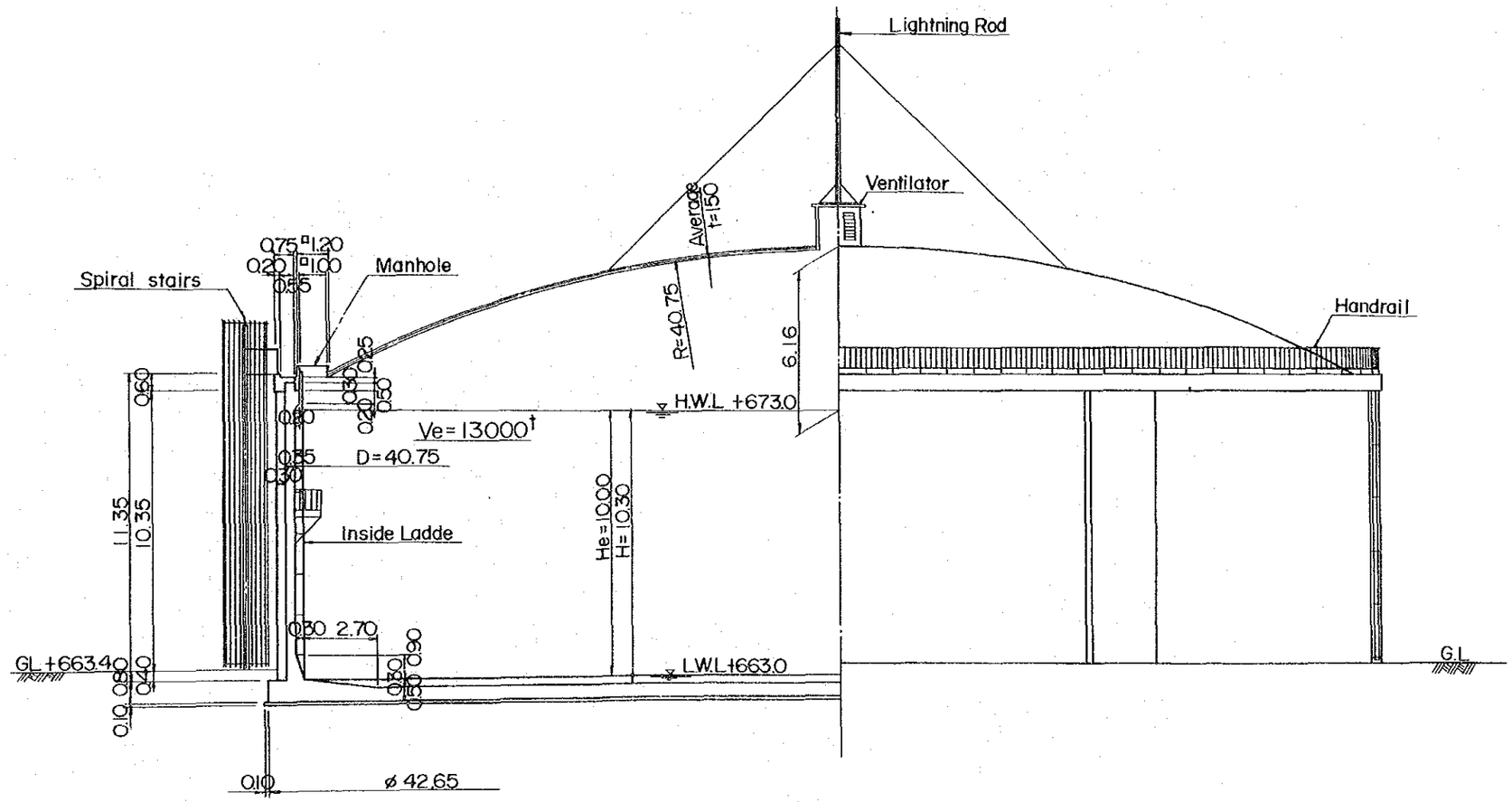


SECTION

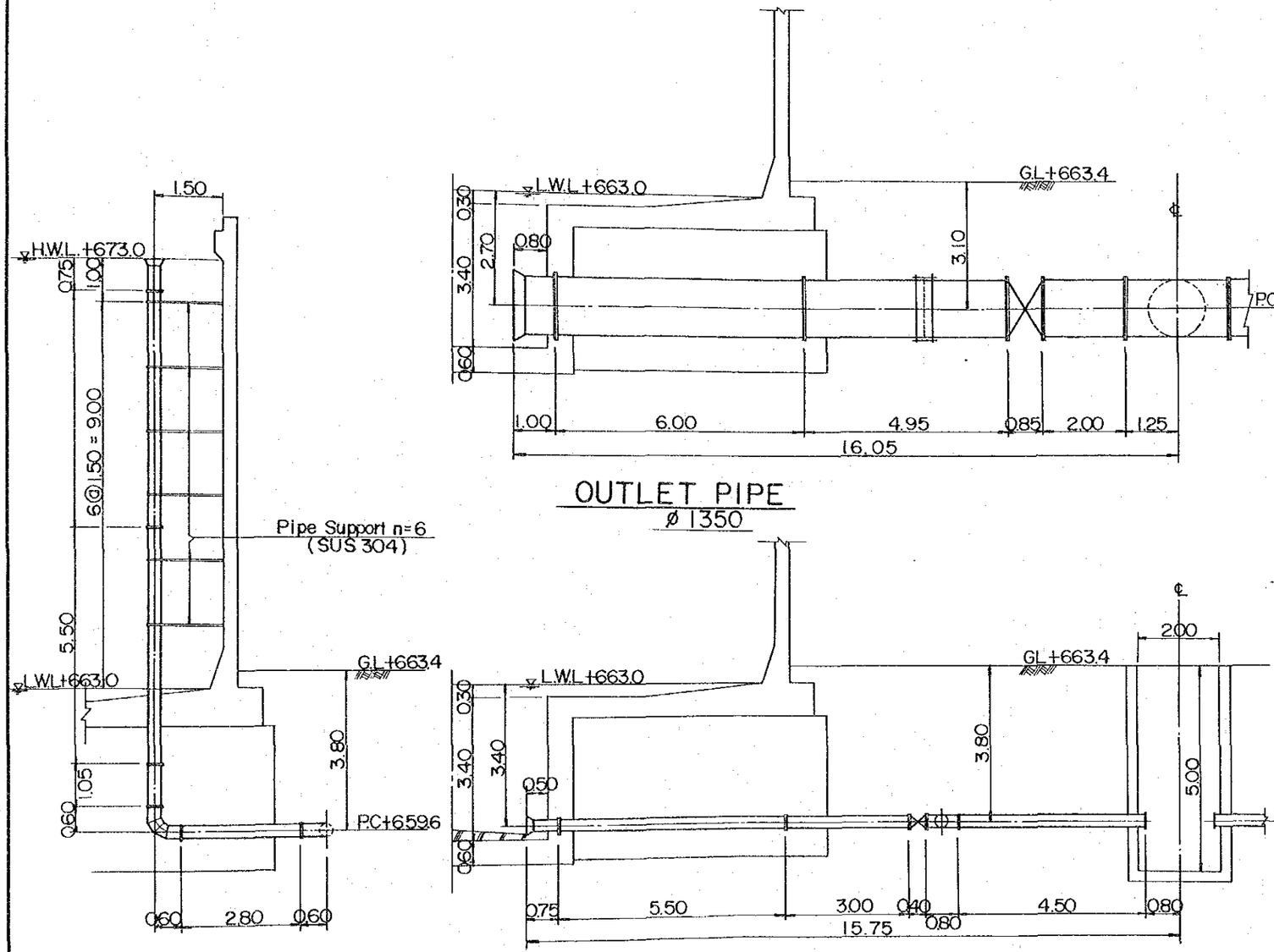
SIDE ELEVATION

TYPICAL SECTION

SCALE 1 : 200

0 5m 10m

THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY			
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI			
GOLRA-I SERVICE RESERVOIR TYPICAL SECTION			
DATE		DWG. NO	31
JAPAN INTERNATIONAL COOPERATION AGENCY			



