


REPUBLIC OF THE PHILIPPINES

**FEASIBILITY STUDY
ON
THE HIGHLAND INTEGRATED
RURAL DEVELOPMENT PROJECT
IN
LA TRINIDAD
PROVINCE OF BENGUET**

DRAWINGS

OCTOBER 1988

JAPAN INTERNATIONAL COOPERATION AGENCY

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88-52

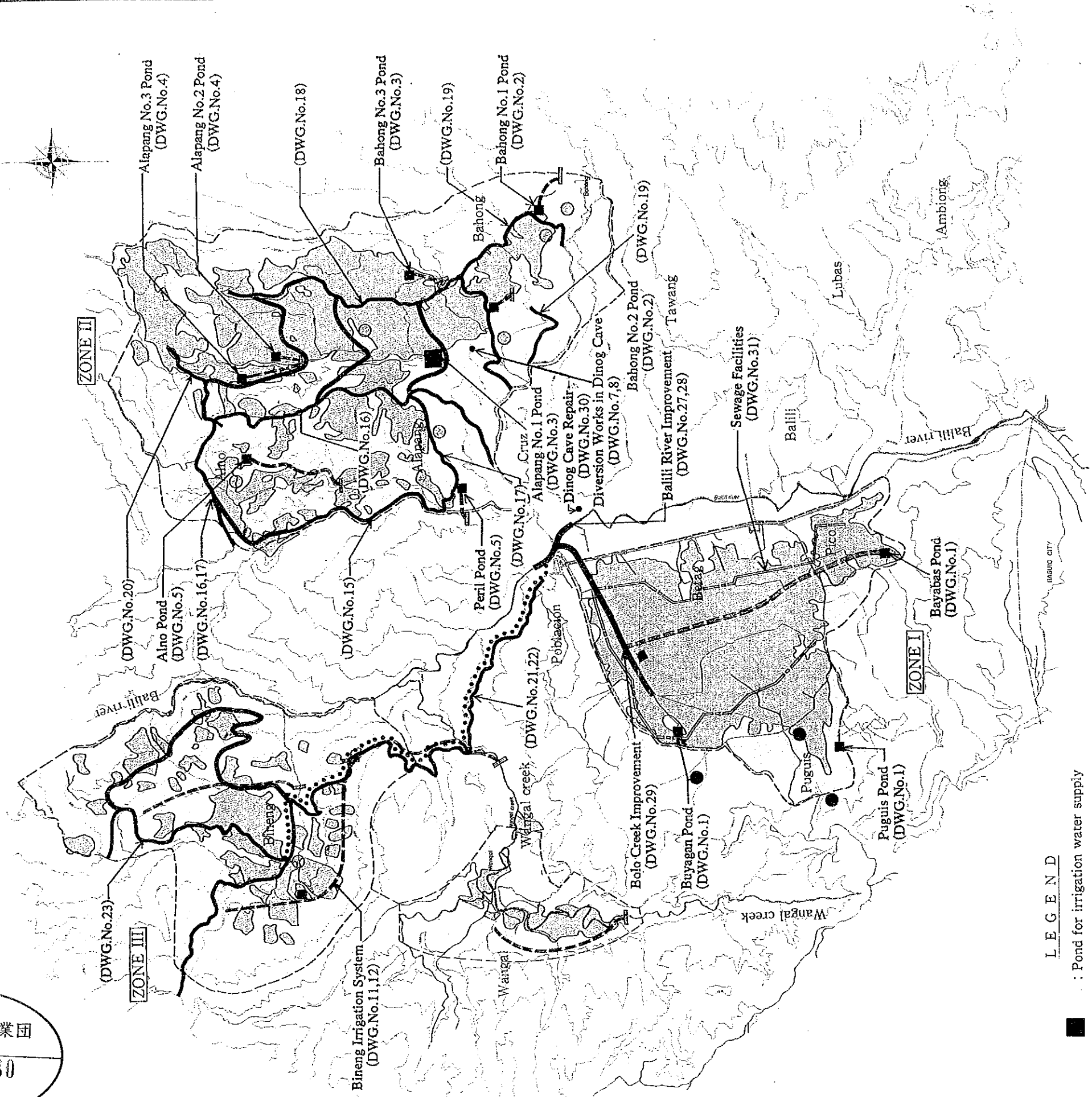
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GENERAL PLAN OF THE PROJECT



LEGEND

- : Pond for irrigation water supply
- : Weir
- : Well for irrigation water supply
- : Irrigation canal (pipe)
- : Rehabilitation of road
- : Construction of road
- : Well for drinking water supply
- : Improvement of river
- : Improvement of creek
- : Sewage canal
- : Extension of electric wire
- : Agricultural land

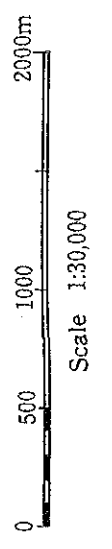
Notes : Seven Rural Community Centers are proposed in the Project Area. (DWG. No. 32,33)

Zone I : Pugois, Pico
Zone II : Bahong, Alapang, Alino
Zone III : Bineng, Wangal

Intake Facilities of ponds are shown in DWG. No. 6.

Weirs are shown in DWG. No. 9,10.

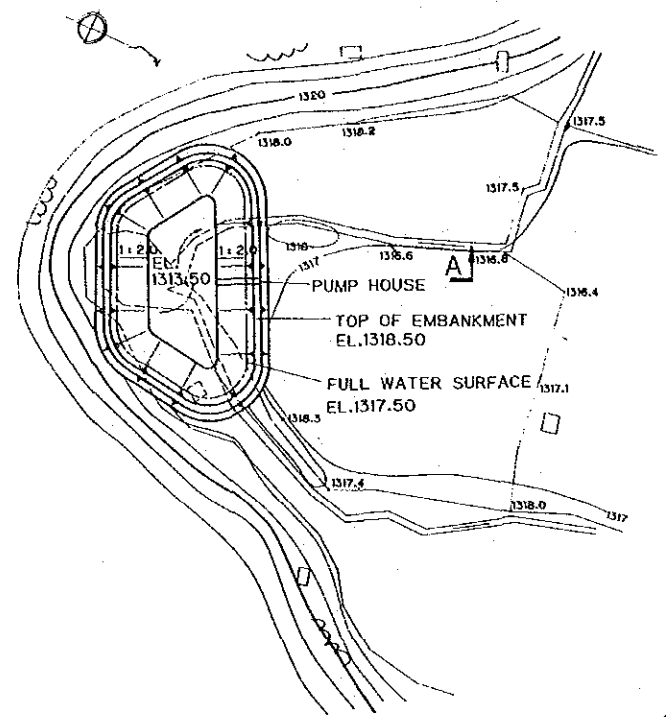
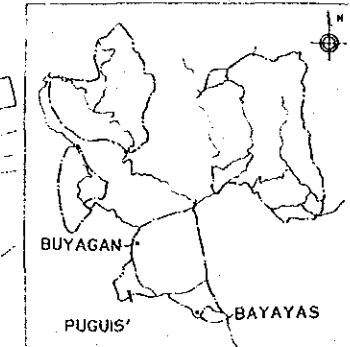
Drinking and domestic water supply facilities are shown in DWG. No. 25,26.



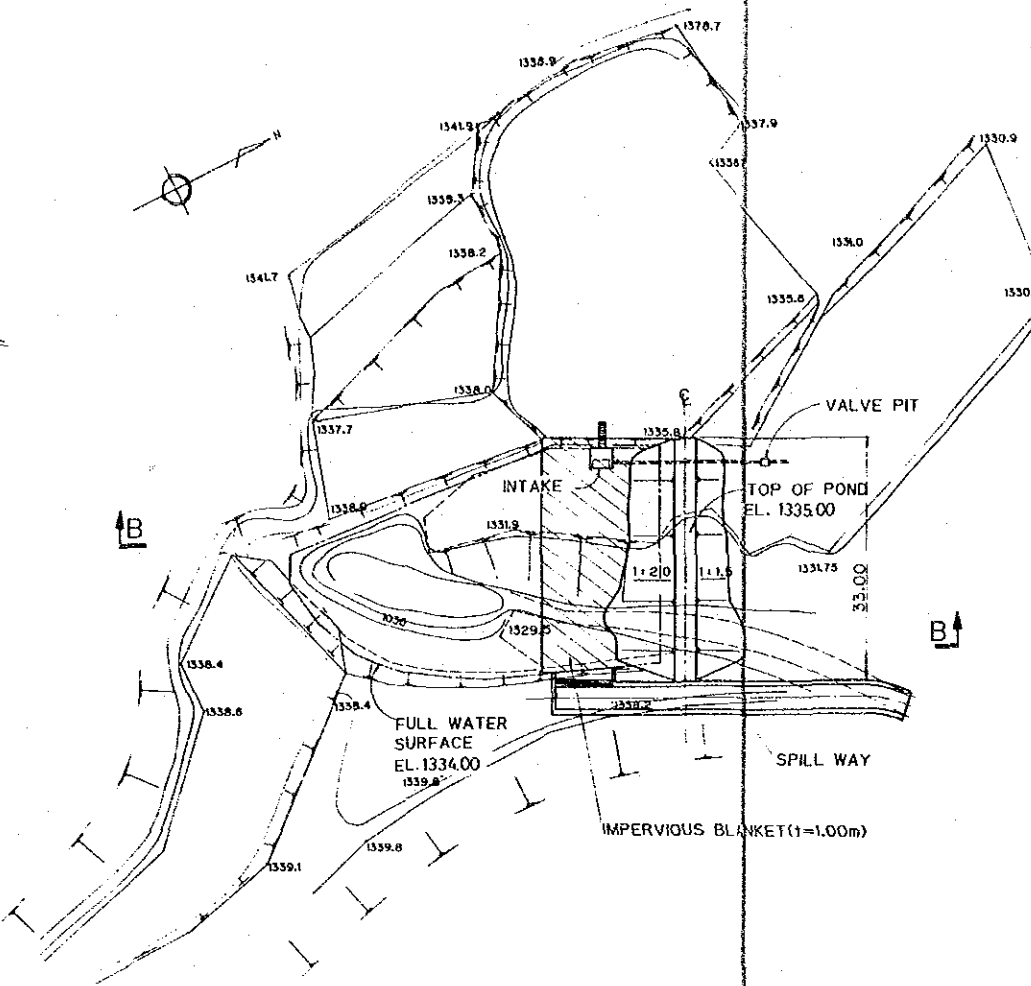
LIST OF DRAWINGS

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13	Detail of Farm Irrigation Structures	32	Plan of Barangay Hall (1)
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15	Plan of Road Improvement (Samuyao-Peril)		
16	Plan of Road Improvement (Camp Dangwa-Alno) (1)		
17	Plan of Road Improvement (Camp Dangwa-Alno) (2) (Samuyao-Alapang Proper)		
18	Plan of Road Improvement (Camp Dangwa-Sadag)		
19	Plan of Road Improvement (Tomay-Bahong Proper) (Camp Dangwa-Mae Bahong)		

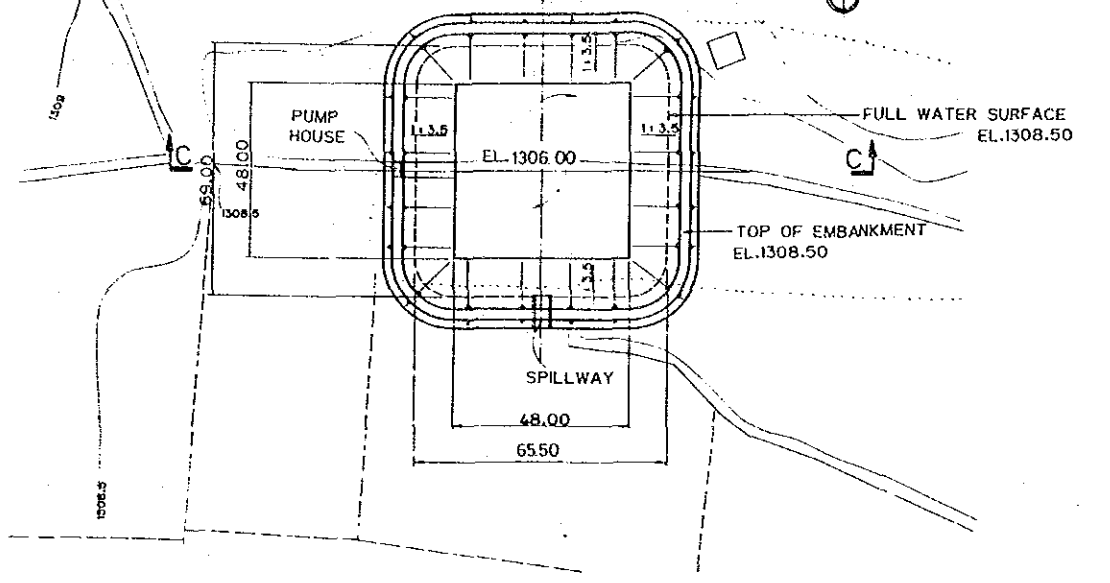
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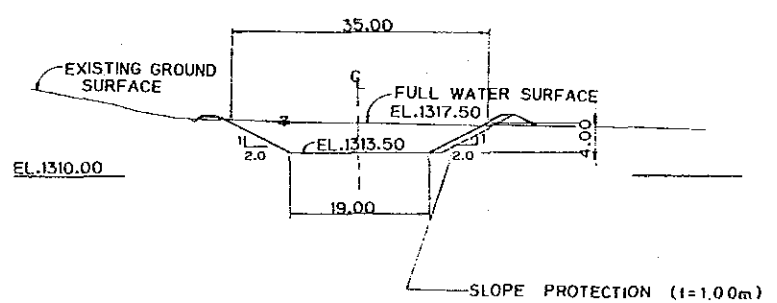
PLAN OF POND (BAYABAS)
SCALE 1:1,000



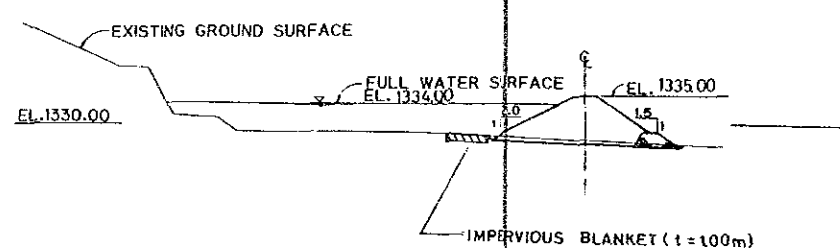
PLAN OF POND (PUGUIS)
SCALE 1:500



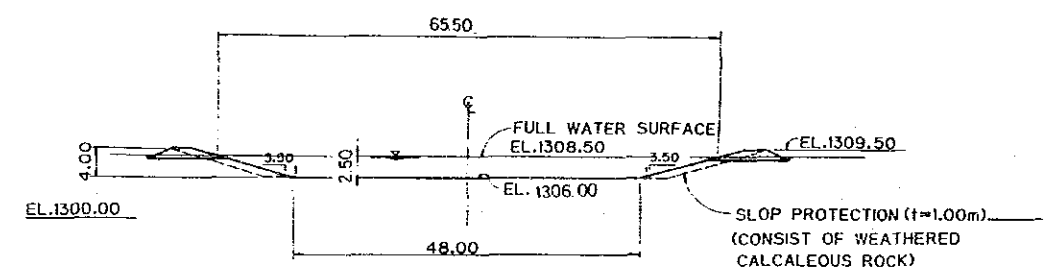
PLAN OF POND (BUYAGAN)
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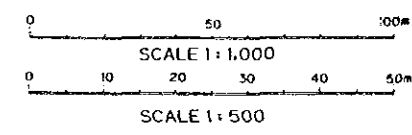
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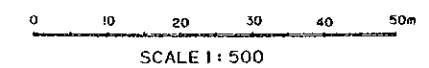
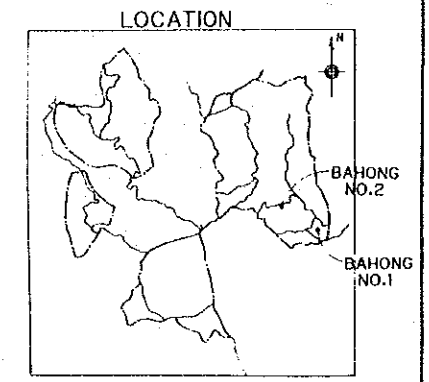
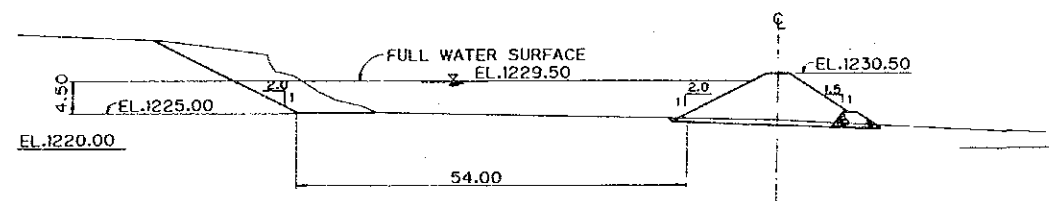
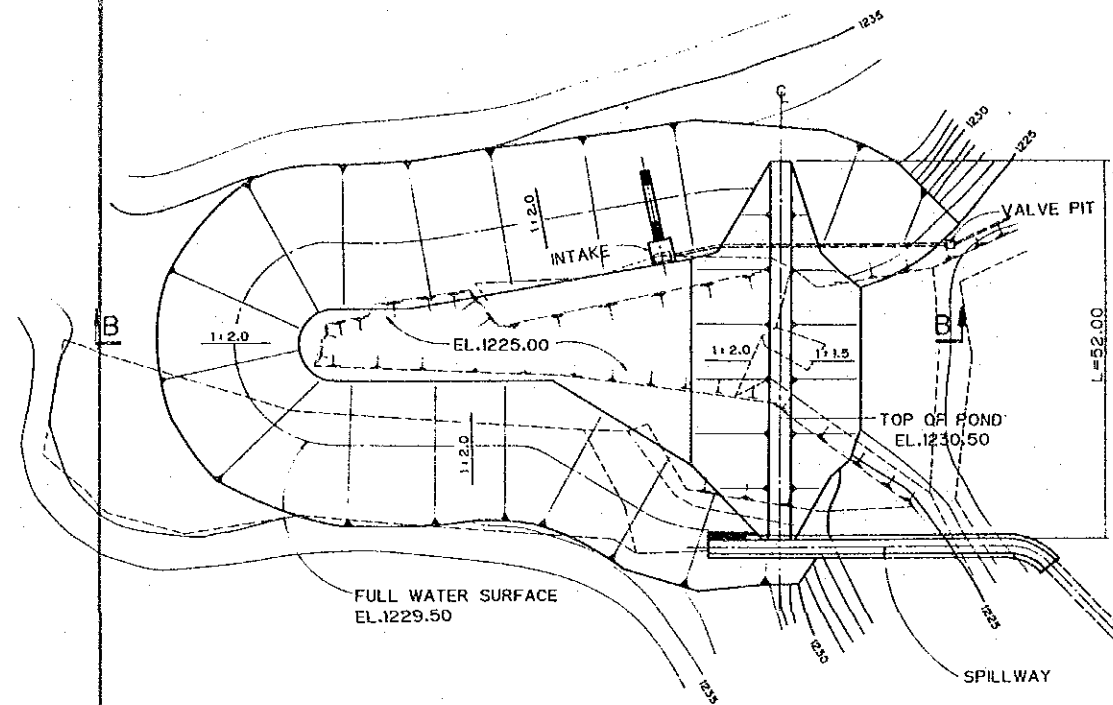
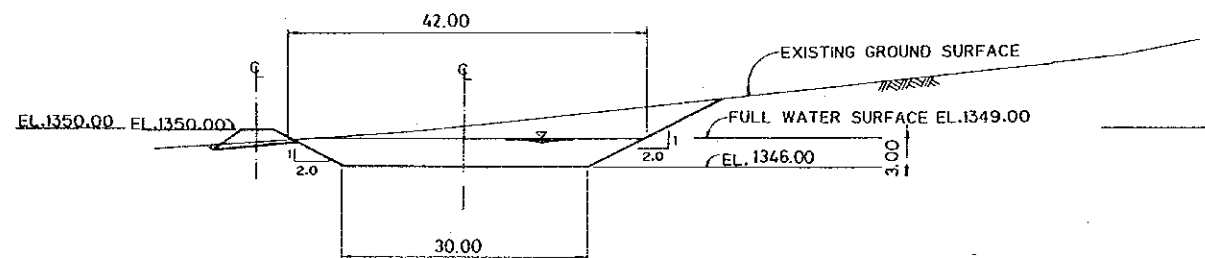
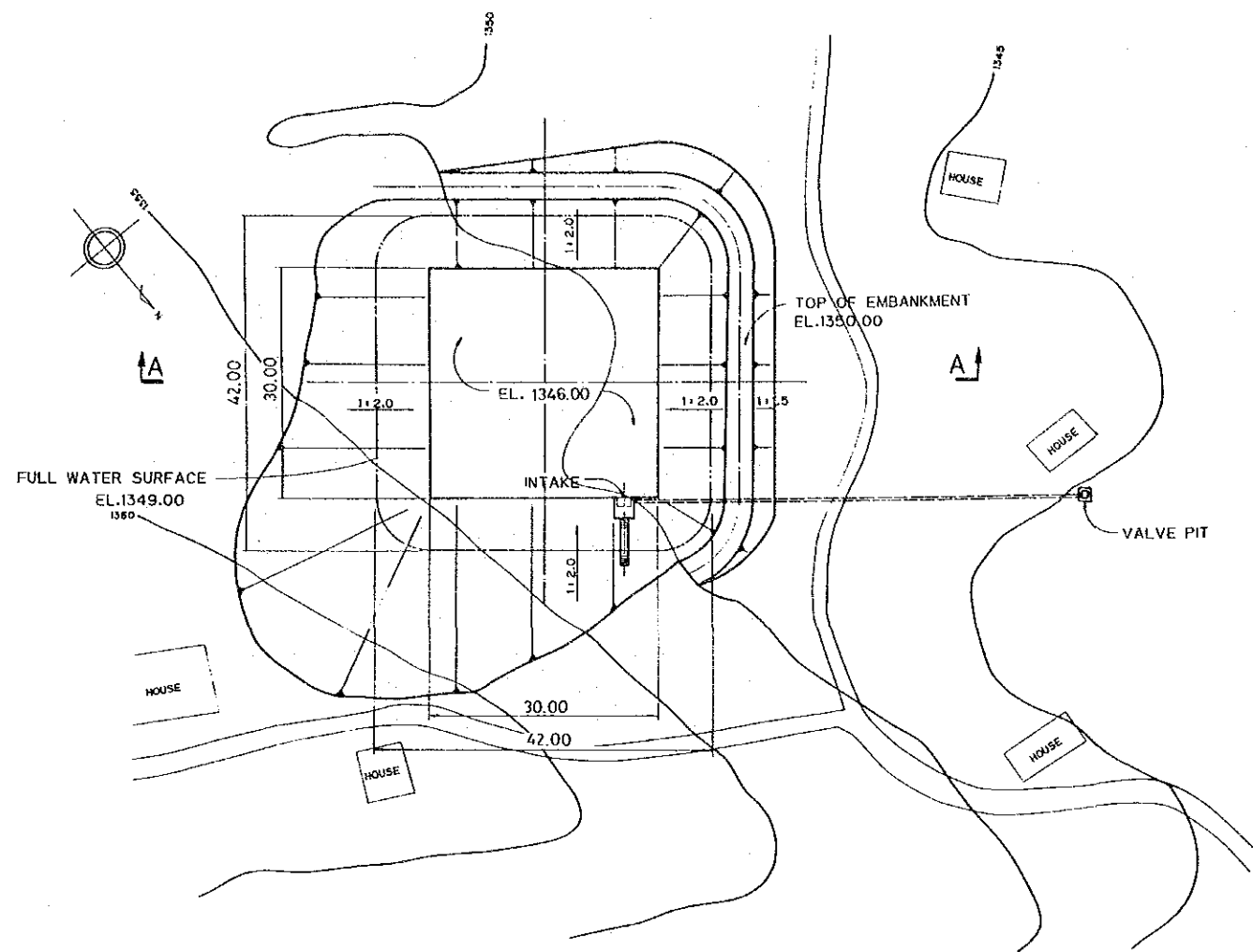
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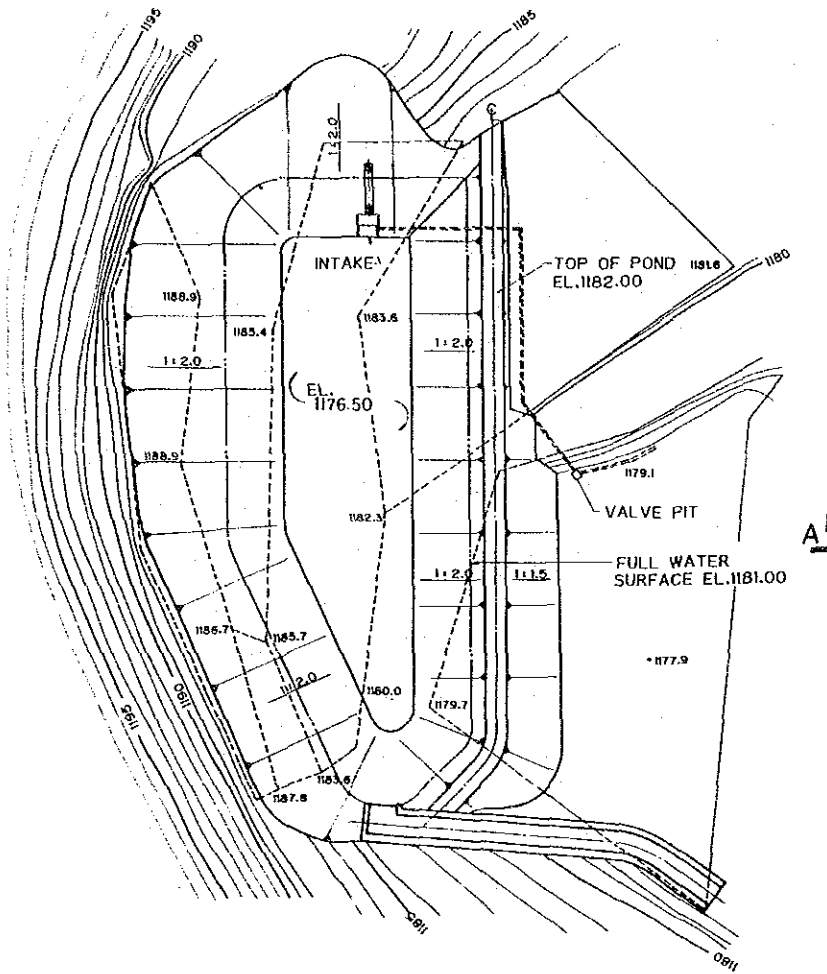
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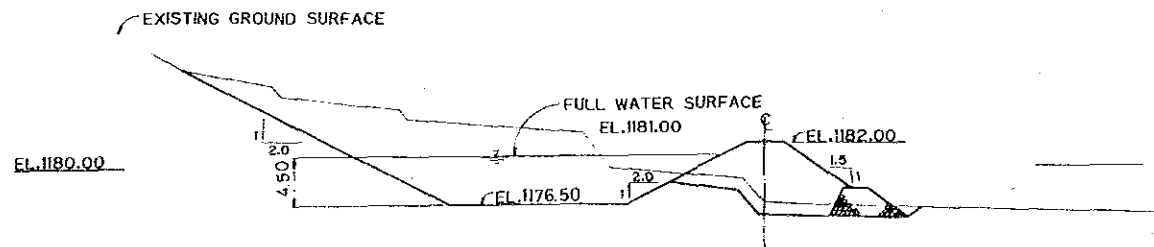
REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
PLAN AND STANDARD SECTION OF POND (ZONE I) (1)		
DATE	D.W.G. NO.	1
JAPAN INTERNATIONAL COOPERATION AGENCY		



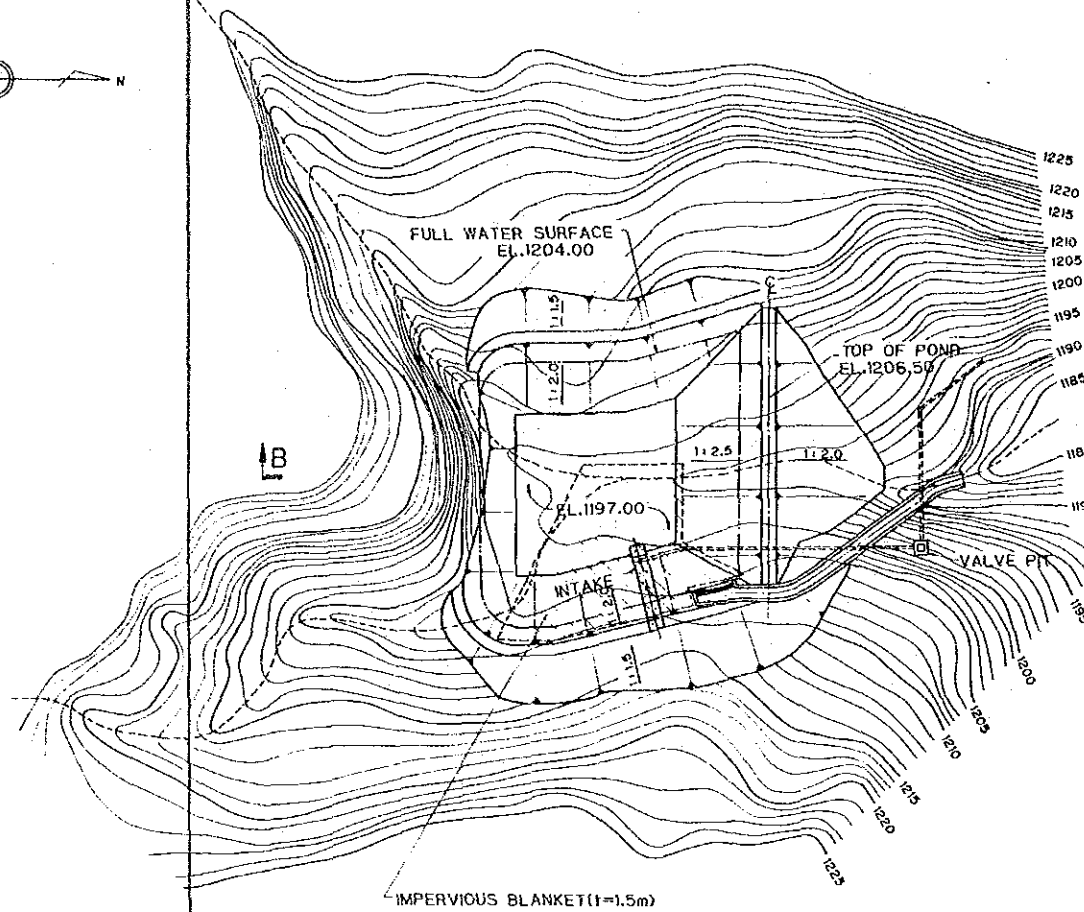
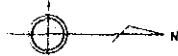
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THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
PLAN AND STANDARD SECTION OF POND (ZONE II) (2)		
DATE	D.W.G. NO.	2
JAPAN INTERNATIONAL COOPERATION AGENCY		



