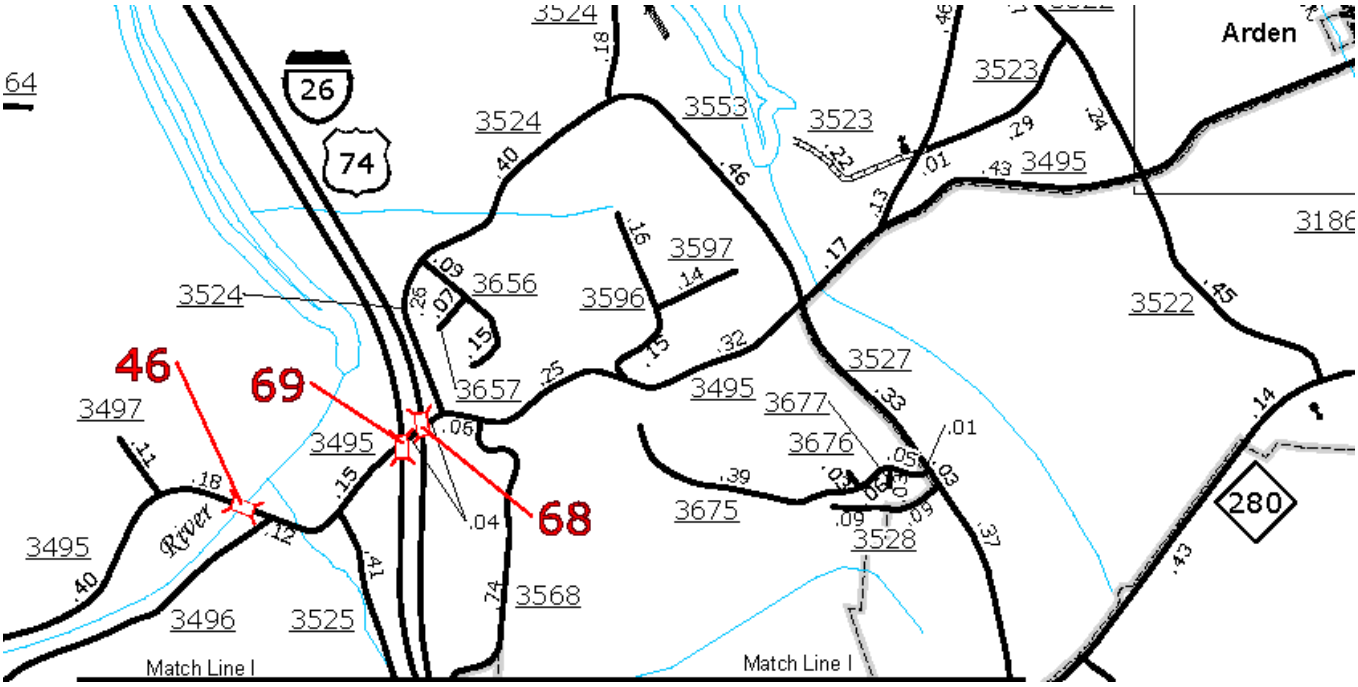
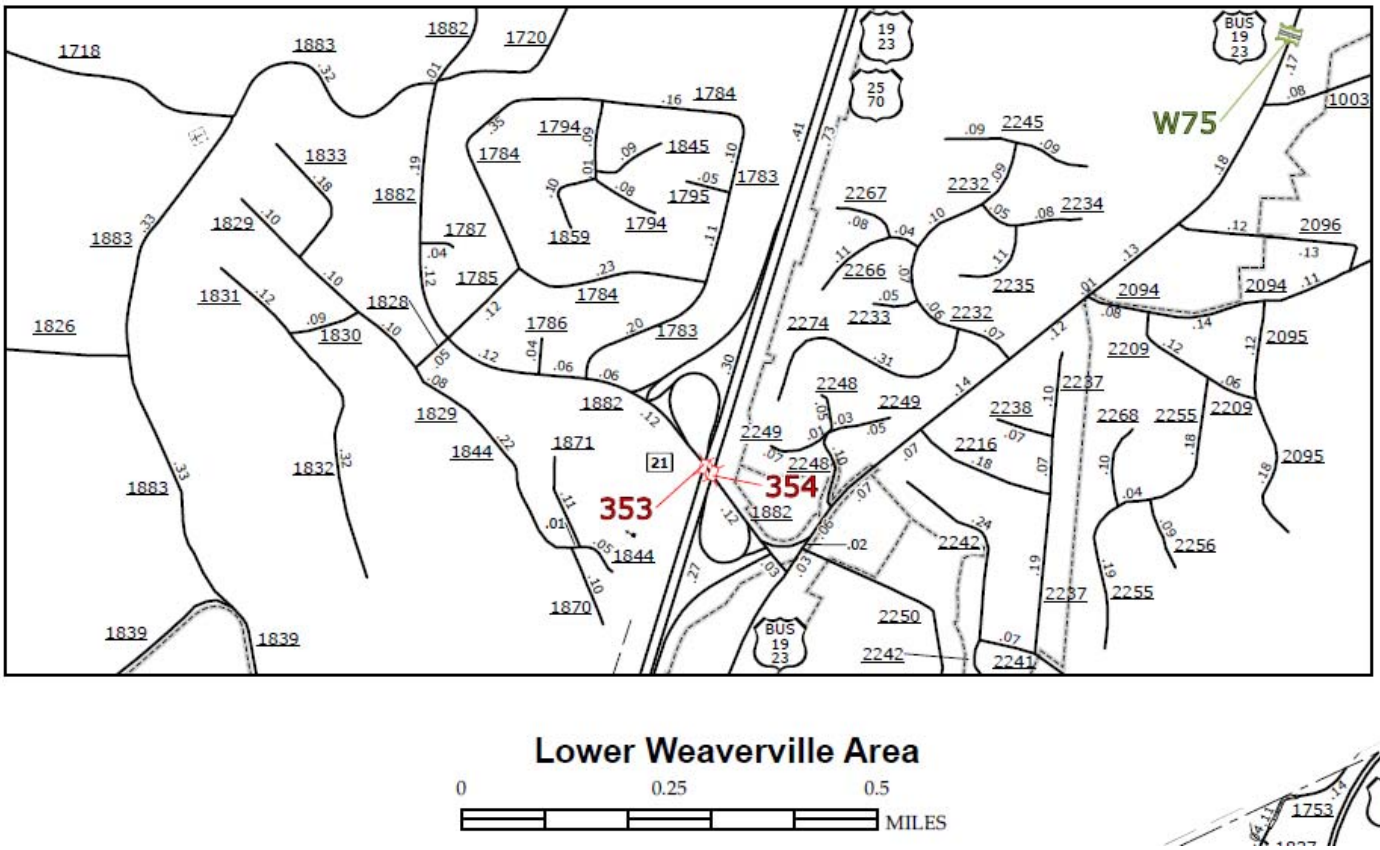
LOCATION MAPS

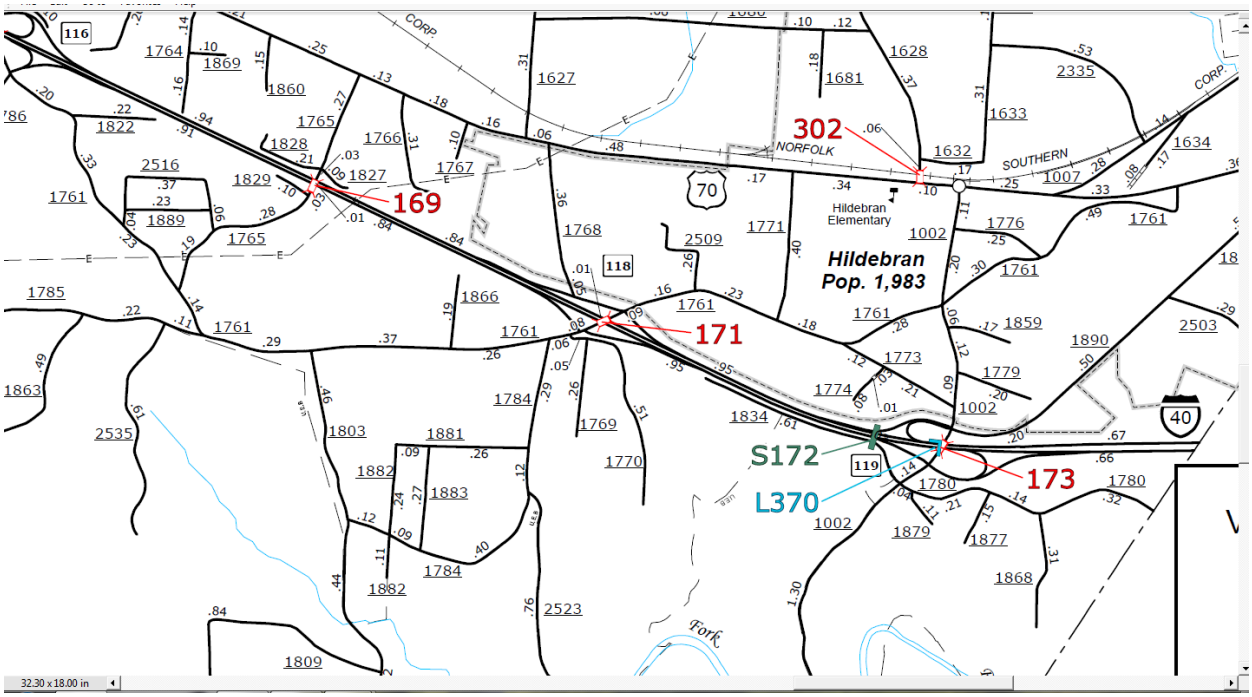
BRIDGE 68 – BUNCOMBE COUNTY



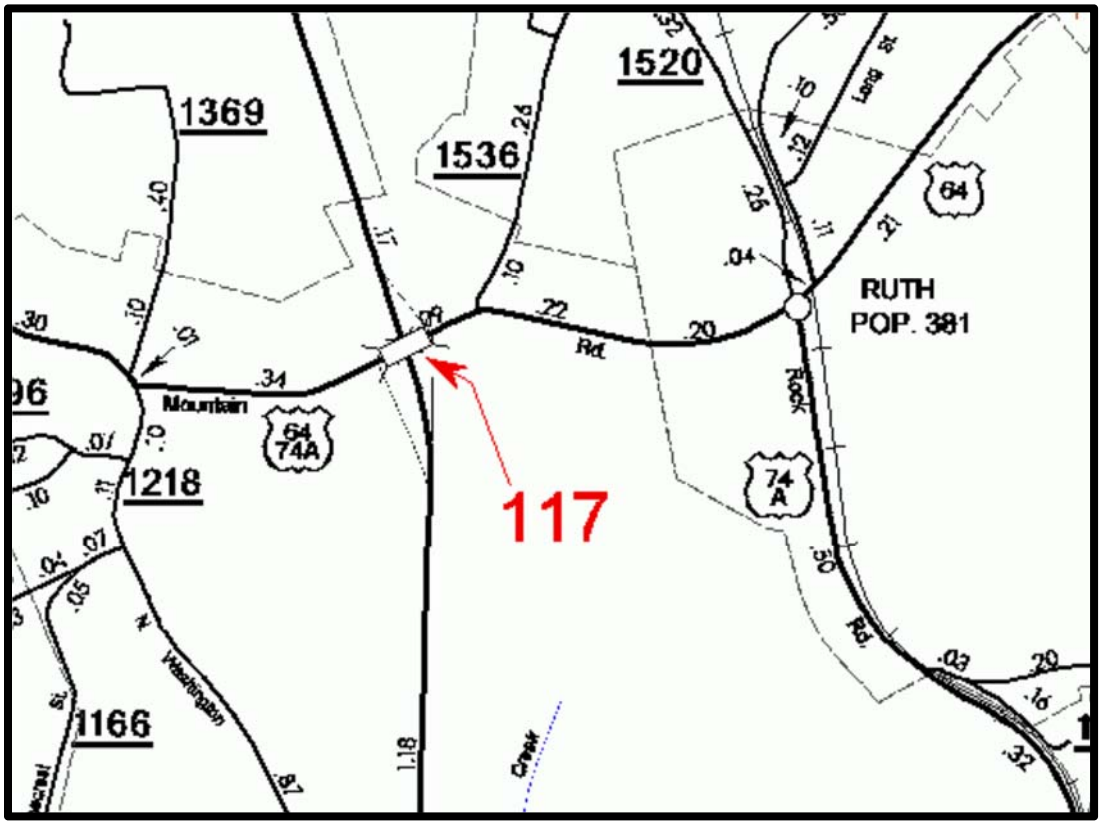
BRIDGE 353 – BUNCOMBE COUNTY



BURKE COUNTY - 169



BRIDGE 117-RUTHERFORD COUNTY



DAMAGE REPORTS

BUNCOMBE 68

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION IMPACT DAMAGE REPORT ON SPAN 2
RATINGS FOR SPAN 2 ITEMS ONLY
PRIOITY MAINTENANCE REQUESTED

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Damage Inspection Report

COUNTY BUNCOMBE **BRIDGE NUMBER** 100068 **INSPECTION CYCLE** 0 **YRS**

ROUTE I-26 WBL **ACROSS** SR3495 **M.P.** 39.20

LOCATION 1.2 MI.N.JCT.SR3526

SUPERSTRUCTURE REINFORCED CONC.FLOOR ON I-BEAMS

SUBSTRUCTURE E.BTS:RC CAPS/H-PILES;BTS: RC P&B/PILE FTG.

