

Annex III Interviewees

1. Ministry of L.G., C. & R.A.

Mr. Azizul Hagne : Joint Secretary, Local Gov. Div.
Mr. Syed Abdur Rob : Deputy Secretary, Local Gov. Div.
Mrs. Rahima Nahar : Asstt. Chief in charge, L.G. Div.

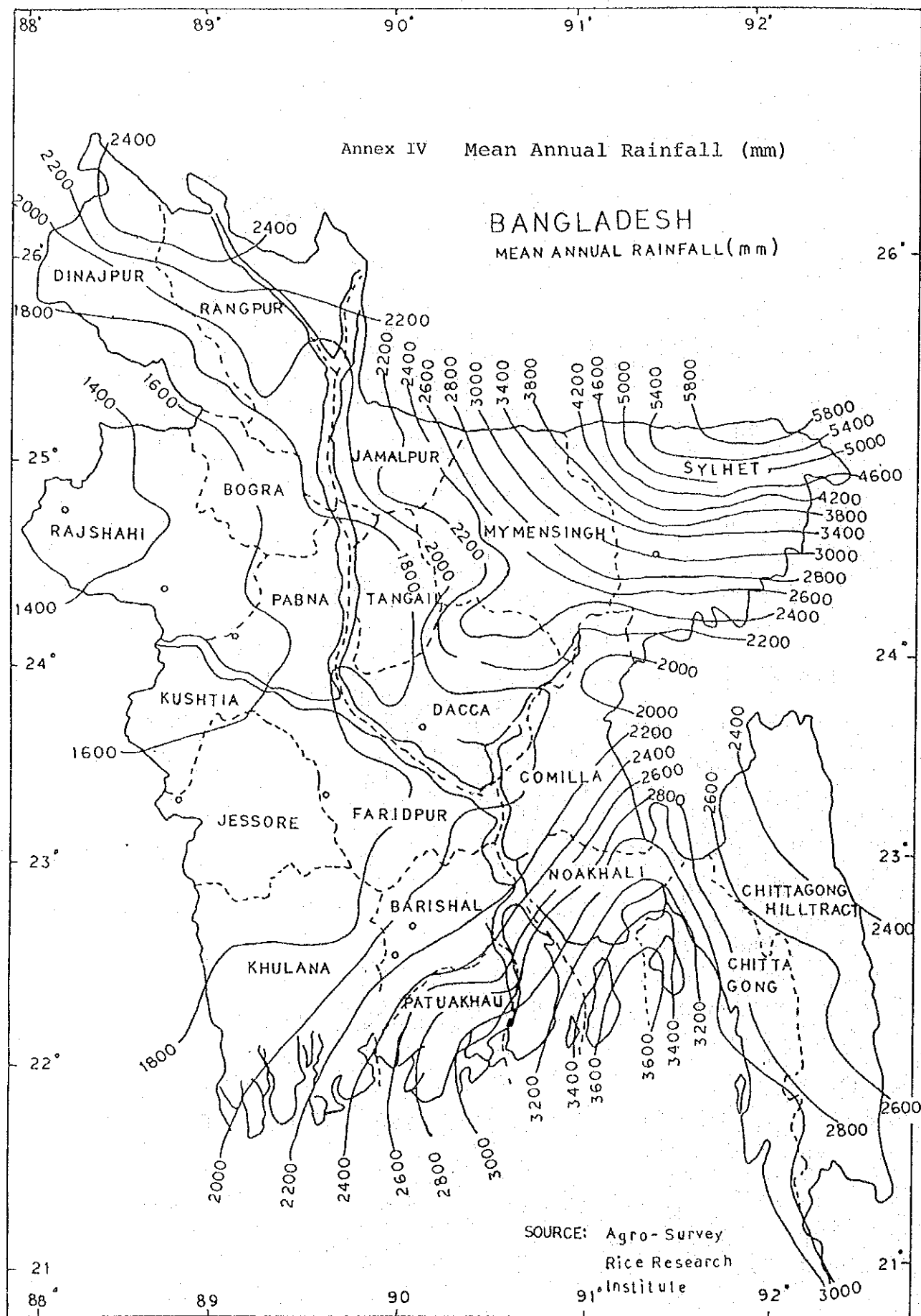
2. Department of Public Health Engineering (DPHE)

