



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: P.M. X 6 (DRIFT, WINGWALLS, ABUTMENTS).
CHANGE IN DATA.

Structure Safety Report

Routine Element Inspection

COUNTY: BUNCOMBE STRUCTURE NUMBER: 100099 FREQUENCY: 24 MONTHS
FACILITY CARRIED: SR2816 MILE POST: _____
LOCATION: 0.5 MI.S.JCT.SR.2782
FEATURE INTERSECTED: GARREN CREEK
LATITUDE: 35° 32' 3.38" LONGITUDE: 82° 23' 24.75"

TIMBER FLOOR ON SALV I-BEAMS

SUPERSTRUCTURE: TIMBER FLOOR ON I-BEAMS

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

1 @ 30'-9"

SPANS: 1 @ 30'-9

☐ FRACTURE CRITICAL ☐ TEMPORARY SHORING ☐ SCOUR CRITICAL ☐ SCOUR PLAN OF ACTION

PRESENT CONDITION: Poor

INSPECTION DATE: 10/25/2016

POSTED SV: 17

POSTED TTST: 23

OTHER SIGNS PRESENT: DELINEATORS (4) & NARROW BRIDGE (2)



Sign noticed issued for		Number Required
<u>NO</u>	WEIGHT LIMIT	<u>0</u>
<u>NO</u>	DELINEATORS	<u>0</u>
<u>NO</u>	NARROW BRIDGE	<u>0</u>
<u>NO</u>	ONE LANE BRIDGE	<u>0</u>
<u>NO</u>	LOW CLEARANCE	<u>0</u>

DIRECTION OF INSPECTION S-N
DIRECTION MATCHES PLANS NO PLANS

NORTH

INSPECTED BY BG HEATH	SIGNATURE 	ASSISTED BY ME RENFRO
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Structure Element Scoring

Structure Number: 100099

Inspection Date 10/25/201
6

Element Number	Parent Number	Element Name	Location	Total Quantity	Level 1 Quantity	Level 2 Quantity	Level 3 Quantity	Level 4 Quantity
31	0	Timber Deck	Deck	615	615	0	0	0
107	0	Steel Open Girder/Beam	Beam	270	270	0	0	0
515	107	Steel Protective Coating	Beam	1026	678	245	103	0
216	0	Timber Abutment	Abutments	60	26	12	22	0
228	0	Timber Pile	Piles and Columns	13	8	4	1	0
235	0	Timber Pier Cap	Caps	44	44	0	0	0
332	0	Timber Bridge Railing	Bridge Rail	62	62	0	0	0
515	332	Steel Protective Coating	Bridge Rail	92	92	0	0	0
510	0	Wearing Surface	Wearing Surfaces	539	459	80	0	0

Summary of Maintenance Needs

Maintenance By Defect

Structure Number: 100099

Inspection Date: 10/25/2016

MMS Code	Element Name	Defect Name	Recommended Quantity
3346	Timber Abutment	Decay/Section Loss	34 Feet
3344	Timber Pile	Decay/Section Loss	5 Each
2816	Wearing Surface	Crack (Wearing Surface)	80 Square Feet
3342	Steel Protective Coating	Effectiveness (Steel Protective Coatings)	348 Square Feet

Element Structure Maintenance Quantities

Structure Number: 100099

Inspection Date 10/25/2016

Location	MMS Code	Description	Maint Quantity	Total Quantity	Severe Quantity	Poor Quantity	Fair Quantity	Good Quantity
Abutments	3346	Maintenance of Timber Bulkheads or Wingwalls	34	60	0	22	12	26
Beam	3314	Maintenance Steel Superstructure Components	0	270	0	0	0	270
Beam	3342	Clean and Paint Steel	348	1026	0	103	245	678
Bridge Rail	3316	Maintenance of Timber Bridge Rail	0	62	0	0	0	62
Bridge Rail	3342	Clean and Paint Steel	0	92	0	0	0	92
Caps	3344	Maintenance To Timber Substrcutre	0	44	0	0	0	44
Deck	3324	Maintenance of Timber Deck Components	0	615	0	0	0	615
Piles and Columns	3344	Maintenance To Timber Substrcutre	5	13	0	1	4	8
Wearing Surfaces	2816	Asphalt Surface Repair	80	539	0	0	80	459

Element Condition and Maintenance Data

Structure Number: 100099

Inspection Date: 10/25/2016

Span 1	Beam 1
Plate Girder	

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Open Girder/Beam	30	30	0	0	0 Feet
515	Steel Protective Coating	114	68	0	46	0 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
515	Effectiveness (Steel Protective Coatings)	PAINT.	3	46	46 Square Feet
General Comments					

Span 1	Beam 2
Plate Girder	

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Open Girder/Beam	30	30	0	0	0 Feet
515	Steel Protective Coating	114	79	35	0	0 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
515	Effectiveness (Steel Protective Coatings)	PAINT.	2	35	35 Square Feet
General Comments					

Span 1	Beam 3
Plate Girder	

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Open Girder/Beam	30	30	0	0	0 Feet
515	Steel Protective Coating	114	79	35	0	0 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
515	Effectiveness (Steel Protective Coatings)	PAINT.	2	35	35 Square Feet
General Comments					

Span 1	Beam 4
Plate Girder	

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Open Girder/Beam	30	30	0	0	0 Feet
515	Steel Protective Coating	114	79	35	0	0 Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty
515	Effectiveness (Steel Protective Coatings)	PAINT.	2	35	35 Square Feet
General Comments					

Span 1			Beam 8				
Plate Girder							
Element Number	Element Name		Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
107	Steel Open Girder/Beam		30	30	0	0	0 Feet
515	Steel Protective Coating		114	79	35	0	0 Square Feet
Element Number	Defect Type	Defect Description			CS	CS Qty	Maint Qty
515	Effectiveness (Steel Protective Coatings)	PAINT.			2	35	35 Square Feet
	General Comments						

Span 1 Beam 9

Plate Girder

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
107	Steel Open Girder/Beam	30	30	0	0	0	Feet
515	Steel Protective Coating	114	57	0	57	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
515	Effectiveness (Steel Protective Coatings)	PAINT.	3	57	57	Square Feet

General Comments

Span 1 Wearing Surface

Asphalt Wearing Surface

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
510	Wearing Surface	539	459	80	0	0	Square Feet

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
510	Crack (Wearing Surface)	CRACKING TO WEARING SURFACE.	2	80	80	Square Feet

General Comments

Span 1 Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
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Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
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General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
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Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
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General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

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Span 1 Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
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General Comments