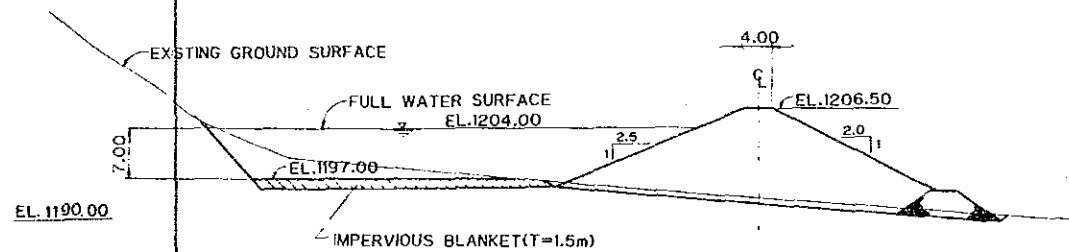
PLAN OF POND(BAHONG No.3)
SCALE 1: 500



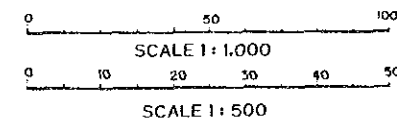
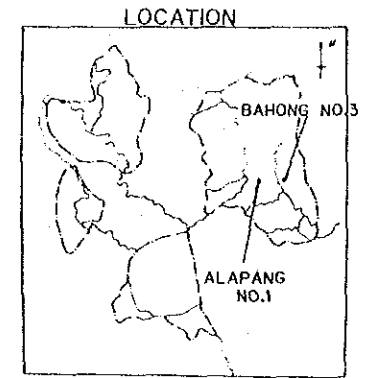
SECTION A-A
SCALE 1: 300



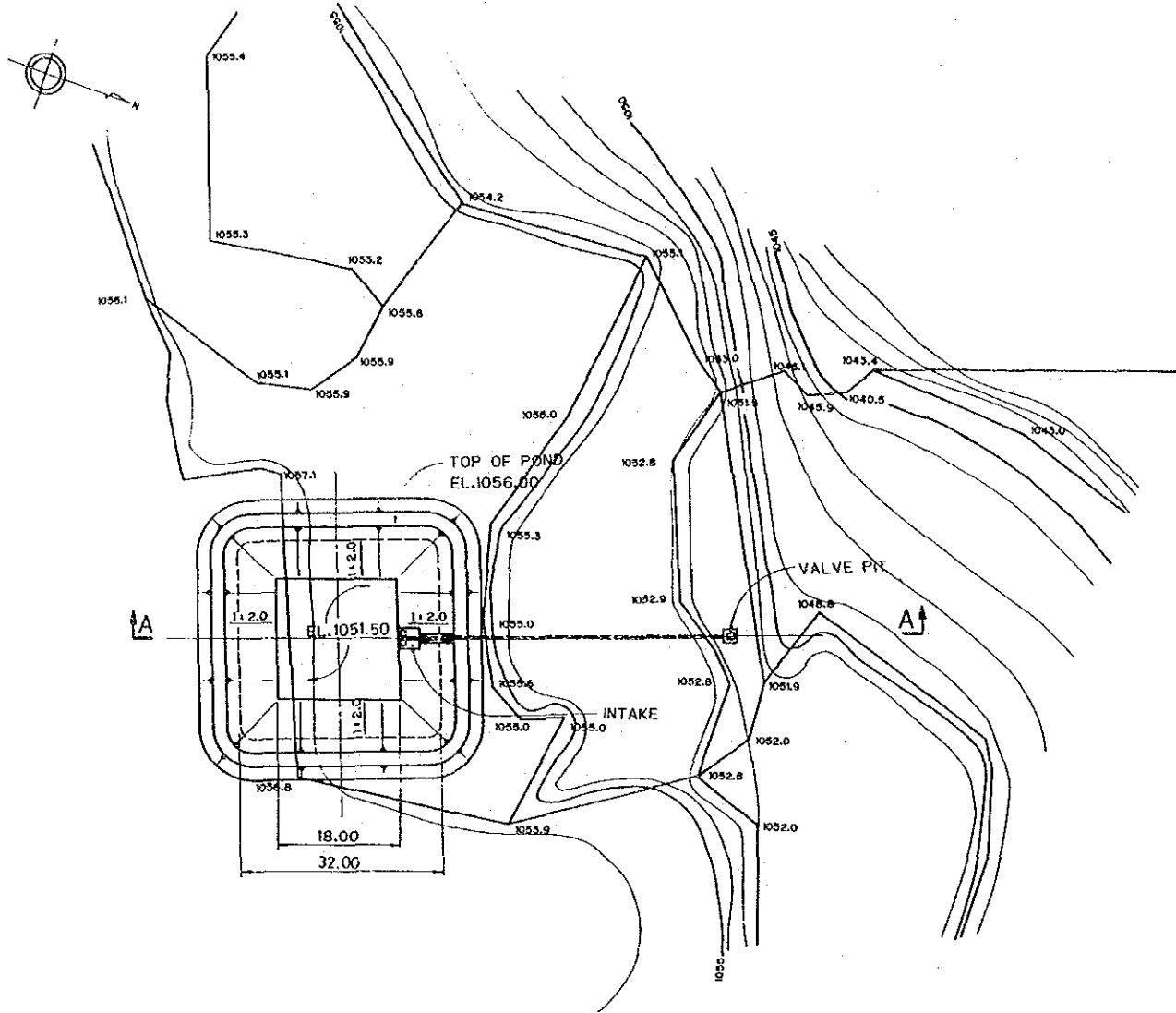
PLAN OF POND(ALAPANG No.1)
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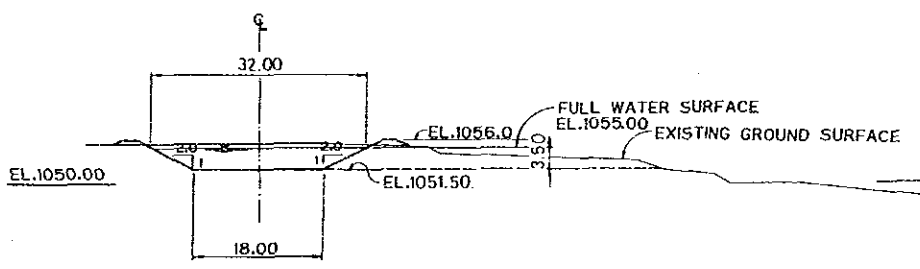
SECTION B-B
SCALE 1: 500



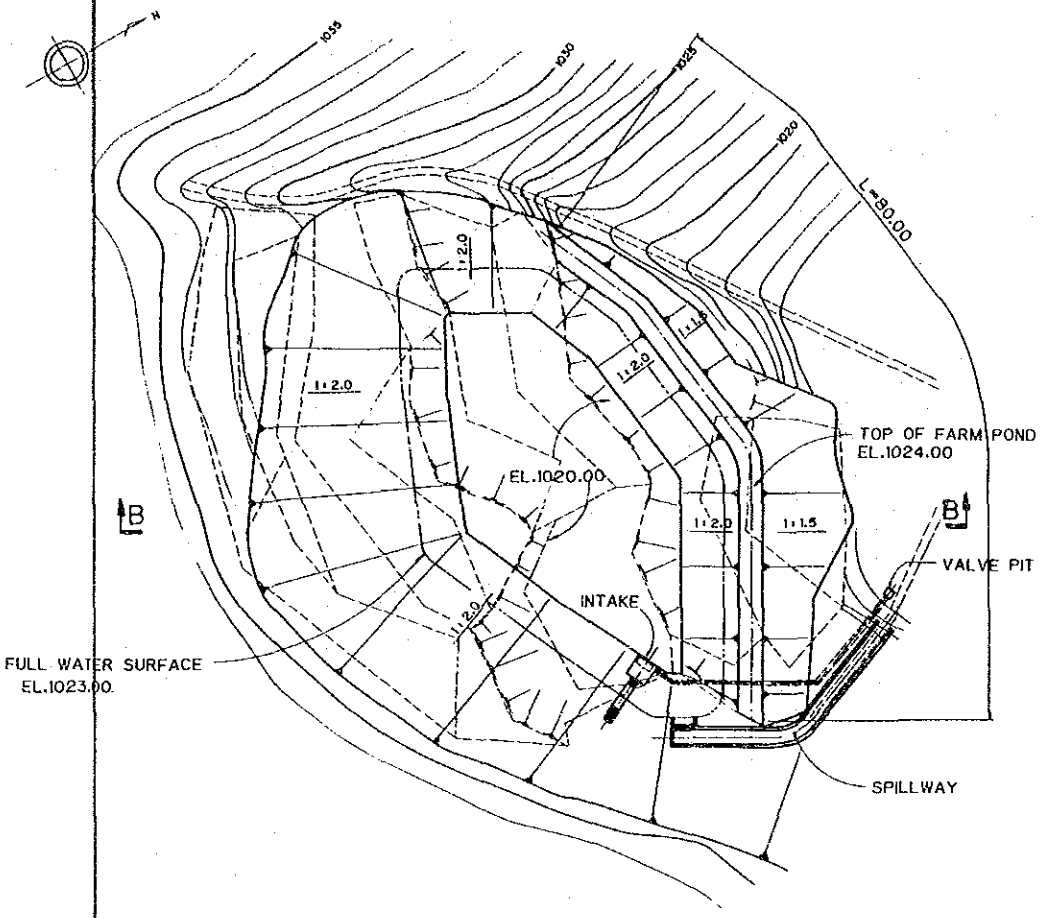
REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
PLAN AND STANDARD SECTION OF POND (ZONE I) (3)		
DATE	D.W.G.NO.	3
JAPAN INTERNATIONAL COOPERATION AGENCY		



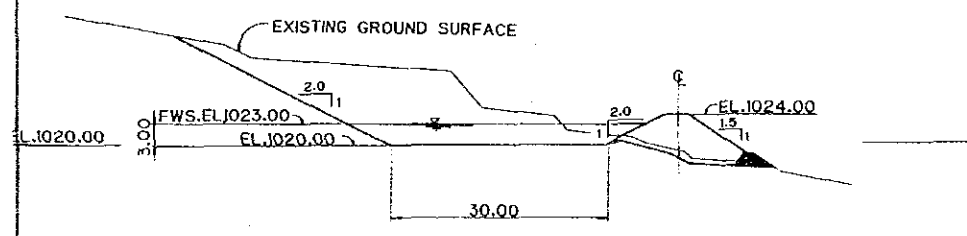
PLAN OF POND (ALAPANG No. 2)
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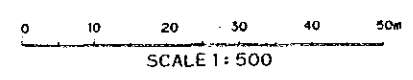
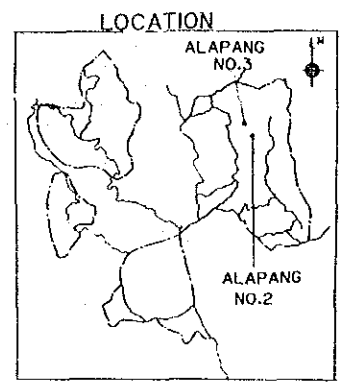
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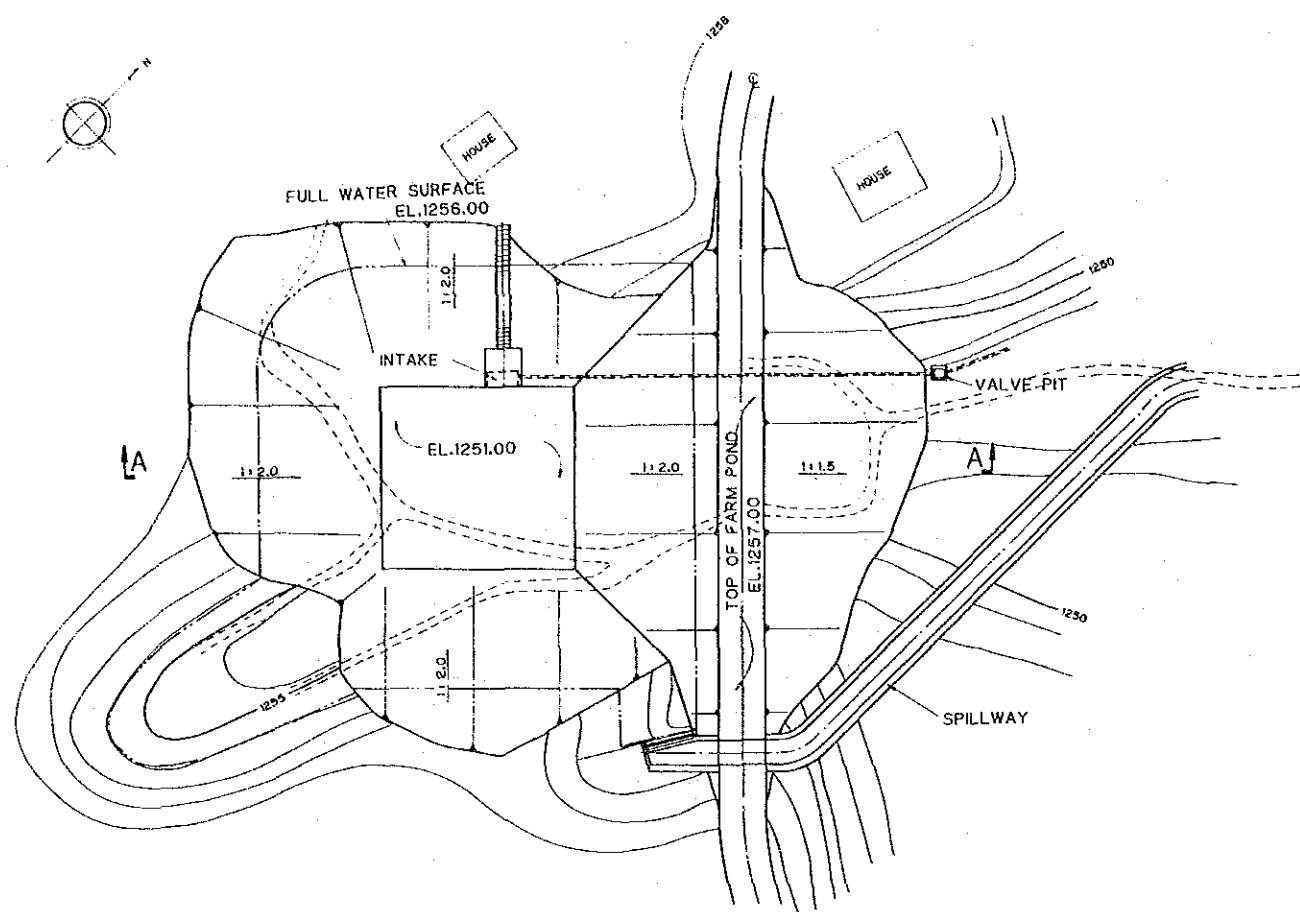
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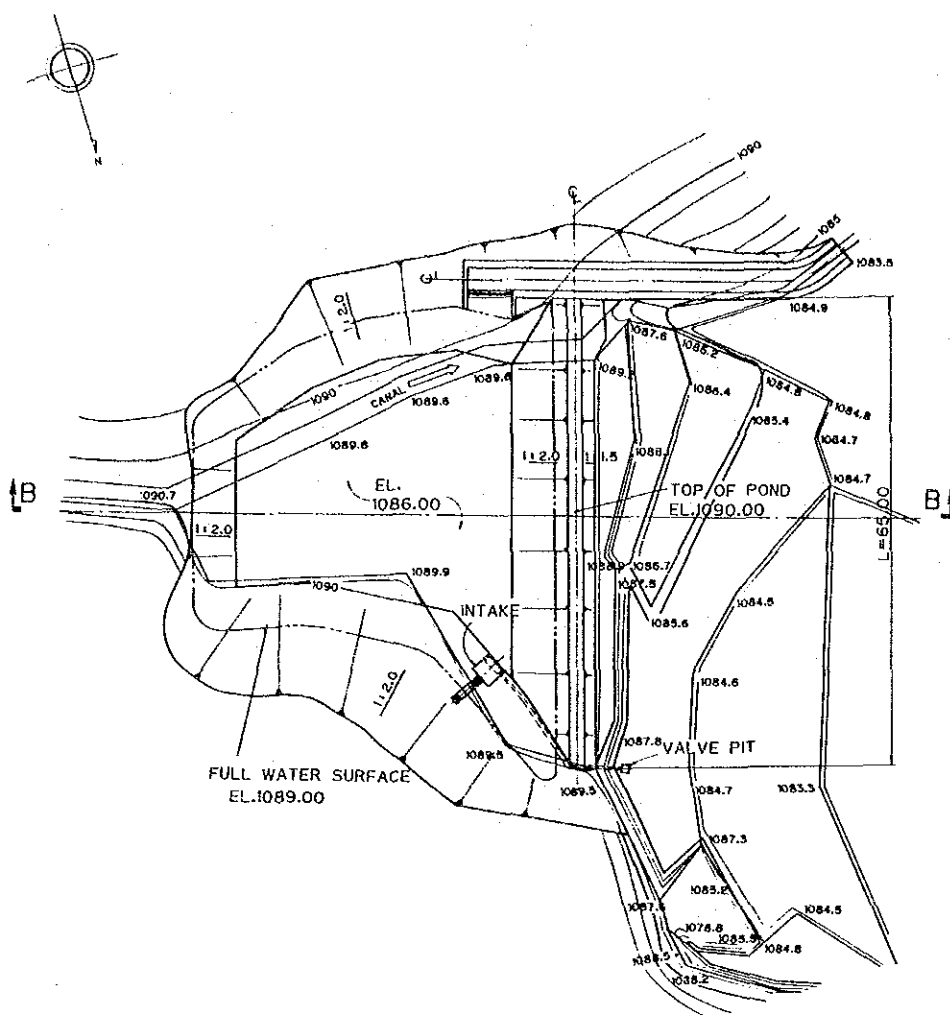
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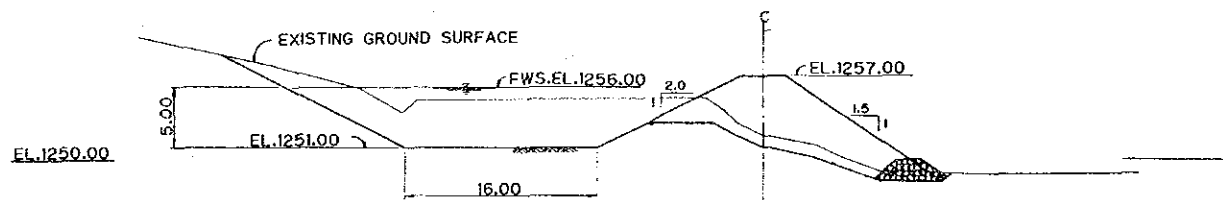
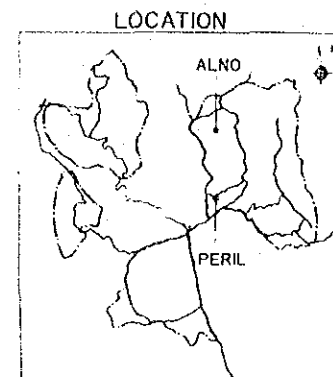
REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET			
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD			
PLAN AND STANDARD SECTION OF POND (ZONE II) (4)			
DATE		D.W.G. NO.	4
JAPAN INTERNATIONAL COOPERATION AGENCY			



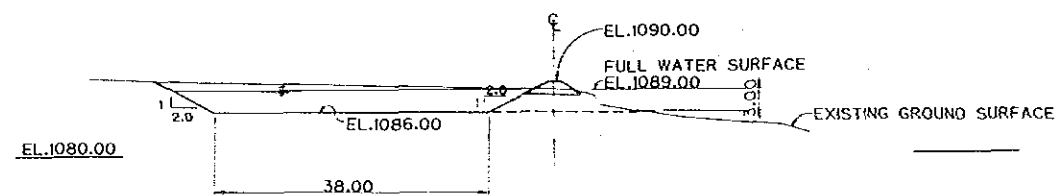
PLAN OF POND(PERIL)
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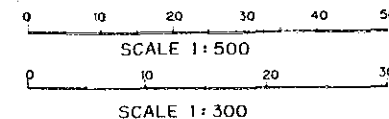
PLAN OF POND(ALNO)
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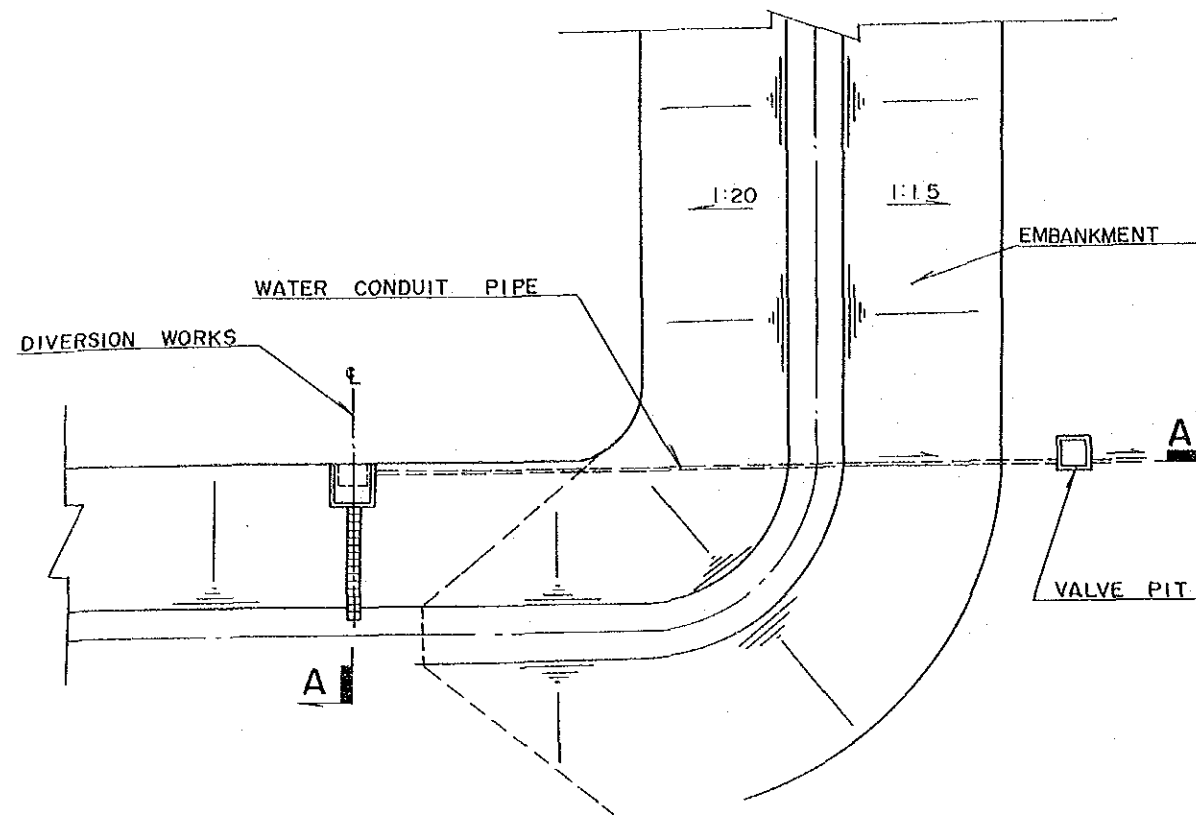
SECTION A-A
SCALE 1:300



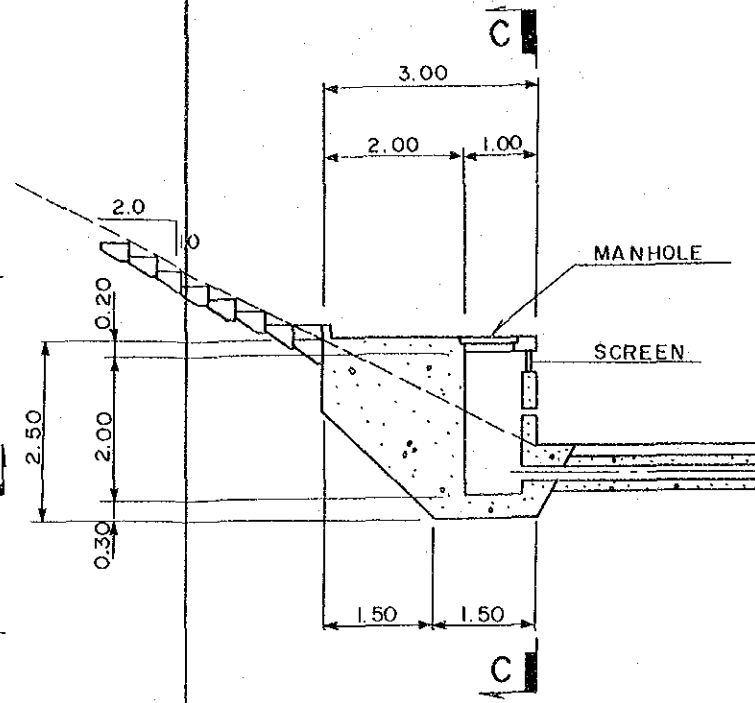
SECTION B-B
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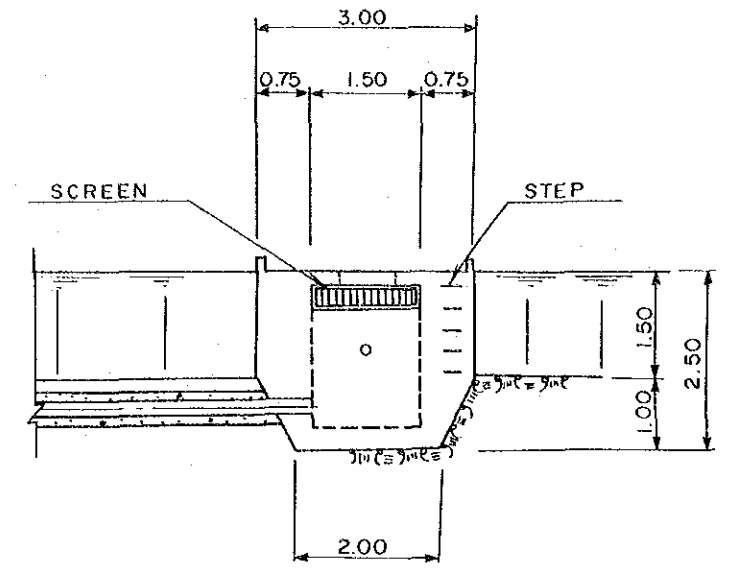
REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET			
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD			
PLAN AND STANDARD SECTION OF POND (ZONE II) (5)			
DATE	D.W.G.NO.	5	
JAPAN INTERNATIONAL COOPERATION AGENCY			



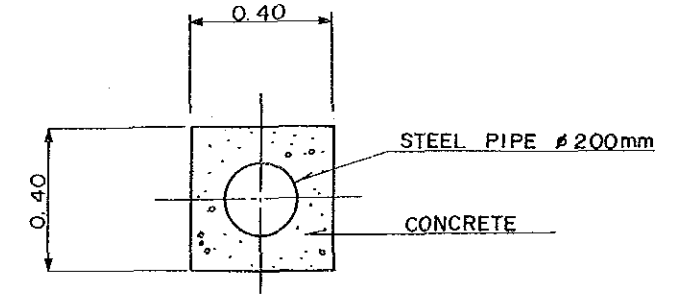
PLANE OF INTAKE FACILITIES



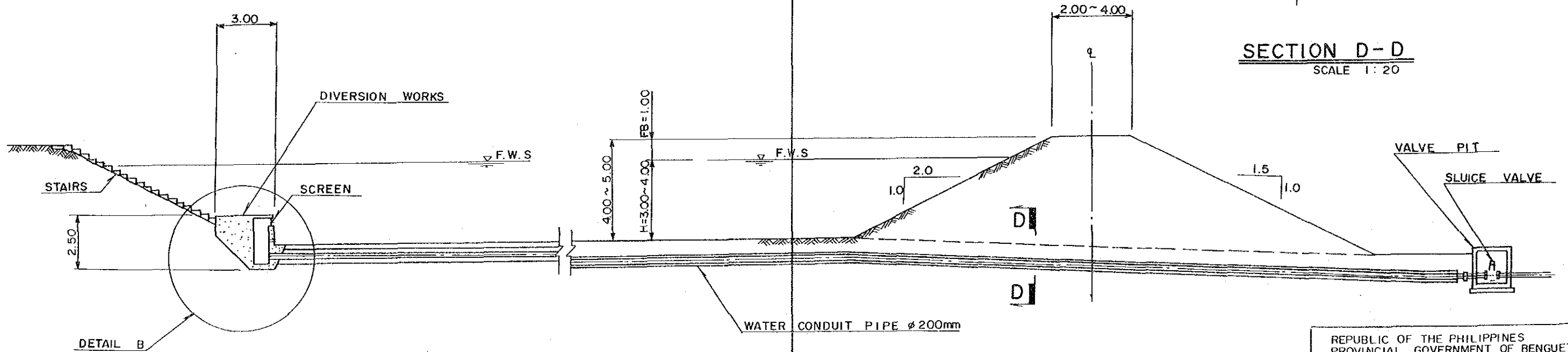
DETAIL B
SCALE 1:100



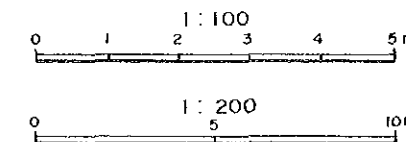
SECTION C-C
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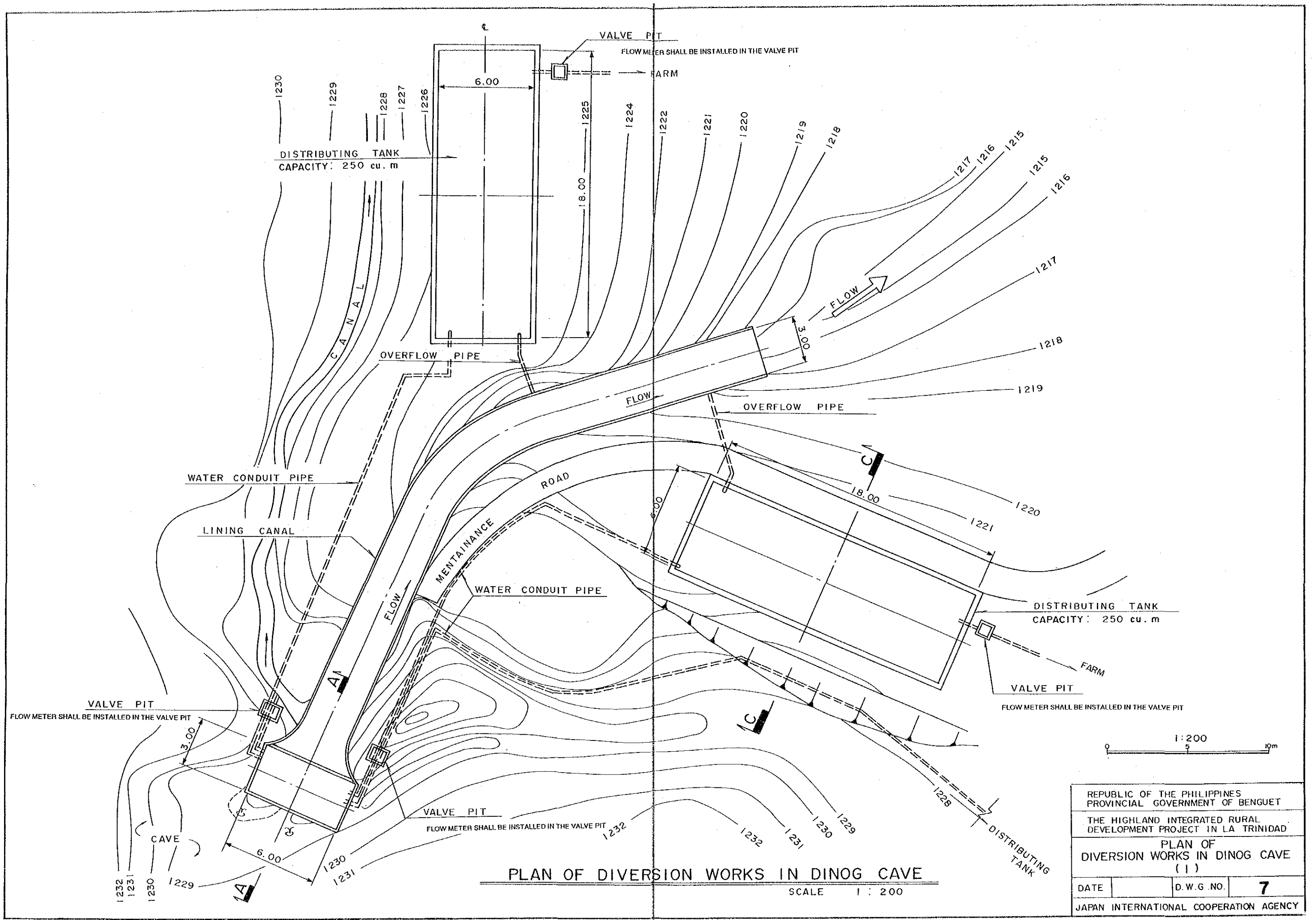
SECTION D-D
SCALE 1:20