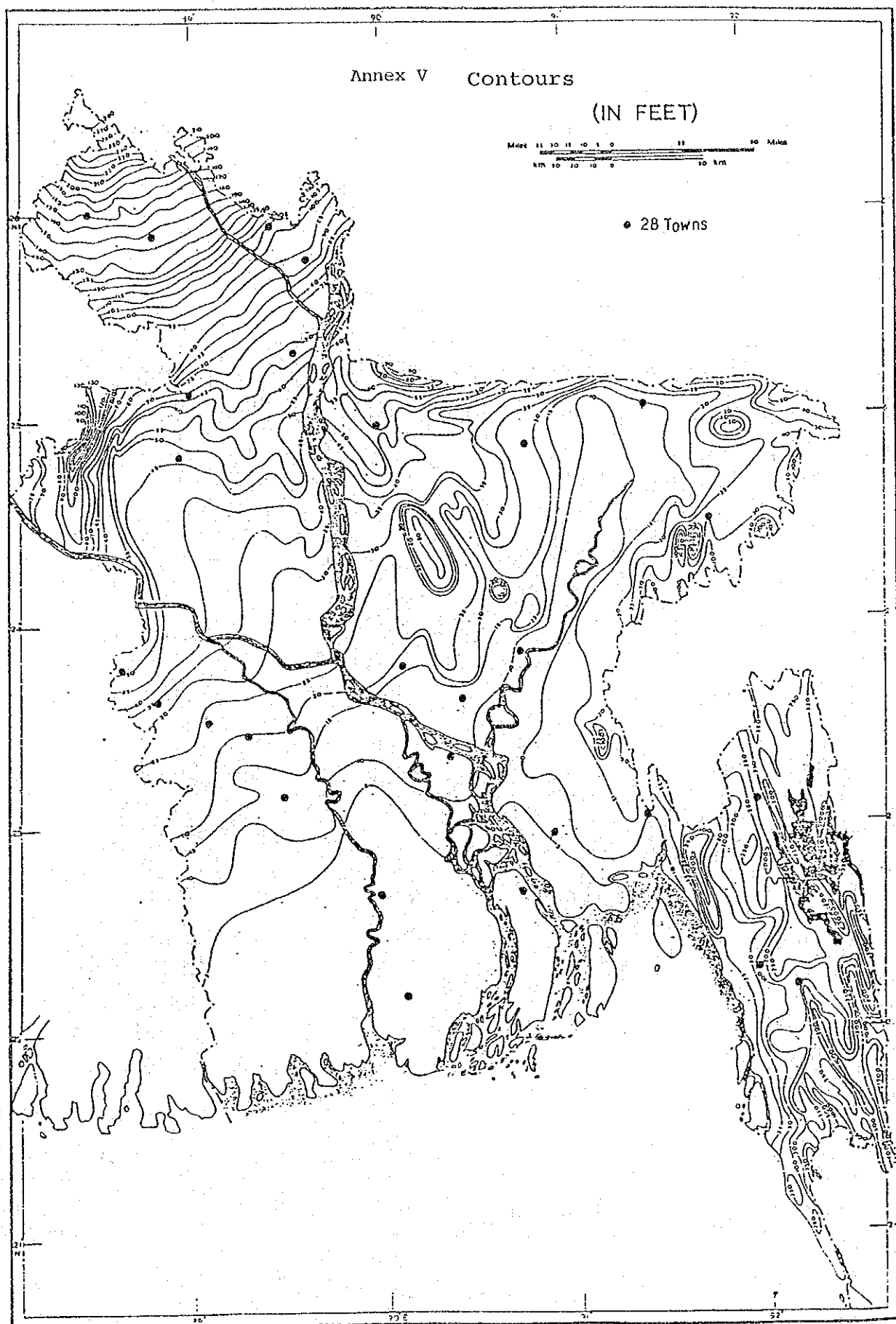
Mr. M.M. Husain : Chief Engineer
Mr. Fariduddin Ahmeduia : Asstt Chief Engineer
Mr. Abdur Rahman Mridha : S.E., Planning Cell Circle
Mr. Md. Nurul Hoque : EE, Planning Div
Mr. Kagi Nasiruddin Ahmad: EE, SIR Div
Mr. Abdur Rahman Mia : EE, G.W. & E. Div.
Mr. Quadivuzzaman : Project Manager, 5D. Town W.S. Project
Mr. Md. Zainal Abedin : EE, Dhaka Div.
Mr. A.M. Md. Shamsudduha : SDE, Narsingdi, Dhaka
Mr. Md. Shahihul Islam : SAE, Narsingji, Dhaka
Mr. Moshtaque Ahmed : EE, Jessore Div.
Mr. M.A. Rashid : Asstt. EE, Jessore
Mr. Abdur Rahman : SDE, Jenidah, Jessore
Mr. A.F.M. Wahid Azhar : SDE, Chuadanga, Kushtia
Mr. Ratneswar Biswas : SAE, Chuadanga, Kushtia
Mr. Md. Ishaque Ali : EE, Rangpur
Mr. Md. Kamruzzaman : SAE, in charge SDE, Kurigram, Rangpur.
Mr. Md. Belayet Hossain : SDE, Gaibandha, Rangpur.
Mr. Md. Nuruzzaman : Asstt. EE, Narayanganj, Dhaka
Mr. Md. Anwar Hossain : SAE, Narayanganj, Dhaka
Mr. Shafiguddin Amed : EE, Noakhali Div.
Mr. Rafiqul Islam : SDE, Feni, Noakhali
Mr. A.S.M. Latifur Rahman: EE, Comilla Div.
Mr. Md. Siddiguer Rahman : SE, Chittagong Circle.
Mr. Md. Shamsul Huda : EE, Sylhet Div.
Mr. Sarwar : SDE, Sunamganj, Sylhet

3. Planning Commission, Ministry of Finance & Planning

Mr. Nurul Hag : Chief. Physical Infrastructure Div.











- Mr. Md. Azizul Hoque : Joint Chief, Physical Planning,
Water, Supply and Housing Wing.
- Mr. Md. Nurul Absar : Deputy Chief
4. External Resources Div. (ERD), Ministry of Finance & Planning
- Mr. A.K.M. Salamatullah : Deputy Secretary (Japan desk)
- Mr. A.K.M. Abul Basher : Research Officer (Grant Aid)
5. Local Government
- Mr. Enamul Karim : Deputy Commissioner, Narsingdi Dist.
- Mr. Shamsuddin Ahamed : Chairman, Narsingdi Poroushaova
- Mr. Md. Mosharrof Hossain: Chairman, Jhenidah Poroushaova
- Mr. C.A.M. Khairul Kabir
Khan Pathan : Superintendant of Water Works,
Narayanganj
6. Gas Company
- Mr. S.A.D. Rozario : Planning & Design, Titas Gas
- Mr. Mahfuzal Alam : Programme Officer, Titas Gas
- Mr. Mostafezur Rahman : Engineer, Bagrabad Gas System
7. Power Development Board (BPDB)
- Mr. S.T.S. Mahamud : Add. Chief Engineer, Planning &
Design
- Mr. C.J. Kabir : Add. Chief Engineer, Rashahi
8. Geological Survey of Bangladesh, Dhaka
- Mr. Abu Bakar : Director General
- Mr. Mohammad Khurshid
Alam : Deputy Director
9. Water Development Board (BWDB)
- Mr. Ghulam Mowla : Director, Groundwater
- Mr. Alamgir Hussain : Deputy Director, Groundwater data
processing & research circle
10. KSB Pump
- Mr. K.B. Mahmud Khan : Sales Manager (Milnars Pumps Limited)
11. Pipe Maker
- Mr. M.A. Hashem Bhuiyan : Add. Chief Accountant & Incharge
Marketing Dept. LIRA Industrial
Enterprise Ltd.