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Span 1 Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
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Span 1 Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 **Far Bearing****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 **Near Bearing****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 **Far Bearing****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 **Near Bearing****Other Bearing**

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

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Span 1 Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

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Span 1 Near Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

Span 1 Far Bearing

Other Bearing

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	

General Comments

1 Each of Corrosion: Section loss is evident or pack rust is present but does not warrant structural review.

End Bent 1 Timber Abutment 1

Timber Abutment

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
216	Timber Abutment	30	20	6	4	0 Feet
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
216	Decay/Section Loss	DECAY WITH FILL FALLING THROUGH TO ABUTMENT 1 / UPSTREAM AND DOWNSTREAM ENDS; AREA TOTALS 4 LF X 1' HIGH. (P.M.) UPSTREAM END MEASURES 2 LF X 1' HIGH. DOWNSTREAM END MEASURES 2 LF X 1' HIGH.	3	4	4	Feet
216	Decay/Section Loss	DECAY TO ABUTMENT 1.	2	6	6	Feet

General Comments

End Bent 1 Timber Pile 5

Timber Pile

Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
228	Timber Pile	1	0	1	0	0 Each
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
228	Decay/Section Loss	PILE HAS BEEN SUPPLEMENTED.	2	1	1	Each

General Comments

End Bent 1		Timber Pile 1					
Timber Pile							
Element Number	Element Name		Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
228	Timber Pile		1	0	1	0	0
Each							
Element Number	Defect Type	Defect Description			CS	CS Qty	Maint Qty
228	Decay/Section Loss	DECAY TO PILE 1 / ABUTMENT 1 / AT GROUNDLINE.			2	1	1
Each							
General Comments							

End Bent 2		Timber Abutment 1					
Timber Abutment							
Element Number	Element Name		Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty
216	Timber Abutment		30	6	6	18	0 Feet
Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty		
216	Decay/Section Loss	DECAY WITH FILL FALLING THROUGH TO ABUTMENT 2 / UPSTREAM AND DOWNSTREAM ENDS; AREA TOTALS 18 LF X 1' HIGH. (P.M.) UPSTREAM END MEASURES 6 LF X 1' HIGH. DOWNSTREAM END MEASURES 12 LF X 1' HIGH.	3	18	18	Feet	
216	Decay/Section Loss	DECAY TO ABUTMENT 2.	2	6	6	Feet	
General Comments							

End Bent 2		Timber Pile 5					
Timber Pile							
Element Number	Element Name	Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
228	Timber Pile	1	0	1	0	0	Each
Element Number	Defect Type	Defect Description		CS	CS Qty	Maint Qty	
228	Decay/Section Loss	PILE HAS BEEN SUPPLEMENTED.		2	1	1	Each
General Comments							

Structure Number: 100099

Inspection Date: 10/25/2016

End Bent 2

Timber Pile 2

Timber Pile

Element Number	Element Name		Total Qty	CS1 Qty	CS2 Qty	CS3 Qty	CS4 Qty	
228	Timber Pile		1	0	1	0	0	Each

Element Number	Defect Type	Defect Description	CS	CS Qty	Maint Qty	
228	Decay/Section Loss	PILE HAS BEEN SUPPLEMENTED.	2	1	1	Each

General Comments

Elements Verified

Location	Name	Component	Element Name	Amount
Span 1	Deck	Timber Deck	Timber Deck	615
Span 1	Beam 1	Plate Girder	Steel Open Girder/Beam	30
Span 1	Beam 2	Plate Girder	Steel Open Girder/Beam	30
Span 1	Beam 3	Plate Girder	Steel Open Girder/Beam	30
Span 1	Beam 4	Plate Girder	Steel Open Girder/Beam	30
Span 1	Beam 5	Plate Girder	Steel Open Girder/Beam	30
Span 1	Beam 6	Plate Girder	Steel Open Girder/Beam	30
Span 1	Beam 7	Plate Girder	Steel Open Girder/Beam	30
Span 1	Beam 8	Plate Girder	Steel Open Girder/Beam	30
Span 1	Beam 9	Plate Girder	Steel Open Girder/Beam	30
Span 1	Left Bridge Rail	Timber Rail	Timber Bridge Railing	31
Span 1	Right Bridge Rail	Timber Rail	Timber Bridge Railing	31
Span 1	Wearing Surface	Asphalt Wearing Surface	Wearing Surface	539
End Bent 1		Timber Pier Cap	Timber Pier Cap	22
End Bent 1		Timber Pile	Timber Pile	1
End Bent 1		Timber Pile	Timber Pile	1
End Bent 1		Timber Pile	Timber Pile	1
End Bent 1		Timber Pile	Timber Pile	1
End Bent 1		Timber Pile	Timber Pile	1
End Bent 1		Timber Pile	Timber Pile	1
End Bent 1		Timber Abutment	Timber Abutment	30
End Bent 2		Timber Pier Cap	Timber Pier Cap	22
End Bent 2		Timber Pile	Timber Pile	1
End Bent 2		Timber Pile	Timber Pile	1
End Bent 2		Timber Pile	Timber Pile	1
End Bent 2		Timber Pile	Timber Pile	1
End Bent 2		Timber Pile	Timber Pile	1
End Bent 2		Timber Pile	Timber Pile	1
End Bent 2		Timber Pile	Timber Pile	1
End Bent 2		Timber Abutment	Timber Abutment	30

National Bridge and NC Inspection Items

Structure Number: 100099

Inspection Date: 10/25/2016

National Bridge Inventory Items

Item	Grade Scale	Grade
Item 58: Deck	0 - 9 , N	7
Item 59: Superstructure	0 - 9 , N	7
Item 60: Substructure	0 - 9 , N	5
Item 61: Channel and Channel Protection	0 - 9 , N	6
Item 62: Culvert	0 - 9 , N	N
Item 71: Waterway Adequacy	0 - 9 , N	6
Item 72: Approach Roadway Alignment	0 - 9 , N	6

Note: If NBI Inspection Item is not present, code NBI item with "N"

NC SMU Inspection Items

Item	Grade Scale	Grade	Maint. Qty.	Maint. Code
Deck Debris	G, F, P, or C	G	0	3376
Drainage System	G, F, P, or C	G	0	3332
Utilities	G, F, P, or C			
Slope Protection	G, F, P, or C		0	3352
Scour	G, F, P, or C	G		
Wingwall	G, F, P, or C	P	32	3350
Field Scour Evaluation		L		
Drift	G, F, P, or C	P	50	3366
Fender System	G, F, P, or C		0	3364
Movable Span Machinery	G, F, P, or C			
Response to Live Load	G, F, P, or C	F		
Estimated Remaining Life	0 - 100 Years	7		
Superstructure Paint Code		A		

Note: If NC SMU Inspection Item is not present, leave NC SMU item blank

Inspection Information

Item	Grade Scale	Grade
Regulatory Sign Noticed Issued	YES/NO	N
Priority Maintenance Request Submitted	YES/NO	Y
Inspection Time	Hours	5
Traffic Control Time	Hours	
Snooper Time	Hours	
Ladder Used	YES/NO	N
Bucket Truck Used	YES/NO	N
Boat Used	YES/NO	N
Other Equipment Used	YES/NO	N

National Bridge and NC SMU Inspection Item Details

Structure Number: 100099

Inspection Date: 10/25/2016

Item	Substructure - Item 60	Grade	5	Maint Code	Qty.	0
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Details DECAF PRESENT.