SPANS 1 @ 42'-6, 1 @ 55', 1 @ 35'-4

LONGITUDE 82° 32' 32.42" **LATITUDE** 35° 27' 25.43"

INSPECTION DATE 04/04/2013 **PRESENT CONDITION** POOR

PRESENT POSTING N **PROPOSED POSTING**

OTHER SIGNS PRESENT LOW CLEARANCES

LOOKING NORTH

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

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: 04/19/2013

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **100068**
(8) STRUCTURE NUMBER(FEDERAL) 000000000210068
(5) INVENTORY ROUTE (ON/UNDER) - ON 11000260
(2) STATE HIGHWAY DEPARTMENT DISTRICT 2
(3) COUNTY CODE 21 (4) PLACE CODE 5880
(6) FEATURE INTERSECTED - SR3495
(7) FACILITY CARRIED I-26 WBL
(9) LOCATION 1.2 MI.N.JCT.SR3526
(11)MILEPOINT 39.2
(16)LAT 35° 27' 25.43" (17)LONG 82° 32' 32.42"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Steel
TYPE - Stringer Mutlibeam or Girder CODE 302
(44) STRUCTURE TYPE APPR :
TYPE - CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 3
(46) NUMBER OF APPROACH SPANS
(107)DECK STRUCTURE TYPE - 1 CODE
(108)WEARING SURFACE / PROTECTIVE SYSTEM :
(A) TYPE OF WEARING SURFACE - CODE
(B) TYPE OF MEMBRANE - CODE
(C) TYPE OF DECK PROTECTION - CODE

AGE AND SERVICE

(27) YEAR BUILT 1963
(106)YEAR RECONSTRUCTED 2012
(42) TYPE OF SERVICE : ON - Highway
UNDER - Highway CODE 11
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 2
(29) AVERAGE DAILY TRAFFIC 34500
(30) YEAR OF ADT 2010 (109) TRUCK ADT PCT 16%
(19) BYPASS OR DETOUR LENGTH 1 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 54 FT
(49) STRUCTURE LENGTH 133 FT
(50)CURB OR SIDEWALK: LEFT 1.6 FT RIGHT 1.6 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 38 FT
(52) DECK WIDTH OUT TO OUT 43.4167 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 38 FT
(33) BRIDGE MEDIAN - No Median CODE 1
(34) SKEW 55° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 38 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Highway 13.75 FT
(55) MIN LAT UNDERCLEAR RT REF Highway 5.5 FT
(56) MIN LAT UNDERCLEAR LT REF - 0 FT

NAVIGATION DATA

(38) NAVIGATION CONTROL - Not Applicable CODE N
(111)PIER PROTECTION - CODE
(39) NAVIGATION VERTICAL CLEARANCE 0
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR FT
(40) NAVIGATION HORIZONTAL CLEARANCE 0 FT

SUFFICIENCY RATING = 23.53
STATUS = Structurally Deficient

CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is on the NHS 1
(26) FUNCTIONAL CLASS - Arterial - Interstate 11
(100)STRAHNET HIGHWAY - Interstate STRAHNET Route 1
(101)PARALLEL STRUCTURE - Left Parallel Structure L
(102)DIRECTION OF TRAFFIC - 1-way Traffic 1
(103)TEMPORARY STRUCTURE - Temporary Structure/Conditions T
(110)DESIGNATED NATIONAL NETWORK - On the National Network 1
(20) TOLL On Free Road 3
(31) MAINTAIN - State Highway Agency 01
(22) OWNER - State Highway Agency 01
(37) HISTORICAL SIGNIFICANCE - Not Eligible 5

CONDITION — CODE

(58) DECK 7
(59) SUPERSTRUCTURE 4
(60) SUBSTRUCTURE 5
(61) CHANNEL & CHANNEL PROTECTION N
(62) CULVERTS N

LOAD RATING AND POSTING — CODE

(31) DESIGN LOAD HS 20 + MOD 6
(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 - No Posting Required 5
(41) STRUCTURE OPEN, POSTED ,OR CLOSED D
DESCRIPTION - Open Temporary Shoring

APPRAISAL — CODE

(67) STRUCTURAL EVALUATION 3
(68) DECK GEOMETRY 5
(69) UNDERCLEARANCES,VERTI & HORIZ 3
(71) WATERWAY ADEQUACY N
(72) APPROACH ROADWAY ALIGNMENT 7
(36) TRAFFIC SAFETY FEATURES 0111
(113)SCOUR CRITICAL BRIDGES N

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 69000 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 12/08/2011
(92) CRITICAL FEATURE INSPECTION : (93) CFI DATE
A) FRACTURE CRIT DETAIL - NO A)
B) UNDERWATER INSP - NO B)
C) OTHER SPECIAL INSP NO C)
SCOUR

Structure No: 100068 County: BUNCOMBE Run Date:

Span Number	Feature Intersected	Inventory Route	Minimum Maximum Vertical Clearance	Milepoint	Base Highway Network	LRS Inventory Route	Toll	Functional Classification	Numer of Lanes	Average Daily Traffic	Year of Average Daily Traffic	Total Horizontal Clearance	See Note 1					STRAHNET Highway Designator	Direction of Traffic	Highway System of Route
													Reference Feature	Minimum Vertical Underclearance	Right Lateral Underclearance	Left Lateral Underclearance	Underclearance Appraisal Grade			
	6	5	10	11	12	13	20	26	28	29	30	47	54A	54	55	56	69	100	102	104
2	SR3495	31034950	14	0	0			9	2	2700	2010	34.5	H	13.75	5.5		9	0	2	0

Note 1: Items 54, 55, and 56 are not reported FHWA under route data points but are collected for each under route to determine the minimum value for Underclearance Appraisal Item 69. The under route that generates the lowest Underclearance Appraisal value will be reported on the Facility Carried record.

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Run Date: 04/19/2013

COUNTY :	DIVISION :	DISTRICT:	STRUCTURE NUMBER :	LENGTH :
BUNCOMBE	13	2	100068	133 FEET

ROUTE CARRIED : I-26 WBL

FEATURE INTERSECTED : SR3495

LOCATED : 1.2 MI.N.JCT.SR3526

BRIDGE NAME :

CITY : *BILTMORE FO

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
11	FA	NFA	34500 2010	LT 99 RT 99

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1963	SHC	8.19002	I-26-1(10)6	HS 20 + MOD

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :
2012	DOH	45066.3.ST3	RT.	35	ON 2 UNDER 2

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

SUPERSTRUCTURE : REINFORCED CONC.FLOOR ON I-BEAMS

SUBSTRUCTURE : E.BTS:RC CAPS/H-PILES;BTS: RC P&B/PILE FTG.

SPANS : 1 @ 42'-6, 1 @ 55', 1 @ 35'-4

BEAMS OR GIRDERS : SPNS.1&3:3LNS.33 &2LNS.36 I-BMS;SPN2:5LNS.36 I-BEAMS

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
8.5 RC/NO AWS		43.4167 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :			
38 FT	41.3 FT	LT	1.6 FT	RT	1.6 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :		
HS-1	HS-1	EB(5B) Damaged	SV	TTST	DATE

SYSTEM : Primary Interstate

GREEN LINE ROUTE : Y

UNDER ROUTES AND CLEARANCES

		Vertical Clearances		Horizontal Clearances		
Span	Route Description	MMVC	MVC	Total	Left	Right
2	SR3495	14	13.75	34.50	0	5.50

Note: All measurements are in feet.

REMARKS :

BRIDGE I & A FORM1 (90)A

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Damage Inspection Report
BRIDGE NO. 100068 COUNTY BUNCOMBE ROUTE I-26 WBL OVER SR3495
STRUCTURE TYPE REINFORCED CONC.FLOOR ON I-BEAMS
ROUTE ORIENTATION SPANS 1 @ 42'-6, 1 @ 55', 1 @ 35'-4

EVALUATION CODES: CRITICAL (C, 0 - 3); POOR (P, 4); FAIR (F, 5, 6); GOOD (G, 7 - 9)

INSPECTION ITEM			GRADES
DECK ITEMS			
1. WEARING SURFACE			
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58	a. CONCRETE		
	b. TIMBER		
	c. STEEL PLANK		
	d. OPEN GRID		
3. RAILING	a. CONCRETE		
	b. TIMBER		
	c. ALUMINUM		
	d. STEEL		
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)			
6. DECK EXP JTS. OR DEVICES. NO. OF EACH	a. STEEL PL OR FINGER		
	b. MISC PREFAB		
	c. COMPRESSION SEAL		
	d. STANDARD JOINTS		
	e. OPEN JOINTS		
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59			
10. LONGITUDINAL BEAMS OR GIRDERS			P
11. LONGITUDINAL JOIST OR STRINGERS			
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			P
13. END DIAP'S, CURTAIN WALLS, & CONN'S			
14. FLOOR BEAMS AND CONNECTIONS			
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			P
16. DRAINAGE SYSTEM (ON STRUCTURE)			
17. MOVABLE SPAN MACHINERY			
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)			
35. TIM SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		
	b. PILES, POST, SILLS, & BRACING		
	c. BULKHEADS, WING'S, & TIE BACKS		
36. CONC SUB STR.	a. ABUT. & INT. BENT CAPS		
	b. ABUT. & BENT COL'S BREASTWALLS		
	c. ABUT. & INT. BENT PILES		
	d. BACKWALLS, WING'S, RETAIN. WALLS		
	e. ABUT. & BENT FOOTINGS & SILLS		
37. STEEL SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		
	b. PILES, BRACING, AND BULKHEADS		
38. FOUNDATION PILES TYPE MATERIAL			
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)			
40. FENDER SYSTEMS			
41. DRIFT			

ITEM 61		
45. CHANNEL & CHANNEL PROT.	a. WATERWAY	
	b. ALIGNMENT	
	c. SCOUR	
	d. SLOPE PROT., RIP-RAP, DIKES, ETC.	
50. APPROACH ROADWAY CONDITION		
51. APPROACH SLABS		
52. PAINT SYSTEM	CODE	
53. UTILITIES		
54. RESPONSE TO LIVE LOAD		
55. ESTIMATED REMAINING LIFE		5
60. REGULATORY SIGN NOTICE ISSUED		NO
61. PROMPT-ACTION NOTICE ISSUED		YES
62. PRESENTLY POSTED		NO
63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)		10
64. TOTAL SNOOPER INSP. TIME (HRS)		0
65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		5

70. SI&A GENERAL CONDITION RATINGS		
a. DECK	ITEM 58	
b. SUPERSTRUCTURE	ITEM 59	
c. SUBSTRUCTURE	ITEM 60	
d. CHANNEL & CHANNEL PROT.	ITEM 61	

71. SI&A FIELD APPRAISAL RATINGS	
a. WATERWAY ADAQUACY	
b. APPR. RDWY. ALIGNMENT	
72. FIELD SCOUR EVALUATION	

USE OF INSP. ACCESSIBILITY EQUIPMENT		
SNOOPER (CODE S, 4, OR N)	HRS	NO
LADDER		NO
BUCKET TRUCK		YES
BOAT		NO
OTHER		YES

SPECIAL INSPECTION REQUESTED FOR

NOTE

80. INSPECTED BY:

81. REVIEWED BY:

Bridge I&A Form 1(82)H **State of North Carolina** **Dept. of Transportation** **Division of Highways**	**FIELD INSPECTION REPORT** **Bridge Inspecion & Analysis**	

Team Leader **MD OSBORNE**

Assisted By **A KING**

Item No.	Grade	
10	P	IMPACT DAMAGE WAS REQUESTED BY DIVISION BRIDGE MAINTENANCE FOR SPAN 2 OVER SR3495 A IMPACT DAMAGE REPORT WAS DONE ON 3/12/12 BEAM 5: POINT OF IMPACT ON BEAM 5 WAS 17'-6"' FROM FACE OF BENT 1 OVER NBL, BEAM 5 IS OUT OF PLUM 1 1/2"+/- AT 24'-9 FROM FACE OF BENT 1". SEE PHOTOS
12	P	CONNECTION PLATE AND INTERMEDIATE DIAPHRAGMS:ON BEAM 5: A 8" LONG CRACK IN DIAPHRAGM WELD ON BEAM 5 AT 20'-0" FROM FACE OF BENT 2. AND A 23" +/- LONG CRACK IN DIAPHRAGM WELD AT 14'-2"" FROM FACE OF BENT 1. (BEAM HAS EXCESSIVE MOVEMENT WHEN TRAFFIC CROSSES BRIDGE) SEE PHOTOS
15	P	BEARINGS ANS ANCHOR BOLTS IN SPAN 2 DID NOT SHOW ANY INDICATION OF DAMAGE DUE TO THE IMPACT.
61	YES	CRACKS IN DIAPHRAGMS
73f	YES	UT MACHINE

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 100068 County BUNCOMBE Date: 04/04/2013

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	2	CRACK IN DIAPHRAGM A 23" CRACK IN DIAPHRAGM WELD AT DIAPHRAGM ON BEAM 5 AT 14'-2" FROM BENT 1	
3314	Maintain Steel Superstructure Components	LF	1	CRACK IN DIAPHRAGM A 8" LONG CRACK IN DIAPHRAGM WELD AT DIAPHRAGM ON BEAM 5 AT 20'-00 FROM FACE OF BENT 2	
3314	Maintain Steel Superstructure Components	LF	55	BEAM 5 BEAM 5 IS 1 1/2" OUT OF PLUM AT 24'-9" FROM FACE OF BENT 1	
3314	Maintain Steel Superstructure Components	LF	55	BEAM 5 IS 1 1/2" OUT OF PLUM AT 24'-9" FROM FACE OF BENT 1	
3314	Maintain Steel Superstructure Components	LF	1	A 8" LONG CRACK IN DIAPHRAGM WELD AT DIAPHRAGM ON BEAM 5 AT 20'-00 FROM FACE OF BENT 2	
3314	Maintain Steel Superstructure Components	LF	2	A 23" CRACK IN DIAPHRAGM WELD AT DIAPHRAGM ON BEAM 5 AT 14'-2" FROM BENT 1	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 100068 County BUNCOMBE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	2 LF
Location:		
Beams and Girders	Bent/Span No. 2 DIAPHRAGM	
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
04/04/2013	MD OSBORNE	A KING
Details		
CRACK IN DIAPHRAGM A 23" CRACK IN DIAPHRAGM WELD AT DIAPHRAGM ON BEAM 5 AT 14'-2" FROM BENT 1		

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	1 LF
Location:		
Beams and Girders	Bent/Span No. 2 DIAPHRAGM	
Priority Level	Status	
Priority Maintenance	Division Bridge Maintenance Notification Received	
Submitted Date:	Submitted By:	Assisted By:
04/04/2013	MD OSBORNE	A KING
Details		
CRACK IN DIAPHRAGM A 8" LONG CRACK IN DIAPHRAGM WELD AT DIAPHRAGM ON BEAM 5 AT 20'-00 FROM FACE OF BENT 2		

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 100068 County BUNCOMBE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	55 LF

Location:		
Beams and Girders	Bent/Span No. 2	BEAM

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
04/04/2013	MD OSBORNE	A KING

Details
BEAM 5 BEAM 5 IS 1 1/2" OUT OF PLUM AT 24'-9" FROM FACE OF BENT 1

SCRAPES ON BEAM 5 FROM 17'-6" FROM BENT 1 TO 24'-9" FROM FACE OF BENT 2

A 23" CRACK IN DIAPHRAGM WELD AT DIAPHRAGM ON BEAM 5 AT 14'-2" FROM BENT 1

A 8" LONG CRACK IN DIAPHRAGM WELD AT DIAPHRAGM ON BEAM 5 AT 20'-00 FROM FACE OF BENT 2

BEAM 5 IS 1 1/2" OUT OF PLUM AT 24'-9" FROM FACE OF BENT 1

Bridge Inspection Field Sketch

Roadway	24.000ft Wide	2 Paved Lanes	Looking West
Left Shoulder	10ft Wide	4.000ft Paved	6.000ft Unpaved
Right Shoulder	10ft Wide	10.000ft Paved	
Left Guardrail	10.000ft from road		
Right Guardrail			

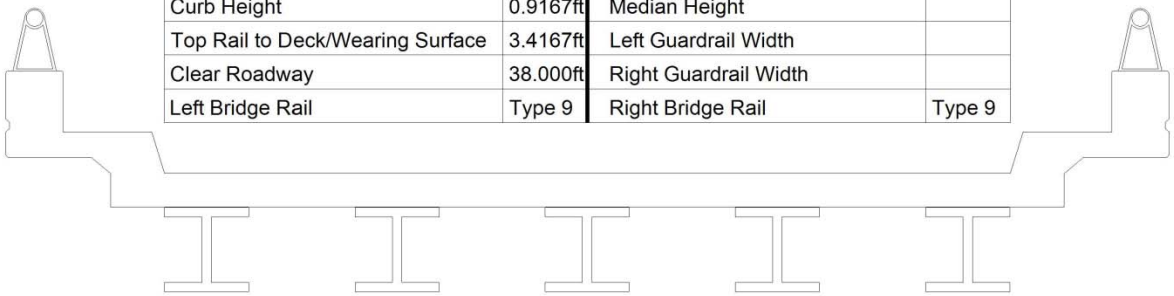
APPROVED & VERIFIED 12/8/11 BY: BC

Title	**Description**
APPR. RDWY.	DATA FOR APPR. RDWY.

