



NC DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
BRIDGE MANAGEMENT UNIT

ATTENTION

TEMPORARY REPAIRS (BEAM ONE)...

# BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY SURRY

BRIDGE NUMBER 850094

INSPECTION CYCLE 2 YRS

ROUTE SR1727

ACROSS ARARAT RIVER

M.P. 0

LOCATION .3 MI.E.JCT.NC104

SUPERSTRUCTURE REINFORCED CONCRETE FLOOR ON I-BEAMS

SUBSTRUCTURE E.BTS:RC.CAPS/H-PILES;BT.1&3:RCP&B;BTS:.1&2/PILE FTGS.

SPANS 4 @ 45'

LONGITUDE 80° 35' 31.0"

LATITUDE 36° 30' 39.2"

PRESENT CONDITION FAIR

INVENTORY RATING

INSPECTION DATE 09/15/2011

OPERATING RATING

PRESENT POSTING SV 33 TTST 37 SV 33 TTST 37

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT 4 DELINEATORS



WEST TO EAST

SIGN NOTICE  
ISSUED FOR

NUMBERED  
REQUIRED

Yes

WEIGHT LIMIT

1

No

DELINEATORS

No

NARROW BRIDGE

No

ONE LANE BRIDGE

No

LOW CLEARANCE

**NATIONAL BRIDGE INVENTORY----- STRUCTURE INVENTORY AND APPRAISAL**      Run Date: 10/24/2011

| IDENTIFICATION                             |                              |                 |               |                                        |                        |                       |            |
|--------------------------------------------|------------------------------|-----------------|---------------|----------------------------------------|------------------------|-----------------------|------------|
| (1) STATE NAME -NORTH CAROLINA             | BRIDGE                       | 850094          |               | SUFFICIENCY RATING =                   |                        | 15.8                  |            |
| (8) STRUCTURE NUMBER(FEDERAL)              |                              | 000000001710094 |               | STATUS =                               | Structurally Deficient |                       |            |
| INVENTORY ROUTE (ON/UNDER) - ON            |                              | 131017270       |               |                                        |                        |                       |            |
| (2) STATE HIGHWAY DEPARTMENT DISTRICT      |                              | 11              |               |                                        |                        |                       |            |
| (3) COUNTY CODE                            | 171                          | (4) PLACE CODE  | 00000         |                                        |                        |                       |            |
| (6) FEATURE INTERSECTED -                  | ARARAT RIVER                 |                 |               |                                        |                        |                       |            |
| (7) FACILITY CARRIED                       | SR1727                       |                 |               |                                        |                        |                       |            |
| (9) LOCATION                               | .3 MI.E.JCT.NC104            |                 |               |                                        |                        |                       |            |
| (11)MILEPOINT                              |                              | 0               |               |                                        |                        |                       |            |
| (16)LAT                                    | 36° 30' 39.2"                | (17)LONG        | 80° 35' 31.0" |                                        |                        |                       |            |
| (98)BORDER BRIDGE STATE CODE               |                              | PCT SHARE       |               |                                        |                        |                       |            |
| (99)BORDER BRIDGE STRUCTURE NO             |                              |                 |               |                                        |                        |                       |            |
| STRUCTURE TYPE AND MATERIAL                |                              |                 |               | CLASSIFICATION                         |                        |                       |            |
| (43) STRUCTURE TYPE MAIN:                  | Steel                        |                 |               | (112)NBIS BRIDGE SYSTEM -              |                        | YES                   |            |
| TYPE -                                     | Stringer Mutlibeam or Girder | CODE            | 302           | (104)HIGHWAY SYSTEM                    | NON NHS Route          | 0                     |            |
| (44) STRUCTURE TYPE APPR :                 |                              |                 |               | (26) FUNCTIONAL CLASS -                | Local                  | 19                    |            |
| TYPE -                                     |                              | CODE            |               | (100)STRAHNET HIGHWAY -                | Not a STRAHNET Route   | 0                     |            |
| (45) NUMBER OF SPANS IN MAIN UNIT          |                              | 4               |               | (101)PARALLEL STRUCTURE -              | No Parallel Structure  | N                     |            |
| (46) NUMBER OF APPROACH SPANS              |                              |                 |               | (102)DIRECTION OF TRAFFIC -            | 2-way Traffic          | 2                     |            |
| (107)DECK STRUCTURE TYPE -                 | Concrete cast-in-place       | CODE            | 1             | (103)TEMPORARY STRUCTURE -             | Temporary              | T                     |            |
| (108)WEARING SURFACE / PROTECTIVE SYSTEM : |                              |                 |               | (110)DESIGNATED NATIONAL NETWORK -     | Not Part of            | 0                     |            |
| (A) TYPE OF WEARING SURFACE -              | Concrete                     | CODE            | 1             | (20) TOLL                              | On Free Road           | 3                     |            |
| (B) TYPE OF MEMBRANE                       | - None                       | CODE            | 0             | (31) MAINTAIN -                        | State Highway Agency   | 01                    |            |
| (C) TYPE OF DECK PROTECTION -              | None                         | CODE            | 0             | (22) OWNER -                           | State Highway Agency   | 01                    |            |
|                                            |                              |                 |               | (37) HISTORICAL SIGNIFICANCE -         | Not Eligible           | 5                     |            |
|                                            |                              |                 |               | CONDITION                              |                        |                       |            |
|                                            |                              |                 |               | (58) DECK                              |                        | 5                     |            |
|                                            |                              |                 |               | (59) SUPERSTRUCTURE                    |                        | 4                     |            |