Item	Priority Maintenance Issued	Grade	Y	Maint Code	Qty.	0
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Details P.M. X 6 (DRIFT, WINGWALLS, ABUTMENTS).

Item	Presently Posted	Grade	Y	Maint Code	Qty.	0
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Details SV 17 / TTST 23

Item	Drift	Grade	P	Maint Code	3366	Qty.	50
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Details BEAVER DAM LOCATED BENEATH STRUCTURE; DAM MEASURES 30 LF X 3' HIGH. (P.M.)

Item	Wingwalls	Grade	P	Maint Code	3350	Qty.	32
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Details ABUTMENT 1:
UPSTREAM: DECAF WITH FILL FALLING THROUGH - POOR 6 LF X 2' HIGH. (P.M.)
DOWNSTREAM: GOOD CONDITION

ABUTMENT 2:
UPSTREAM: DECAF WITH FILL FALLING THROUGH - POOR 10 LF X 2' HIGH. (P.M.)
DOWNSTREAM: GOOD CONDITION



End Bent 2 Abutment/Backwall : DECAY WITH FILL FALLING THROUGH TO ABUTMENT 2 / UPSTREAM AND DOWNSTREAM ENDS; AREA TOTALS 18 LF X 1' HIGH. (P.M.) UPSTREAM END MEASURES 6 LF X 1' HIGH. DOWNSTREAM END MEASURES 12 LF X 1' HIGH.



End Bent 2 Abutment/Backwall : DECAY WITH FILL FALLING THROUGH TO ABUTMENT 2 / UPSTREAM AND DOWNSTREAM ENDS; AREA TOTALS 18 LF X 1' HIGH. (P.M.) UPSTREAM END MEASURES 6 LF X 1' HIGH. DOWNSTREAM END MEASURES 12 LF X 1' HIGH.



End Bent 1 Pile 2: DECAY TO PILE 2 / ABUTMENT 2; DECAY MEASURES 1' HIGH X 1' WIDE X 4" DEEP. (P.M.)



End Bent 1 Pile 1: DECAY TO PILE 1 / ABUTMENT 1 / AT GROUNDLINE.



End Bent 1 Abutment/Backwall : DECAY WITH FILL FALLING THROUGH TO ABUTMENT 1 / UPSTREAM AND DOWNSTREAM ENDS; AREA TOTALS 4 LF X 1' HIGH. (P.M.) UPSTREAM END MEASURES 2 LF X 1' HIGH. DOWNSTREAM END MEASURES 2 LF X 1' HIGH.



BEAVER DAM LOCATED BENEATH STRUCTURE; DRIFT MEASURES 30 LF X 3' HIGH. (P.M.)



DECAY WITH FILL FALLING THROUGH TO SOUTH EAST WINGWALL; AREA MEASURES 6 LF X 2' HIGH. (P.M.)



DECAY WITH FILL FALLING THROUGH TO NORTH EAST WINGWALL; AREA MEASURES 10 LF X 2' HIGH. (P.M.)



REP OF CRACKING TO WEARING SURFACE



NORTH



SOUTH



UPSTREAM



REP OF WEIGHT LIMIT SIGN (SOUTH APPROACH)



REP OF NARROW BRIDGE SIGN (NORTH APPROACH)



