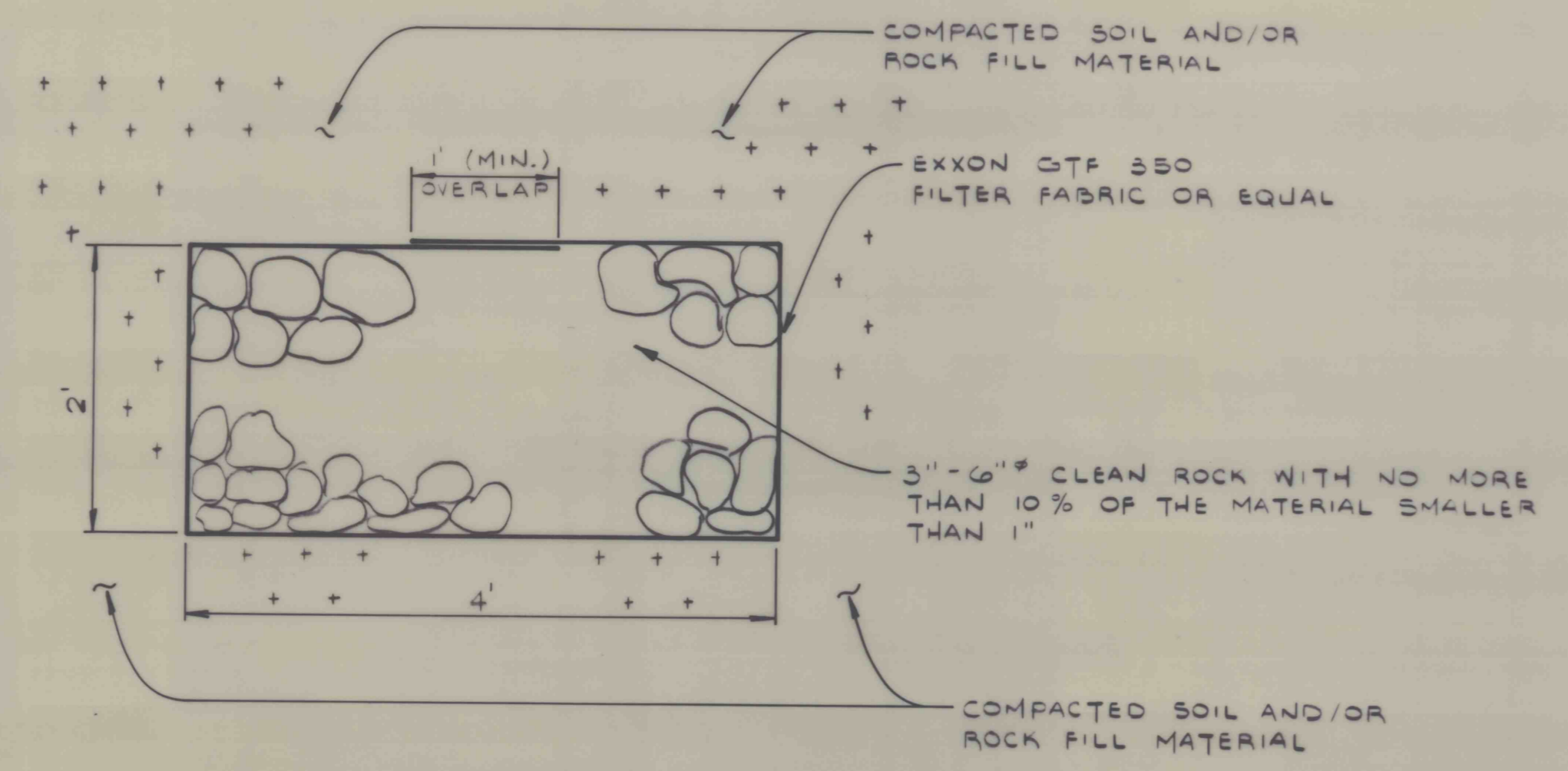
