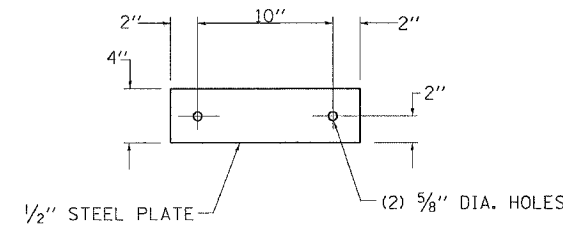
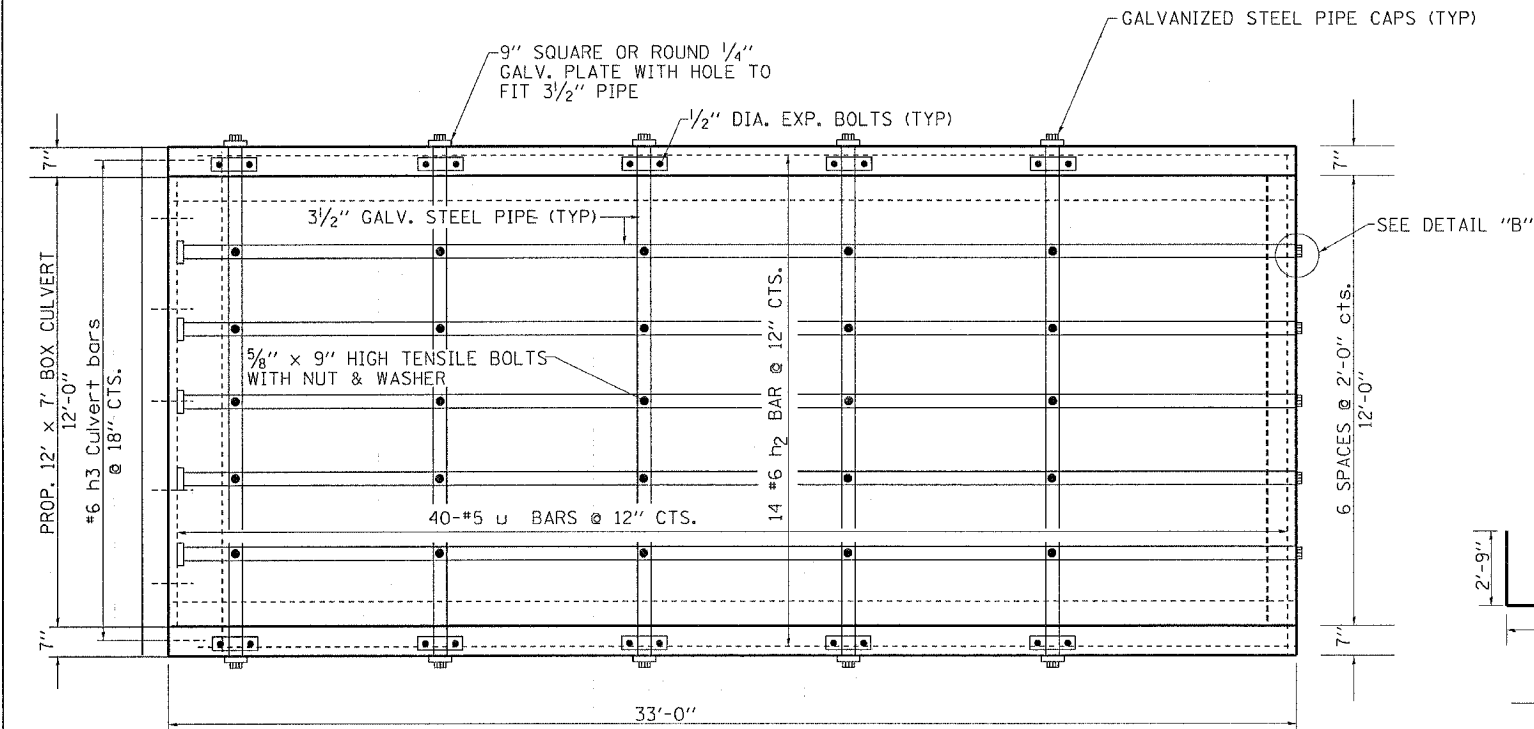