LOOKING UPSTREAM



UNDERSIDE OF BRIDGE DECK



ABUTMENT 1



ABUTMENT 2



REP OF BEARING DEVICES



LOOKING DOWNSTREAM



DOWNSTREAM

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

Run Date: 08/30/2017

IDENTIFICATION							
(1) STATE NAME -NORTH CAROLINA	BRIDGE	100099		SUFFICIENCY RATING =		45.74	
(8) STRUCTURE NUMBER(FEDERAL)		00000000210099		STATUS =	Functionally Obsolete		
(5) INVENTORY ROUTE (ON/UNDER) - ON		31028160					
(2) STATE HIGHWAY DEPARTMENT DISTRICT		2					
(3) COUNTY CODE	21	(4) PLACE CODE	22500		CLASSIFICATION		CODE
(6) FEATURE INTERSECTED - GARREN CREEK				(112)NBIS BRIDGE SYSTEM -			YES
(7) FACILITY CARRIED SR2816				(104)HIGHWAY SYSTEM	Is not on NHS		0
(9) LOCATION 0.5 MI.S.JCT.SR.2782				(26) FUNCTIONAL CLASS -	Local		19
(11)MILEPOINT		0		(100)STRAHNET HIGHWAY -	Not a STRAHNET Route		0
(16)LAT 35° 32' 3.38"	(17)LONG	82° 23' 24.75"		(101)PARALLEL STRUCTURE -	No Parallel Structure		N
(98)BORDER BRIDGE STATE CODE	PCT SHARE			(102)DIRECTION OF TRAFFIC -	2-way Traffic		2
(99)BORDER BRIDGE STRUCTURE NO				(103)TEMPORARY STRUCTURE -			
				(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 Multibeam or Girder		CODE	302				
(44) STRUCTURE TYPE APPR :							
TYPE -		CODE	000		CONDITION		CODE
(45) NUMBER OF SPANS IN MAIN UNIT			1	(58) DECK			7
(46) NUMBER OF APPROACH SPANS				(59) SUPERSTRUCTURE			7
(107)DECK STRUCTURE TYPE - 8		CODE		(60) SUBSTRUCTURE			5
(108)WEARING SURFACE / PROTECTIVE SYSTEM :				(61) CHANNEL & CHANNEL PROTECTION			6
(A) TYPE OF WEARING SURFACE -		CODE		(62) CULVERTS			N
(B) TYPE OF MEMBRANE -		CODE					
(C) TYPE OF DECK PROTECTION -		CODE					
AGE AND SERVICE				LOAD RATING AND POSTING			
(27) YEAR BUILT			1973	(31) DESIGN LOAD	Unknown		0
(106)YEAR RECONSTRUCTED				(63) OPERATING RATING METHOD -	Load Factor		1
(42) TYPE OF SERVICE : ON - Highway				(64) OPERATING RATING -	HS-16		29
UNDER - Waterway		CODE	15	(65) INVENTORY RATING METHOD -	Load Factor		1
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE			0	(66) INVENTORY RATING -	HS-9		17
(29) AVERAGE DAILY TRAFFIC			250	(70) BRIDGE POSTING -	Posting Required		0
(30) YEAR OF ADT 2015	(109) TRUCK ADT PCT		7%	(41) STRUCTURE OPEN, POSTED ,OR CLOSED			P
(19) BYPASS OR DETOUR LENGTH			5 MI	DESCRIPTION -	Posted for Load		
GEOMETRIC DATA				APPRAISAL			
(48) LENGTH OF MAXIMUM SPAN			29 FT	(67) STRUCTURAL EVALUATION			4
(49) STRUCTURE LENGTH			31 FT	(68) DECK GEOMETRY			3
(50)CURB OR SIDEWALK: LEFT .3 FT RIGHT .3 FT			.3 FT	(69) UNDERCLEARANCES,VERTI & HORIZ			N
(51) BRIDGE ROADWAY WIDTH CURB TO CURB			19 FT	(71) WATERWAY ADEQUACY			6
(52) DECK WIDTH OUT TO OUT			20 FT	(72) APPROACH ROADWAY ALIGNMENT			6
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS)			18 FT	(36) TRAFFIC SAFETY FEATURES			0000
(33) BRIDGE MEDIAN - No Median		CODE	0	(113)SCOUR CRITICAL BRIDGES			U
(34) SKEW 20°	(35) STRUCTURE FLARED		0				
(10) INVENTORY ROUTE MIN VERT CLEAR			999.9 FT				
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR			19 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				PROPOSED IMPROVEMENTS			
(38) NAVIGATION CONTROL - No Navigational Control		CODE	0	(75) TYPE OF WORK -		CODE	
(111)PIER PROTECTION -		CODE		(76) LENGTH OF STRUCTURE IMPROVEMENT			
(39) NAVIGATION VERTICAL CLEARANCE			0	(94) BRIDGE IMPROVEMENT COST			
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR			FT	(95) ROADWAY IMPROVEMENT COST			
(40) NAVIGATION HORIZONTAL CLEARANCE			0 FT	(96) TOTAL PROJECT COST			
				(97) YEAR OF IMPROVEMENT COST ESTIMATE			
				(114)FUTURE ADT 500	(115) YEAR FUTURE ADT	2025	
				INSPECTIONS			
				(90) INSPECTION DATE			10/25/2016
				(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			

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 08/30/2017

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
BUNCOMBE	13	2	100099	31	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR2816	GARREN CREEK

LOCATED :	BRIDGE NAME :	CITY :
0.5 MI.S.JCT.SR.2782		*FAIRVIEW

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
19	NFA	NFA	250 2015	LT 227 RT 227

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1973	BMU	5.8453		Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :
			TAN	110	ON 2 UNDER 0

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

SUPERSTRUCTURE : TIMBER FLOOR ON SALVAGED I-BEAMS

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

SPANS : 1 @ 30'-9"

BEAMS OR GIRDERS : 9 LINES 14 I-BEAMS @ 2'-3 CENTERS

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
4X8TIM/2.5 AWS		20 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
19 FT	19.583 FT	LT .3 FT RT .3 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	23	DATE	01/07/1997
HS-9	HS-16	Int.bm#8	SV 17				

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

UNDER ROUTES AND CLEARANCES

REMARKS :

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 100099

County BUNCOMBE

Date: 10/25/2016

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
 3344	Repair / Replace Timber Substructure Components	LF	1	End Bent 1 Pile 2: DECAY TO PILE 2 / ABUTMENT 2; DECAY MEASURES 1' HIGH X 1' WIDE X 4" DEEP. (P.M.)	
 3346	Repair / Maintain Timber Wings & Blkhds	SF	18	End Bent 2 Abutment/Backwall : DECAY WITH FILL FALLING THROUGH TO ABUTMENT 2 / UPSTREAM AND DOWNSTREAM ENDS; AREA TOTALS 18 LF X 1' HIGH. (P.M.) UPSTREAM END MEASURES 6 LF X 1' HIGH. DOWNSTREAM END MEASURES 12 LF X 1' HIGH.	
 3346	Repair / Maintain Timber Wings & Blkhds	SF	12	DECAY WITH FILL FALLING THROUGH TO SOUTHEAST WINGWALL; AREA MEASURES 6 LF X 2' HIGH. (P.M.)	
 3346	Repair / Maintain Timber Wings & Blkhds	SF	20	DECAY WITH FILL FALLING THROUGH TO NORTHEAST WINGWALL; AREA MEASURES 10 LF X 2' HIGH. (P.M.)	
 3366	Drift and Debris Removal	HR	50	BEAVER DAM LOCATED BENEATH STRUCTURE; DRIFT MEASURES 30 LF X 3' HIGH. (P.M.)	
3346	Repair / Maintain Timber Wings & Blkhds	SF	4	End Bent 1 Abutment/Backwall : DECAY WITH FILL FALLING THROUGH TO ABUTMENT 1 / UPSTREAM AND DOWNSTREAM ENDS; AREA TOTALS 4 LF X 1' HIGH. (P.M.) UPSTREAM END MEASURES 2 LF X 1' HIGH. DOWNSTREAM END MEASURES 2 LF X 1' HIGH.	

Key

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 100099

County BUNCOMBE

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	1 LF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Maintenance Work Completed	
Submitted Date:	Submitted By:	Assisted By:
10/26/2016	BG HEATH	
Details		
End Bent 1 Pile 2: DECAY TO PILE 2 / ABUTMENT 2; DECAY MEASURES 1' HIGH X 1' WIDE X 4" DEEP. (P.M.)		