Bridge No: 100068	**Drawn By:** T.J.G.	**Date:** 11/5/07	**File Name:** S0110000662

Bridge Inspection Field Sketch

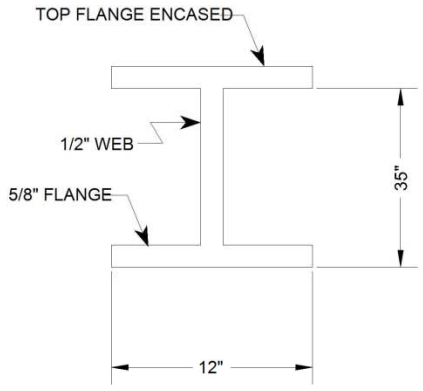
Deck Width/Out to Out	43.4167ft	Wearing Surface	
Between Rails	41.250ft	Median Width	
Curb Height	0.9167ft	Median Height	
Top Rail to Deck/Wearing Surface	3.4167ft	Left Guardrail Width	
Clear Roadway	38.000ft	Right Guardrail Width	
Left Bridge Rail	Type 9	Right Bridge Rail	Type 9



Measurements for Span #	1		
Deck Thickness	0.6458	Left Overhang	4.7083
Top of Rail to Bottom of Beam	7.0625	Right Overhang	4.7083

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	8.500ft	
2	Steel I Beam	8.500ft	
3	Steel I Beam	8.500ft	
4	Steel I Beam	8.500ft	
5	Steel I Beam		

END BENTS ARE REINF. CONCRETE CAPS ON H-PILES
INT. BENTS ARE REINF. CONCRETE POST & BEAM TYPE ON PILE FOOTINGS



TYPICAL STRINGER
NOT TO SCALE

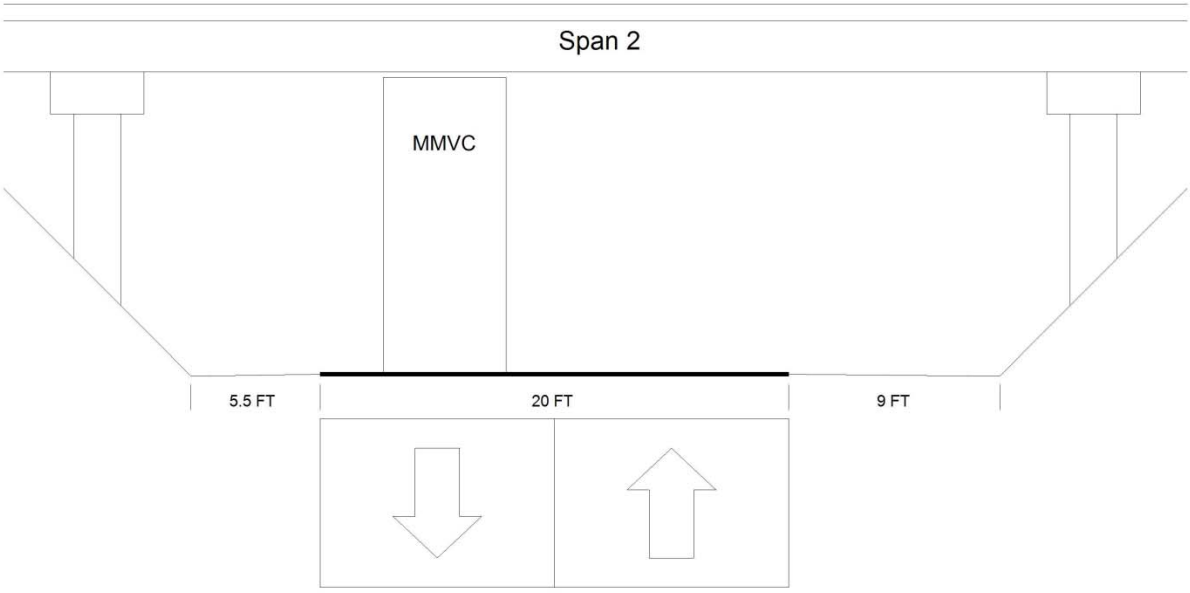
APPROVED & VERIFIED 12/8/11 BY: BC

Title	Description
DECK SECTION	DATA FOR SUPERSTRUCTURE

Bridge No:	Drawn By:	Date:	File Name:
100068	T.J.G.	11/5/07	S0110000663

Bridge Inspection Field Sketch

I-26



Roadway 1		Direction of Traffic	East West
Distance to Left Rail		Distance to Right Rail	
Distance to Left Toe of Slope	5.5FT	Distance to Left Bent	10.333FT
Distance to Right Toe of Slope	9FT	Distance to Right Bent	13FT
MMVC	14.000 Ft at Beam 5, 10 FT from EAST EDGE OF RDWY.		
MVC	13.750 Ft at Beam 5, 0 FT from WEST EDGE OF RDWY.		

APPROVED & VERIFIED 12/8/11 BY: BC

Title	**Description**
UNCLEARANCES	UNCLR. DATA

Bridge No: 100068	**Drawn By:** T.J.G.	**Date:** 11/5/07	**File Name:** S0110000664

LOOKING NORTH

LOOKING SOUTH

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

IMPACT DAMAGE REPORT ON SPAN 2
RATINGS FOR SPAN 2 ITEMS ONLY
PRIORITY MAINTENANCE REQUESTED

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Damage Inspection Report

COUNTY BUNCOMBE BRIDGE NUMBER 100353 INSPECTION CYCLE 0 YRS

ROUTE US19,23BYP NBL ACROSS SR1882 M.P. 0

LOCATION .65 MI.S.JCT.SR1720

SUPERSTRUCTURE REINFORCED CONCRETE FLOOR ON I-BEAMS

SUBSTRUCTURE E.BTS:RC CAPS/H-PILES;INT.BTS:RC POST&BEAM/PILE FTGS.

SPANS 1 @ 58';1 @ 61';1 @ 64'-6

LONGITUDE 82° 35' 30.31" LATITUDE 35° 40' 25.77"

INSPECTION DATE 04/04/2013 PRESENT CONDITION POOR

PRESENT POSTING N PROPOSED POSTING

OTHER SIGNS PRESENT NONE

LOOKING NORTH

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

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 Update Date: 09/24/2013

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **100353**
(8) STRUCTURE NUMBER(FEDERAL) 000000000210353
(5) INVENTORY ROUTE (ON/UNDER) - ON 11000260
(2) STATE HIGHWAY DEPARTMENT DISTRICT 2
(3) COUNTY CODE 21 (4) PLACE CODE 71560
(6) FEATURE INTERSECTED - SR1882
(7) FACILITY CARRIED I-26W,US19N,US23N
(9) LOCATION .65 MI.S.JCT.SR1720
(11)MILEPOINT 0
(16)LAT 35° 40' 25.77" (17)LONG 82° 35' 3.03"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Steel
TYPE - Stringer Mutlibeam or Girder CODE 302
(44) STRUCTURE TYPE APPR :
TYPE - CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 3
(46) NUMBER OF APPROACH SPANS
(107)DECK STRUCTURE TYPE - 1 CODE
(108)WEARING SURFACE / PROTECTIVE SYSTEM :
(A) TYPE OF WEARING SURFACE - CODE
(B) TYPE OF MEMBRANE - CODE
(C) TYPE OF DECK PROTECTION - CODE

AGE AND SERVICE

(27) YEAR BUILT 1963
(106)YEAR RECONSTRUCTED
(42) TYPE OF SERVICE : ON - Overpass - Interchange
UNDER - Highway CODE 61
(28) LANES: ON STRUCTURE 3 UNDER STRUCTURE 2
(29) AVERAGE DAILY TRAFFIC 21500
(30) YEAR OF ADT 2011 (109) TRUCK ADT PCT 16%
(19) BYPASS OR DETOUR LENGTH 0 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 61 FT
(49) STRUCTURE LENGTH 184 FT
(50)CURB OR SIDEWALK: LEFT 1.6 FT RIGHT 1.6 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 40 FT
(52) DECK WIDTH OUT TO OUT 45.25 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 38 FT
(33) BRIDGE MEDIAN - No Median CODE 1
(34) SKEW 36° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 40 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Highway 14.25 FT
(55) MIN LAT UNDERCLEAR RT REF Highway 13 FT
(56) MIN LAT UNDERCLEAR LT REF - 0 FT

NAVIGATION DATA

(38) NAVIGATION CONTROL - Not Applicable CODE N
(111)PIER PROTECTION - CODE
(39) NAVIGATION VERTICAL CLEARANCE 0
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR FT
(40) NAVIGATION HORIZONTAL CLEARANCE 0 FT

SUFFICIENCY RATING = 63
STATUS = Structurally Deficient

CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is on the NHS 1
(26) FUNCTIONAL CLASS - Arterial - Interstate 11
(100)STRAHNET HIGHWAY - Not a STRAHNET Route 0
(101)PARALLEL STRUCTURE - Right Parallel Structure R
(102)DIRECTION OF TRAFFIC - 1-way Traffic 1
(103)TEMPORARY STRUCTURE -
(110)DESIGNATED NATIONAL NETWORK - On the National Network 1
(20) TOLL On Free Road 3
(31) MAINTAIN - State Highway Agency 01
(22) OWNER - State Highway Agency 01
(37) HISTORICAL SIGNIFICANCE - Not Eligible 5

CONDITION — CODE

(58) DECK 3
(59) SUPERSTRUCTURE 5
(60) SUBSTRUCTURE 5
(61) CHANNEL & CHANNEL PROTECTION N
(62) CULVERTS N

LOAD RATING AND POSTING — CODE

(31) DESIGN LOAD HS 20 + MOD 6
(63) OPERATING RATING METHOD - Load Factor 1
(64) OPERATING RATING - HS-43 78
(65) INVENTORY RATING METHOD - Load Factor 1
(66) INVENTORY RATING - HS-26 46
(70) BRIDGE POSTING - No Posting Required 5
(41) STRUCTURE OPEN, POSTED ,OR CLOSED A
DESCRIPTION - Open, No Restriction

APPRAISAL — CODE

(67) STRUCTURAL EVALUATION 5
(68) DECK GEOMETRY 2
(69) UNDERCLEARANCES,VERTI & HORIZ 5
(71) WATERWAY ADEQUACY N
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 0011
(113)SCOUR CRITICAL BRIDGES N

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 43000 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 02/06/2013
(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

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Update Date: 09/24/2013

COUNTY : BUNCOMBE | DIVISION : 13 | DISTRICT: 2 | STRUCTURE NUMBER : 100353 | LENGTH : 184 FEET

ROUTE CARRIED : I-26W,US19N,US23N | FEATURE INTERSECTED : SR1882

LOCATED : .65 MI.S.JCT.SR1720 | BRIDGE NAME : | CITY : *WEAVERVILLE

FUNC. CLASS : 11 | SYST.ON : FA | SYST.UNDER : NFA | ADT & YR : 21500 2011 | RAIL TYPE : LT 99 RT 99

BUILT : 1963 | BY : SHC | PROJ : 8.1906601 | FED.AID PROJ : SF-13-1(101) | DESIGN LOAD : HS 20 + MOD

REHAB : | BY : | PROJ : | ALIGNMENT : TAN | SKEW : 126 | LANES : ON 3 UNDER 2

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

SUPERSTRUCTURE : REINFORCED CONCRETE FLOOR ON I-BEAMS

SUBSTRUCTURE : E.BTS:RC CAPS/H-PILES;INT.BTS:RC POST&BEAM/PILE FTGS.

SPANS : 1 @ 58';1 @ 61';1 @ 64'-6

BEAMS OR GIRDERS : 6 LINES 36 I-BEAMS @ 7'-6 CENTERS

FLOOR : 7.75RC/3.75AWS | ENCROACHMENT : | DECK (OUT TO OUT) : 45.25 FT

CLEAR ROADWAY : 40 FT | BETWEEN RAILS : 43.25 FT | SIDEWALK OR CURB : LT 1.6 FT RT 1.6 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-26 | OPE.RTG. : HS-43 | CONTR.MEMBER : Int.bmsSpA | POSTED : SV | TTST | DATE

SYSTEM : Primary Interstate | GREEN LINE ROUTE : Y

UNDER ROUTES AND CLEARANCES

		Vertical Clearances		Horizontal Clearances		
Span	Route Description	MMVC	MVC	TotalLeft		Right
2	SR 1882	14.50	14.25	42.30	0	13

Note: All measurements are in feet.

REMARKS :

Structure No: 100353 County: BUNCOMBE Run Date:

Span Number	Feature Intersected	Inventory Route	Minimum Maximum Vertical Clearance	Milepoint	Base Highway Network	LRS Inventory Route	Toll	Functional Classification	Numer of Lanes	Average Daily Traffic	Year of Average Daily Traffic	Total Horizontal Clearance	See Note 1					STRAHNET Highway	Direction of Traffic	Highway System of Route
													Reference Feature	Minimum Vertical Underclearance	Right Lateral Underclearance	Left Lateral Underclearance	Underclearance Appraisal Grade			
	6	5	10	11	12	13	20	26	28	29	30	47	54A	54	55	56	69	100	102	104
2	SR 1882	31018820	14.50	0	0			19	2	6200	2004	42.30	H	14.25	13.00	.00	9	0	2	0

Note 1: Items 54, 55, and 56 are not reported FHWA under route data points but are collected for each under route to determine the minimum value for Underclearance Appraisal Item 69. The under route that generates the lowest Underclearance Appraisal value will be reported on the Facility Carried record.

BRIDGE I & A FORM1 (90)A

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Damage Inspection Report
BRIDGE NO. 100353 COUNTY BUNCOMBE ROUTE US19,23BYP NBL OVER SR1882
STRUCTURE TYPE REINFORCED CONCRETE FLOOR ON I-BEAMS
ROUTE ORIENTATION SPANS 1 @ 58';1 @ 61';1 @ 64'-6

EVALUATION CODES: CRITICAL (C, 0 - 3); POOR (P, 4); FAIR (F, 5, 6); GOOD (G, 7 - 9)

INSPECTION ITEM			GRADES
DECK ITEMS			
1. WEARING SURFACE			
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58	a. CONCRETE		
	b. TIMBER		
	c. STEEL PLANK		
	d. OPEN GRID		
3. RAILING	a. CONCRETE		
	b. TIMBER		
	c. ALUMINUM		
	d. STEEL		
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)			
6. DECK EXP JTS. OR DEVICES. NO. OF EACH	a. STEEL PL OR FINGER		
	b. MISC PREFAB		
	c. COMPRESSION SEAL		
	d. STANDARD JOINTS		
	e. OPEN JOINTS		
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59			
10. LONGITUDINAL BEAMS OR GIRDERS			F
11. LONGITUDINAL JOIST OR STRINGERS			
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			P
13. END DIAP'S, CURTAIN WALLS, & CONN'S			
14. FLOOR BEAMS AND CONNECTIONS			
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			F
16. DRAINAGE SYSTEM (ON STRUCTURE)			
17. MOVABLE SPAN MACHINERY			
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)			
35. TIM SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		
	b. PILES, POST, SILLS, & BRACING		
	c. BULKHEADS, WING'S, & TIE BACKS		
36. CONC SUB STR.	a. ABUT. & INT. BENT CAPS		
	b. ABUT. & BENT COL'S BREASTWALLS		
	c. ABUT. & INT. BENT PILES		
	d. BACKWALLS, WING'S, RETAIN. WALLS		
	e. ABUT. & BENT FOOTINGS & SILLS		
37. STEEL SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		
	b. PILES, BRACING, AND BULKHEADS		
38. FOUNDATION PILES TYPE MATERIAL			
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)			
40. FENDER SYSTEMS			
41. DRIFT			

