



NC DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS  
 BRIDGE MANAGEMENT UNIT

ATTENTION **VERT CLR ONLY**



# BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY GASTON BRIDGE NUMBER 350150 INSPECTION CYCLE 2 YRS  
 ROUTE SEABOARD C.L.RR. ACROSS I85 M.P. 26010

LOCATION 1.0 MI. W. JCT. NC27

SUPERSTRUCTURE REINFORCED CONCRETE DECK ON I-BEAMS

SUBSTRUCTURE ABUTMENTS: RC STUB, INTERIOR BENTS: RC POST & BEAM

SPANS 1@51'1, 2@60'3, 1@55'10

LONGITUDE 81° 2' 36.01" LATITUDE 35° 15' 25.56"

INSPECTION DATE 08/04/2014 PRESENT CONDITION CLEARANCE ONLY

PRESENT POSTING Not Posted **NOT POSTED** PROPOSED POSTING \_\_\_\_\_

OTHER SIGNS PRESENT NONE



**LOOKING EAST**

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

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

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

Run Date: 08/25/2014

**IDENTIFICATION**

(1) STATE NAME -NORTH CAROLINA BRIDGE **350150**  
 (8) STRUCTURE NUMBER(FEDERAL) 00000000710150  
 (5) INVENTORY ROUTE (ON/UNDER) - ON 11000850  
 (2) STATE HIGHWAY DEPARTMENT DISTRICT 1  
 (3) COUNTY CODE 71 (4) PLACE CODE 4840  
 (6) FEATURE INTERSECTED - I85  
 (7) FACILITY CARRIED SEABOARD C.L.RR.  
 (9) LOCATION 1.0 MI. W. JCT. NC27  
 (11) MILEPOINT 26.01  
 (16) LAT 35° 15' 25.56" (17) LONG 81° 2' 36.01"  
 (98) BORDER BRIDGE STATE CODE PCT SHARE  
 (99) BORDER BRIDGE STRUCTURE NO

SUFFICIENCY RATING = 0  
 STATUS = Functionally Obsolete

**CLASSIFICATION CODE**

(112) NBIS BRIDGE SYSTEM - NO  
 (104) HIGHWAY SYSTEM Is on the NHS 1  
 (26) FUNCTIONAL CLASS - Arterial - Interstate 11  
 (100) STRAHNET HIGHWAY - Interstate STRAHNET Route 1  
 (101) PARALLEL STRUCTURE - No Parallel Structure N  
 (102) DIRECTION OF TRAFFIC - 2-way Traffic 2  
 (103) TEMPORARY STRUCTURE -  
 (110) DESIGNATED NATIONAL NETWORK - On the National Network 1  
 (20) TOLL On Free Road 3  
 (31) MAINTAIN - Railroad 27  
 (22) OWNER - Railroad 27  
 (37) HISTORICAL SIGNIFICANCE - Not Eligible 5

**STRUCTURE TYPE AND MATERIAL**

(43) STRUCTURE TYPE MAIN: Steel  
 TYPE - Stringer Mutlibeam or Girder CODE 302  
 (44) STRUCTURE TYPE APPR :  
 TYPE - CODE 000  
 (45) NUMBER OF SPANS IN MAIN UNIT 4  
 (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

**CONDITION CODE**

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

**LOAD RATING AND POSTING CODE**

(31) DESIGN LOAD Railroad 8  
 (63) OPERATING RATING METHOD - No Rating Analysis or Evaluatic 5  
 (64) OPERATING RATING - HS- 0  
 (65) INVENTORY RATING METHOD - No Rating Analysis or Evaluatic 5  
 (66) INVENTORY RATING - HS- 0  
 (70) BRIDGE POSTING -  
 (41) STRUCTURE OPEN, POSTED ,OR CLOSED A  
 DESCRIPTION - Open, No Restriction