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	18 SF
Location:		
Bent/Span No.		
Priority Level	Status	
Priority Maintenance	Division Maintenance Work Completed	
Submitted Date:	Submitted By:	Assisted By:
10/26/2016	BG HEATH	
Details		
End Bent 2 Abutment/Backwall : DECAY WITH FILL FALLING THROUGH TO ABUTMENT 2 / UPSTREAM AND DOWNSTREAM ENDS; AREA TOTALS 18 LF X 1' HIGH. (P.M.) UPSTREAM END MEASURES 6 LF X 1' HIGH. DOWNSTREAM END MEASURES 12 LF X 1' HIGH.		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 100099

County BUNCOMBE

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

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	12 SF
Location:		
Abutment Substructure	Bent/Span No. 1	SOUTHEAST WINGWALL
Priority Level	Status	
Priority Maintenance	Division Maintenance Work Completed	
Submitted Date:	Submitted By:	Assisted By:
10/26/2016	BG HEATH	ME RENFRO
Details		
DECAY WITH FILL FALLING THROUGH TO SOUTHEAST WINGWALL; AREA MEASURES 6 LF X 2' HIGH. (P.M.)		

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	20 SF
Location:		
Abutment Substructure	Bent/Span No. 2	NORTHEAST WINGWALL
Priority Level	Status	
Priority Maintenance	Division Maintenance Work Completed	
Submitted Date:	Submitted By:	Assisted By:
10/26/2016	BG HEATH	ME RENFRO
Details		
DECAY WITH FILL FALLING THROUGH TO NORTHEAST WINGWALL; AREA MEASURES 10 LF X 2' HIGH. (P.M.)		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 100099

County BUNCOMBE

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

MMS Code	MMS Description	Quantity
3366	Drift and Debris Removal	50 HR
Location:		
Slope	Bent/Span No. 1	DRIFT / DEBRIS
Priority Level	Status	
Priority Maintenance	Division Maintenance Work Completed	
Submitted Date:	Submitted By:	Assisted By:
10/26/2016	BG HEATH	ME RENFRO
Details		
BEAVER DAM LOCATED BENEATH STRUCTURE; DRIFT MEASURES 30 LF X 3' HIGH. (P.M.)		

MMS Code	MMS Description	Quantity
3346	Repair / Maintain Timber Wings & Blkhds	4 SF
Location:		
Bent/Span No.		
Priority Level	Status	
Recommended	Routine Maintenance	
Submitted Date:	Submitted By:	Assisted By:
10/26/2016	BG HEATH	
Details		
End Bent 1 Abutment/Backwall : DECAY WITH FILL FALLING THROUGH TO ABUTMENT 1 / UPSTREAM AND DOWNSTREAM ENDS; AREA TOTALS 4 LF X 1' HIGH. (P.M.) UPSTREAM END MEASURES 2 LF X 1' HIGH. DOWNSTREAM END MEASURES 2 LF X 1' HIGH.		



DECAY WITH FILL FALLING THROUGH TO NORTHEAST WINGWALL; AREA MEASURES 10 LF X 2' HIGH. (P.M.)



DECAY WITH FILL FALLING THROUGH TO SOUTHEAST WINGWALL; AREA MEASURES 6 LF X 2' HIGH. (P.M.)

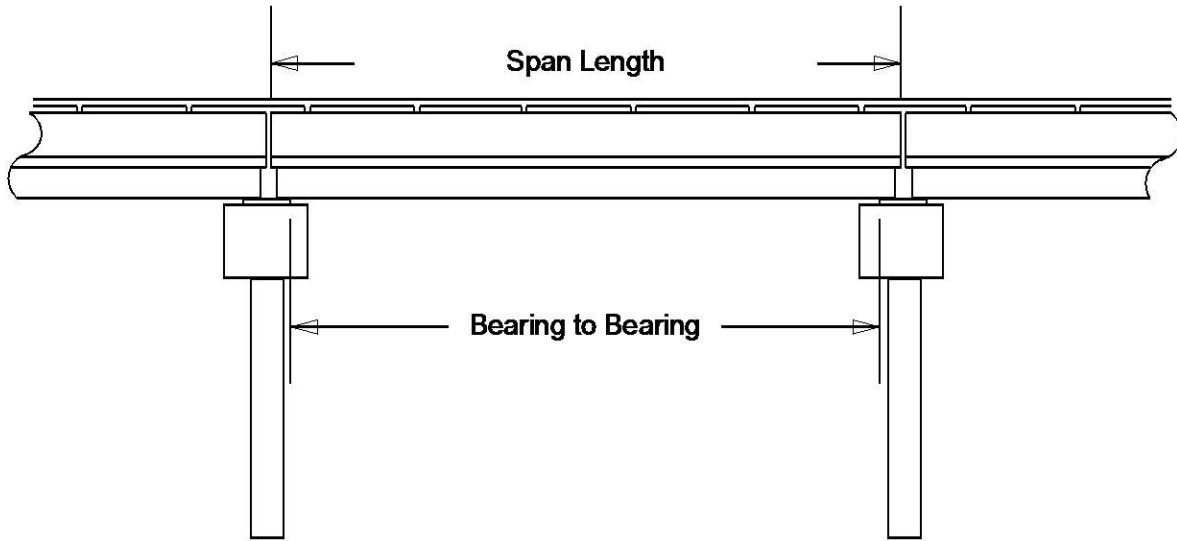


BEAVER DAM LOCATED BENEATH STRUCTURE; DRIFT MEASURES 30 LF X 3' HIGH. (P.M.)

Structure Data Worksheet

Spans

County: BUNCOMBE Structure No: 100099 Date: 10/25/2016 Inspected By: BGH



Span No	Span Length	Bearing to Bearing	Comments
1	30.750	29.250	NBIS = 18.417'

Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 100099 County: BUNCOMBE Date: 10/25/2016 By: BGH

