



NC DEPARTMENT OF TRANSPORTATION ATTENTION
 DIVISION OF HIGHWAYS
 BRIDGE MANAGEMENT UNIT

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY JOHNSTON BRIDGE NUMBER 500067 INSPECTION CYCLE 2 YRS
 ROUTE US701 ACROSS I95 M.P. 0

LOCATION JCT. US701&I-95

SUPERSTRUCTURE REINFORCED CONCRETE DECK/I-BEAMS

SUBSTRUCTURE E.BTS&BTS:RC CAP/PPC PILES@6'CTS.

SPANS 1@57'2';1@72'3';1@72';1@48'7

LONGITUDE 78° 23' 22.7" LATITUDE 35° 27' 28.0"

PRESENT CONDITION FAIR INVENTORY RATING _____

INSPECTION DATE 06/29/2011 OPERATING RATING _____

PRESENT POSTING Not Posted **NOT POSTED** PROPOSED POSTING _____

COMPUTER UPDATE _____ ANALYSIS DATE _____

POSTING LETTER DATE _____ SUFFICIENCY RATING _____

OTHER SIGNS PRESENT NONE



LOOKING NORTH

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	_____

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE 500067
 (8) STRUCTURE NUMBER(FEDERAL) 000000001010067
 INVENTORY ROUTE (ON/UNDER) - ON 121007010
 (2) STATE HIGHWAY DEPARTMENT DISTRICT 4
 (3) COUNTY CODE 101 (4) PLACE CODE 62520
 (6) FEATURE INTERSECTED - I95
 (7) FACILITY CARRIED US701
 (9) LOCATION JCT. US701&I-95
 (11)MILEPOINT 0
 (16)LAT 35° 27' 28.0" (17)LONG 78° 23' 22.7"
 (98)BORDER BRIDGE STATE CODE PCT SHARE
 (99)BORDER BRIDGE STRUCTURE NO

SUFFICIENCY RATING = 67
 STATUS = Functionally Obsolete

CLASSIFICATION CODE

(112)NBIS BRIDGE SYSTEM - YES
 (104)HIGHWAY SYSTEM NON NHS Route 0
 (26) FUNCTIONAL CLASS - Other Principal Arterial 14
 (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 - Not Temporary
 (110)DESIGNATED NATIONAL NETWORK - Not Part of 0
 (20) TOLL On Free Road 3
 (31) MAINTAIN - State Highway Agency 01
 (22) OWNER - State Highway Agency 01
 (37) HISTORICAL SIGNIFICANCE - Not Eligible 5

STRUCTURE TYPE AND MATERIAL

(43) STRUCTURE TYPE MAIN: Steel
 TYPE - Stringer Mutlibleam or Girder CODE 302
 (44) STRUCTURE TYPE APPR :
 TYPE - CODE
 (45) NUMBER OF SPANS IN MAIN UNIT 4
 (46) NUMBER OF APPROACH SPANS
 (107)DECK STRUCTURE TYPE - Concrete cast-in-place CODE 1
 (108)WEARING SURFACE / PROTECTIVE SYSTEM :
 (A) TYPE OF WEARING SURFACE - Bituminous CODE 6
 (B) TYPE OF MEMBRANE - None CODE 0
 (C) TYPE OF DECK PROTECTION - None CODE 0

CONDITION CODE

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

LOAD RATING AND POSTING CODE

(31) DESIGN LOAD HS 20 5
 (64) OPERATING RATING - HS-37 166
 (66) INVENTORY RATING - HS-22 139
 (70) BRIDGE POSTING - No Posting Required 5
 (41) STRUCTURE OPEN, POSTED ,OR CLOSED A
 DESCRIPTION - Open, No Restriction

AGE AND SERVICE

(27) YEAR BUILT 1957
 (106)YEAR RECONSTRUCTED 2009
 (42) TYPE OF SERVICE : ON - Overpass - Interchange
 UNDER - Highway CODE 61
 (28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 4
 (29) AVERAGE DAILY TRAFFIC 5100
 (30) YEAR OF ADT 2009 (109) TRUCK ADT PCT 12 %
 (19) BYPASS OR DETOUR LENGTH 0 MI

APPRAISAL CODE

(67) STRUCTURAL EVALUATION 5
 (68) DECK GEOMETRY 4
 (69) UNDERCLEARANCES,VERTI & HORIZ 2
 (71) WATERWAY ADEQUACY N
 (72) APPROACH ROADWAY ALIGNMENT 7
 (36) TRAFFIC SAFETY FEATURES 0111
 (113)SCOUR CRITICAL BRIDGES N
 SCOUR PLAN OF ACTION

GEOMETRIC DATA

(48) LENGTH OF MAXIMUM SPAN 72 FT
 (49) STRUCTURE LENGTH 250 FT
 (50)CURB OR SIDEWALK: LEFT 1.6 FT RIGHT 1.6 FT
 (51) BRIDGE ROADWAY WIDTH CURB TO CURB 28.2 FT
 (52) DECK WIDTH OUT TO OUT 31.6 FT
 (32) APPROACH ROADWAY WIDTH (W/SHOULDERS) 27.0 FT
 (33) BRIDGE MEDIAN - No Median CODE 0
 (34) SKEW 44° (35) STRUCTURE FLARED NO
 (10) INVENTORY ROUTE MIN VERT CLEAR 99 FT 99 IN
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 28.2 FT
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99 FT 99 IN
 (54) MIN VERT UNDERCLEAR REF Highway 16 FT 02 IN
 (55) MIN LAT UNDERCLEAR RT REF Highway 6.0 FT
 (56) MIN LAT UNDERCLEAR LT REF - 11.5 FT