ITEM 61		
45. CHANNEL & CHANNEL PROT.	a. WATERWAY	
	b. ALIGNMENT	
	c. SCOUR	
	d. SLOPE PROT., RIP-RAP, DIKES, ETC.	
50. APPROACH ROADWAY CONDITION		
51. APPROACH SLABS		
52. PAINT SYSTEM	CODE	
53. UTILITIES		
54. RESPONSE TO LIVE LOAD		
55. ESTIMATED REMAINING LIFE		6
60. REGULATORY SIGN NOTICE ISSUED		NO
61. PROMPT-ACTION NOTICE ISSUED		YES
62. PRESENTLY POSTED		NO
63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)		8
64. TOTAL SNOOPER INSP. TIME (HRS)		0
65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		8

70. SI&A GENERAL CONDITION RATINGS		
a. DECK	ITEM 58	
b. SUPERSTRUCTURE	ITEM 59	
c. SUBSTRUCTURE	ITEM 60	
d. CHANNEL & CHANNEL PROT.	ITEM 61	

71. SI&A FIELD APPRAISAL RATINGS	
a. WATERWAY ADAQUACY	
b. APPR. RDWY. ALIGNMENT	
72. FIELD SCOUR EVALUATION	

USE OF INSP. ACCESSIBILITY EQUIPMENT		
SNOOPER (CODE S, 4, OR N)	HRS	NO
LADDER		NO
BUCKET TRUCK		YES
BOAT		NO
OTHER		YES

SPECIAL INSPECTION REQUESTED FOR

NOTE

80. INSPECTED BY:

81. REVIEWED BY:

Bridge I&A Form 1(82)H State of North Carolina Dept. of Transportation Division of Highways	FIELD INSPECTION REPORT Bridge Inspecion & Analysis	

Team Leader MD OSBORNE

Assisted By A KING

Item No.	Grade	
10	F	IMPACT DAMAGE INSPECTION WAS REQUESTED BY DIVISION BRIDGE MAINTENANCE FOR SPAN 2 OVER SR 1882 BEAM 1: INITINAL POINT OF IMPACT ON BEAM 1 IN SBL WAS 26'-3" FROM FACE OF BENT 1, INDENTION IN FLANGE 5" X 1/8" AND IN COVER PLATE 5" X 1/4" THE FLANGE IS BENT UPWARD 1/2" AT POINT OF IMPACT. BEAM 1 IS OUT OF PLUM 1/2" TO THE SOUTH AT 26'-3" FROM FACE OF BENT 1. INDENTION IN FLANGE COVER PLATE 3" X 1/4" AT 24'-2" FROM FACE OF BENT 1. GOUGES IN FLANGE COVER PLATE 4" X 2" X 1/16" AT 23'-0" FROM FACE OF BENT 1. SCRAPES ON BOTTOM OF BEAM 1 FROM 12'-4" FROM FACE OF BENT 1 TO 8'-10" FROM FACE OF BENT 2. POINT OF IMPACT ON BEAM 1 IN NBL WAS 18'-9" FROM FACE OF BENT 2, INDENTION IN FLANGE 2" X 1/2" AND IN COVER PLATE 2" X 1/16". INDENTIONS IN FLANGE COVER PLATE 10" X 1/8" AT 20'-7", A 2" X 1/4" AT 19'-8", A 2 1/2" X 1/16" AT 17'-7", ALL FROM FACE OF BENT 2. INDENTIONS IN FLANGE 10" X 1/8" AT 20'-7", A 2 1/2" X 1/16" AT 17'-7" ALL FROM FACE OF BENT 2. A 12" X 3/4" X 1/16" GOUGE IN FLANHE COVER PLATE AT 20'-7" FROM FACE OF BENT 2. BEAM IS OUT OF PLUM 5/8" TO THE NORTH AT 21'-4" FROM FACE OF BENT 2. A 3/8" BOW IN WEB OF BEAM 1 AT 21'-4" (SEE PHOTOS) BEAM 2 : BEAM 2 HAS SCRAPES ON THE BOTTOM ABOVE THE SOUTH AND NORTH BOUND LANES. (SEE PHOTO)
12	P	CONNECTION PLATE OF INTERMEDIATE DIAPHRAGMS: DIAPHRAGM AT 21'-4" FROM BENT 2 IS MISSING ONE OF TWELVE DIAPHRAGM BOLTS, BOTTOM OF DIAPHRAGM HAS PULLED AWAY FROM WEB 1/16" AT 21'-4" FROM FACE OF BENT 2. (SEE PHOTOS)
15	F	BEARINGS AND ANCHOR BOLTS IN SPAN 2 DID NOT SHOW ANY INDICATION OF DAMAGE DUE TO THE IMPACT.
61	YES	DIAPHRAGM
73f	YES	UT MACHINE

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 100353 County BUNCOMBE Date: 04/04/2013

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3314	Maintain Steel Superstructure Components	LF	1	DIAPHRAGM ONE OF TWELVE DIAPHRAGM BOLTS IS MISSING ON BEAM 1 @ 21'-4" FROM THE FACE OF BENT 2. SPAN 2 BOTTOM OF DIAPHRAGM PLATE HAS PULLED AWAY FROM THE WEB (1/16" +/-) @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2	
3314	Maintain Steel Superstructure Components	LF	58	BEAM 1 BEAM 1 IS OUT OF PLUMB (5/8" +/-) TO THE NORTH @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2 BOW IN BEAM 1 (3/8") @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2	
3314	Maintain Steel Superstructure Components	LF	61	BEAM 1 IS OUT OF PLUMB (1/2") TO THE SOUTH @ 26'-3" FROM THE FACE OF BENT 1. BEAM 1, SPAN 2	
3314	Maintain Steel Superstructure Components	LF	61	BEAM 1 IS OUT OF PLUMB (5/8" +/-) TO THE NORTH @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2	
3314	Maintain Steel Superstructure Components	LF	1	ONE OF TWELVE DIAPHRAGM BOLTS IS MISSING ON BEAM 1 @ 21'-4" FROM THE FACE OF BENT 2. SPAN 2	
3314	Maintain Steel Superstructure Components	LF	4	BOTTOM OF DIAPHRAGM PLATE HAS PULLED AWAY FROM THE WEB (1/16" +/-) @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 100353 County BUNCOMBE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	1 LF

Location:		
Beams and Girders	Bent/Span No. 2	DIAPHRAGM

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
04/04/2013	MD OSBORNE	A KING

Details

DIAPHRAGM ONE OF TWELVE DIAPHRAGM BOLTS IS MISSING ON BEAM 1 @ 21'-4" FROM THE FACE OF BENT 2. SPAN 2 BOTTOM OF DIAPHRAGM PLATE HAS PULLED AWAY FROM THE WEB (1/16" +/-) @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	58 LF

Location:		
Beams and Girders	Bent/Span No. 2	BEAM

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
04/04/2013	MD OSBORNE	A KING

Details

BEAM 1 BEAM 1 IS OUT OF PLUMB (5/8" +/-) TO THE NORTH @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2 BOW IN BEAM 1 (3/8") @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2

POINT OF IMPACT ON BEAM 1 IS 26'-3" FROM THE FACE OF BENT 1. INDENTION IN FLANGE (5" X 1/8") & COVER PLATE (5" X 1/4"). BEAM 1, SPAN 2

INDENTION IN COVER PLATE (3" X 1/4") AND FLANGE (1" X 1/4") @ 24'-2" FROM THE FACE OF BENT 1. BEAM 1, SPAN 2

BEAM 1 IS OUT OF PLUMB (1/2") TO THE SOUTH @ 26'-3" FROM THE FACE OF BENT 1. BEAM 1, SPAN 2

SCRAPES ON THE OUTSIDE OF BEAM 1, SPAN 2

SCRAPES ON THE BOTTOM OF BEAM 1 IN FLANGE & COVER PLATE. FROM 12'-4" OF BENT 1 TO 8'-10" OF BENT 2. BEAM 1, SPAN 2

SCRAPES ON BOTTOM OF COVER PLATE OF BEAM 2 IN SOUTH BOUND LANE. BEAM 2, SPAN 2. (SAME IN NORTH BOUND LANE)

POINT OF IMPACT ON BEAM 1 IS 18'-9" FROM THE FACE OF BENT 2. INDENTION IN FLANGE (2" X 1/2") & COVER PLATE (2" X 1/16"). BEAM 1, SPAN 2. NBL

INDENTION IN COVER PLATE (9" X 1/16") & FLANGE (10" X 1/8") AT 20'-7" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2. (NBL)

GOUGE IN COVER PLATE (12" X 3/4" X 1/16") @ 20'-7" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2. (NBL)

SCRAPES ON INSIDE OF WEB ON BEAM 1, SPAN 2 ABOVE NBL

ONE OF TWELVE DIAPHRAGM BOLTS IS MISSING ON BEAM 1 @ 21'-4" FROM THE FACE OF BENT 2. SPAN 2

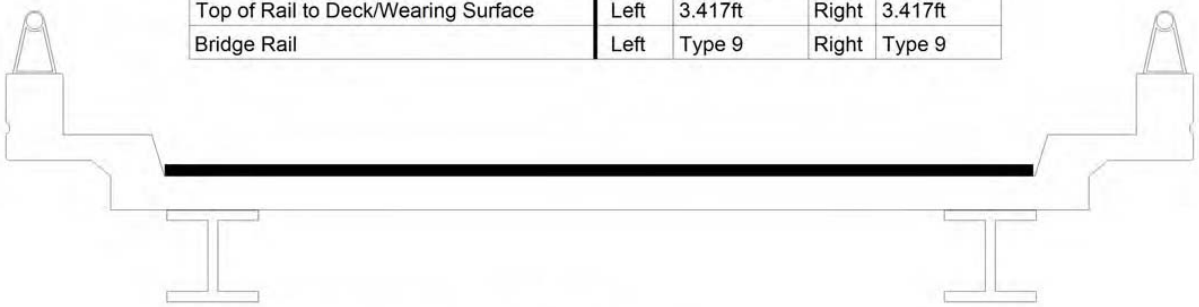
BEAM 1 IS OUT OF PLUMB (5/8" +/-) TO THE NORTH @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2

BOTTOM OF DIAPHRAGM PLATE HAS PULLED AWAY FROM THE WEB (1/16" +/-) @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2

BOW IN BEAM 1 (3/8") @ 21'-4" FROM THE FACE OF BENT 2. BEAM 1, SPAN 2

Bridge Inspection Field Sketch

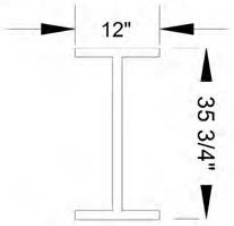
Deck Width/Out to Out	45.250ft	Between Rails			43.250ft
Clear Roadway	40.000ft	Wearing Surface			0.312ft
Median Width		Median Height			
Curb Height		Left	0.542ft	Right	0.542ft
Sidewalk Width		Left		Right	
Clear Roadway (Rail to Median)		Left		Right	
Guardrail Width		Left		Right	
Top of Rail to Deck/Wearing Surface		Left	3.417ft	Right	3.417ft
Bridge Rail		Left	Type 9	Right	Type 9



Measurements for Span #	1		
Deck Thickness	0.646	Left Overhang	3.833
Top of Rail to Bottom of Beam	7.083	Right Overhang	3.833

Beam No	Beam Type	Spacing
1 thru 6	Steel I Beam	7.500ft

BEAMS
(NON-TAPERED FLANGES)



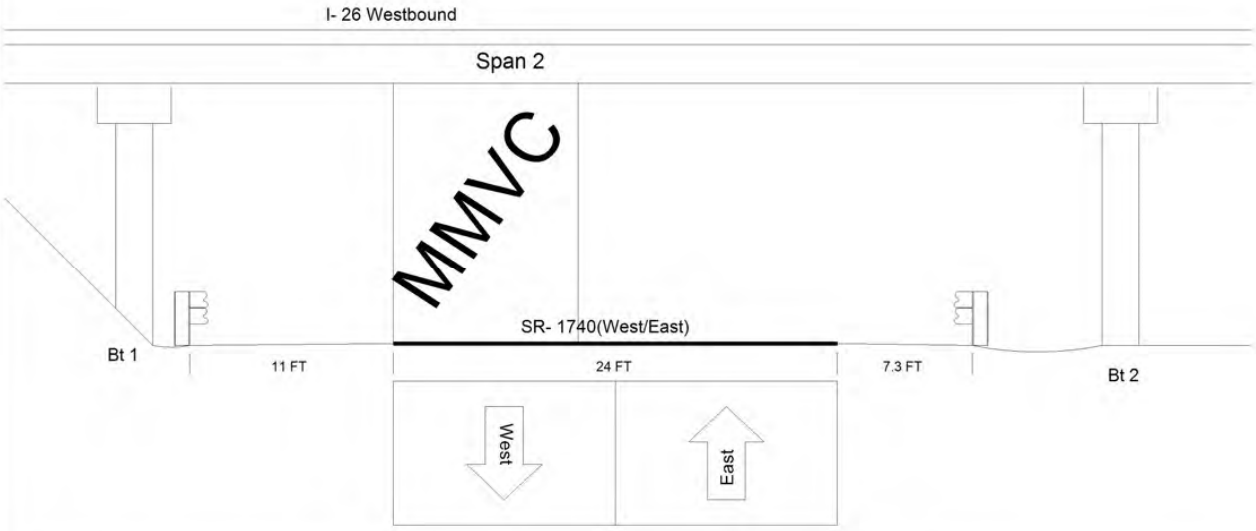
FLANGES = 5/8"
WEB = 5/8"

VERIFIED 2-6-2013 BY DELVIN ADAMS

Title	Description
Typical Section	Data Worksheet

Bridge No:	Drawn By:	Date:	File Name:
100353	Roy W. Shook	01/27/2009	S0102000997

Bridge Inspection Field Sketch



Roadway 1		Direction of Traffic	East West
Distance to Left Rail	11FT	Distance to Right Rail	7.3FT
Distance to Left Toe of Slope		Distance to Left Bent	13FT
Distance to Right Toe of Slope		Distance to Right Bent	14.3FT
MMVC	14.5 Ft at Beam 1, 10 FT from Left Edge of Roadway		
MVC	14.25 Ft at Beam 1, 0 FT from Right Edge of Roadway		

VERIFIED 2-6-2013 BY DELVIN ADAMS

Title	**Description**		
Underclearance	Data Worksheet		
Bridge No: 100353	**Drawn By:** Roy W. Shook	**Date:** 01/27/2009	**File Name:** S0102000998

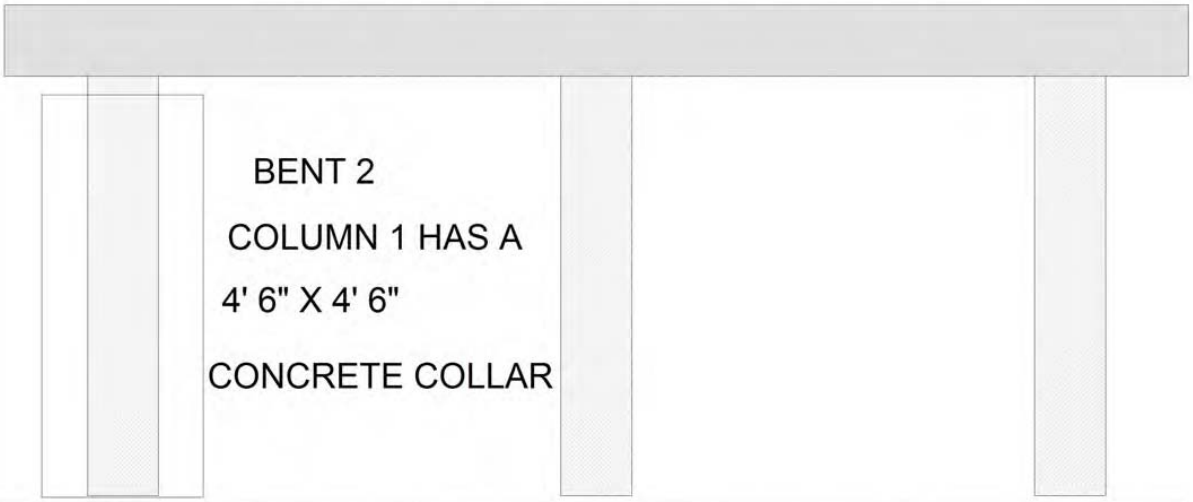
Bridge Inspection Field Sketch

Roadway	24ft Wide	2 Paved Lanes	Looking West
Left Shoulder	7.5ft Wide	4.0ft Paved	3.5ft Unpaved
Right Shoulder	14ft Wide	10.0ft Paved	4.0ft Unpaved
Left Guardrail	7.5ft from road		
Right Guardrail			

VERIFIED 2-6-2013 BY DELVIN ADAMS

Title	**Description**		
Approach Roadway	Data Worksheet		
Bridge No: 100353	**Drawn By:** Roy W. Shook	**Date:** 01/27/2009	**File Name:** S0102000996

Bridge Inspection Field Sketch



Cap Information			Material Cast-in-Place Concrete			
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
50.000 ft.	3.000 ft.	3.000 ft.	5.000 ft.	5.000 ft.	2.000 ft.	2.000 ft.