|                                            |                              |                 |               | (60) SUBSTRUCTURE                      |                        | 5                     |            |
|                                            |                              |                 |               | (61) CHANNEL & CHANNEL PROTECTION      |                        | 7                     |            |
|                                            |                              |                 |               | (62) CULVERTS                          |                        | N                     |            |
|                                            |                              |                 |               | LOAD RATING AND POSTING                |                        |                       |            |
|                                            |                              |                 |               | (31) DESIGN LOAD                       | H 15                   | 2                     |            |
|                                            |                              |                 |               | (64) OPERATING RATING -                | HS-1                   | 101                   |            |
|                                            |                              |                 |               | (66) INVENTORY RATING -                | HS-1                   | 101                   |            |
|                                            |                              |                 |               | (70) BRIDGE POSTING -                  | Posting Required       | 3                     |            |
|                                            |                              |                 |               | (41) STRUCTURE OPEN, POSTED ,OR CLOSED |                        | P                     |            |
|                                            |                              |                 |               | DESCRIPTION -                          | Posted for Load        |                       |            |
|                                            |                              |                 |               | APPRAISAL                              |                        |                       |            |
|                                            |                              |                 |               | (67) STRUCTURAL EVALUATION             |                        | 2                     |            |
|                                            |                              |                 |               | (68) DECK GEOMETRY                     |                        | 4                     |            |
|                                            |                              |                 |               | (69) UNDERCLEARANCES,VERTI & HORIZ     |                        | N                     |            |
|                                            |                              |                 |               | (71) WATERWAY ADEQUACY                 |                        | 7                     |            |
|                                            |                              |                 |               | (72) APPROACH ROADWAY ALIGNMENT        |                        | 7                     |            |
|                                            |                              |                 |               | (36) TRAFFIC SAFETY FEATURES           |                        | 0000                  |            |
|                                            |                              |                 |               | (113)SCOUR CRITICAL BRIDGES            |                        | 8                     |            |
|                                            |                              |                 |               | SCOUR PLAN OF ACTION                   |                        |                       |            |
|                                            |                              |                 |               | PROPOSED IMPROVEMENTS                  |                        |                       |            |
|                                            |                              |                 |               | (75) TYPE OF WORK -                    | CODE                   | 311                   |            |
|                                            |                              |                 |               | (76) LENGTH OF STRUCTURE IMPROVEMENT   |                        | 220 FT                |            |
|                                            |                              |                 |               | (94) BRIDGE IMPROVEMENT COST           |                        | \$530,000             |            |
|                                            |                              |                 |               | (95) ROADWAY IMPROVEMENT COST          |                        | \$133,000             |            |
|                                            |                              |                 |               | (96) TOTAL PROJECT COST                |                        | \$795,000             |            |
|                                            |                              |                 |               | (97) YEAR OF IMPROVEMENT COST ESTIMATE |                        | 2007                  |            |
|                                            |                              |                 |               | (114)FUTURE ADT                        | 3600                   | (115) YEAR FUTURE ADT | 2025       |
| NAVIGATION DATA                            |                              |                 |               | INSPECTIONS                            |                        |                       |            |
| (38) NAVIGATION CONTROL -                  | No Navigational Control      | CODE            | 0             | (90) INSPECTION DATE                   |                        | 09/15/2011            |            |
| (111)PIER PROTECTION -                     | Not Applicable               | CODE            |               | (92) CRITICAL FEATURE INSPECTION :     |                        | (93) CFI DATE         |            |
| (39) NAVIGATION VERTICAL CLEARANCE         |                              | 0               |               | A) FRACTURE CRIT DETAIL -              | NO                     | A)                    |            |
| (116)VERT - LIFT BRIDGE NAV MIN VERT CLEAR |                              |                 |               | B) UNDERWATER INSP -                   | YES 48Mo               | B)                    | 03/01/2009 |
| (40) NAVIGATION HORIZONTAL CLEARANCE       |                              | 0               |               | C) OTHER SPECIAL INSP                  | NO                     | C)                    |            |
|                                            |                              |                 |               | SCOUR                                  |                        |                       |            |