OUTLET PIPE
ø 1350

OVER FLOW PIPE
ø 300

DRAINAGE PIPE
ø 300

INLET PIPE
ø 1200

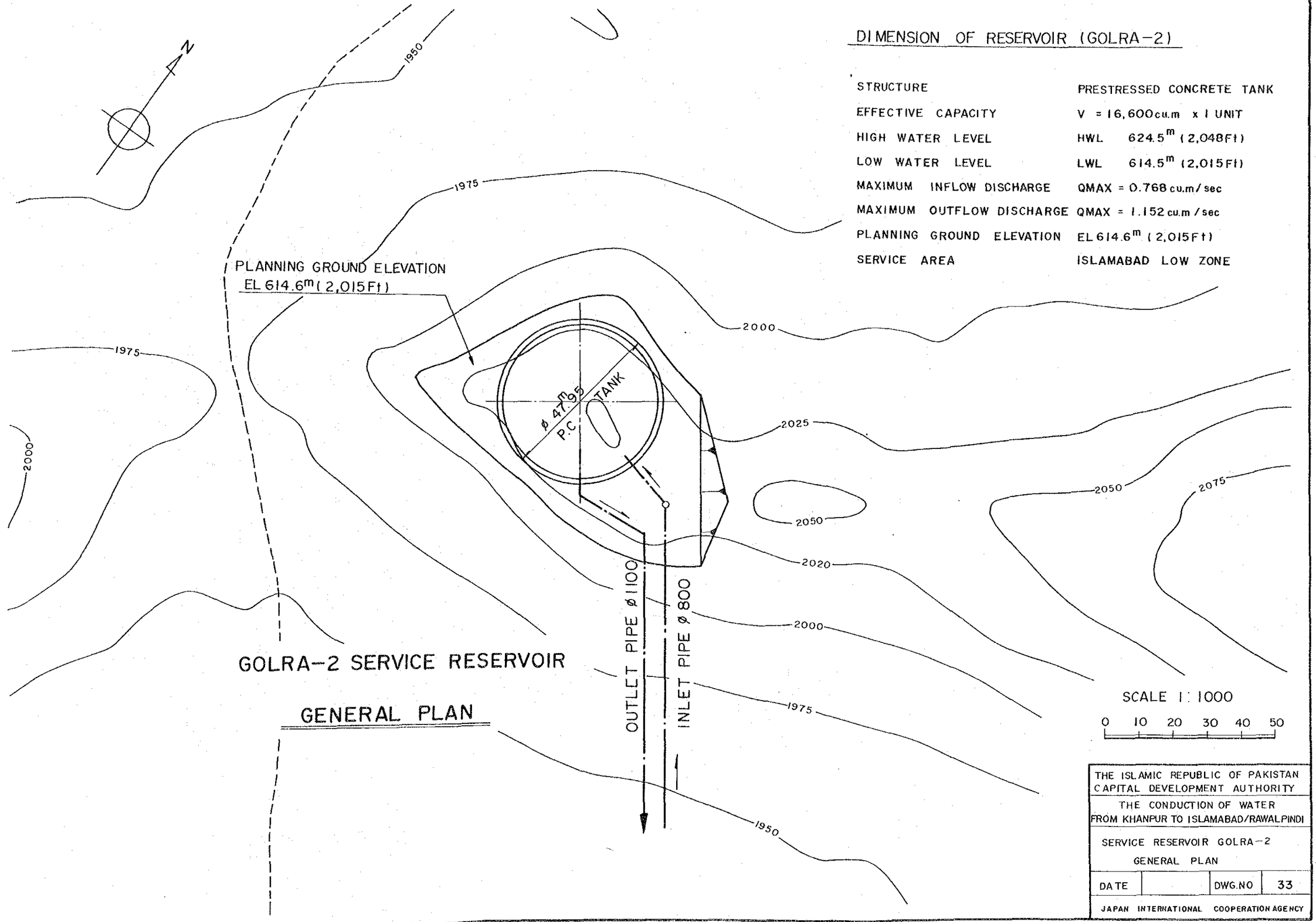
SCALE 1 : 120

0 5m

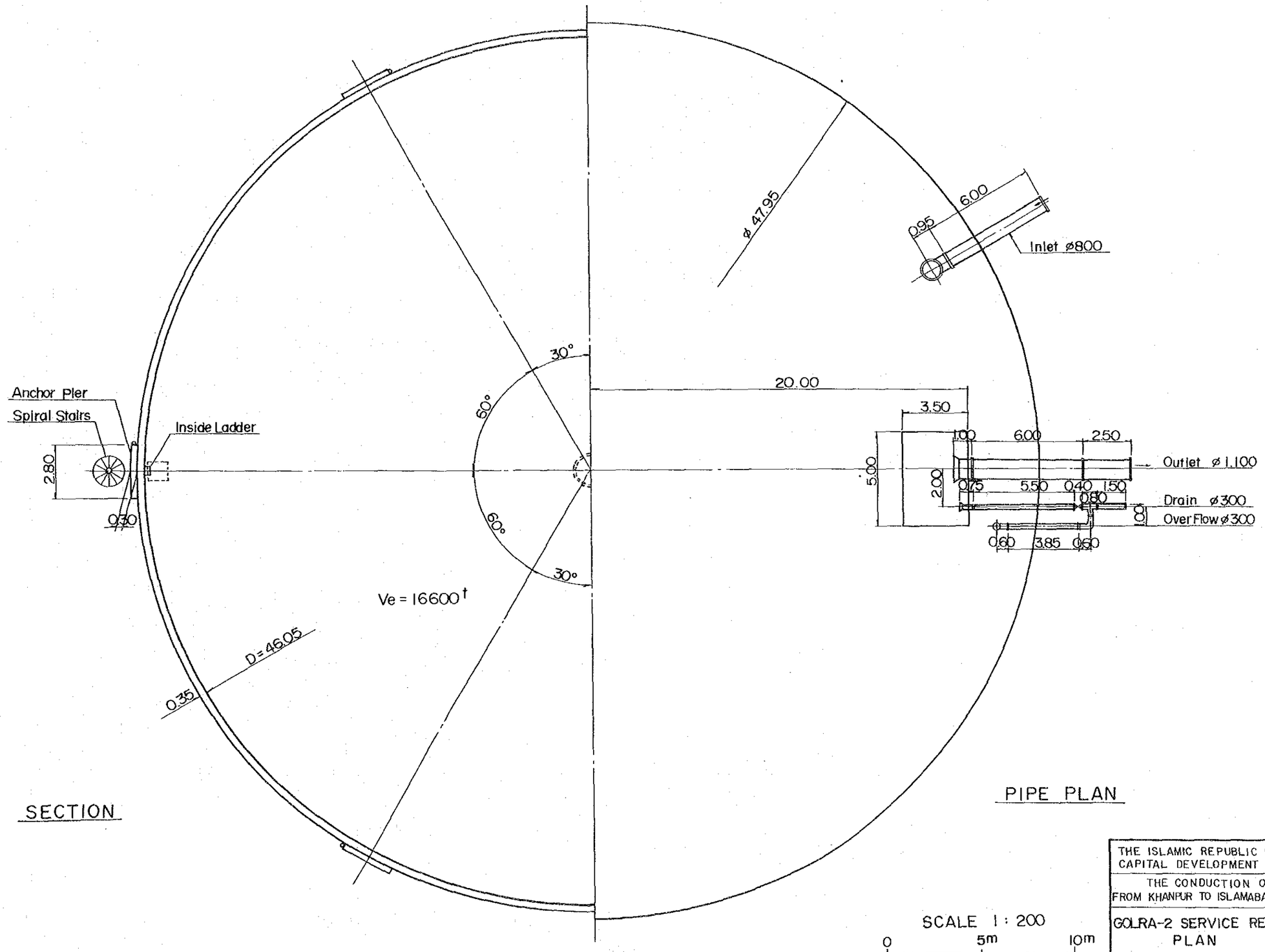
THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY	
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI	
GOLRA-I SERVICE RESERVOIR PIPE SECTION	
DATE	DWG.NO 32
JAPAN INTERNATIONAL COOPERATION AGENCY	

DIMENSION OF RESERVOIR (GOLRA-2)

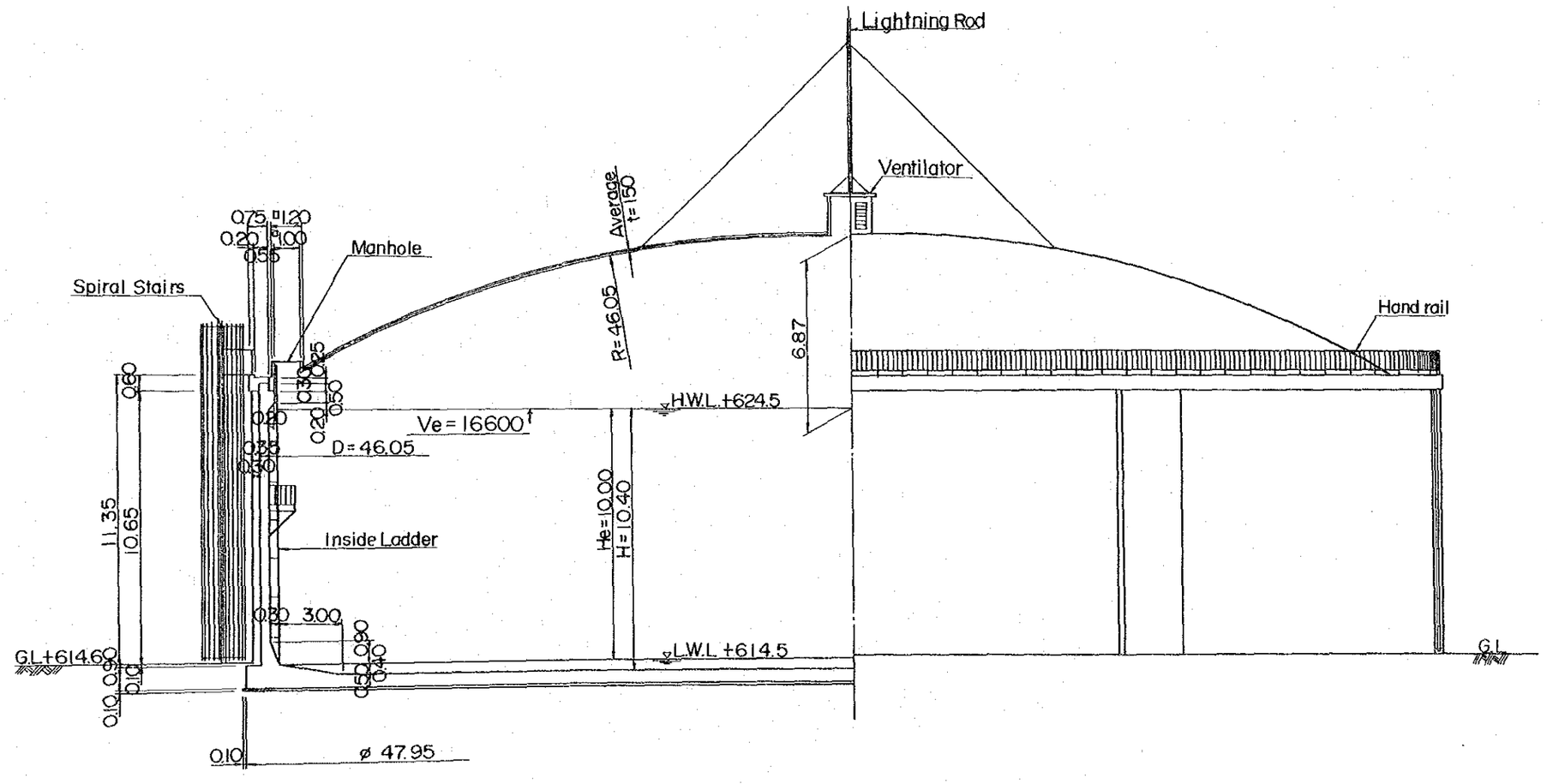
STRUCTURE	PRESTRESSED CONCRETE TANK
EFFECTIVE CAPACITY	V = 16,600 cu.m x 1 UNIT
HIGH WATER LEVEL	HWL 624.5^{m} (2,048Ft)
LOW WATER LEVEL	LWL 614.5^{m} (2,015Ft)
MAXIMUM INFLOW DISCHARGE	QMAX = 0.768 cu.m/sec
MAXIMUM OUTFLOW DISCHARGE	QMAX = 1.152 cu.m/sec
PLANNING GROUND ELEVATION	EL 614.6^{m} (2,015Ft)
SERVICE AREA	ISLAMABAD LOW ZONE



THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY			
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI			
SERVICE RESERVOIR GOLRA-2 GENERAL PLAN			
DATE		DWG.NO	33
JAPAN INTERNATIONAL COOPERATION AGENCY			



THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY			
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD / RAWALPINDI			
GOLRA-2 SERVICE RESERVOIR PLAN			
DATE		DWG. NO	34
JAPAN INTERNATIONAL COOPERATION AGENCY			



SECTION

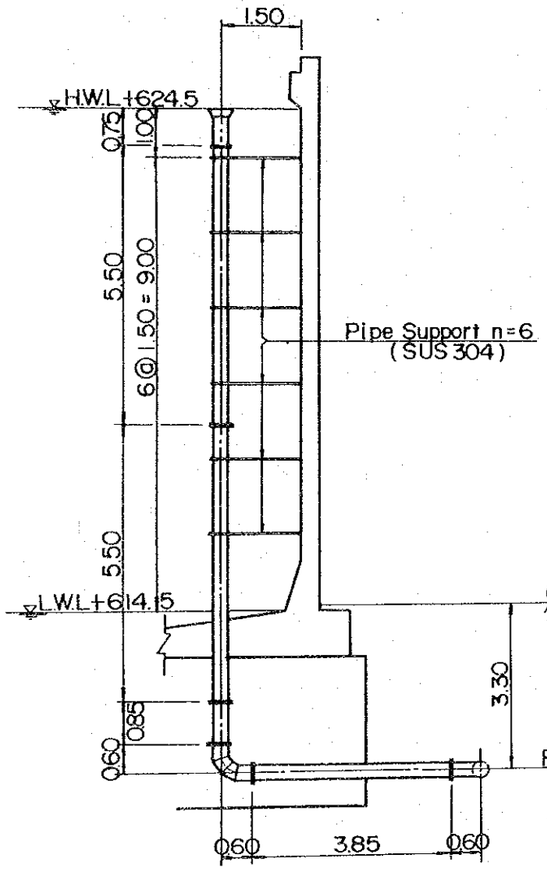
SIDE ELEVATION

TYPICAL SECTION

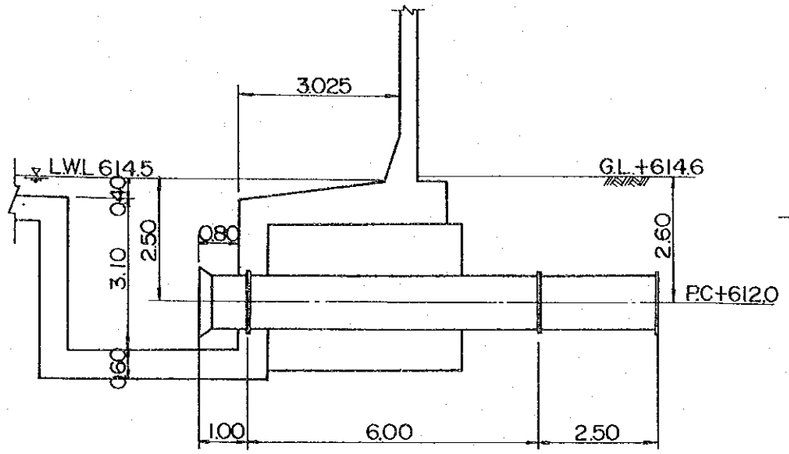
SCALE 1 : 200

0 5m 10m

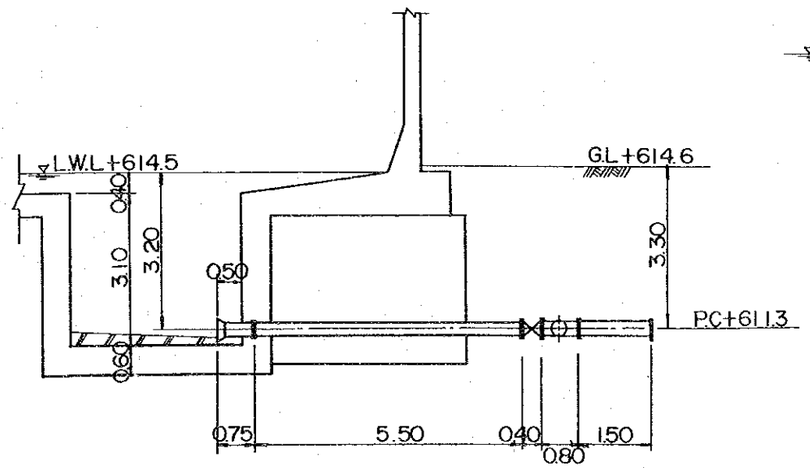
THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY	
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI	
GOLRA-2 SERVICE RESERVOIR TYPICAL SECTION	
DATE	DWG. NO 35
JAPAN INTERNATIONAL COOPERATION AGENCY	



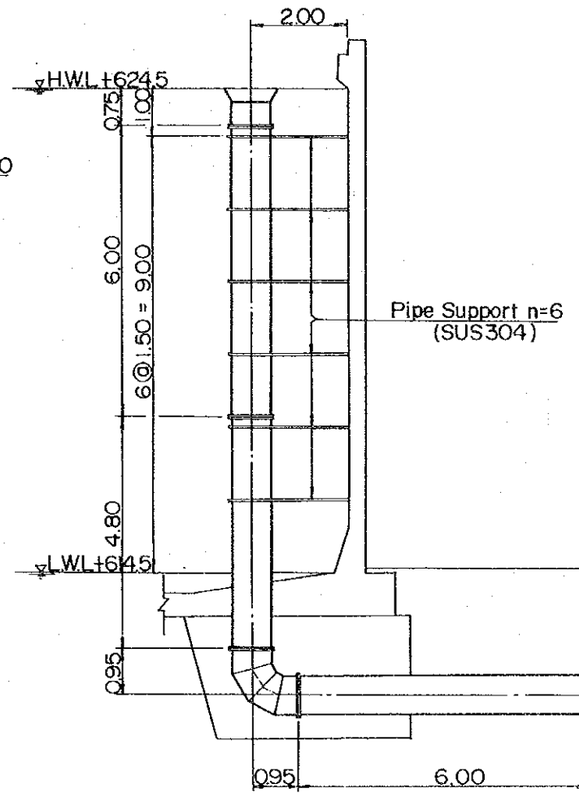
OVER FLOW PIPE
ø 300



OUTLET PIPE
ø 1100



DRAINAGE PIPE
ø 300



INLET PIPE
ø 800

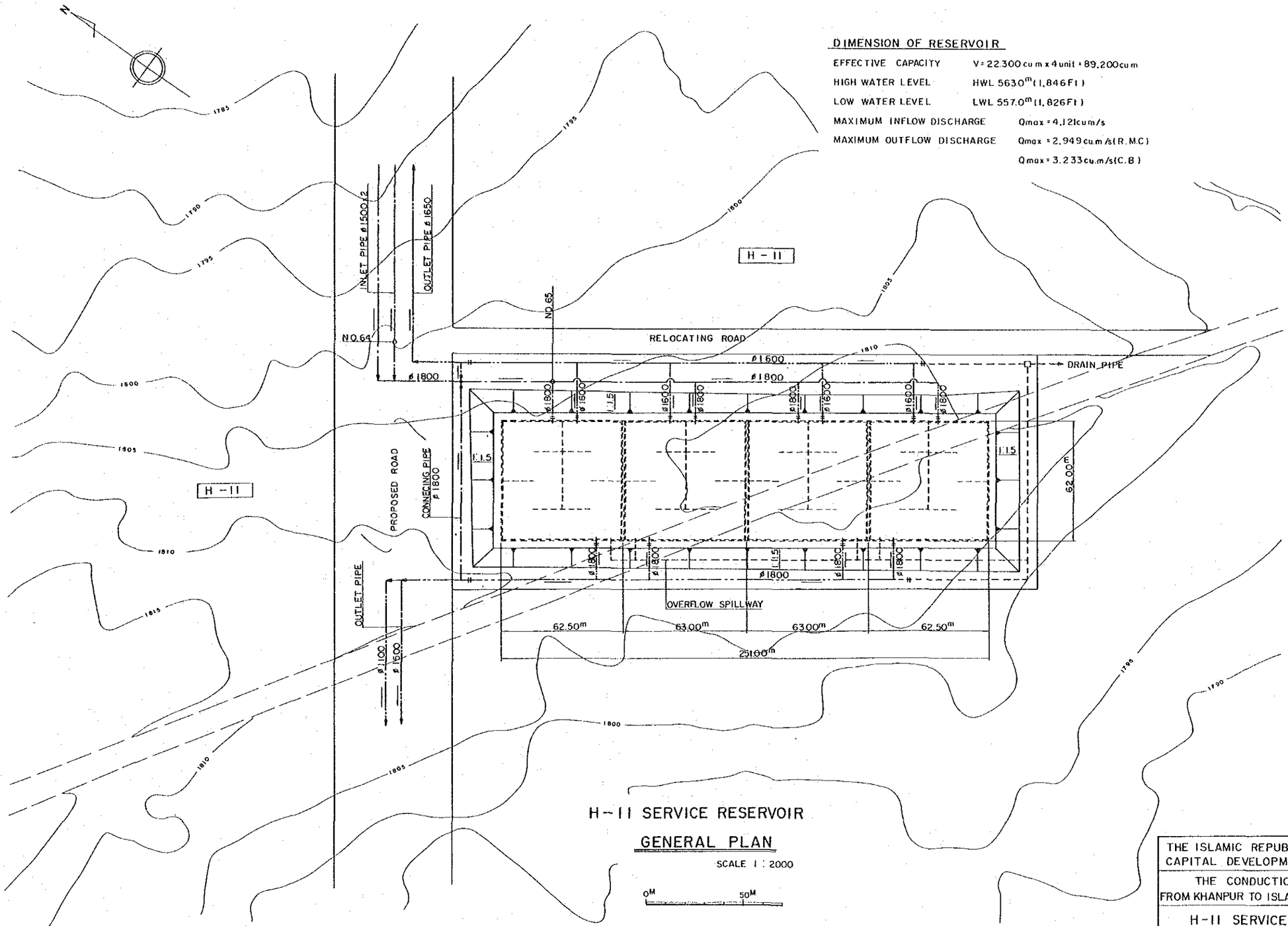
SCALE 1 : 120

0 5m

THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY	
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI	
GOLRA-2 SEVICE RESERVOIR PIPE SECTION	
DATE	DWG. NO 36
JAPAN INTERNATIONAL COOPERATION AGENCY	

