

NOTES

ASSUMED LIVE LOAD -----MS18 OR ALTERNATE LOADING.  
 DESIGN FILL----- 7.82m  
 FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET SNSM.  
 76mm Ø WEEP HOLES INDICATED TO BE IN ACCORDANCE WITH THE SPECIFICATIONS.  
 CONCRETE IN CULVERTS TO BE POURED IN THE FOLLOWING ORDER:  
 1. WING FOOTINGS AND FLOOR SLAB INCLUDING 100mm OF ALL VERTICAL WALLS.  
 2. THE REMAINING PORTIONS OF THE WALLS AND WINGS FULL HEIGHT FOLLOWED BY ROOF SLAB AND HEADWALLS.  
 THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE OF THE FILL.

DIMENSIONS FOR WING LAYOUT AS WELL AS ADDITIONAL REINFORCING STEEL EMBEDDED IN BARREL ARE SHOWN ON WING SHEET.

TRANSVERSE CONSTRUCTION JOINTS SHALL BE USED IN THE BARREL, SPACED TO LIMIT THE POURS TO A MAXIMUM OF 21.0m. LOCATION OF JOINTS SHALL BE SUBJECT TO APPROVAL OF THE ENGINEER.

AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF THE EXTERIOR WALL ABOVE THE LOWER WALL CONSTRUCTION JOINT. THE SPLICE LENGTH SHALL BE AS PROVIDED IN THE SPLICE LENGTH CHART SHOWN ON THE PLANS. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.  
 ALL ELEVATIONS ARE IN METERS.

A 900mm STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE OF THE WING COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.

THE CONTRACTOR SHALL PROVIDE INDEPENDENT ASSURANCE SAMPLES OF REINFORCING STEEL AS FOLLOWS: FOR PROJECTS REQUIRING UP TO 360,000kg OF REINFORCING STEEL, ONE 760mm SAMPLE OF EACH SIZE BAR USED, AND FOR PROJECTS REQUIRING OVER 360,000kg OF REINFORCING STEEL, TWO 760mm 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.

FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

AT THE CONTRACTOR'S OPTION THE VERTICAL CONSTRUCTION JOINT BETWEEN THE OUTLET WINGS AND THE BARREL MAY BE ELIMINATED AND THE "C" BARS IN THE BARREL MAY BE EXTENDED TO REPLACE THE "D" AND "H" BARS IN THE WINGS AND SLAB.

NO PRECAST REINFORCED BOX CULVERT OPTION WILL BE ALLOWED.

FOR CULVERT DIVERSION DETAILS AND PAY ITEM, SEE EROSION CONTROL PLANS.

GRADE DATA

GRADE PT. ELEV. @ STA. 158+95.000 -L- = 239.326  
 BED ELEV. @ STA. 158+95.000 -L- = 229.784  
 ROADWAY SLOPES 2 : 1

OVERTOPPING FLOOD DATA

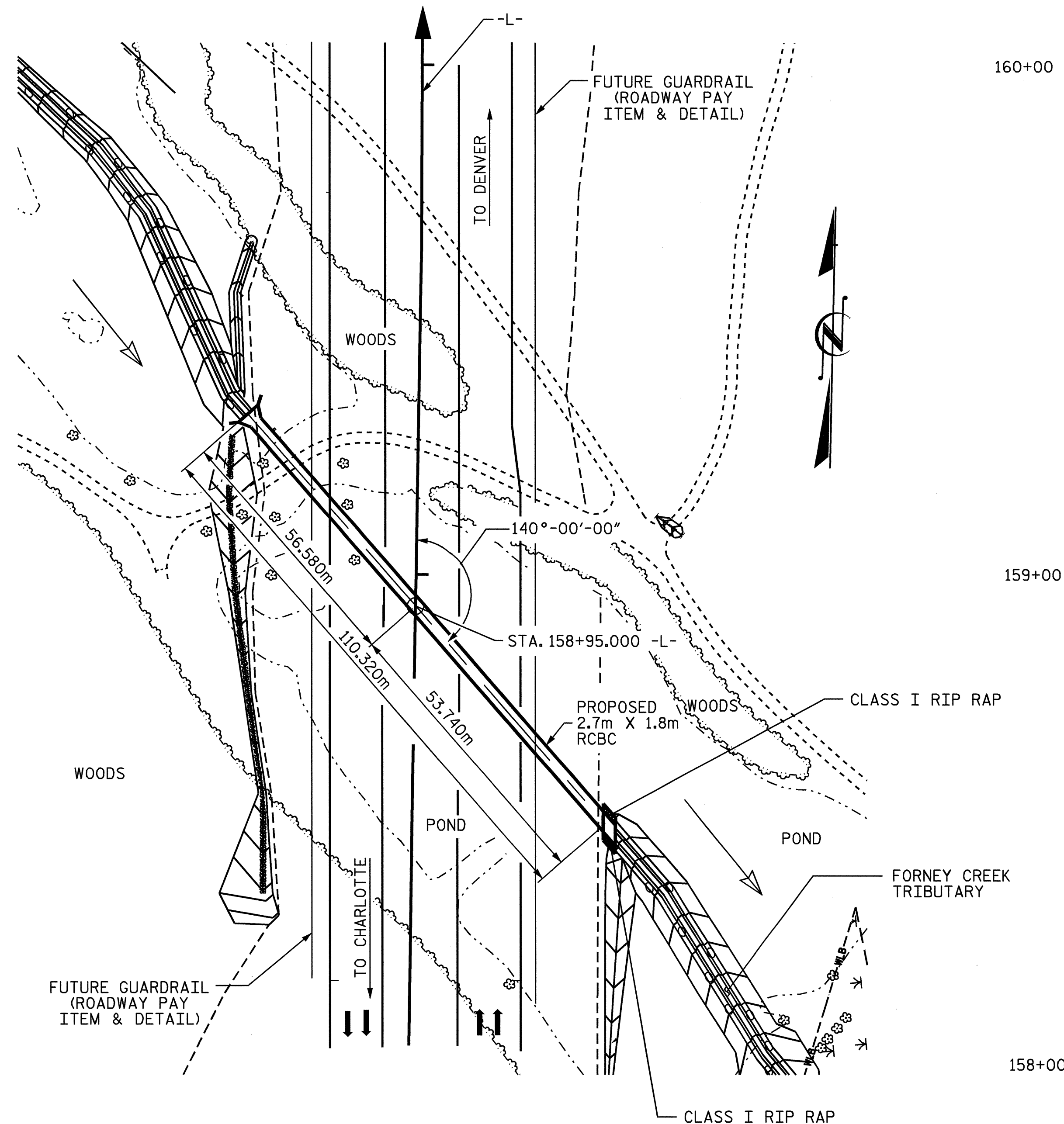
OVERTOPPING DISCHARGE \*\*  
 FREQUENCY OF OVERTOPPING FLOOD >500+ YRS.  
 OVERTOPPING FLOOD ELEVATION 238.762

