LF	81	BENT 1 CROSSBRACE SPAN 1 SIDE AT PILE 1 DECAYED 4' LONG. BENT 1 CAP AT SOUTH END 2 DECAYED AREAS 2" DIA. X 6" DEEP. BENT 1 CROWNSTRIP AT SOUTH END DECAYED 1" WIDE X 20" LONG. SOUTH END OF END BENT 2 CAP DECAYED 10" WIDE X 3" HIGH X 2" DEEP. NORTH END OF END BENT 2 CAP DECAYED 12" LONG X 4" WIDE X 2" HIGH. CROSSBRACE AT BENT 1 EAST SIDE AT PILE 4 SPLIT AT CONNECTION BOLT 1" WIDE X 15" LONG.	
3346 <i>(580)</i>	Repair / Maintain Timber Wings & Blkhds	SF	105	SOUTHWEST WINGWALL DISPLACED AND DECAYED BOARDS WITH FILL LEAKAGE AT TOP PORTION. SOUTHEAST EXTERIOR BULKHEAD/WINGWALL DECAYED AND DISPLACED BOARDS. END BENT 2 BULKHEAD AT PILE 5 DECAYED AREA WITH EXPOSED FILL. END BENT 2 BULKHEAD BOARDS PUSHED OUT UP TO 1".	
3366 <i>(580)</i>	Drift and Debris Removal	HR	20	DRIFT COLLECTING AT PILE 3 OF BENT 1	
3376 <i>(602)</i>	Clean/Wash Bridge Decks	SF	30	GROWTH AND DEBRIS ALONG SOUTH CURB IN SPAN 1. GROWTH AND DEBRIS BUILDUP AT CORNERS OF BRIDGE.	

**Key**



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined



**BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS**

Bridge: 810034                      County SAMPSON

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

MMS Code	MMS Description	Quantity
3344	Repair / Replace Timber Substructure Components	10      LF
Location:		
Abutment Substructure	Bent/Span No.    2	PILE 2 AT END BENT 2.
Priority Level	Status	
Recommended	Routine Maintenance	
Submitted Date:	Submitted By:	Assisted By:
08/05/2010	BRYAN CROOM	RICHARD MURRAY
Details		
PILE 2 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE.		

MMS Code	MMS Description	Quantity
3344	Repair / Replace Timber Substructure Components	10      LF
Location:		
Abutment Substructure	Bent/Span No.    2	PILE 5 AT END BENT 2.
Priority Level	Status	
Recommended	Routine Maintenance	
Submitted Date:	Submitted By:	Assisted By:
08/05/2010	BRYAN CROOM	RICHARD MURRAY
Details		
PILE 5 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE.		

## BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 810034                      County SAMPSON

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

MMS Code	MMS Description	Quantity
3344	Repair / Replace Timber Substructure Components	10      LF
Location:		
Abutment Substructure                      Bent/Span No.    2                      PILE 3 AT END BENT 2.		
Priority Level		Status
Recommended		Routine Maintenance
Submitted Date:	Submitted By:	Assisted By:
08/05/2010	BRYAN CROOM	RICHARD MURRAY
Details		
PILE 3 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE.		

MMS Code	MMS Description	Quantity
3344	Repair / Replace Timber Substructure Components	10      LF
Location:		
Abutment Substructure                      Bent/Span No.    1                      PILE 1 AT BENT 1.		
Priority Level		Status
Priority Maintenance		Division Bridge Maintenance Notification Received
Submitted Date:	Submitted By:	Assisted By:
08/05/2010	BRYAN CROOM	RICHARD MURRAY
Details		
PILE 1 AT BENT 1 EAST SIDE DECAYED 32" HIGH X 6" DEEP X 1/2 CIRCUMFERENCE.		



### BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 810034                      County SAMPSON

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

MMS Code	MMS Description	Quantity
3344	Repair / Replace Timber Substructure Components	10      LF
Location:		
Abutment Substructure	Bent/Span No.    2	PILE 1 AT END BENT 2.
Priority Level	Status	
Recommended	Routine Maintenance	
Submitted Date:	Submitted By:	Assisted By:
08/05/2010	BRYAN CROOM	RICHARD MURRAY
Details		
PILE 1 AT END BENT 2 PUSHED OUT 1" DUE TO BULKHEAD PRESSURE.		

MMS Code	MMS Description	Quantity
3344	Repair / Replace Timber Substructure Components	10      LF
Location:		
Abutment Substructure	Bent/Span No.    2	PILE 3 AT END BENT 2.
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
08/05/2010	BRYAN CROOM	RICHARD MURRAY
Details		
PILE 3 AT END BENT 2 DECAYED AT TOP PORTION 12" WIDE X 12" HIGH X 8" DEEP.		

**BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS**

Bridge: 810034                      County SAMPSON

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

MMS Code	MMS Description	Quantity
3344	Repair / Replace Timber Substructure Components	25      LF
Location:		
Pier Cap	Bent/Span No.    1	BENT 1 CAP AT NORTH END.
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
08/05/2010	BRYAN CROOM	RICHARD MURRAY
Details		
NORTH END OF BENT 1 CAP DECAYED 5" WIDE X 10" HIGH X 12" DEEP.		





NORTH END OF BENT 1 CAP DECAYED 5" WIDE X 10" HIGH X 12" DEEP.(PRIORITY MAINTENANCE)



BENT 1 CROSSBRACE SPAN 1 SIDE AT PILE 1 DECAYED 4' LONG.





LONGITUDINAL CRACKING IN PILES UP TO 1/8" WIDE



LONGITUDINAL CRACKING ALONG JOIST UP TO 1/8" WIDE.





