

BM-3 8" NAIL SET IN BASE OF 8" MAPLE 58.50 FT. RT. OF
STA. 16+66.17 -L- EL. 2111.37 NGVD 1929

NOTES

HYDRAULIC DATA

DESIGN DISCHARGE = 750 c.f.s.
FREQUENCY OF DESIGN FLOOD = 10 yr.
DESIGN HIGH WATER ELEVATION = 2112.1
DRAINAGE AREA = 2.1 ml.²
BASIC DISCHARGE (Q100) = 1200 c.f.s.
BASIC HIGH WATER ELEVATION = 2113.5

OVERTOPPING FLOOD DATA

OVERTOPPING DISCHARGE = 565 c.f.s.
FREQUENCY OF OVERTOPPING FLOOD = 10 yr. +
OVERTOPPING FLOOD ELEVATION = 2112.2

GRADE DATA

GRADE POINT ELEVATION
@ STA. 16+30.00 -L- = 2117.45
BED ELEVATION
@ STA. 16+30.00 -L- = 2105.43
ROADWAY SLOPES = 2:1

ASSUMED LIVE LOAD ----- HS20-44 OR ALTERNATE LOADING.

DESIGN FILL ----- 4.70 ft.

FOR OTHER DESIGN DATA AND NOTES SEE STANDARD NOTE SHEET.

3" 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 4" 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.

STEEL IN THE BOTTOM SLAB MAY BE SPLICED AT THE PERMITTED CONSTRUCTION JOINT AT THE CONTRACTOR'S OPTION. EXTRA WEIGHT OF STEEL DUE TO THE SPLICES SHALL BE PAID FOR BY THE CONTRACTOR.

AT THE CONTRACTOR'S OPTION, HE MAY SPLICE THE VERTICAL REINFORCING STEEL IN THE INTERIOR FACE OF EXTERIOR WALL AND BOTH FACES OF INTERIOR WALLS ABOVE 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.

AT THE CONTRACTOR'S OPTION HE MAY SUBMIT, TO THE ENGINEER FOR APPROVAL, DESIGN AND DETAIL DRAWINGS FOR A PRECAST REINFORCED CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE CULVERT SHOWN ON THE PLANS. THE DESIGN SHALL PROVIDE THE SAME SIZE AND NUMBER OF BARRELS AS USED ON THE CAST-IN-PLACE DESIGN. FOR OPTIONAL PRECAST REINFORCED CONCRETE BOX CULVERT, SEE SPECIAL PROVISIONS.

THE EXISTING STRUCTURE CONSISTING OF 1-SPAN @ 31'-0" WITH A TIMBER FLOOR ON A STEEL I-BEAMS SUPERSTRUCTURE AND A CLEAR ROADWAY WIDTH OF 20'-0" ON A SUBSTRUCTURE CONSISTING OF A TIMBER CAP ON TIMBER PILE END BENTS AND LOCATED AT THE PROPOSED STRUCTURE LOCATION SHALL BE REMOVED. SEE SPECIAL PROVISIONS FOR REMOVAL OF EXISTING STRUCTURE.

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 SAME SIZE AND LENGTH OF THE SAMPLE, PLUS A MINIMUM LAP SPLICE OF THIRTY BAR DIAMETERS.

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

A 3 FOOT STRIP OF FILTER FABRIC SHALL BE ATTACHED TO THE FILL FACE WING COVERING THE ENTIRE LENGTH OF THE EXPANSION JOINT.

FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.