PROPOSED IMPROVEMENTS

(75) TYPE OF WORK - CODE 311
 (76) LENGTH OF STRUCTURE IMPROVEMENT 250 FT
 (94) BRIDGE IMPROVEMENT COST \$742,000
 (95) ROADWAY IMPROVEMENT COST \$186,000
 (96) TOTAL PROJECT COST \$1,113,000
 (97) YEAR OF IMPROVEMENT COST ESTIMATE 2007
 (114)FUTURE ADT 10200 (115) YEAR FUTURE ADT 2025

NAVIGATION DATA

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

INSPECTIONS

(90) INSPECTION DATE 06/29/2011
 (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

NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL Run Date: 08/10/2011

IDENTIFICATION

(1) STATE NAME -NORTH CAROLINA BRIDGE 500067
 (8) STRUCTURE NUMBER(FEDERAL) 000000001010067
 INVENTORY ROUTE (ON/UNDER) - UNDER 211000950
 (2) STATE HIGHWAY DEPARTMENT DISTRICT 4
 (3) COUNTY CODE 101 (4) PLACE CODE 62520
 (6) FEATURE INTERSECTED - I95
 (7) FACILITY CARRIED US701
 (9) LOCATION JCT. US701&I-95
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 (98)BORDER BRIDGE STATE CODE PCT SHARE
 (99)BORDER BRIDGE STRUCTURE NO

SUFFICIENCY RATING = 67
 STATUS = Functionally Obsolete

CLASSIFICATION CODE

(112)NBIS BRIDGE SYSTEM - YES
 (104)HIGHWAY SYSTEM NHS Route 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 - Not Temporary
 (110)DESIGNATED NATIONAL NETWORK - Is Part of
 (20) TOLL On Free Road 3
 (31) MAINTAIN - State Highway Agency 01
 (22) OWNER - State Highway Agency 01
 (37) HISTORICAL SIGNIFICANCE - Not Eligible 5

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 (42) TYPE OF SERVICE : ON - Overpass - Interchange
 UNDER - Highway CODE 61
 (28) LANES: ON STRUCTURE 2 UNDER STRUCTURE 4
 (29) AVERAGE DAILY TRAFFIC 39000
 (30) YEAR OF ADT 2009 (109) TRUCK ADT PCT 12 %
 (19) BYPASS OR DETOUR LENGTH 0 MI

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(67) STRUCTURAL EVALUATION 5
 (68) DECK GEOMETRY 4
 (69) UNDERCLEARANCES,VERTI & HORIZ 2
 (71) WATERWAY ADEQUACY N
 (72) APPROACH ROADWAY ALIGNMENT 7
 (36) TRAFFIC SAFETY FEATURES 0111
 (113)SCOUR CRITICAL BRIDGES N
 SCOUR PLAN OF ACTION

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 (33) BRIDGE MEDIAN - No Median CODE 0
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 (10) INVENTORY ROUTE MIN VERT CLEAR 17 FT 10 IN
 (47) INVENTORY ROUTE TOTAL HORIZ CLEAR 45.5 FT
 (53) MIN VERT CLEAR OVER BRIDGE RDWY 99 FT 99 IN
 (54) MIN VERT UNDERCLEAR REF Highway 16 FT 02 IN
 (55) MIN LAT UNDERCLEAR RT REF Highway 6.0 FT
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(90) INSPECTION DATE 06/29/2011
 (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

BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection
 BRIDGE NO. 500067 COUNTY JOHNSTON ROUTE US701 OVER I95
 STRUCTURE TYPE REINFORCED CONCRETE DECK/I-BEAMS
 ROUTE ORIENTATION S - N SPANS 1@57'2;1@72'3;1@72';1@48'7