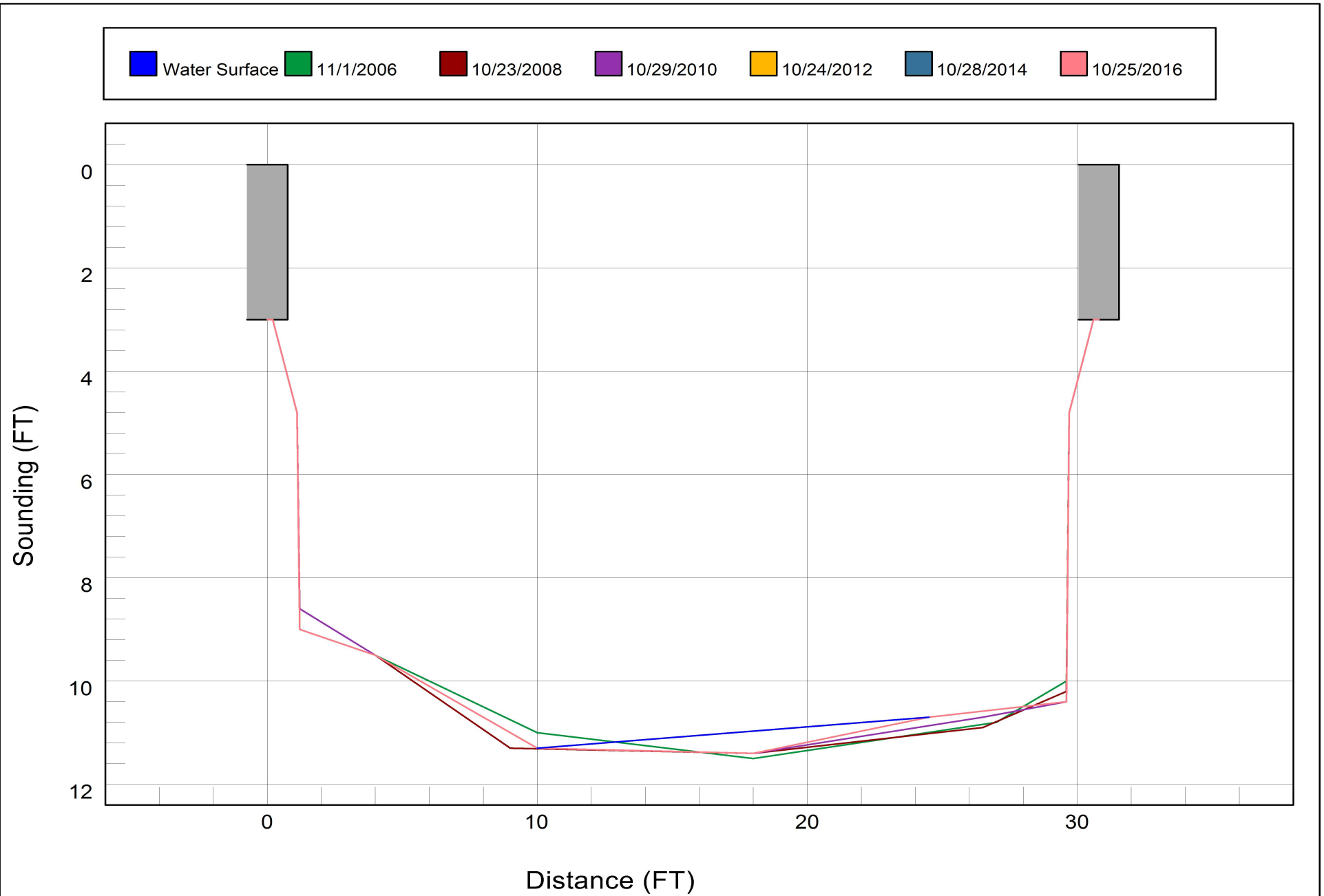
Record sounding from top of rail. Other location if needed: _____

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	FF END BENT 1			
0.2	3				
1.1	4.8	RAIL TO CAP			
1.2	9		1.2	10.2	
4	9.5				
10	11.3	Water Surface/Water Edge (WSWE)			
18	11.4				
24.5	10.7	Water Surface/Water Edge (WSWE)			
29.6	10.4		29.6	8.6	
29.7	4.8	RAIL TO CAP			
30.6	3				
30.8	3	FF END BENT 2			

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



Bridge Inspection Field Sketch



Roadway	18ft Wide	2 Paved Lanes	Looking North
Left Shoulder	3ft Wide		3.000ft Unpaved
Right Shoulder	3ft Wide		3.000ft Unpaved
Left Guardrail			
Right Guardrail			

VERIFIED 10/25/2016 BY: BRIAN HEATH

Title

APPR. RDWY.

Description

APPR. RDWY.

Bridge No: 100099

Drawn By: T.J.G.

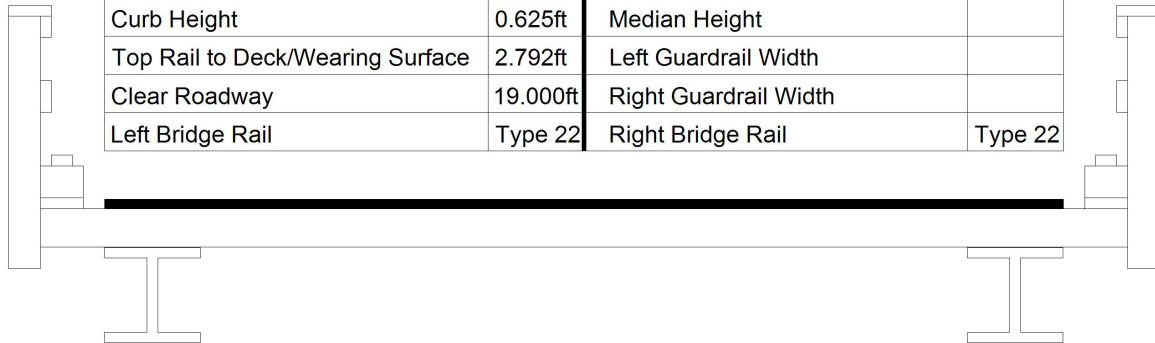
Date: 10/17/08

File Name: S0110001263

Bridge Inspection Field Sketch

AN ADDITIONAL 1" OF A.W.S. PLACED ON BRIDGE SINCE THE 11/01/2006 INSPECTION.

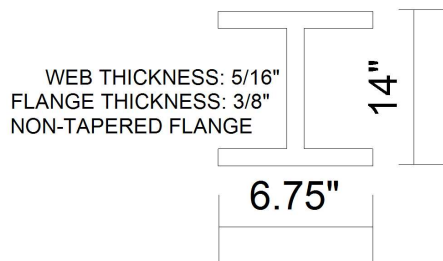
Deck Width/Out to Out	20.000ft	Wearing Surface	0.208ft
Between Rails	19.583ft	Median Width	
Curb Height	0.625ft	Median Height	
Top Rail to Deck/Wearing Surface	2.792ft	Left Guardrail Width	
Clear Roadway	19.000ft	Right Guardrail Width	
Left Bridge Rail	Type 22	Right Bridge Rail	Type 22



Measurements for Span #	1		
Deck Thickness	0.313	Left Overhang	1.000
Top of Rail to Bottom of Beam	4.750	Right Overhang	1.000