# BRIDGE INSPECTION RECORD AND SUMMARY

INSPECTION TYPE Routine Inspection  
 BRIDGE NO. 850094 COUNTY SURRY ROUTE SR1727 OVER ARARAT RIVER  
 STRUCTURE TYPE REINFORCED CONCRETE FLOOR ON I-BEAMS  
 ROUTE ORIENTATION W - E SPANS 4 @ 45'

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                                    |                                     |   |        | 45. CHANNEL & CHANNEL PROT.                         | a. WATERWAY                          | G   |                                                                                       |
|                                                       |                                     |   |        |                                                     | b. ALIGNMENT                         | G   |                                                                                       |
|                                                       |                                     |   |        |                                                     | c. SCOUR                             | G   |                                                                                       |
|                                                       |                                     |   |        |                                                     | d. SLOPE PROT., RIP-RAP, DIKES, ETC. |     |                                                                                       |
| 2. DECK NO. OF EA TYPE SPN GRADE RATES SI & A ITEM 58 | a. CONCRETE                         | 4 | F      | 50. APPROACH ROADWAY CONDITION                      |                                      |     | G                                                                                     |
|                                                       | b. TIMBER                           |   |        | 51. APPROACH SLABS                                  |                                      |     |                                                                                       |
|                                                       | c. STEEL PLANK                      |   |        | 52. PAINT SYSTEM                                    |                                      |     | CODE A G                                                                              |
|                                                       | d. OPEN GRID                        |   |        | 53. UTILITIES                                       |                                      |     |                                                                                       |
| 3. RAILING                                            | a. CONCRETE                         |   | G      | 54. RESPONSE TO LIVE LOAD                           |                                      |     | G                                                                                     |
|                                                       | b. TIMBER                           |   |        | 55. ESTIMATED REMAINING LIFE                        |                                      |     | 35                                                                                    |
|                                                       | c. ALUMINUM                         |   |        |                                                     |                                      |     |                                                                                       |
|                                                       | d. STEEL                            |   |        |                                                     |                                      |     |                                                                                       |
| 4. CURBS, WHEELGUARDS, PARAPETS, MEDIANS              |                                     |   | G      |                                                     |                                      |     |                                                                                       |
| 5. WALKWAYS (ON OR ATTACHED TO STRUCTURE)             |                                     |   |        | 60. REGULATORY SIGN NOTICE ISSUED                   |                                      |     | YES                                                                                   |
| 6. DECK EXP JTS. OR DEVICES. NO. OF EACH              | a. STEEL PL OR FINGER               |   |        | 61. PROMPT-ACTION NOTICE ISSUED                     |                                      |     | NO                                                                                    |
|                                                       | b. MISC PREFAB                      |   |        | 62. PRESENTLY POSTED                                |                                      |     | YES                                                                                   |
|                                                       | c. COMPRESSION SEAL                 |   |        | 63. TOT. FIELD INSP TIME (INCLUDE WRITE UP)(MAN HR) |                                      |     | 10                                                                                    |
|                                                       | d. STANDARD JOINTS                  | 3 | G      | 64. TOTAL SNOOPER INSP. TIME (HRS)                  |                                      |     | 0                                                                                     |
|                                                       | e. OPEN JOINTS                      |   |        | 65. TOTAL TRAFFIC CONTROL TIME (MAN HRS)            |                                      |     | 0                                                                                     |
| 7. DECK DEBRIS (INCLUDES EXCESS SAND/GRAVEL)          |                                     |   | G      |                                                     |                                      |     |                                                                                       |
|                                                       |                                     |   |        | 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                     |                                     |   | G      | b. SUPERSTRUCTURE                                   | ITEM 59                              | 7   |                                                                                       |
| 11. LONGITUDINAL JOIST OR STRINGERS                   |                                     |   |        | c. SUBSTRUCTURE                                     | ITEM 60                              | 5   |                                                                                       |
| 12. INT. DIAP'S, X-FRAMES, BRACING & CONN'S           |                                     |   | G      | d. CHANNEL & CHANNEL PROT.                          | ITEM 61                              | 7   |                                                                                       |
| 13. END DIAP'S, CURTAIN WALLS, & CONN'S               |                                     |   | G      |                                                     |                                      |     |                                                                                       |
| 14. FLOOR BEAMS AND CONNECTIONS                       |                                     |   |        | 71. SI&A FIELD APPRAISAL RATINGS                    |                                      |     |                                                                                       |
| 15. BEARING ASSEMBLIES (INCLUDING MISALIGN)           |                                     |   | G      | a. WATERWAY ADAQUACY                                |                                      | 7   |                                                                                       |
| 16. DRAINAGE SYSTEM (ON STRUCTURE)                    |                                     |   | G      | b. APPR. RDWY. ALIGNMENT                            |                                      | 7   |                                                                                       |
| 17. MOVABLE SPAN MACHINERY                            |                                     |   |        |                                                     |                                      |     |                                                                                       |
|                                                       |                                     |   |        | 72. FIELD SCOUR EVALUATION                          |                                      |     | G                                                                                     |
| SUB STR. ITEMS. ITEM 60 (INCLUDE SCOUR)               |                                     |   |        |                                                     |                                      |     |                                                                                       |
| 35. TIM SUB STR.                                      | a. ABUT. & INT. BENT CAPS & RISERS  |   |        | USE OF INSP. ACCESSIBILITY EQUIPMENT                |                                      |     |                                                                                       |
|                                                       | b. PILES, POST, SILLS, & BRACING    |   |        | SNOOPER (CODE S, 4, OR N)                           |                                      | HRS | NO                                                                                    |
|                                                       | c. BULKHEADS, WING'S, & TIE BACKS   |   |        | LADDER                                              |                                      |     | YES                                                                                   |
| 36. CONC SUB STR.                                     | a. ABUT. & INT. BENT CAPS           |   | F      | BUCKET TRUCK                                        |                                      |     | NO                                                                                    |
|                                                       | b. ABUT. & BENT COL'S BREASTWALLS   |   | G      | BOAT                                                |                                      |     | NO                                                                                    |
|                                                       | c. ABUT. & INT. BENT PILES          |   |        | OTHER                                               |                                      |     | NO                                                                                    |
|                                                       | d. BACKWALLS, WING'S, RETAIN. WALLS |   | G      |                                                     |                                      |     |                                                                                       |
|                                                       | e. ABUT. & BENT FOOTINGS & SILLS    |   | F      |                                                     |                                      |     |                                                                                       |
| 37. STEEL SUB STR.                                    | a. ABUT. & INT. BENT CAPS & RISERS  |   |        | SPECIAL INSPECTION REQUESTED FOR                    |                                      |     |                                                                                       |
|                                                       | b. PILES, BRACING, AND BULKHEADS    |   | F      |                                                     |                                      |     |                                                                                       |
| 38. FOUNDATION PILES TYPE MATERIAL                    |                                     |   | F      | NOTE                                                |                                      |     |                                                                                       |
| 39. SLOPE PROT., RIP-RAP (INCLUDE DRAINAGE)           |                                     |   | G      |                                                     |                                      |     |                                                                                       |
| 40. FENDER SYSTEMS                                    |                                     |   |        | 80. INSPECTED BY:                                   |                                      |     |  |
| 41. DRIFT                                             |                                     |   | G      | 81. REVIEWED BY:                                    |                                      |     |                                                                                       |