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

INSPECTION ITEM				ITEM 61				
DECK ITEMS			GRADES					
1. WEARING SURFACE			G	45. CHANNEL & CHANNEL PROT.	a. WATERWAY			
2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58			F		b. ALIGNMENT			
a. CONCRETE			4		c. SCOUR			
b. TIMBER					d. SLOPE PROT., RIP-RAP, DIKES, ETC.			
c. STEEL PLANK					50. APPROACH ROADWAY CONDITION			G
d. OPEN GRID				51. APPROACH SLABS				
3. RAILING			F	52. PAINT SYSTEM			I	G
a. CONCRETE				53. UTILITIES				
b. TIMBER				54. RESPONSE TO LIVE LOAD			G	
c. ALUMINUM				55. ESTIMATED REMAINING LIFE			15	
d. STEEL								
4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS			F					
5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)				60. REGULATORY SIGN NOTICE ISSUED			NO	
6. DECK EXP JTS. OR DEVICES. NO. OF EACH				61. PROMPT-ACTION NOTICE ISSUED			NO	
a. STEEL PL OR FINGER				62. PRESENTLY POSTED			NO	
b. MISC PREFAB				63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR)			6	
c. COMPRESSION SEAL				64. TOTAL SNOOPER INSP. TIME (HRS)			0	
d. STANDARD JOINTS			3	G	65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)			0
e. OPEN JOINTS								
7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)			F					
				70. SI&A GENERAL CONDITION RATINGS				
SUPER STR. (FM. 1 (90)B TRUSS) ITEM 59				a. DECK		ITEM 58	5	
10. LONGITUDINAL BEAMS OR GIRDERS			F	b. SUPERSTRUCTURE		ITEM 59	7	
11. LONGITUDINAL JOIST OR STRINGERS				c. SUBSTRUCTURE		ITEM 60	5	
12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S			F	d. CHANNEL & CHANNEL PROT.		ITEM 61		
13. END DIAP'S, CURTAIN WALLS, & CONN'S			F					
14. FLOOR BEAMS AND CONNECTIONS				71. SI&A FIELD APPRAISAL RATINGS				
15. BEARING ASSEMBLIES (INCLUDING MISALIGN)			G	a. WATERWAY ADAQUACY				
16. DRAINAGE SYSTEM (ON STRUCTURE)			G	b. APPR. RDWY. ALIGNMENT			7	
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	NO	
b. PILES, POST, SILLS, & BRACING				LADDER			NO	
c. BULKHEADS, WING'S, & TIE BACKS				BUCKET TRUCK			NO	
36. CONC SUB STR.			F	BOAT			NO	
a. ABUT. & INT. BENT CAPS				OTHER			NO	
b. ABUT. & BENT COL'S BREASTWALLS								
c. ABUT. & INT. BENT PILES			F					
d. BACKWALLS, WING'S, RETAIN. WALLS			F					
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)			F					
40. FENDER SYSTEMS				80. INSPECTED BY:		<i>Walter C. My</i>		
41. DRIFT				81. REVIEWED BY:				

Bridge I&A Form 1(82)H		FIELD INSPECTION REPORT <u>Bridge Inspection & Analysis</u>	
State of North Carolina Dept. of Transportation Division of Highways			
Team Leader WILLIS C MAY			
Assisted By WTW			
Item No.	Grade		
2a	F	<p>CONCRETE DECK BOTTOM OF DECK HAS NUMEROUS TRANSVERSE HAIRLINE CRACKS SOME WITH EFFLORESCENCE ALL BAYS SIMILAR IN ALL SPANS. SPAN 2- LEFT EDGE AND BOTTOM OF OVERHANG IS SPALLED 6 IN. WIDE X 2 FT. LONG X 1 IN. DEEP FROM COLLISION. RIGHT OVERHANG HAS TRANSVERSE HAIRLINE CRACKS. ALL SPANAS SIMILAR LEFT AND RIGHT SIDES. HAIRLINE DIAGONAL CRACK WITH EFFLORESCENCE LEAKAGE IN BOTTOM OF DECK OF BAY 1 AT BENT 2 . 3 FT. DIAMETER PATCH IN BOTTOM OF DECK IN BAY 1 AT 1/3 POINT WITH A CRACK AND DELAMINATION AROUND OUTSIDE EDGE OF PATCH. SPAN 3- TRANSVERSE CRACKS WITH EFFLORESCENCE LEAKAGE IN ALL BAYS.</p>	
3a	F	<p>CONCRETE RAILING RAILS SCALED WITH EXPOSED AGGREGATE. UP TO 1 IN. MISALIGNMENT AT RAIL ENDS OVER EACH BENT.</p>	
4	F	<p>CURBS CURBS SCALED WITH EXPOSED AGGREGATE. RANDOM SUFACE SPALLS WITH EXPOSED REBAR. UP TO 1 IN. MISALIGNMENT IN CURBS AT EACH BENT.</p>	
7	F	<p>DECK DEBRIS RANDOM PILES OF DIRT AND DEBRIS 3 IN. HIGH OUT 1 FT. ALONG CURBS.</p>	
10	F	<p>LONGITUDINAL BEAMS 5 BEAMS HAVE BEEN CLEANED AND PAINTED. SPAN 1- ENDS OF BEAMS OVER BENT 1 HAVE BEEN CLEANED & PAINTED. BEAM 4 BOTTOM FLANGE AT END BENT 1 HAS 1/8 IN. SECTION LOSS IN THE BOTTOM OF BOTTOM FLANGE FROM BEARING TO END OF BEAM. BEAM 3 AND 4 LEFT SIDE HAS 1/32 IN. SECTION LOSS IN THE WEB 4 IN. HIGH X 20 FT. LONG IN THE END OVER BENT 1 . SPAN 2- BEAM 1 PREVIOUS COLLISION DAMAGE HAS BEEN REPAIRED SINCE LAST INSPECTION. TRAFFIC SCRAPES ACROSS BOTTOM FLANGE OF BEAMS 2 THRU 4 IN SPAN 2. BEAM 3 BOTTOM FLANGE HAS A GOUGE APPROXIMATELY 1/2 IN. DEEP X 2 IN. WIDE X 10 IN. LONG OVER THE RIGHT NORTHBOUND LANE. SPAN 3- BEAMS ENDS OF SPAN 3 AND SPAN 4 ARE PITTED 1/32 IN. DEEP OUT 3 FT. OVER BENT 3. BEAMS 2 AND 3 ARE PITTED 1/32 IN. DEEP.</p>	
12	F	<p>INTERIOR DIAPHRAGMS A CHANNEL BEAM HAS BEEN ADDED NEXT TO THE INTERIOR DIAPHRAGM BETWEEN BEAMS 1 & 2 IN SPAN 2 BAY 1 AT 1/3 POINT. PREVIOUS IMPACT DAMAGE IN THIS AREA.</p>	