DIMENSION OF RESERVOIR

EFFECTIVE CAPACITY	V = 22,300 cu m x 4 unit = 89,200 cu m
HIGH WATER LEVEL	HWL 563.0^{m} (1,846 Ft)
LOW WATER LEVEL	LWL 557.0^{m} (1,826 Ft)
MAXIMUM INFLOW DISCHARGE	Qmax = 4.121 cu m/s
MAXIMUM OUTFLOW DISCHARGE	Qmax = 2.949 cu.m/s (R.M.C)
	Qmax = 3.233 cu.m/s (C.B)

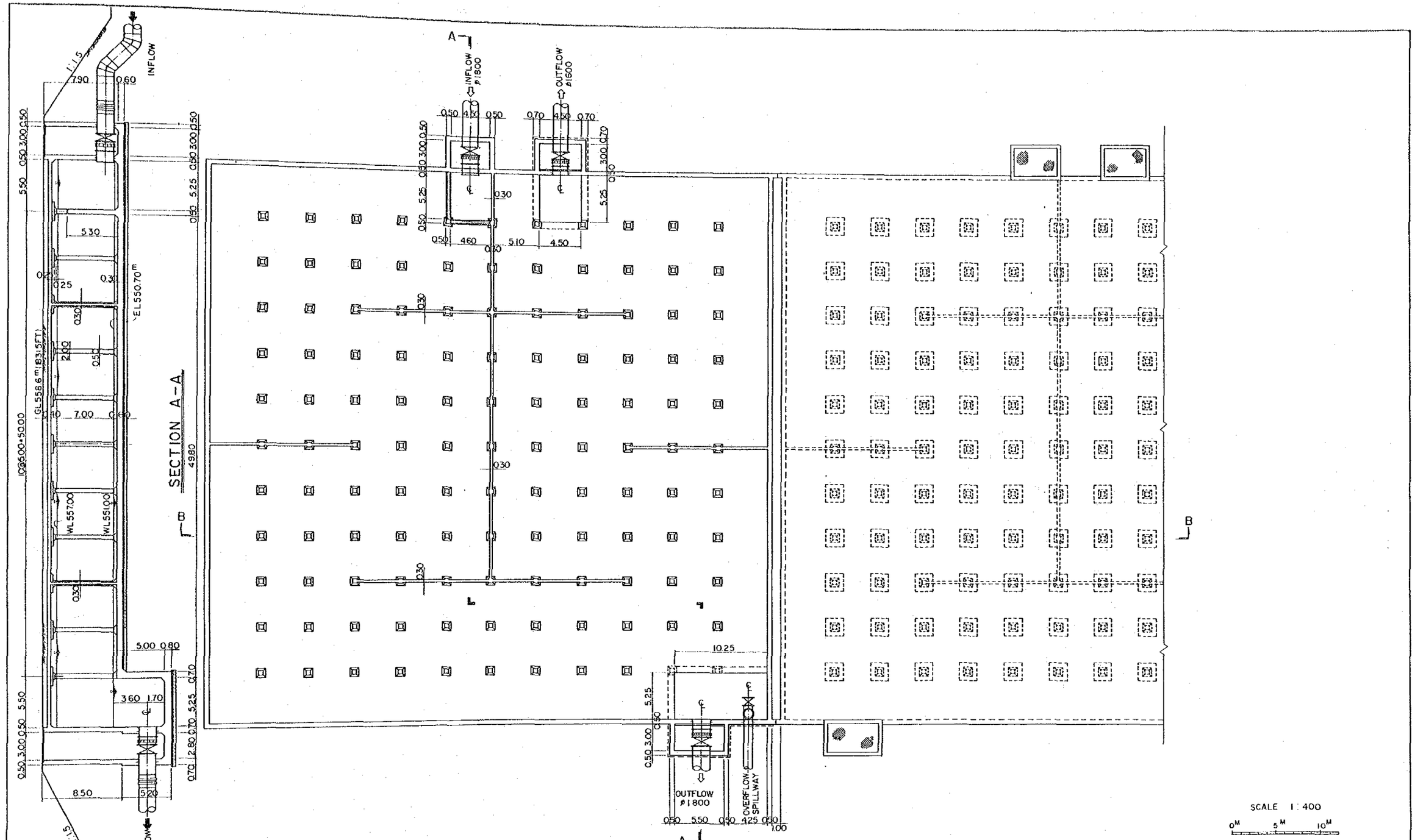


H-11 SERVICE RESERVOIR
GENERAL PLAN

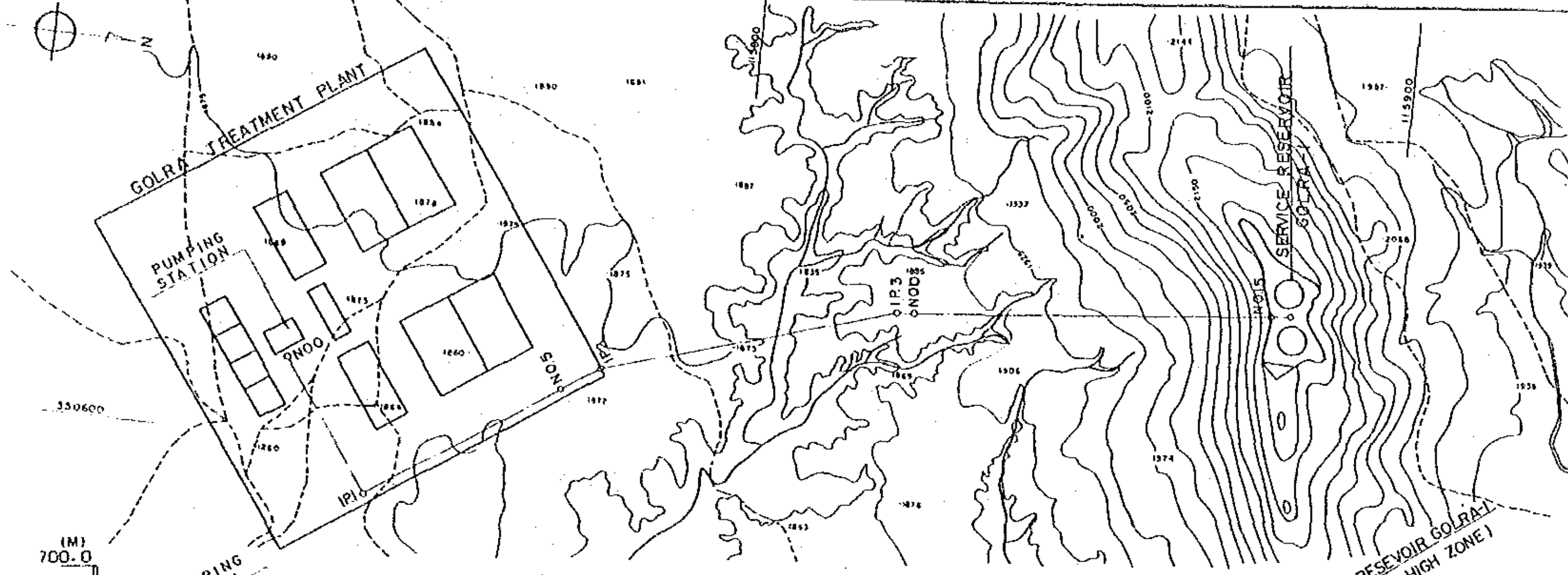
SCALE 1 : 2000

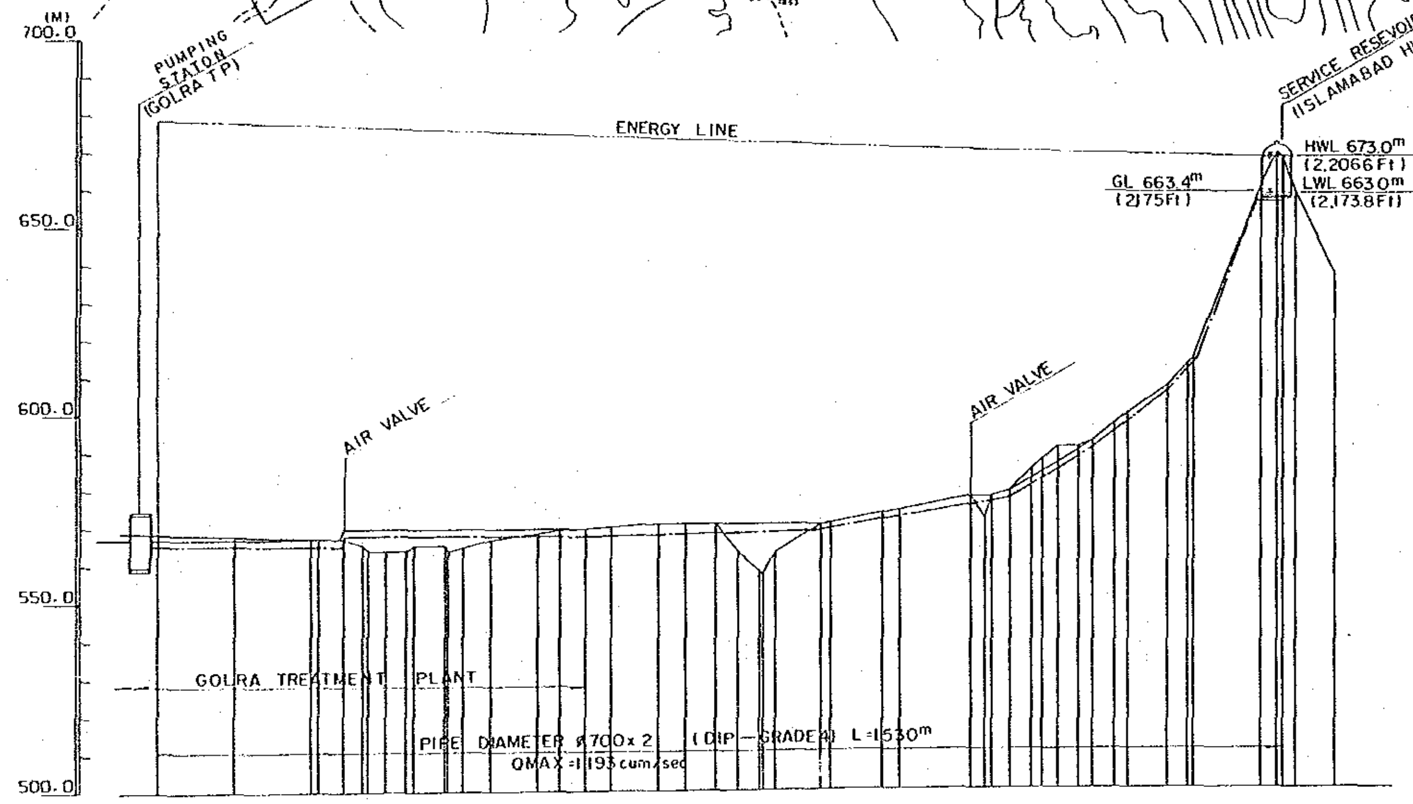
0M 50M

THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY			
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI			
H-11 SERVICE RESERVOIR GENERAL PLAN			
DATE		DWG NO	37
JAPAN INTERNATIONAL COOPERATION AGENCY			

