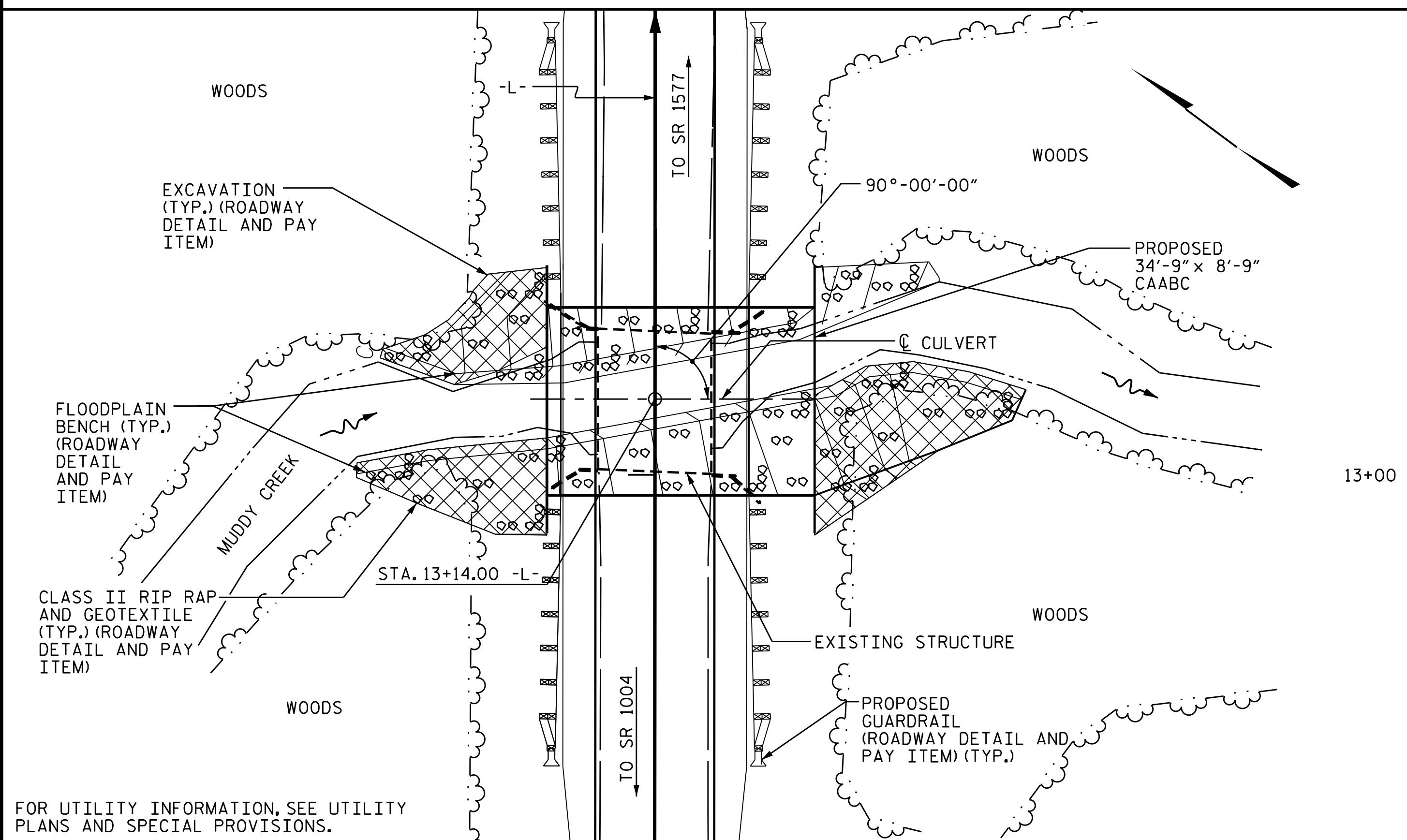


BM#1: RR SPIKE IN BASE OF 12" SYCAMORE TREE, 63.47' RIGHT OF STA. 13+04.14 -L-, EL. 779.92



LOCATION SKETCH

ROADWAY DATA

GRADE PT. EL. @ STA. 13+14.00 -L-	= 783.68
BED EL. @ STA. 13+14.00 -L-	= 772.51
ROADWAY SLOPES	= VARIES

HYDRAULIC DATA

DESIGN DISCHARGE	= 1,200 C.F.S.
FREQUENCY OF DESIGN FLOOD	= 10 YR.
DESIGN HIGH WATER ELEVATION	= 782.20
DRAINAGE AREA	= 2.34 SQ. MI.
BASE DISCHARGE (Q100)	= 2,160 C.F.S.
BASE HIGH WATER ELEVATION	= 784.59