Bridge I&A Form 1(82)H		<h1 style="margin: 0;">FIELD INSPECTION REPORT</h1> <p style="margin: 0;"><u>Bridge Inspection & Analysis</u></p>	
State of North Carolina Dept. of Transportation Division of Highways			
Team Leader WILLIS C MAY			
Assisted By WTW			
Item No.	Grade		
13	F	END DIAPHRAGMS BENT 1 PATCHES IN END DIAPHRAGMS OVER BENT 1. SHORT LONGITUDINAL CRACKS UP TO 1/4 IN. AND 2 FT. LONG IN BOTTOM OF SPAN 1 DIAPHRAGMS IN THE ENDS NEXT TO BEAMS, SPAN 2 BENT 1 SIMILAR WITH HAIRLINE TRANSVERSE ACROSS BOTTOM OF DIAPHRAGMS. BENT 2 BOTTOM OF BENT 2 SPAN 3 DIAPHRAGM AT BENT 2 HAS LONGITUDINAL CRACK 1/4 IN. WIDE. OTHER BENT 2 DIAPHRAGMS HAVE SHORT LONGITUDINAL CRACKS IN THE BOTTOM FACE NEXT TO BEAMS. BENT 3 1/4 IN. X 6 FT. LONG LONGITUDINAL CRACK IN BOTTOM OF BAY 2 SPAN 3 BENT 3, OTHERS HAVE SHORT LONGITUDINAL CRACKS IN BOTTOM FACE NEXT TO BEAMS.	
15	G	BEARING ASSEMBLIES BEARINGS HAVE BEEN CLEANED AND PAINTED.	
36a	F	CONCRETE CAPS END BENT 1- CAP HAS HAIRLINE CRACKS ACROSS TOP AND DOWN FACE IN BAY 3. HAIRLINE VERTICAL CRACKS IN ALL BAYS . BENT 1- HAIRLINE VERTICAL CRACK IN SPAN 1 SIDE OVER PILE 5. HAIRLINE VERTICAL CRACK IN SPAN 2 SIDE AT BEAM 2 WITH HAIRLINE X 5 FT. LONG LONGITUDINAL CRACK WITH RUST STAIN IN BAY 1. HAIRLINE TRANSVERSE CRACKS IN BOTTOM OF CAP BETWEEN PILE 2 & 3 , 4 & 5. BENT 2- SPALL REPAIR HAS BEEN MADE AT BOTTOM UNDER BAY 3. SPALL REPAIR IN FACE OF CAP AT LEFT END AND SPAN 3 SIDE AT THE TOP CORNER. HAIRLINE CRACKS IN BOTTOM OF CAP AT PILES. BENT 3- REPAIR MADE AT SPAN 4 SIDE ALONG UPER EDGE IN BAY 1 AND 2. HAIRLINE X 3 FT. LONGITUDINAL CRACK IN FACE OF CAP SPAN 4 SIDE UNDER BEAM 3. END BENT 2 RANDOM HAIRLINE VERTICAL CRACKS EXTENDING ACROSS TOP OF CAP. FACE OF CAP IN BAY 1 HAS 3 LONGITUDINAL X 1/16 IN. WIDE CRACKS 8 FT. LONG WITH RUST STAINS AND DELAMINATION AT BEAM 1. HAIRLINE X 2 FT. LONGITUDINAL CRACK WITH VERTICAL CRACK IN FACE UNDER BEAM 4.	

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Item No.	Grade		
36c	F	<p>CONCRETE PILES SCALING WITH EXPOSED COARSE AGGREGATE IN FACES. BENT 2- COLLISION DAMAGE WITH SPALLS IN SPAN 2 SIDE OF PILES 1,2,4,5, 6, AND 7. PILE 1...SPALLS FROM 1/2 TO 2 IN. DEEP HAVE BEEN PATCHED. 1/2 IN. DEEP SCRAPES REMAIN ON SPAN 2 SIDE. PILE 2...SPALLS IN THE RIGHT SIDE HAVE BEEN PATCHED. THREE 1/32 IN. WIDE HORIZONTAL CRACKS IN THE RIGHT SIDE. PILE 4...SPALLS HAVE BEEN PATCHED. PILE 5...SPAN 2 SIDE SPALLS MEASURING 18 IN. X 8 IN. X 1 IN. DEEP, 6 IN. DIAMETER X 1 IN. DEEP AND THREE SPALLS 10 IN. X 3 IN. X 1 IN. DEEP. HORIZONTAL CRACKS OPPOSITE SPALLS. PILE 6...SPAN 2 SIDE SPALLS HAVE BEEN PATCHED. PILE 7...HAS FOUR 1/32 IN. WIDE HORIZONTAL CRACKS FROM GROUND LINE UP 3 FT. IN THE LEFT SIDE AND 3 IN. DEEP X 18 IN. DIAMETER SPALL OPPOSITE THE CRACKS. SPAN 2 SIDE SPALLS HAVE BEEN PATCHED. PILES 5,6,AND 7 HAVE SCRAPES AND SPALLS TO 1 IN. DEEP .</p>	
36d	F	<p>CONCRETE BACKWALLS END BENT 1- SPALL IN BACKWALL AT LEFT SIDE OF BEAM 4 HAS BEEN PATCHED. THE BW ADDITION AT THE LTS OF BM 1 IS CKD ALONG THE TOP EDGE AND DELAMINATED 4 IN. WIDE FROM BM 1 TO LT END. BAY 1 BW IS CKD AND DELAMINATED NEXT TO BM 2. RANDOM HAIRLINE LONGITUDINAL CRACKS. END BENT 2- RANDOM HAIRLINE VERTICAL AND LONGITUDINAL CRACKS IN ALL BACKWALLS OF ALL BAYS. SPALL IN BACKWALL AT RIGHT SIDE OF BEAM 4 HAS BEEN PATCHED. END BENT 2 RIGHT EXTERIOR BACKWALL HAS HAIRLINE MAP CRACKS .</p>	
39	F	<p>SLOPE PROTECTION VEGETATION GROWING BETWEEN SLAB UNITS. END BENT 1 BERM HAS BEEN REPAIRED. END BENT 2 BERM AND TOP OF SLOPE HAS BEEN REPAIRED.</p>	
50	G	<p>APPROACH ROADWAY CONDITION 1/2 IN. SETTLEMENT IN APPROACH 2 AT END BENT 2.</p>	

BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 500067

County JOHNSTON

Date: 06/29/2011

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

MMS Code	Description of Function	Unit	Quantity	Remarks	Est. Cost
3326	Maintain Concrete Deck	SF	40	CRACKS IN END DIAPHRAGMS.	
3348	Maintain Concrete Substructure Components	LF	40	CRACKS AND SPALLS IN BENT 2 PILES.	
3376	Clean/Wash Bridge Decks	SF	500	RANDOM PILES OF DIRT AND DEBRIS ALONG CURBS.	

Key



Priority Maintenance Item



Critical Finding Item



Priority Maintenance Level Not Determined



EXTERIOR FACES OF PILES 1 & 7 AT BENT 1 ARE WEATHERED WITH EXPOSED AGGREGATE



HORIZONTAL CRACKS IN LEFT BACKWALL EXTENSION AT END BENT 1



DELAMINATION ALONG TOP EDGE OF BACKWALL ADDITION FROM LEFT END TO BEAM 1 AT END BENT 1



DELAMINATION IN ORIGINAL BACKWALL AT END BENT 1 LEFT OF BEAM 2



MAP CRACKING ACROSS ORIGINAL BACKWALL AT END BENT 1 BAY 1



HAIRLINE TO 1/32 IN. MAP CRACKING IN BOTTOM OF DECK OF SPAN 1 BAY 1 - OTHER BAYS SIMILAR



AREA OF HONEYCOMING TO THE LEFT SIDE OF BEAM 2 IN SPAN 1 BAY 1



WATER SEEPAGE BETWEEN TOP OF CAP AND NEW PORTION OF BACKWALL AT THE RIGHT SIDE OF END BENT 1



CURBLINES AND GUARDRAILS ARE WEATHERED WITH COARSE AGGREGATE EXPOSED



RANDOM SHALLOW SPALLS WITH EXPOSED REBAR ALONG TOP OF CURBLINES



DIRT AND DEBRIS IN SHOULDERS AT EXPANSION JOINTS



CRACKING AND DELAMINATION WITH RUST STAINS IN FACE OF CAP AT END BENT 2 BAY 1



MAP CRACKING IN BACKWALL AT END BENT 2 RIGHT SIDE EXTENSION



SPAN 3 AND 4 END DIAPHRAGMS AT BENT 3 BAY 2 ARE CRACKED AROUND ENDS OF BEAM 2



HORIZONTAL CRACKS IN FACES 1, 2, 3, 4 & 5 OF PILE NO.6 AT BENT 2



SPALL IN THE RIGHT SIDE OF PILE NO.7 AT BENT 2



HORIZONTAL CRACKS IN FACES 4, 5, 6, 7 & 8 OF PILE NO.5 AT BENT 2 - PILES 2 & 4 ARE SIMILAR



SPALLS IN FACES 1, 2 & 3 OF PILE NO.5 AT BENT 2



SPALLS IN FACES 1, 2 & 3 OF PILE NO.5 AT BENT 2



SPALL AND SPALL REPAIR IN FACES 1 & 2 OF PILE NO.7 AT BENT 2



GOUGE IN THE BOTTOM FLANGE OF BEAM 3 IN SPAN 2 AT MIDSPAN

BRIDGE MANAGEMENT UNIT
 DATA ON EXISTING STRUCTURE

Run Date: 08/10/2011

COUNTY : JOHNSTON DIV : 4 DIST : 3 STRUCTURE NUMBER : 500067 LENGTH : 250 FEET

ROUTE CARRIED : US701 FEATURE INTERSECTED : I95

LOCATED : JCT. US701&I-95 BRIDGE NAME : CITY :

FUNC. CLASS : 14 SYST.ON : FA SYST.UNDER : FA ADT & YR : 5100 2009 RAIL TYPE : LT 111 RT 111

BUILT : 1957 BY : SHC PROJ : 2336 FED.AID PROJ : IMD-95-2(109) DESIGN LOAD : HS 20

REHAB : 2009 BY : DOH PROJ : 41926.3.1 ALIGNMENT : TAN SKEW : 46 LANES : ON 2 UNDER 4

NAVIGATION : HT. CRN. TO BED : WATER DEPTH :
 VC 0.0 FT HC 0.0 FT 0 FT 0 FT

SUPERSTRUCTURE : REINFORCED CONCRETE DECK/I-BEAMS

SUBSTRUCTURE : E.BTS&BTS:RC CAP/PPC PILES@6'CTS.