SECTION A-A
SCALE 1:200

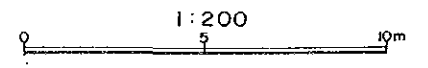


REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
INTAKE FACILITIES OF PONDS		
DATE	D.W.G. NO.	6
JAPAN INTERNATIONAL COOPERATION AGENCY		

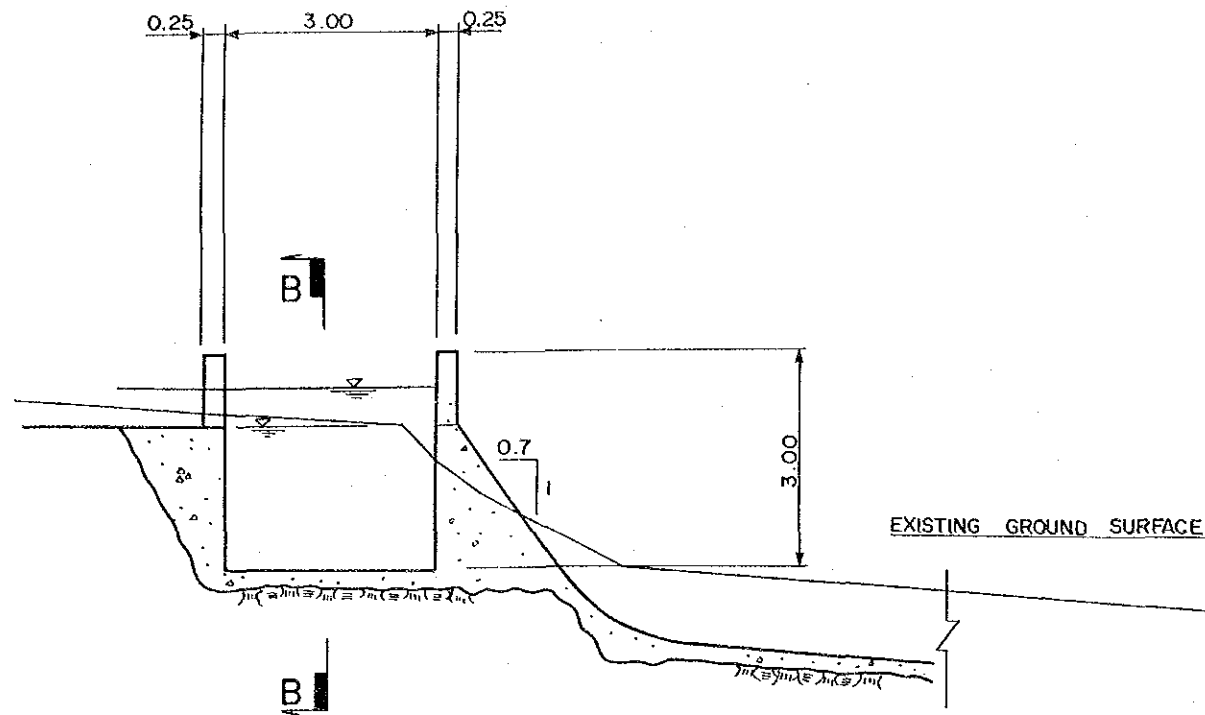


PLAN OF DIVERSION WORKS IN DINOG CAVE

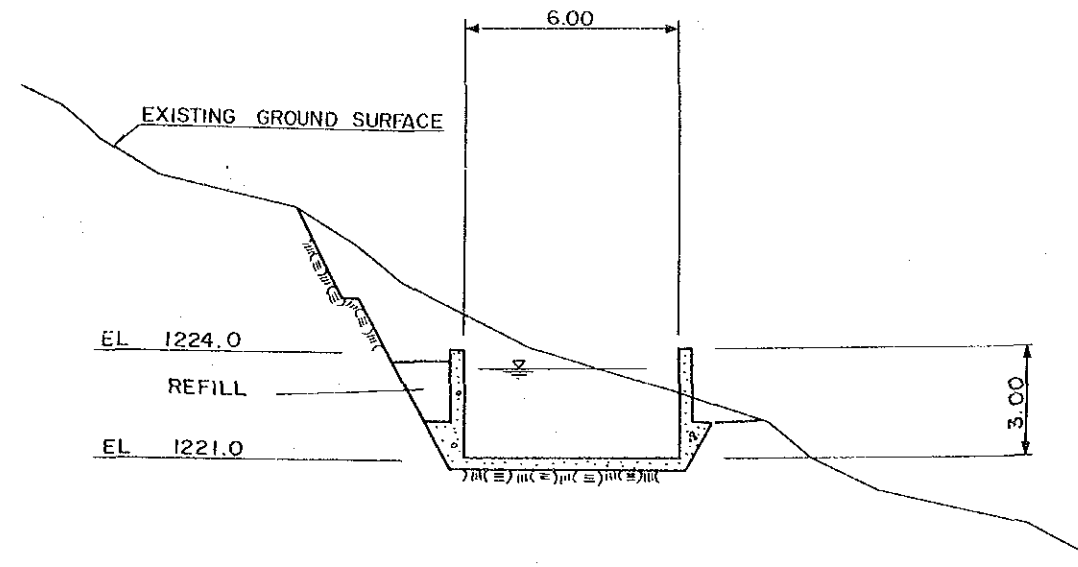
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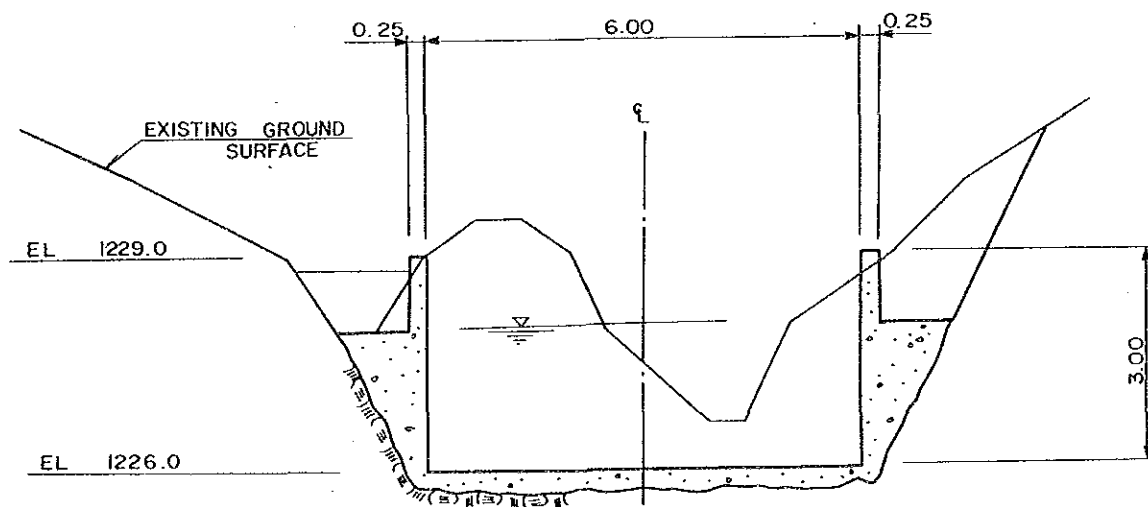
REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
PLAN OF DIVERSION WORKS IN DINOG CAVE (I)		
DATE	D.W.G. NO.	7
JAPAN INTERNATIONAL COOPERATION AGENCY		



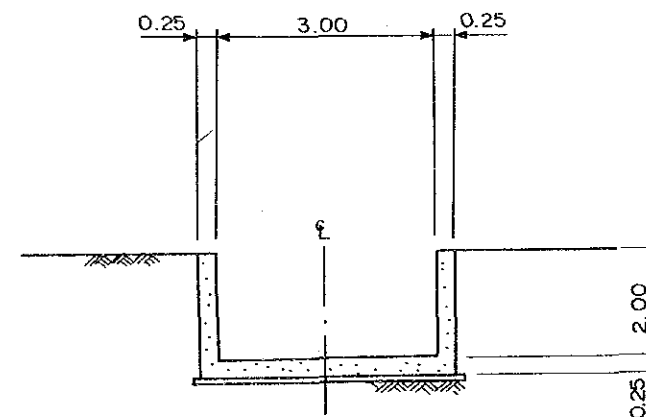
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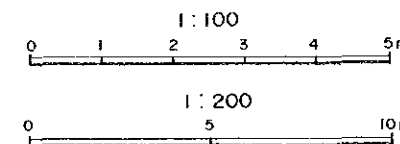
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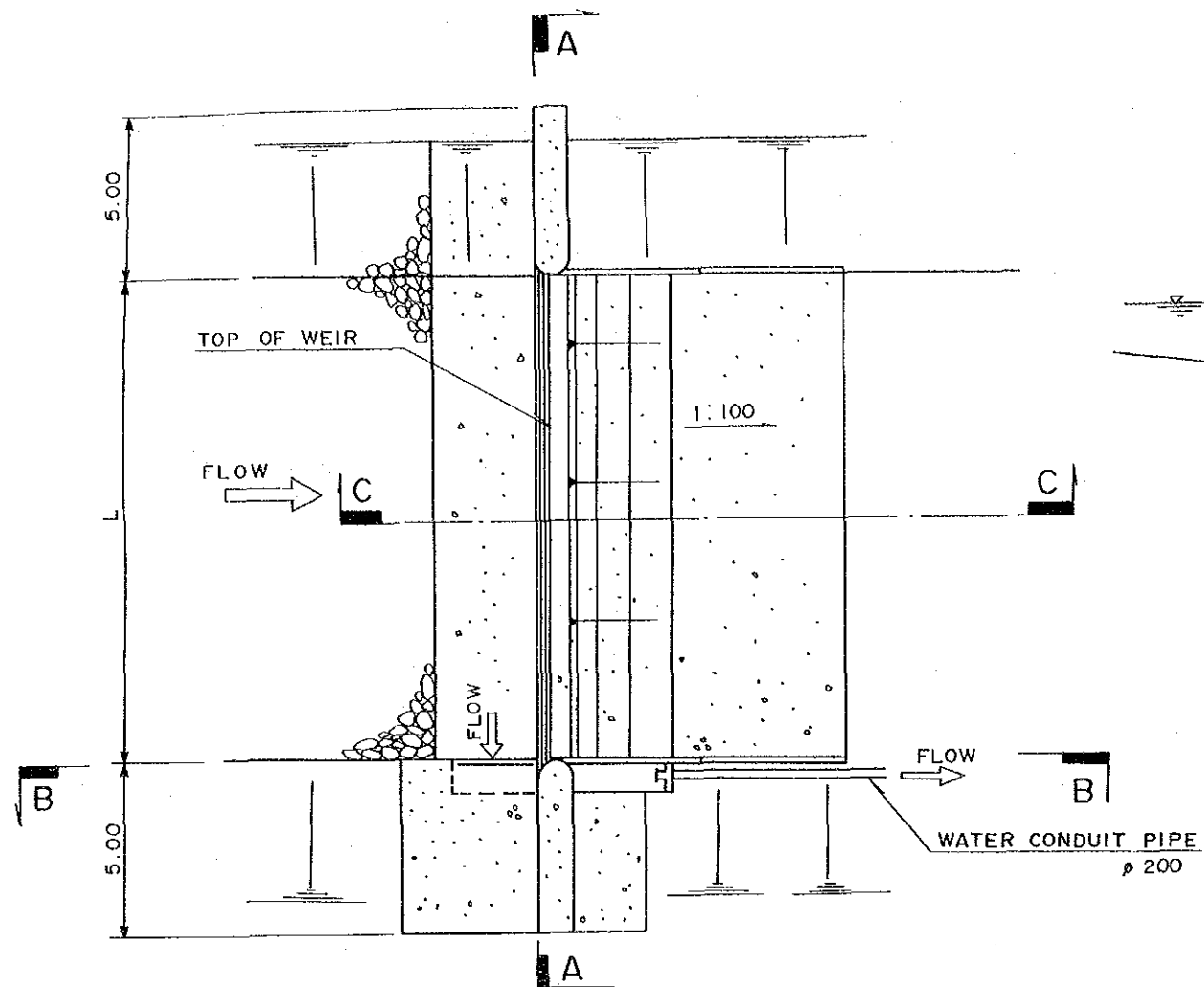
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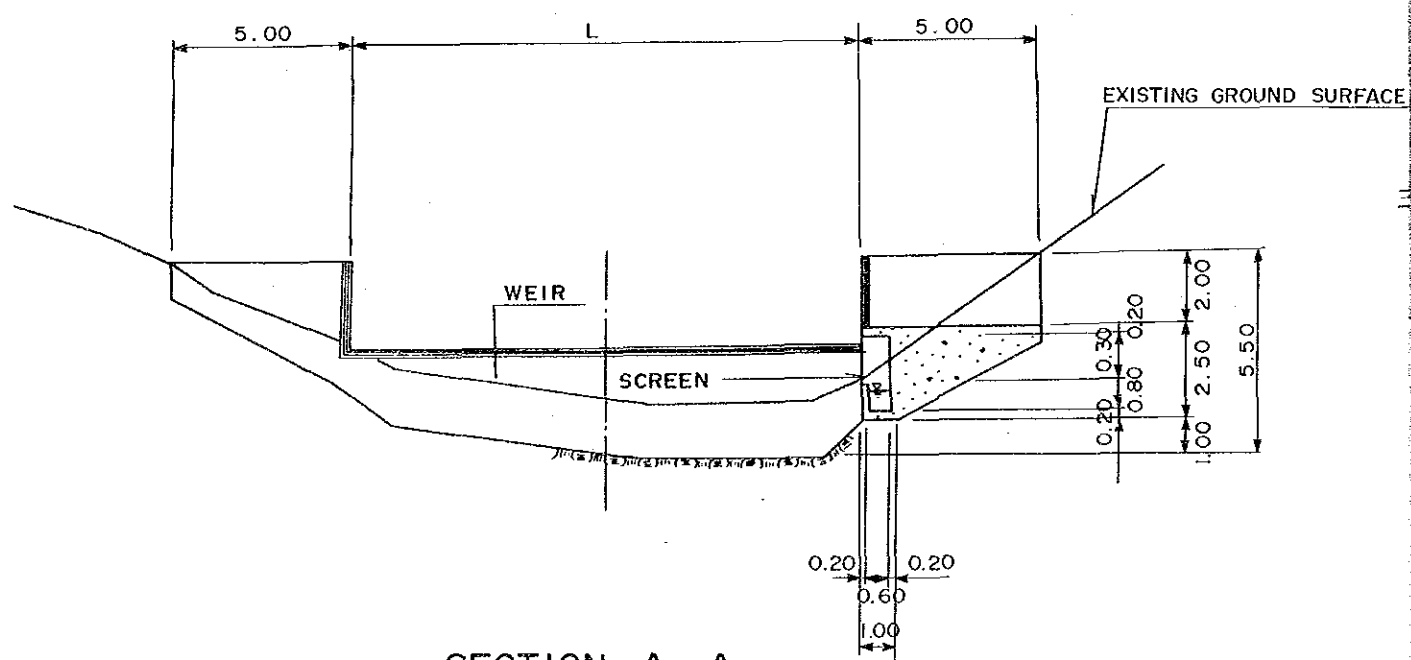
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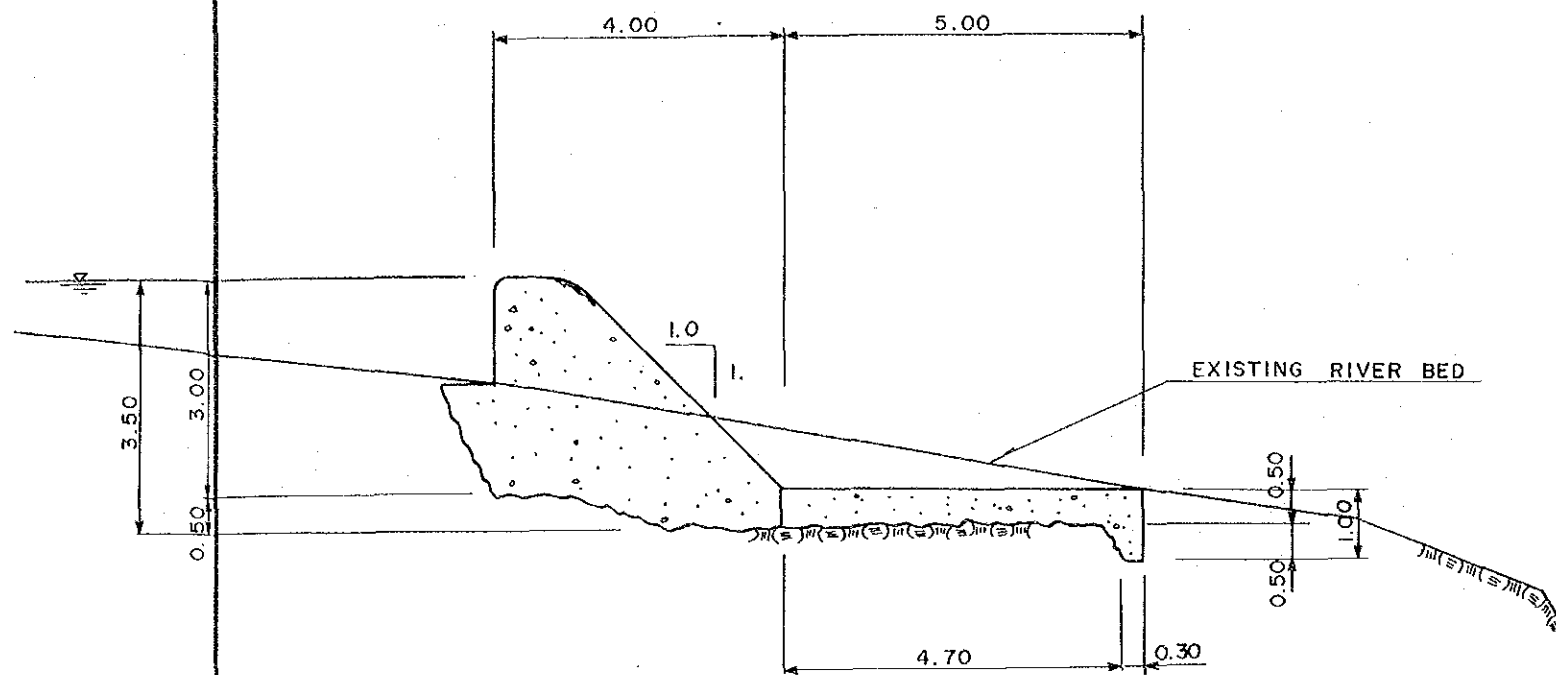
REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET			
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD			
PLAN OF DIVERSION WORKS IN DINOG CAVE (2)			
DATE	D.W.G. NO.	8	
JAPAN INTERNATIONAL COOPERATION AGENCY			



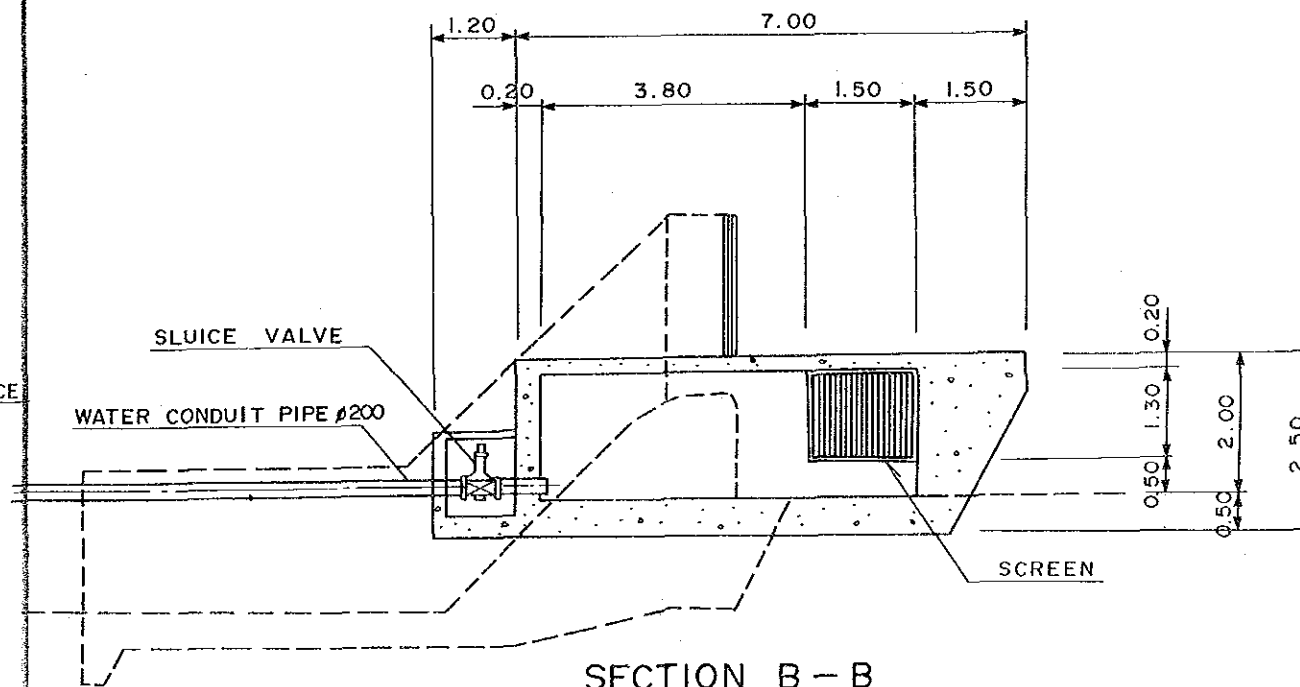
PLAN OF DIVERSION WEIR
SCALE 1 : 200



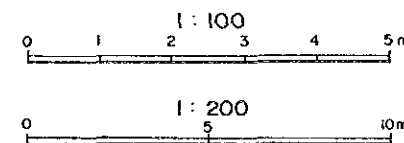
SECTION A-A
SCALE 1 : 200



SECTION C-C
SCALE 1 : 100



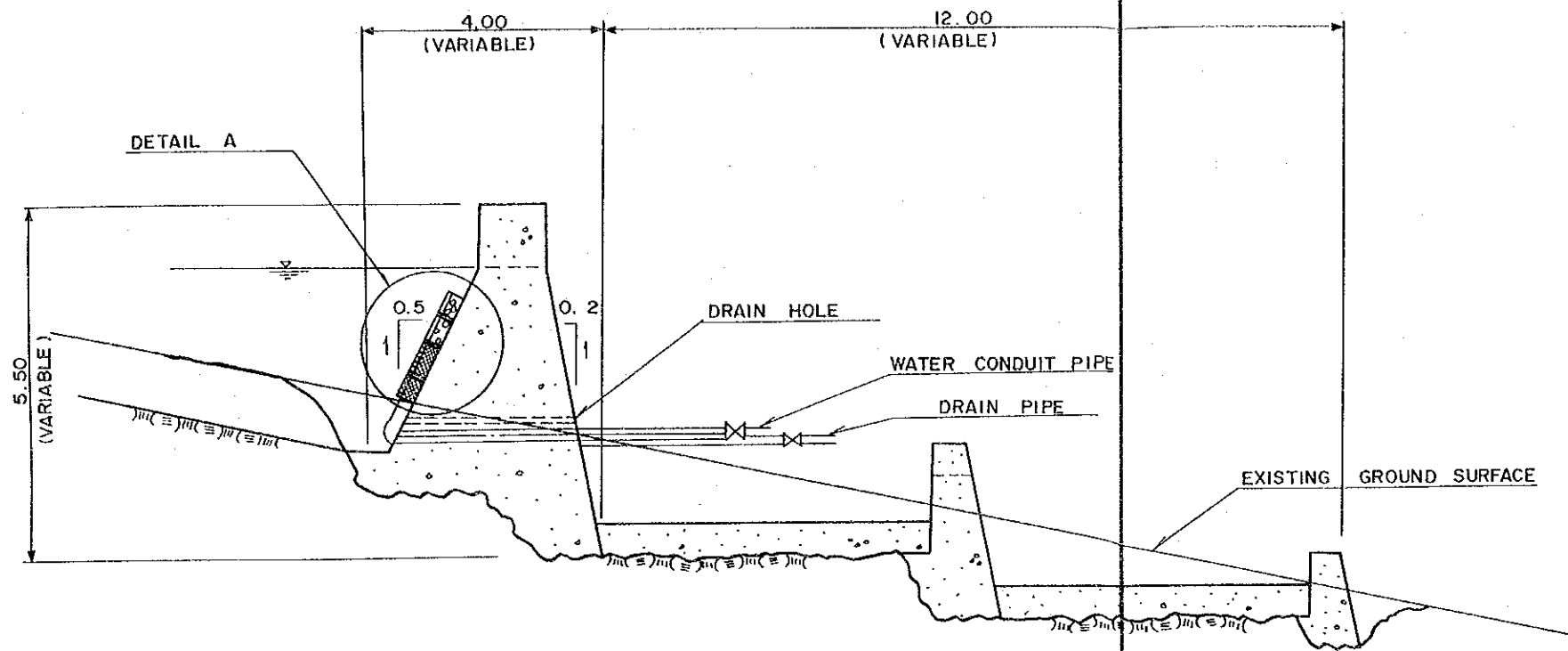
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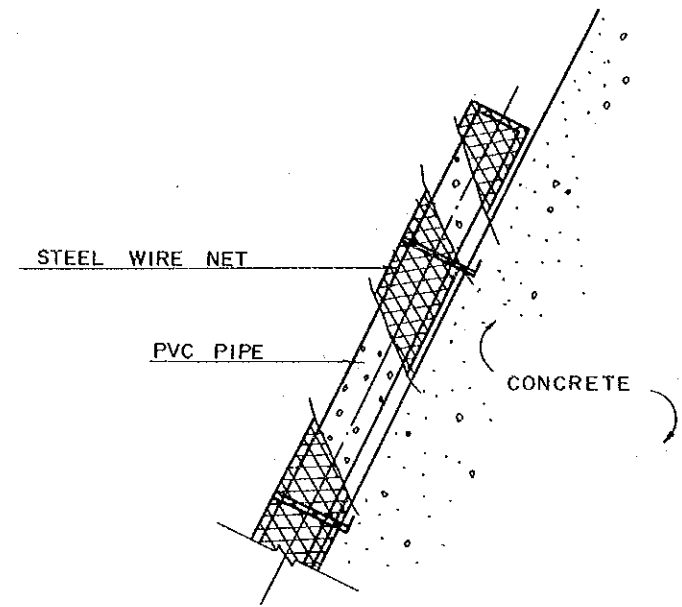
REPUBLIC OF THE PHILIPPINES
PROVINCIAL GOVERNMENT OF BENGUET
THE HIGHLAND INTEGRATED RURAL
DEVELOPMENT PROJECT IN LA TRINIDAD

**PLAN OF
DIVERSION WORKS (I)**

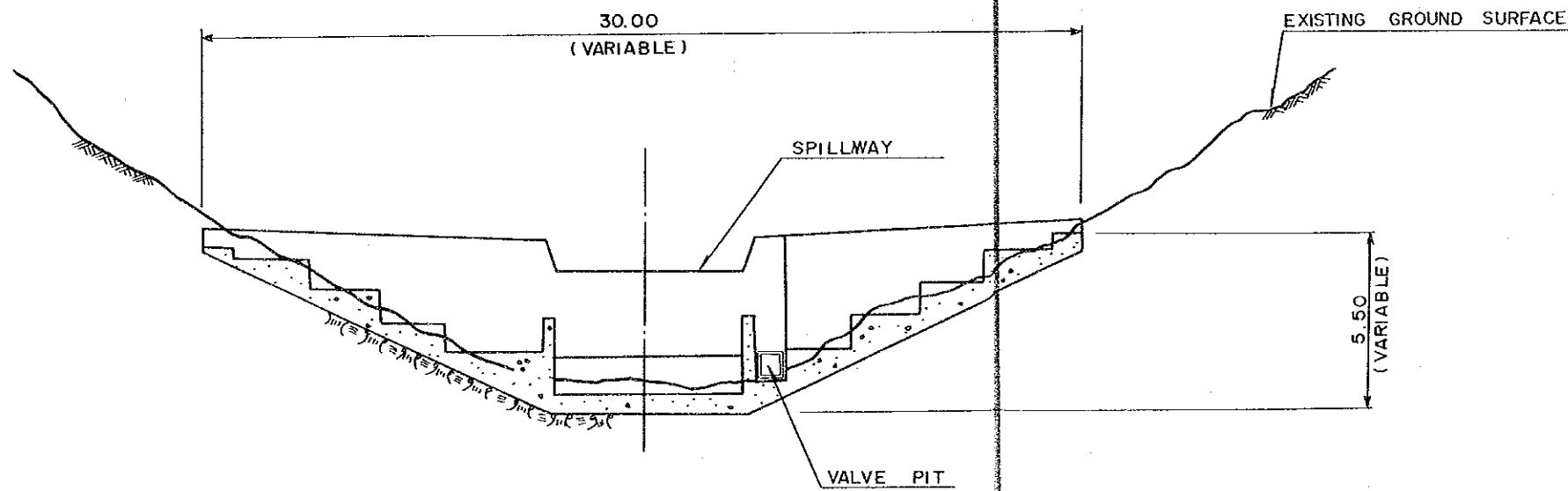
DATE	D.W.G. NO.	9
JAPAN INTERNATIONAL COOPERATION AGENCY		



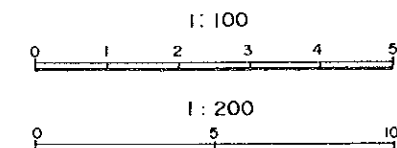
PLAN OF DIVERSION WORKS
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DETAIL A

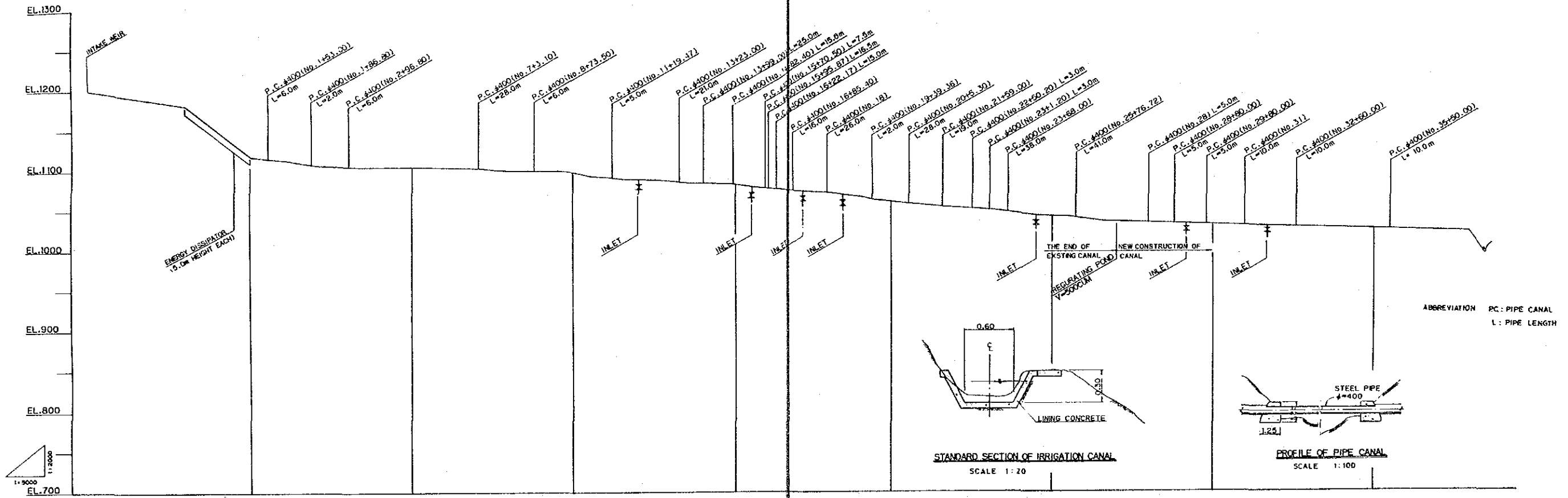


LONGITUDINAL SECTION OF DIVERSION
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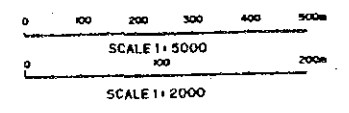


REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
PLAN OF DIVERSION WORKS (2)		
DATE	D.W.G. NO.	10
JAPAN INTERNATIONAL COOPERATION AGENCY		

PLAN OF IRRIGATION CANAL REMODELLING



CANAL BED ELEVATION	GROUND ELEVATION	REDUCED DISTANCE	DISTANCE	STATION
1118.17	1196.00	0	0	STA. 0
1115.72	1196.00	50	50	1
1113.80	1196.00	100	100	2
1111.00	1196.00	150	150	3
1106.86	1196.00	200	200	4
1106.32	1196.00	250	250	5
1105.56	1196.00	300	300	6
1105.18	1196.00	350	350	7
1105.10	1196.00	400	400	8
1104.92	1196.00	450	450	9
1104.70	1196.00	500	500	10
1104.28	1196.00	550	550	11
1104.06	1196.00	600	600	12
1103.56	1196.00	650	650	13
1102.45	1196.00	700	700	14
1100.44	1196.00	750	750	15
1099.77	1196.00	800	800	16
1099.36	1196.00	850	850	17
1098.66	1196.00	900	900	18
1098.79	1196.00	950	950	19
1096.94	1196.00	1000	1000	20
1092.33	1196.00	1050	1050	21
1090.67	1196.00	1100	1100	22
1089.00	1196.00	1150	1150	23
1088.24	1196.00	1200	1200	24
1087.50	1196.00	1250	1250	25
1085.82	1196.00	1300	1300	26
1083.85	1196.00	1350	1350	27
1083.50	1196.00	1400	1400	28
1083.64	1196.00	1450	1450	29
1082.62	1196.00	1500	1500	30
1078.96	1196.00	1550	1550	31
1077.52	1196.00	1600	1600	32
1074.70	1196.00	1650	1650	33
1072.00	1196.00	1700	1700	34
1069.36	1196.00	1750	1750	35
1067.25	1196.00	1800	1800	36
1064.92	1196.00	1850	1850	37
1062.73	1196.00	1900	1900	38
1061.68	1196.00	1950	1950	39
1058.72	1196.00	2000	2000	40
1057.48	1196.00	2050	2050	41
1055.30	1196.00	2100	2100	42
1053.06	1196.00	2150	2150	43
1052.26	1196.00	2200	2200	44
1050.51	1196.00	2250	2250	45
1048.20	1196.00	2300	2300	46
1044.97	1196.00	2350	2350	47
1043.03	1196.00	2400	2400	48
1042.76	1196.00	2450	2450	49
1042.36	1196.00	2500	2500	50
1039.34	1196.00	2550	2550	51
1035.82	1196.00	2600	2600	52
1034.65	1196.00	2650	2650	53
1034.00	1196.00	2700	2700	54
1033.50	1196.00	2750	2750	55
1033.00	1196.00	2800	2800	56
1032.50	1196.00	2850	2850	57
1032.00	1196.00	2900	2900	58
1031.50	1196.00	2950	2950	59
1031.00	1196.00	3000	3000	60
1030.50	1196.00	3050	3050	61
1030.00	1196.00	3100	3100	62
1029.50	1196.00	3150	3150	63
1029.00	1196.00	3200	3200	64
1028.50	1196.00	3250	3250	65
1028.00	1196.00	3300	3300	66
1027.50	1196.00	3350	3350	67
1027.00	1196.00	3400	3400	68
1026.50	1196.00	3450	3450	69
1026.00	1196.00	3500	3500	70
1025.50	1196.00	3550	3550	71
1025.00	1196.00	3600	3600	72
1024.50	1196.00	3650	3650	73
1024.00	1196.00	3700	3700	74
1023.50	1196.00	3750	3750	75
1023.00	1196.00	3800	3800	76



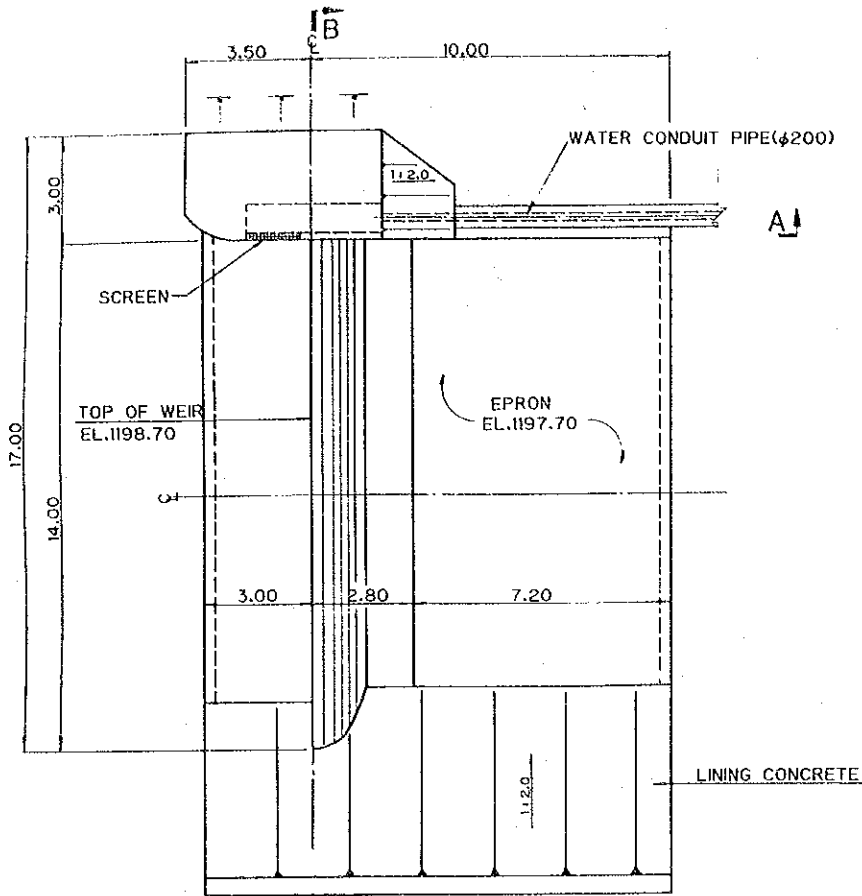
REPUBLIC OF THE PHILIPPINES
PROVINCIAL GOVERNMENT OF BENGUET

THE HIGHLAND INTEGRATED RURAL
DEVELOPMENT PROJECT IN LA TRINIDAD

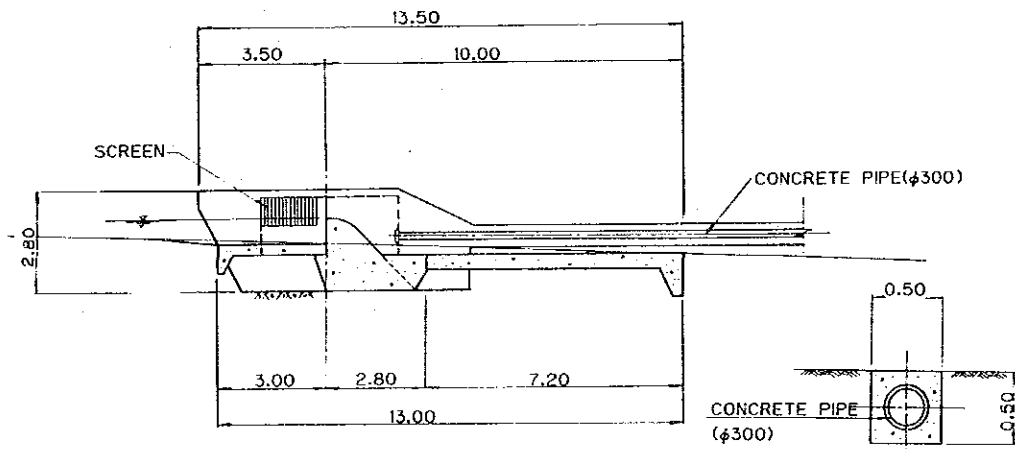
PLAN OF IRRIGATION CANAL
REMODELLING
(BINENIRRIGATION SYSTEM)

DATE: _____ D.W.G. NO. **11**

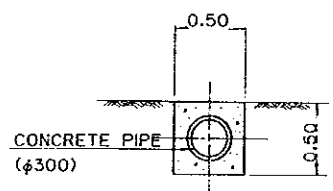
JAPAN INTERNATIONAL COOPERATION AGENCY



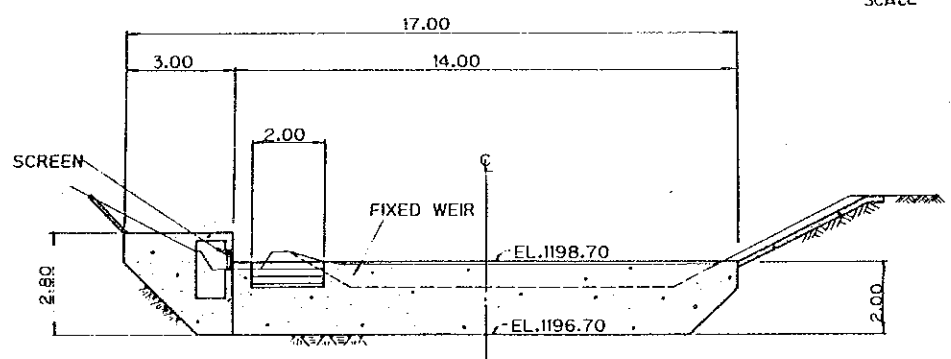
PLAN OF INTAKE WEIR
SCALE 1:100



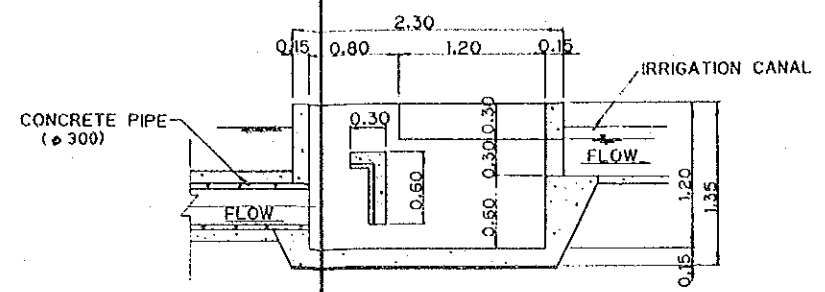
SECTION A-A
SCALE 1:100



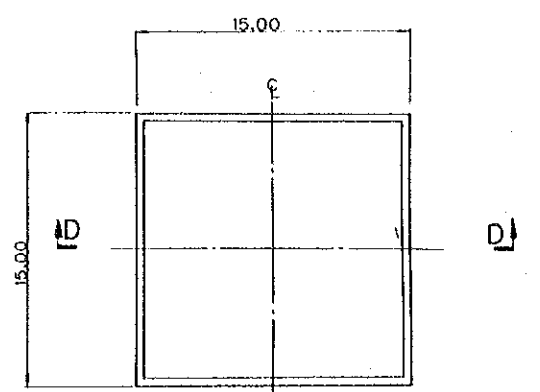
SECTION
SCALE



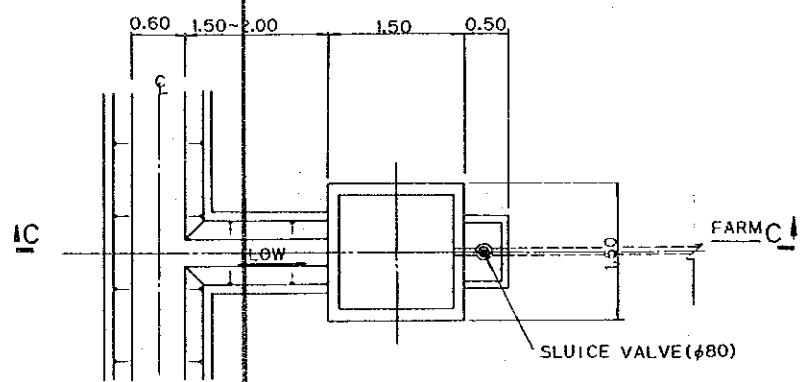
SECTION B-B
SCALE 1:100



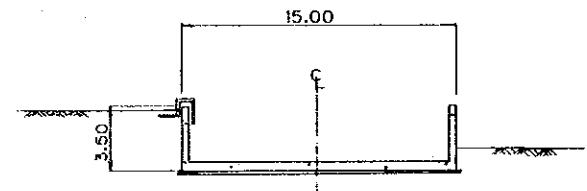
PLAN OF ENERGY DISSIPATOR
SCALE 1:30



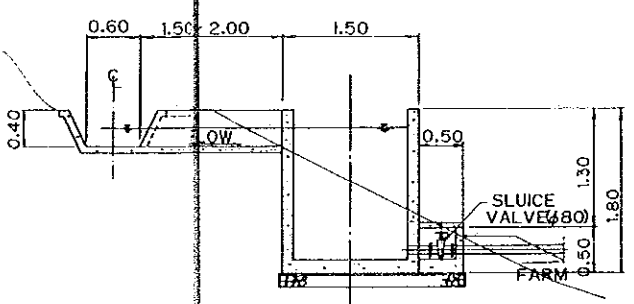
PLAN OF REGULATING POND
SCALE 1:100



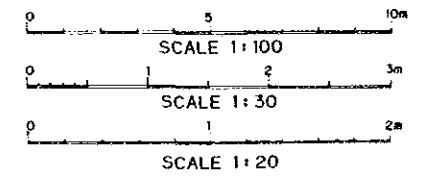
PLAN OF INLET WORKS
SCALE 1:20



SECTION D-D
SCALE 1:100

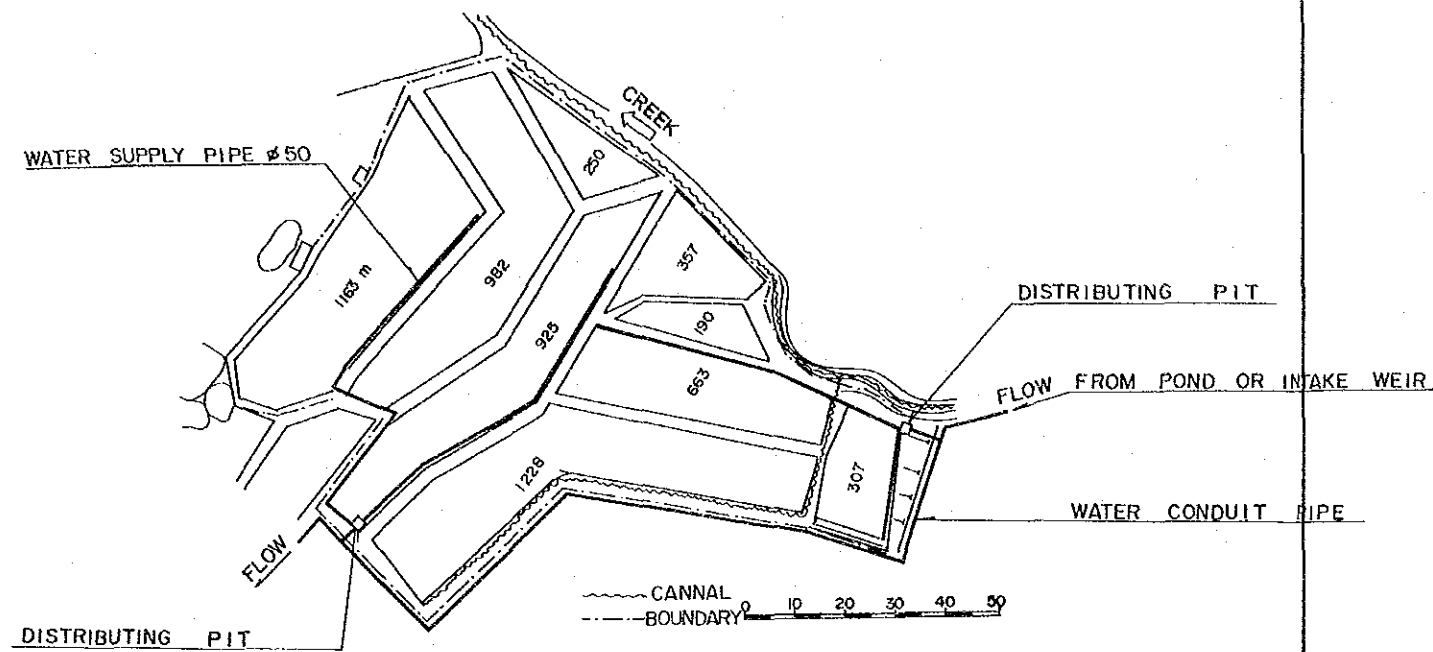


SECTION C-C
SCALE 1:20

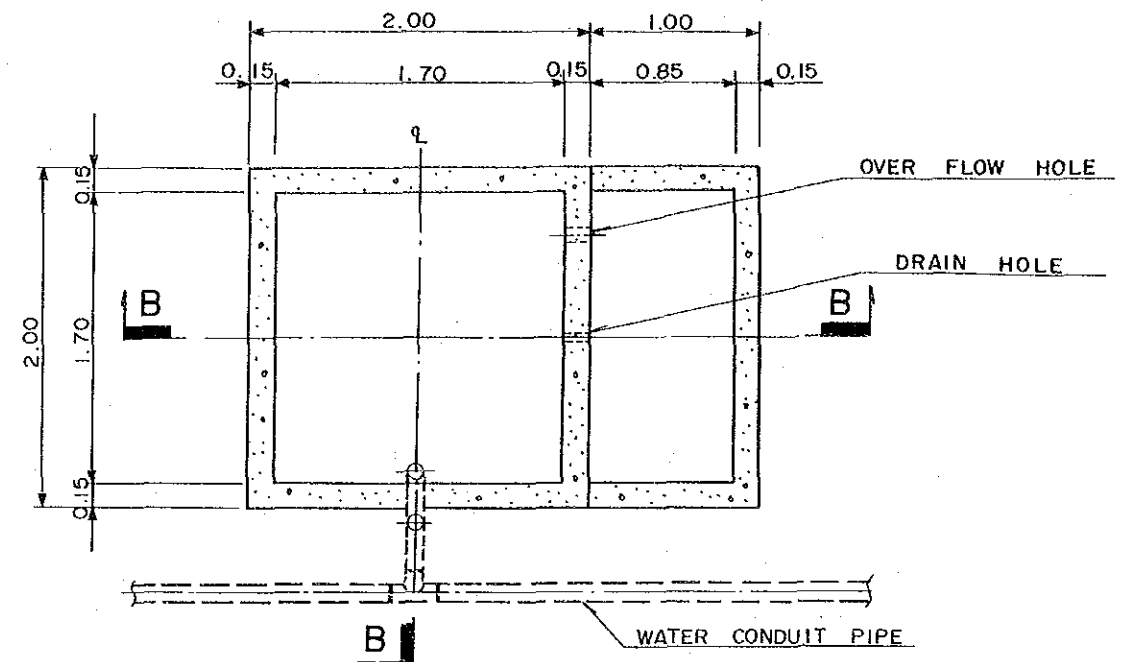


- NOTE: 1. INTAKE WEIR IS CONSTRUCTED IN WANGAL RIVER.
2. EMERGENCY DISSIPATOR IS CONSTRUCTED AT THE BEGINNING OF IRRIGATION CANAL.
3. REGULATING POND IS CONSTRUCTED AT THE END OF IRRIGATION CANAL.

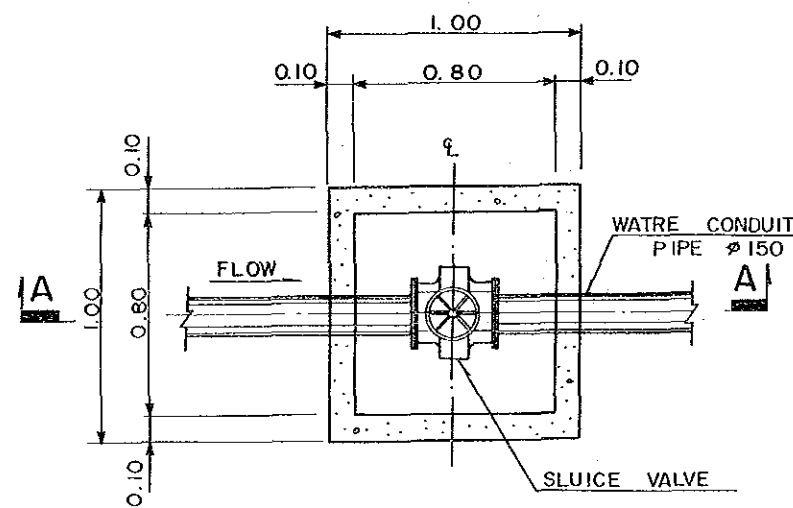
REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
DETAIL OF IRRIGATION FACILITIES (BINENG IRRIGATION SYSTEM)		
DATE	D.W.G. NO.	12
JAPAN INTERNATIONAL COOPERATION AGENCY		



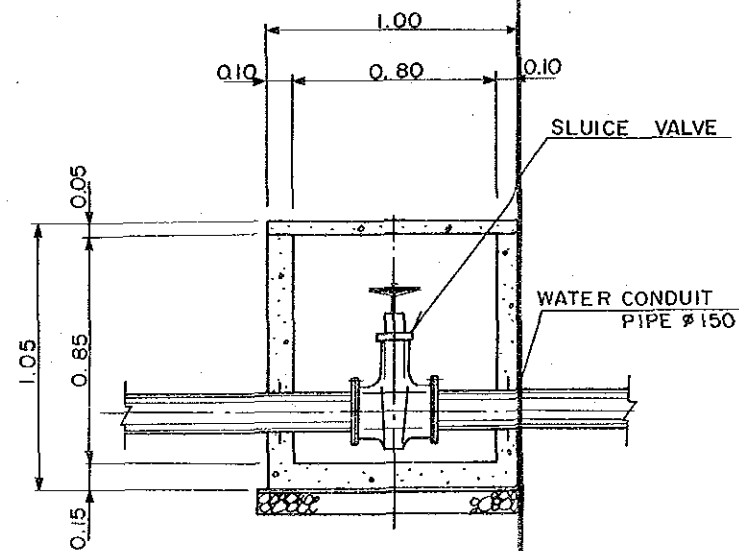
PLAN OF FARM IRRIGATION FACILITIES



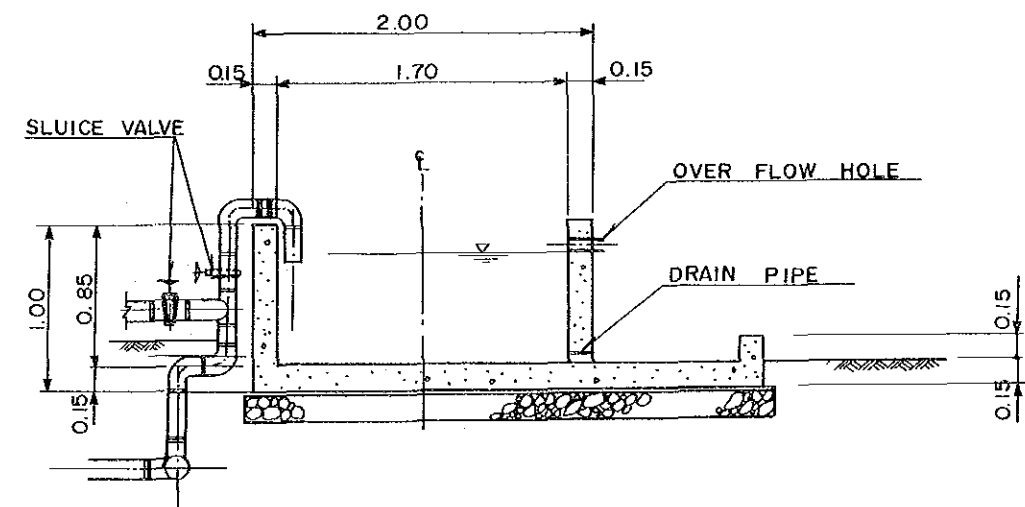
PLAN OF DISTRIBUTING PIT
SCALE 1:30



PLAN OF VALVE BOX
SCALE 1:30

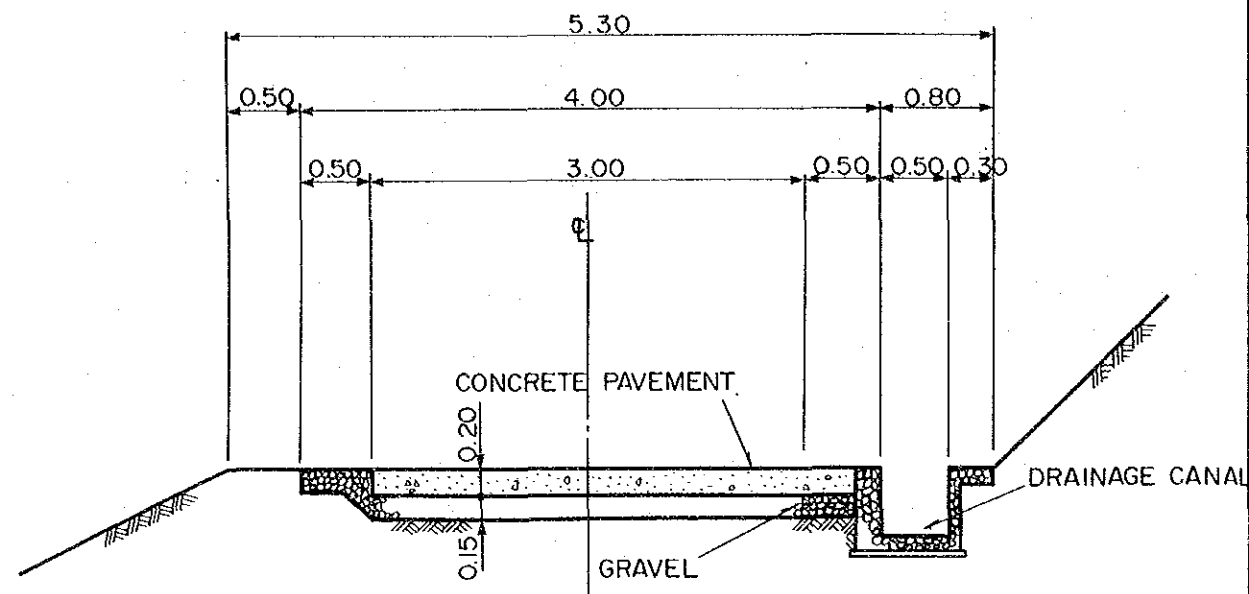


SECTION A - A
SCALE 1:30

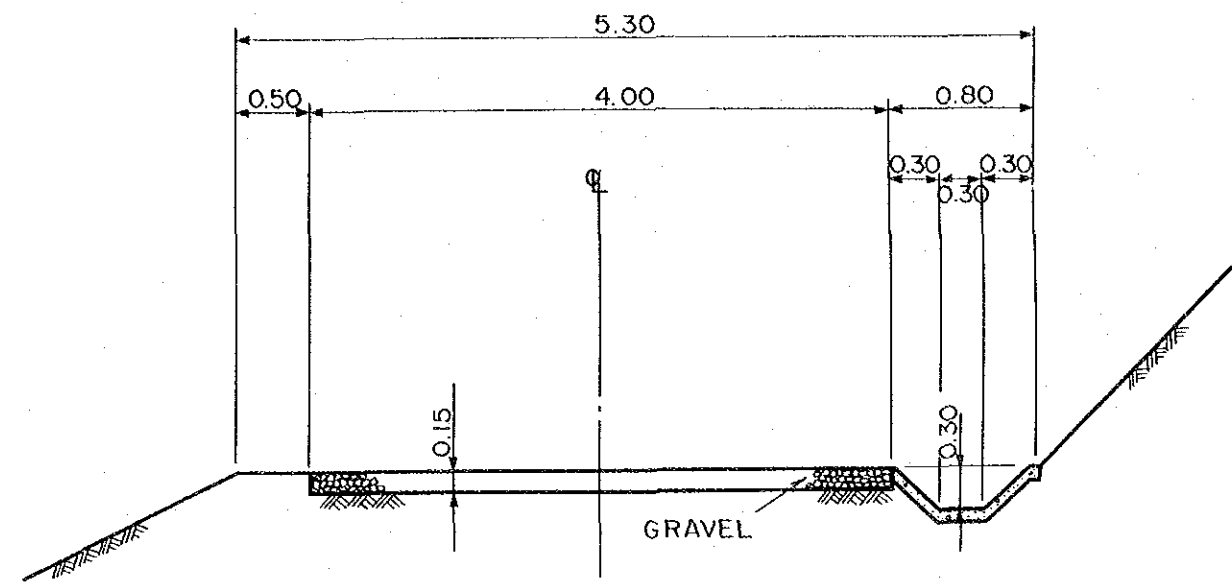


SECTION B - B
SCALE 1:30

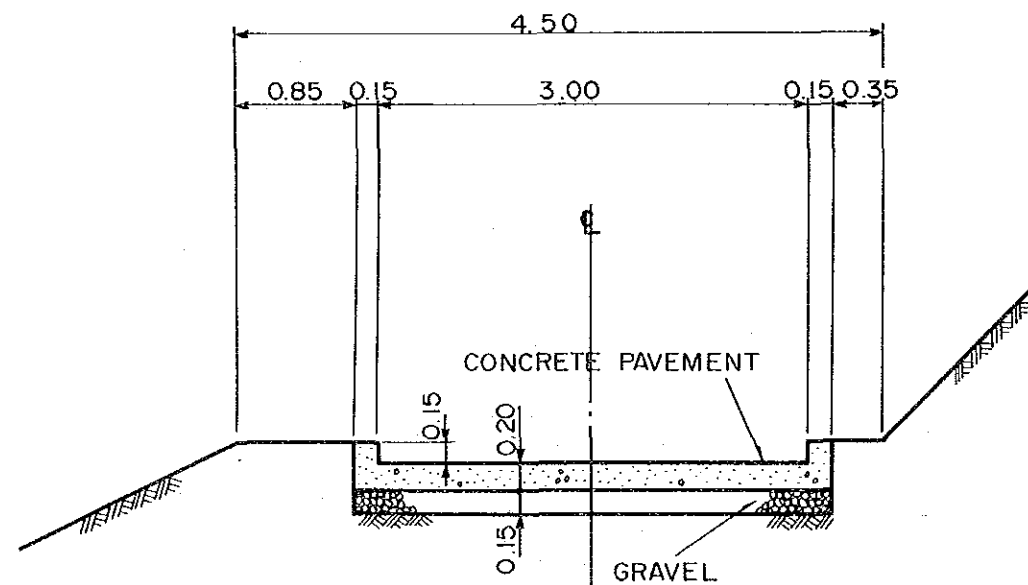
REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
DETAIL OF FARM IRRIGATION STRUCTURES		
DATE	D.W.G. NO.	13
JAPAN INTERNATIONAL COOPERATION AGENCY		