OVERTOPPING FLOOD DATA

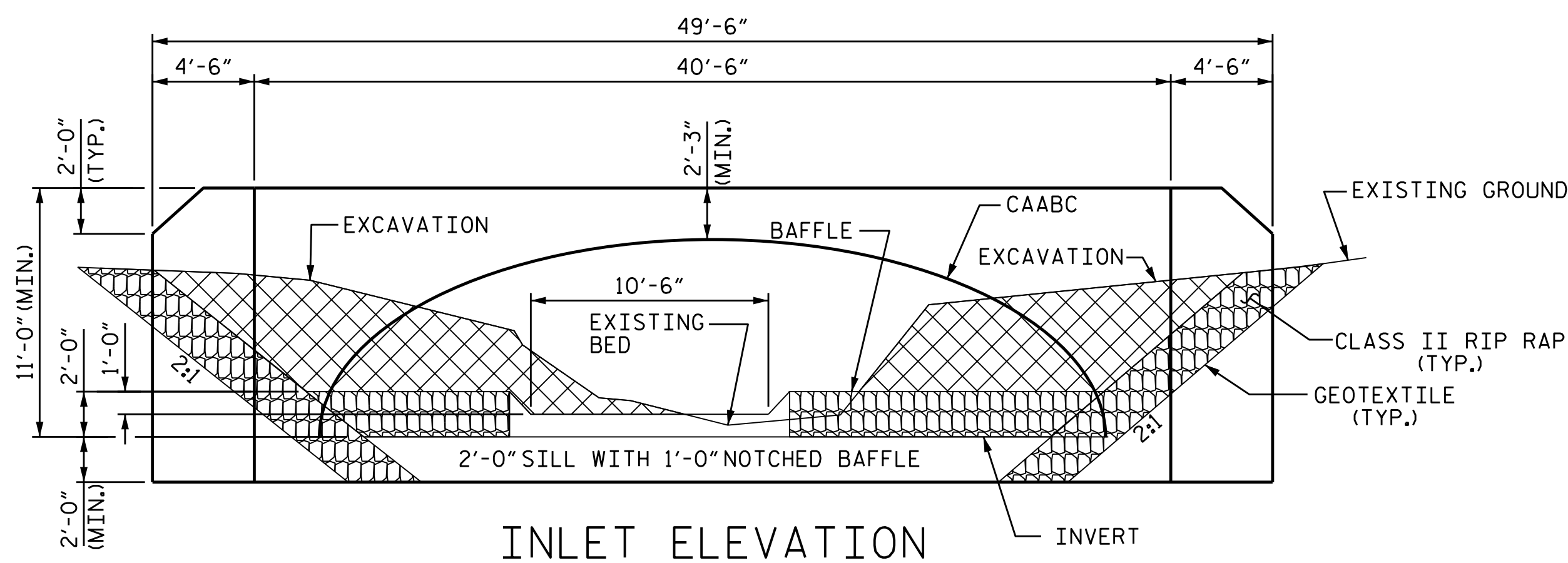
OVERTOPPING DISCHARGE	> 1,200; < 1,500 C.F.S.
FREQUENCY OF OVERTOPPING FLOOD	= 25- YR.
OVERTOPPING HIGH WATER ELEVATION	= 783.60