SPANS : 1@57'2";1@72'3";1@72';1@48'7

BEAMS OR GIRDERS : 4 LNS.36IN.I-BEAMS @ VAR.CTS.

FLOOR : 7RC/2-7 AWS ENCROACHMENT : DECK (OUT TO OUT) : 31.6 FT

CLEAR ROADWAY : 28.2 FT BETWEEN RAILS : 31.4 FT SIDEWALK OR CURB : LT 1.6 FT RT 1.6 FT

VERT.CL.OVER : 99 FT 99 IN VERT.CL.UNDER : 16 FT 02 IN HOR.CL.UNDER : 45.5 FT

INV.RTG. : HS-22 OPE.RTG. : HS-37 CONTR.MEMBER : I-Bm A POSTED : SV TTST DATE

SYSTEM : Primary Interstate GREEN LINE ROUTE : Y

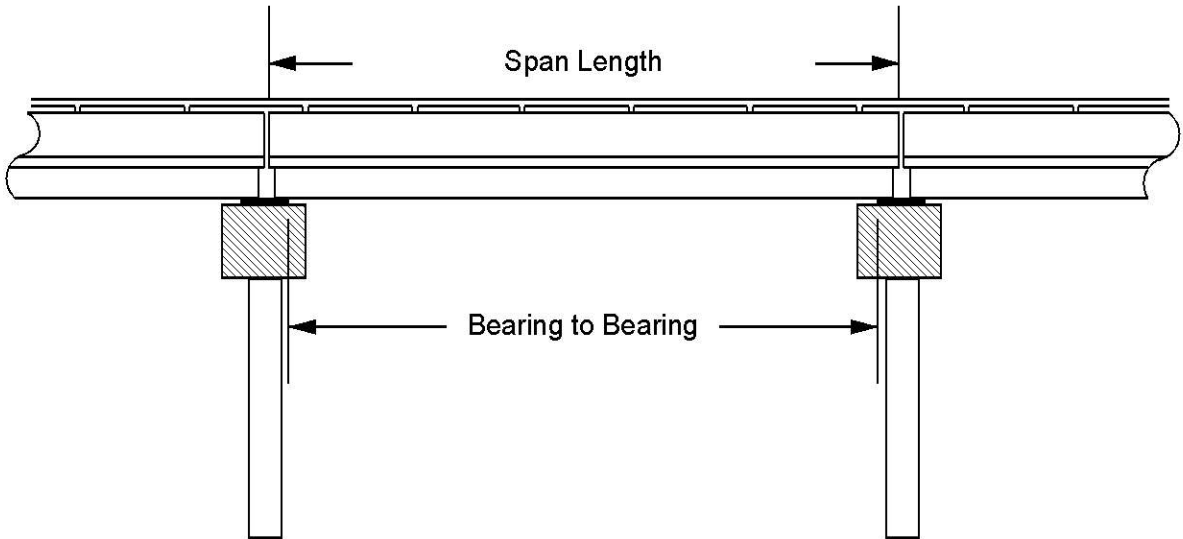
2ND OPENING : 17 FT 05 IN I-95 SBL 3RD OPENING : 4TH OPENING : 5TH OPENING :

REMARKS :

Structure Data Worksheet

Spans

County: JOHNSTON Structure No: 500067 Date: 06/29/2011 Inspected By: WCM



Span No	Span Length	Bearing to Bearing	Comments
1	57.167		
2	72.250		
3	72.0		
4	48.583		

Bridge Inspection Field Sketch



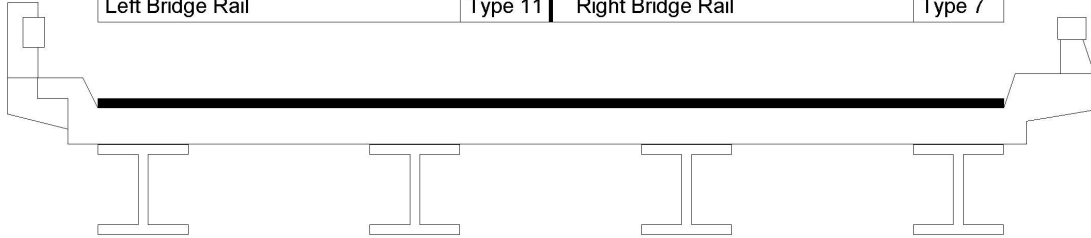
Roadway	26.5ft Wide	2 Paved Lanes	Looking North
Left Shoulder	8ft Wide		8ft Unpaved
Right Shoulder	8ft Wide		8ft Unpaved
Left Guardrail	8ft from road		
Right Guardrail	8ft from road		

CHECKED: 6/29/11 WCM

Title		Description	
APPROACH ROADWAY		LOOKING NORTH	
Bridge No: 500067	Drawn By: A. D. OSBORNE	Date: 09/22/2005	File Name: S0154000196