**AGE AND SERVICE**

(27) YEAR BUILT 1961  
 (106) YEAR RECONSTRUCTED  
 (42) TYPE OF SERVICE : ON - Railroad  
 UNDER - Highway CODE 21  
 (28) LANES: ON STRUCTURE 0 UNDER STRUCTURE 6  
 (29) AVERAGE DAILY TRAFFIC 119000  
 (30) YEAR OF ADT 2012 (109) TRUCK ADT PCT 16%  
 (19) BYPASS OR DETOUR LENGTH 1 MI

**APPRAISAL CODE**

(67) STRUCTURAL EVALUATION 9  
 (68) DECK GEOMETRY 2  
 (69) UNDERCLEARANCES, VERTI & HORIZ 3  
 (71) WATERWAY ADEQUACY N  
 (72) APPROACH ROADWAY ALIGNMENT 0  
 (36) TRAFFIC SAFETY FEATURES NNNN  
 (113) SCOUR CRITICAL BRIDGES N

**GEOMETRIC DATA**

(48) LENGTH OF MAXIMUM SPAN 60 FT  
 (49) STRUCTURE LENGTH 227 FT  
 (50) CURB OR SIDEWALK: LEFT 0 FT RIGHT 0 FT  
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 0 FT  
 (52) DECK WIDTH OUT TO OUT 0 FT  
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 0 FT  
 (33) BRIDGE MEDIAN - No Median CODE 0  
 (34) SKEW 38° (35) STRUCTURE FLARED 0  
 (10) INVENTORY ROUTE MIN VERT CLEAR 17.5 FT  
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 50.083 FT  
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 999.9 FT  
 (54) MIN VERT UNDERCLEAR REF Highway 16.75 FT  
 (55) MIN LAT UNDERCLEAR RT REF Highway 9.5 FT  
 (56) MIN LAT UNDERCLEAR LT REF - 4.583 FT

**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 238000 (115) YEAR FUTURE ADT 2025

**INSPECTIONS**

(90) INSPECTION DATE 08/04/2014  
 (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

**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

Structure No: 350150

County: GASTON

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							
													Reference Feature	Minimum Vertical Underclearance	Right Lateral Underclearance	Left Lateral Underclearance	Underclearance Appraisal Grade	STRAHNET Highway Designator	Direction of Traffic	Highway System of Route
	6	5	10	11	12	13	20	26	28	29	30	47	54A	54	55	56	69	100	102	104
2	I 85 S	11000850	16	26	1	10085		11	3	59500	2012	48.33	H	15.75	9	3.33	9	1	1	1
3	I 85 N	11000850	17.5	26	1	10085		11	3	59500	2012	50.08	H	16.75	9.5	4.58	9	1	1	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: 08/25/2014

COUNTY : GASTON                      DIVISION : 12              DISTRICT : 1              STRUCTURE NUMBER : 350150              LENGTH : 227 FEET

ROUTE CARRIED : SEABOARD C.L.RR.                      FEATURE INTERSECTED : I85

LOCATED : 1.0 MI. W. JCT. NC27                      BRIDGE NAME :                      CITY : BELMONT

FUNC. CLASS : 11              SYST.ON : FA              SYST.UNDER : NFA              ADT & YR : 119000 2012              RAIL TYPE : LT 139 RT 139

BUILT : 1961              BY : SHC              PROJ : 8.16318              FED.AID PROJ : I-85-1(6)20              DESIGN LOAD : Railroad

REHAB :              BY :              PROJ :              ALIGNMENT : TAN              SKEW : 128              LANES : ON 0 UNDER 6

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

SUPERSTRUCTURE : REINFORCED CONCRETE DECK ON I-BEAMS

SUBSTRUCTURE : ABUTMENTS: RC STUB; INT. BNTS: RC POST & BEAM

SPANS : 1@51'-1", 2@60'-3", 1@55'-10"