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	2.250ft	
2	Steel I Beam	2.250ft	
3	Steel I Beam	2.250ft	
4	Steel I Beam	2.250ft	
5	Steel I Beam	2.250ft	
6	Steel I Beam	2.250ft	
7	Steel I Beam	2.250ft	
8	Steel I Beam	2.250ft	
9	Steel I Beam		

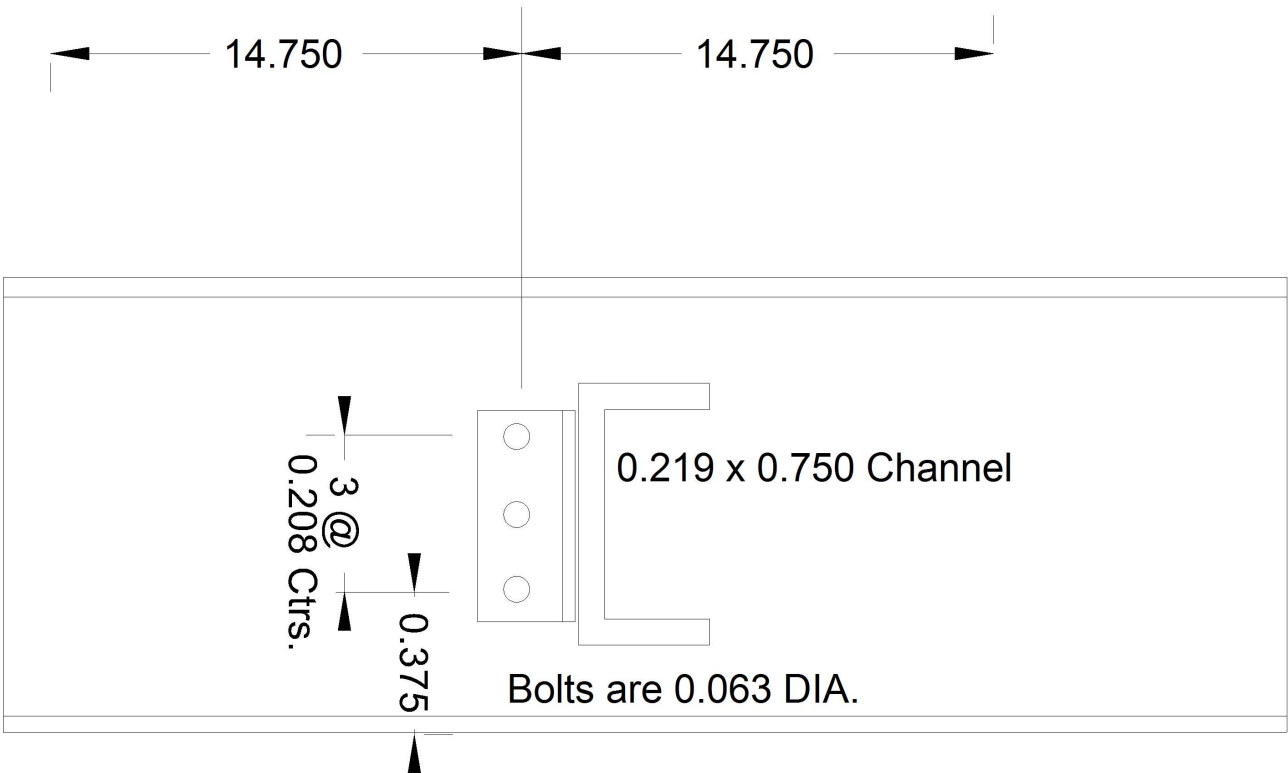
BEAMS



MODIFIED & VERIFIED 10/25/2016 BY: BRIAN HEATH

Title		Description	
DECK SECTION		DECK SECTION	
Bridge No:	100099	Drawn By:	T.J.G.
Date:	10/17/08	File Name:	S0110001264

Bridge Inspection Field Sketch



ONE LINE OF DIAPHRAGM IN ALL BAYS AT MIDSPAN

VERIFIED 10/25/2016 BY: BRIAN HEATH

Title

DIAPHRAGMS

Description

DIAPHRAGMS

Bridge No: 100099

Drawn By: T.J.G.