|                                                                                                      |              |                                                                                                                                                                                                                                                                                                                                                   |  |
|------------------------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Bridge I&A Form 1(82)H<br>State of North Carolina<br>Dept. of Transportation<br>Division of Highways |              | <b>FIELD INSPECTION REPORT</b><br><u>Bridge Inspection &amp; Analysis</u>                                                                                                                                                                                                                                                                         |  |
| Team Leader <b>MAX FORD</b>                                                                          |              |                                                                                                                                                                                                                                                                                                                                                   |  |
| Assisted By <b>RAP</b>                                                                               |              |                                                                                                                                                                                                                                                                                                                                                   |  |
| <b>Item No.</b>                                                                                      | <b>Grade</b> |                                                                                                                                                                                                                                                                                                                                                   |  |
| <b>2a</b>                                                                                            | <b>F</b>     | SPAN (A) DECK; SEVERAL SPALL REPAIRS GOOD AT THIS TIME... COARSE AGGREGATE EXPOSURE AND MAP TYPE SHRINKAGE CRACKS THROUGHOUT...<br><br>SURFACE SPALLING, (NE) CORNER OF SPAN (A) DECK... (+/- 30 SF X +/- 1 INCH DEEP)...<br><br>(+/- 1 INCH DEEP) SURFACE SPALL WITH EXPOSED STEEL, (SW) CORNER OF SPAN (A) DECK... (+/- 6 SF)                   |  |
| <b>10</b>                                                                                            | <b>G</b>     | REPAIR, BEAM (1), SPAN (B) AT PIER (2), OUTSIDE WEB AND BOTTOM FLANGE... SEE SKETCH<br><br>REPAIR, BEAM (1) WEB AND BOTT. FLANGE... SPAN (C) AT PIER (3)... SEE SKETCH<br><br>REMAINING BEAMS ARE ALSO GOOD AT THIS TIME...                                                                                                                       |  |
| <b>10A</b>                                                                                           | <b>NO</b>    | NO CURVED GIRDERS...                                                                                                                                                                                                                                                                                                                              |  |
| <b>36a</b>                                                                                           | <b>F</b>     | TOP EDGE, (E) FACE OF PIER (2) CAP F/ SEAT 3 TO 4... SPALL WITH RUST STAINS... APPROX. (6 LF)<br><br>TOP EDGE, (W) FACE PIER (2) CAP... SPALLING WITH RUST STAINS FORMING F/ SEAT (1 TO 2) AND F/ (3 TO 4)... APPROX. 12 LF<br><br>TOP EDGE, (W) FACE PIER (3) CAP... SPALLING WITH RUST STAINS F/ SEAT (1 TO 2) AND F/ (3 TO 4)... APPROX. 12 LF |  |
| <b>36e</b>                                                                                           | <b>F</b>     | FOOTINGS ARE NOT EXPOSED AND ARE CONSIDERED TO BE IN FAIR CONDITION PER U/W INSPECTION (3/4/2009).                                                                                                                                                                                                                                                |  |
| <b>37b</b>                                                                                           | <b>F</b>     | NOT VISIBLE...                                                                                                                                                                                                                                                                                                                                    |  |
| <b>38</b>                                                                                            | <b>F</b>     | NOT VISIBLE                                                                                                                                                                                                                                                                                                                                       |  |
| <b>39</b>                                                                                            | <b>G</b>     | DAM HAS BEEN REMOVED, SLOPE PROTECTION IS GOOD AT THIS TIME...                                                                                                                                                                                                                                                                                    |  |
| <b>60</b>                                                                                            | <b>YES</b>   | ONE W/L IS DAMAGED...                                                                                                                                                                                                                                                                                                                             |  |

## BRIDGE INSPECTOR'S RECOMMENDATION FOR MAINTENANCE REPAIRS

Bridge: 850094

County SURRY

Date: 09/15/2011

**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   | 1260     | SPAN (A) DECK; SEVERAL SPALL REPAIRS GOOD AT THIS TIME... COARSE AGGREGATE EXPOSURE AND MAP TYPE SHRINKAGE CRACKS THROUGHOUT...                                                                                                                                                                                                                          |           |
| 3348     | Maintain Concrete Substructure Components | LF   | 30       | <p>TOP EDGE, (E) FACE OF PIER (2) CAP F/ SEAT 3 TO 4... SPALL WITH RUST STAINS... APPROX. (6 LF)</p> <p>TOP EDGE, (W) FACE PIER (2) CAP... SPALLING WITH RUST STAINS FORMING F/ SEAT (1 TO 2) AND F/ (3 TO 4)... APPROX. 12 LF</p> <p>TOP EDGE, (W) FACE PIER (3) CAP... SPALLING WITH RUST STAINS F/ SEAT (1 TO 2) AND F/ (3 TO 4)... APPROX. 12 LF</p> |           |

### Key

 Priority Maintenance Item

 Critical Finding Item

 Priority Maintenance Level Not Determined



SPAN (A) DECK; SEVERAL SPALL REPAIRS GOOD AT THIS TIME... COARSE AGGREGATE EXPOSURE AND MAP TYPE SHRINKAGE CRACKS THROUGHOUT...



SURFACE SPALLING, (NE) CORNER OF SPAN (A) DECK... (+/- 30 SF X +/- 1 INCH DEEP)...