BEAMS OR GIRDERS : 6 LINES 36" I-BEAMS @ 2'-9" CENTERS

FLOOR :                      ENCROACHMENT :                      DECK (OUT TO OUT) : 0 FT

CLEAR ROADWAY : 0 FT              BETWEEN RAILS : 0 FT              SIDEWALK OR CURB : LT 0 FT RT 0 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-              OPE.RTG. : HS-              CONTR.MEMBER :              POSTED : SV              TTST              DATE

SYSTEM : Primary Interstate                      GREEN LINE ROUTE : U

UNDER ROUTES AND CLEARANCES

Span	Route Description	Vertical Clearances		Horizontal Clearances		
		MMVC	MVC	Total	Left	Right
2	I 85 S	16	15.75	48.3330	3.3330	9
3	I 85 N	17.50	16.75	50.0830	4.5830	9.50

*Note: All measurements are in feet.*

REMARKS :

# BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection  
 BRIDGE NO. 350150 COUNTY GASTON ROUTE SEABOARD C.L.R.R. OVER I85  
 STRUCTURE TYPE REINFORCED CONCRETE DECK ON I-BEAMS  
 ROUTE ORIENTATION SPANS 1@51'1, 2@60'3, 1@55'10

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

INSPECTION ITEM		ITEM 61	
DECK ITEMS			
		ITEM 61	
1. WEARING SURFACE		45. CHANNEL & CHANNEL PROT.	a. WATERWAY
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58			b. ALIGNMENT
a. CONCRETE			c. SCOUR
b. TIMBER			d. SLOPE PROT., RIP-RAP, DIKES, ETC.
c. STEEL PLANK			50. APPROACH ROADWAY CONDITION
d. OPEN GRID		51. APPROACH SLABS	
3. RAILING		52. PAINT SYSTEM	CODE
a. CONCRETE		53. UTILITIES	
b. TIMBER		54. RESPONSE TO LIVE LOAD	
c. ALUMINUM		55. ESTIMATED REMAINING LIFE	
d. STEEL			
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)		60. REGULATORY SIGN NOTICE ISSUED	
6. DECK EXP JTS. OR DEVICES. NO. OF EACH		61. PROMPT-ACTION NOTICE ISSUED	
a. STEEL PL OR FINGER		62. PRESENTLY POSTED	
b. MISC PREFAB		63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)	2
c. COMPRESSION SEAL		64. TOTAL SNOOPER INSP. TIME (HRS)	
d. STANDARD JOINTS		65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)	
e. OPEN JOINTS			
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)		70. SI&A GENERAL CONDITION RATINGS	
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59		a. DECK	ITEM 58
10. LONGITUDINAL BEAMS OR GIRDERS		b. SUPERSTRUCTURE	ITEM 59
11. LONGITUDINAL JOIST OR STRINGERS		c. SUBSTRUCTURE	ITEM 60
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S		d. CHANNEL & CHANNEL PROT.	ITEM 61
13. END DIAP'S, CURTAIN WALLS, & CONN'S			
14. FLOOR BEAMS AND CONNECTIONS		71. SI&A FIELD APPRAISAL RATINGS	
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)		a. WATERWAY ADAQUACY	
16. DRAINAGE SYSTEM (ON STRUCTURE)		b. APPR. RDWY. ALIGNMENT	
17. MOVABLE SPAN MACHINERY			
		72. FIELD SCOUR EVALUATION	
SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)			
35. TIM SUB STR.		USE OF INSP. ACCESSIBILITY EQUIPMENT	
a. ABUT. & INT. BENT CAPS & RISERS		SNOOPER (CODE S, 4, OR N)	HRS
b. PILES, POST, SILLS, & BRACING		LADDER	
c. BULKHEADS, WING'S, & TIE BACKS		BUCKET TRUCK	
36. CONC SUB STR.		BOAT	
a. ABUT. & INT. BENT CAPS		OTHER	
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.		SPECIAL INSPECTION REQUESTED FOR	
a. ABUT. & INT. BENT CAPS & RISERS			
b. PILES, BRACING, AND BULKHEADS			
38. FOUNDATION PILES TYPE MATERIAL		NOTE	
39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)			
40. FENDER SYSTEMS		80. INSPECTED BY:	<i>Al R. 2/20/10</i>
41. DRIFT		81. REVIEWED BY:	