JOIST 1 IN SPAN 1 AT END BENT 1 SECTION LOSS 38" LONG X 2" WIDE X 2" HIGH

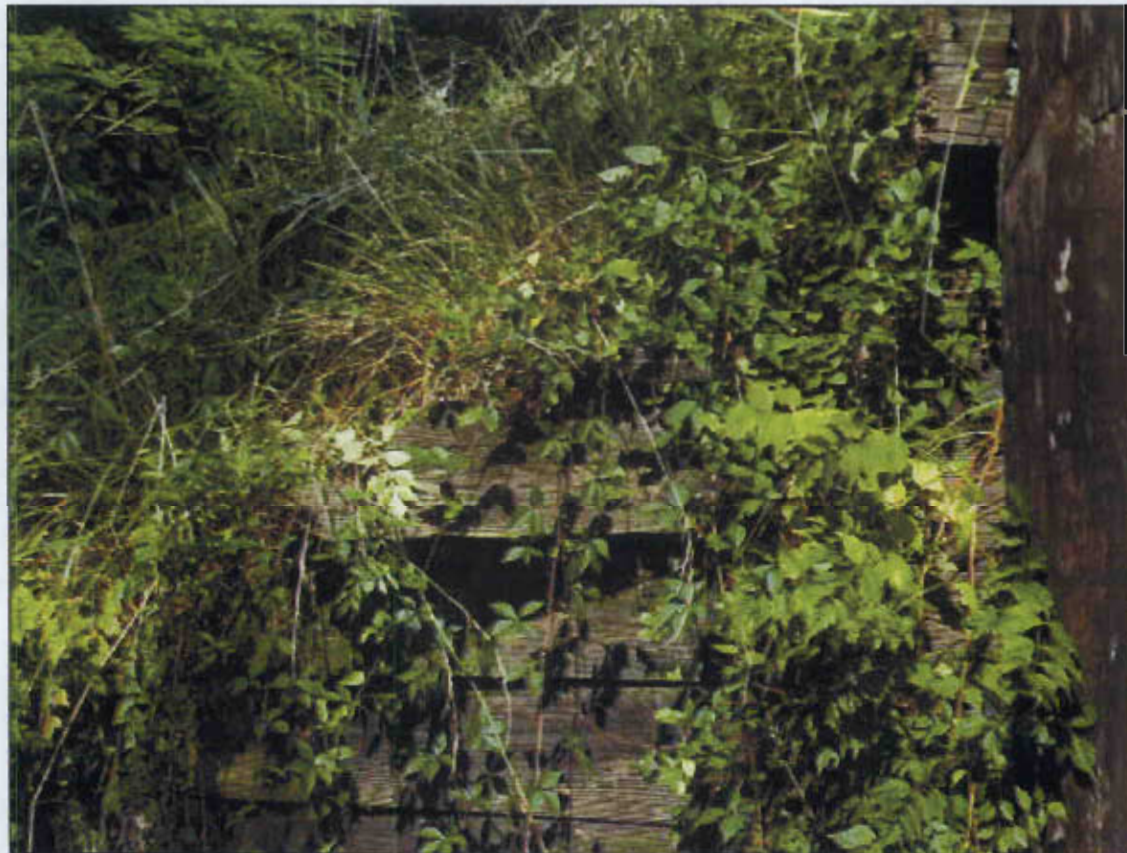


PAINT PEELING WITH SURFACE RUST ON TOP PORTION OF STEEL PILES AT END BENT 1





DRIFT COLLECTING AT PILE 3 OF BENT 1



SOUTHWEST WINGWALL DISPLACED AND DECAYED BOARDS WITH FILL LEAKAGE AT TOP PORTION





BENT 1 CAP AT SOUTH END 2 DECAYED AREAS 2" DIA. X 6" DEEP



PILE 1 AT BENT 1 EAST SIDE DECAYED 32" HIGH X 6" DEEP X 1/2 CIRCUMFERENCE.(PRIORITY MAINTENANCE)





CROSSBRACE AT BENT 1 EAST SIDE AT PILE 4 SPLIT AT CONNECTION BOLT 1" WIDE X 15" LONG.



BENT 1 CROWNSTRIP AT SOUTH END DECAYED 1" WIDE X 20" LONG.





LONGITUDINAL CRACKING ALONG CAPS UP TO 1/8" WIDE



SOUTH END OF END BENT 2 CAP DECAYED 10" WIDE X 3" HIGH X 2" DEEP.





SOUTHEAST EXTERIOR BULKHEAD/WINGWALL DECAYED AND DISPLACED BOARDS



END BENT 2 BULKHEAD AT PILE 5 DECAYED AREA WITH EXPOSED FILL





END BENT 2 BULKHEAD BOARDS PUSHED OUT UP TO 1"



PILE 5 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE. (PRIORITY MAINTENANCE)



END BENT 2 CAP ROLLED BACK 1/4"



END BENT 2 SUBCAP ROLLED BACK 2"