Subcap Information			Material		
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.

Sill Information			Material
Length	Width	Height	

Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Concrete	20.000 ft.	3.000 ft.			Vertical	No	No	No	No
2	Concrete	20.000 ft.	3.000 ft.			Vertical	No	No	No	No
3	Concrete		3.000 ft.			Vertical	No	No	No	No

Bent/Abutment #: 1 Similar Bents: 2

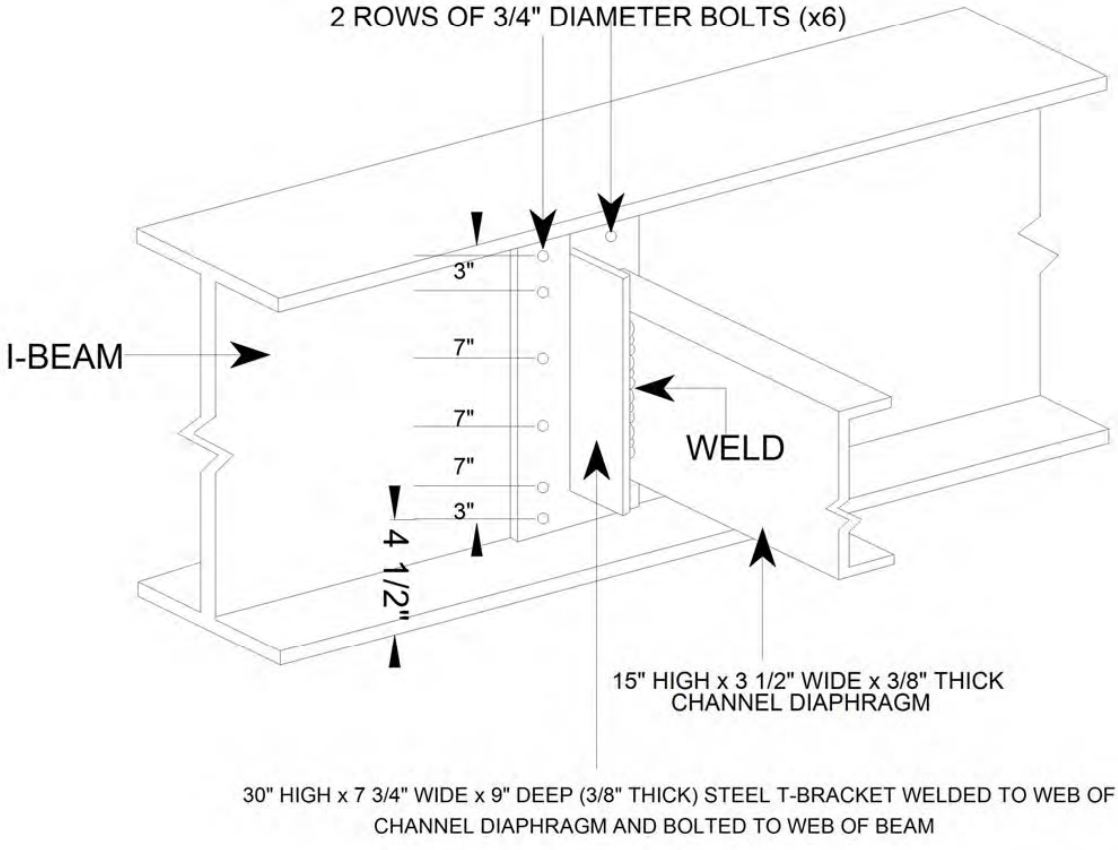
Title	Description
INTERIOR BENTS	SUBSTRUCTURE DETAILS

Bridge No:	Drawn By:	Date:	File Name:
100353	DELVIN ADAMS	2/7/2013	S0102001408

Bridge Inspection Field Sketch

DIAPHRAGM DETAILS

LOCATIONS : 1/3 POINTS OF SPANS



Title	Description
INTERMEDIATE DIAPHRAGMS	DIAPHRAGM DETAILS

Bridge No:	Drawn By:	Date:	File Name:
100353	DELVIN ADAMS	2/7/2013	S0102001409

LOOKING SOUTH

LOOKING NORTH

BRIDGE INSPECTOR'S RECOMMENDATION FOR PRIORITY MAINTENANCE REPAIRS

Bridge: 110169 County BURKE

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

MMS Code	MMS Description	Quantity
3314	Maintain Steel Superstructure Components	12 LF

Location:		
Beams and Girders	Bent/Span No. 3	BEAM 1

Priority Level	Status
Priority Maintenance	Division Bridge Maintenance Notification Received

Submitted Date:	Submitted By:	Assisted By:
10/23/2015	MONTY HOBBS	RICARDO CORNEJO

Details

SPAN 3 BEAM 1 WEB AND BOTTOM FLANGE AT 20FT FROM BENT 3, IMPACT DAMAGE (12LF), OUT OF PLUMB (UP TO +/- 3IN)

SPAN 3 BEAM 1 AT 20FT FROM BENT 3, TWO ROWS OF FIVE BOLTS SHEARED AND MISSING FROM IMPACT DAMAGE

SPAN 3 BEAM 1 AT 20FT FROM BENT 3, BROKEN WELD BETWEEN COVER PLATE AND BOTTOM FLANGE (UP TO 4IN)

SPAN 3 BEAM 1 WEB AND BOTTOM FLANGE AT 20FT FROM BENT 3, IMPACT DAMAGE (12LF), OUT OF PLUMB (UP TO +/- 3IN)

SPAN 3 BEAM 1 WEB AND BOTTOM FLANGE AT 20FT FROM BENT 3, IMPACT DAMAGE (12LF), OUT OF PLUMB (UP TO +/- 3IN)

Structure 110169 County BURKE Date: Condition Photos

SPAN 3 BEAM 1 WEB AND BOTTOM FLANGE AT 20FT FROM BENT 3, IMPACT DAMAGE (12LF), OUT OF PLUMB (UP TO +/- 3IN)

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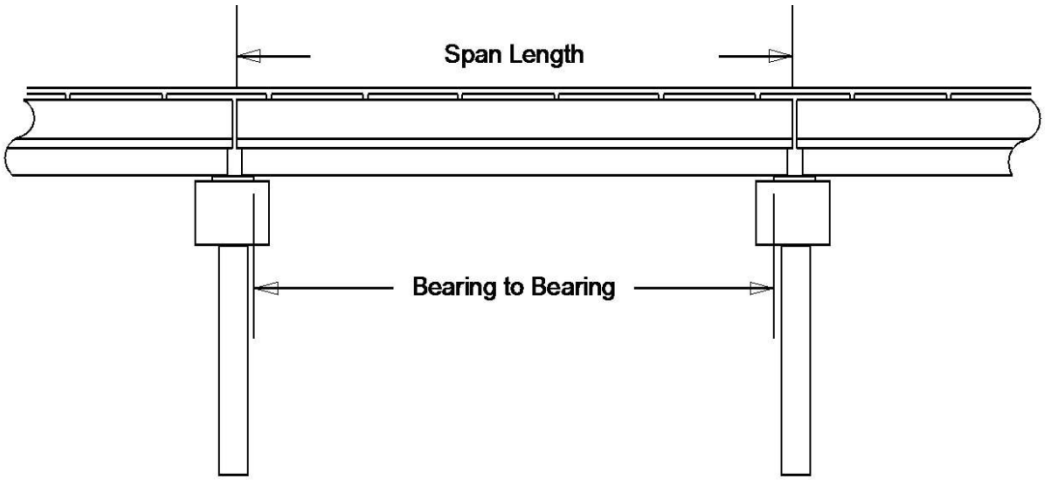
SPAN 3 BEAM 1 AT 20FT FROM BENT 3, BROKEN WELD BETWEEN COVER PLATE AND BOTTOM FLANGE (UP TO 4IN)

Structure Data Worksheet

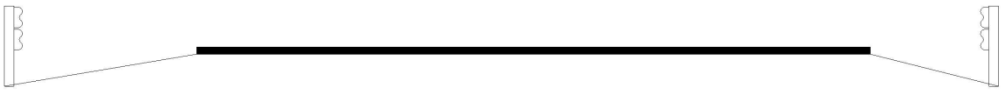
Spans

County: BURKE Structure No: 110169 Date: Inspected By: MAH



Span No	Span Length	Bearing to Bearing	Comments
1	42.0'	40.25'	NBIS LENGTH = 184.0'
2	52.5'	51.5'	
3	52.5'	51.5'	
4	42.0'	40.25'	

Bridge Inspection Field Sketch



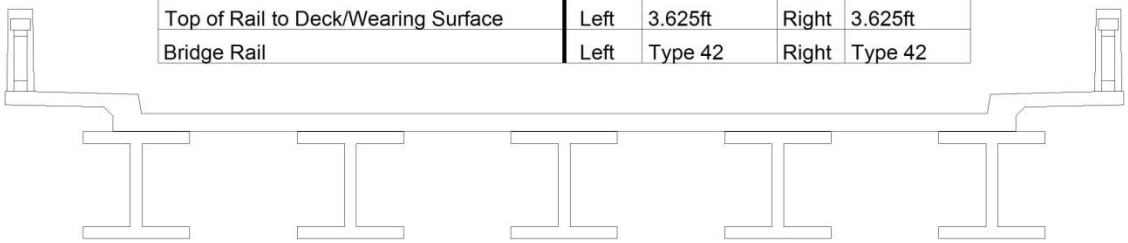
Roadway	21ft Wide	2 Paved Lanes	Looking North
Left Shoulder	6ft Wide	0ft Paved	6ft Unpaved
Right Shoulder	4ft Wide	0ft Paved	4ft Unpaved
Left Guardrail	6ft from road		
Right Guardrail	4ft from road		

NOTE: MEASUREMENTS TAKEN AT 35FT FROM END BENT 1

Title	**Description**		
APPROACH ROADWAY	DATA WORKSHEET		
Bridge No: 110169	**Drawn By:** R. CORNEJO	**Date:** 10/23/2015	**File Name:** S0146007688

Bridge Inspection Field Sketch

Deck Width/Out to Out	34ft	Between Rails			32.417ft
Clear Roadway	26ft	Wearing Surface			
Median Width		Median Height			
Curb Height		Left	0.833ft	Right	0.833ft
Sidewalk Width		Left	3.25ft	Right	3.25ft
Clear Roadway (Rail to Median)		Left		Right	
Guardrail Width		Left	0.75ft	Right	0.75ft
Top of Rail to Deck/Wearing Surface		Left	3.625ft	Right	3.625ft
Bridge Rail		Left	Type 42	Right	Type 42

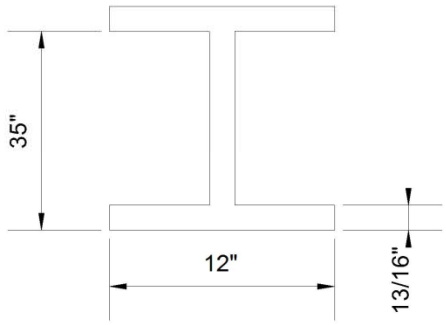


Measurements for Span #	1	SPAN 4 SIMILAR	
Deck Thickness	0.542	Left Overhang	4
Top of Rail to Bottom of Beam	7	Right Overhang	4

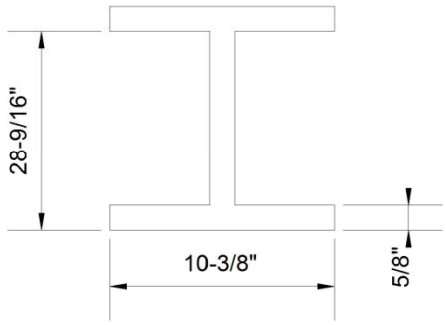
Beam Number	Beam Type	Spacing	Comments
1	Steel I Beam	6.500ft	
2	Steel I Beam	6.500ft	
3	Steel I Beam	6.500ft	
4	Steel I Beam	6.500ft	
5	Steel I Beam	ft	

BEAMS
(NON-TAPERED FLANGES)

EXTERIOR BEAMS



INTERIOR BEAMS



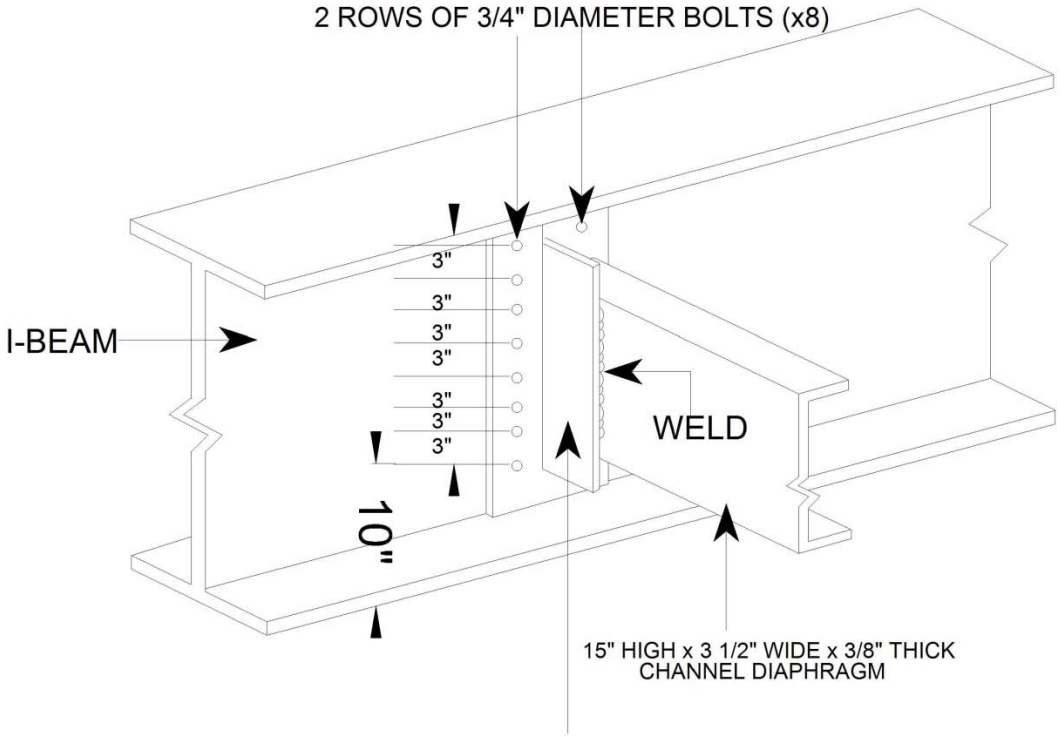
Title	Description
TYPICAL SECTION SKETCH, SPAN 1	DATA WORKSHEET