CONCRETE BOX CULVERT END SECTION STA 438+13 RT

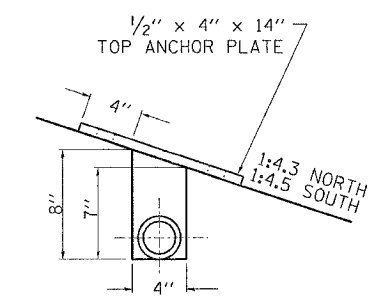
F.A.P. CONTRACT NO. 64178		TOTAL SHEETS 593		SHEET NO. 206	
RTE. 549	SECTION 116RS-1	COUNTY OGLE			
STA.		TO STA.			
FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT		

BILL OF MATERIALS

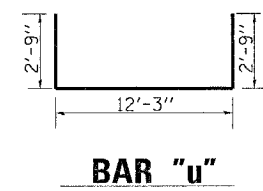
BAR	NUMBER	SIZE	LENGTH	QTY.
d	14	#4	4'-6"	42.08
h	9	#4	33'-0"	198.4
h ₁	2	#4	33'-7"	44.87
h ₂	14	#6	32'-9"	688.61
h ₃	3	#5	12'-11"	40.42
u	40	#5	17'-9"	740.53
v	40	#5	10'-3"	427.63
REINFORCEMENT BARS			LB	2182.59
CONCRETE BOX CULVERTS			CU YD	19.6
3 1/2" GALV. STEEL PIPE			EACH	5 @ 33'-2" 5 @ 13'-4"
1/2" x 4" x 14" GALV. ANCHOR PLATE			EACH	10
5/8" x 9" GALV. BOLTS			EACH	25
GALV. STEEL PIPE CAPS			EACH	20
1/2" Ø GALV. EXP. BOLTS			EACH	20
9" SQ. OR ROUND 1/4" GALV. PLATE			EACH	10



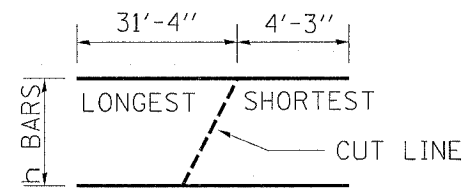
TOP ANCHOR PLATE



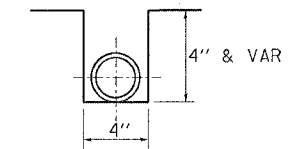
DETAIL "A"