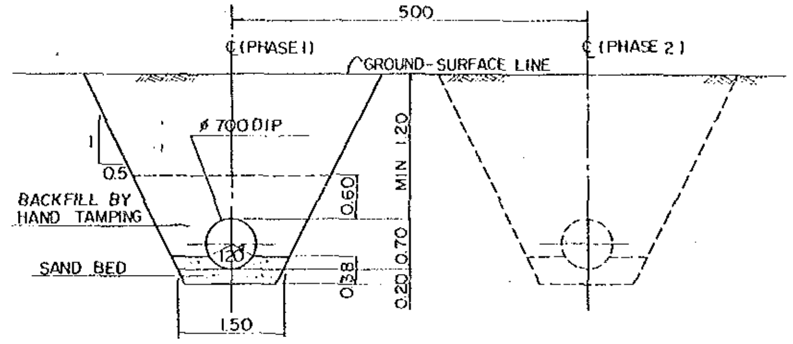


THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY			
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI			
H-II SERVICE RESERVOIR PLAN AND SECTION			
DATE		DWG. NO	38
JAPAN INTERNATIONAL COOPERATION AGENCY			

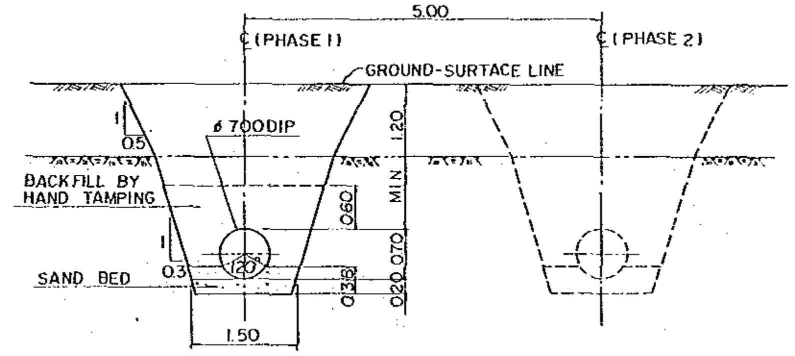




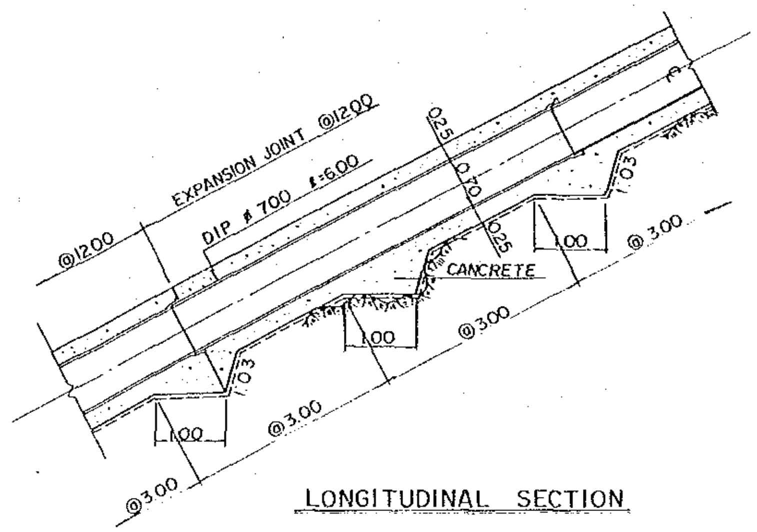
PLAN	
ENERGY ELEVATION	679.0, 678.6, 678.2, 677.8, 677.4, 677.0, 676.7, 676.3, 675.9, 675.5, 675.1, 674.7, 674.3, 673.9, 673.5, 673.1, 673.0
COVERING	1.2, 1.2, 1.2, 1.2, 1.2, 1.2, 1.6, 2.1, 1.6, 1.3, 1.7, 2.2, 1.7, 1.6, 1.3
PIPE CENTER ELEVATION	565.6, 565.6, 565.6, 568.6, 568.6, 568.6 568.6, 568.9, 569.4, 569.9, 570.3 570.7, 573.8, 577.0, 578.7, 584.3, 593.1, 597.6, 606.4
GROUND ELEVATION	567.2, 567.2, 567.2, 570.2, 570.2, 570.2, 570.9, 571.9, 571.9, 572.3, 575.8, 579.5, 586.5, 599.5, 615.9, 663.4, 663.4
EXISTING GROUND ELEVATION	568.5, 568.0, 567.5 567.5, 567.3, 565.8 564.2, 564.2, 564.2 565.8, 565.9 564.2 565.3, 567.3, 569.1, 569.9, 570.4, 570.9, 571.9, 571.9, 571.9, 564.2, 559.0 559.4 564.2, 571.9 572.3, 574.9 575.8, 575.5 573.4 579.5, 581.0, 587.1 589.6, 593.2, 593.2 594.7, 599.5 602.4, 610.0, 615.9 619.8, 664.9 674.0 672.5 663.4, 640.5
TOTAL DISTANCE	0.0, 100.0, 200.0 210.0, 244.0, 279.0 277.0, 300.0, 326.0 336.0, 376.0 380.0 400.0, 437.0, 500.0, 530.0, 565.0, 600.0, 664.0, 700.0, 740.0, 770.0, 800.0 [illegible] 822.0, 886.0 900.0, 975.0 1000.0, 1100.0 1120.0 1130.0, 1156.0, 1185.0 1200.0, 1222.0, 1250.0 1270.0, 1300.0 1318.0, 1372.0, 1400.0 1408.0, 1500.0 1522.0 1530.0 1547.0, 1600.0
DISTANCE	0.0, 100.0, 100.0 10.0, 34.0, 25.0 7.0, 23.0, 26.0 10.0, 40.0 4.0 20.0, 37.0, 63.0, 30.0, 35.0, 35.0, 64.0, 36.0, 40.0, 30.0, 30.0 17.0, 64.0 14.0, 75.0 25.0, 100.0 20.0 10.0, 26.0, 29.0 15.0, 22.0, 28.0 20.0, 30.0 18.0, 54.0, 28.0 8.0, 92.0 22.0 8.0 17.0, 53.0
STATION	NO 0, NO 1, NO 2 IP1, +44.0, +79.0 +77.0, NO 3, +26.0 +36.0, +76.0 +80.0, NO 4, +37.0, NO 5, +30.0, IP 2, NO 6, +64.0, NO 7, +40.0, +70.0, NO 8 +5.0 +22.0, NO 9 +86.0, IP 3, NO 10, NO 11 +20.0 +30.0, +56.0, NO 12 +85.0, +22.0, +50.0 +70.0, NO 13 +18.0, +72.0, NO 14 +8.0, NO 15 +22.0 +30.0 +47.0, NO 16
CURVE	IA= 90-0-0, IA= 18-0-0, IA= 11-0-0



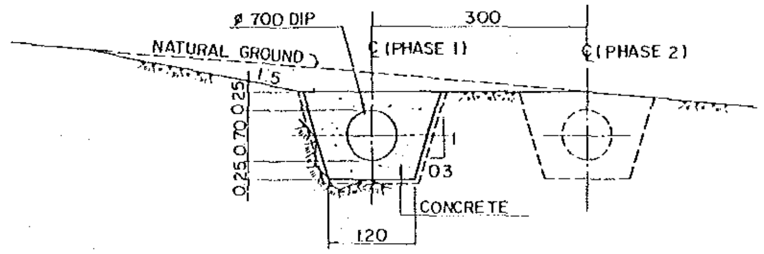
TYPICAL SECTION
(EARTH ZONE)



TYPICAL SECTION
(ROCR ZONE)



LONGITUDINAL SECTION

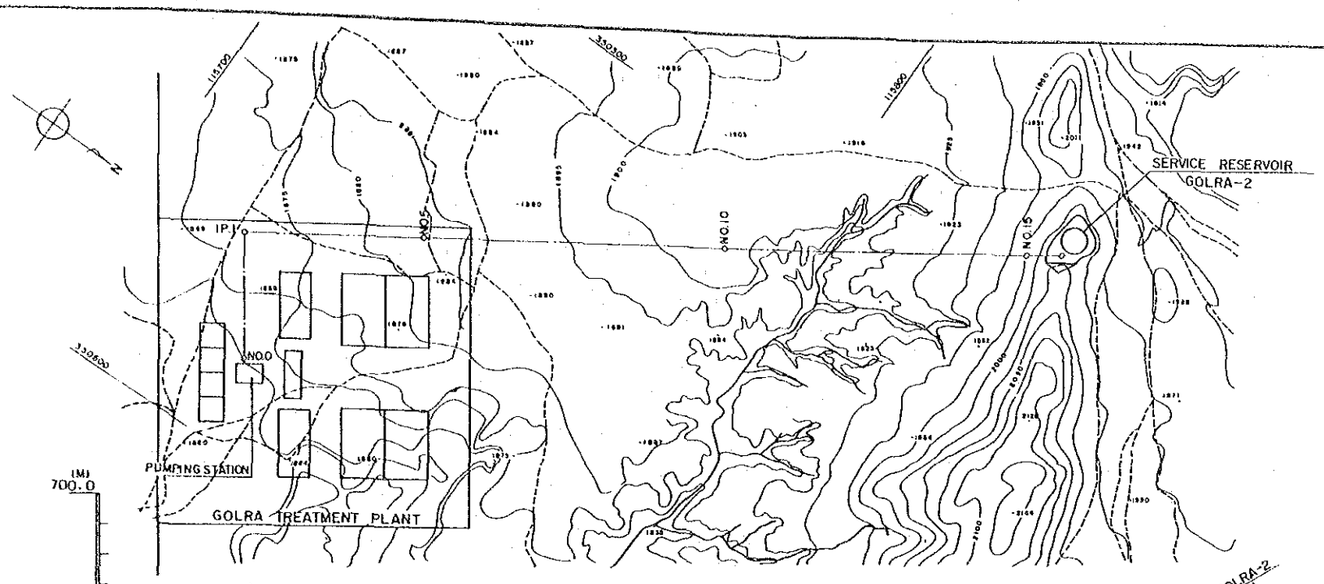


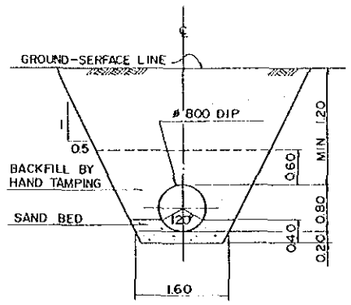
CROSS SECTION

TYPICAL SECTION
(INCLINED ZONE)