Bridge I&A Form 1(82)H State of North Carolina Dept. of Transportation Division of Highways	<b>FIELD INSPECTION REPORT</b> <u>Bridge Inspeccion &amp; Analysis</u>	
Team Leader <b>DEREK RICKUS</b>		
Assisted By <b>EAP</b>		
<b>Item No.</b>	<b>Grade</b>	

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

Bridge: 350150

County GASTON

Date: 08/04/2014

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
0	No Maintenance Required	NA	0	VERT CLR ONLY	

## Key



Priority Maintenance Item

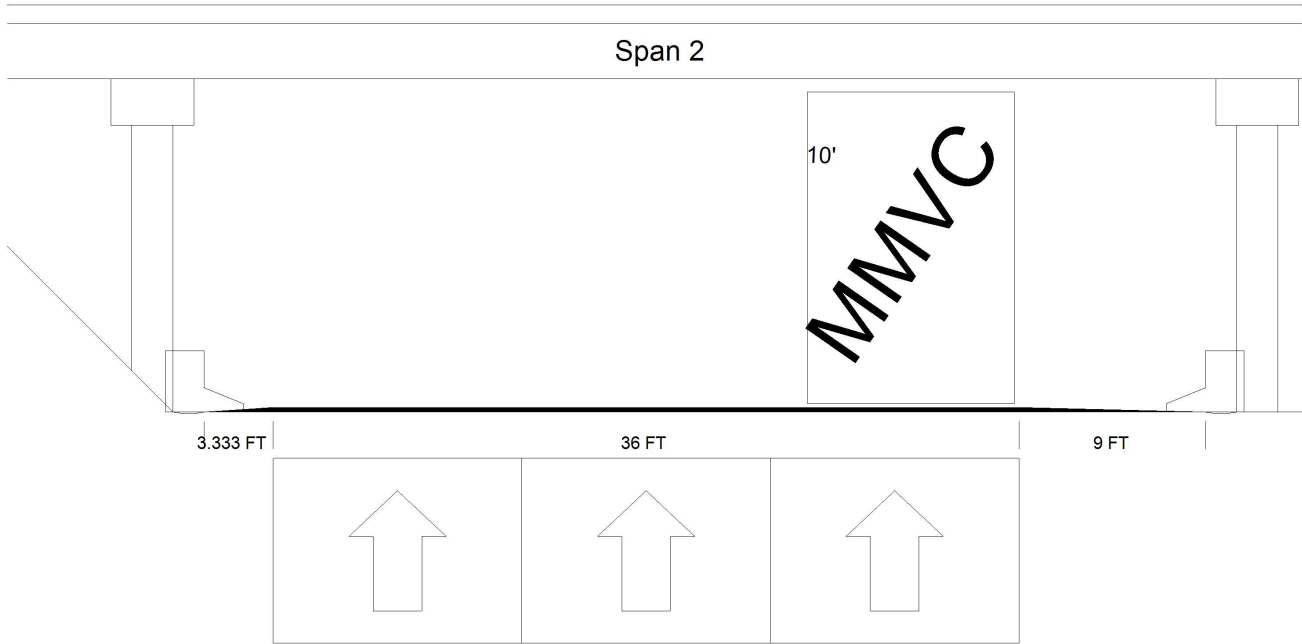


Critical Finding Item



Priority Maintenance Level Not Determined

# Bridge Inspection Field Sketch



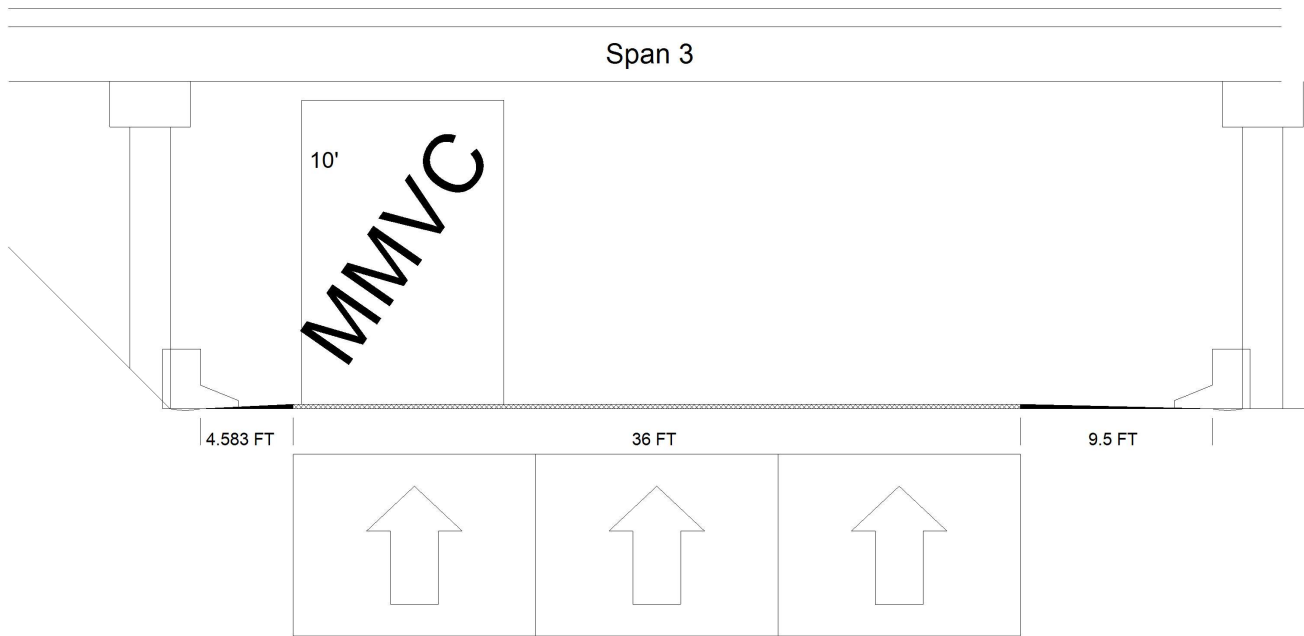
Roadway 1		Direction of Traffic	South
Distance to Left Rail	3.333FT	Distance to Right Rail	9FT
Distance to Left Toe of Slope		Distance to Left Bent	4.833FT
Distance to Right Toe of Slope	24FT	Distance to Right Bent	10.5FT