(+/- 1 INCH DEEP) SURFACE SPALL WITH EXPOSED STEEL, (SW) CORNER OF SPAN (A) DECK... (+/- 6 SF)



BEAM ENDS CLEANED AND PAINTED AT PIERS...



TOP EDGE, (E) FACE OF PIER (2) CAP F/ SEAT 3 TO 4... SPALL WITH RUST STAINS... APPROX. (6 LF)



TOP EDGE, (W) FACE PIER (2) CAP... SPALLING WITH RUST STAINS FORMING F/ SEAT (1 TO 2) AND F/ (3 TO 4)... APPROX. 12 LF



REPAIR, BEAM (1), SPAN (B) AT PIER (2), OUTSIDE WEB AND BOTTOM FLANGE... SEE SKETCH



TOP EDGE, (W) FACE PIER (3) CAP... SPALLING WITH RUST STAINS F/ SEAT (1 TO 2) AND F/ (3 TO 4)...  
APPROX. 12 LF



REPAIR, BEAM (1) WEB AND BOTT. FLANGE... SPAN (C) AT PIER (3)... SEE SKETCH

BRIDGE MANAGEMENT UNIT  
DATA ON EXISTING STRUCTURE

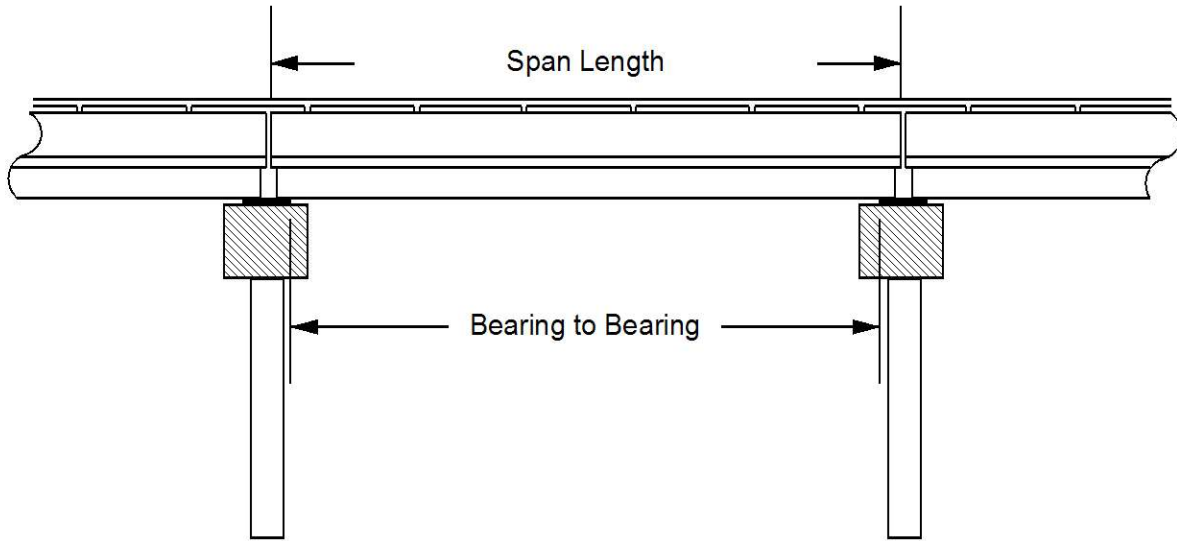
Run Date: 10/24/2011

|                                                                       |                                |                                       |                                           |                              |
|-----------------------------------------------------------------------|--------------------------------|---------------------------------------|-------------------------------------------|------------------------------|
| COUNTY :<br>SURREY                                                    | DIV :<br>11                    | DIST :<br>1                           | STRUCTURE NUMBER :<br>850094              | LENGTH :<br>180 FEET         |
| ROUTE CARRIED :<br>SR1727                                             |                                | FEATURE INTERSECTED :<br>ARARAT RIVER |                                           |                              |
| LOCATED :<br>.3 MI.E.JCT.NC104                                        |                                | BRIDGE NAME :                         |                                           | CITY :                       |
| FUNC. CLASS :<br>19                                                   | SYST.ON :<br>NFA               | SYST.UNDER :<br>NFA                   | ADT & YR :<br>1800 2010                   | RAIL TYPE :<br>LT 071 RT 071 |
| BUILT :<br>1963                                                       | BY :<br>SHC                    | PROJ :<br>6.800503                    | FED.AID PROJ :                            | DESIGN LOAD :<br>H 15        |
| REHAB :                                                               | BY :                           | PROJ :                                | ALIGNMENT :<br>TAN 90                     | LANES :<br>ON 2 UNDER        |
| NAVIGATION :<br>VC 0.0 FT HC 0.0 FT                                   |                                | HT. CRN. TO BED :<br>19 FT            |                                           | WATER DEPTH :<br>1 FT        |
| SUPERSTRUCTURE : REINFORCED CONCRETE FLOOR ON I-BEAMS                 |                                |                                       |                                           |                              |
| SUBSTRUCTURE : E.BTS:RC.CAPS/H-PILES;BT.1&3:RCP&B;BTS:.1&2/PILE FTGS. |                                |                                       |                                           |                              |
| SPANS : 4 @ 45'                                                       |                                |                                       |                                           |                              |
| BEAMS OR GIRDERS : 4 LNS.30 I-BMS @ 7' CENTERS                        |                                |                                       |                                           |                              |
| FLOOR :<br>7 RC/NO<br>AWS                                             | ENCROACHMENT :                 |                                       | DECK (OUT TO OUT) :<br>28.4 FT            |                              |
| CLEAR ROADWAY :<br>24.0 FT                                            | BETWEEN RAILS :<br>26.3 FT     |                                       | SIDEWALK OR CURB :<br>LT 1.1 FT RT 1.1 FT |                              |
| VERT.CL.OVER :<br>99 FT 99 IN                                         | VERT.CL.UNDER :<br>00 FT 00 IN |                                       | HOR.CL.UNDER :<br>0.0 FT                  |                              |
| INV.RTG. :<br>HS-1                                                    | OPE.RTG. :<br>HS-1             | CONTR.MEMBER :<br>ext bm              | POSTED :<br>SV 33 TTST 37 DATE 09/25/2008 |                              |
| SYSTEM :<br>Secondary S.R. Route                                      |                                |                                       | GREEN LINE ROUTE :<br>N                   |                              |
| 2ND OPENING :                                                         |                                | 3RD OPENING :                         | 4TH OPENING :                             | 5TH OPENING :                |
| REMARKS :                                                             |                                |                                       |                                           |                              |