STANDARD SECTION
SCALE 1 : 50



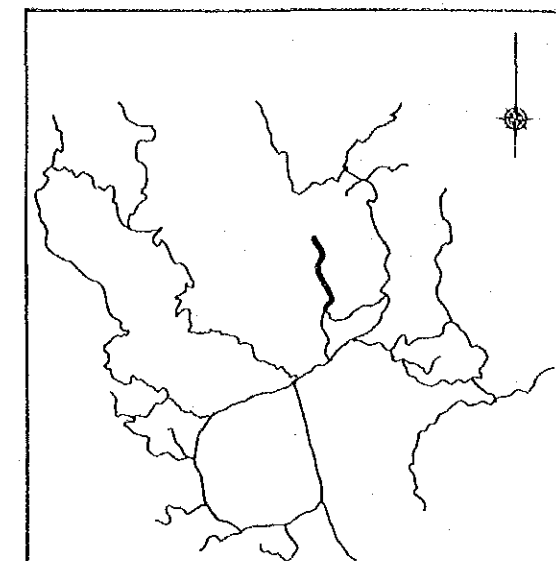
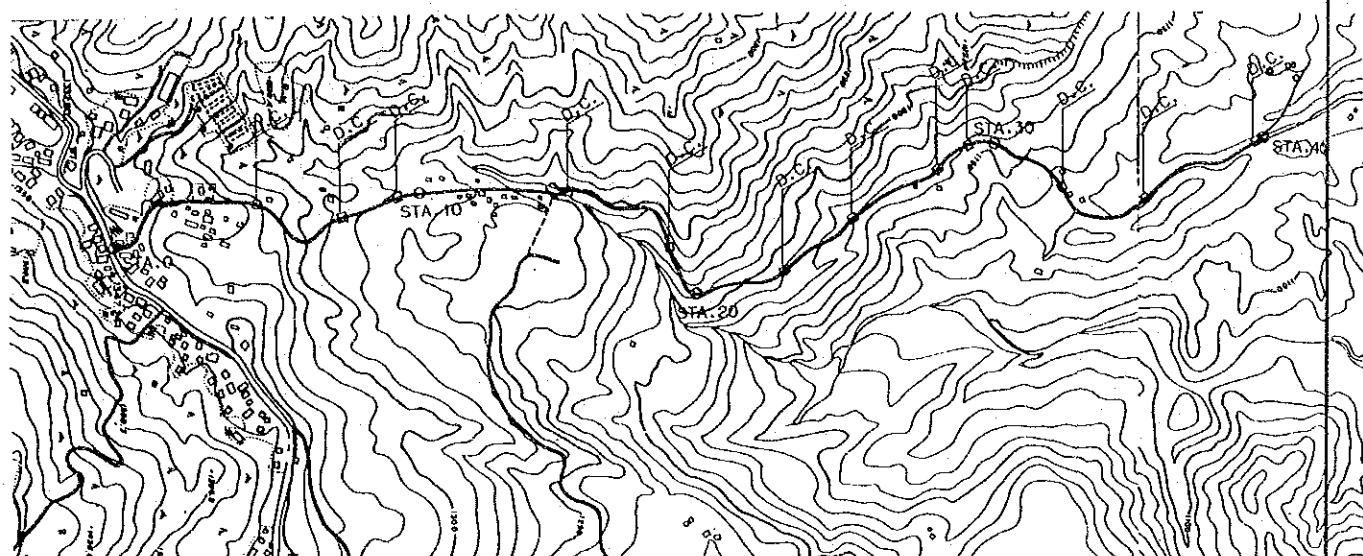
STANDARD SECTION
NEW CONSTRUCTION ROAD
SCALE 1 : 50



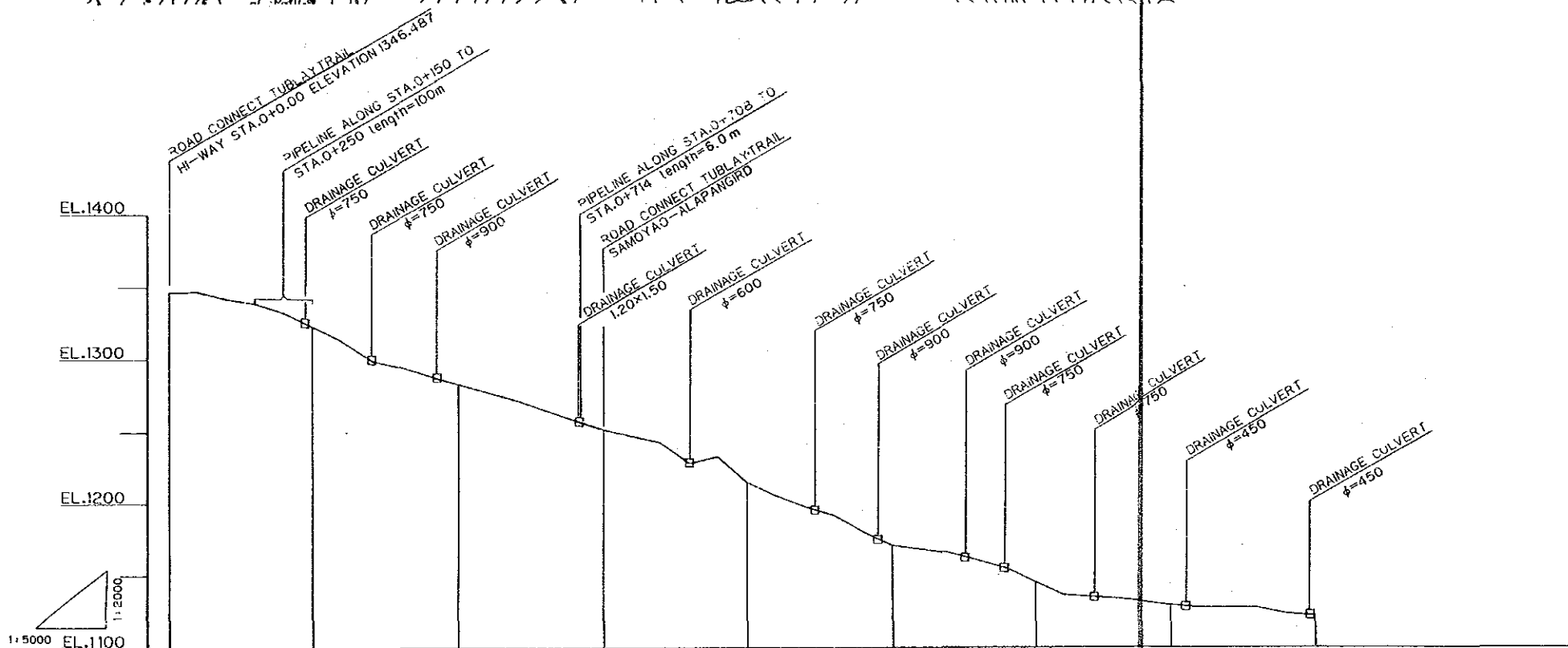
STANDARD SECTION
WATERWAY ROAD
SCALE 1 : 50

REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
STANDARD SECTION OF ROAD		
DATE	D.W.G. NO.	14
JAPAN INTERNATIONAL COOPERATION AGENCY		

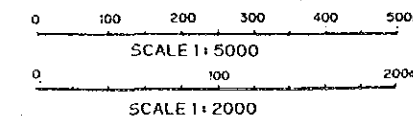
PLAN OF ROAD IMPROVEMENT



LOCATION OF ROAD



ROAD WIDTH	3.0 M																																										
GROUND EL.	1346.53	1342.63	1338.29	1332.47	1321.82	1314.23	1298.25	1293.34	1286.16	1282.72	1275.78	1269.18	1264.10	1255.01	1250.96	1247.55	1242.53	1227.38	1231.92	1210.49	1204.11	1195.94	1190.67	1179.64	1170.71	1166.84	1166.16	1161.07	1156.29	1152.46	1134.27	1133.57	1131.84	1127.95	1127.43	1127.56	1124.91	1122.58	1121.57				
ACCUMULATED DISTANCE	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000			
DISTANCE	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
STATION	STA. 0	1	2	3	4	STA. 5	6	7	8	9	STA. 10	11	12	13	14	STA. 15	16	17	18	19	STA. 20	21	22	23	24	STA. 25	26	27	28	29	STA. 30	31	32	33	STA. 35	36	37	38	39	STA. 40			



REPUBLIC OF THE PHILIPPINES
PROVINCIAL GOVERNMENT OF BENGUET

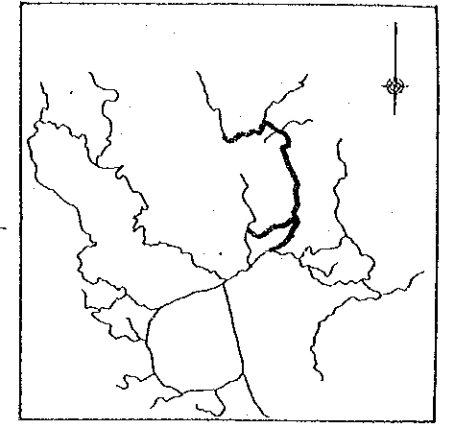
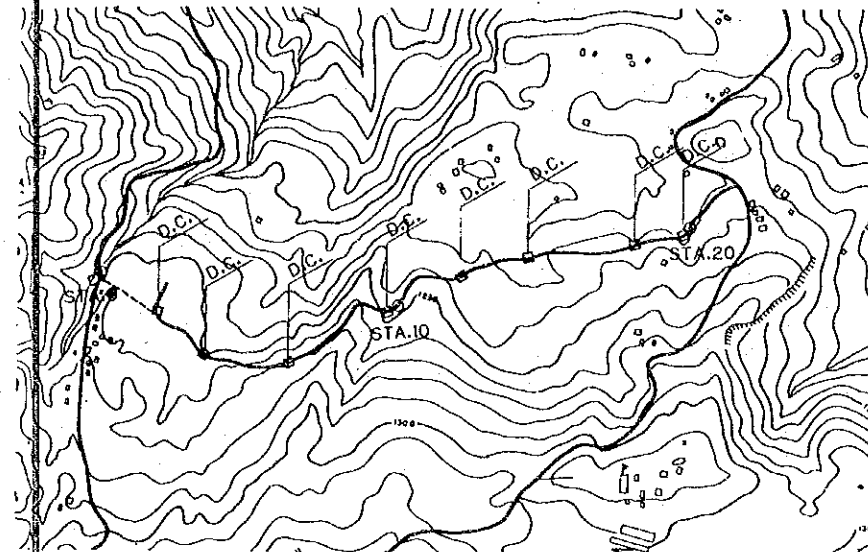
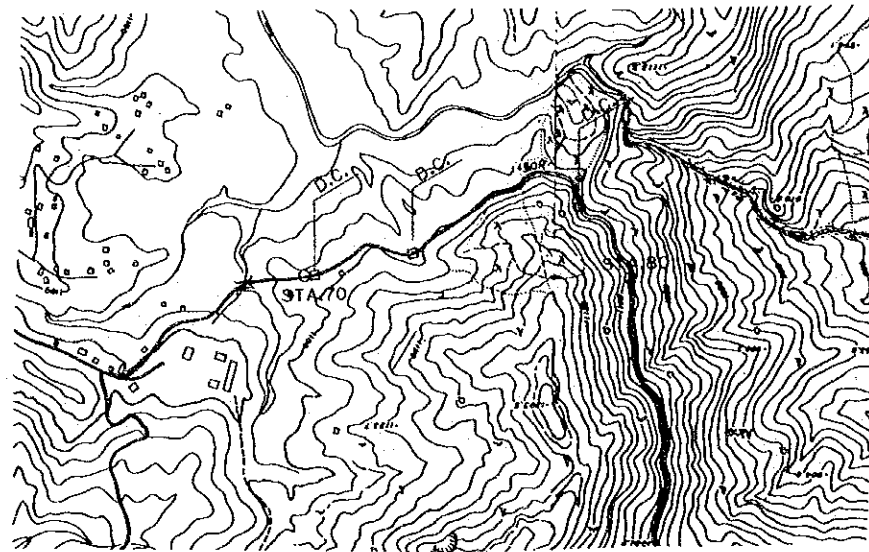
THE HIGHLAND INTEGRATED RURAL
DEVELOPMENT PROJECT IN LA TRINIDAD

PLAN OF ROAD IMPROVEMENT
(SAMUYAO-PERIL)

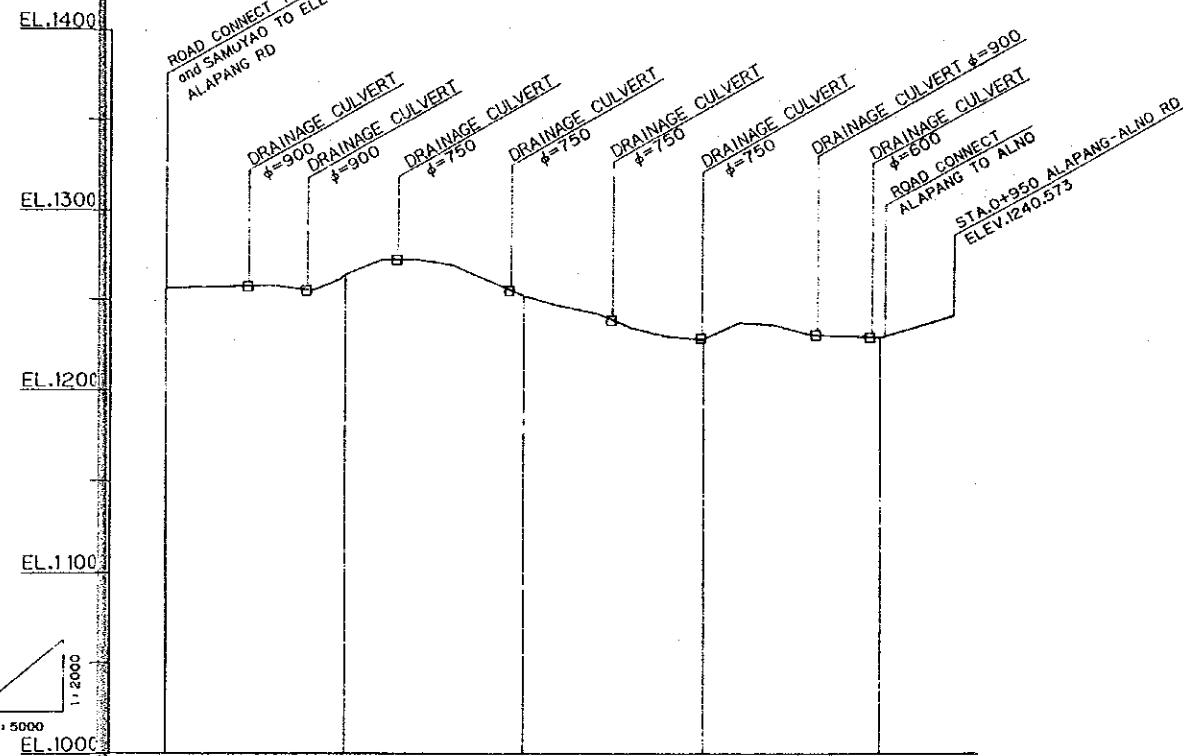
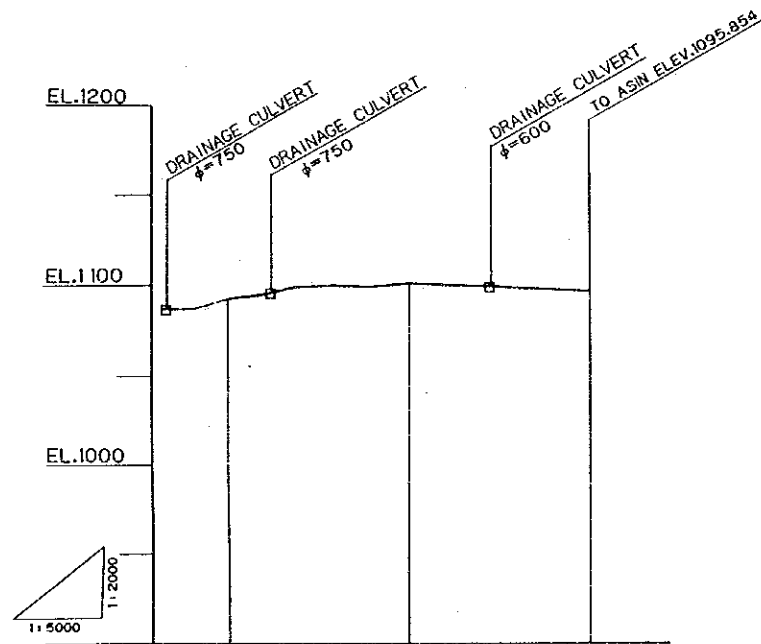
DATE	D.W.G. NO.	15
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JAPAN INTERNATIONAL COOPERATION AGENCY

PLAN OF ROAD IMPROVEMENT

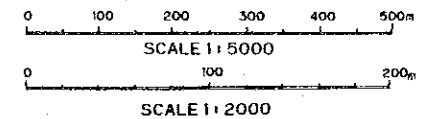


LOCATION OF ROAD



ROAD WIDTH	30M										
GROUND EL.	1092.41	1094.09	1096.20	1096.13	1096.02	1100.68	1099.63	1096.83	1097.71	1096.44	1095.85
ACCUMULATED DISTANCE	3500	3550	3600	3650	3700	3750	3800	3850	3900	3950	4000
DISTANCE	50	50	50	50	50	50	50	50	50	50	50
STATION	STA. 70	71	72	73	74	STA. 75	76	77	78	79	STA. 80

ROAD WIDTH	30M																					
GROUND EL.	1255.99	1255.33	1256.38	1256.32	1254.41	1262.53	1270.62	1270.10	1267.10	1259.39	1250.42	1245.65	1241.317	1232.74	1228.73	1227.55	1235.40	1234.53	1229.90	1228.25	1227.69	1232.90
ACCUMULATED DISTANCE	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050
DISTANCE	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
STATION	STA. 0	1	2	3	4	STA. 5	6	7	8	9	STA. 10	11	12	13	14	STA. 15	16	17	18	19	STA. 20	21



REPUBLIC OF THE PHILIPPINES
 PROVINCIAL GOVERNMENT OF BENGUET

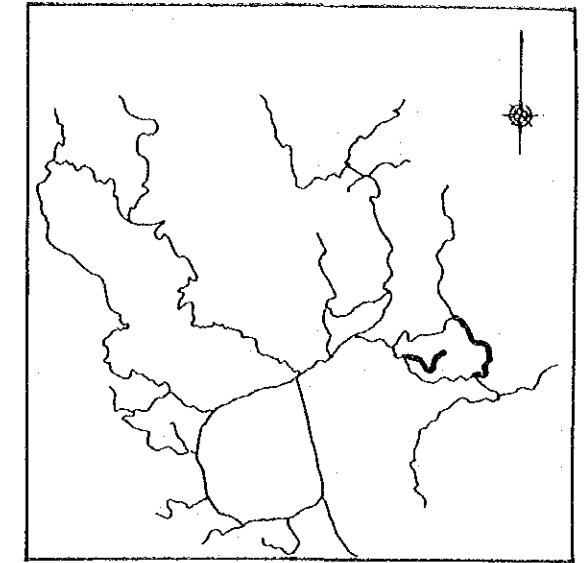
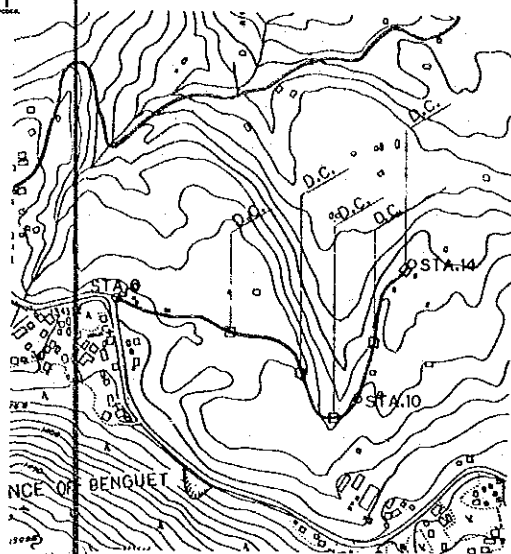
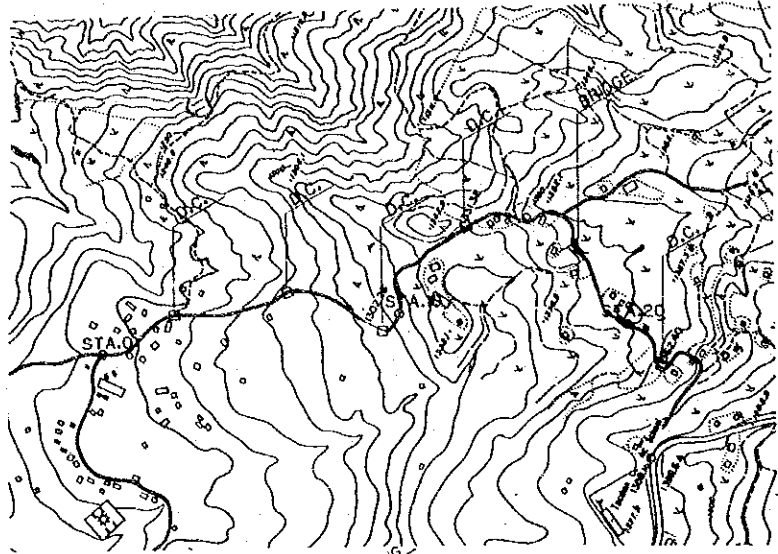
THE HIGHLAND INTEGRATED RURAL
 DEVELOPMENT PROJECT IN LA TRINIDAD

PLAN OF ROAD IMPROVEMENT
 (CAMP DANGWA - ALNO) (2)
 (SAMUYAO - ALAPANG PROPER)

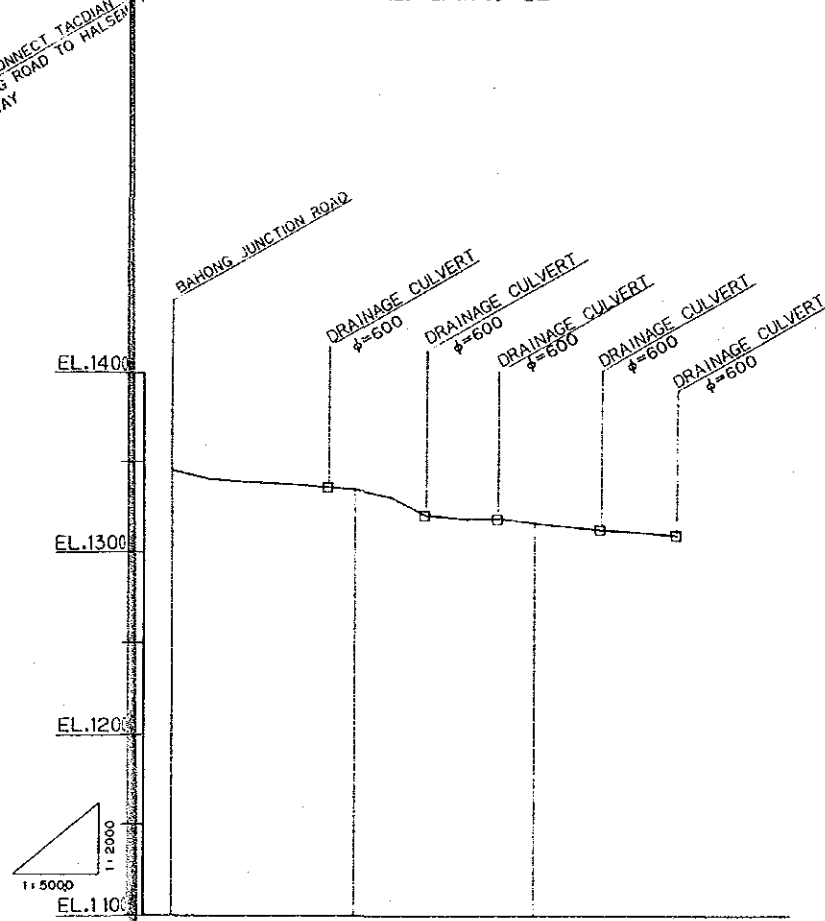
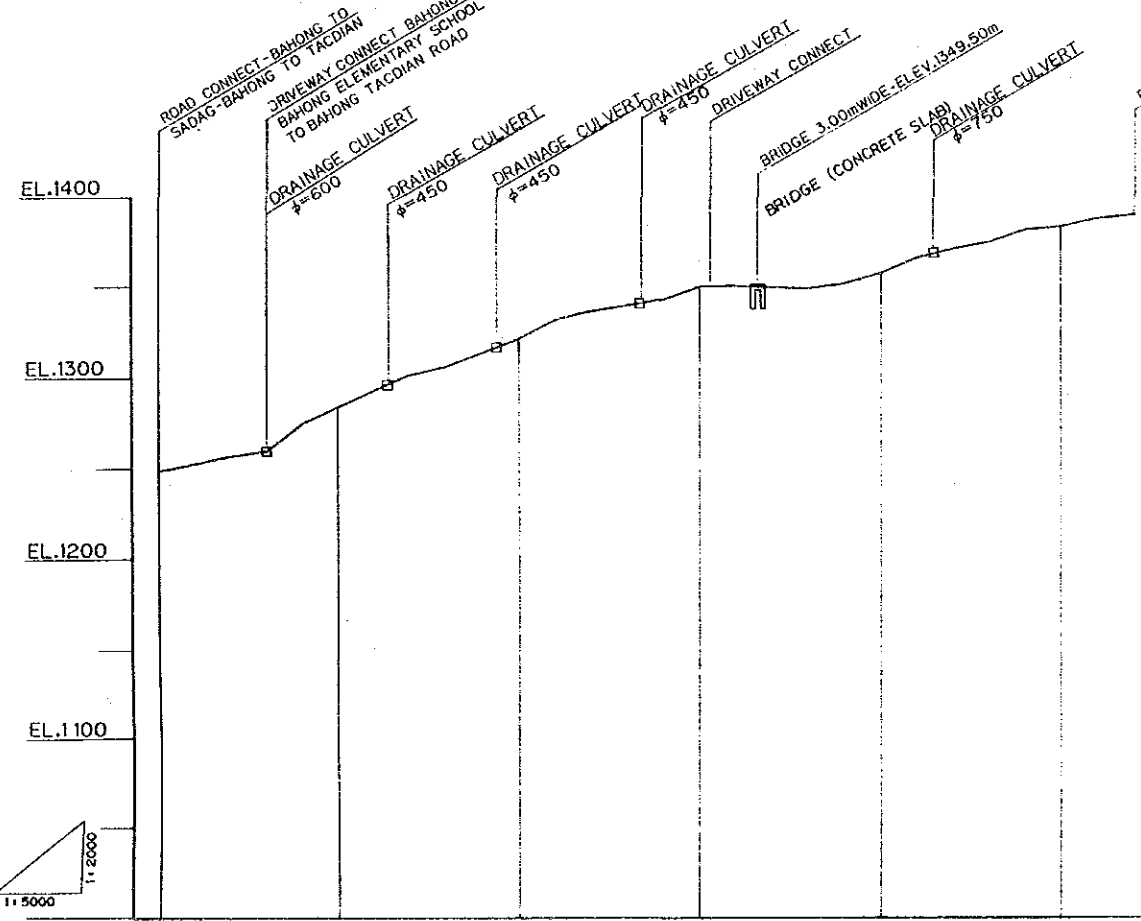
DATE _____ D.W.G. NO. **17**

JAPAN INTERNATIONAL COOPERATION AGENCY

PLAN OF ROAD IMPROVEMENT

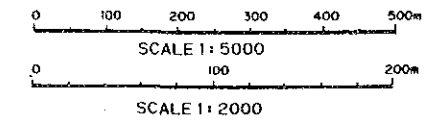


LOCATION OF ROAD



ROAD WIDTH	3.0M																											
GROUND EL.	1249.47	1253.62	1257.90	1260.56	1275.92	1283.60	1293.47	1301.36	1306.97	1314.72	1322.94	1332.69	1336.63	1339.51	1343.77	1349.05	1350.19	1349.83	1349.43	1352.41	1357.11	1365.32	1370.12	1374.19	1318.40	1366.64	1368.14	1368.14
ACCUMULATED DISTANCE	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	
DISTANCE	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
STATION	STA.0	1	2	3	4	STA.5	6	7	8	9	STA.10	11	12	13	14	STA.15	16	17	18	19	20	21	22	23	24	STA.25	26	27

ROAD WIDTH	3.0M														
GROUND EL.															
ACCUMULATED DISTANCE	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700
DISTANCE	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
STATION	STA.0	1	2	3	4	STA.5	6	7	8	9	STA.10	11	12	13	14

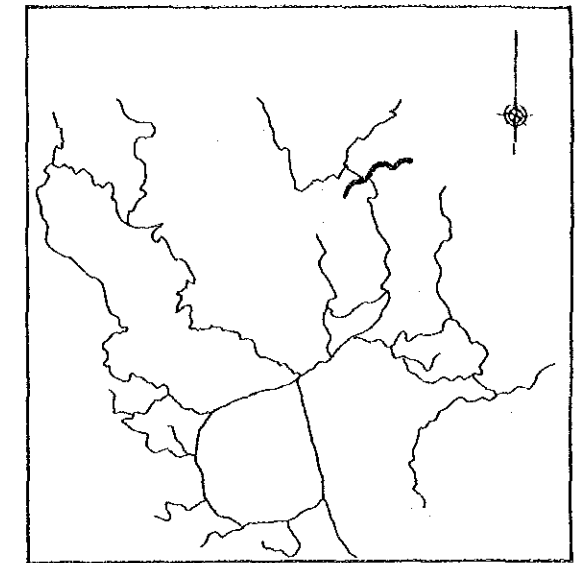
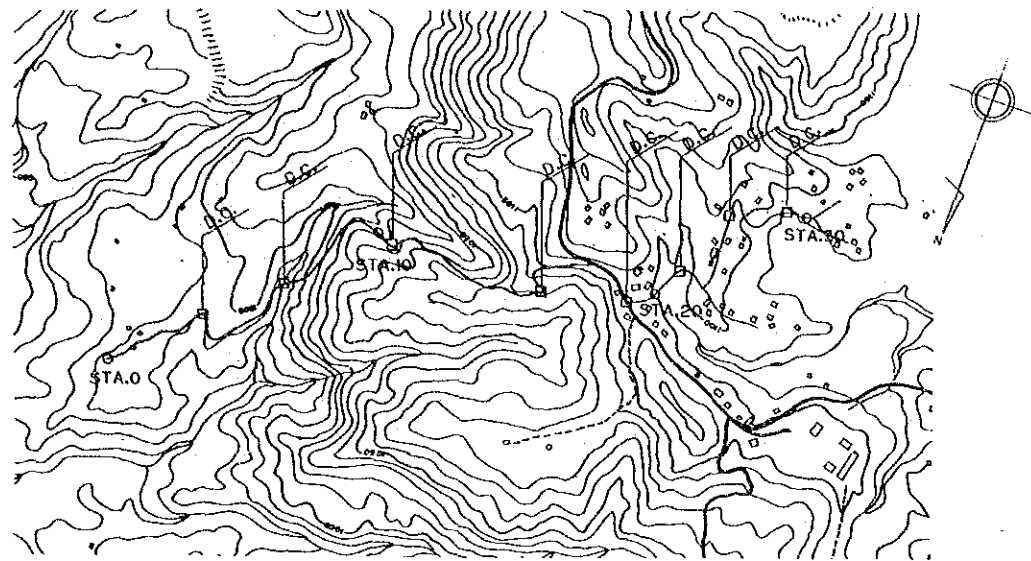


REPUBLIC OF THE PHILIPPINES
 PROVINCIAL GOVERNMENT OF BENGUET
 THE HIGHLAND INTEGRATED RURAL
 DEVELOPMENT PROJECT IN LA TRINIDAD
 PLAN OF ROAD IMPROVEMENT
 (TOMAY - BAHONG PROPER)
 (CAMP DANGWA - MAE BAHONG)