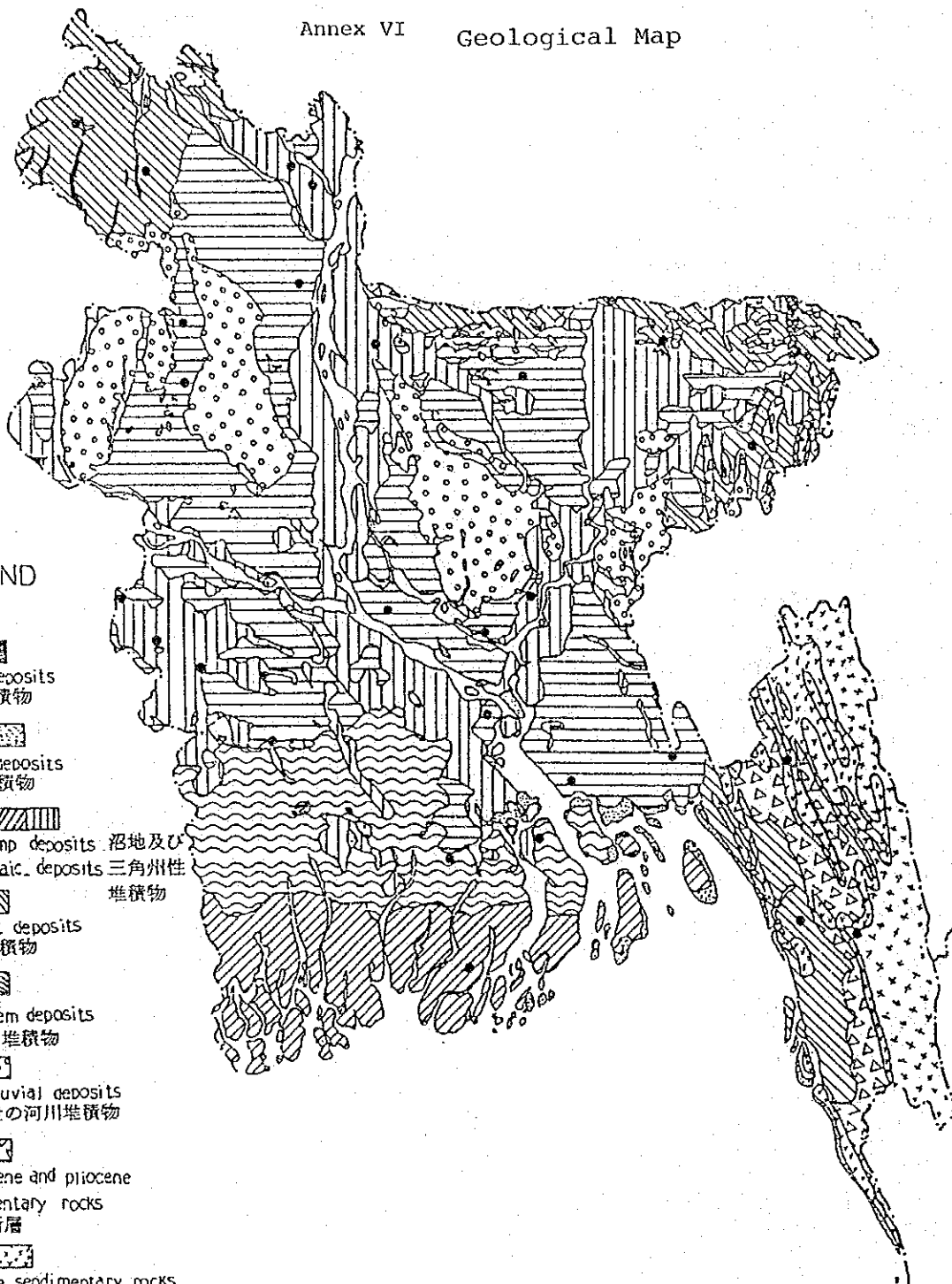




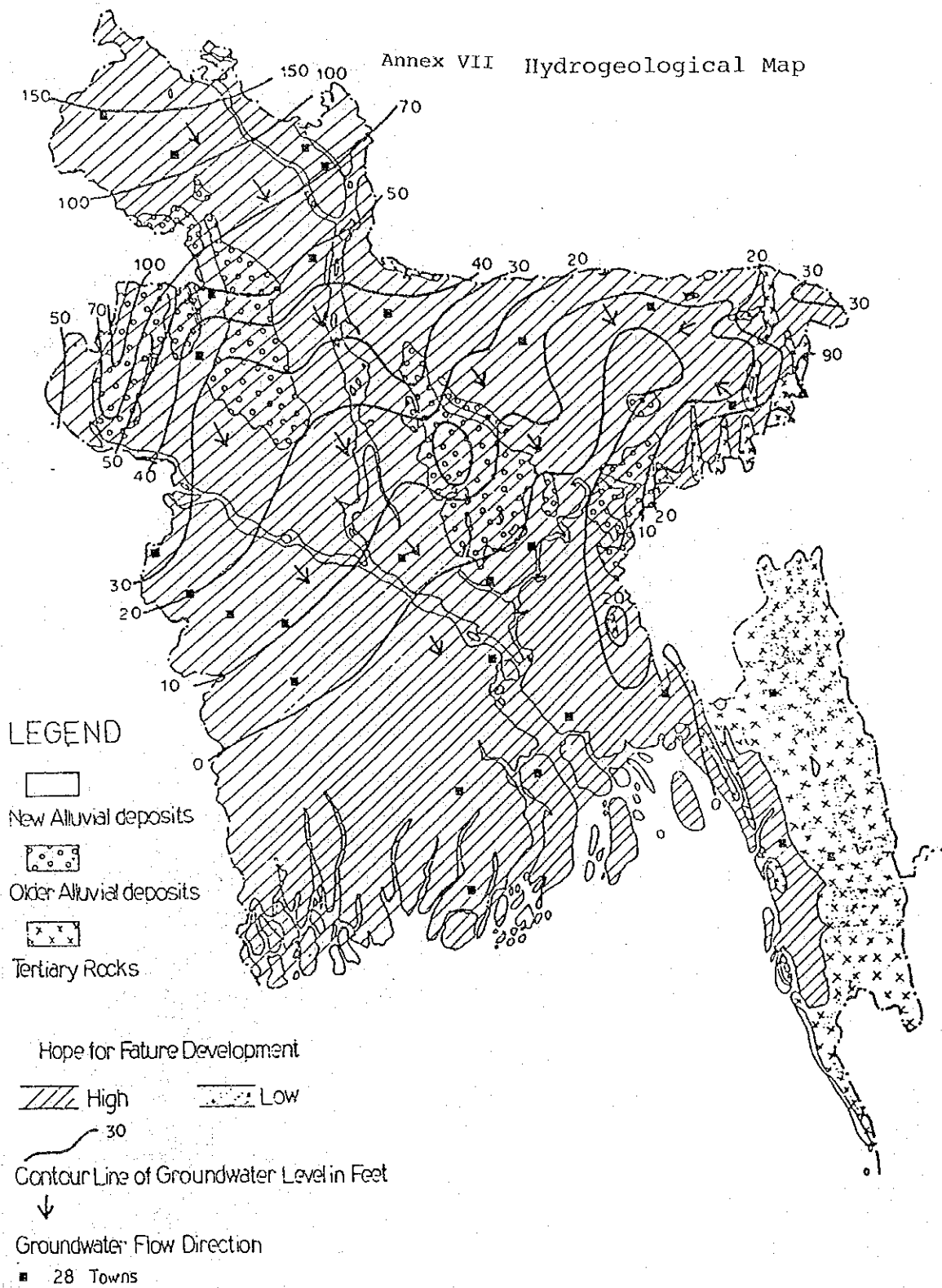
Annex VI Geological Map

LEGEND

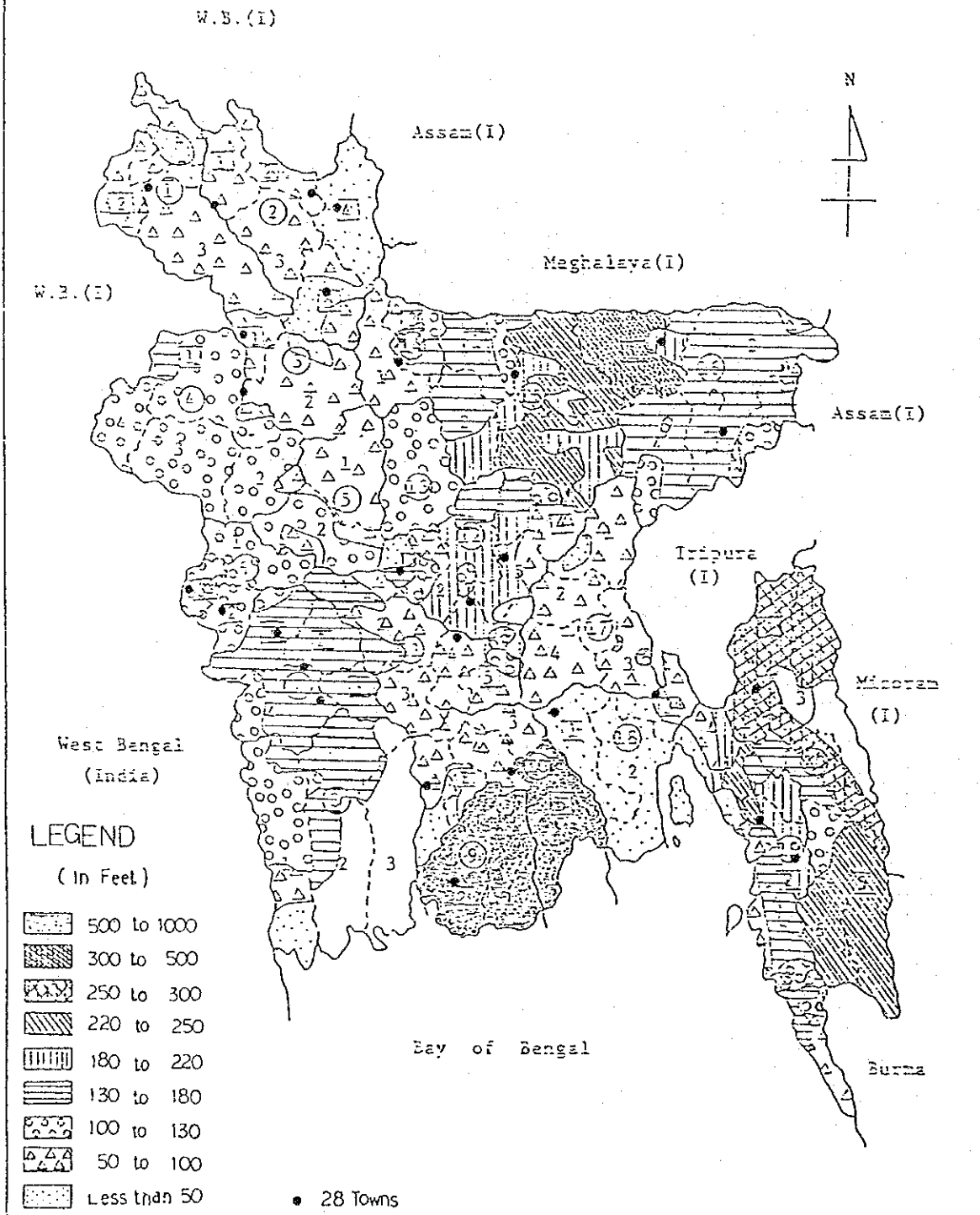
-  Stream deposits
河川堆積物
-  Coastal deposits
沿岸堆積物
-  Qs Swamp deposits 沼地及び
Qd Deltaic deposits 三角洲性
堆積物
-  Piedmont deposits
山麓堆積物
-  Intenstream deposits
旧河川堆積物
-  Older alluvial deposits
洪積世の河川堆積物
-  Pleistocene and pliocene
sedimentary rocks
鮮新層
-  Miocene sedimentary rocks
中新層
-  Eocene sedimentary rocks
始新層
-  28 Towns