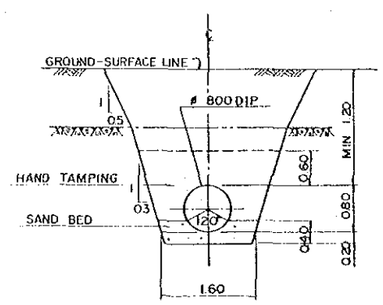
Unit: meter

THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI
DISTRIBUTION MAIN FOR ISLMABAD HIGH ZONE PLAN AND PROFILE
DATE | | DWG NO | 39
JAPAN INTERNATIONAL COOPERATION AGENCY

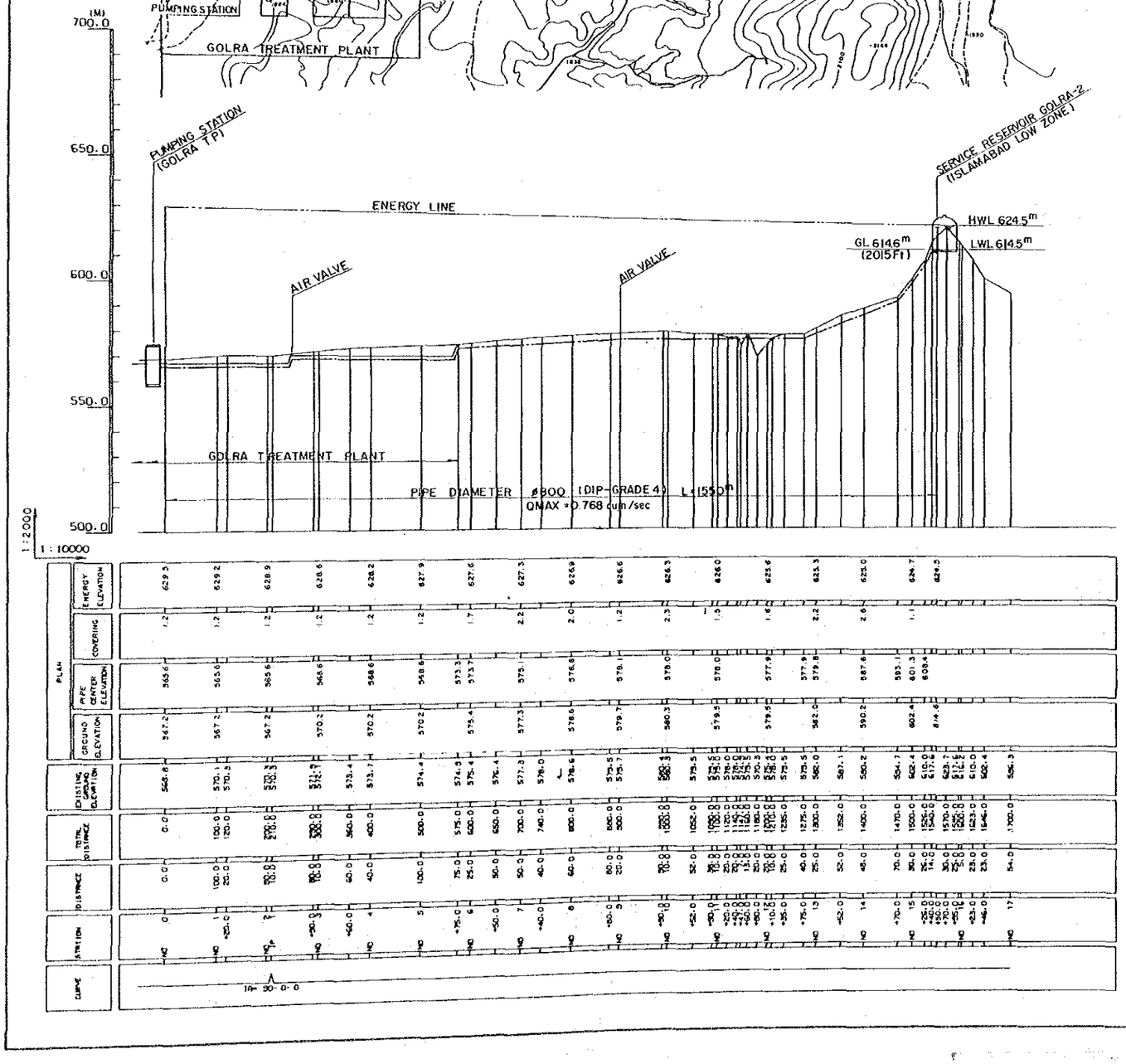


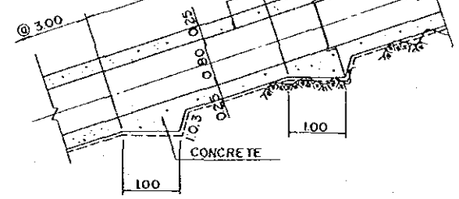


TYPICAL SECTION
(EARTH ZONE)

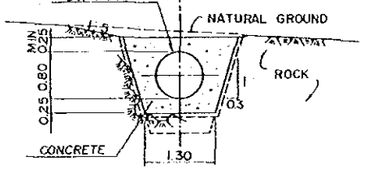


TIPICAL SECTION
(POCK ZONE)





LONGITUDINAL SECTION

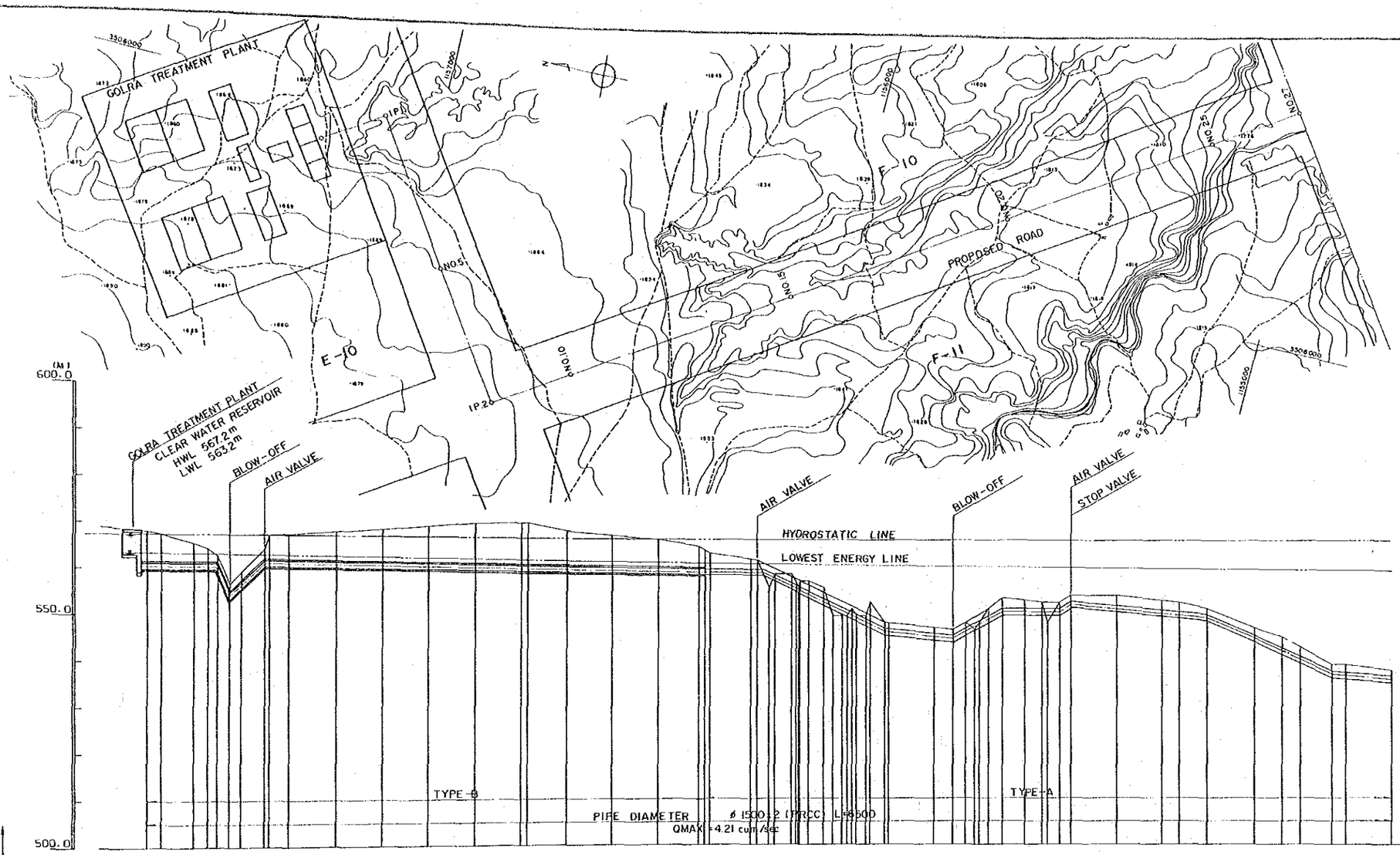


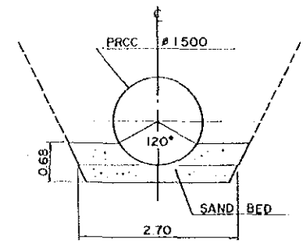
CROSS SECTION

TYPICAL SECTION
(INCLINED ZONE)