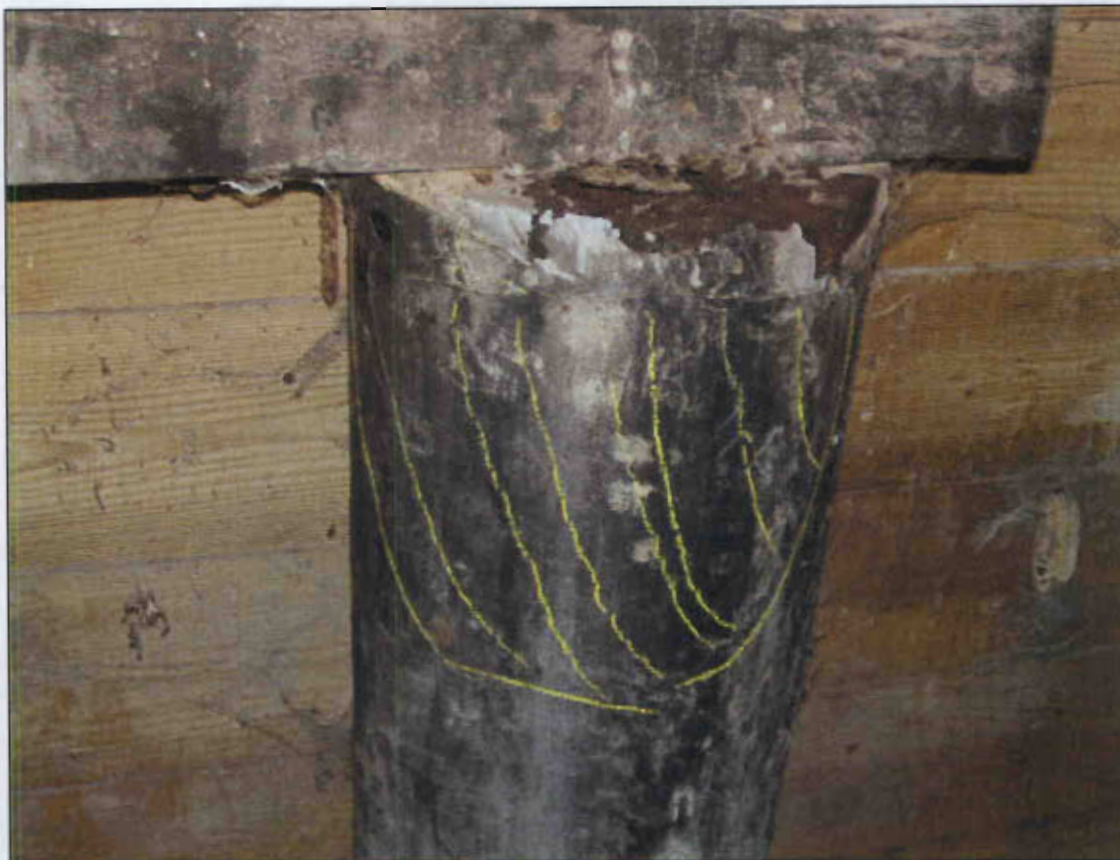




PILE 3 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE. (PRIORITY MAINTENANCE)



PILE 2 AT END BENT 2 PUSHED OUT 3" DUE TO BULKHEAD PRESSURE.(PRIORITY MAINTENANCE)



PILE 3 AT END BENT 2 DECAYED AT TOP PORTION 12" WIDE X 12" HIGH X 8" DEEP.(PRIORITY MAINT.)



PILE 1 AT END BENT 2 PUSHED OUT 1" DUE TO BULKHEAD PRESSURE (PRIORITY MAINTENANCE)





NORTH END OF END BENT 2 CAP DECAYED 12" LONG X 4" WIDE X 2" HIGH

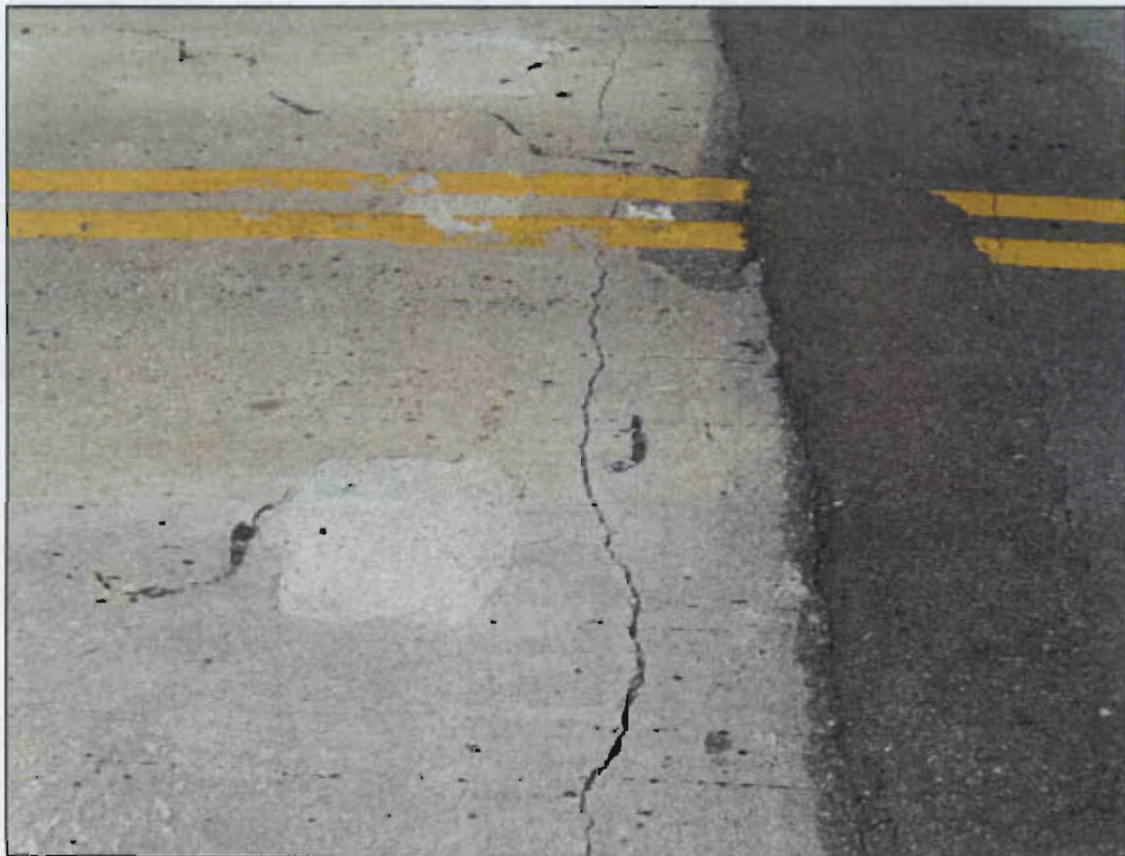


NORTH END OF BENT 2 CAP DECAYED AT TOP LEFT CORNER 3" DIA. X 3" DEEP.





WEST APPROACH ASPHALT WEARING SURFACE CRACKED AND SETTLED UP TO 2"



TRANSVERSE CRACKING IN DECK OVER END BENTS UP TO 1/8" WIDE.





HAIRLINE MAPCRACKING IN DECK IN ALL SPANS



PATCHED AREAS IN SPAN 1 DECK OVER END BENT 1





CURBS WEATHERED WITH EXPOSED AGGREGATE



HORIZONTAL CRACKING ALONG NORTH RAIL BAR





SPAN 3 DECK AT CENTERLINE ALONG BENT 2 CRACKED AND SPALLED AREA 4" WIDE X 12" LONG X 1" DEEP



LONGITUDINAL CRACKING IN SPAN 2 DECK UP TO .013" WIDE





GROWTH AND DEBRIS ALONG SOUTH CURB IN SPAN 1



GROWTH AND DEBRIS BUILDUP AT CORNERS OF BRIDGE





BENT 2 JOINT MATERIAL MISSING AND LOOSE IN A 2' LONG AREA.



