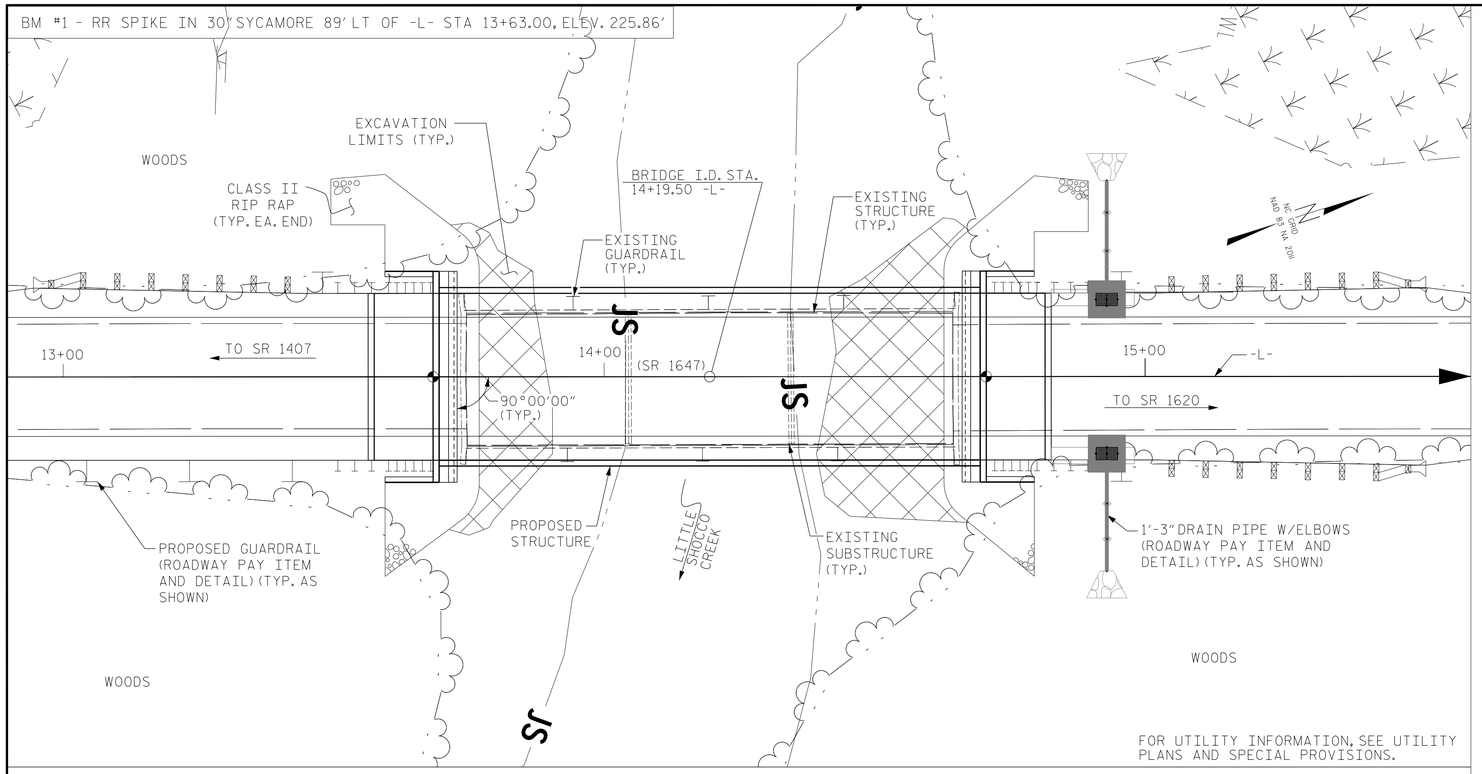


LOCATION SKETCH

FOUNDATION NOTES:

1. FOR PILES, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.
2. PILES AT END BENT NO. 1 AND END BENT NO. 2 ARE DESIGNED FOR A FACTORED RESISTANCE OF 115 TONS PER PILE.
3. DRIVE PILES AT END BENT NO. 1 AND END BENT NO. 2 TO A REQUIRED DRIVING RESISTANCE OF 195 TONS PER PILE.
4. STEEL H-PILE POINTS ARE REQUIRED FOR STEEL H-PILES AT END BENT NO. 1 AND END BENT NO. 2. FOR STEEL PILE POINTS, SEE SECTION 450 OF THE STANDARD SPECIFICATIONS.