Bridge No:	Drawn By:	Date:	File Name:
110169	R. CORNEJO	10/23/2015	S0146007689

Bridge Inspection Field Sketch

DIAPHRAGM DETAILS

LOCATIONS : MIDPOINT OF SPANS #1 & 4, 1/3 POINTS OF SPANS # 2 & 3



26" HIGH x 7 3/4" WIDE x 9" DEEP (3/8" THICK) STEEL T-BRACKET WELDED TO WEB OF CHANNEL DIAPHRAGM AND BOLTED TO WEB OF BEAM

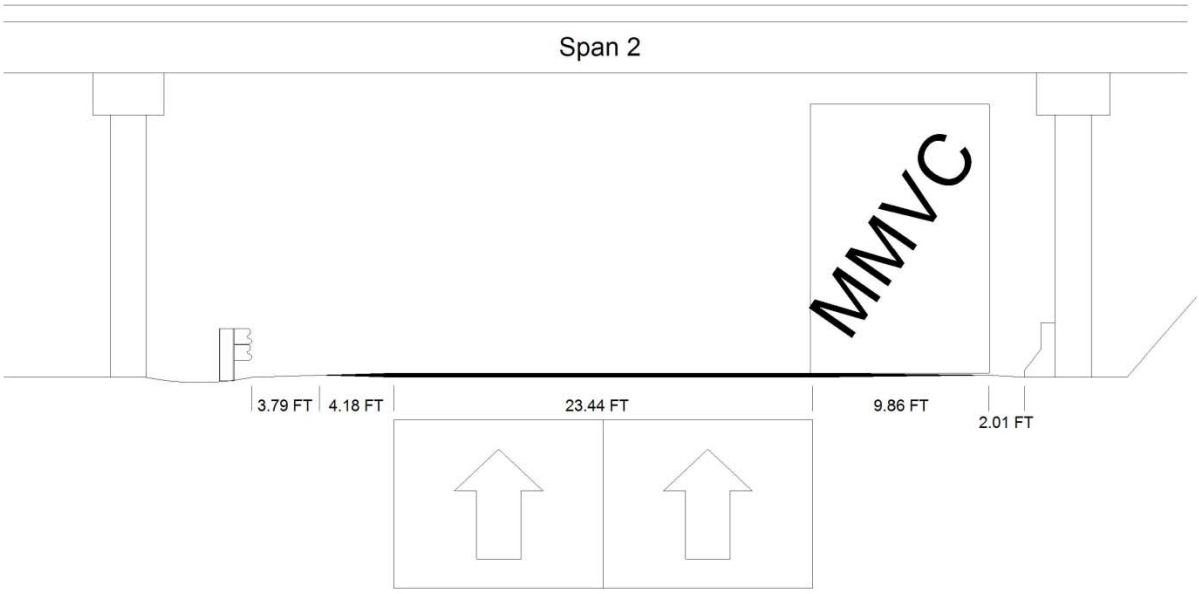
NOTE: DEEPER BEAMS HAVE TWO ROWS OF 10 BOLTS

VERIFIED BY: M. HOBBS 10/23/2015

Title	**Description**
INTERMEDIATE DIAPHRAGMS	DATA WORKSHEET

Bridge No:	**Drawn By:**	**Date:**	**File Name:**
110169	DELVIN ADAMS	10/24/2011	S0146031588

Bridge Inspection Field Sketch



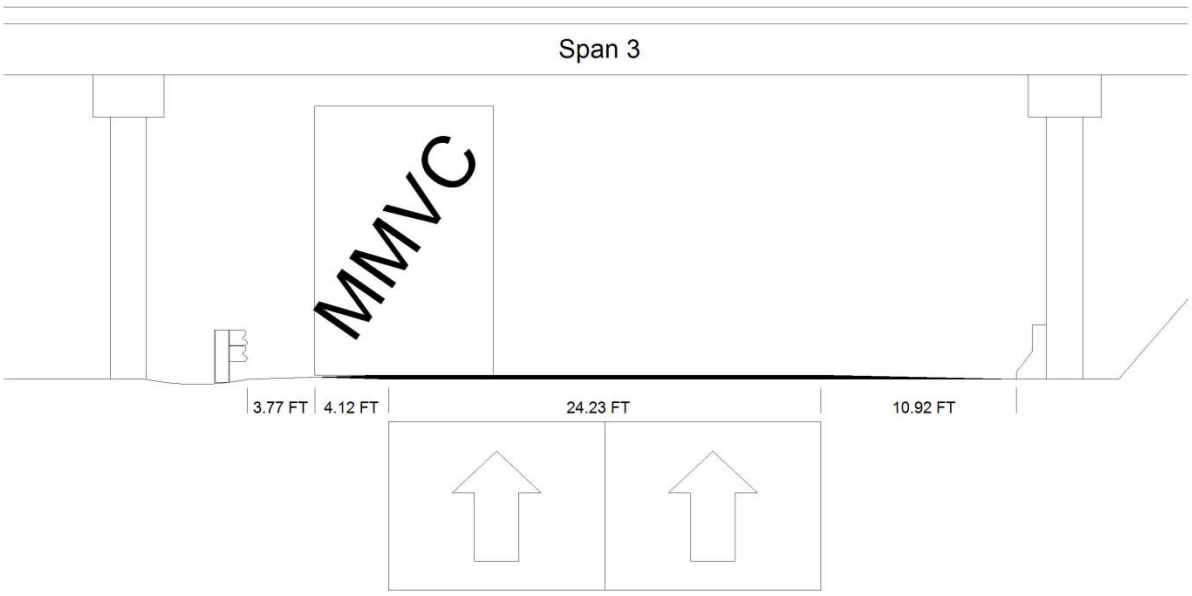
I-40 EBL
Mile Marker 117.23

Roadway 1		Direction of Traffic	East
Distance to Left Rail	7.97FT	Distance to Right Rail	11.87FT
Distance to Left Toe of Slope		Distance to Left Bent	13.86FT
Distance to Right Toe of Slope		Distance to Right Bent	12.98FT
MMVC	15.45 Ft at Beam 1, 10 FT from EDGE OF RIGHT PAVED SHOULDER		
MVC	15.22 Ft at Beam 1, 6 FT from LEFT EDGE OF THRU LANES		

MEASUREMENTS RECORDED BY LIDAR ON 5.30.13

Title	**Description**		
UNDER CLEARANCE, EBL	SPAN 2, I-40 EBL		
Bridge No: 110169	**Drawn By:** DCR	**Date:** 9/27/07	**File Name:** S0146007690

Bridge Inspection Field Sketch



I-40 WBL
Mile Marker 117.23

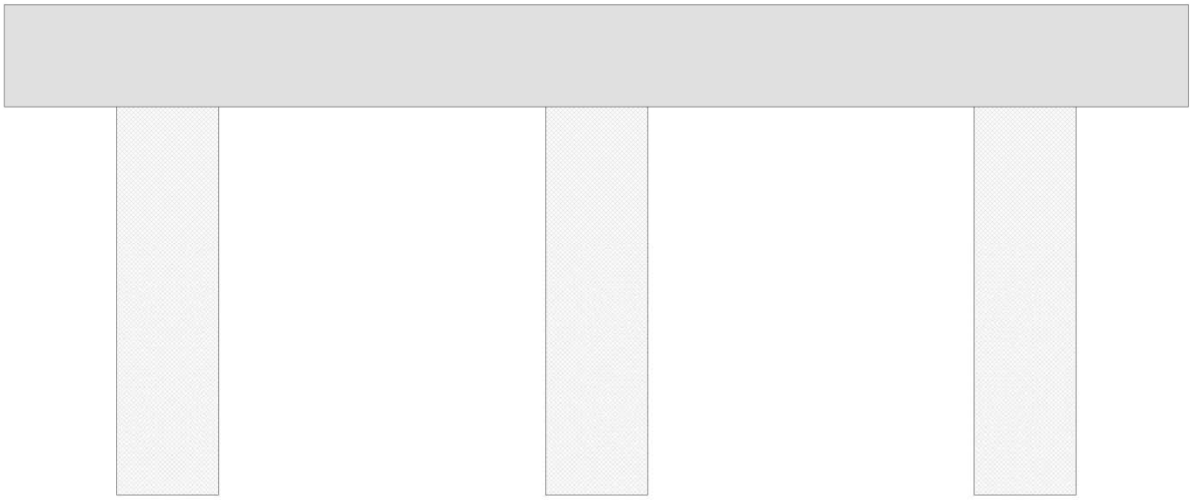
Roadway 1		Direction of Traffic	West
Distance to Left Rail	7.89FT	Distance to Right Rail	10.92FT
Distance to Left Toe of Slope		Distance to Left Bent	13.55FT
Distance to Right Toe of Slope		Distance to Right Bent	12.5FT
MMVC	14.77 Ft at Beam 1, 10 FT from EDGE OF LEFT PAVED SHOULDER		
MVC	14.66 Ft at Beam 1, 11.5 FT from RIGHT EDGE OF THRU LANES		

MEASUREMENTS RECORDED BY LIDAR ON 5.30.13

Title	**Description**
UNDER CLEARANCE, WBL	SPAN 3, I-40 WBL

Bridge No: 110169	**Drawn By:** DCR	**Date:** 9/27/07	**File Name:** S0146007691

Bridge Inspection Field Sketch



Cap Information			Material Cast-in-Place Concrete			
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
29.000 ft.	2.500 ft.	2.500 ft.	4.000 ft.	4.000 ft.	1.333 ft.	1.333 ft.

Subcap Information			Material		
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.

Sill Information			Material
Length	Width	Height	

Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Concrete	10.5 ft.	2.5 ft.	2.5 ft.		Vertical	No	No	No	No
2	Concrete	10.5 ft.	2.5 ft.	2.5 ft.		Vertical	No	No	No	No
3	Concrete		2.5 ft.	2.5 ft.		Vertical	No	No	No	No

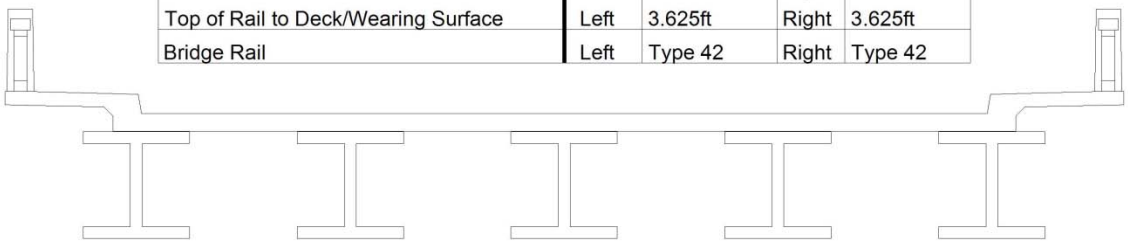
Bent/Abutment #: 1 Similar Bents: 2,3

Title	**Description**
BENT 1 SKETCH	DATA WORKSHEET

Bridge No: 110169	**Drawn By:** R. CORNEJO	**Date:** 10/23/2015	**File Name:** S0146031927

Bridge Inspection Field Sketch

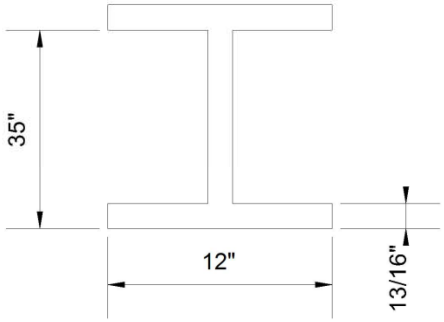
Deck Width/Out to Out	34ft	Between Rails				32.417ft
Clear Roadway	26ft	Wearing Surface				
Median Width		Median Height				
Curb Height		Left	0.833ft	Right	0.833ft	
Sidewalk Width		Left	3.25ft	Right	3.25ft	
Clear Roadway (Rail to Median)		Left		Right		
Guardrail Width		Left	0.75ft	Right	0.75ft	
Top of Rail to Deck/Wearing Surface		Left	3.625ft	Right	3.625ft	
Bridge Rail		Left	Type 42	Right	Type 42	



Measurements for Span #	2	SPAN 3 SIMILAR	
Deck Thickness	0.542	Left Overhang	4
Top of Rail to Bottom of Beam	7	Right Overhang	4

Beam Number	Beam Type	Spacing	Comments
1	Steel I Beam	6.500ft	
2	Steel I Beam	6.500ft	
3	Steel I Beam	6.500ft	
4	Steel I Beam	6.500ft	
5	Steel I Beam	ft	

BEAMS
(NON-TAPERED FLANGES)



Title	Description
TYPICAL SECTION SKETCH, SPAN 2	DATA WORKSHEET

Bridge No:	Drawn By:	Date:	File Name:
110169	R. CORNEJO	10/23/2015	S0566000111

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION IMPACT DAMAGE INSPECTION ONLY, NOTIFIED BY DIVISION BRIDGE MAMAGEMENT, GRADES ARE FOR IMPACT DAMAGE IN SPAN 2 ONLY

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Damage Inspection Report

COUNTY RUTHERFORD **BRIDGE NUMBER** 800117 **INSPECTION CYCLE** 0 **YRS**

ROUTE US64 **ACROSS** US221 **M.P.** 0

LOCATION 0.09 MI.W.JCT.SR1536

SUPERSTRUCTURE REINFORCED CONCRETE FLOOR ON I-BEAMS

SUBSTRUCTURE E.BTS:RC CAPS/TIM.PILES;INT.BTS:RCP&B/PILE FOOTINGS

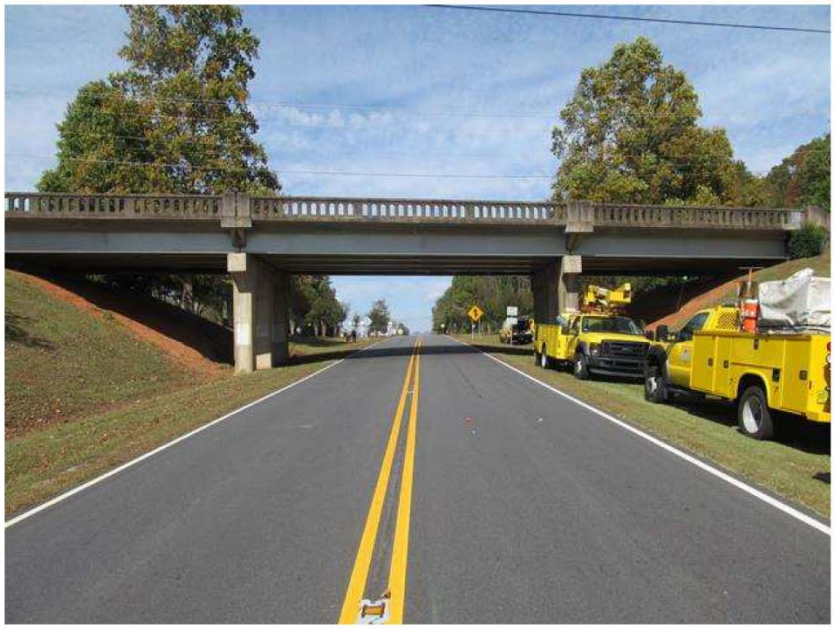
SPANS 1 @ 39'; 1 @ 47'-6; 1 @ 39'