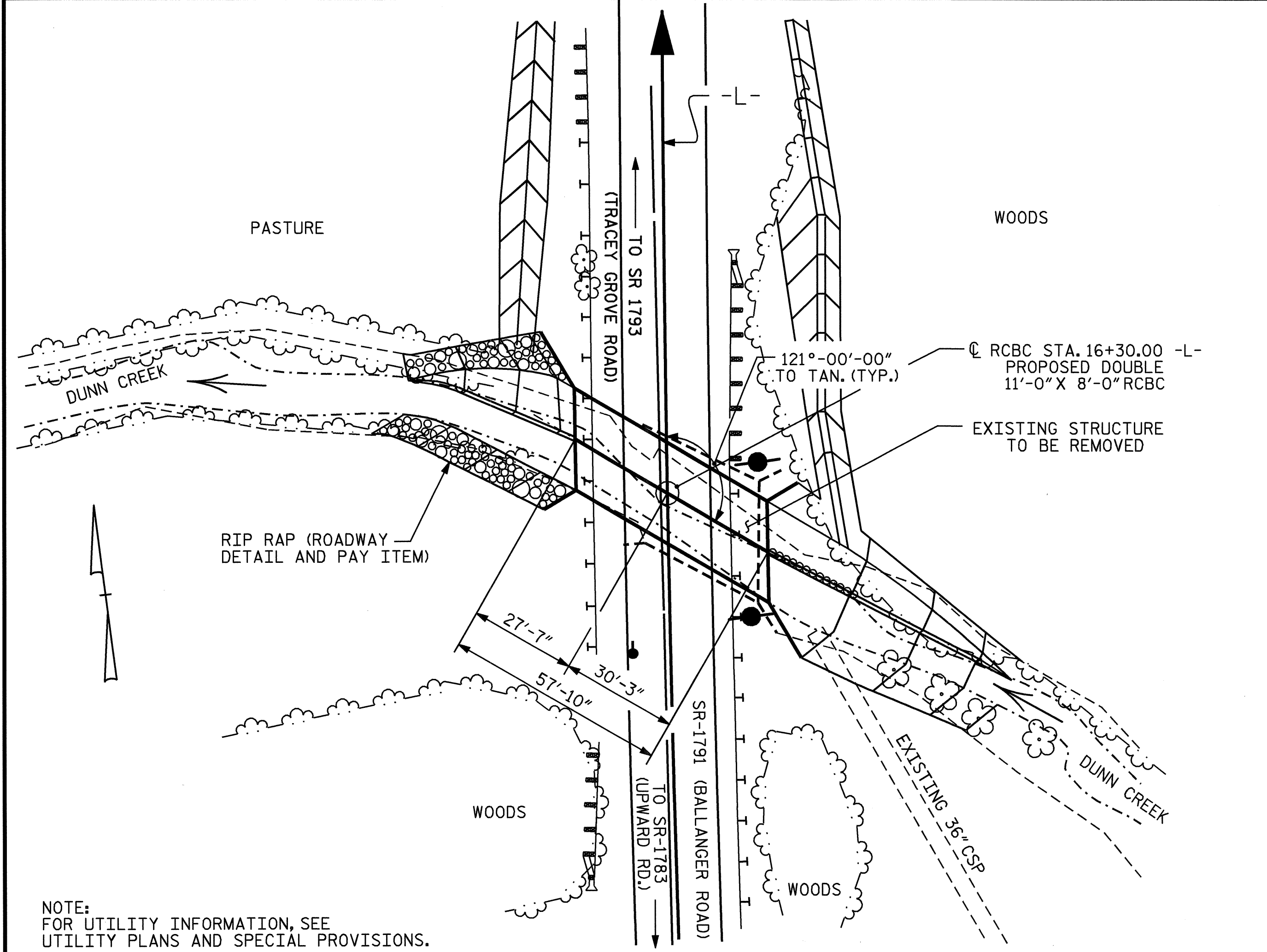
FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.

THE CONTRACTORS ATTENTION IS CALLED TO THE FACT THAT UNSUITABLE MATERIAL MAY BE ENCOUNTERED. ANY UNSUITABLE MATERIAL SHALL BE UNDERCUT AND REPLACED WITH FOUNDATION CONDITIONING MATERIAL, AS DIRECTED BY THE ENGINEER. NO SEPARATE PAYMENT WILL BE MADE FOR ANY UNDERCUT AND UNSUITABLE MATERIAL REPLACEMENT AS REQUIRED TO CONSTRUCT THE PROPOSED CULVERT. THE COST SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE BID FOR CULVERT EXCAVATION.

INASMUCH AS THE PAINT SYSTEM ON THE EXISTING STRUCTURAL STEEL CONTAINS LEAD, THE CONTRACTOR'S ATTENTION IS DIRECTED TO ARTICLE 107-1 OF THE STANDARD SPECIFICATIONS. ANY COSTS RESULTING FROM COMPLIANCE WITH APPLICABLE STATE OR FEDERAL REGULATIONS PERTAINING TO HANDLING OF MATERIALS CONTAINING LEAD BASED PAINT SHALL BE INCLUDED IN THE BID PRICE FOR "REMOVAL OF EXISTING STRUCTURE AT STATION 16+30.00 -L-."