Annex VII Hydrogeological Map

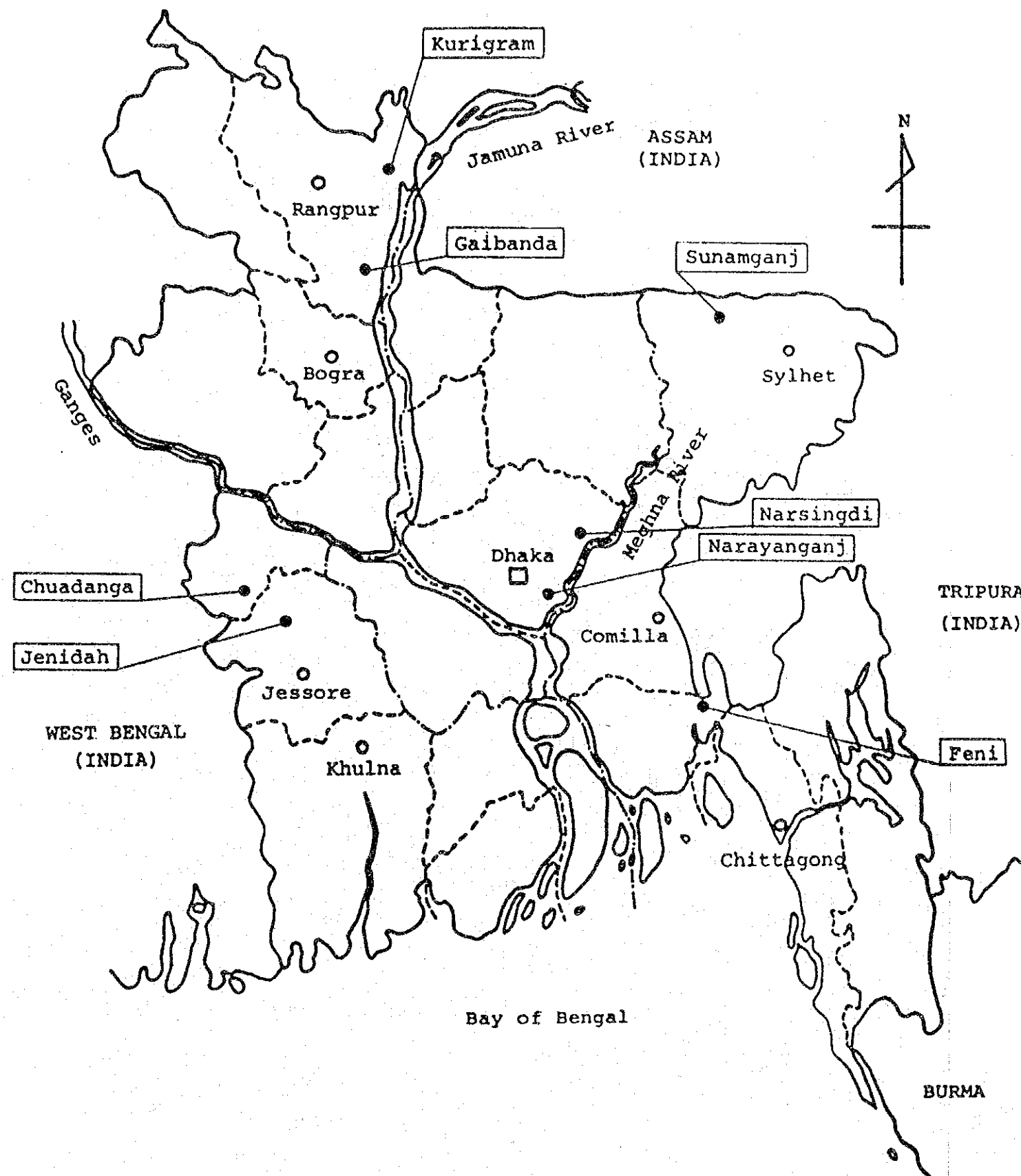


Annex VIII Average Depth of Tube Wells

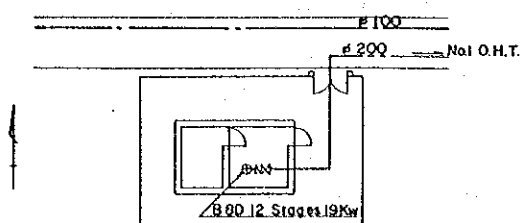


DRAWINGS

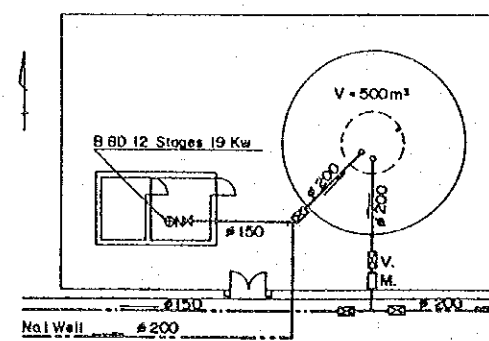
Location of the 8 Towns.