TOTAL STRUCTURE QUANTITIES

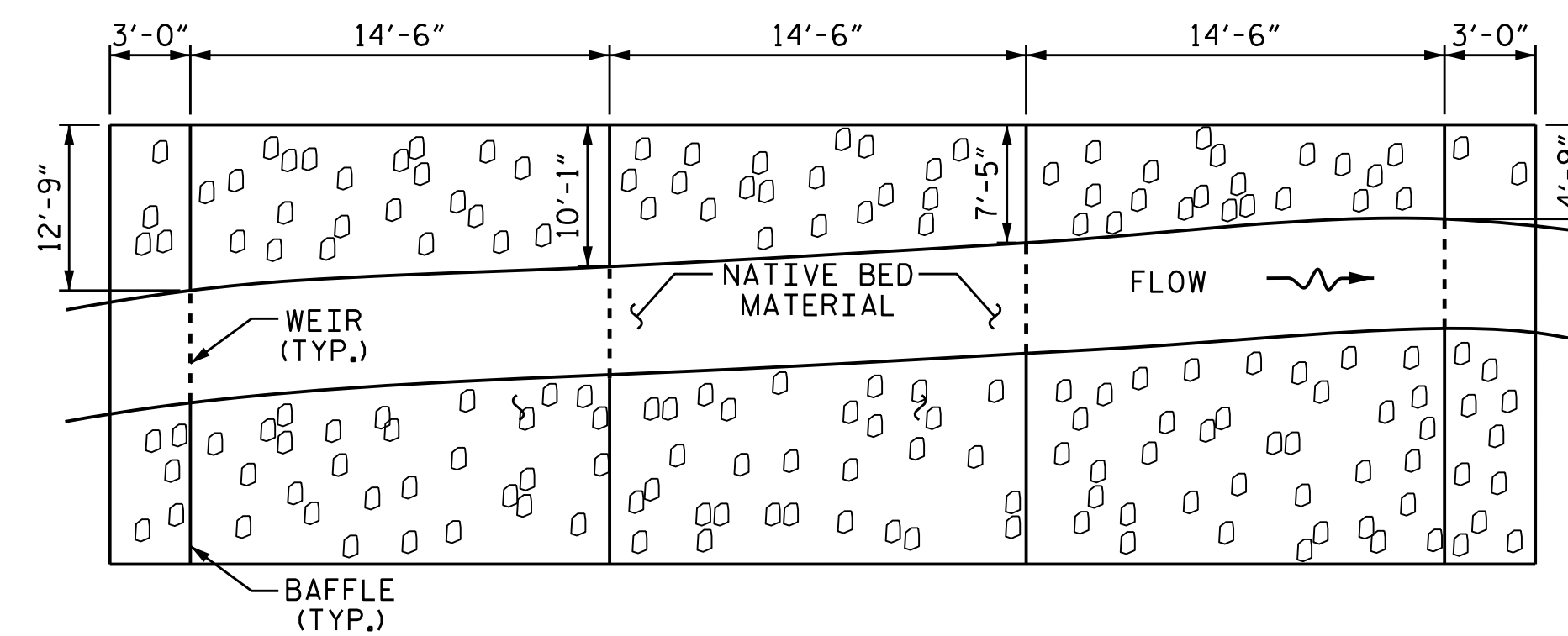
REMOVAL OF EXISTING STRUCTURE	LUMP SUM
ALUMINUM BOX CULVERT	LUMP SUM
CULVERT EXCAVATION	LUMP SUM
FOUNDATION CONDITIONING MATERIAL	140 TONS
PLACEMENT OF NATURAL STREAM BED MATERIAL	LUMP SUM
CULVERT BACKFILL	525 TONS