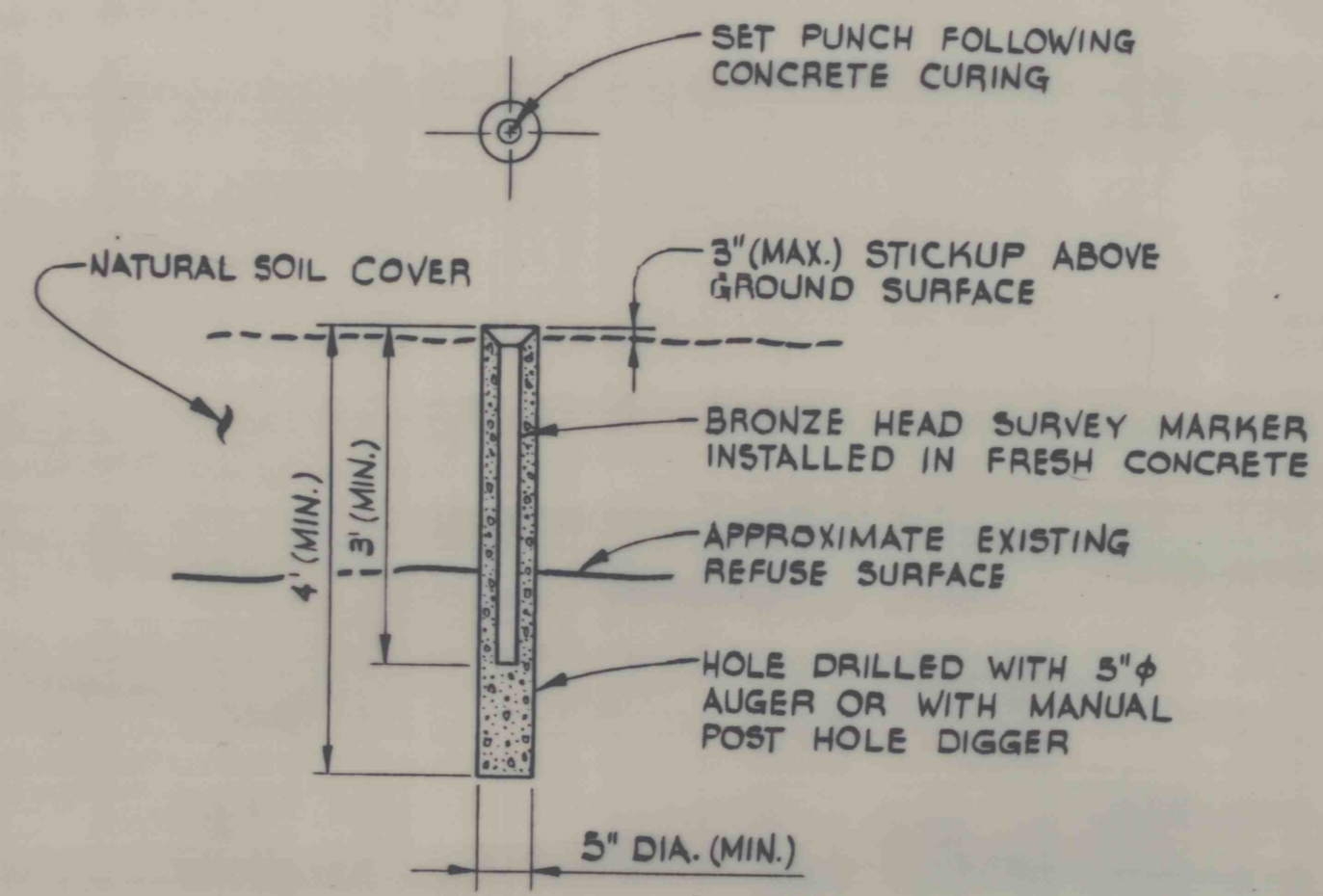