LONGITUDE 81° 57' 23.95" **LATITUDE** 35° 22' 57.10"

INSPECTION DATE 10/21/2014 **PRESENT CONDITION** FAIR

PRESENT POSTING N NOT POSTED **PROPOSED POSTING**

OTHER SIGNS PRESENT



LOOKING NORTH

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

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: 12/09/2014

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE **800117**
(8) STRUCTURE NUMBER(FEDERAL) 000000001610117
(5) INVENTORY ROUTE (ON/UNDER) - ON 21000640
(2) STATE HIGHWAY DEPARTMENT DISTRICT 1
(3) COUNTY CODE 161 (4) PLACE CODE 0
(6) FEATURE INTERSECTED - US221
(7) FACILITY CARRIED US64
(9) LOCATION 0.09 MI.W.JCT.SR1536
(11)MILEPOINT 0
(16)LAT 35° 22' 57.10" (17)LONG 81° 57' 23.95"
(98)BORDER BRIDGE STATE CODE PCT SHARE
(99)BORDER BRIDGE STRUCTURE NO

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Steel
TYPE - Stringer Mutlibeam or Girder CODE 302
(44) STRUCTURE TYPE APPR :
TYPE - CODE 000
(45) NUMBER OF SPANS IN MAIN UNIT 3
(46) NUMBER OF APPROACH SPANS
(107)DECK STRUCTURE TYPE - 1 CODE
(108)WEARING SURFACE / PROTECTIVE SYSTEM :
(A) TYPE OF WEARING SURFACE - CODE
(B) TYPE OF MEMBRANE - CODE
(C) TYPE OF DECK PROTECTION - CODE

AGE AND SERVICE

(27) YEAR BUILT 1956
(106)YEAR RECONSTRUCTED
(42) TYPE OF SERVICE : ON - Overpass - Interchange
UNDER - Highway CODE 61
(28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 2
(29) AVERAGE DAILY TRAFFIC 5800
(30) YEAR OF ADT 2013 (109) TRUCK ADT PCT 8%
(19) BYPASS OR DETOUR LENGTH 0 MI

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 46 FT
(49) STRUCTURE LENGTH 126 FT
(50)CURB OR SIDEWALK: LEFT 3.3 FT RIGHT 3.3 FT
(51) BRIDGE ROADWAY WIDTH CURB TO CURB 28 FT
(52) DECK WIDTH OUT TO OUT 36 FT
(32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 24 FT
(33) BRIDGE MEDIAN - No Median CODE 0
(34) SKEW 7° (35) STRUCTURE FLARED 0
(10) INVENTORY ROUTE MIN VERT CLEAR 999.9 FT
(47) INVENTORY ROUTE TOTAL HORIZ CLEAR 28 FT
(53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT
(54) MIN VERT UNDERCLEAR REF Highway 13.7 FT
(55) MIN LAT UNDERCLEAR RT REF Highway 10 FT
(56) MIN LAT UNDERCLEAR LT REF - 0 FT

NAVIGATION DATA

(38) NAVIGATION CONTROL - Not Applicable CODE N
(111)PIER PROTECTION - CODE
(39) NAVIGATION VERTICAL CLEARANCE 0
(116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR FT
(40) NAVIGATION HORIZONTAL CLEARANCE 0 FT

SUFFICIENCY RATING = 62.78
STATUS = Functionally Obsolete

CLASSIFICATION — CODE

(112)NBIS BRIDGE SYSTEM - YES
(104)HIGHWAY SYSTEM Is not on NHS 0
(26) FUNCTIONAL CLASS - Minor Arterial 06
(100)STRAHNET HIGHWAY - Not a STRAHNET Route 0
(101)PARALLEL STRUCTURE - No Parallel Structure N
(102)DIRECTION OF TRAFFIC - 2-way Traffic 2
(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

CONDITION — CODE

(58) DECK 5
(59) SUPERSTRUCTURE 6
(60) SUBSTRUCTURE 5
(61) CHANNEL & CHANNEL PROTECTION N
(62) CULVERTS N

LOAD RATING AND POSTING — CODE

(31) DESIGN LOAD HS 20 + MOD 6
(63) OPERATING RATING METHOD - Load Factor 1
(64) OPERATING RATING - HS-30 54
(65) INVENTORY RATING METHOD - Load Factor 1
(66) INVENTORY RATING - HS-18 32
(70) BRIDGE POSTING - No Posting Required 5
(41) STRUCTURE OPEN, POSTED ,OR CLOSED A
DESCRIPTION - Open, No Restriction

APPRAISAL — CODE

(67) STRUCTURAL EVALUATION 5
(68) DECK GEOMETRY 2
(69) UNDERCLEARANCES,VERTI & HORIZ 3
(71) WATERWAY ADEQUACY N
(72) APPROACH ROADWAY ALIGNMENT 8
(36) TRAFFIC SAFETY FEATURES 0111
(113)SCOUR CRITICAL BRIDGES N

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 11600 (115) YEAR FUTURE ADT 2025

INSPECTIONS

(90) INSPECTION DATE 07/29/2013
(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

Structure No: 800117 County: RUTHERFORD Run Date:

Span Number	Feature Intersected	Inventory Route	Minimum Maximum Vertical Clearance	Milepoint	Base Highway Network	LRS Inventory Route	Toll	Functional Classification	Numer of Lanes	Average Daily Traffic	Year of Average Daily Traffic	Total Horizontal Clearance	See Note 1					STRAHNET Highway Designator	Direction of Traffic	Highway System of Route
													Reference Feature	Minimum Vertical Underclearance	Right Lateral Underclearance	Left Lateral Underclearance	Underclearance Appraisal Grade			
	6	5	10	11	12	13	20	26	28	29	30	47	54A	54	55	56	69	100	102	104
2	US 221	21002210	13.9	0	1	20221		2	2	6100	2013	44.33	H	13.7	10		9	0	2	1

Note 1: Items 54, 55, and 56 are not reported FHWA under route data points but are collected for each under route to determine the minimum value for Underclearance Appraisal Item 69. The under route that generates the lowest Underclearance Appraisal value will be reported on the Facility Carried record.

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE Run Date: 12/09/2014

COUNTY : RUTHERFORD | DIVISION : 13 | DISTRICT: 1 | STRUCTURE NUMBER : 800117 | LENGTH : 126 FEET

ROUTE CARRIED : US64 | FEATURE INTERSECTED : US221

LOCATED : 0.09 MI.W.JCT.SR1536 | BRIDGE NAME : | CITY :

FUNC. CLASS : 06 | SYST.ON : FA | SYST.UNDER : NFA | ADT & YR : 5800 2013 | RAIL TYPE : LT 311 RT 311

BUILT : 1956 | BY : SHC | PROJ : 8812 | FED.AID PROJ : F-231(5) | DESIGN LOAD : HS 20 + MOD

REHAB : | BY : | PROJ : | ALIGNMENT : TAN | SKEW : 97 | LANES : ON 2 UNDER 2

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

SUPERSTRUCTURE : REINFORCED CONCRETE FLOOR ON I-BEAMS

SUBSTRUCTURE : E.BTS:RC CAPS/TIM.PILES;INT.BTS:RCP&B/PILE FOOTINGS

SPANS : 1 @ 39'; 1 @ 47'-6; 1 @ 39'

BEAMS OR GIRDERS : SPNS.1&3:3LNS.30 &2LNS.36 I-BMS;SPN2:5LNS.36 I-BMS @ 7' CTS

FLOOR : 6.5 RC/5.5 AWS | ENCROACHMENT : 10 WATER MAIN | DECK (OUT TO OUT) : 36 FT

CLEAR ROADWAY : 28 FT | BETWEEN RAILS : 34.5 FT | SIDEWALK OR CURB : LT 3.3 FT RT 3.3 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-18 | OPE.RTG. : HS-30 | CONTR.MEMBER : EB(B1) Damaged | POSTED : SV TTST DATE

SYSTEM : Primary U.S. Route | GREEN LINE ROUTE : Y

UNDER ROUTES AND CLEARANCES

		Vertical Clearances		Horizontal Clearances		
Span	Route Description	MMVC	MVC	Total	Left	Right
2	US 221	13.90	13.70	44.33	0	10

Note: All measurements are in feet.

REMARKS :

BRIDGE I & A FORM1 (90)A

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Damage Inspection Report
BRIDGE NO. 800117 COUNTY RUTHERFORD ROUTE US64 OVER US221
STRUCTURE TYPE REINFORCED CONCRETE FLOOR ON I-BEAMS
ROUTE ORIENTATION W - E SPANS 1 @ 39'; 1 @ 47'-6; 1 @ 39'

EVALUATION CODES: CRITICAL (C, 0 - 3); POOR (P, 4); FAIR (F, 5, 6); GOOD (G, 7 - 9)

INSPECTION ITEM			
DECK ITEMS			GRADES
1. WEARING SURFACE			
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58	a. CONCRETE		
	b. TIMBER		
	c. STEEL PLANK		
	d. OPEN GRID		
3. RAILING	a. CONCRETE		
	b. TIMBER		
	c. ALUMINUM		
	d. STEEL		
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)			
6. DECK EXP JTS. OR DEVICES. NO. OF EACH	a. STEEL PL OR FINGER		
	b. MISC PREFAB		
	c. COMPRESSION SEAL		
	d. STANDARD JOINTS		
	e. OPEN JOINTS		
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59			
10. LONGITUDINAL BEAMS OR GIRDERS			F
11. LONGITUDINAL JOIST OR STRINGERS			
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			F
13. END DIAP'S, CURTAIN WALLS, & CONN'S			F
14. FLOOR BEAMS AND CONNECTIONS			
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			F
16. DRAINAGE SYSTEM (ON STRUCTURE)			
17. MOVABLE SPAN MACHINERY			
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)			
35. TIM SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		
	b. PILES, POST, SILLS, & BRACING		
	c. BULKHEADS, WING'S, & TIE BACKS		
36. CONC SUB STR.	a. ABUT. & INT. BENT CAPS		
	b. ABUT. & BENT COL'S BREASTWALLS		
	c. ABUT. & INT. BENT PILES		
	d. BACKWALLS, WING'S, RETAIN. WALLS		
	e. ABUT. & BENT FOOTINGS & SILLS		
37. STEEL SUB STR.	a. ABUT. & INT. BENT CAPS & RISERS		
	b. PILES, BRACING, AND BULKHEADS		
38. FOUNDATION PILES TYPE MATERIAL			
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)			
40. FENDER SYSTEMS			
41. DRIFT			

ITEM 61		
45. CHANNEL & CHANNEL PROT.	a. WATERWAY	
	b. ALIGNMENT	
	c. SCOUR	
	d. SLOPE PROT., RIP-RAP, DIKES, ETC.	
50. APPROACH ROADWAY CONDITION		
51. APPROACH SLABS		
52. PAINT SYSTEM	CODE	
53. UTILITIES		
54. RESPONSE TO LIVE LOAD		
55. ESTIMATED REMAINING LIFE		5
60. REGULATORY SIGN NOTICE ISSUED		NO
61. PROMPT-ACTION NOTICE ISSUED		NO
62. PRESENTLY POSTED		NO
63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)		8
64. TOTAL SNOOPER INSP. TIME (HRS)		
65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)		2

70. SI&A GENERAL CONDITION RATINGS		
a. DECK	ITEM 58	
b. SUPERSTRUCTURE	ITEM 59	6
c. SUBSTRUCTURE	ITEM 60	
d. CHANNEL & CHANNEL PROT.	ITEM 61	

71. SI&A FIELD APPRAISAL RATINGS	
a. WATERWAY ADAQUACY	
b. APPR. RDWY. ALIGNMENT	
72. FIELD SCOUR EVALUATION	

USE OF INSP. ACCESSIBILITY EQUIPMENT		
SNOOPER (CODE S, 4, OR N)	HRS	NO
LADDER		NO
BUCKET TRUCK		YES
BOAT		NO
OTHER		NO

SPECIAL INSPECTION REQUESTED FOR

NOTE

80. INSPECTED BY:

81. REVIEWED BY:

Bridge I&A Form 1(82)H **State of North Carolina** **Dept. of Transportation** **Division of Highways**	**FIELD INSPECTION REPORT** **Bridge Inspecion & Analysis**	

Team Leader **TERRY MELTON**

Assisted By **M.MCNEESE**

Item No.	Grade	
10	F	IMPACT DAMAGE INSPECTION WAS REQUESTED BY DIVISION BRIDGE MAINTENANCE FOR SPAN 2 OVER US 221 BEAM 1: POINT OF IMPACT ON BEAM 1 IN SPAN 2 WAS 20'-2" FROM BENT 2 BEARING WITH SCATTERED MARKS AND SCRAPES ON THE FLANGE AND WEB ALONG A 2' AREA WITH PAINT MISSING ALONG BOTTOM FLANGE AND WEB AREA. BOTTOM FLANGE BENT DOWNWARD UP TO A 1/4". BEAM 1 IS OUT OF PLUMB 1 1/2" +/- TO THE NORTH AT 20'-2" FROM BENT 2 BEARING. OLDER IMPACT AREA AT 16.417' OUT FROM BENT 2 BEARING HAS 1'W X 1/2"DEEP DIVOT IN BOTTOM FLANGE. AREA AT 13.O83' OUT FROM BENT 2 BEARING HAS SCRAPE MARKS WITH 1/8" DEEP SCRAPE TO BOTTOM FLANGE, AREA IS 2' LONG WITH PAINT SCRAPED OFF ON BOTTOM FLANGE AND WEB AREA. BEAM 2: IMPACT ON BEAM 2 HAS SCRAPE MARKS ON BOTTOM FLANGE AT 13.583' AND 19.75' OUT FROM BEAM 2 BEARING.
12	F	CRACK IN DIAPHRAGM CONNECTION FROM PREVIOUS IMPACT HAS NO CHANGE. CONNECTION PLATE OF INTERMEDIATE DIAPHRAGMS - DIAPHRAGM BRACKET ON BEAM 1 IN SPAN 2 AT 22'-0" FROM FACE OF BENT 2 HAS A 2 5/8"+/- CRACK IN THE LOWER PART.
13	F	END DIAPHRAGMS AT BENT 2 HAVE CRACKING IN BAY1 AND EXTERIOR END DIAPHRAGM.
15	F	BEARINGS & ANCHOR BOLTS ON BEAM 1 IN SPAN 2 DID NOT SHOW ANY INDICATION OF DAMAGE DUE TO THE IMPACT

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 800117 County RUTHERFORD Date: 10/21/2014

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	20	IMPACT AREAS HAVE PAINT SCRAPED TO BARE METAL.	

Key

Priority Maintenance Item Critical Finding Item Priority Maintenance Level Not Determined

BEAM 1, BENT OUT OF PLUMB 1.5"

CRACK ON DIAPHRAGM CONNECTION BRACKET HAS NOT CHANGED FROM PREVIOUS HIT.

IMPACT AREA @ 20.167' OUT FROM BEARING AT BENT 2, AREA IS 2' LONG

BEAM 1, BOTTOM FLANGE BENT DOWNWARD, UP TO A 1/4"

ANOTHER VIEW OF IMPACT AREA

OLD IMPACT AREA @ 16.417' OUT FROM BENT 2 BEARING, DIVOT IS 1"WIDE X 1/2"DEEP IN BOTTOM FLANGE.

IMPACT ZONE 2, @ 13.083' OUT FROM BENT 2 BEARING, AREA IS 2' LONG

VIEW OF 1/8"DEEP OF SCRAPE TO BOTTOM FLANGE ON BEAM 1

END DIAPHRAGM IN BAY 1, AT BENT 2. CRACKED.