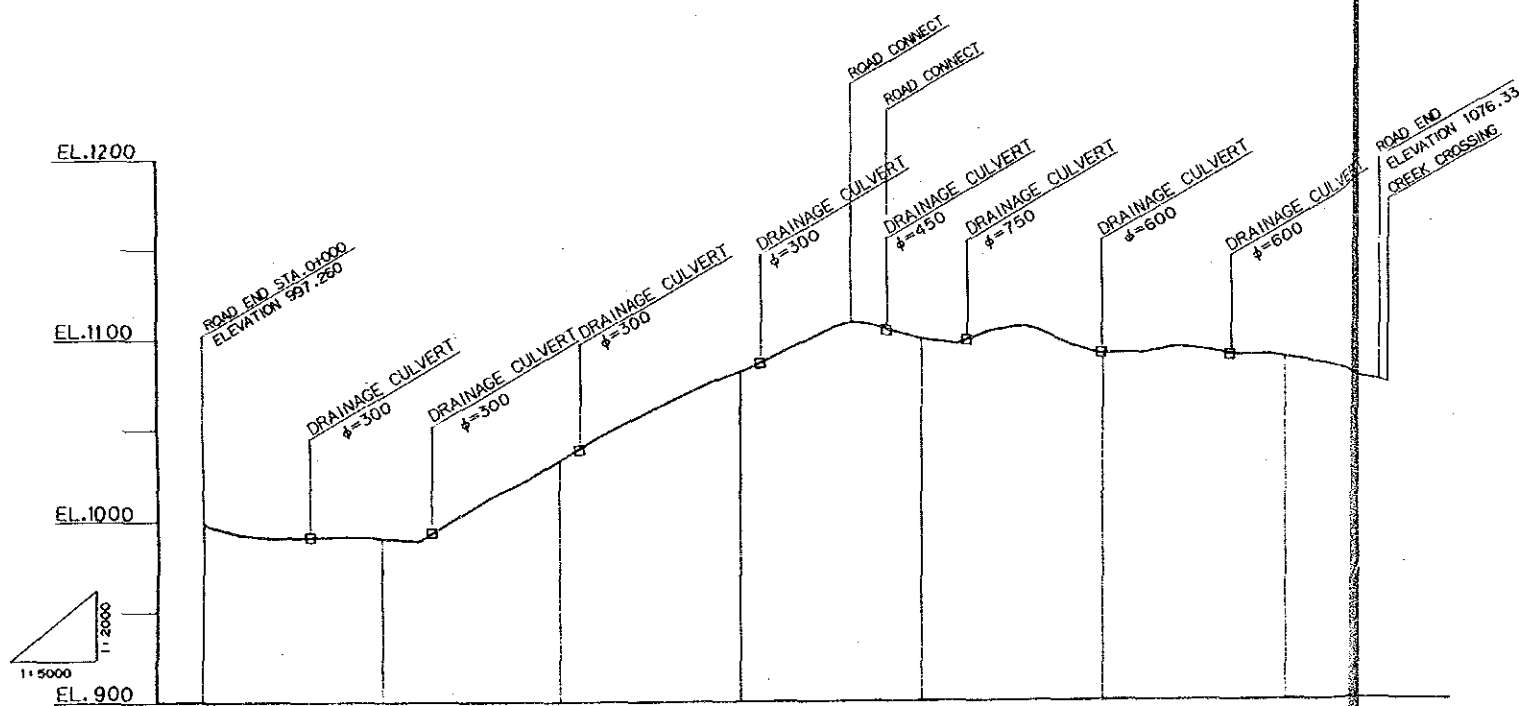
DATE: _____ D.W.G.NO. **19**

JAPAN INTERNATIONAL COOPERATION AGENCY

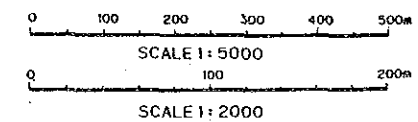
PLAN OF ROAD IMPROVEMENT



LOCATION OF ROAD

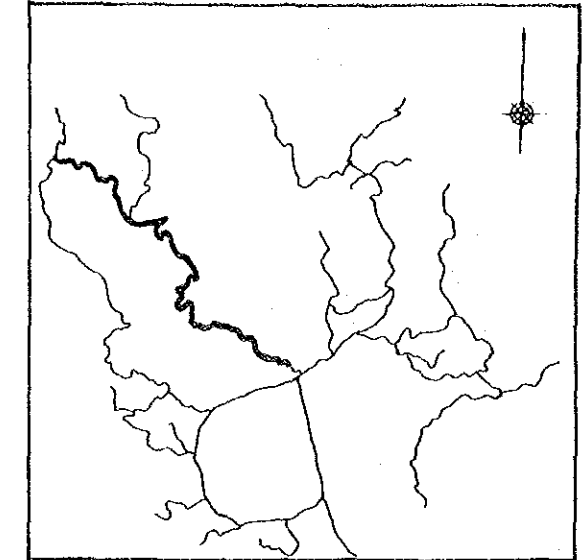
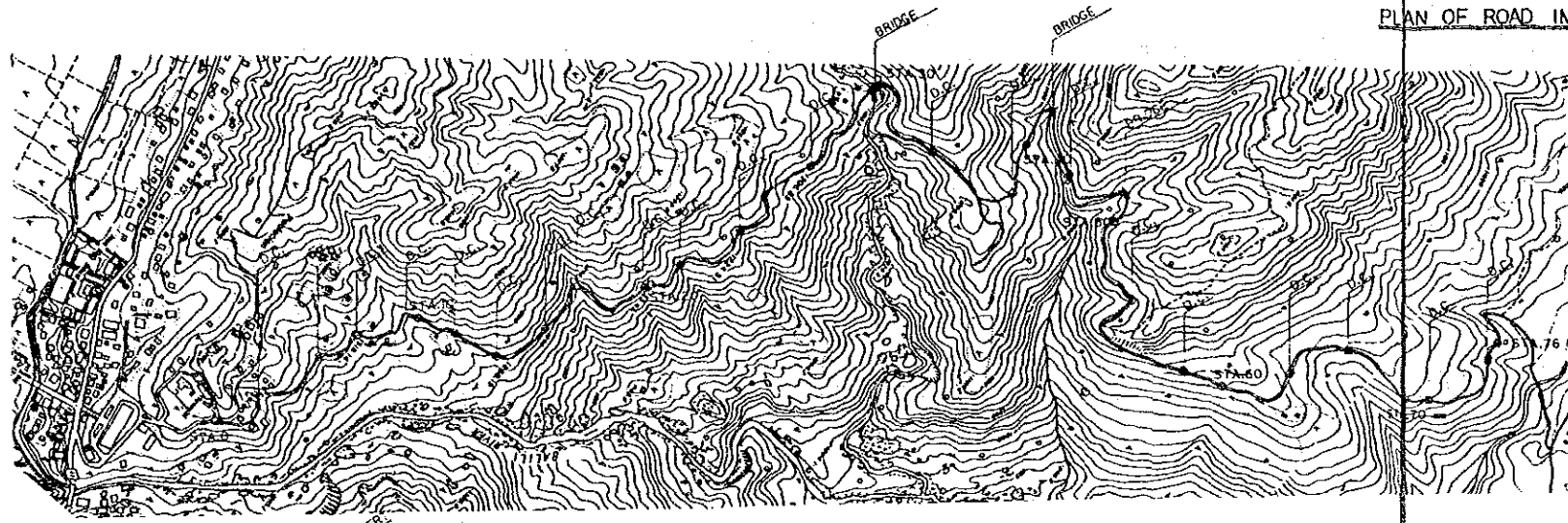


ROAD WIDTH	3.0M																																	
GROUND EL.	987.260	992.272	990.70	991.311	991.547	989.830	1000.470	1012.510	1022.900	1033.60	1045.151	1055.613	1065.59	1074.916	1081.905	1091.614	1100.908	1108.771	1104.429	1099.423	1096.638	1105.086	1105.700	1098.000	1091.311	1091.397	1094.117	1091.798	1090.114	1088.84	1085.760	1076.330		
ACCUMULATED DISTANCE	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650
DISTANCE		50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
STATION	STA. 0	1	2	3	4	STA. 5	6	7	8	9	STA. 10	11	12	13	14	STA. 15	16	17	18	19	STA. 20	21	22	23	24	STA. 25	26	27	28	29	STA. 30	31	32	33

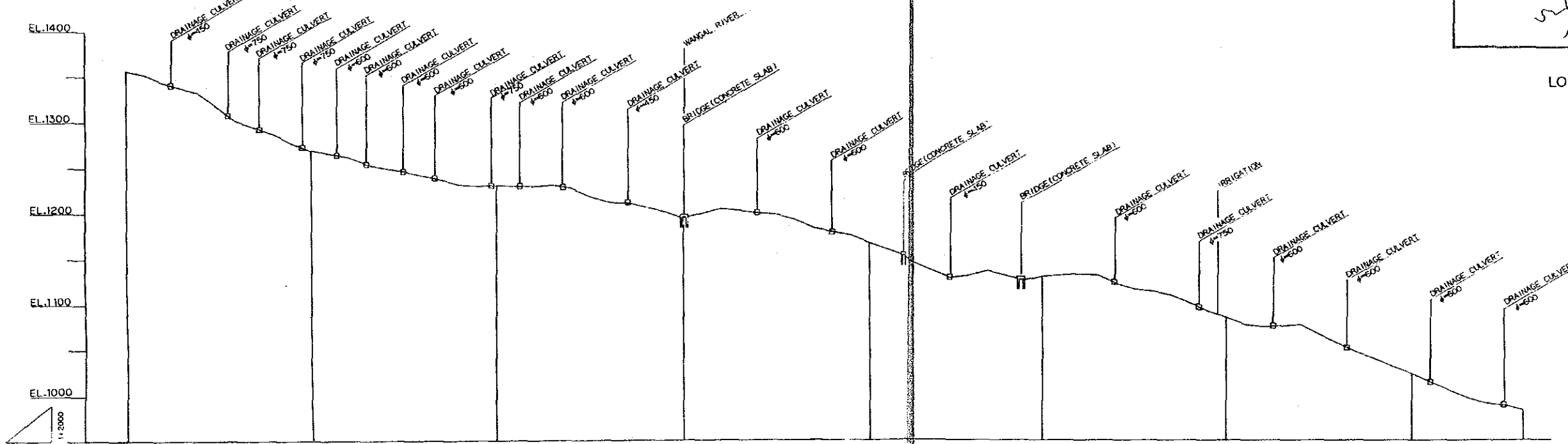


REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET	
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD	
PLAN OF ROAD IMPROVEMENT (WEST ALNO - EAST ALNO)	
DATE	D.W.G. NO. 20
JAPAN INTERNATIONAL COOPERATION AGENCY	

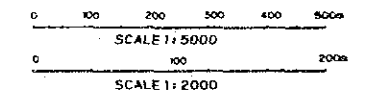
PLAN OF ROAD IMPROVEMENT



LOCATION OF ROAD



ROAD WIDTH	3.0M																																						
GROUND EL.	1352.08	1344.57	1330.36	1301.46	1286.64	1289.58	1261.75	1247.53	1241.45	1230.46	1229.99	1229.79	1226.18	1211.58	1206.71	1194.56	1204.64	1199.48	1192.80	1178.08	1167.38	1137.04	1130.64	1129.47	1129.50	1131.92	1121.89	1112.56	1100.51	1083.14	1073.29	1075.04	1056.24	1040.01	1023.71	997.24	940.87	916.19	
ACCUMULATED DISTANCE	50	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200	3300	3400	3500	3600	3700	3800	
DISTANCE	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
STATION	STA. 0	1	2	4	6	STA. 10	12	14	16	18	STA. 20	22	24	26	28	STA. 30	32	34	36	38	STA. 40	44	46	48	STA. 50	52	54	56	58	STA. 60	62	64	66	68	STA. 70	72	74	76	



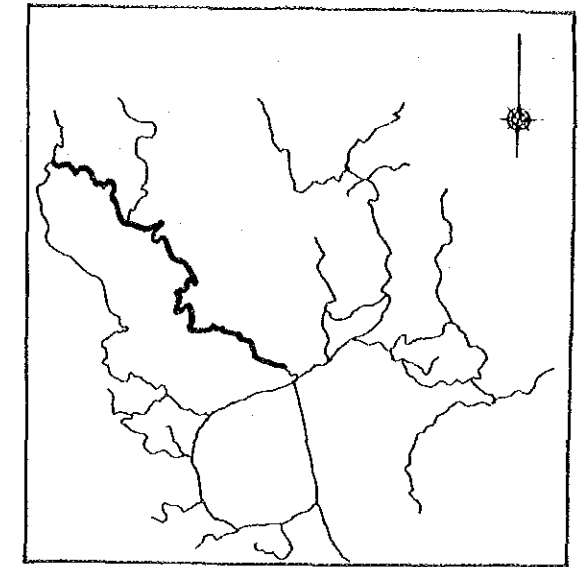
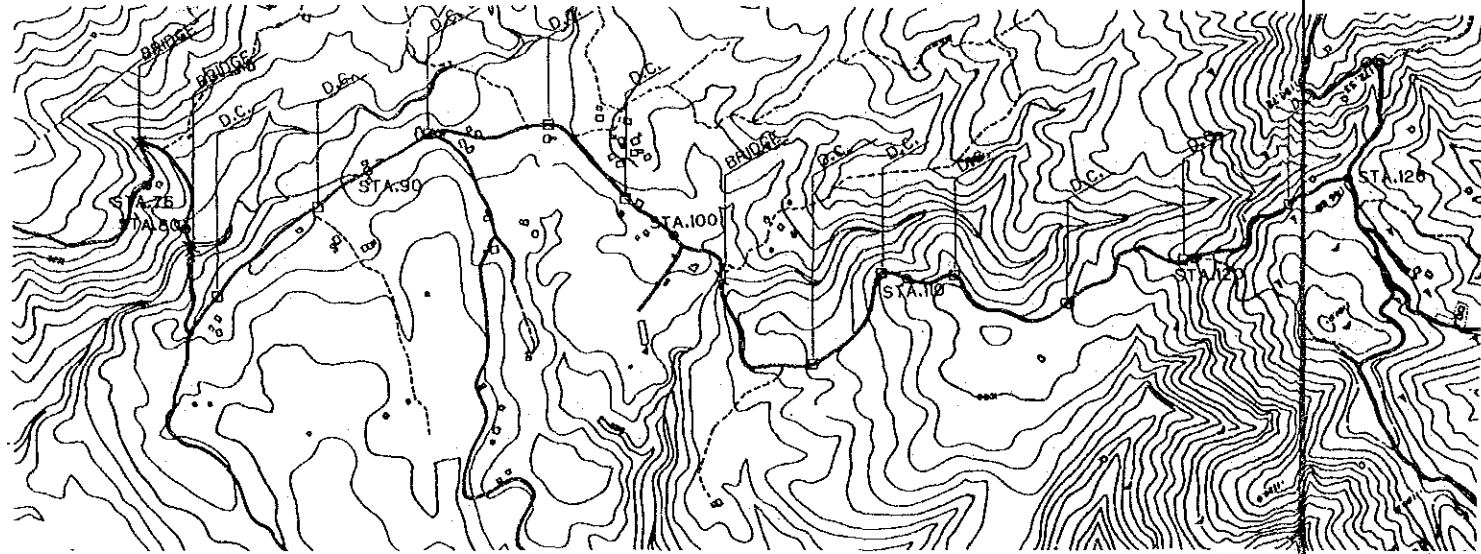
REPUBLIC OF THE PHILIPPINES
 PROVINCIAL GOVERNMENT OF BENGUET
 THE HIGHLAND INTEGRATED RURAL
 DEVELOPMENT PROJECT IN LA TRINIDAD

PLAN OF ROAD IMPROVEMENT
 (CAPITOL-BINENG PROPER-YAPOS) (1)

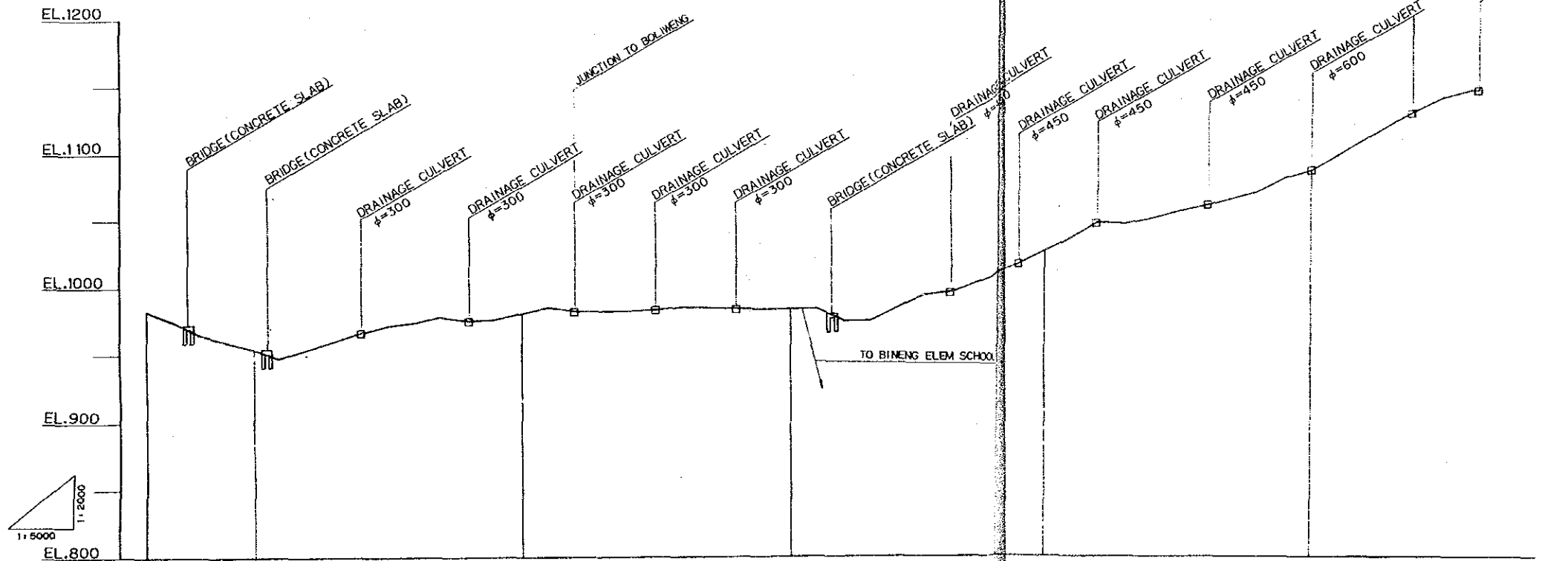
DATE: _____ D.W.G.NO. **21**

JAPAN INTERNATIONAL COOPERATION AGENCY

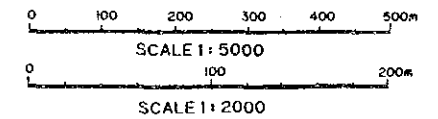
PLAN OF ROAD IMPROVEMENT



LOCATION OF ROAD

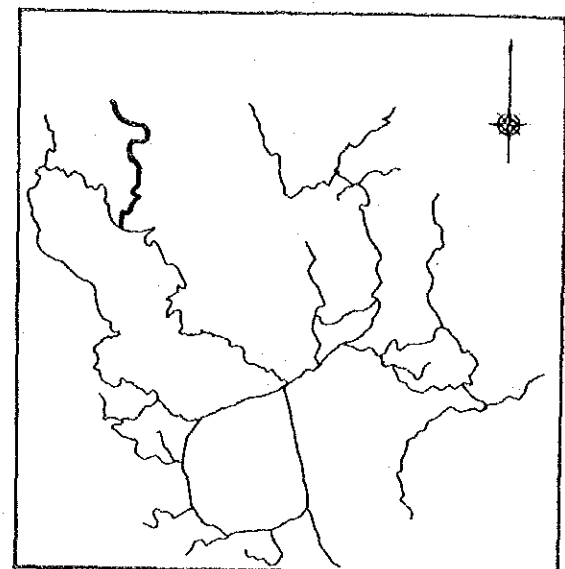
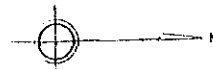
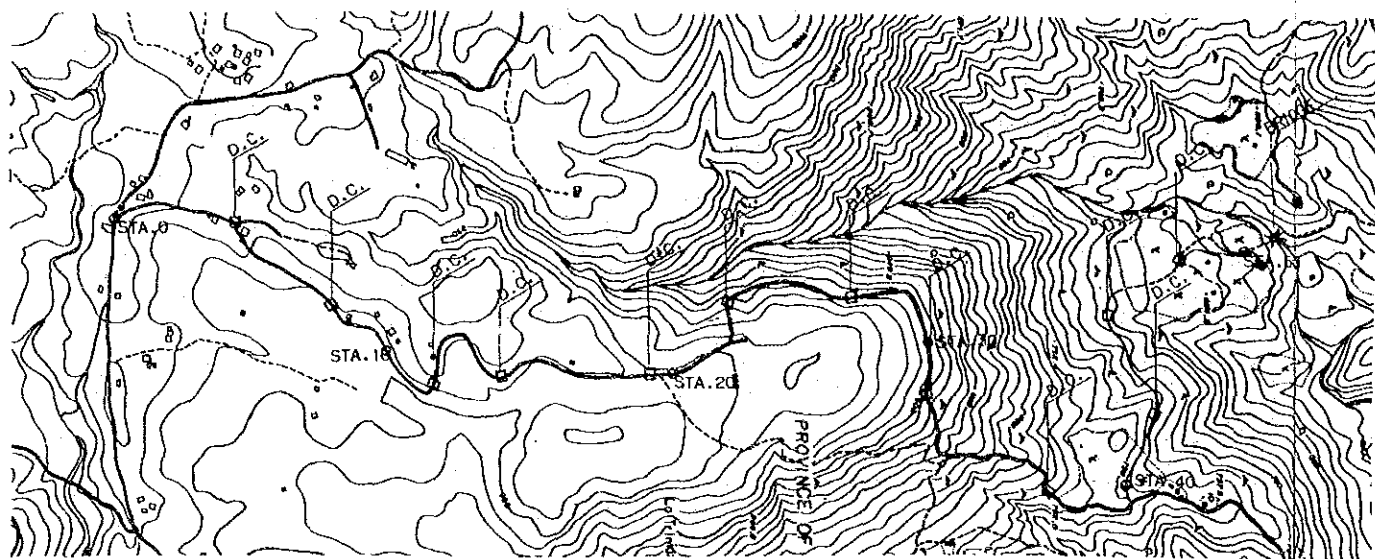


ROAD WIDTH	3.0 M																									
GROUND EL.	967.67	961.40	960.81	962.81	972.89	977.79	977.11	984.22	981.70	982.95	985.54	982.95	983.35	974.33	993.12	1002.62	1035.70	1046.08	1054.60	1064.27	1079.93	1097.44	1120.56	1136.79	1144.89	
ACCUMULATED DISTANCE	3650	3900	4000	4100	4200	4300	4400	4500	4600	4700	4800	4900	5000	5100	5200	5300	5500	5600	5700	5800	5900	6000	6100	6200	6300	
DISTANCE	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	
STATION	STA. 76	77	78	STA. 80	82	84	86	88	STA. 90	92	94	96	98	STA. 100	102	104	106	STA. 110	112	114	116	118	STA. 120	122	124	126

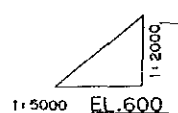
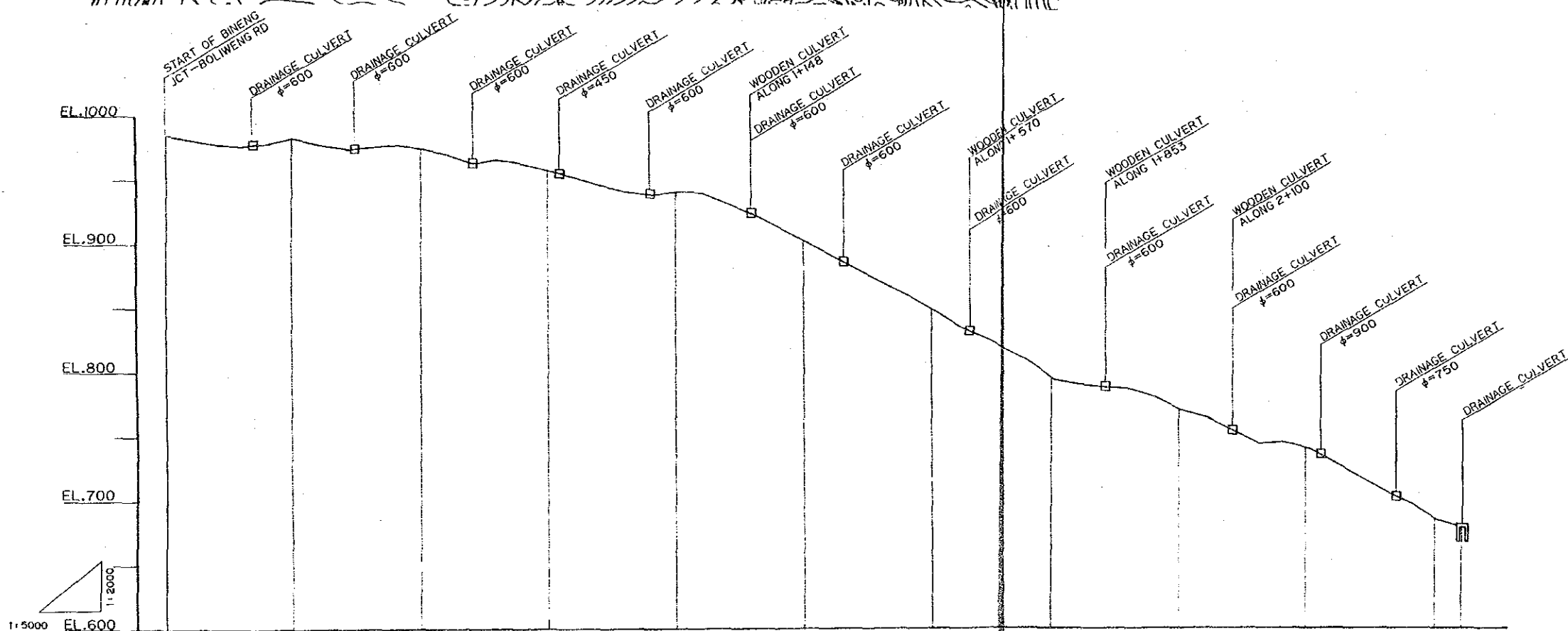


REPUBLIC OF THE PHILIPPINES
 PROVINCIAL GOVERNMENT OF BENGUET
 THE HIGHLAND INTEGRATED RURAL
 DEVELOPMENT PROJECT IN LA TRINIDAD
 PLAN OF ROAD IMPROVEMENT
 (CAPITOL - BINENG PROPER - YAPOS) (2)
 DATE _____ D.W.G. NO. **22**
 JAPAN INTERNATIONAL COOPERATION AGENCY

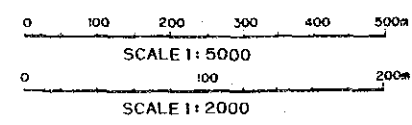
PLAN OF ROAD IMPROVEMENT



LOCATION OF ROAD



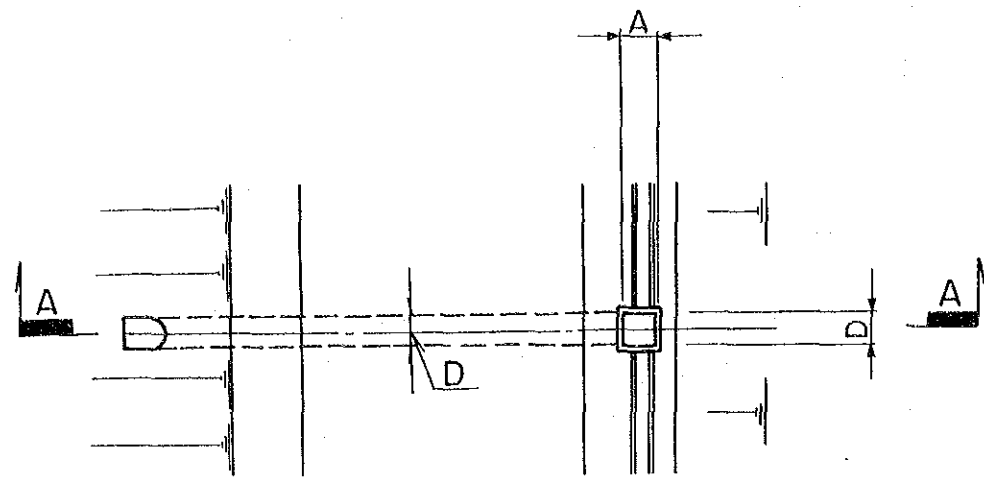
ROAD WIDTH	3.0 M																																																						
GROUND EL.	982.56	977.49	975.44	973.19	975.87	966.13	975.29	972.69	973.38	974.54	972.49	967.26	960.56	964.10	964.08	948.70	940.98	938.06	935.81	938.14	937.35	928.24	920.13	910.80	900.45	869.52	879.71	879.71	867.68	658.81	846.95	834.30	825.48	817.35	807.49	793.44	786.85	787.34	784.46	778.88	769.27	762.90	752.74	742.56	744.66	739.37	728.40	718.24	704.83	696.53	684.68	677.92			
ACCUMULATED DISTANCE	0	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	1150	1200	1250	1300	1350	1400	1450	1500	1550	1600	1650	1700	1750	1800	1850	1900	1950	2000	2050	2100	2150	2200	2250	2300	2350	2400	2450	2500	2550			
DISTANCE	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
STATION	STA. 0	1	2	3	4	STA. 5	6	7	8	9	STA. 10	11	12	13	14	STA. 15	16	17	18	19	STA. 20	21	22	23	24	STA. 25	26	27	28	29	STA. 30	31	32	33	34	STA. 35	36	37	38	39	STA. 40	41	42	43	44	STA. 45	46	47	48	49	STA. 50	51			



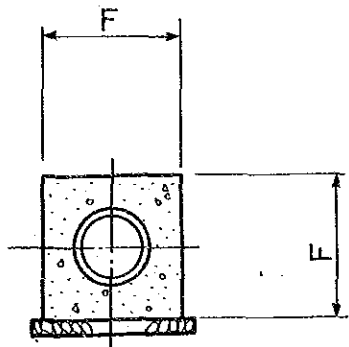
REPUBLIC OF THE PHILIPPINES
 PROVINCIAL GOVERNMENT OF BENGUET
 THE HIGHLAND INTEGRATED RURAL
 DEVELOPMENT PROJECT IN LA TRINIDAD
PLAN OF ROAD IMPROVEMENT
(BINENG-BOLEWENG)

DATE	D.W.G. NO.	23
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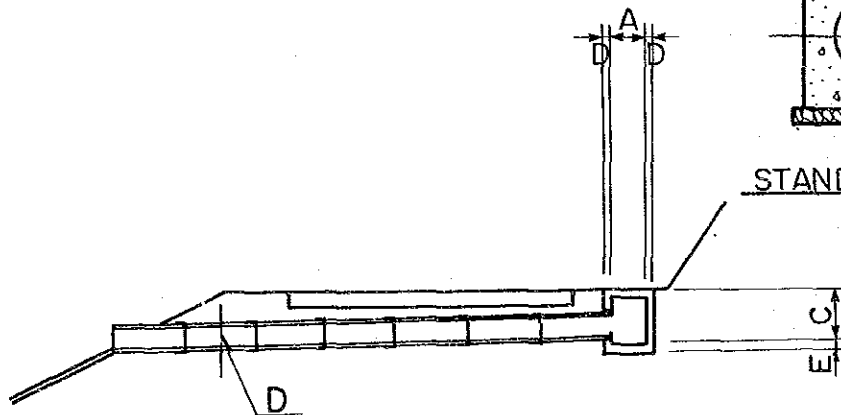
JAPAN INTERNATIONAL COOPERATION AGENCY