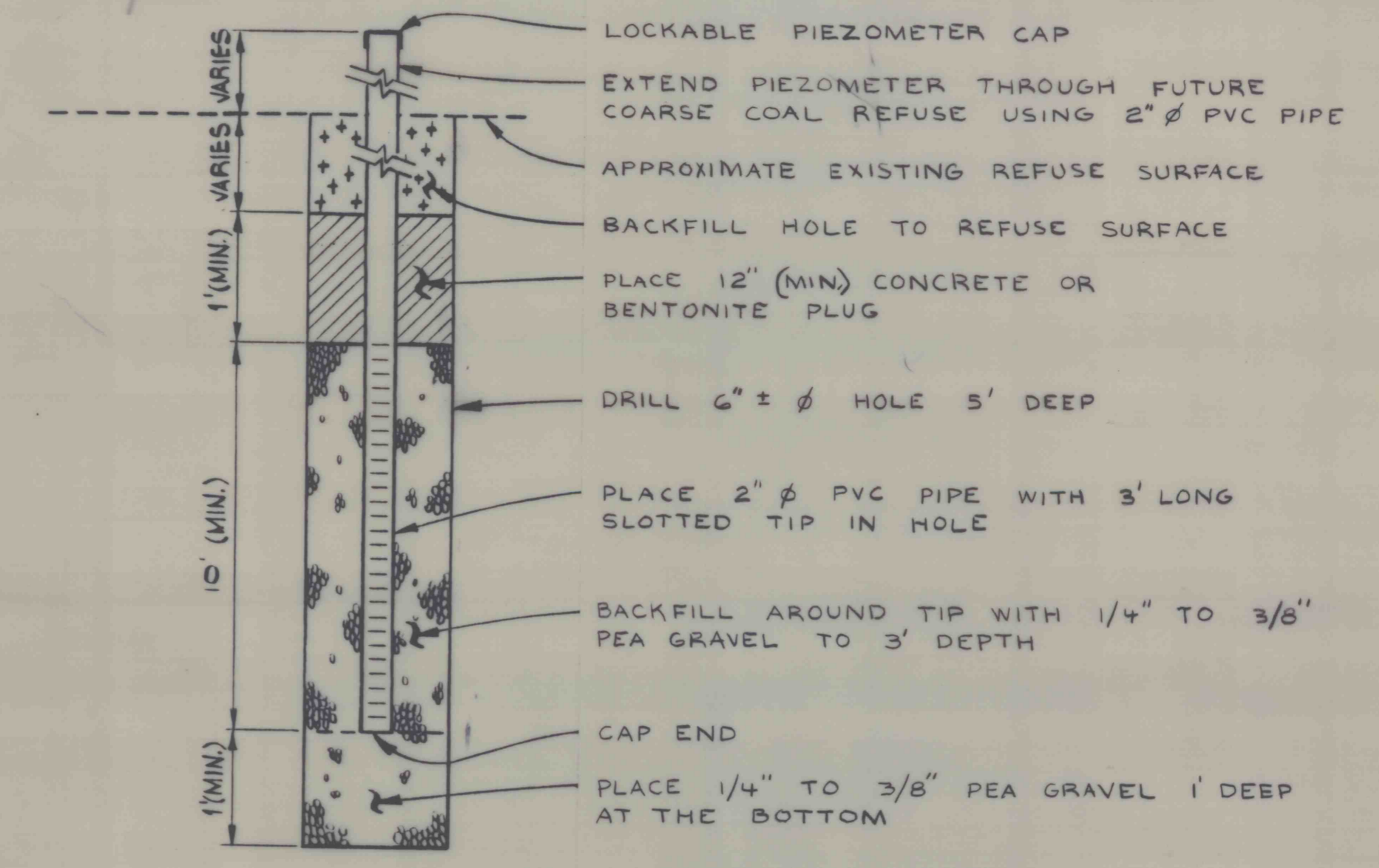
DATE	BY	REVISION RECORD	DR.	CK.