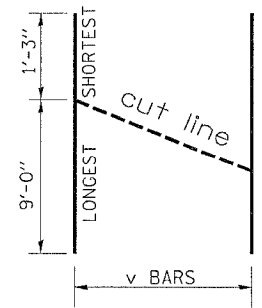
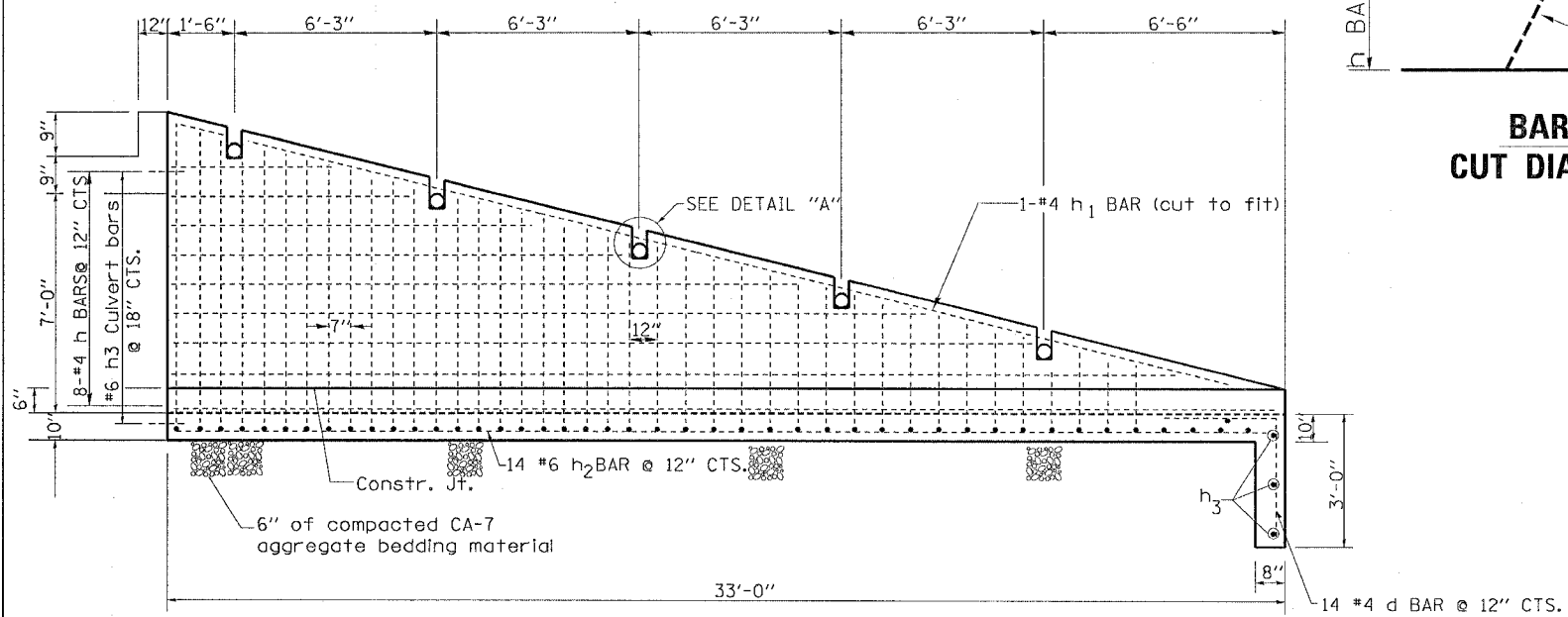
BAR "u"



BAR "h" CUT DIAGRAM



DETAIL "B"



BAR "v" CUT DIAGRAM

GENERAL NOTES:

STEEL PIPES SHALL CONFORM TO A.S.T.M. A-53 (TYPE E OR S) GRADE B, SCHEDULE 40, & SHALL BE GALVANIZED CONFORMING TO A.S.T.M. A-120.

STEEL PLATES SHALL CONFORM TO AASHTO M-183 & SHALL BE GALVANIZED CONFORMING TO AASHTO M-111.

BOLTS, NUTS, & WASHERS SHALL BE IN ACCORDANCE WITH ARTICLE 1006.08 OF THE STANDARD SPECIFICATIONS AND SHALL BE GALVANIZED.

6" OF COMPACTED CA-7 AGGREGATE SHALL BE PLACED BENEATH THE EXTENSION

THE CONTRACT UNIT PRICE "CU YD" FOR CONCRETE BOX CULVERTS SHALL INCLUDE THE GALVANIZED PIPES, BOLTS, NUTS, WASHERS, STEEL PLATES, EARTH EXCAVATION, BACKFILLING, COMPACTED CA-7 AGGREGATE BEDDING MATERIAL AND NECESSARY GRADING.

REINFORCEMENT BARS WILL BE PAID FOR SEPARATELY

ORDER v AND h BARS AT FULL LENGTH. CUT TO FIT AS SHOWN AND USE REMAINDER OF BARS IN OPPOSITE WALL.