NORTHEAST DELINEATOR DAMAGED



SPAN 3 DECK CRACKED AND DELAMINATED AREA ALONG BENT 2 JOINT IN WEST BOUND LANE 18" LONG X 2" WIDE.



BRIDGE MANAGEMENT UNIT  
DATA ON EXISTING STRUCTURE

Run Date: 09/02/2010

COUNTY : **SAMPSON**      DIV : **3**      DIST : **2**      STRUCTURE NUMBER : **810034**      LENGTH : **52 FEET**

ROUTE CARRIED : **SR1945**      FEATURE INTERSECTED : **BRANCH SIX RUNS C**

LOCATED : **0.2 MI E JCT SR1960**      BRIDGE NAME :      CITY :

FUNC. CLASS : **09**      SYST.ON : **NFA**      SYST.UNDER : **NFA**      ADT & YR : **620 2008**      RAIL TYPE : **LT 241 RT 241**

BUILT : **1950**      BY : **BMU**      PROJ :      FED.AID PROJ :      DESIGN LOAD : **Other or Unknown**

REHAB :      BY : **BMU**      PROJ :      ALIGNMENT : **TAN.**      SKEW : **90**      LANES : **ON 2 UNDER**

NAVIGATION :      HT. CRN. TO BED :      WATER DEPTH :  
**VC 0.0 FT HC 0.0 FT      10 FT      4 FT**

SUPERSTRUCTURE : **RC FLOOR ON TIM.JOIST;(BMD-10)**

SUBSTRUCTURE : **EBTS&BTS:TIM.CAPS/TIM.PILES;E.BT1:STL CRUTCH**

SPANS : **1@17'6";1@17";1@17'**

BEAMS OR GIRDERS : **19 LINES 6X14 TIMBER JOISTS @ VAR. CTS.**

FLOOR : **5 RC/NO AWS**      ENCROACHMENT :      DECK (OUT TO OUT) : **25.3 FT**

CLEAR ROADWAY : **24.0 FT**      BETWEEN RAILS : **25.6 FT**      SIDEWALK OR CURB : **LT 0.8 FT RT 0.8 FT**

VERT.CL.OVER : **99 FT 99 IN**      VERT.CL.UNDER : **00 FT 00 IN**      HOR.CL.UNDER : **0.0 FT**

INV.RTG. : **HS-1**      OPE.RTG. : **HS-1**      CONTR.MEMBER : **PILE, TIM.**      POSTED : **SV 20 TTST 27**      DATE **09/01/2010**

SYSTEM : **Secondary S.R. Route**      GREEN LINE ROUTE : **N**

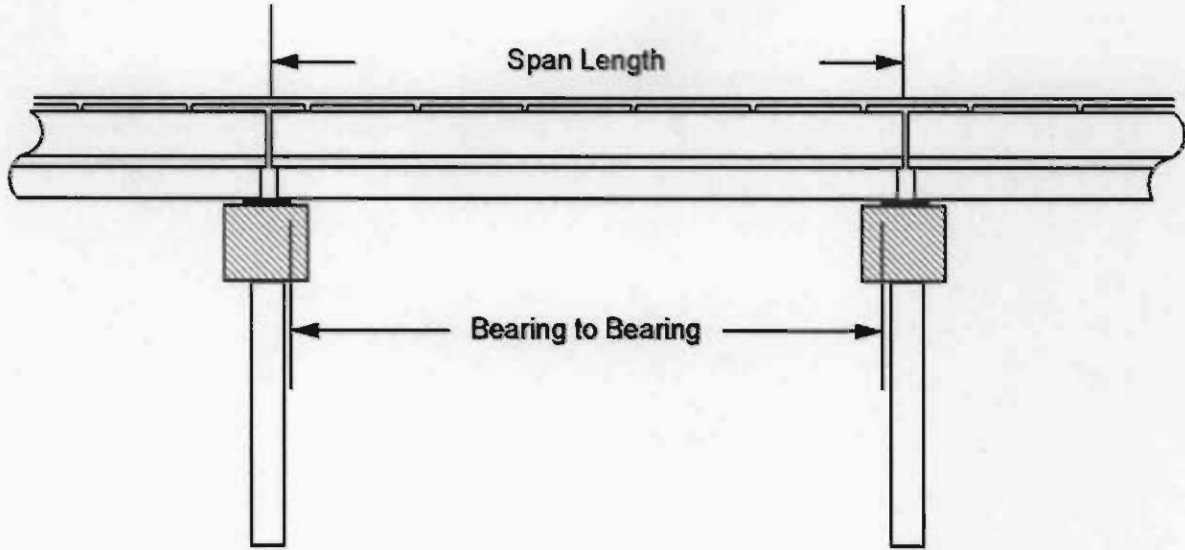
2ND OPENING :      3RD OPENING :      4TH OPENING :      5TH OPENING :

REMARKS :

# Structure Data Worksheet

Spans

County: SAMPSON      Structure No: 810034      Date: 08/04/2010      Inspected By: BC



Span No	Span Length	Bearing to Bearing	Comments
1	17.5	16.75	
2	17.0	17.0	
3	17.5833	16.8333	



## Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 810034 County: SAMPSON Date: 08/04/2010 By: BC