HYDRAULIC DATA

| | |
|---|---|
| DESIGN DISCHARGE | 2300 CFS |
| FREQUENCY OF DESIGN FLOOD | 25 YR. |
| DESIGN HIGHWATER ELEV. | 226.9 FT. |
| DRAINAGE AREA | 11.0 SQ. MI. |
| BASE DISCHARGE (Q100) | 3601 CFS |
| BASE HIGHWATER ELEV. | 228.9 FT. |

OVERTOPPING FLOOD DATA

| | |
|---|---|
| OVERTOPPING DISCHARGE | 7236 CFS |
| FREQUENCY OF OVERTOPPING FLOOD | 500+ YR. |
| OVERTOPPING FLOOD ELEV. | ✳232.6 FT. |

✳SAG LOCATED AT STA. 15+89.00 -L-

GENERAL NOTES:

1. ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.
2. THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
3. THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.
4. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18 - EVALUATING SCOUR AT BRIDGES."
5. THE SUBSTRUCTURE OF THE EXISTING BRIDGE INDICATED ON THE PLANS IS FROM THE BEST INFORMATION AVAILABLE. SINCE THIS INFORMATION IS SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, THE CONTRACTOR SHALL HAVE NO CLAIM WHATSOEVER AGAINST THE DEPARTMENT OF TRANSPORTATION FOR ANY DELAYS OR ADDITIONAL COST INCURRED BASED ON DIFFERENCE BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.
6. REMOVAL OF THE EXISTING BRIDGE SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL REMOVE THE BRIDGE AND SUBMIT PLANS FOR DEMOLITION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.
7. FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
8. FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
9. FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
10. FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
11. FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
12. FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.
13. ASPHALT WEARING SURFACE IS INCLUDED IN ROADWAY QUANTITY ON ROADWAY PLANS.
14. THE MATERIAL SHOWN IN THE CROSS-HATCHED AREA SHALL BE EXCAVATED FOR A DISTANCE OF 30'± FT LEFT SIDE AND 30'± RIGHT SIDE OF CENTERLINE ROADWAY AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR AT THE END OF THE CONTRACT LUMP SUM PRICE FOR UNCLASSIFIED STRUCTURE EXCAVATION. SEE SECTION 412 OF THE STANDARD SPECIFICATIONS.
15. THE EXISTING STRUCTURE #920140 CONSISTING OF THREE (3) PRESTRESSED CONCRETE CHANNEL SECTION SPANS @ 30'-0" (90'-0" TOTAL LENGTH), 24'-4" CLEAR ROADWAY WIDTH AND CONCRETE DECK ON CONCRETE CAPS & TIMBER PILES AND LOCATED AT THE PROPOSED STRUCTURE SHALL BE REMOVED IN THEIR ENTIRETY (INCLUDING PILES AND TIMBER PILE BRACING IN THEIR ENTIRETY).
16. FOR ASBESTOS ASSESSMENT FOR BRIDGE DEMOLITION AND RENOVATION ACTIVITIES, SEE SPECIAL PROVISIONS.
17. NO HEAVY EQUIPMENT WILL BE PLACED IN LITTLE SHOCCO CREEK.
18. BEST MANAGEMENT PRACTICES FOR BRIDGE DEMOLITION AND REMOVAL WILL BE IMPLEMENTED DURING THE REMOVAL OF THE EXISTING BRIDGE.
19. THE BRIDGE WILL BE REMOVED FROM THE TOP DOWN, FIRST REMOVING THE ASPHALT WITH CONTAINMENT MEASURES IN PLACE TO PREVENT ASPHALT FROM DROPPING INTO THE STREAM. THE METHOD OF CONTAINMENT WILL BE PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THIS WILL BE FOLLOWED BY REMOVAL OF THE DECKING, GIRDERS, ETC., AND FINALLY THE WOODEN PILES. AN ATTEMPT WILL BE MADE TO COMPLETELY REMOVE THE PILES; HOWEVER, IF THIS CANNOT BE ACCOMPLISHED WITH MINIMAL SUBSTRATE DISTURBANCE, THE PILES WILL BE PINCHED OFF ONE FOOT BELOW THE MUD LINE BELOW THE RIP RAP OR CUT FLUSH WITH EXISTING RIP RAP AS DIRECTED BY THE ENGINEER. THE CONTRACTOR WILL NOT BE ALLOWED TO DRAG REMOVED TIMBER PILES ON OR ACROSS THE STREAMBED. SOME AMOUNT OF EXISTING RIP RAP ON THE SOUTH STREAMBANK WILL BE PULLED INTO THE ADJACENT SCOUR HOLE UNDER THE BRIDGE DECK AS DIRECTED BY THE ENGINEER.
20. DECK DRAINS WILL NOT BE ALLOWED TO DISCHARGE DIRECTLY INTO THE STREAM.
21. A TEMPORARY WORK PAD MAY BE REQUIRED TO SET THE GIRDERS. THE WORK PAD WILL BE SET ON HIGH GROUND ON THE EAST SIDE OF THE STREAM RESTRICTED TO 10+50 TO 13+90 RT AND WILL NOT BE PLACED IN THE STREAM.
22. FOR REMOVAL OF EXISTING STRUCTURE, SEE SPECIAL PROVISIONS.