NOTES

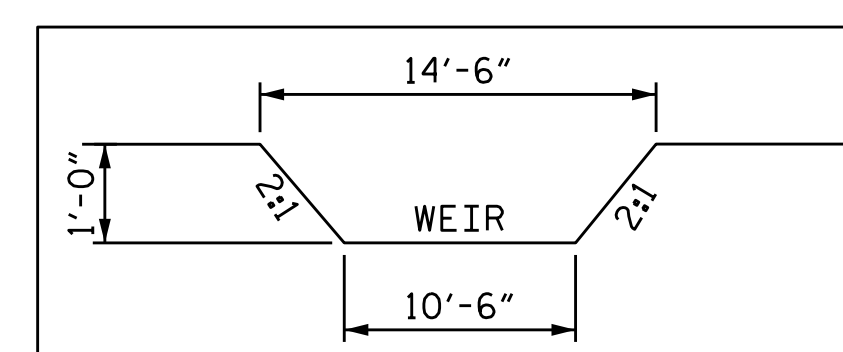
- ASSUMED LIVE LOAD ----- HL-93 OR ALTERNATE LOADING.
- CULVERT IS TO BE DESIGNED FOR A MINIMUM FILL DEPTH OF 2.0' AND A MAXIMUM FILL DEPTH OF 2.4'.
- THE RESIDENT ENGINEER SHALL CHECK THE LENGTH OF CULVERT BEFORE STAKING IT OUT TO MAKE CERTAIN THAT IT WILL PROPERLY TAKE CARE OF THE FILL.
- ALL MATERIALS SHALL MEET THE REQUIREMENTS OF THE NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES DATED JANUARY 2012.
- ▲ THE DETAILS SHOWN ARE FOR GENERAL LAYOUT ONLY. UNLESS OTHERWISE INDICATED, THE MANUFACTURER SHALL DESIGN, DETAIL, AND FURNISH ALL STRUCTURAL ELEMENTS AND HARDWARE. FOR ALUMINUM BOX CULVERT AND FOUNDATIONS, SEE SPECIAL PROVISIONS FOR ALUMINUM BOX CULVERT.
- NATIVE BED MATERIAL SHALL BE USED TO BACKFILL CULVERT BETWEEN SILLS AND BAFFLES. SEE SPECIAL PROVISIONS FOR PLACEMENT OF NATURAL STREAM BED MATERIAL.
- THE BOTTOM OF THE CULVERT WILL BE AT OR NEAR THE ROCK LINE. UP TO 1 FOOT OF ROCK EXCAVATION WILL BE REQUIRED BENEATH THE PROPOSED CULVERT. USE A 12 INCH BLANKET OF FOUNDATION CONDITIONING MATERIAL BELOW THE PROPOSED CULVERT. SEE SECTION 414 OF THE STANDARD SPECIFICATIONS.
- BACKFILL CULVERT IN ACCORDANCE WITH SECTION 414 OF THE STANDARD SPECIFICATIONS OR AS RECOMMENDED BY CULVERT MANUFACTURER.
- FOR CRANE SAFETY, SEE SPECIAL PROVISIONS.
- FOR GROUT FOR STRUCTURES, SEE SPECIAL PROVISIONS.
- FOR SUBMITTAL OF WORKING DRAWINGS, SEE SPECIAL PROVISIONS.
- FOR FALSEWORK AND FORMWORK, SEE SPECIAL PROVISIONS.
- FOR CULVERT BACKFILL, SEE SPECIAL PROVISIONS.
- GUARDRAIL POST LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER TO ENSURE ADEQUATE COVER FOR INSTALLATION.
- 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.
- 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 DIFFERENCES BETWEEN THE EXISTING BRIDGE SUBSTRUCTURE SHOWN ON THE PLANS AND THE ACTUAL CONDITIONS AT THE PROJECT SITE.
- THE EXISTING STRUCTURE CONSISTING OF 2 SPANS @ 13'-5" WITH A 3" ASPHALT WEARING SURFACE, TIMBER DECK ON TIMBER JOISTS AND A CLEAR ROADWAY OF 21'-1" ON MASS CONCRETE AND TIMBER BULKHEADS AND TIMBER CAP AND PILES EACH WITH A PILE ENCASED IN CONCRETE, AND LOCATED AT THE PROPOSED SITE SHALL BE REMOVED.
- FOR EROSION CONTROL MEASURES, SEE EROSION CONTROL PLANS.



INLET ELEVATION



BAFFLE PLACEMENT DETAIL



BAFFLE OPENING DIMENSIONS

I HEREBY CERTIFY THESE PLANS ARE THE AS-BUILT PLANS.

PROJECT NO. 17BP.8.R.79  
 RANDOLPH COUNTY  
 STATION: 13+14.00 -L-  
 REPLACES BRIDGE NO. 84

STATE OF NORTH CAROLINA  
 DEPARTMENT OF TRANSPORTATION  
 RALEIGH  
 SINGLE 34'-9" X 8'-9"  
 ALUMINUM BOX CULVERT  
 90° SKEW

REVISIONS					SHEET NO.
NO.	BY:	DATE:	NO.	BY:	DATE:
1			3		
2			4		

TOTAL SHEETS: 1

ASSEMBLED BY : D.A. DAVENPORT DATE : 04/24/14  
 CHECKED BY : L.E. SUTTON DATE : 5/12/14