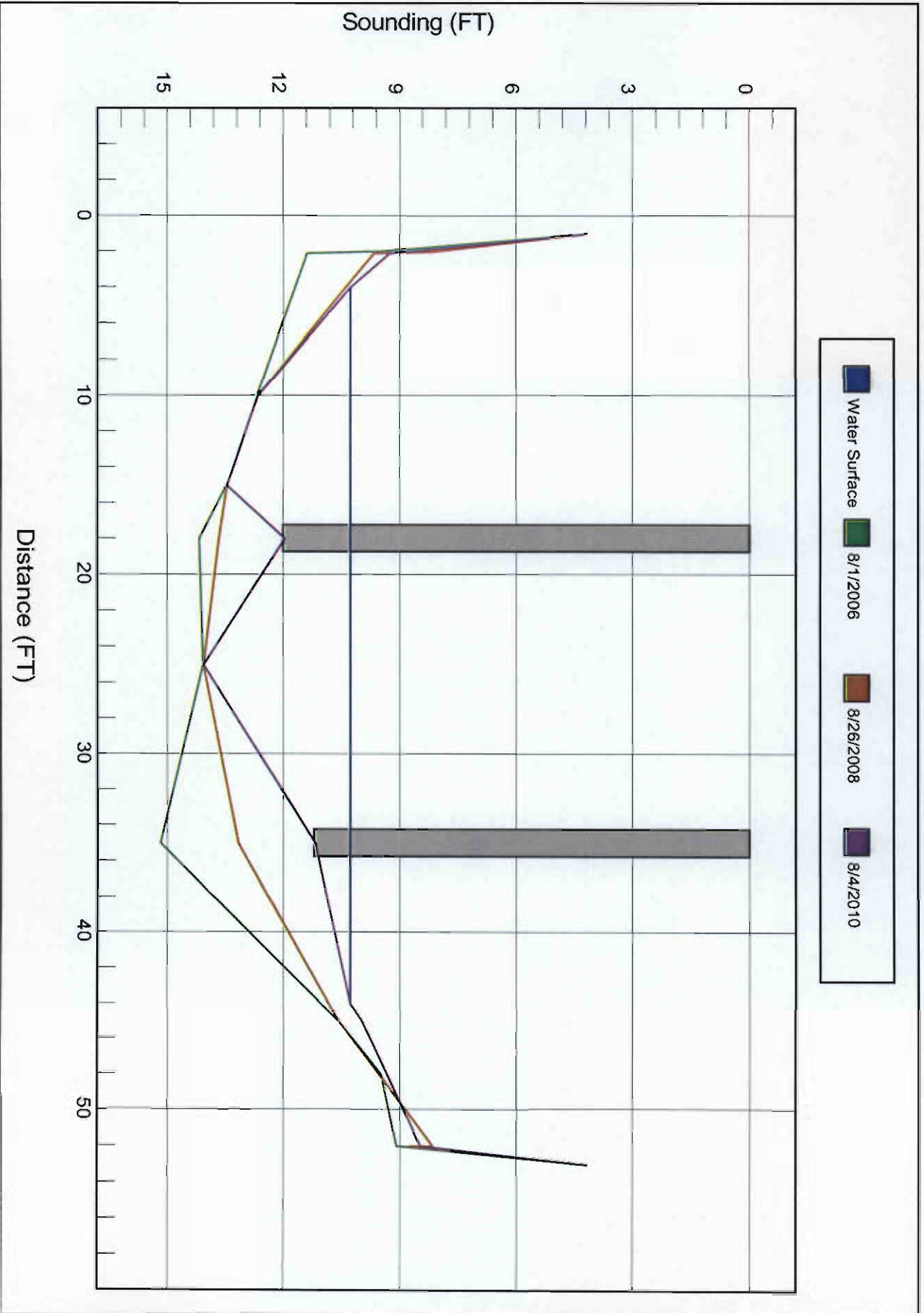
Record sounding from top of rail. Other location if needed: \_\_\_\_\_

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
1	4.2	TOP OF CAP			
2.1	9.3	STREAMBED AT CAP	2.1	12	STREAMBED AT CAP
4	10.3	WEWS			
10	12.7				
15	13.5				
18	12	BENT 1	18	11.5	BENT 1
25	14.1				
35	11.2	BENT 2	35	9.7	BENT 2
44	10.3	WEWS			
45	10				
52	8.5	GROUND AT CAP	52	9.2	GROUND AT CAP
53	4.2	TOP OF CAP			

Top of Rail = 0 FT (Sounding)

### STREAMBED PROFILE (Downstream)





## Bridge Inspection Field Sketch



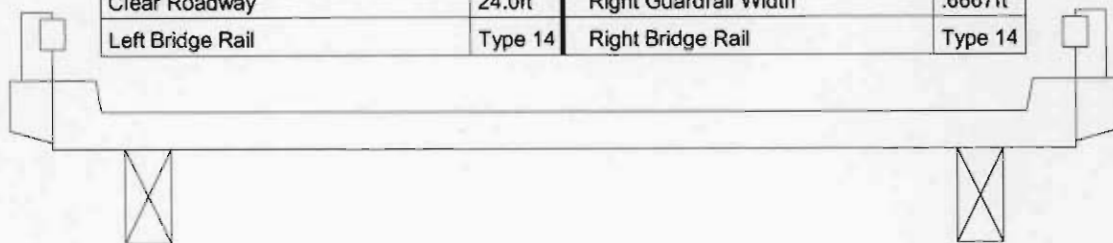
Roadway	18ft Wide	2 Paved Lanes	Looking East
Left Shoulder	6ft Wide		6ft Unpaved
Right Shoulder	6ft Wide		6ft Unpaved
Left Guardrail			
Right Guardrail			

MEASUREMENTS VERIFIED BY RGM ON 8-4-10

<b>Title</b> APPROACH ROADWAY		<b>Description</b> LOOKING EAST	
<b>Bridge No:</b> 810034	<b>Drawn By:</b> KMM	<b>Date:</b> 08/26/2008	<b>File Name:</b> S0242000887

## Bridge Inspection Field Sketch

Deck Width/Out to Out	25.3333ft	Wearing Surface	
Between Rails	25.5833ft	Median Width	
Curb Height	.7917ft	Median Height	
Top Rail to Deck/Wearing Surface	2.6667ft	Left Guardrail Width	.6667ft
Clear Roadway	24.0ft	Right Guardrail Width	.6667ft
Left Bridge Rail	Type 14	Right Bridge Rail	Type 14



Measurements for Span #	1		
Deck Thickness	.4167	Left Overhang	.4167
Top of Rail to Bottom of Beam	4.1667	Right Overhang	.4167

Beam No	Beam Type	Spacing	Comments
1	Timber (Rectangular)	1.8333ft	6 X 14 TIMBER JOIST
2	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
3	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
4	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
5	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
6	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
7	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
8	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
9	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
10	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
11	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
12	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
13	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
14	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
15	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
16	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
17	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
18	Timber (Rectangular)	1.3333ft	6 X 14 TIMBER JOIST
19	Timber (Rectangular)		6 X 14 TIMBER JOIST