TOTAL BILL OF MATERIAL

| | REMOVAL OF EXISTING STRUCTURE | ASBESTOS ASSESSMENT | UNCLASSIFIED STRUCTURE EXCAVATION | CLASS A CONCRETE | BRIDGE APPROACH SLABS | REINFORCING STEEL | PILE DRIVING EQUIPMENT SETUP FOR HP 12X53 STEEL PILES | HP 12X53 STEEL PILES | | STEEL PILE POINTS | VERTICAL CONCRETE BARRIER RAIL | RIP RAP CLASS II (2'-0" THICK) | GEOTEXTILE FOR DRAINAGE | ELASTOMERIC BEARINGS | 3'-0" x 3'-3" PRESTRESSED CONCRETE BOX BEAMS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LUMP SUM | LUMP SUM | LUMP SUM | CY | LUMP SUM | LBS | EACH | No. | LF | EACH | LF | TON | SY | LUMP SUM | No. | LF |
| SUPERSTRUCTURE | | | | | LUMP SUM | | | | | | 200.0 | | | LUMP SUM | 11 | 1100.0 |
| END BENT No. 1 | | | LUMP SUM | 29.0 | | 4,610 | 7 | 7 | 105 | 7 | | 95 | 105 | | | |
| END BENT No. 2 | | | LUMP SUM | 29.0 | | 4,610 | 7 | 7 | 105 | 7 | | 85 | 95 | | | |
| TOTAL | LUMP SUM | LUMP SUM | LUMP SUM | 58.0 | LUMP SUM | 9,220 | 14 | 14 | 210 | 14 | 200.0 | 180 | 200 | LUMP SUM | 11 | 1100.0 |

DRAWN BY: E. PHELPS DATE: 12/17
CHECKED BY: J. LOFTUS DATE: 01/18
DESIGN ENGINEER OF RECORD: J. LOFTUS DATE: 01/18

NORTH CAROLINA PROFESSIONAL SEAL 11725 ENGINEER DAVID R. RUGGLES
DocuSigned by: David R. Ruggles C4027B0F413422... 10/24/2022

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PROJECT NO. 17BP.5.R.78
WARREN COUNTY
STATION: 14+19.50 -L-
SHEET 2 OF 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

GENERAL DRAWING
BRIDGE OVER
LITTLE SHOCCO CREEK
ON SR 1647 (MAJ ROB ALSTON RD.)
BETWEEN SR 1407 AND SR 1620

| REVISIONS | | | | | | SHEET NO. |
|---|---|---|---|---|---|---|
| NO. | BY: | DATE: | NO. | BY: | DATE: | S-2 |
| 1 | | | 3 | | | TOTAL SHEETS |
| 2 | | | 4 | | | 16 |

WARREN 140
2/13/2019
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