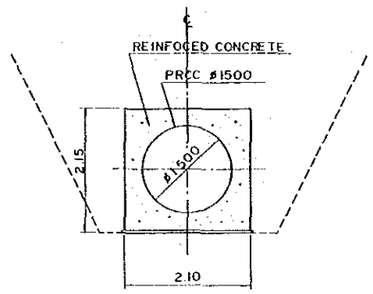
Unit: meter

THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY			
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI			
DISTRIBUTION MAIN FOR ISLMABAD LOW ZONE PLAN AND PROFILE			
DATE		DWG NO	40
JAPAN INTERNATIONAL COOPERATION AGENCY			





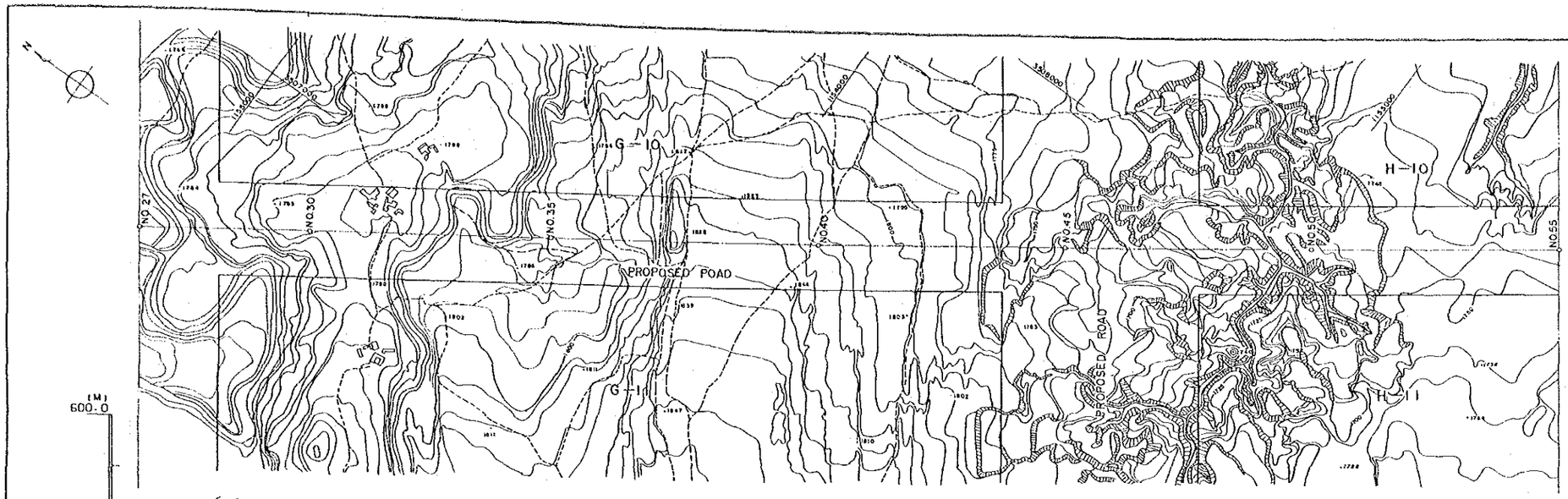
TYPE-A

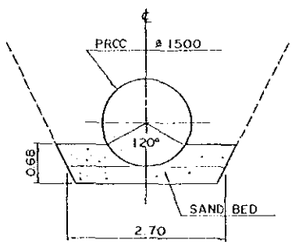


TYPE-B

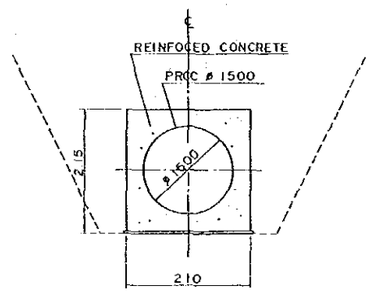
Unit: meter

THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY	
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI	
DISTRIBUTION MAIN FOR RAWALPINDI 1/3 PLAN AND PROFILE	
DATE	DWG NO 41
JAPAN INTERNATIONAL COOPERATION AGENCY	