NO.1 PRODUCTION WELL (PR)

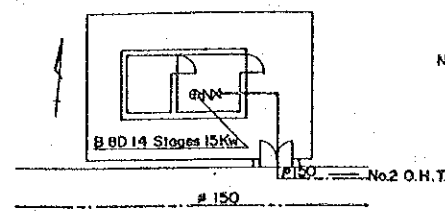


NO.2 PRODUCTION WELL (PR)

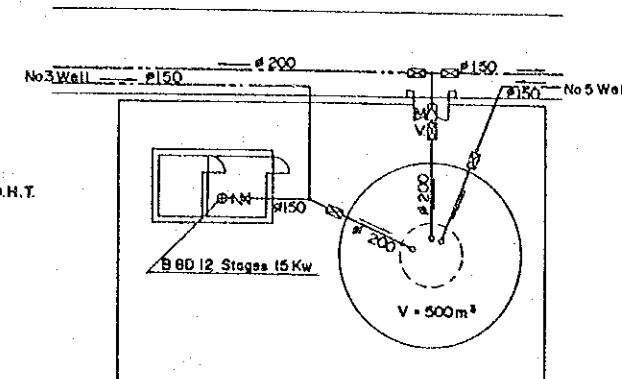


NO.1 OVERHEAD TANK (PR)

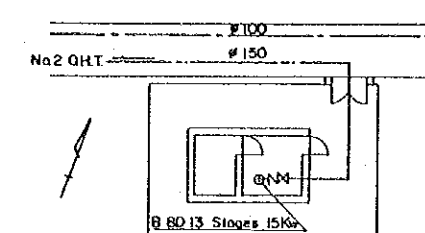
NO.3 PRODUCTION WELL (PR)



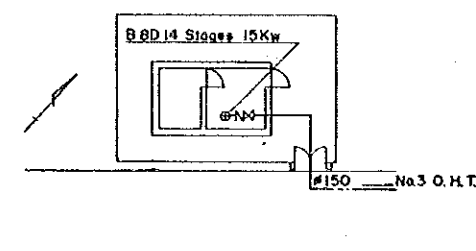
NO.4 PRODUCTION WELL (EX)



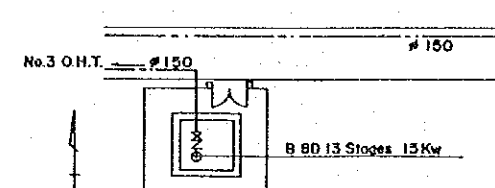
NO.5 PRODUCTION WELL (PR)



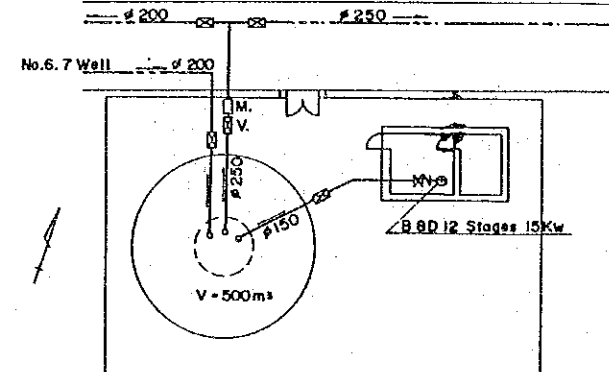
NO.6 PRODUCTION WELL (PR)



NO.7 PRODUCTION WELL (EX)



NO.8 PRODUCTION WELL (PR)



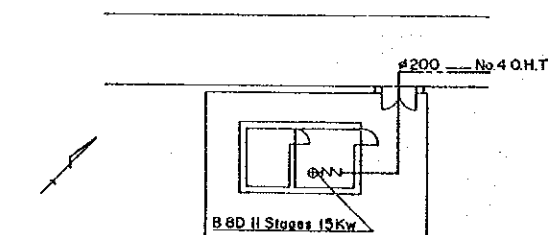
NO.3 OVERHEAD TANK (PR)

NO.2 OVERHEAD TANK (PR)

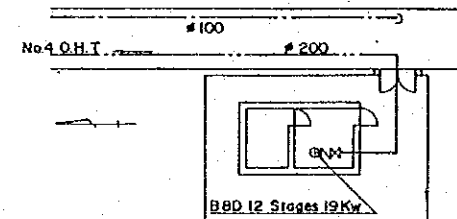
NOTES

- PR : Proposed
- EX : Existing
- O.H.T. : Overhead Tank
- M. : Meter
- V. : Sluice Valve

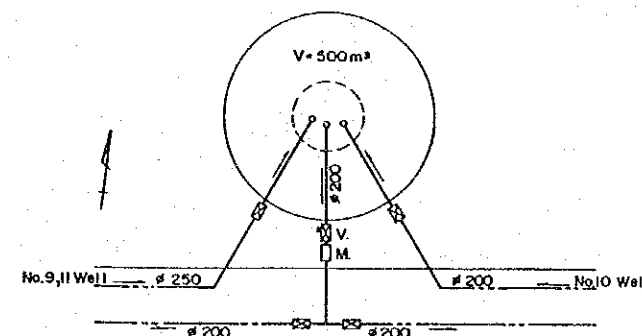
NO.9 PRODUCTION WELL (PR)