Bridge Inspection Field Sketch

Deck Width/Out to Out	31.583ft	Wearing Surface	0.208ft
Between Rails	31.417ft	Median Width	
Curb Height @ RT. CURBLINE	0.583ft	Median Height	
Top Rail to Deck/Wearing Surface	2.417ft	Left Guardrail Width	
Clear Roadway	28.167ft	Right Guardrail Width	
Left Bridge Rail	Type 11	Right Bridge Rail	Type 7



Measurements for Span #	1	ALL SPANS SIMILAR	
Deck Thickness	0.583	Left Overhang	3.708
Top of Rail to Bottom of Beam	5.823	Right Overhang	3.708

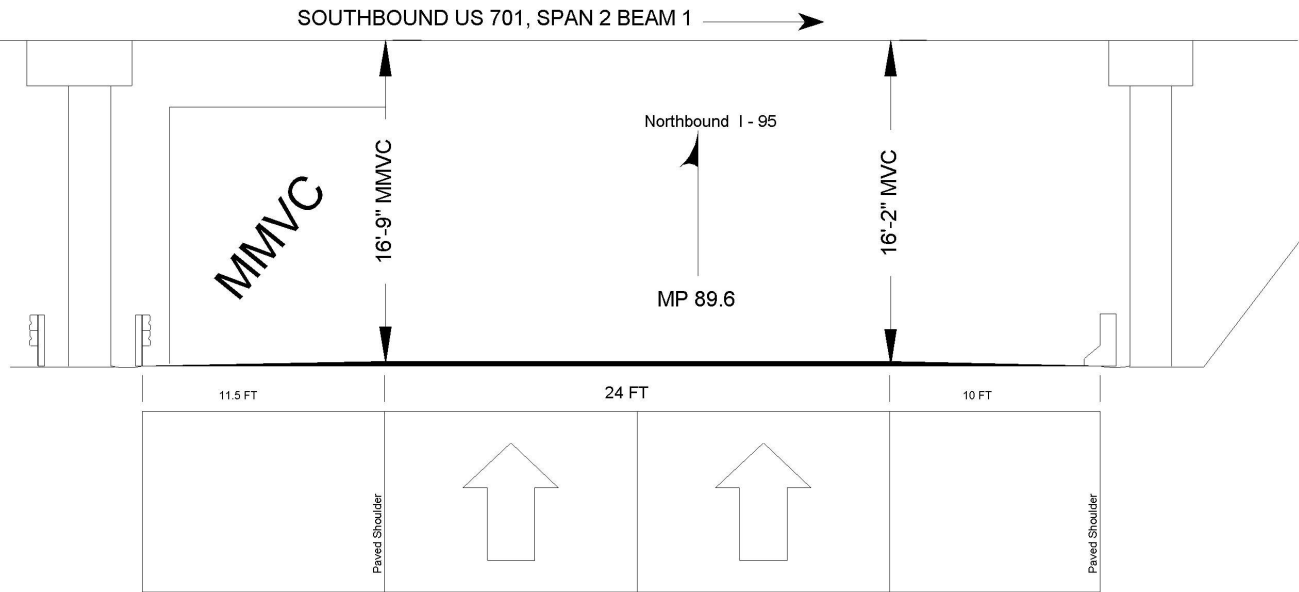
Beam No	Beam Type	Spacing	Comments
1	Steel I Beam	8.0ft	
2	Steel I Beam	8.0ft	
3	Steel I Beam	8.0ft	
4	Steel I Beam		

**BEAM 1 IN SPAN 2 HAS BEEN REPLACED BY WIDE FLANGE
33 X 141 BEAM WITH COVER PLATES**

CHECKED: 6/29/11 WCM

Title TYPICAL SEC. LOOKING NORTH		Description 4 LINES OF STEEL I - BEAMS	
Bridge No: 500067	Drawn By: A. D. OSBORNE	Date: 09/22/2005	File Name: S0154000197