# Structure Data Worksheet

Spans

County: SURRY      Structure No: 850094      Date: 09/15/2011      Inspected By: MF



| Span No | Span Length | Bearing to Bearing | Comments                                     |
|---------|-------------|--------------------|----------------------------------------------|
| 1       | 45          | 42                 |                                              |
| 2       | 45          | 43                 |                                              |
| 3       | 45          | 43                 |                                              |
| 4       | 45          | 42                 | FACE OF ABUT. CAP TO FACE OF ABUT. CAP = 174 |

# Stream Bed Soundings

(See next sheet for profile sketch)

Bridge No: 850094 County: SURRY Date: 09/15/2011 By: MF

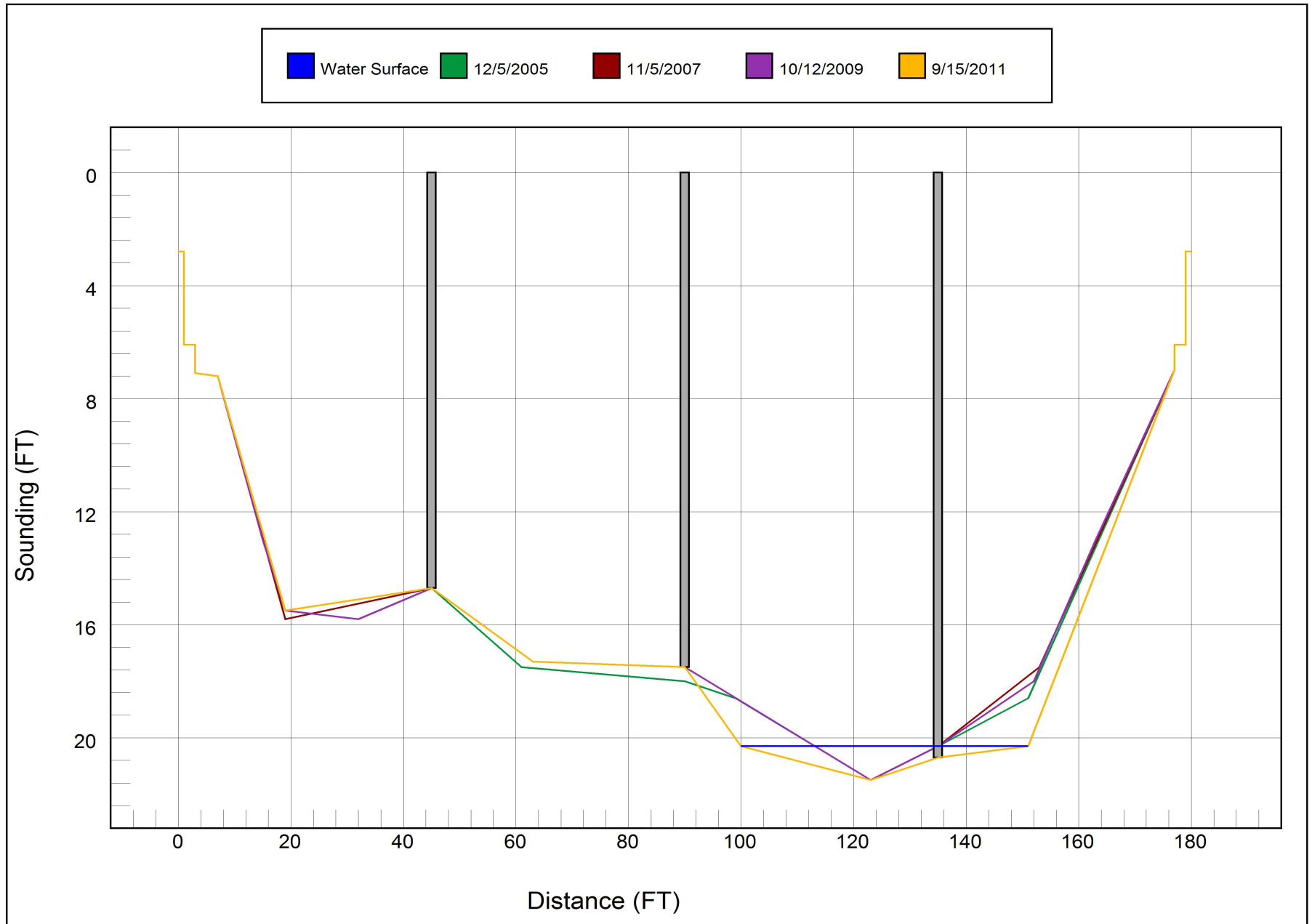
Record sounding from top of rail. Other location if needed:

Distance from Highwater Mark to top of rail: Location of Highwater Mark:

| DOWNSTREAM                 |                  |                 | UPSTREAM                   |                  |             |
|----------------------------|------------------|-----------------|----------------------------|------------------|-------------|
| Distance<br>(Station) (ft) | Sounding<br>(ft) | Description     | Distance<br>(Station) (ft) | Sounding<br>(ft) | Description |
| 0                          | 2.8              | TOP OF FILLFACE |                            |                  |             |
| 0.99                       | 2.8              | TOP OF FILLFACE |                            |                  |             |
| 1                          | 6.1              | TOP OF CAP      |                            |                  |             |
| 2.99                       | 6.1              | TOP OF CAP      |                            |                  |             |
| 3                          | 7.1              | FACE OF CAP     | 3                          | 7                | FACE OF CAP |
| 7                          | 7.2              | SLOPE           |                            |                  |             |
| 19                         | 15.5             | SLOPE           |                            |                  |             |
| 45                         | 14.7             | PIER 1          | 45                         | 15.2             | PIER 1      |
| 63                         | 17.3             | SLOPE           |                            |                  |             |
| 90                         | 17.5             | PIER 2          | 90                         | 18.2             | PIER 2      |
| 100                        | 20.3             | WSWE            |                            |                  |             |
| 123                        | 21.5             | BED             |                            |                  |             |
| 135                        | 20.7             | PIER 3          | 135                        | 20.5             | PIER 3      |
| 151                        | 20.3             | WSWE            |                            |                  |             |
| 177                        | 7                | FACE OF CAP     | 177                        | 6.5              | FACE OF CAP |
| 177.01                     | 6.1              | TOP OF CAP      |                            |                  |             |
| 179                        | 6.1              | TOP OF CAP      |                            |                  |             |
| 179.01                     | 2.8              | TOP OF FILLFACE |                            |                  |             |
| 180                        | 2.8              | TOP OF FILLFACE |                            |                  |             |

**STREAMBED PROFILE (Downstream)**

Top of Rail = 0 FT (Sounding)



# Bridge Inspection Field Sketch

NORTH



Abutment 2

WE

WE

5.00 FT

Bent 3

3.50 FT



Current: LIGHT

Streambed Composition: SAND, SILT, AND RIP-RAP

2.00 FT

Bent 2

2.00 FT

0.50 FT

Bent 1

Abutment 1

## Title

850094

## Description

PLAN VIEW

Bridge No: 850094

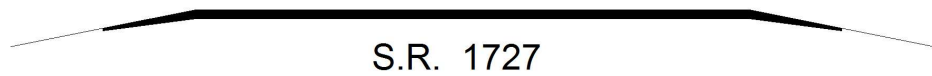
Drawn By: JOHN HOUSTON

Date: 3/04/2009

File Name: S0150000022

## Bridge Inspection Field Sketch

VERIFIED 9/15/11 R.A. PIERCE, M. FORD



S.R. 1727

LOOKING EAST

|                 |           |               |              |
|-----------------|-----------|---------------|--------------|
| Roadway         | 20ft Wide | 2 Paved Lanes | Looking East |
| Left Shoulder   | 5ft Wide  |               | 5ft Unpaved  |
| Right Shoulder  | 5ft Wide  |               | 5ft Unpaved  |
| Left Guardrail  |           |               |              |
| Right Guardrail |           |               |              |

### Title

APPR. RDWY.

### Description

APPR. RDWY.

Bridge No: 850094

Drawn By: RAP

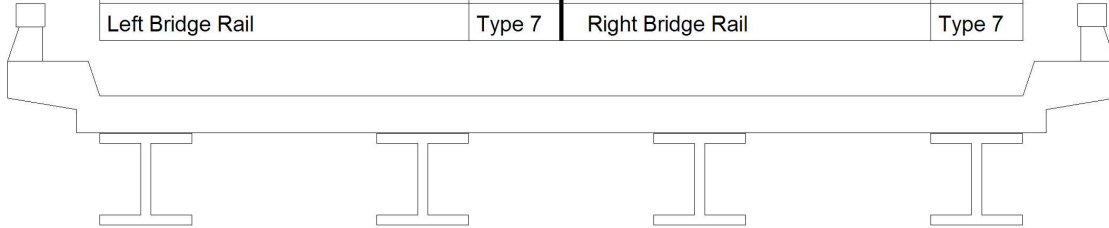
Date: 12/02/2005

File Name: S0138000715

# Bridge Inspection Field Sketch

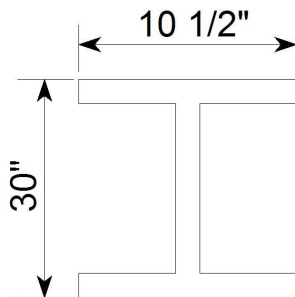
VERIFIED 9/15/11 R.A. PIERCE, M. FORD

|                                  |          |                       |        |
|----------------------------------|----------|-----------------------|--------|
| Deck Width/Out to Out            | 28.417ft | Wearing Surface       |        |
| Between Rails                    | 26.25ft  | Median Width          |        |
| Curb Height                      | 0.992ft  | Median Height         |        |
| Top Rail to Deck/Wearing Surface | 2.833ft  | Left Guardrail Width  |        |
| Clear Roadway                    | 24ft     | Right Guardrail Width |        |
| Left Bridge Rail                 | Type 7   | Right Bridge Rail     | Type 7 |



|                               |       |                |       |
|-------------------------------|-------|----------------|-------|
| Measurements for Span #       | 1     |                |       |
| Deck Thickness                | 0.583 | Left Overhang  | 3.708 |
| Top of Rail to Bottom of Beam | 5.833 | Right Overhang | 3.708 |

| Beam No | Beam Type    | Spacing | Comments          |
|---------|--------------|---------|-------------------|
| 1       | Steel I Beam | 7ft     | ALL SPANS SIMILAR |
| 2       | Steel I Beam | 7ft     |                   |
| 3       | Steel I Beam | 7ft     |                   |
| 4       | Steel I Beam |         |                   |



FLANGE THICKNESS: 11/16"  
WEB THICKNESS: 1/2"

## Title

SUPER.