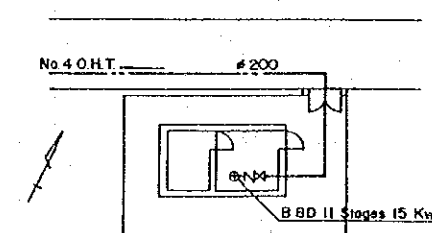
NO.11 PRODUCTION WELL (PR)



NO.4 OVERHEAD TANK (PR)



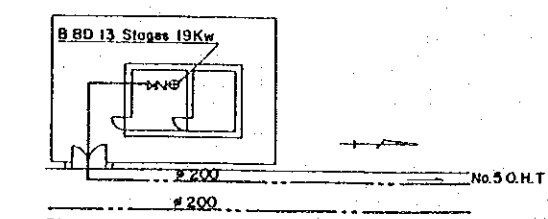
NO.10 PRODUCTION WELL (EX)



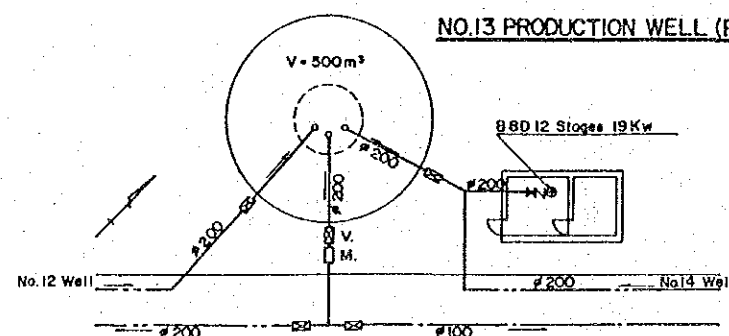
S = 1 : 200

0 5 10 15m

NO.12 PRODUCTION WELL (PR)

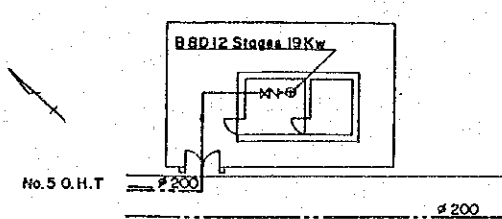


NO.5 OVERHEAD TANK (PR)



NO.13 PRODUCTION WELL (PR)

NO.14 PRODUCTION WELL (PR)