**MEASUREMENTS VERIFIED BY RGM ON 8-4-10**

**Title**

TYPICAL SECTION

**Description**

19 LINES OF TIMBER JOISTS

Bridge No: 810034

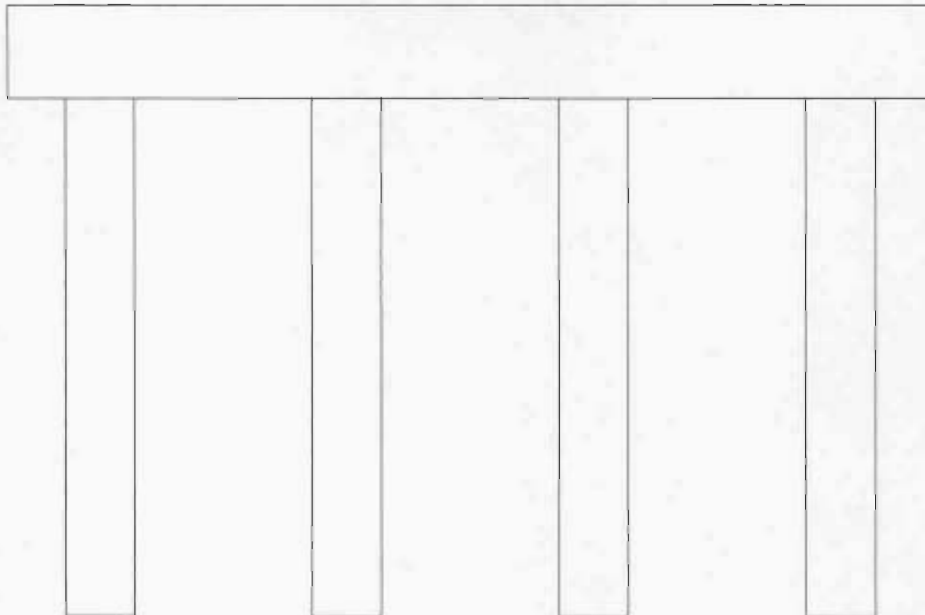
Drawn By: KMM

Date: 08/26/2008

File Name: S0242000888



# Bridge Inspection Field Sketch



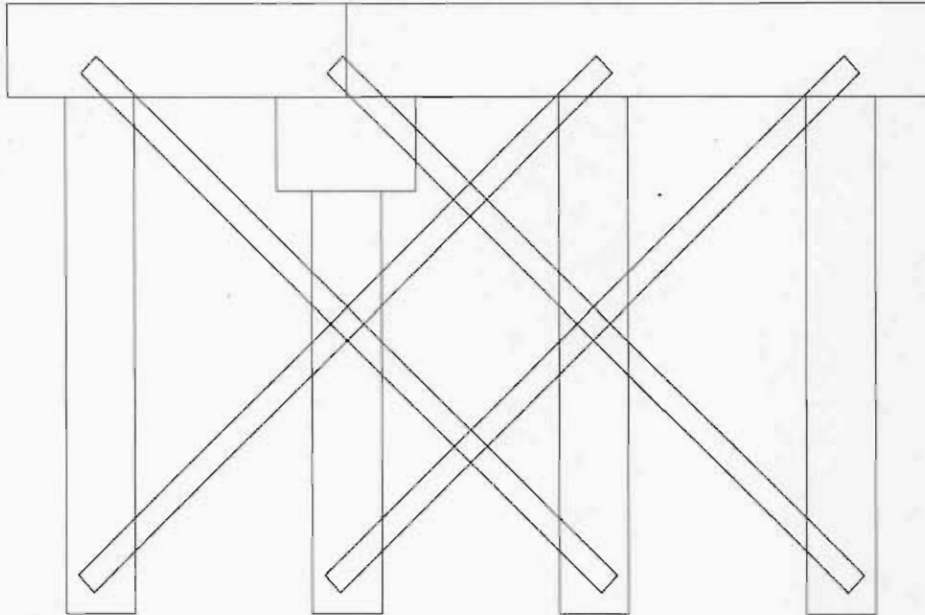
Abutment #	1		
Cap - Beam Type (Wood or Steel)			
Cap Size	27.0ft Long	1.0ft Wide	.9833ft High
Left Overhang	1.5ft	Lt Cap/Beam Overhang	1.25ft
Right Overhang	1.5ft	Rt Cap/Beam Overhang	1.25ft

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Steel	Pile Bent	8.0	.9833	1.0		Vertical
2	Steel	Pile Bent	8.0	.9833	1.0		Vertical
3	Steel	Pile Bent	8.0	.9833	1.0		Vertical
4	Steel	Pile Bent		.9833	1.0		Vertical

MEASUREMENTS VERIFIED BY RGM ON 8-4-10

Title		Description	
PILE DIAGRAM		CRUTCH BENT AT END BENT 1	
Bridge No:	810034	Drawn By:	KMM
Date:	08/26/2008	File Name:	S0242000689

# Bridge Inspection Field Sketch



Bent #	1	Bent 2 similar	
Cap - Beam Type (Wood or Steel)			
Cap Size	26.0ft Long	1.0ft Wide	1.0ft High
Left Overhang	1.3333ft	Lt Cap/Beam Overhang	.75ft
Right Overhang	.6667ft	Rt Cap/Beam Overhang	.75ft
Timber Sub Cap			
Size	3.0ft Long	.8333ft Wide	.8333ft High
Left pile to splice	0ft		
Left Overhang	1.5ft		
Right Overhang	1.5ft		