MMVC	16 Ft at Beam 6, 10 FT from RIGHT EDGE OF ROADWAY		
MVC	15.75 Ft at Beam 6, 0 FT from LEFT EDGE OF ROADWAY		

VERIFIED BY DEREK RICKUS ON 8/4/2014

Title		Description	
SPAN #2 OVER I-85 SB		SPAN #2 UNDERCLEARANCE	
Bridge No: 350150	Drawn By: DJA	Date: 8/18/08	File Name: S0146030532



# Bridge Inspection Field Sketch



Roadway 1		Direction of Traffic	North
Distance to Left Rail	4.583FT	Distance to Right Rail	9.5FT
Distance to Left Toe of Slope		Distance to Left Bent	6.083FT
Distance to Right Toe of Slope	26FT	Distance to Right Bent	11FT
MMVC	17.5 Ft at Beam 6, 10 FT from LEFT EDGE OF ROADWAY		
MVC	16.75 Ft at Beam 6, 0 FT from RIGHT EDGE OF ROADWAY		

VERIFIED BY DEREK RICKUS ON 8/4/2014

**Title**

SPAN #3 OVER I-85 NB

**Description**

SPAN #3 UNDERCLEARANCE

Bridge No: 350150

Drawn By: DJA

Date: 8/18/08

File Name: S0146030533



LOOKING WEST



LOOKING EAST