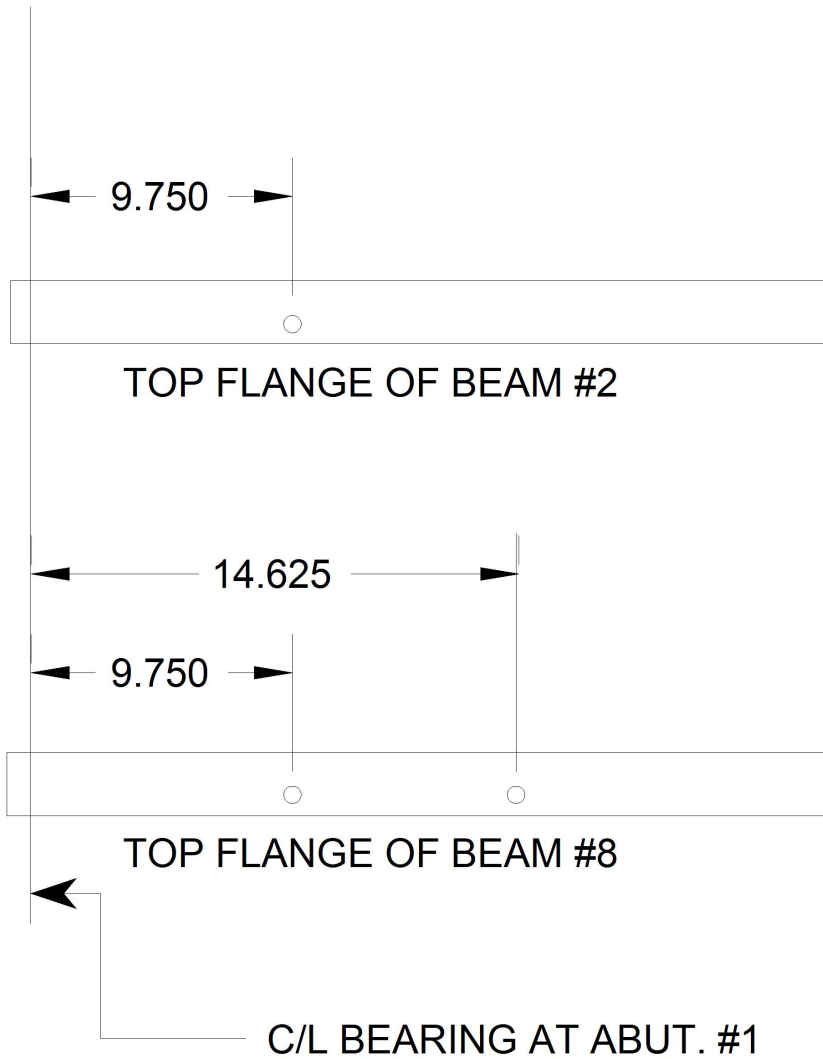
Date: 10/17/08

File Name: S0110001265

Bridge Inspection Field Sketch

SCALE: NOT TO SCALE

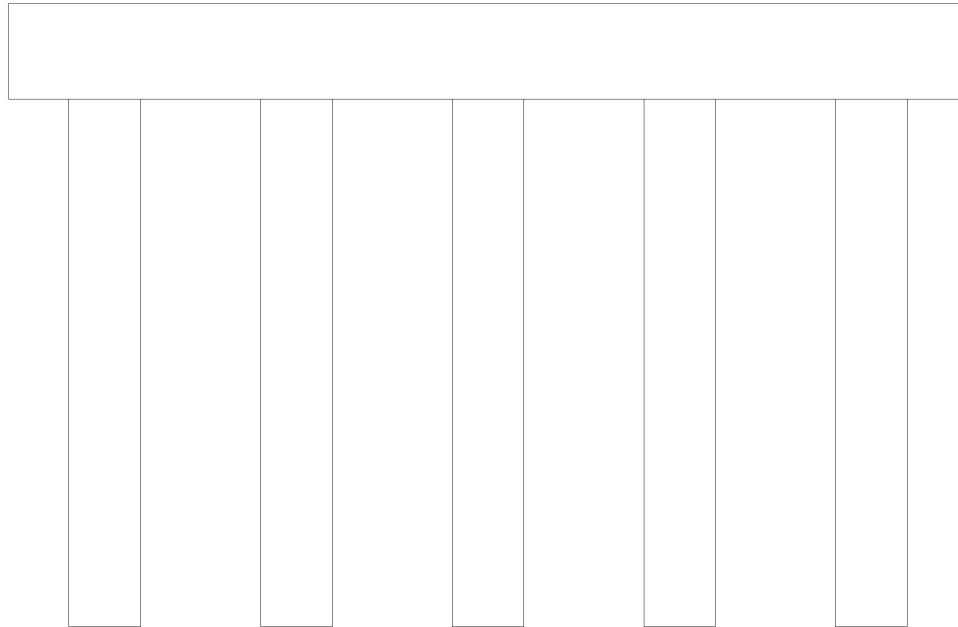
HOLES ARE 0.068 DIAMETER



VERIFIED 10/25/2016 BY: BRIAN HEATH

Title		Description	
FLANGE HOLES		FLANGE HOLES	
Bridge No: 100099	Drawn By: T.J.G.	Date: 10/17/08	File Name: S0110001266

Bridge Inspection Field Sketch



Abutment #	1	Abutment 2 similar	
Cap - Beam Type (Wood or Steel)			
Cap Size	22.000ft Long	0.833ft Wide	0.958ft High
Left Overhang	1.333ft	Lt Cap/Beam Overhang	1.417ft
Right Overhang	1.333ft	Rt Cap/Beam Overhang	1.417ft

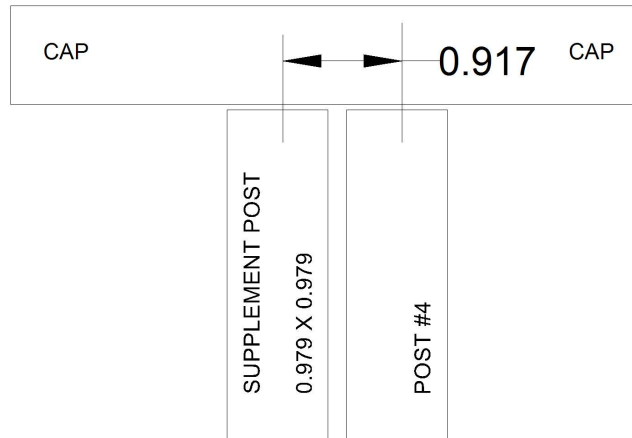
Pile #	Material	Pile Type	Spacing	Length	Width/Diam.	Height	Orientation
1	Wood or Timber	Post and Sills	4.667		0.802	0.802	Vertical
2	Wood or Timber	Post and Sills	5.000		0.802	0.802	Vertical
3	Wood or Timber	Post and Sills	4.667		0.802	0.802	Vertical
4	Wood or Timber	Post and Sills	5.000		0.802	0.802	Vertical
5	Wood or Timber	Post and Sills			0.802	0.802	Vertical

VERIFIED 10/25/2016 BY: BRIAN HEATH

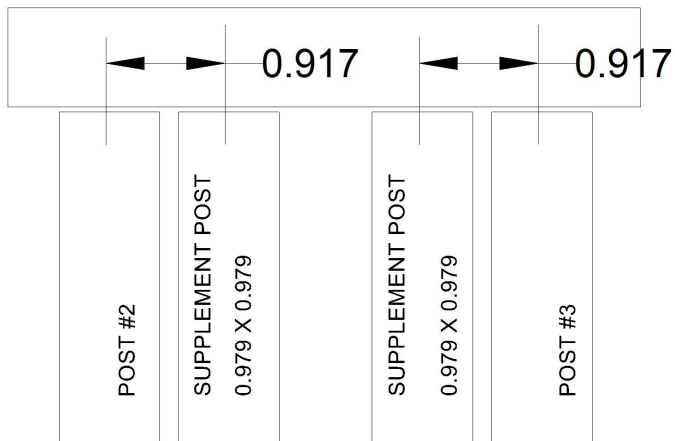
Title		Description	
ABUTMENTS		ABUTMENTS	
Bridge No:	100099	Drawn By:	T.J.G.
Date:	10/17/08	File Name:	S0110001267

Bridge Inspection Field Sketch

NOTE: THE PLACEMENT OF ALL SUPPLEMENT POSTS
ARE TEMPORARY REPAIRS
SUPPLEMENT POSTS ARE ATTACHED TO ORIGINAL POSTS
WITH ONE (1) 5/8" DIAMETER BOLT



SUPPLEMENT POST PLACED AT ABUT. #1



SUPPLEMENT POSTS PLACED AT ABUT. #2

VERIFIED 10/25/2016 BY: BRIAN HEATH

Title

SUPPLEMENT POSTS

Description

SUPPLEMENT POSTS

Bridge No: 100099

Drawn By: T.J.G.

Date: 10/23/2006

File Name: S0110001268