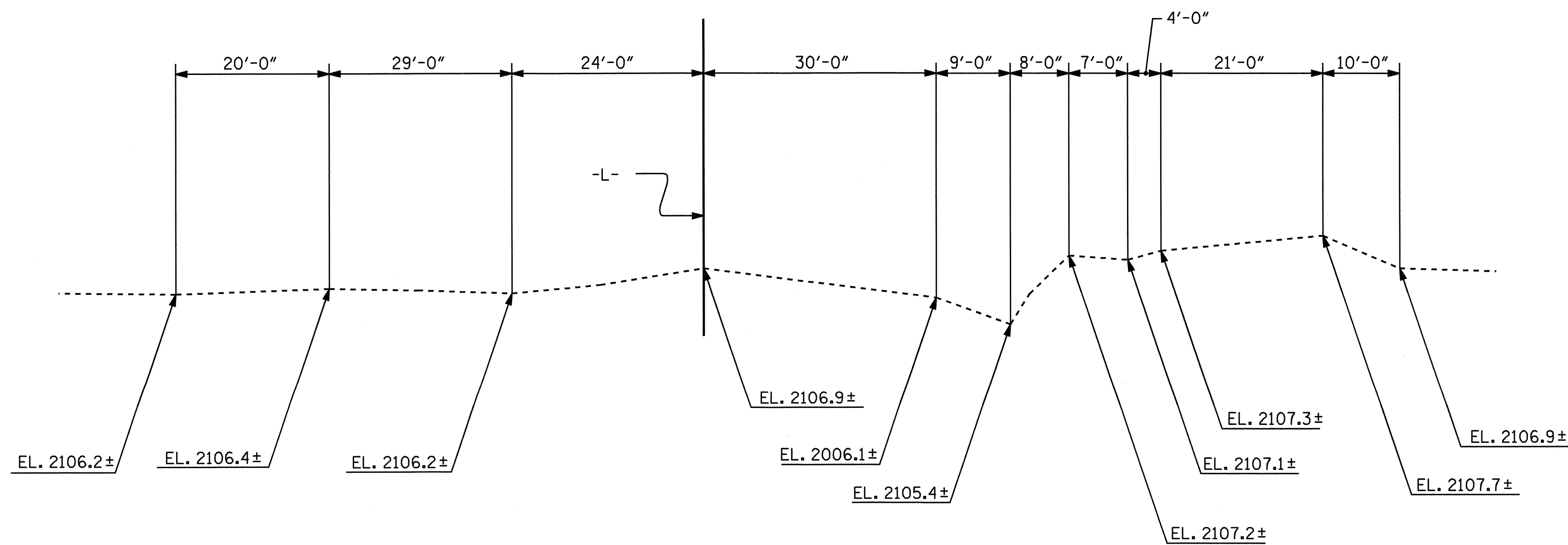
REMOVAL OF THE EXISTING SHALL BE PERFORMED SO AS NOT TO ALLOW DEBRIS TO FALL INTO THE WATER. THE CONTRACTOR SHALL REMOVE THE BRIDGE AND SUBMIT PLANS FOR DEMOLITION IN ACCORDANCE WITH ARTICLE 402-2 OF THE STANDARD SPECIFICATIONS.

FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.



NOTE:
FOR UTILITY INFORMATION, SEE
UTILITY PLANS AND SPECIAL PROVISIONS.

LOCATION SKETCH



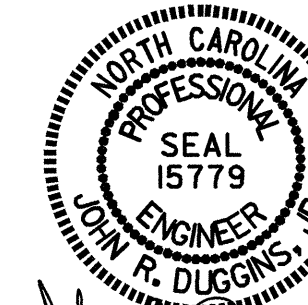
PROFILE ALONG CULVERT

TOTAL STRUCTURE QUANTITIES

CLASS A CONCRETE		
BARREL @ 2.267	CY/FT	131.1 C.Y.
WING ETC.		30.0 C.Y.
SILLS		1.0 C.Y.
TOTAL		162.1 C.Y.

REINFORCING STEEL		
BARREL	27,068	LBS.
WINGS ETC.	1,661	LBS.
TOTAL	28,729	LBS.

CULVERT EXCAVATION	-----	LUMP SUM
FOUNDATION CONDITIONING MAT'L.	-----	98 TONS
REMOVAL OF EXIST. STR.	-----	LUMP SUM



PROJECT NO. B-3665
HENDERSON COUNTY
STATION: 16+30.00 -L-

SHEET 1 OF 5 REPLACES BRIDGE NO. 265

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

DOUBLE 11 FT. X 8 FT.
CONCRETE BOX CULVERT
121° SKEW

REVISIONS						SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:	C-1
1			3			TOTAL SHEETS
2			4			5

ADDED 11-90

ASSEMBLED BY : J. LAMBERT DATE : 6/04
CHECKED BY : M. POOLE DATE : 6/04