



LOCATION SKETCH

NOTES

ASSUMED LIVE LOAD = HL-93 OR ALTERNATE LOADING.
 THIS BRIDGE HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
 THIS BRIDGE IS LOCATED IN SEISMIC ZONE 1.
 FOR OTHER DESIGN DATA AND GENERAL NOTES, SEE SHEET SN.
 FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
 FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
 FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
 FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
 THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 400 TONS OF REINFORCING STEEL, ONE 30 INCH SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 400 TONS OF REINFORCING STEEL, TWO 30 INCH SAMPLES OF EACH SIZE BAR USED. THE BARS FROM WHICH THE SAMPLES ARE TAKEN MUST THEN BE SPLICED WITH REPLACEMENT BARS OF THE SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS. PAYMENT FOR THE SAMPLES OF REINFORCING STEEL SHALL BE CONSIDERED INCIDENTAL TO VARIOUS PAY ITEMS.
 REMOVABLE FORMS MAY BE USED IN LIEU OF METAL STAY-IN-PLACE FORMS IN ACCORDANCE WITH ARTICLE 420-3 OF THE STANDARD SPECIFICATIONS.
 AT THE CONTRACTOR'S OPTION, AND UPON REMOVAL OF THE CAUSEWAY, THE CLASS II RIP RAP USED IN THE CAUSEWAY MAY BE PLACED AS RIP RAP SLOPE PROTECTION. SEE SPECIAL PROVISIONS FOR CONSTRUCTION, MAINTENANCE AND REMOVAL OF TEMPORARY ACCESS.
 NEEDLE BEAMS WILL NOT BE ALLOWED UNLESS OTHERWISE CALLED FOR ON THE PLANS OR APPROVED BY THE ENGINEER.

ALL STRUCTURAL STEEL SHALL BE AASHTO M270 GRADE 50W AND PAINTED IN ACCORDANCE WITH SYSTEM 4 OF ARTICLE 442-8 OF THE STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS.
 THE CLASS AA CONCRETE IN THE BRIDGE DECK SHALL CONTAIN FLY ASH OR GROUND GRANULATED BLAST FURNACE SLAG AT THE SUBSTITUTION RATE SPECIFIED IN ARTICLE 1024-1 AND IN ACCORDANCE WITH ARTICLES 1024-5 AND 1024-6 OF THE STANDARD SPECIFICATIONS. NO PAYMENT WILL BE MADE FOR THIS SUBSTITUTION AS IT IS CONSIDERED INCIDENTAL TO THE COST OF THE REINFORCED CONCRETE DECK SLAB.
 EXISTING BRIDGE No.172 SHALL SERVE AS A TEMPORARY STRUCTURE DURING CONSTRUCTION OF THE PROPOSED BRIDGE. BRIDGE No. 172 IS PRESENTLY POSTED FOR LOAD LIMIT. SHOULD THE STRUCTURAL INTEGRITY OF THE BRIDGE FURTHER DETERIORATE DURING CONSTRUCTION OF THE PROPOSED BRIDGE, THE LOAD LIMIT MAY BE REDUCED AS FOUND NECESSARY DURING THE LIFE OF THE PROJECT. FOLLOWING COMPLETION OF THE PROPOSED STRUCTURE, BRIDGE No. 172 SHALL BE CLOSED TO VEHICULAR TRAFFIC AND WILL SERVE AS A PEDESTRIAN BRIDGE.
 THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH "HEC 18-EVALUATING SCOUR AT BRIDGES."
 FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.
 FOR PLACING LOAD ON STRUCTURE MEMBERS, SEE SPECIAL PROVISIONS.
 SLURRY CONSTRUCTION SHALL NOT BE USED FOR THIS PROJECT.