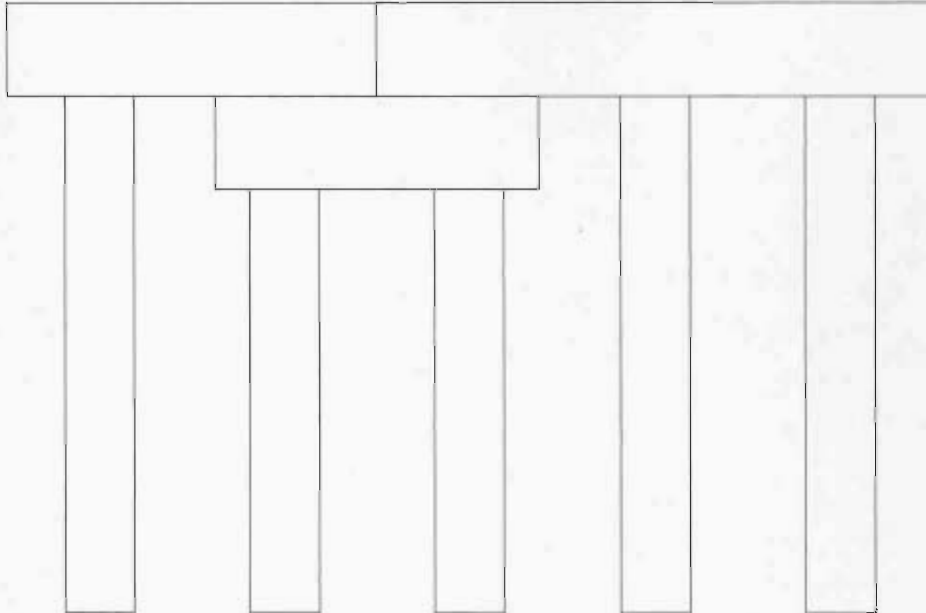
Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Pile Bent	8.0		1.0		Vertical
2	Wood or Timber	Pile Bent	8.0		1.0		Vertical
3	Wood or Timber	Pile Bent	8.0		1.0		Vertical
4	Wood or Timber	Pile Bent			1.0		Vertical

MEASUREMENTS VERIFIED BY RGM 8/4/10

<b>Title</b> PILE DIAGRAM 1	<b>Description</b> BENTS
Bridge No: 810034	Drawn By: KMM
Date: 08/26/2008	File Name: S0242000890



# Bridge Inspection Field Sketch



Abutment #	2		
Cap - Beam Type (Wood or Steel)			
Cap Size	26.25ft Long	1.0ft Wide	1.0ft High
Left Overhang		Lt Cap/Beam Overhang	.875ft
Right Overhang		Rt Cap/Beam Overhang	.875ft
Timber Sub Cap			
Size	5.0ft Long	.8333ft Wide	.8333ft High
Left pile to splice	1.5ft		
Left Overhang	1.0ft		
Right Overhang	1.0ft		

Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Pile Bent	6.0		1.0		Vertical
2	Wood or Timber	Pile Bent	3.0		1.0		Vertical
3	Wood or Timber	Pile Bent	6.6667		1.0		Vertical
4	Wood or Timber	Pile Bent	8.0		1.0		Vertical
5	Wood or Timber	Pile Bent			1.0		Vertical

**MEASUREMENTS VERIFIED BY RGM 8/4/10**

<b>Title</b> PILE DIAGRAM 2		<b>Description</b> END BENT 2	
<b>Bridge No:</b> 810034	<b>Drawn By:</b> KMM	<b>Date:</b> 08/26/2008	<b>File Name:</b> S0242000891

# Bridge Inspection Field Sketch

END BENT 2

CAP

PILE

BULKHEAD PRESSURE

P-5 PUSHED OUT 3"  
PILES 2,3 AND 5 SIMILAR CONDITION

LOOKING NORTH

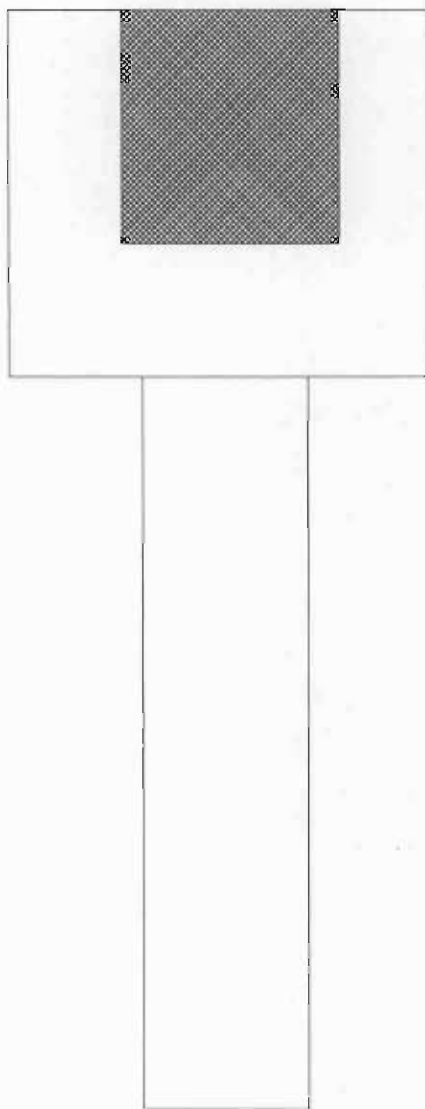
Title PRIORITY MAINT.		Description PILES AT END BENT 2	
Bridge No: 810034	Drawn By: BC	Date: 8/4/2010	File Name: S0038000832



# Bridge Inspection Field Sketch

BENT 1 CAP

← 5"W →



Title  
PRIORITY MAINT. 2

Description  
BENT 1 CAP AT NORTH END

Bridge No: 810034

Drawn By: BC

Date: 8/4/2010

File Name: S0038000833

# Bridge Inspection Field Sketch

BENT 1



32"H

1/2 CIRCUM. X 6"Dp.