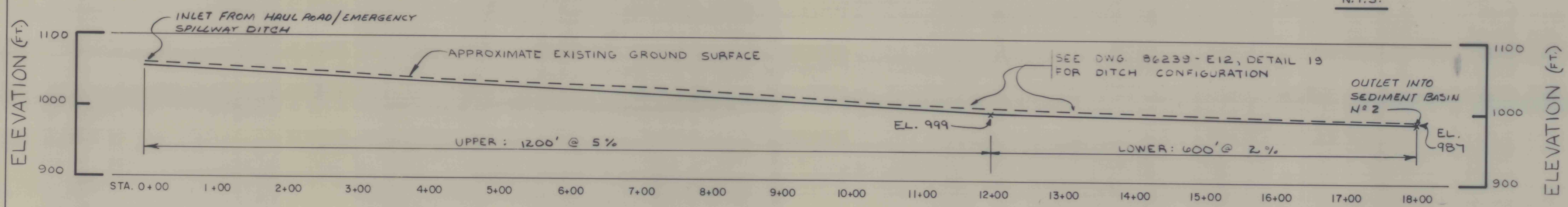
DETAIL 20
INTERNAL DRAIN
N.T.S.



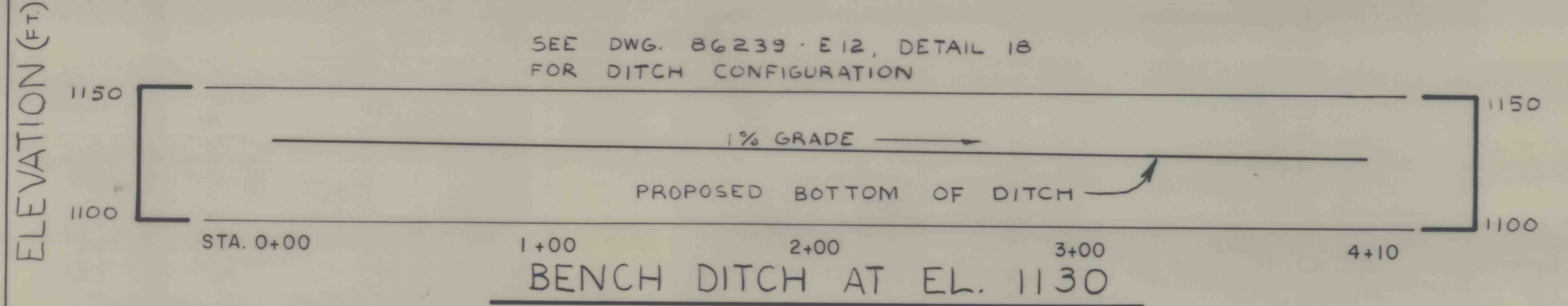
DETAIL 21
SURVEY MONUMENT
N.T.S.



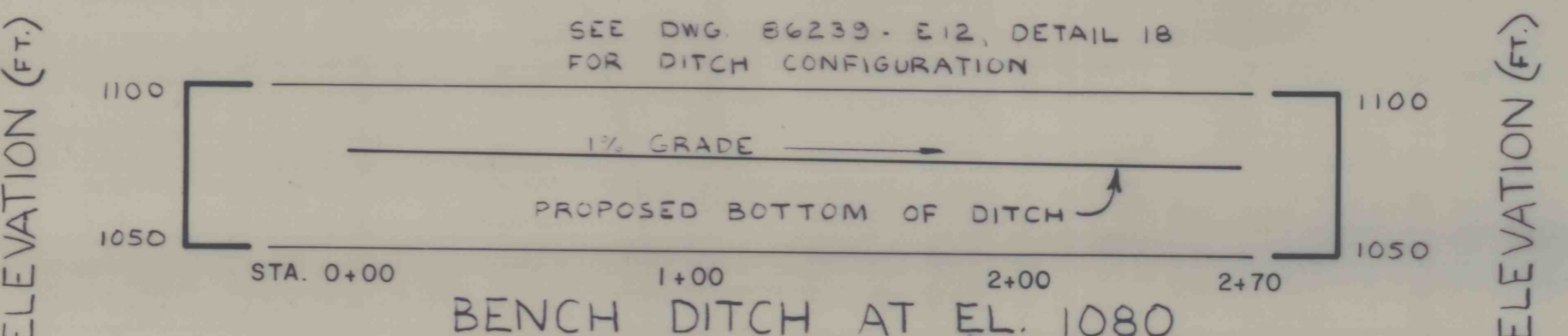
DETAIL 22
PIEZOMETER INSTALLATION
N.T.S.



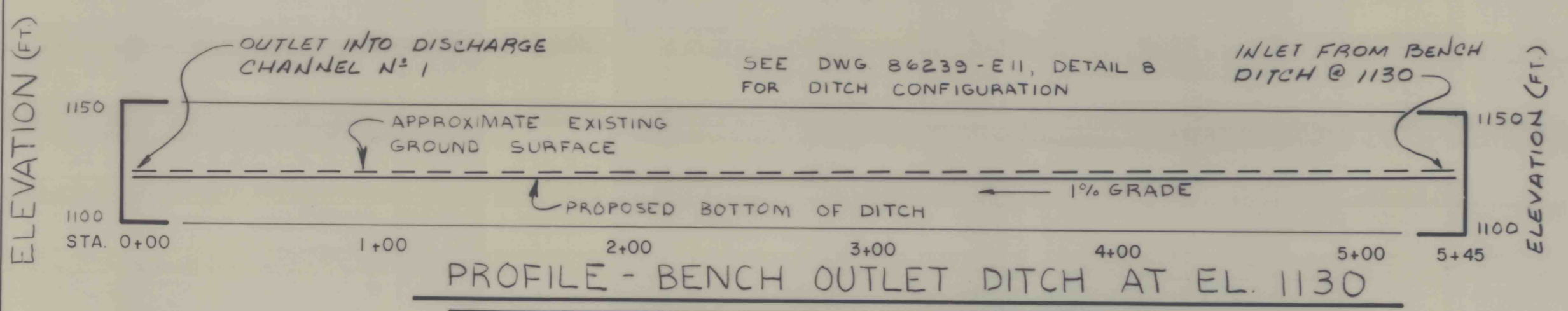
PROFILE - DIVERSION DITCH A
SCALE: 1" = 100'