HYDRAULIC DATA

DESIGN DISCHARGE.....23800 CFS
 FREQUENCY OF DESIGN FLOOD.....25 YEARS
 DESIGN HIGH WATER ELEVATION.....1936.7
 DRAINAGE AREA.....374 SQ. MI.
 BASE DISCHARGE (Q100).....26400 CFS
 BASE HIGH WATER ELEVATION.....1938.5

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE.....54000 CFS
 FREQUENCY OF OVERTOPPING FLOOD.....500 + YRS.
 OVERTOPPING FLOOD ELEVATION.....1946.0

PROJECT NO. B-3868
MACON COUNTY
 STATION: 18+33.50 -L-

SHEET 3 OF 3

| TOTAL BILL OF MATERIAL | | | | | | | | | | |
|------------------------|---|---------------------------------|-----------------------------------|--|--------------------|--------------------------------|-------------------------------|-------------------------|----------------------|-----------------------|
| | CONSTRUCTION, MAINTENANCE & REMOVAL OF TEMPORARY ACCESS | 3'-6" Ø DRILLED PIERS IN SOIL | 3'-6" Ø DRILLED PIERS NOT IN SOIL | PERMANENT STEEL CASING FOR 3'-6" Ø DRILLED PIERS | SID INSPECTIONS | CSL TESTING | REINFORCED CONCRETE DECK SLAB | GROOVING BRIDGE FLOORS | CLASS A CONCRETE | BRIDGE APPROACH SLABS |
| | LUMP SUM | LIN. FT. | LIN. FT. | LIN. FT. | EACH | EACH | SO. FT. | SO. FT. | CU. YDS. | LUMP SUM |
| SUPERSTRUCTURE | | | | | | | 9,328 | 8,282 | | LUMP SUM |
| END BENT No. 1 | | | | | | | | | 20.7 | |
| BENT No. 1 | | 7.16 | 19.00 | 8.14 | | | | | 24.8 | |
| BENT No. 2 | | 59.00 | 19.00 | 34.00 | | | | | 25.1 | |
| END BENT No. 2 | | | | | | | | | 20.7 | |
| TOTAL | LUMP SUM | 66.16 | 38.00 | 42.14 | 1 | 1 | 9,328 | 8,282 | 91.3 | LUMP SUM |
| | REINFORCING STEEL | SPIRAL COLUMN REINFORCING STEEL | STRUCTURAL STEEL | HP 12 X 53 STEEL PILES | TWO BAR METAL RAIL | 1'-2" x 2'-6" CONCRETE PARAPET | RIP RAP CLASS II 2'-0" THICK | GEOTEXTILE FOR DRAINAGE | ELASTOMERIC BEARINGS | |
| | LBS. | LBS. | LUMP SUM | NO. | LIN. FT. | LIN. FT. | TONS | SO. YDS. | LUMP SUM | |
| SUPERSTRUCTURE | | | LUMP SUM | | | 595.00 | 610.00 | | LUMP SUM | |
| END BENT No. 1 | 2,784 | | | 5 | 100 | | 215 | 240 | | |
| BENT No. 1 | 7,062 | 1,249 | | | | | | | | |
| BENT No. 2 | 14,220 | 2,344 | | | | | | | | |
| END BENT No. 2 | 2,784 | | | 5 | 215 | | 215 | 240 | | |
| TOTAL | 26,850 | 3,593 | LUMP SUM | 10 | 315 | 595.00 | 610.00 | 430 | 480 | LUMP SUM |

DRAWN BY : M. POOLE \ DAH DATE : 6/15
 CHECKED BY : H. T. BARBOUR DATE : 6-26-15



STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH

GENERAL DRAWING
 FOR BRIDGE OVER LITTLE TENNESSEE RIVER ON SR 1456 BETWEEN NC 28 AND SR 1373

| REVISIONS | | | | | | SHEET NO. |
|-----------|-----|-------|-----|-----|-------|--------------|
| NO. | BY: | DATE: | NO. | BY: | DATE: | TOTAL SHEETS |
| 1 | | | 3 | | | S-3 |
| 2 | | | 4 | | | 40 |