## Description

DECK SECTION

Bridge No: 850094

Drawn By: RAP

Date: 12/02/2005

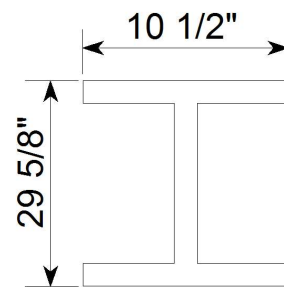
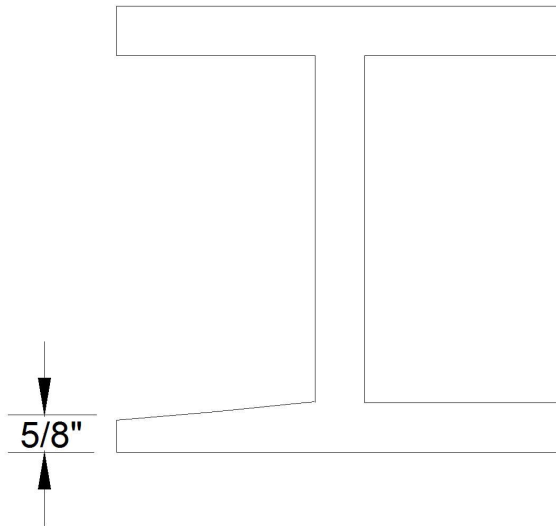
File Name: S0138000716

## Bridge Inspection Field Sketch

VERIFIED 9/15/11 R.A. PIERCE, M. FORD

SECT. LOSS ON LT. BOTT. FL. OF BM. # 1 SPAN # 2 @ PIER # 1  
LOSS EXTENDS FROM END OF BM. BACK APPROX. 36"

REPAIRED W/STEEL PLATE 3/8" X 6" X 8' LONG



FLANGE THICKNESS:  $\frac{11}{16}"$   
WEB THICKNESS:  $\frac{1}{2}"$

SCALE: N.T.S.

ORIGINAL SECTION

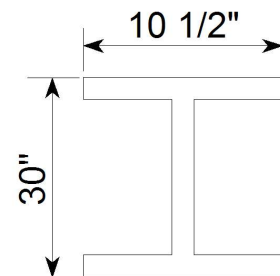
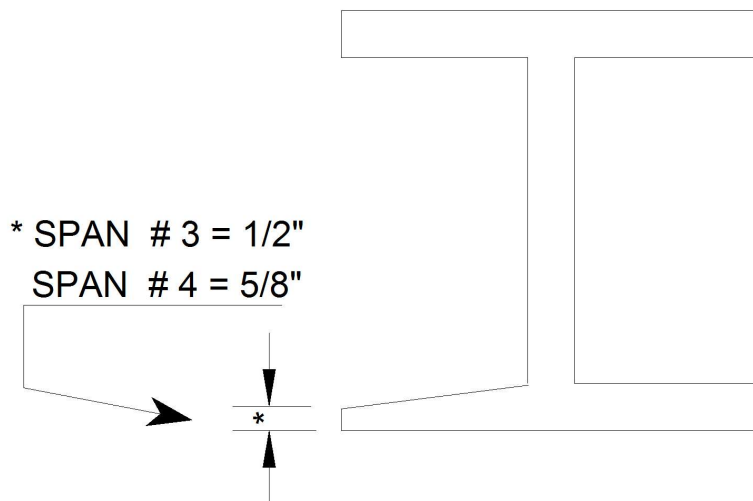
| Title             |               | Description                 |                        |
|-------------------|---------------|-----------------------------|------------------------|
| SECT. LOSS        |               | BM. # 1 SPAN # 2 @ PIER # 1 |                        |
| Bridge No: 850094 | Drawn By: RAP | Date: 10/12/2009            | File Name: S0138072527 |

# Bridge Inspection Field Sketch

VERIFIED 9/15/11 R.A. PIERCE, M. FORD

SECT. LOSS ON END OF BM. # 1 SPAN # 3 & 4 @ PIER # 3  
LOSS EXTENDS FROM END OF BMS. BACK APPROX. 36"

# 1 IN SPAN # 3 REPAIRED W/STEEL PLATE 3/8" X 6" X 5' LONG



FLANGE THICKNESS: 11/16"  
WEB THICKNESS: 1/2"

SCALE: N.T.S.

ORIGINAL SECTION

| Title             |               | Description                     |                        |
|-------------------|---------------|---------------------------------|------------------------|
| SECT. LOSS 2      |               | BM. # 1 SPAN # 3 & 4 @ PIER # 3 |                        |
| Bridge No: 850094 | Drawn By: RAP | Date: 10/12/2009                | File Name: S0138072528 |



WEST TO EAST



UPSTREAM



DOWNSTREAM



LOOKING WEST



ABUT. (B)



EAST FACE OF PIER (3)



NORTH PROFILE



SOUTH PROFILE



ABUT. (A)