Bridge Inspection Field Sketch

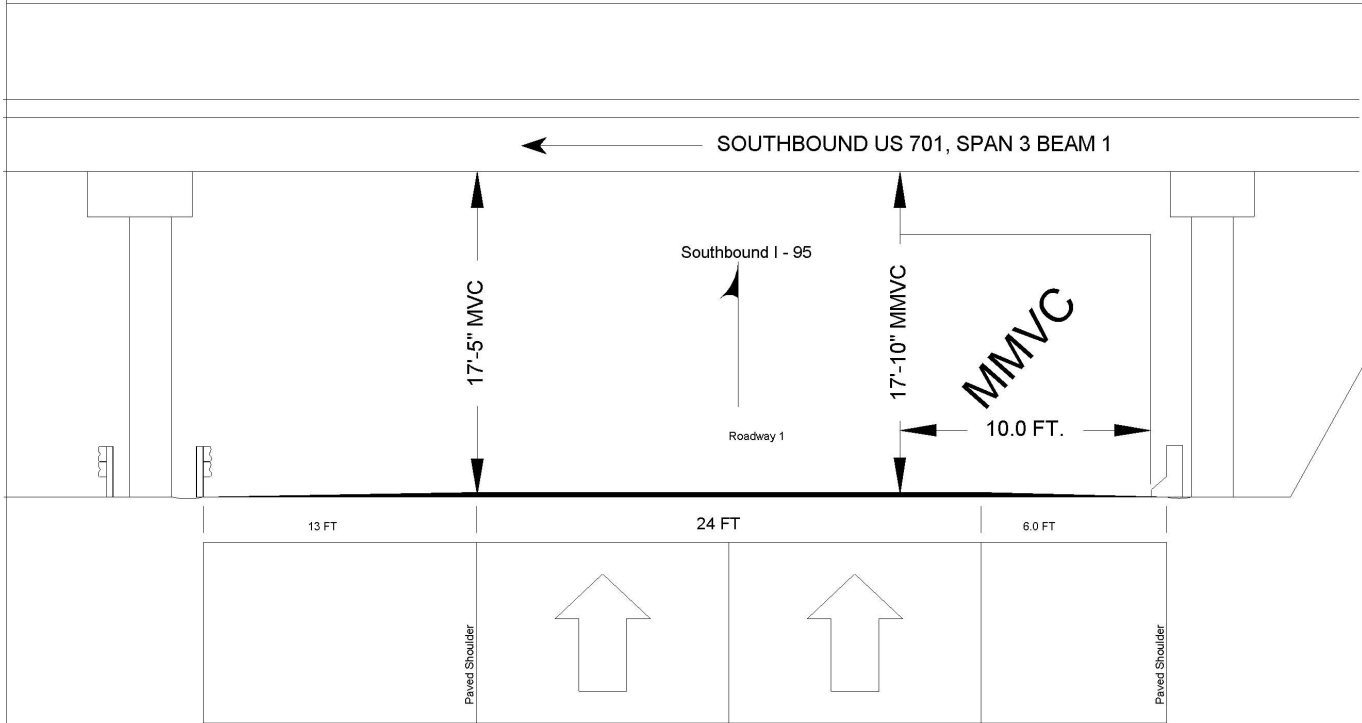


Roadway 1	Distance to Left Guardrail 11.5 FT
	Distance to Right Guardrail 10 FT
	Distance to Left Toe of Slope
	Distance to Left Bent or Columns 13 FT
	Distance to Right Toe of Slope 18.917 FT
	Distance to Right Bent or Columns 11.417 FT
	Maximum Minimum Vertical Clearance 16.750 FT Measured 0.0 FT. From LEFT EDGE OF RDWY at Beam No 1
	Minimum Vertical Clearance 16.167 FT Measured @ RIGHT EDGE OF RDWY at Beam No 1

CHECKED: 6/29/11 WCM

Title		Description	
NBL CLEARANCES		NORTHBOUND LANES	
Bridge No: 500067	Drawn By: W.T. WILKINSON	Date: 07/03/2007	File Name: S0154000198

Bridge Inspection Field Sketch



Roadway 1	Distance to Left Guardrail 13 FT
	Distance to Right Guardrail 8.833 FT
	Distance to Left Toe of Slope
	Distance to Left Bent or Columns 14.5 FT
	Distance to Right Toe of Slope 18.25 FT
	Distance to Right Bent or Columns 10 FT
	Maximum Minimum Vertical Clearance 17.833 FT Measured 4 FT. From RIGHT EDGE at beam No 1
	Minimum Vertical Clearance 17.417 FT Measured @ LEFT EDGE OF RDWY at beam No 1

CHECKED: 6/25/09 WCM

Title BRIDGE UNDERCLEARANCES 2		Description SOUTH BOUND LANES	
Bridge No: 500067	Drawn By: W.T. WILKINSON	Date: 07/03/2007	File Name: S0154000199



WEST PROFILE



SUPERSTRUCTURE OVER BENT 1 END OF CAP, OTHER BENTS SIMILAR



END BENT 1 OVERVIEW



TYPICAL BEARING ASSEMBLY AT END BENT 1 & 2



TYPICAL BEARING ASSEMBLY AT INTERIOR BENTS 1, 2 & 3



LOOKING NORTH



APPROACH 1



WEARING SURFACE OVER END BENT 1



LEFT SIDE GUARDRAIL CONNECTION IN SPAN 1 - OTHERS SIMILAR



SPAN 1 OVERVIEW



JOINT AT BENT 1



SPAN 2 OVERVIEW



JOINT AT BENT 2



LOOKING SOUTH ALONG I-95



LOOKING NORTH ALONG I-95



SPAN 3 OVERVIEW



JOINT AT BENT 3



SPAN 4 OVERVIEW



WEARING SURFACE OVER END BENT 2



APPROACH 2



LOOKING SOUTH



END BENT 2 OVERVIEW



BENT 3 SPAN 3 SIDE



SPALL REPAIR IN FACES 1, 2 & 3 OF PILE NO.2 AT BENT 2



SPALL REPAIR IN FACES 1 & 2 OF PILE NO.4 AT BENT 2



SPALL REPAIR IN FACES 1, 2 & 8 IN PILE NO.4 AT BENT 2



REPAIR PATCH IN THE BOTTOM EDGE OF BENT 2 CAP SPAN 2 SIDE UNDER BAY 3



SPALL REPAIR IN FACES 1, 2, 3 & 8 IN PILE NO.6 AT BENT 2



SUPERSTRUCTURE OVERVIEW - ALL SPANS SIMILAR



PATCH IN BOTTOM OF DECK OF SPAN 2 BAY 1 AT 1/3 POINT



INTERIOR DIAPHRAGM IN SPAN 2 BAY 1 AT 1/3 POINT IS BENT FROM PREVIOUS IMPACT DAMAGE



BENT 2 SPAN 2 SIDE



EAST PROFILE