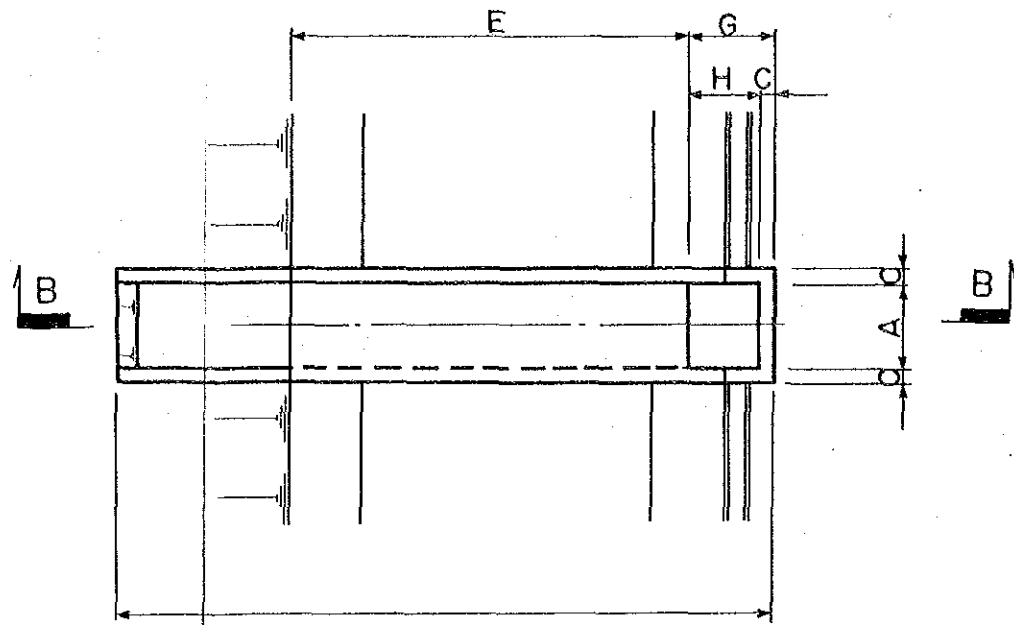
DRAINAGE PIPE



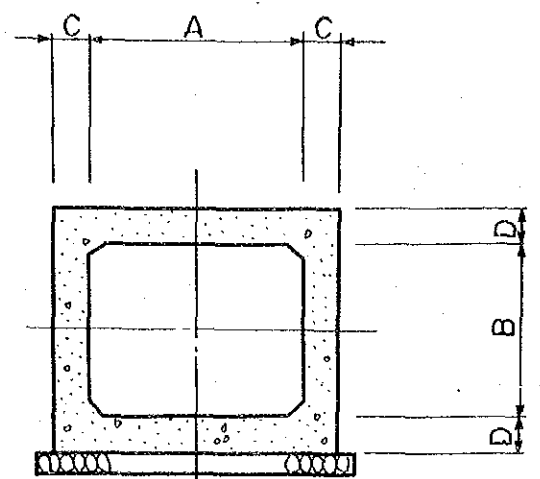
STANDARD SECTION



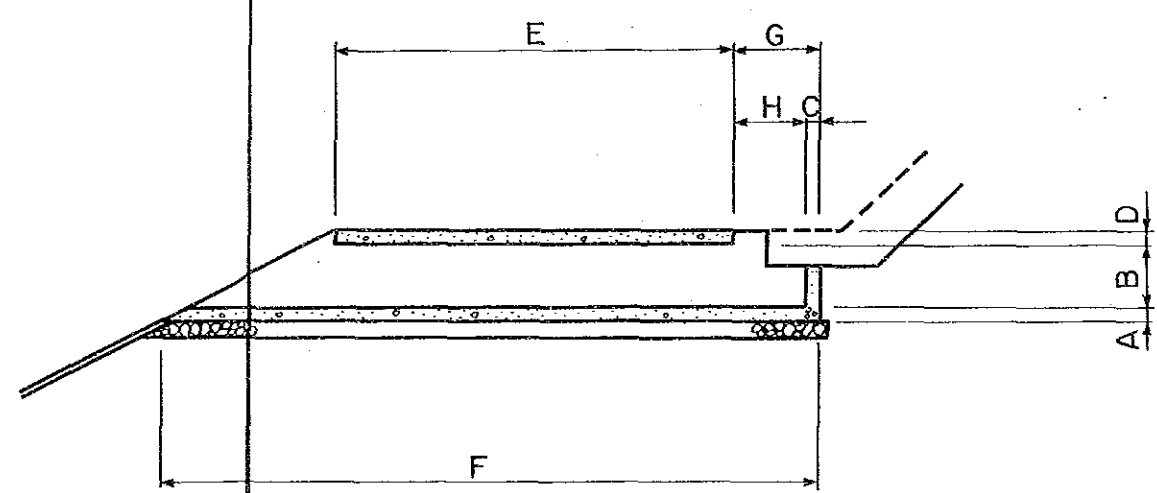
SECTION A - A



DRAINAGE CULVERT



STANDARD SECTION



SECTION B - B

SCALE

D	A	B	C	D	E	F
φ 300	0.60	0.60	1.00	0.10	0.10	0.60
φ 450	0.75	0.75	1.20	0.10	0.10	0.75
φ 600	0.90	0.90	1.20	0.10	0.10	0.90
φ 750	1.00	1.00	1.50	0.15	0.15	1.05
φ 900	1.20	1.20	1.80	0.15	0.15	1.20

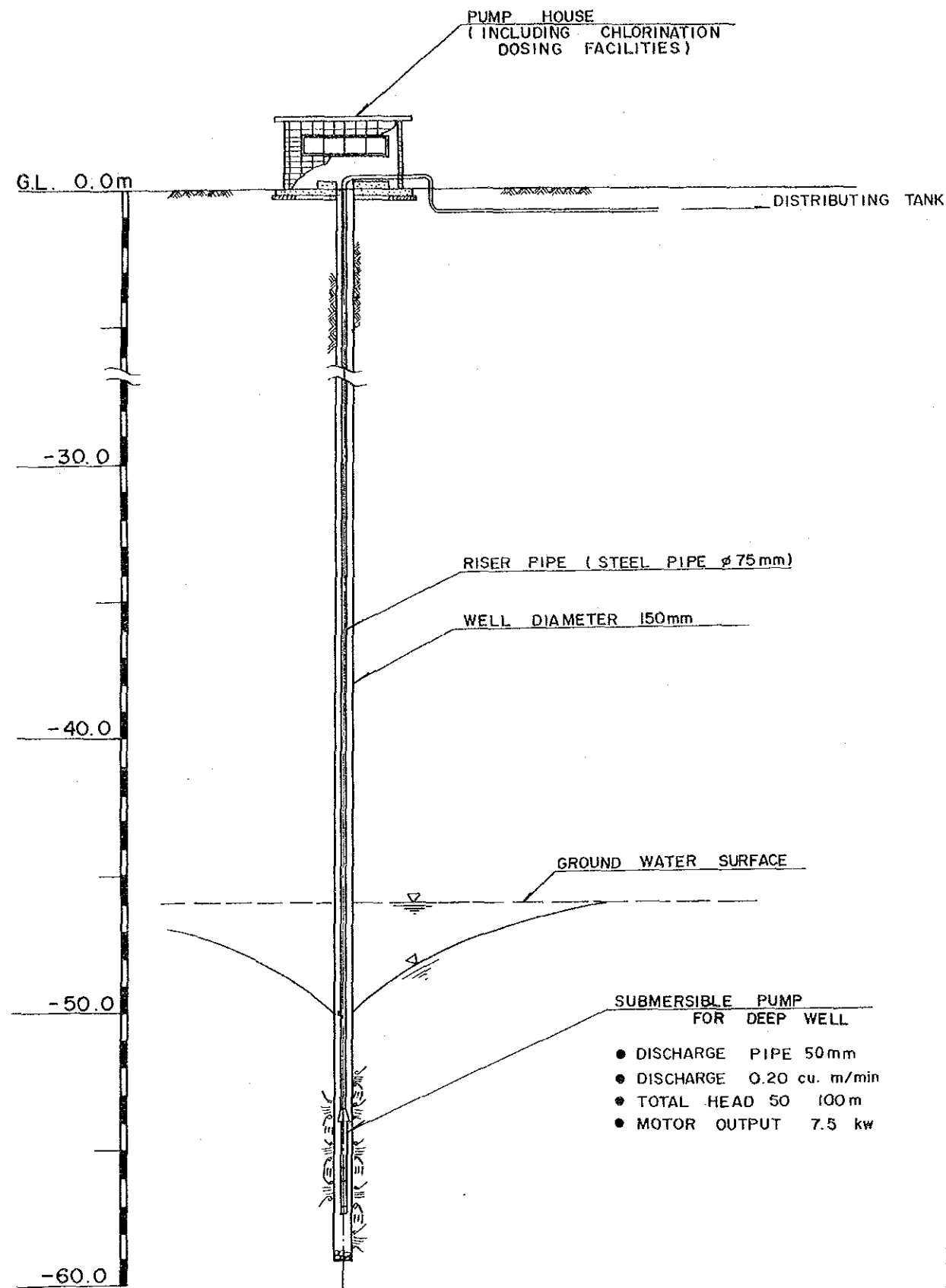
SCALE

A	B	C	D	E	F	G	H
1.20	0.90	0.20	0.20	5.50	9.50	1.40	1.20
1.20	1.50	0.20	0.20	5.50	10.70	1.40	1.20
1.20	1.50	0.20	0.20	5.50	11.00	1.70	1.50

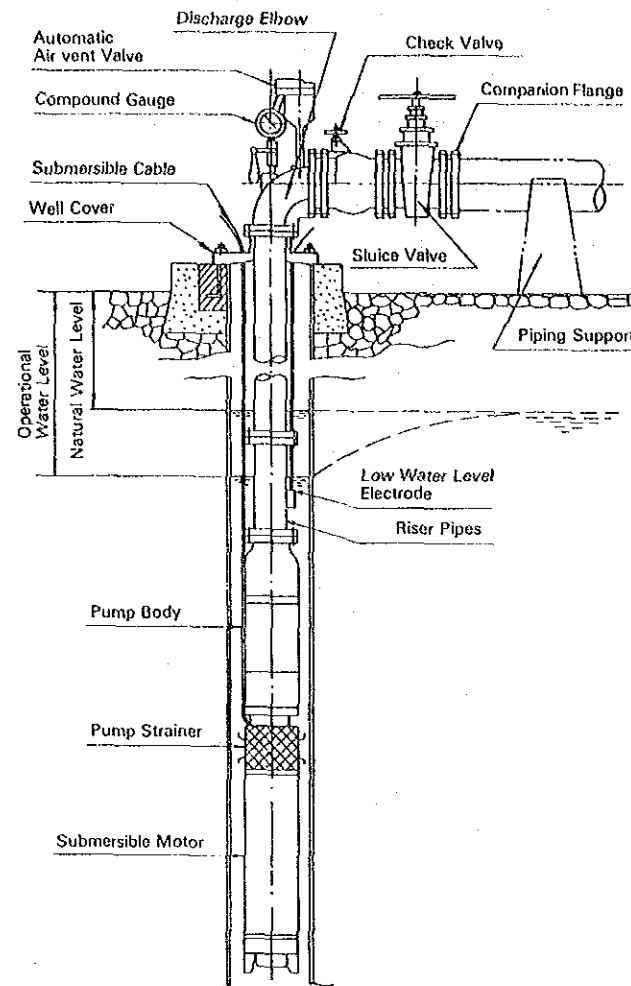
REPUBLIC OF THE PHILIPPINES
 PROVINCIAL GOVERNMENT OF BENGUET
 THE HIGHLAND INTEGRATED RURAL
 DEVELOPMENT PROJECT IN LA TRINIDAD

PLAN OF DRAINAGE OF ROAD

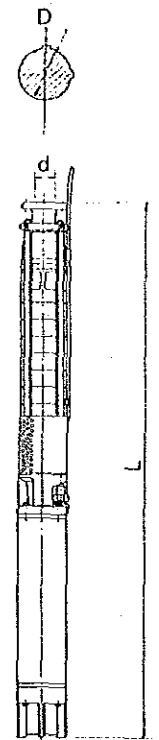
DATE	D.W.G. NO.	24
JAPAN INTERNATIONAL COOPERATION AGENCY		



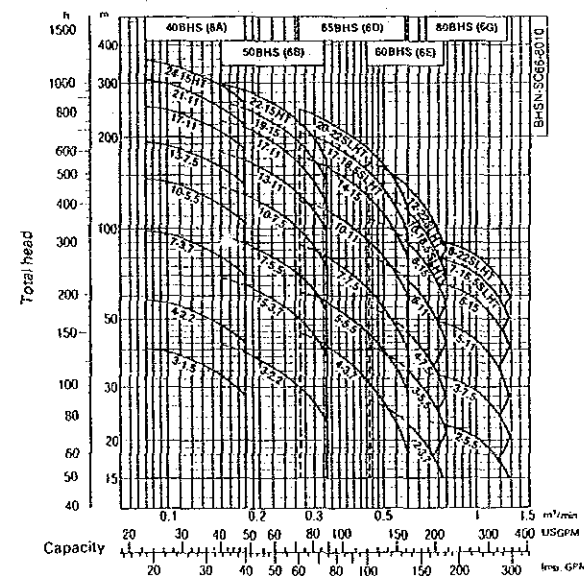
PROFILE OF DEEP WELL



60Hz							
Model	Impeller No.	Disch. Size d	Length L	Max. Dia. D	Weight (Mass) kg	Figure	
40BHS 3-1.5	8A	ϕ 40	1101	140	43	B	
40BHS 4-2.2			1272	140	51		
40BHS 7-3.7			1408	140	86		
40BHS 10-5.5			1597	142	99		
40BHS 13-7.5			1806	142	115		
40BHS 17-11	1 1/2 B	ϕ 50	2323	142	152	C	
40BHS 21-11			2515	142	168		
40BHS 24-15HT			2892	142	195		
50BHS 3-2.2			1224	140	37		B
50BHS 5-3.7			1312	140	67		
50BHS 7-5.5	1453	142	78				
50BHS 10-7.5	1662	142	94				
50BHS 13-11	1891	142	121	C			
50BHS 17-11	2323	142	146				
50BHS 19-15	2559	142	169				
50BHS 22-15HT	2796	142	181				
65BHS 4-3.7	2B	ϕ 50	1312		140	68	B
65BHS 5-5.5			1417	142	75		
65BHS 7-7.5			1602	142	87		
65BHS 10-11			1967	142	112		
65BHS 14-15			2347	142	139		
65BHS 17-18.5SLHT	2 1/2 D	ϕ 65	2880	144	183	C	
65BHS 20-22SLHT			3179	144	207		
80BHS 2-3.7			1203	142	70		D
80BHS 3-5.5			1358	143	81		
80BHS 4-7.5			1533	143	94		
80BHS 6-11	1936	143	124				
80BHS 8-15	2296	143	153				
80BHS 10-18.5SLHT	3B	ϕ 80	2731	145	197	D	
80BHS 12-22SLHT			3070	145	226		
80BHS 2-5.5			1278	143	76		
80BHS 3-7.5			1468	143	90		
80BHS 5-11			1903	143	122		
80BHS 6-15	6G	3B	2168	143	145		
80BHS 7-18.5SLHT			2506	145	183		
80BHS 8-22SLHT			2750	145	206		



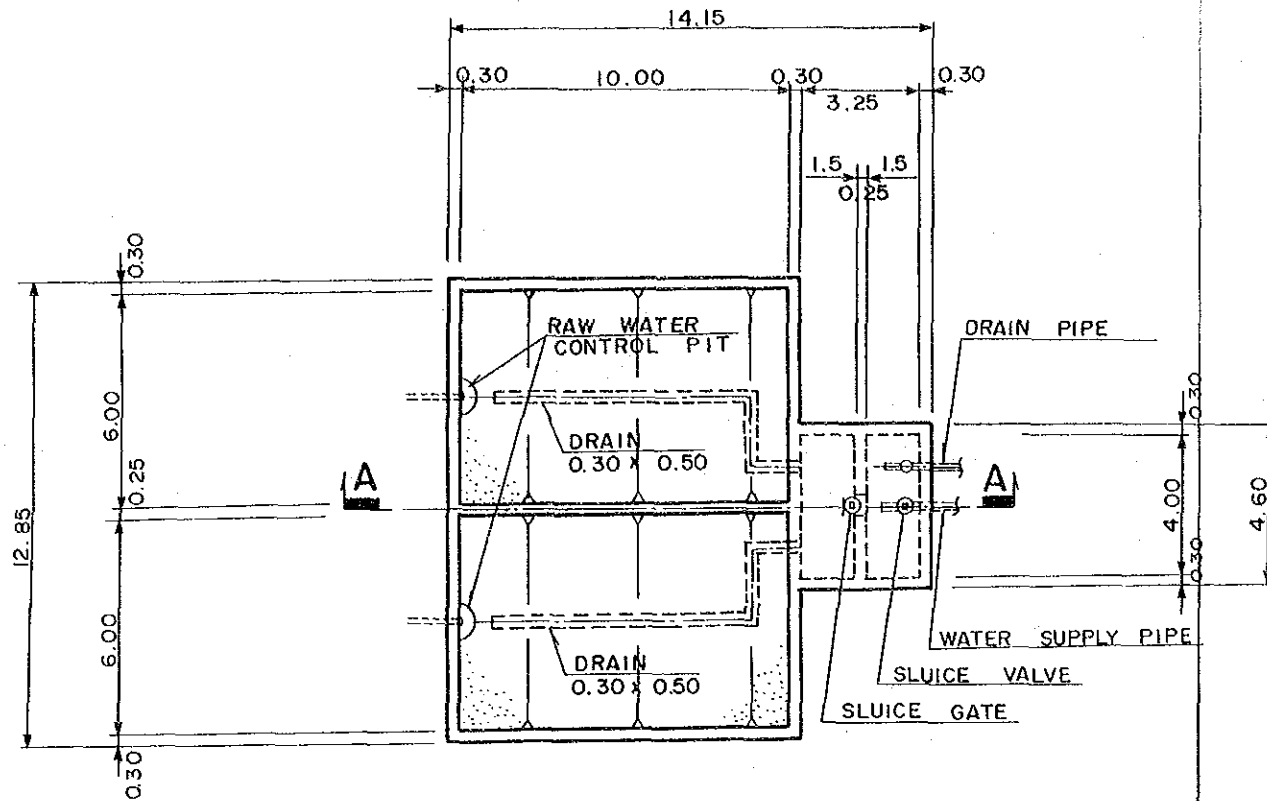
■ Min. Well diameter 150mm (6 in.) The 80 BHS is for 200mm (8 in.) if flange type.



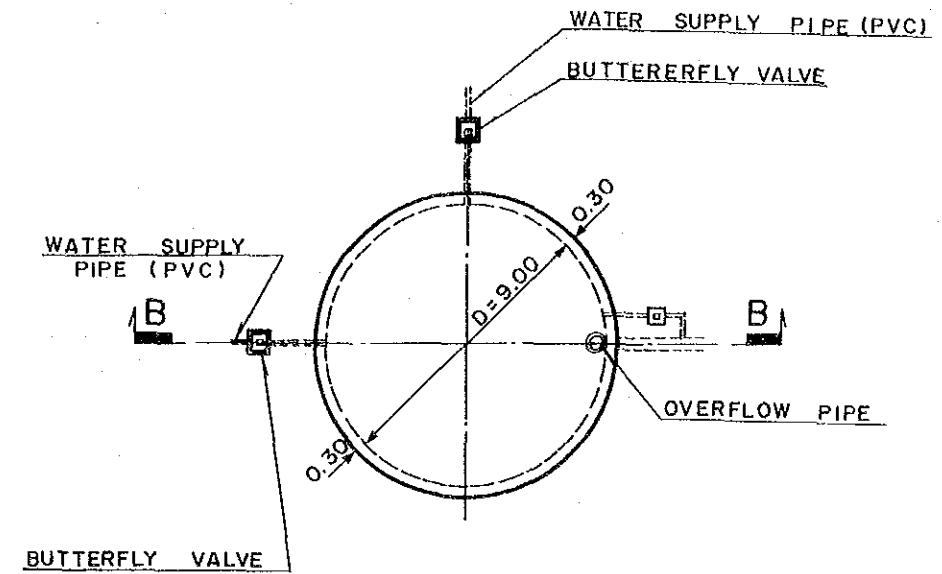
Symbols

32 BHS (4A) 6 6.75

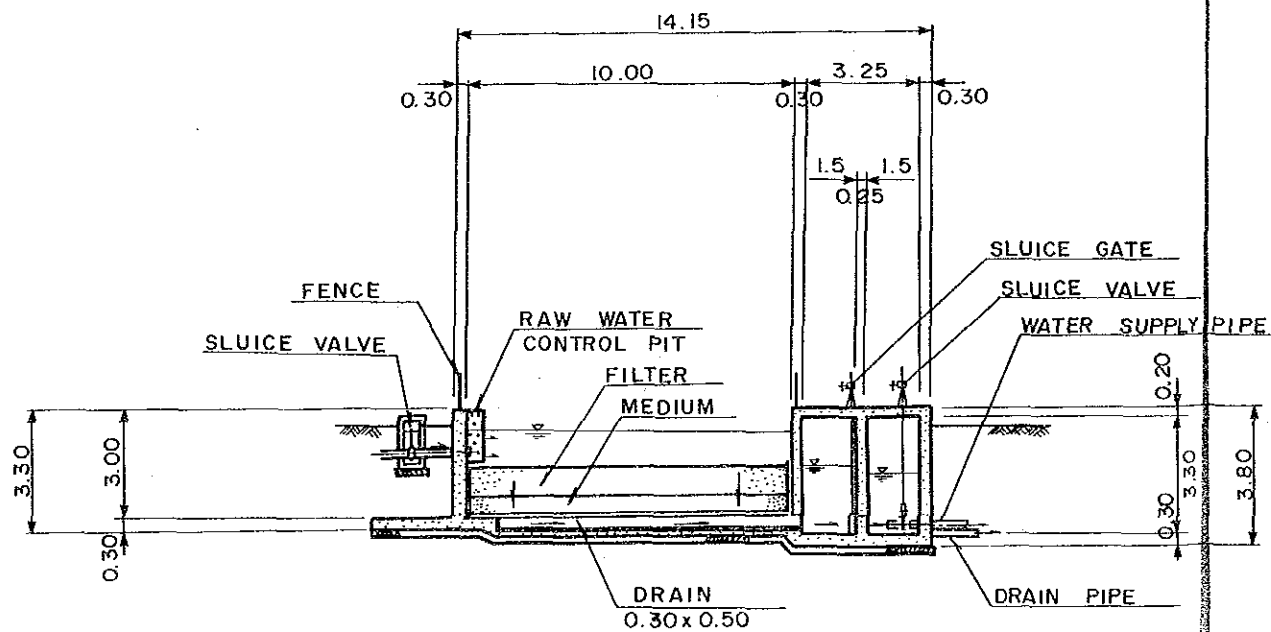
Motor output: kW
S: Single phase
No mark: Three phase
Frequency 6: 60Hz
No. of stages
Impeller No.
Model
Discharge size: mm



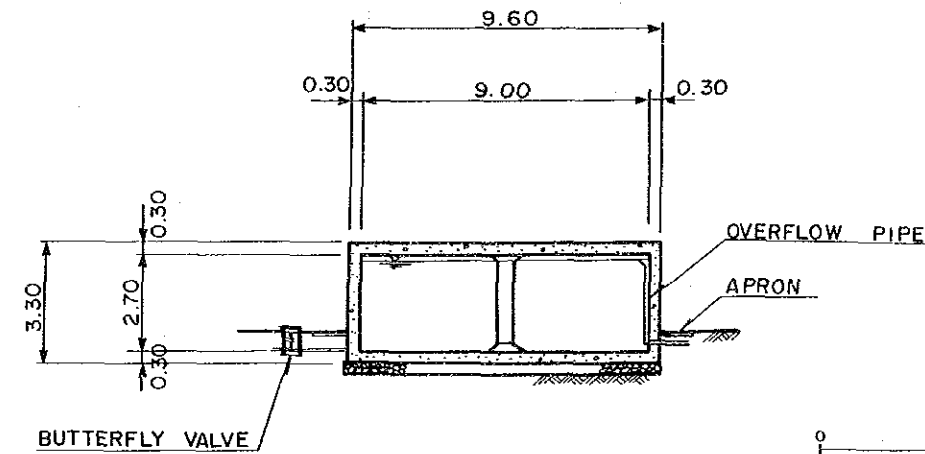
PLAN OF SLOW FILTRATION BASIN
SCALE 1:200



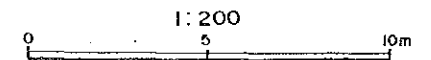
PLAN OF DISTRIBUTING TANK
SCALE 1:200



SECTION A - A
SCALE 1:200

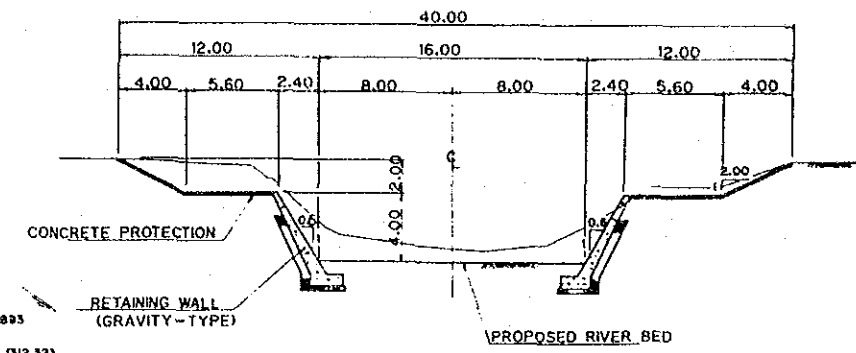
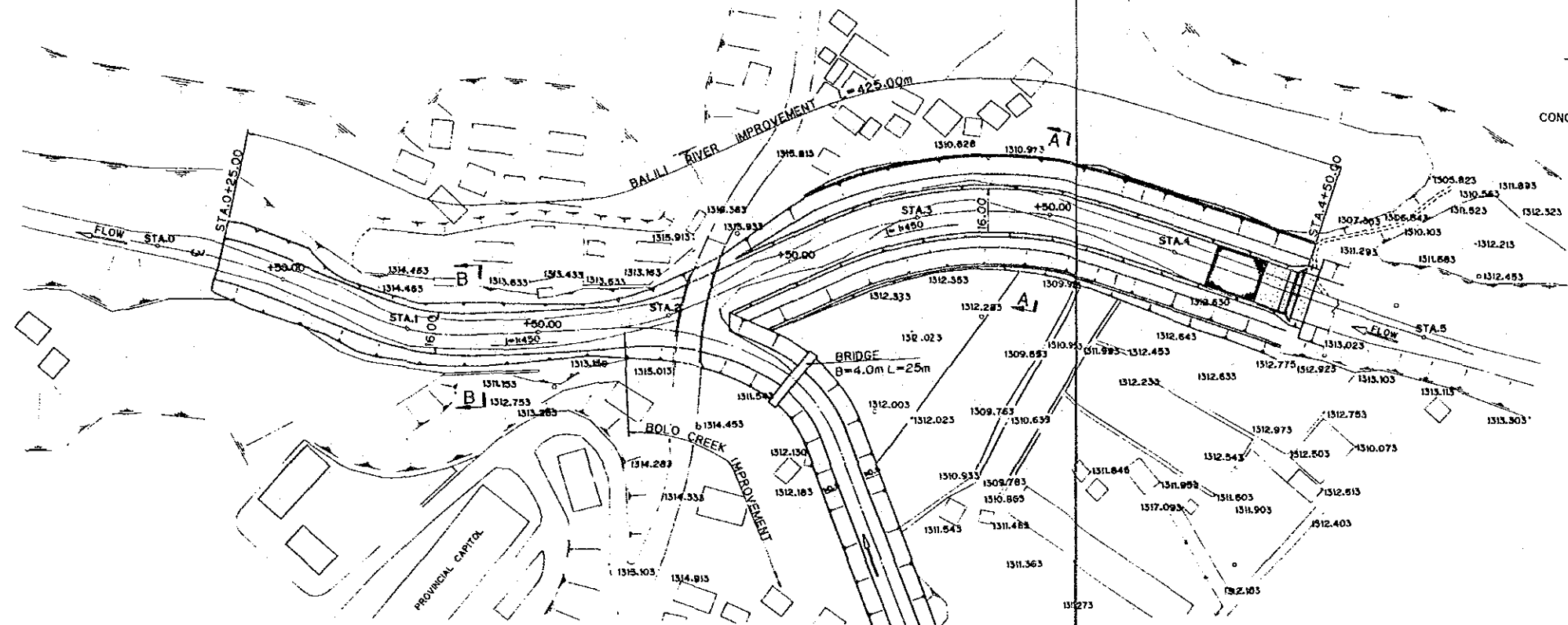


SECTION B - B
SCALE 1:200

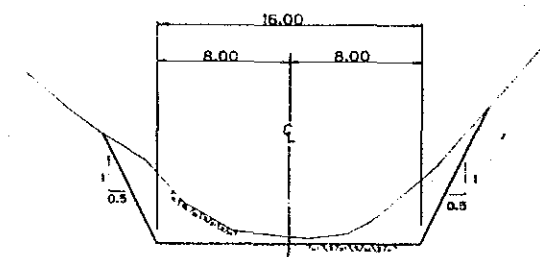


REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
SLOW FILTRATION BASIN AND DISTRIBUTING TANK		
DATE	D.W.G. NO.	26
JAPAN INTERNATIONAL COOPERATION AGENCY		

PLAN OF BALILI RIVER IMPROVEMENT
SCALE 1:1000

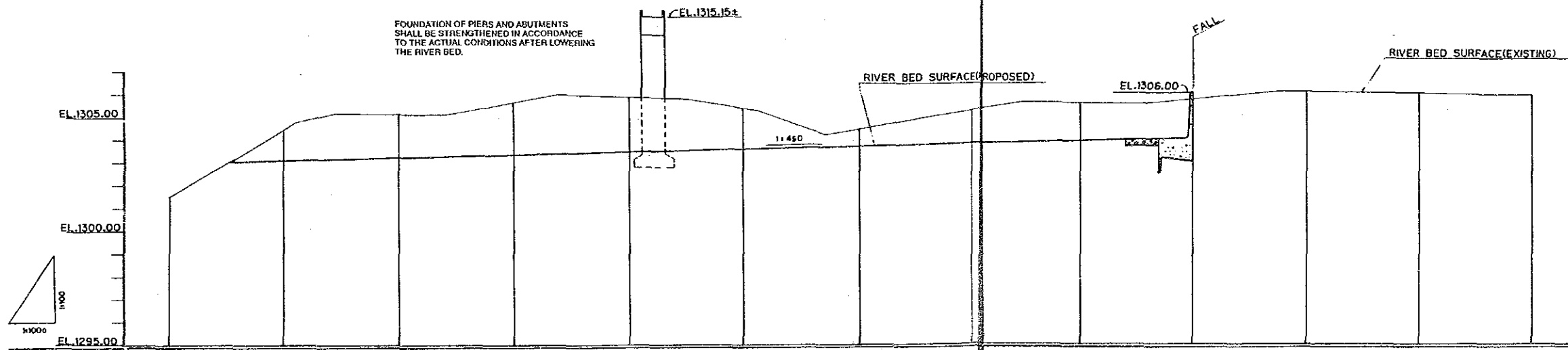


STANDARD SECTION (A-A)
SCALE 1:200



STANDARD SECTION (B-B)
SCALE 1:200

FOUNDATION OF PIERS AND ABUTMENTS SHALL BE STRENGTHENED IN ACCORDANCE TO THE ACTUAL CONDITIONS AFTER LOWERING THE RIVER BED.