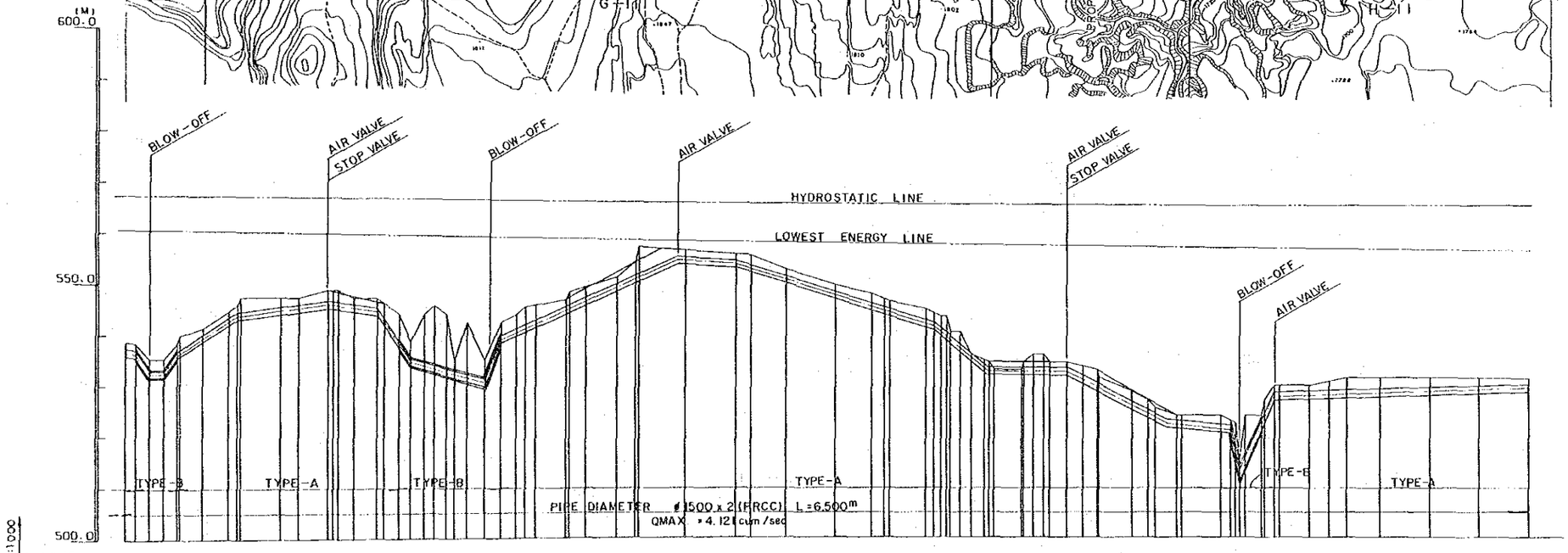




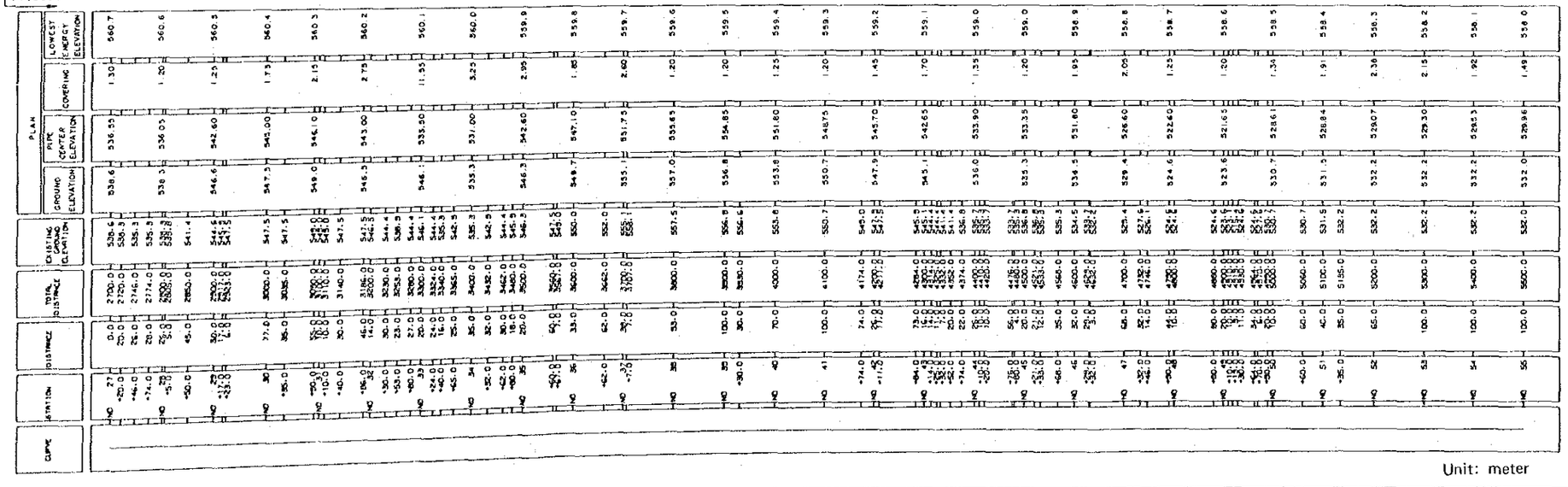
TYPE-A



TYPE-B

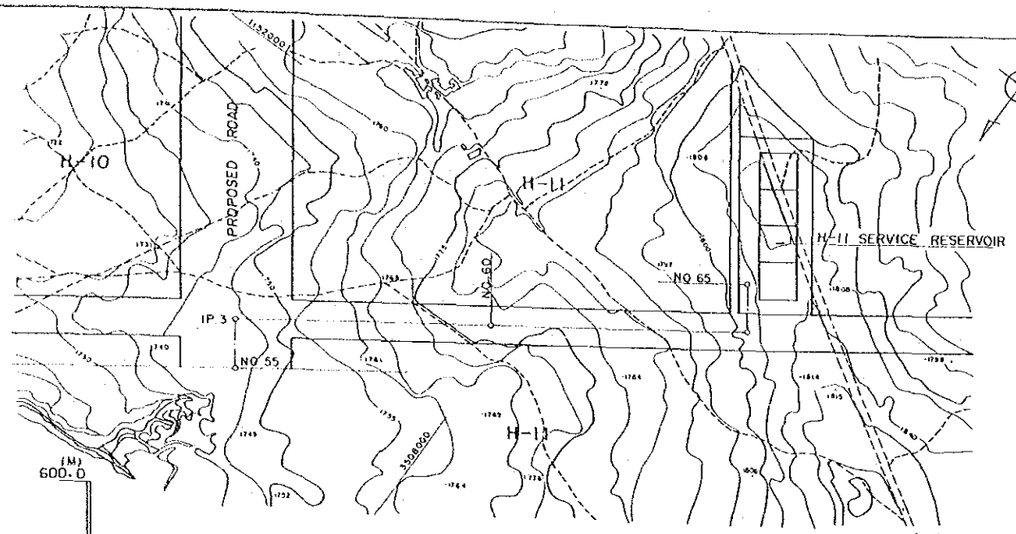


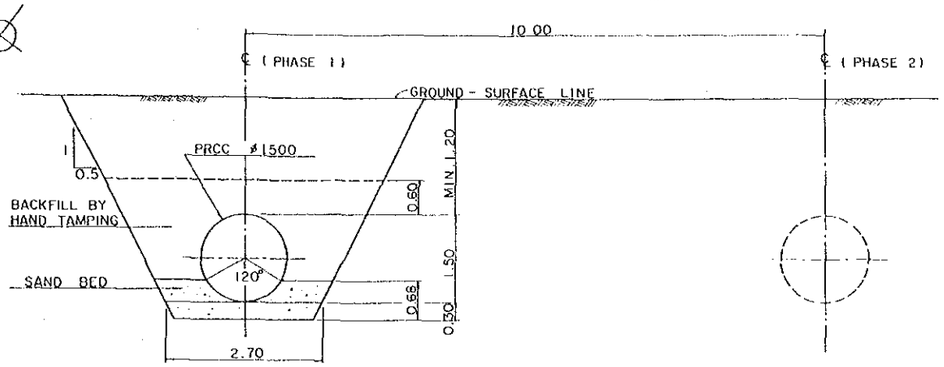
1 : 10000



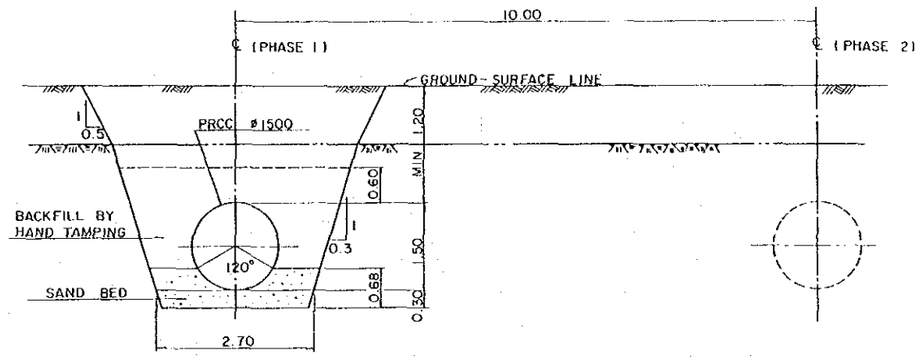
Unit: meter

THE ISLAMIC REPUBLIC OF PAKISTAN CAPITAL DEVELOPMENT AUTHORITY	
THE CONDUCTION OF WATER FROM KHANPUR TO ISLAMABAD/RAWALPINDI	
DISTRIBUTION MAIN FOR RAWALPINDI 2/3 PLAN AND PROFILE	
DATE	DWG.NO 42
JAPAN INTERNATIONAL COOPERATION AGENCY	

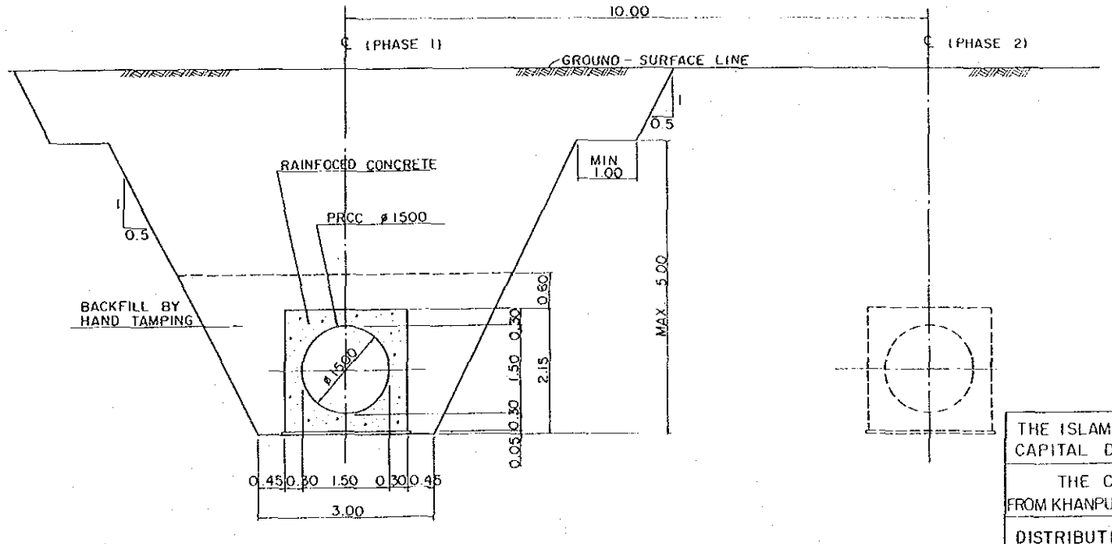




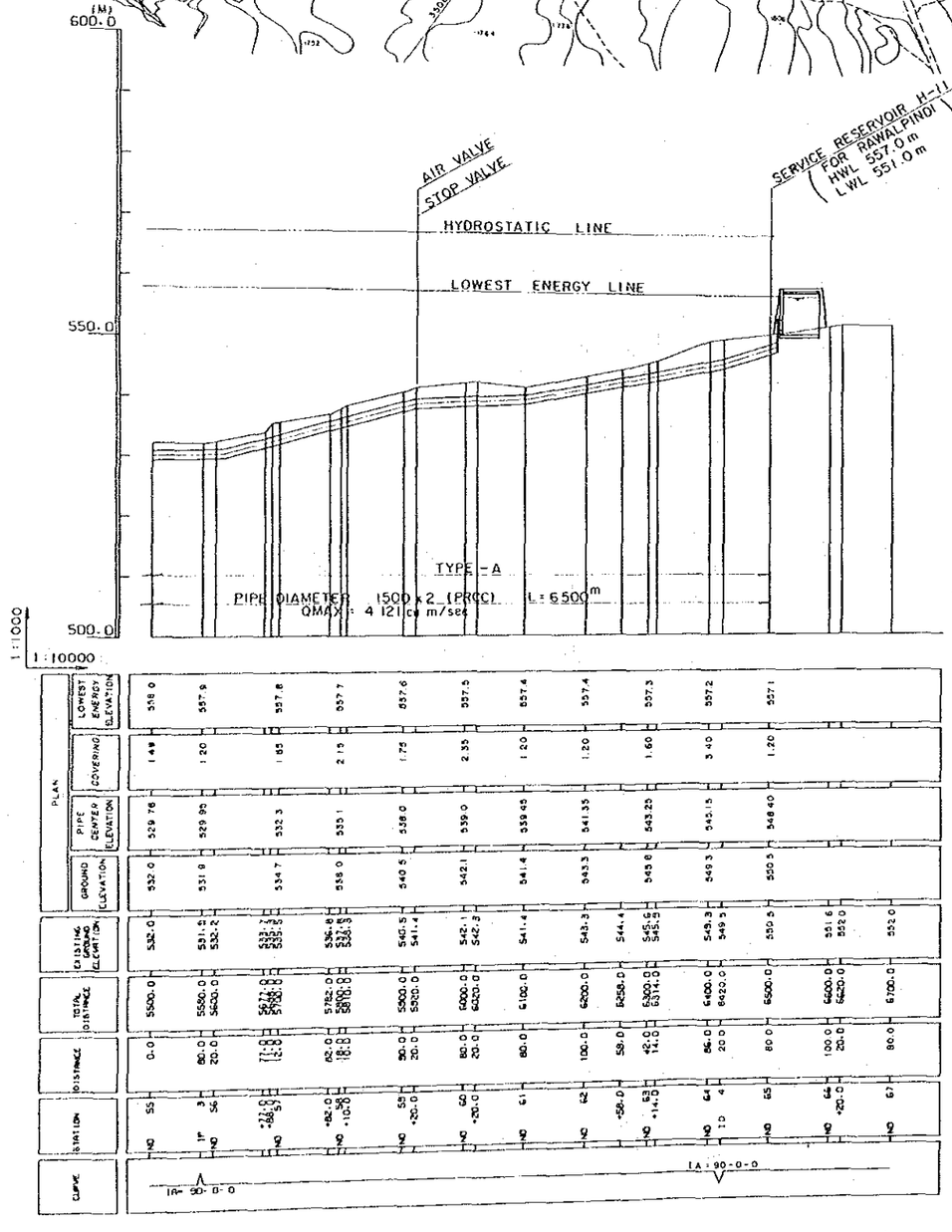
TYPE-A TYPICAL SECTION
(EARTH ZONE)



TYPE-A TYPICAL SECTION
(ROCK ZONE)



TYPE-B TYPICAL SECTION



Unit: meter

THE ISLAMIC REPUBLIC OF PAKISTAN
CAPITAL DEVELOPMENT AUTHORITY

THE CONDUCTION OF WATER
FROM KHANPUR TO ISLAMABAD/RAWALPINDI

DISTRIBUTION MAIN FOR RAWALPINDI

3/3 PLAN AND PROFILE

DATE | DWG NO 43

JAPAN INTERNATIONAL COOPERATION AGENCY