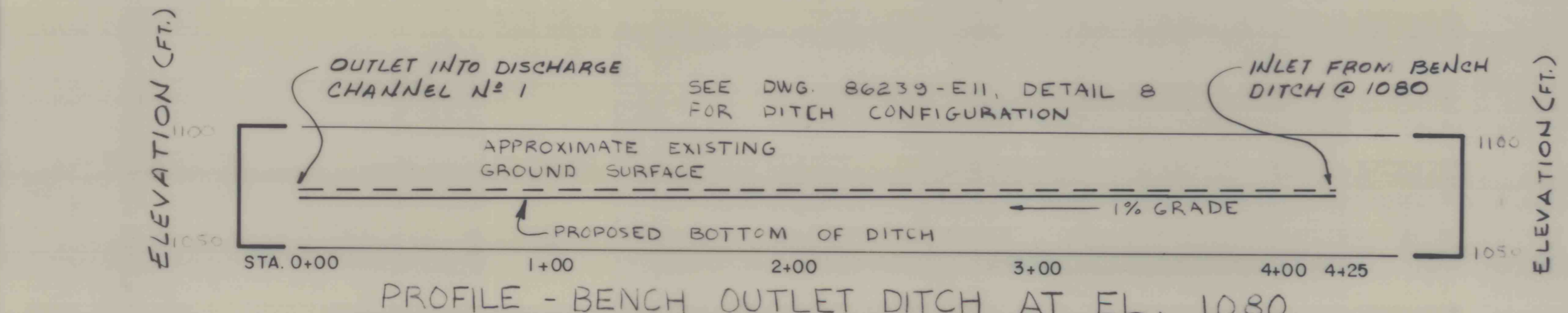
BENCH DITCH AT EL. 1130
SCALE: 1" = 50'