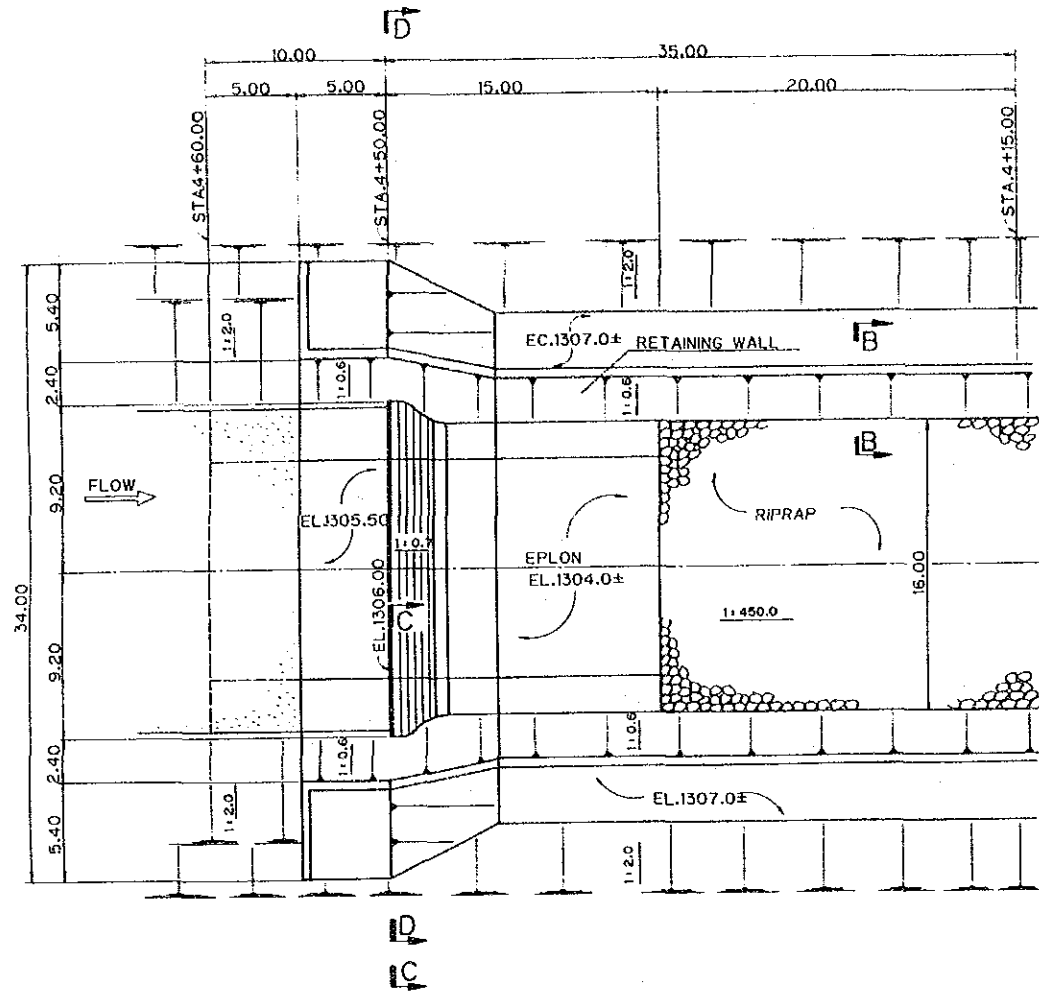


SLOPE	1:450														
RIVER BACE ELEVATION	1301.33	1301.11	1300.27	1300.33	1300.44	1300.56	1300.67	1300.77	1300.86	1300.94	1301.01	1301.07	1301.12	1301.16	1301.19
WATER SURFACE ELEVATION	1300.81	1300.74	1300.61	1300.50	1300.34	1300.14	1300.00	1299.84	1299.64	1299.40	1299.12	1298.81	1298.47	1298.10	1297.70
GROUND SURFACE ELEVATION	1301.33	1301.24	1301.17	1301.05	1300.87	1300.63	1300.34	1300.00	1299.61	1299.17	1298.69	1298.17	1297.61	1297.01	1296.37
REDUCED DISTANCE	0.00	70.00	140.00	210.00	280.00	350.00	420.00	490.00	560.00	630.00	700.00	770.00	840.00	910.00	980.00
DISTANCE	0.00	30.00	60.00	90.00	120.00	150.00	180.00	210.00	240.00	270.00	300.00	330.00	360.00	390.00	420.00
STATION	STA. 0	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00

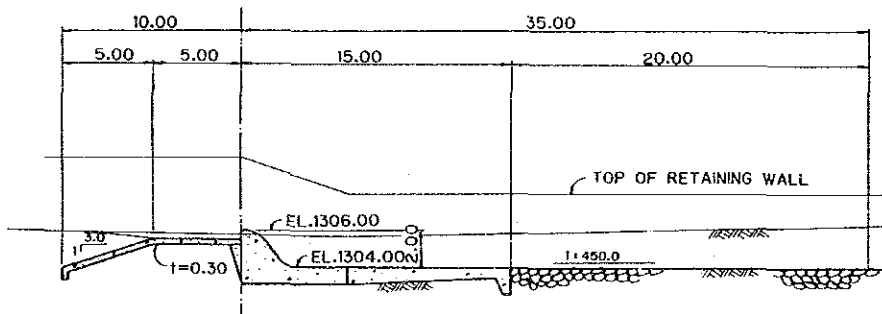
REPUBLIC OF THE PHILIPPINES
 PROVINCIAL GOVERNMENT OF BENGUET
 THE HIGHLAND INTEGRATED RURAL
 DEVELOPMENT PROJECT IN LA TRINIDAD
PLAN OF BALILI RIVER IMPROVEMENT
 (1)

DATE	D.W.G. NO.	27
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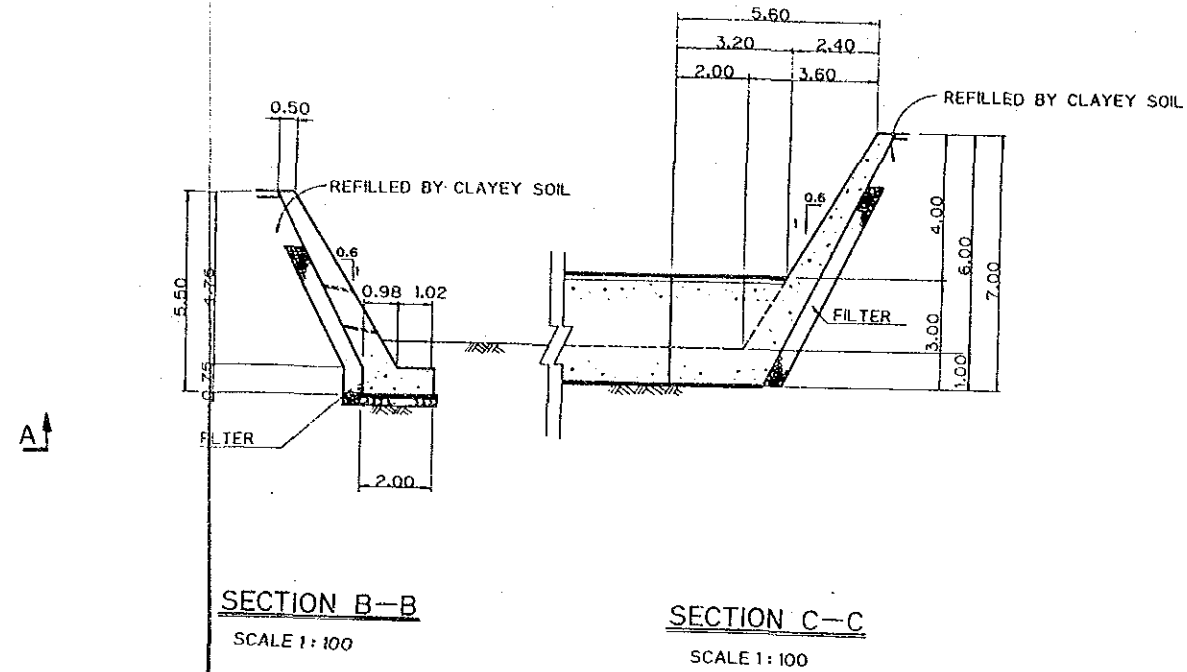
JAPAN INTERNATIONAL COOPERATION AGENCY



PLAN OF FALL STRUCTURE
SCALE 1:200

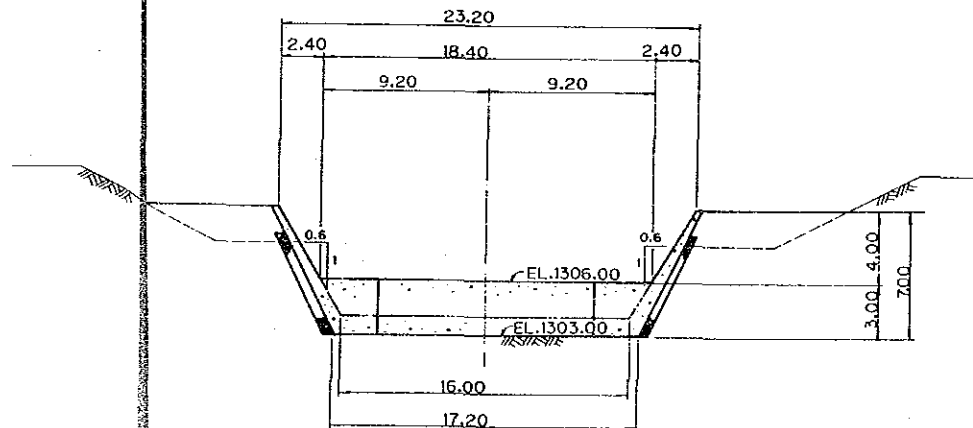


SECTION A-A
SCALE 1:200

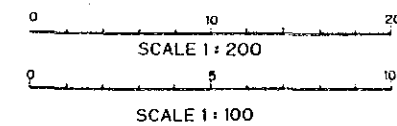


SECTION B-B
SCALE 1:100

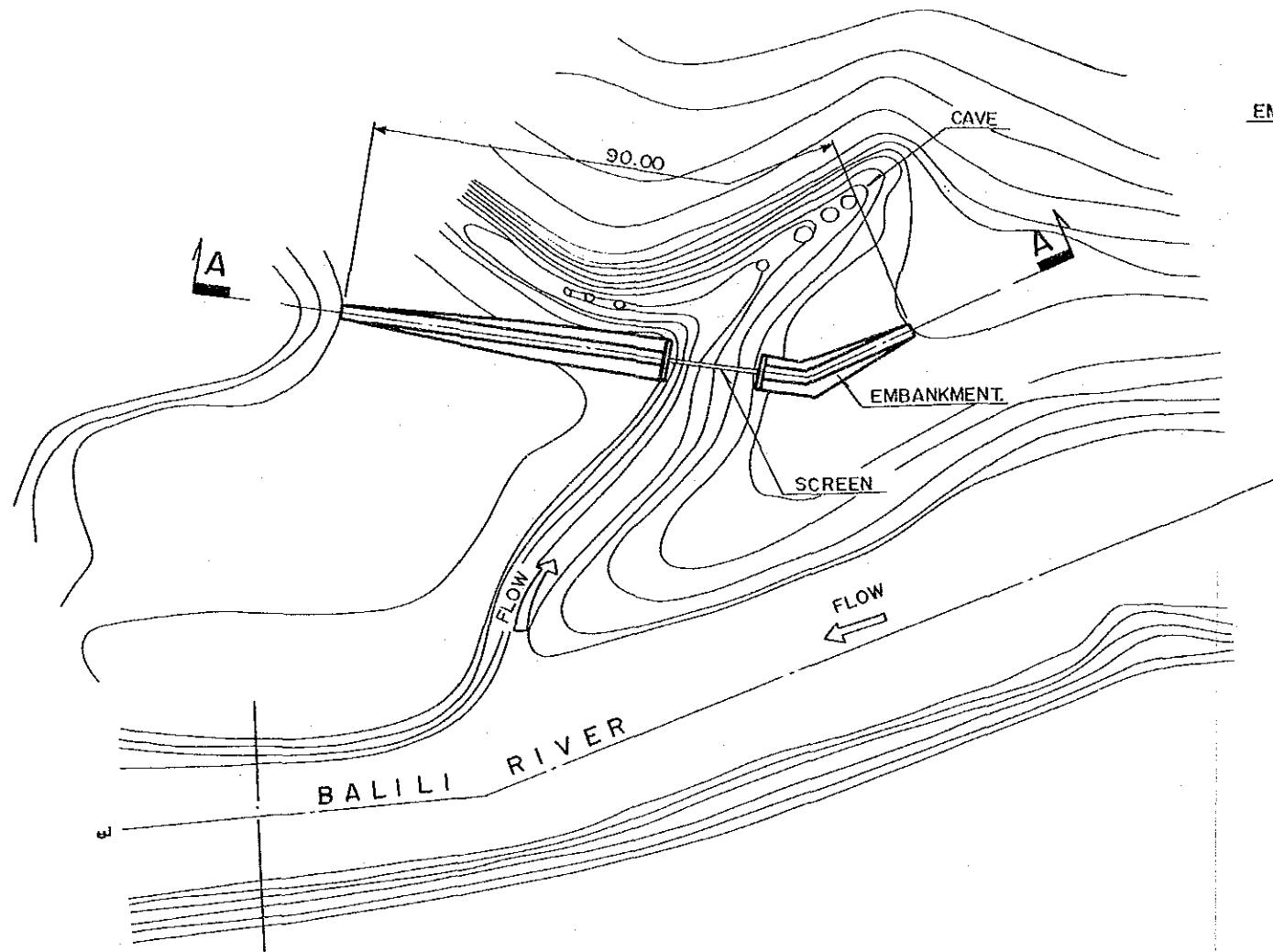
SECTION C-C
SCALE 1:100



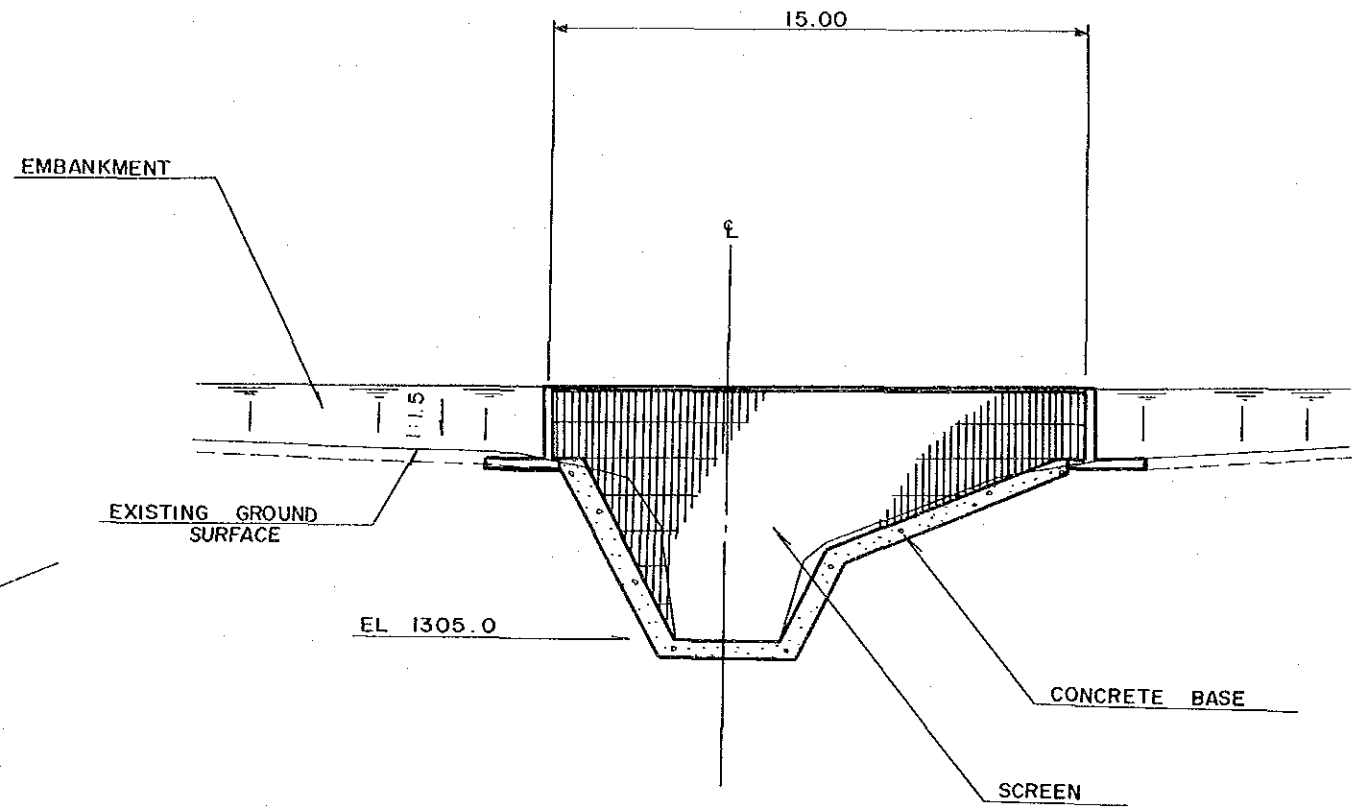
SECTION D-D
SCALE 1:200



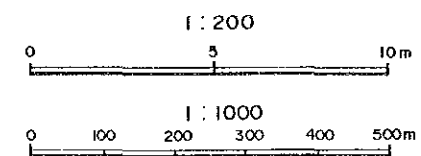
REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
PLAN OF BALILI RIVER IMPROVEMENT (2)		
DATE	D.W.G.NO.	28
JAPAN INTERNATIONAL COOPERATION AGENCY		



PLAN OF CAVE REPAIRMENT
SCALE 1:1000



SECTION A - A
SCALE 1:200

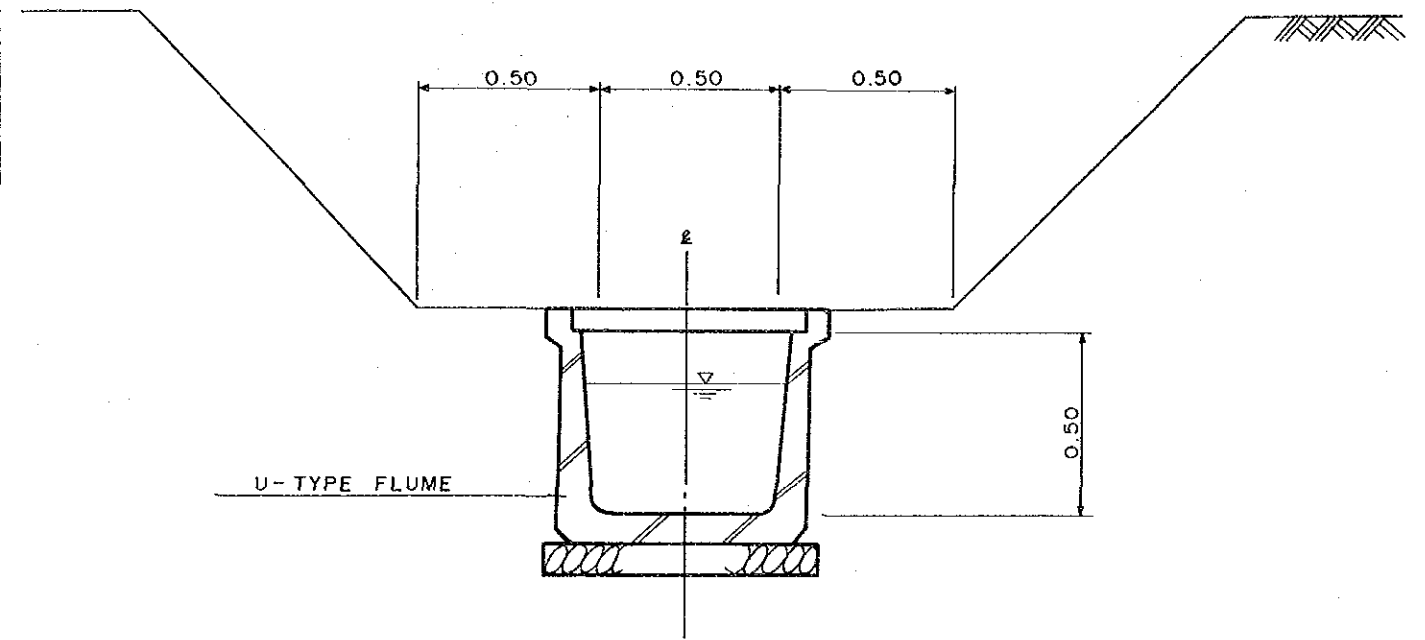


REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET			
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD			
PLAN OF DINO CAVE REPAIR			
DATE		D.W.G. NO.	30
JAPAN INTERNATIONAL COOPERATION AGENCY			



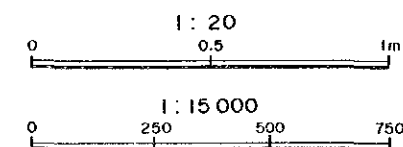
PLAN OF SEWAGE CANAL

SCALE 1 : 15 000



STANDARD SECTION OF SEWAGE CANAL

SCALE 1 : 20



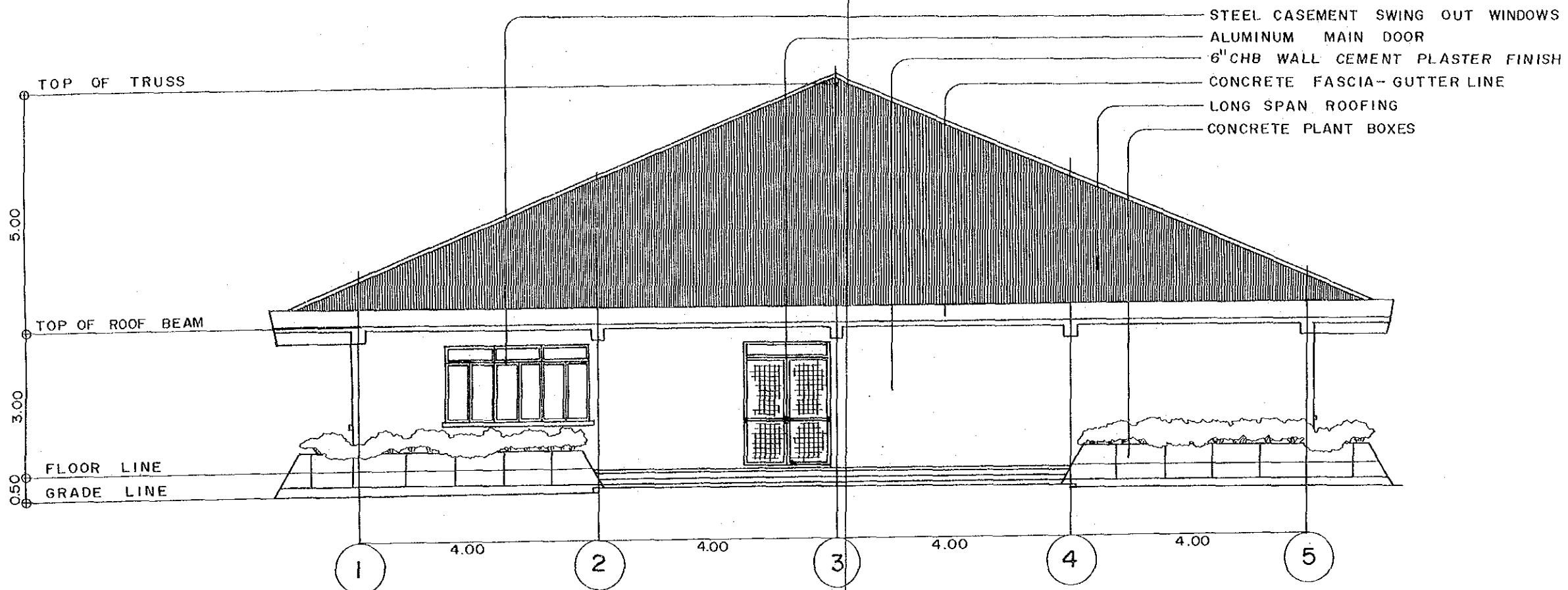
REPUBLIC OF THE PHILIPPINES
PROVINCIAL GOVERNMENT OF BENGUET

THE HIGHLAND INTEGRATED RURAL
DEVELOPMENT PROJECT IN LA TRINIDAD

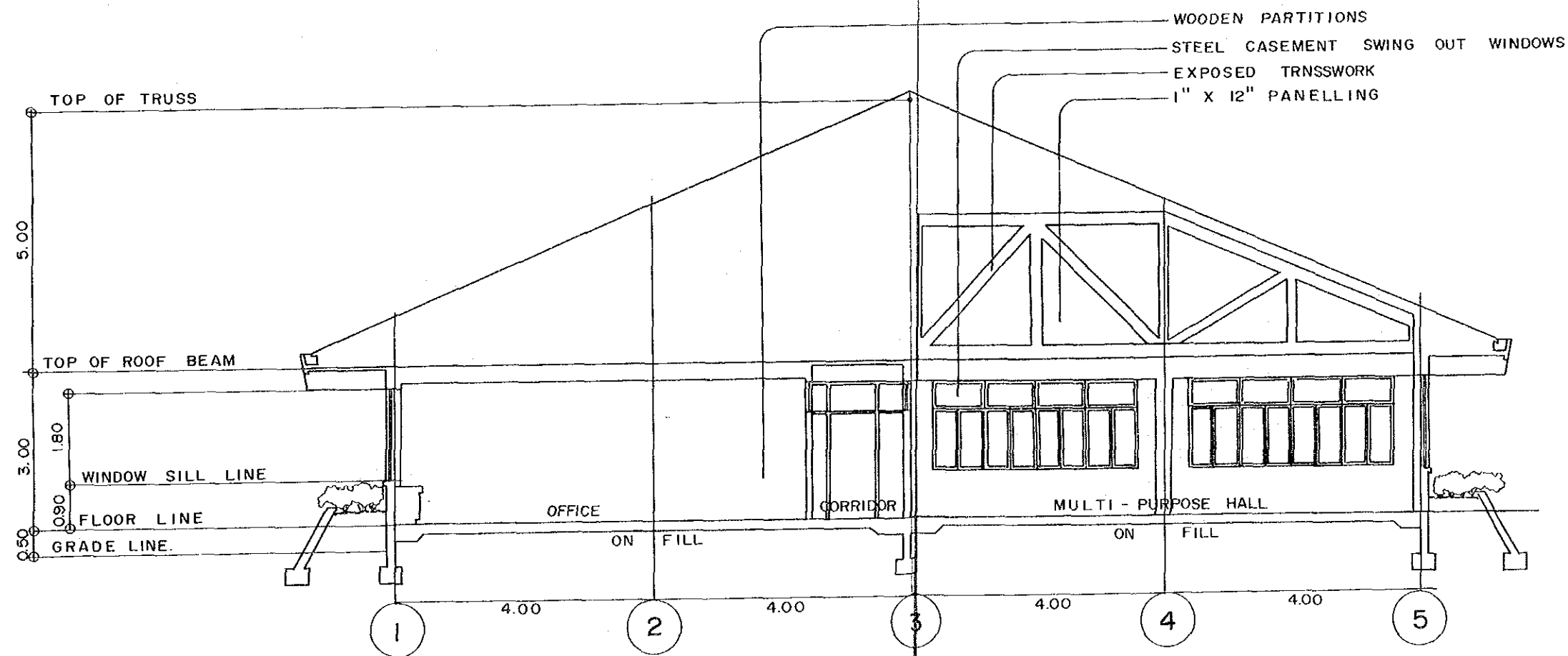
PLAN OF
SEWAGE FACILITIES

DATE _____ D.W.G. NO. **31**

JAPAN INTERNATIONAL COOPERATION AGENCY

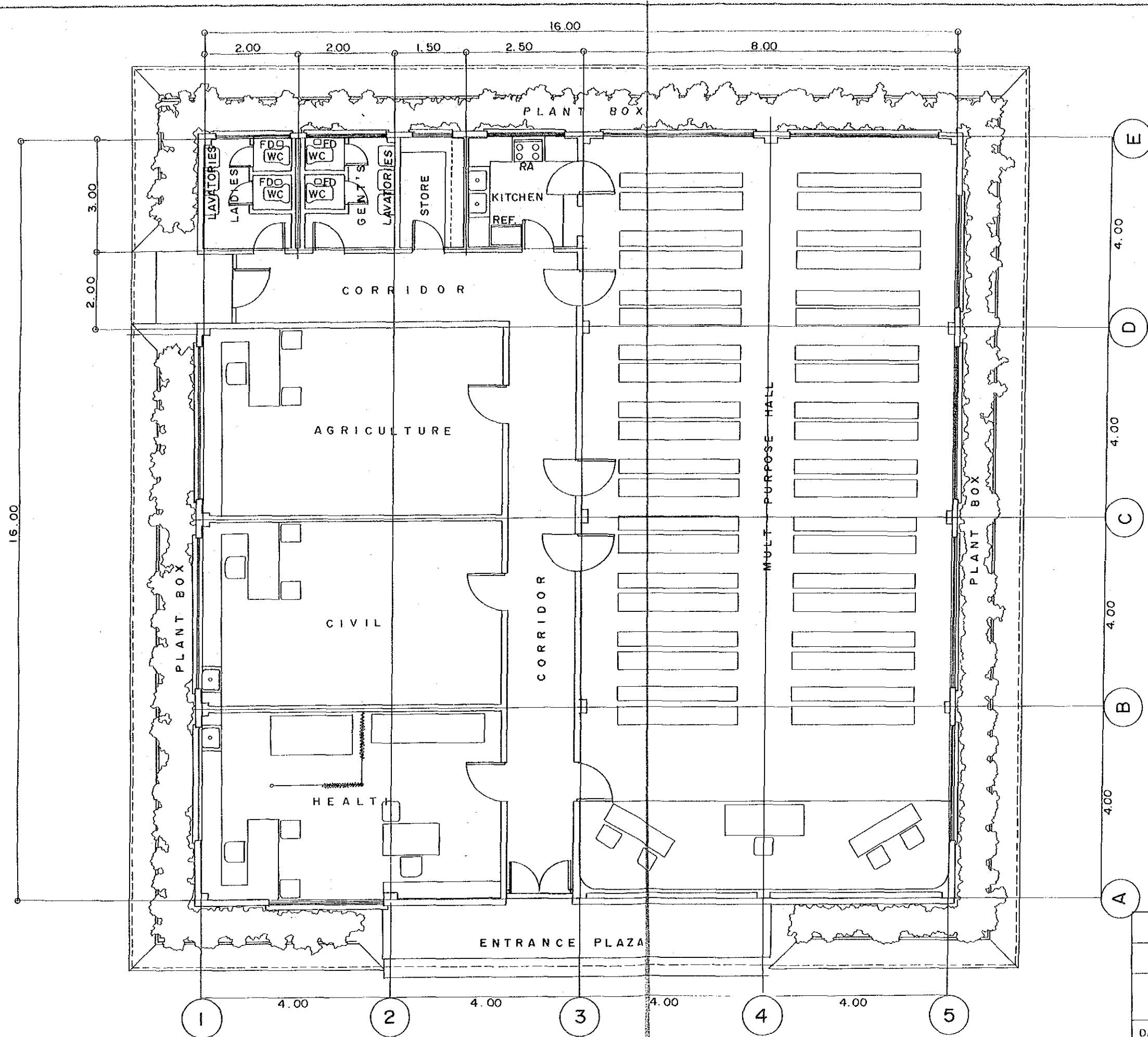


FRONT ELEVATION



CROSS SECTION

REPUBLIC OF THE PHILIPPINES PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
PLAN OF BARANGAY HALL (1)		
DATE	D.W.G. NO.	32
JAPAN INTERNATIONAL COOPERATION AGENCY		



FLOOR PLAN

REPUBLIC OF THE PHILIPPINES		
PROVINCIAL GOVERNMENT OF BENGUET		
THE HIGHLAND INTEGRATED RURAL DEVELOPMENT PROJECT IN LA TRINIDAD		
PLAN OF BARANGAY HALL (2)		
DATE	D.W.G. NO.	33
JAPAN INTERNATIONAL COOPERATION AGENCY		

JICA

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