\*\* OVERTOPPING FLOOD IS GREATER THAN THE 500+ YR. EVENT

HYDRAULIC DATA

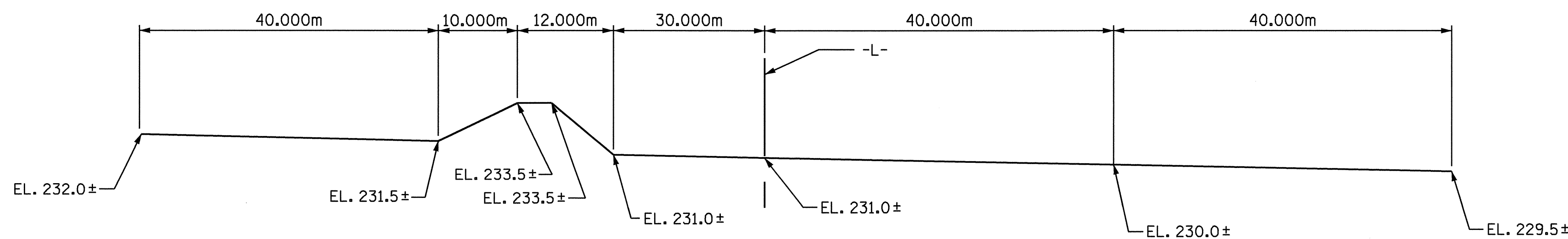
DESIGN DISCHARGE = 14.6 m<sup>3</sup>/s  
 FREQUENCY OF DESIGN FLOOD = 50 YRS.  
 DESIGN HIGH WATER ELEVATION = 232.210  
 DRAINAGE AREA = 1.0 km<sup>2</sup>  
 BASIC DISCHARGE (Q100) = 17.7 m<sup>3</sup>/s  
 BASIC HIGH WATER ELEVATION = 232.540

CLASS A CONCRETE	
BARREL, TAPERED BARREL, OUTLET WINGS & ETC.	354.4 m <sup>3</sup>
INLET WINGS & ETC.	5.9 m <sup>3</sup>
TOTAL	360.3 m <sup>3</sup>
REINFORCING STEEL	
BARREL, TAPERED BARREL, OUTLET WINGS & ETC.	25590 kg
INLET WINGS & ETC.	174 kg
TOTAL	25764 kg
CULVERT EXCAVATION	LUMP SUM
FOUNDATION COND. MAT'L	242 METRIC TONS
RIP RAP CLASS I	28 METRIC TONS
FILTER FABRIC	28 m <sup>2</sup>



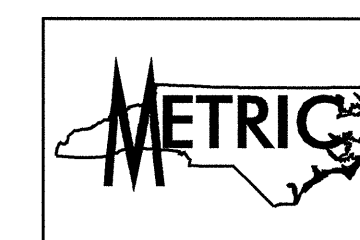
LOCATION SKETCH

NO KNOWN UTILITY CONFLICTS



PROFILE ALONG CULVERT

ASSEMBLED BY : D.B. MOORE DATE : 3/22/01  
 CHECKED BY : M.J. OSTRISHKO DATE : 4/03/01  
 DRAWN BY : EEM 6/97  
 CHECKED BY : ARB 7/97



PROJECT NO. R-2206B  
 LINCOLN COUNTY  
 STATION: 158+95.000 -L-

SHEET 1 OF 6

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH

SINGLE 2.7m X 1.8m  
 CONCRETE BOX CULVERT  
 WITH TAPERED INLET

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-10
1			3			TOTAL SHEETS
2			4			15