PILE 4

LOOKING WEST ↑

Title  
PRIORITY MAINT. 3

Description  
PILE 4 AT BENT 1, EAST SIDE

Bridge No: 810034

Drawn By: BC

Date: 8/5/2010

File Name: S0038000834





NORTH END OF BENT 1



END BENT 1



BENT 2 BENT 1 SIMILAR

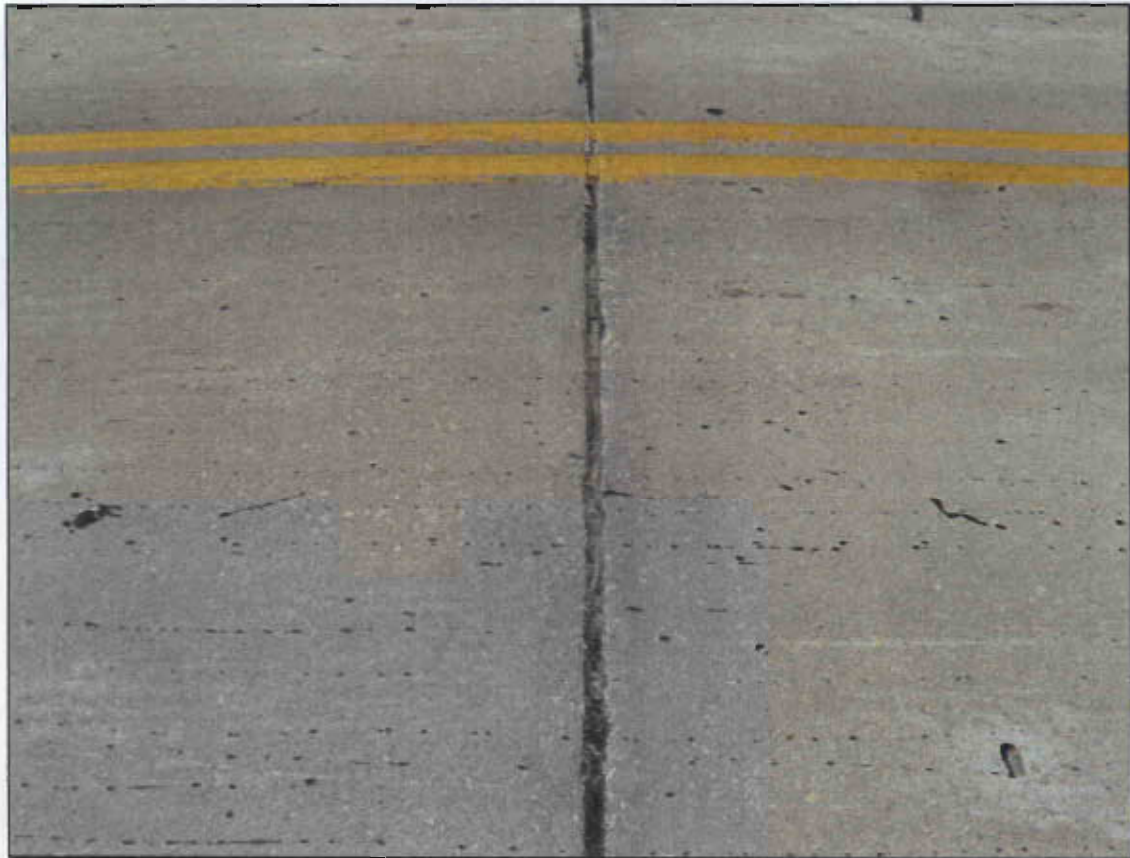


LOOKING EAST





NORTH SIDE

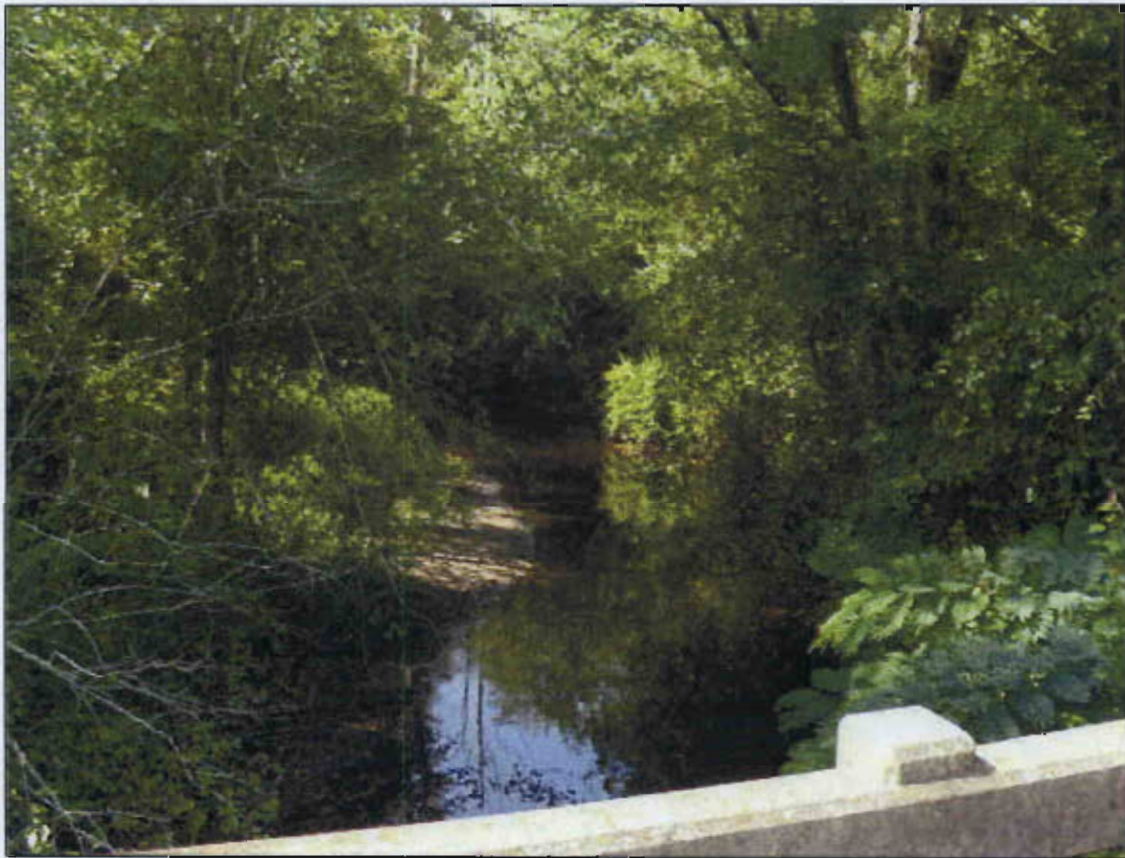


BENT 1 JOINT





DOWNSTREAM NORTH



UPSTREAM SOUTH





SOUTH SIDE



LOOKING WEST



END BENT 2