WATER LINE IN BAY 1

BEAM 2, @ 13.583' OUT FROM BENT 2 BEARING, SCRAPE MARKS.

BEAM 2, @ 19.75 FROM BENT 2 BEARING, SCRAPE MARKS

LOOKING UP AT BEAM 1 IMPACT AREA

LOOKING UP AT BEAM 2 IMPACT AREA

OVERVIEW OF IMPACT AREA

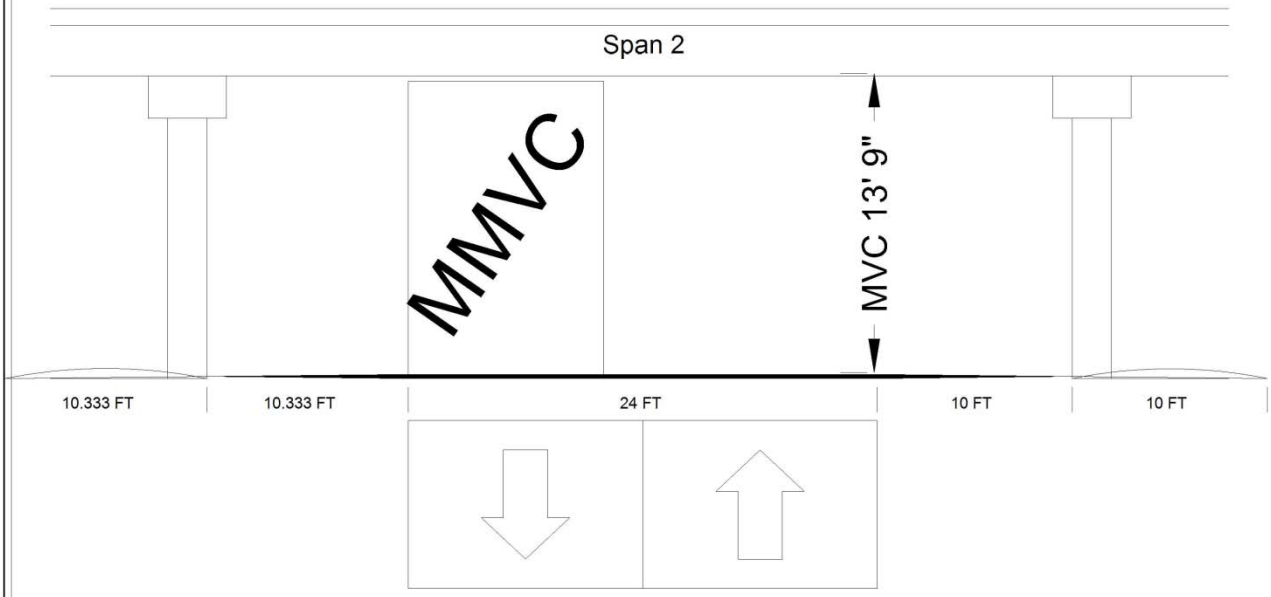
Bridge Inspection Field Sketch

Roadway	24ft Wide	2 Paved Lanes	Looking East
Left Shoulder	6ft Wide		6ft Unpaved
Right Shoulder	6ft Wide		6ft Unpaved
Left Guardrail			
Right Guardrail			

VERIFIED BY DEREK RICKUS ON 7-29-2013

Title	**Description**		
APPROACH	APPROACH RDWY.		
Bridge No: 800117	**Drawn By:** DCR	**Date:** 6/14/07	**File Name:** S0146007234

Bridge Inspection Field Sketch



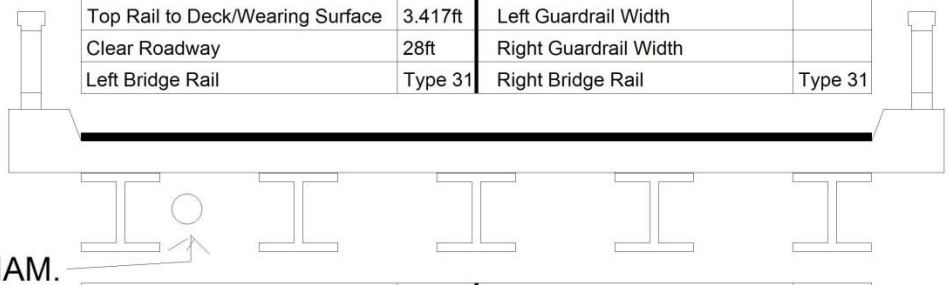
Roadway 1		Direction of Traffic	North South
Distance to Left Rail		Distance to Right Rail	
Distance to Left Toe of Slope		Distance to Left Bent	10.333FT
Distance to Right Toe of Slope		Distance to Right Bent	10FT
MMVC	13.9 Ft at Beam 1, 10 FT from LEFT EDGE OF ROADWAY (NORTHBOUND)		
MVC	13.7 Ft at Beam 1, 24 FT from LEFT EDGE OF ROADWAY (NORTHBOUND)		

VERIFIED BY DEREK RICKUS ON 7-29-2013

Title	**Description**		
UNDERCLEARANCES	VERT. & HORIZ. CLEARANCES		
Bridge No: 800117	**Drawn By:** DELVIN ADAMS	**Date:** 7/13/2011	**File Name:** S0146007235

Bridge Inspection Field Sketch

Deck Width/Out to Out	36ft	Wearing Surface	0.458ft
Between Rails	34.5ft	Median Width	
Curb Height	0.583ft	Median Height	
Top Rail to Deck/Wearing Surface	3.417ft	Left Guardrail Width	
Clear Roadway	28ft	Right Guardrail Width	
Left Bridge Rail	Type 31	Right Bridge Rail	Type 31



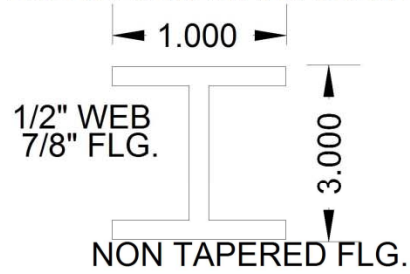
10" DIAM. C.I. WATER MAIN IN BAY #1

Measurements for Span #	1		
Deck Thickness	0.542	Left Overhang	4
Top of Rail to Bottom of Beam	7	Right Overhang	4

Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	7.00 FT.	
2	Steel I Beam	7.00 FT.	
3	Steel I Beam	7.00 FT.	
4	Steel I Beam	7.00 FT.	
5	Steel I Beam		

NOTES

BRIDGE HAS 3'-3" WIDE CONC. SIDEWALK ON LEFT & RIGHT SIDES OF DECK.



VERIFIED BY DEREK RICKUS ON 7-29-2013

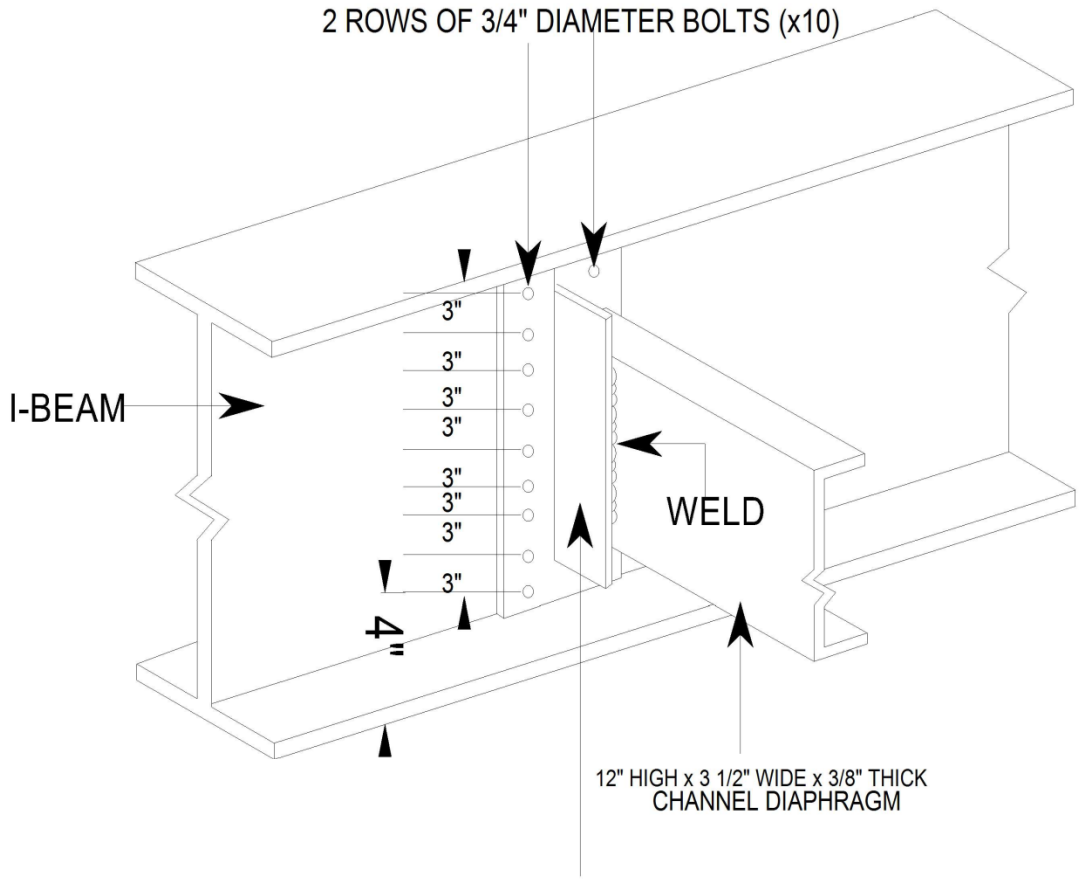
Title	Description
CROSS SECTION THRU DECK	SUPERSTR. DETAILS

Bridge No:	Drawn By:	Date:	File Name:
800117	DCR	6/14/07	S0146007236

Bridge Inspection Field Sketch

DIAPHRAGM DETAILS

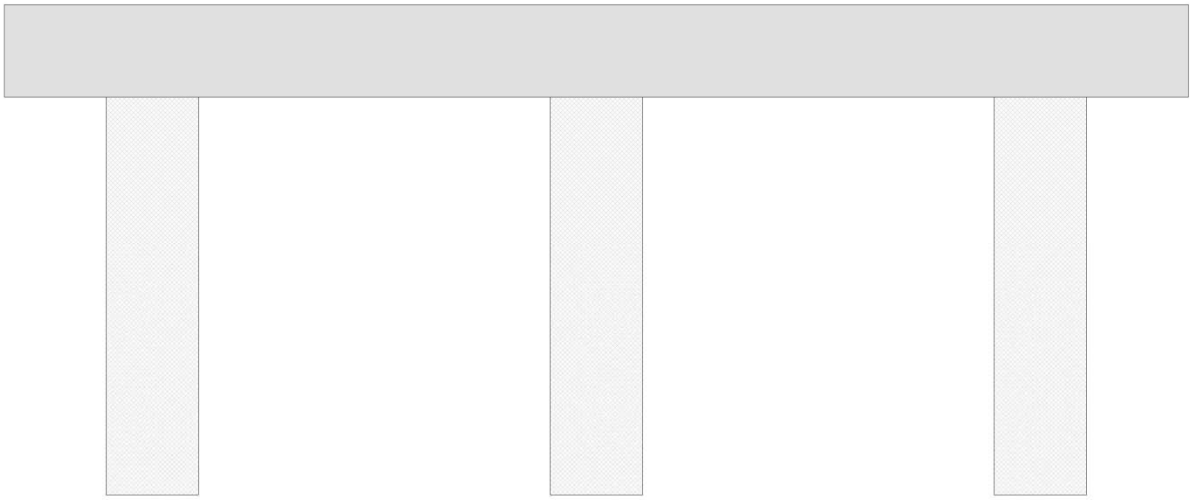
LOCATIONS : 1/3 POINTS OF SPANS



Title	Description
diaph	details

Bridge No:	Drawn By:	Date:	File Name:
800117	derek rickus	7/29/2013	S0142002075

Bridge Inspection Field Sketch



Cap Information			Material			
Length	Width	Height	Left Overhang	Right Overhang	Left Beam to End of Cap.	Right Beam to End of Cap.
32.000 ft.	2.500 ft.	2.500 ft.	4.000 ft.	4.000 ft.	1.333 ft.	1.333 ft.

Subcap Information			Material		
Length	Width	Height	Left Overhang	Right Overhang	Left Pile to Splice.

Sill Information			Material
Length	Width	Height	

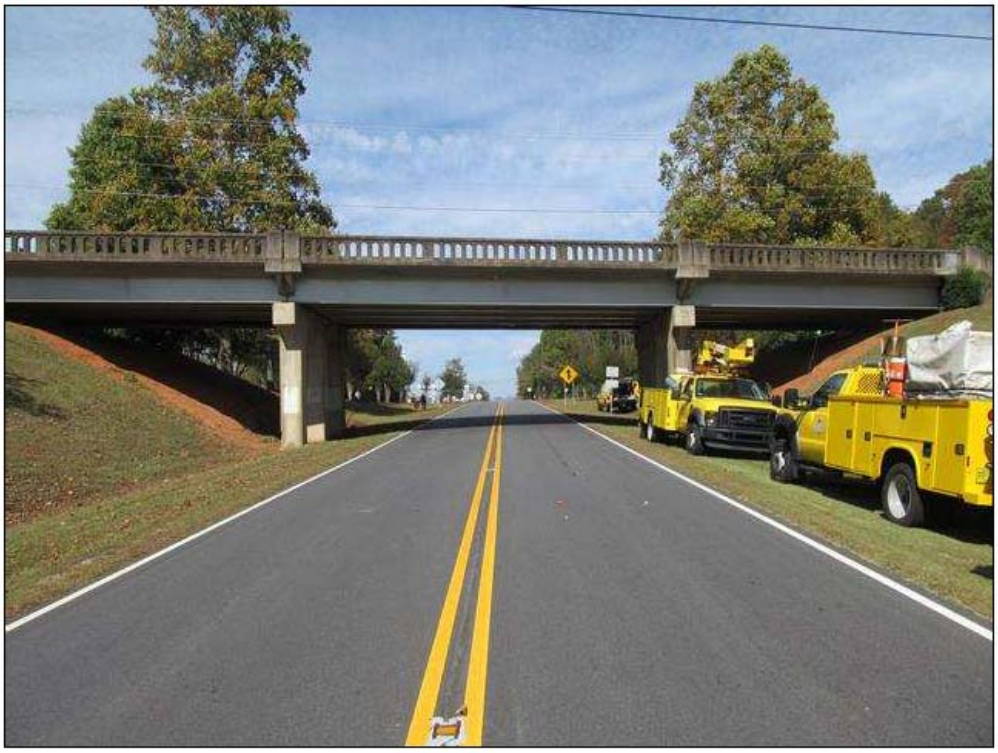
Pile #	Material	Spacing	Width/Dia.	Height	Length	Orientation	Driven?	Replacement?	Removed?	Collar?
1	Concrete	12.0 ft.	2.5 ft.	2.5 ft.		Vertical	No	No	No	No
2	Concrete	12.0 ft.	2.5 ft.	2.5 ft.		Vertical	No	No	No	No
3	Concrete		2.5 ft.	2.5 ft.		Vertical	No	No	No	No

Bent/Abutment #: 1 Similar Bents: BENT 2

Title	**Description**
BENT	DETAILS

Bridge No: 800117	**Drawn By:** DEREK RICKUS	**Date:** 7/29/2013	**File Name:** S0142002076

Structure 800117 County RUTHERFORD Date: 10/21/2014 Structure Photos



LOOKING NORTH