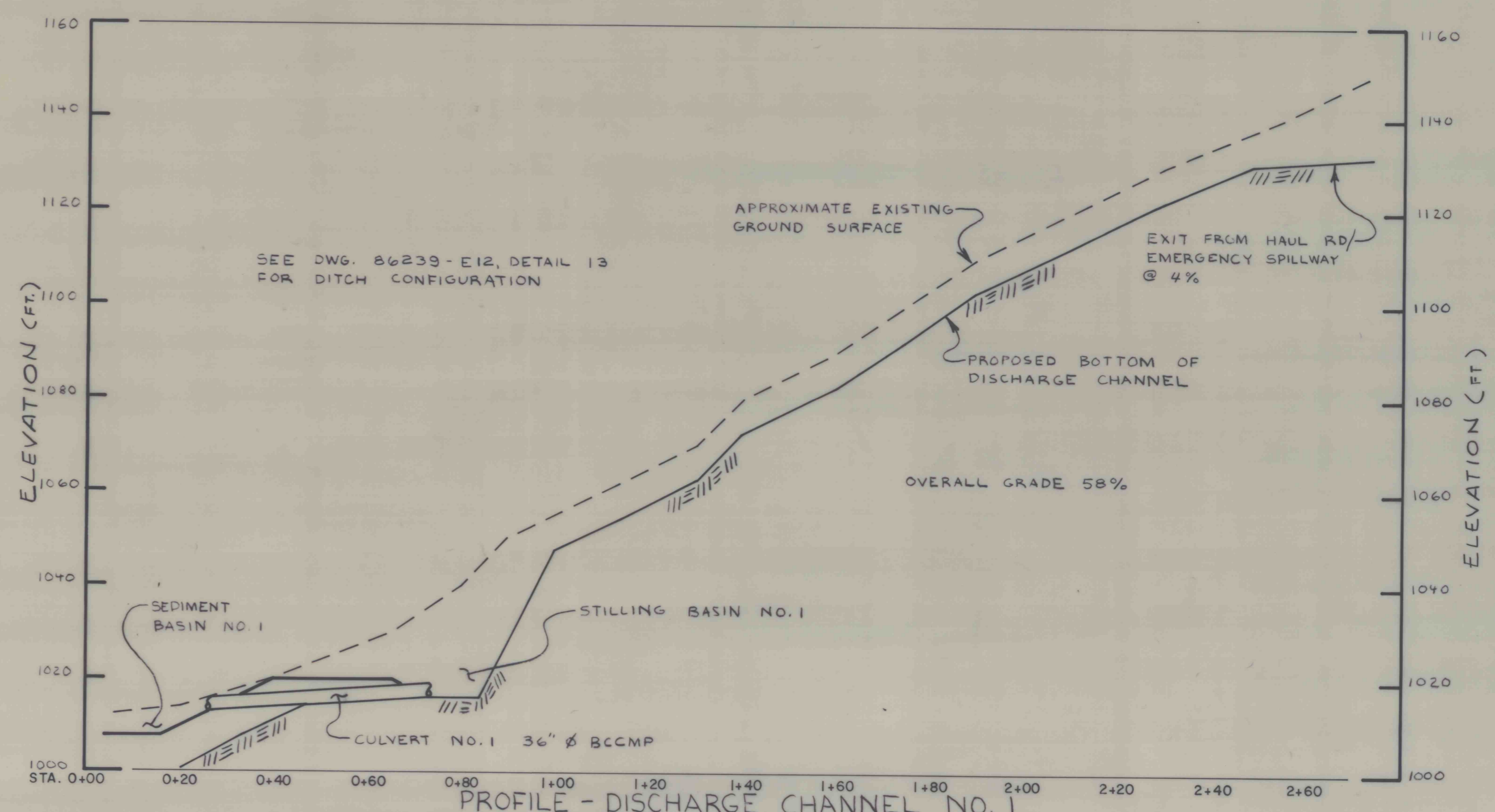
BENCH DITCH AT EL. 1080
SCALE: 1" = 50'



PROFILE - BENCH OUTLET DITCH AT EL. 1130
SCALE: 1" = 50'



PROFILE - BENCH OUTLET DITCH AT EL. 1080
SCALE: 1" = 50'



PROFILE - DISCHARGE CHANNEL NO. 1
SCALE: 1" = 20'

DIVERSION SUMMARY						
Ditch Description	Flow Depth (ft.)	Peak Flow (cfs)	Slope (ft)	Velocity (fps)	Erosion Protection	
Haul Road/ Emergency Spillway Ditch	1.95 0.55	2.5	30.4	3.5	6.4 In Rock	
Ditch for Lower Portion of Spillway	1.09 0.91	2.0	11.0	10.0	7.37 In Rock	
Diversion Ditch A	1.88 0.63	2.5	60.0	5.0	8.5 Vegetation	
Bench Ditch	2.24 0.26	2.5	60.0	2.0	5.89 Vegetation	
Bench Outlet Ditch	0.98 0.52	1.5	8.7	1.0	2.6 Vegetation	
Discharge Channel No. 1	1.4 0.60	2.0	8.7	1.0	2.9 Vegetation	
Sediment Basin No. 1	0.24 0.76	1.0	45.0	58.0	12.2 In Rock	
Spillway Outlet Channel	1.23 1.27	2.5	164.1	2.0	6.44 In Rock	
	0.61 0.39	1.0	164.1	21.0	13.36 In Rock	

SRW ASSOCIATES INC.

SCALE: AS NOTED APPROVED BY: *[Signature]* DRAWN BY: D. BRENT

DATE: SEPT. 5, 1986 CHECKED BY: *[Signature]*

BETHENERGY MINES CORPORATION
WEST VIRGINIA DIVISION
BROWN'S BRANCH IMPOUNDMENT
BOONE COUNTY, WEST VIRGINIA

DETAILS 20 THROUGH 22 AND DITCH PROFILES SHEET NUMBER 14 of 17
DRAWING NUMBER 86239 - E13