DIRECTORATE OF PUBLIC HEALTH ENGINEERING
GOVERNMENT OF BANGLADESH

NARSINGDI

LAYOUT OF PRODUCTION WELL
AND OVERHEAD TANK

Date Oct. 1984 Drawing No. 2-2

JAPAN INTERNATIONAL COOPERATION AGENCY

INSTALLATION OF PUMP

EXISTING PRODUCTION WELL

PROPOSED PRODUCTION WELL

NO. 4 WELL

NO. 7 WELL

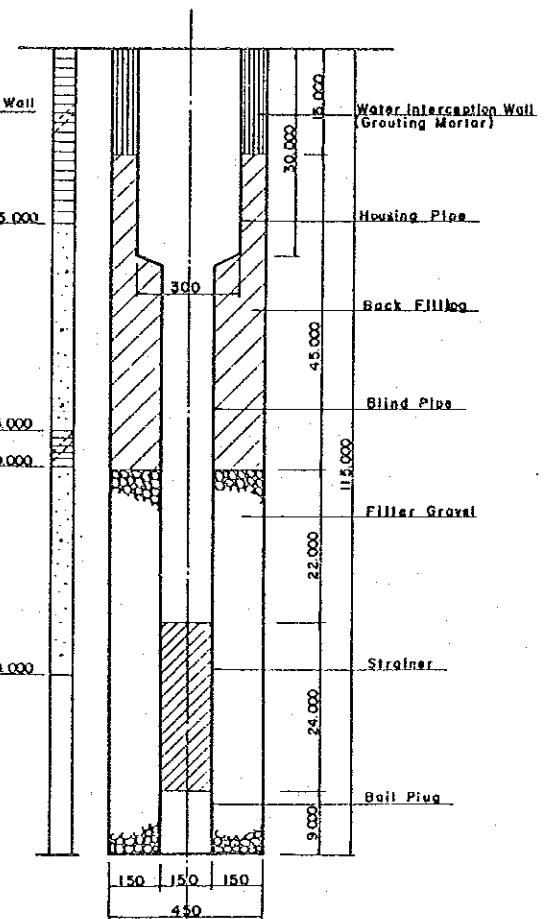
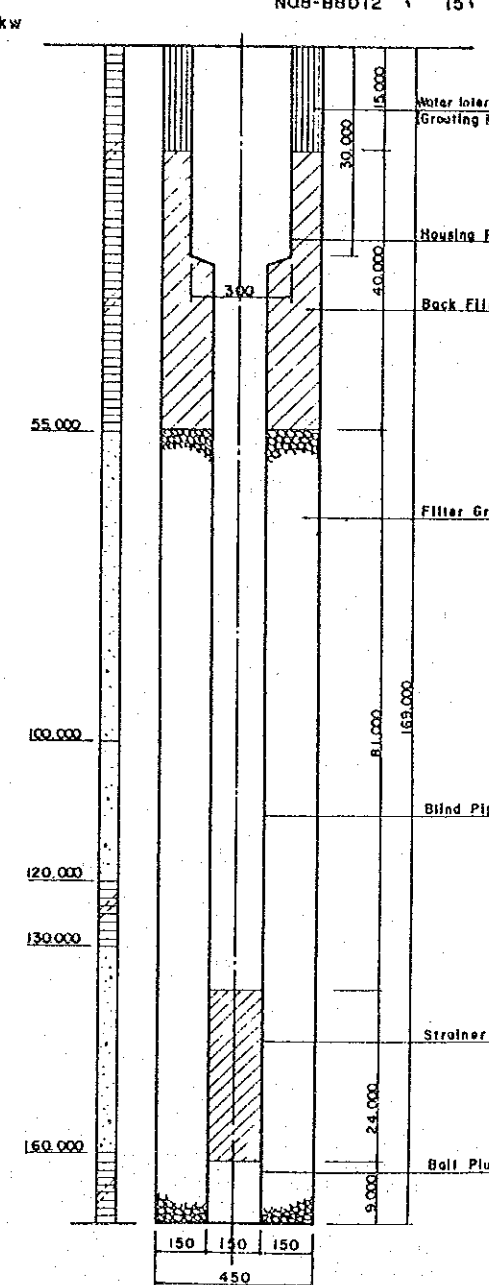
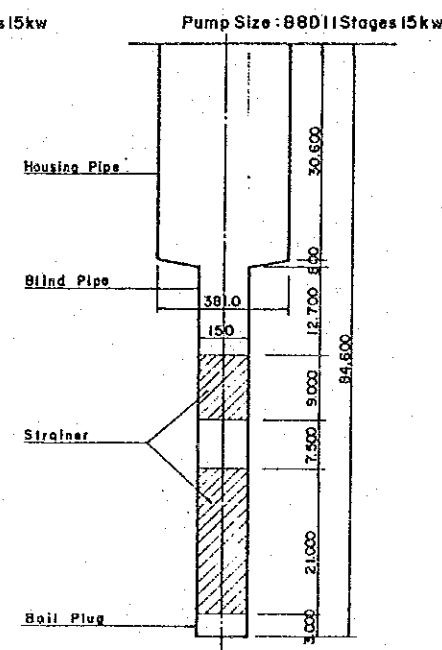
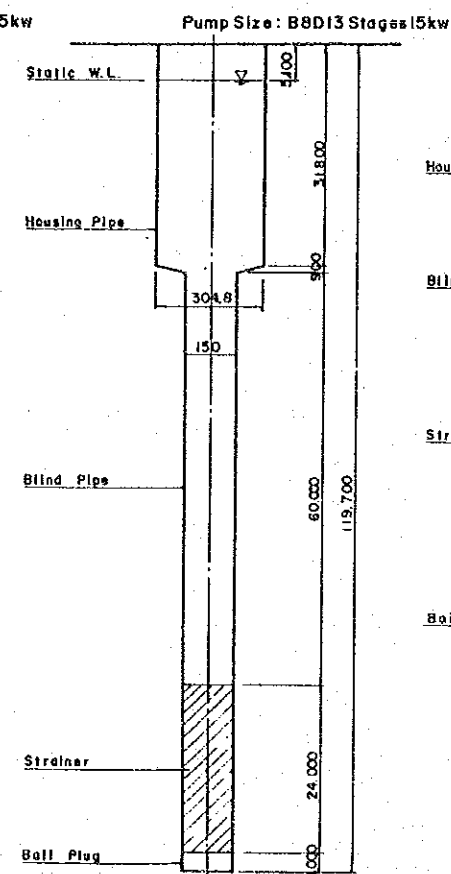
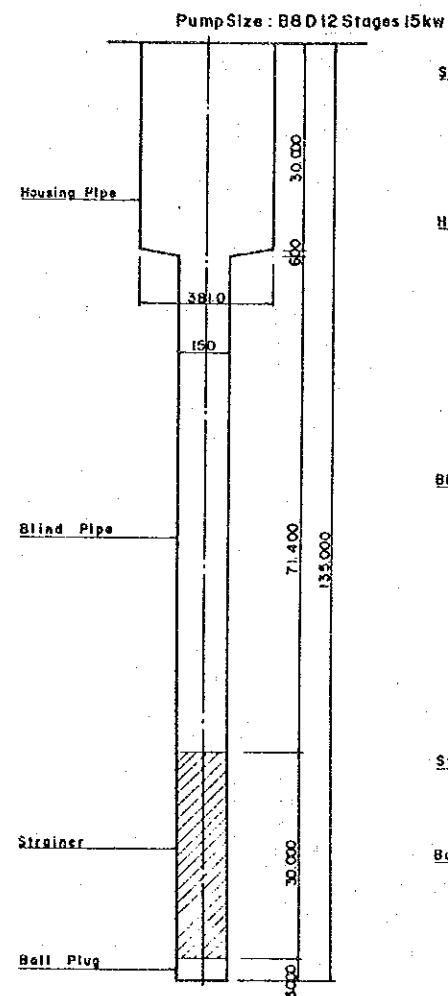
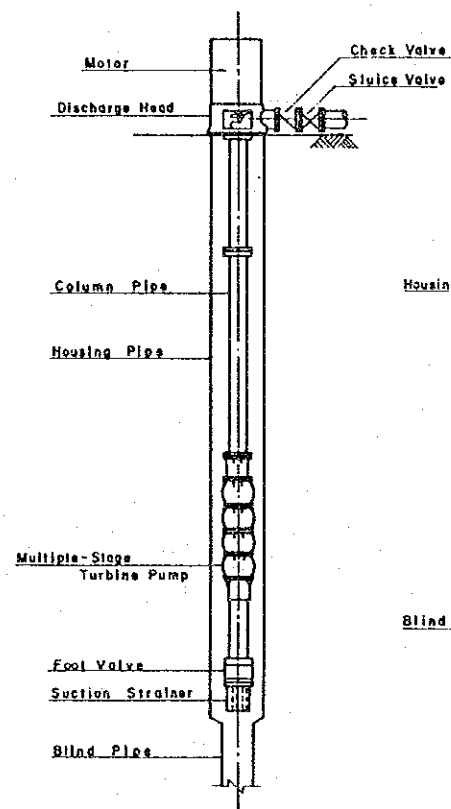
NO. 10 WELL

NO. 1, 2, 3, 5, 6, 8 WELL

NO. 9, 11, 12, 13, 14 WELL

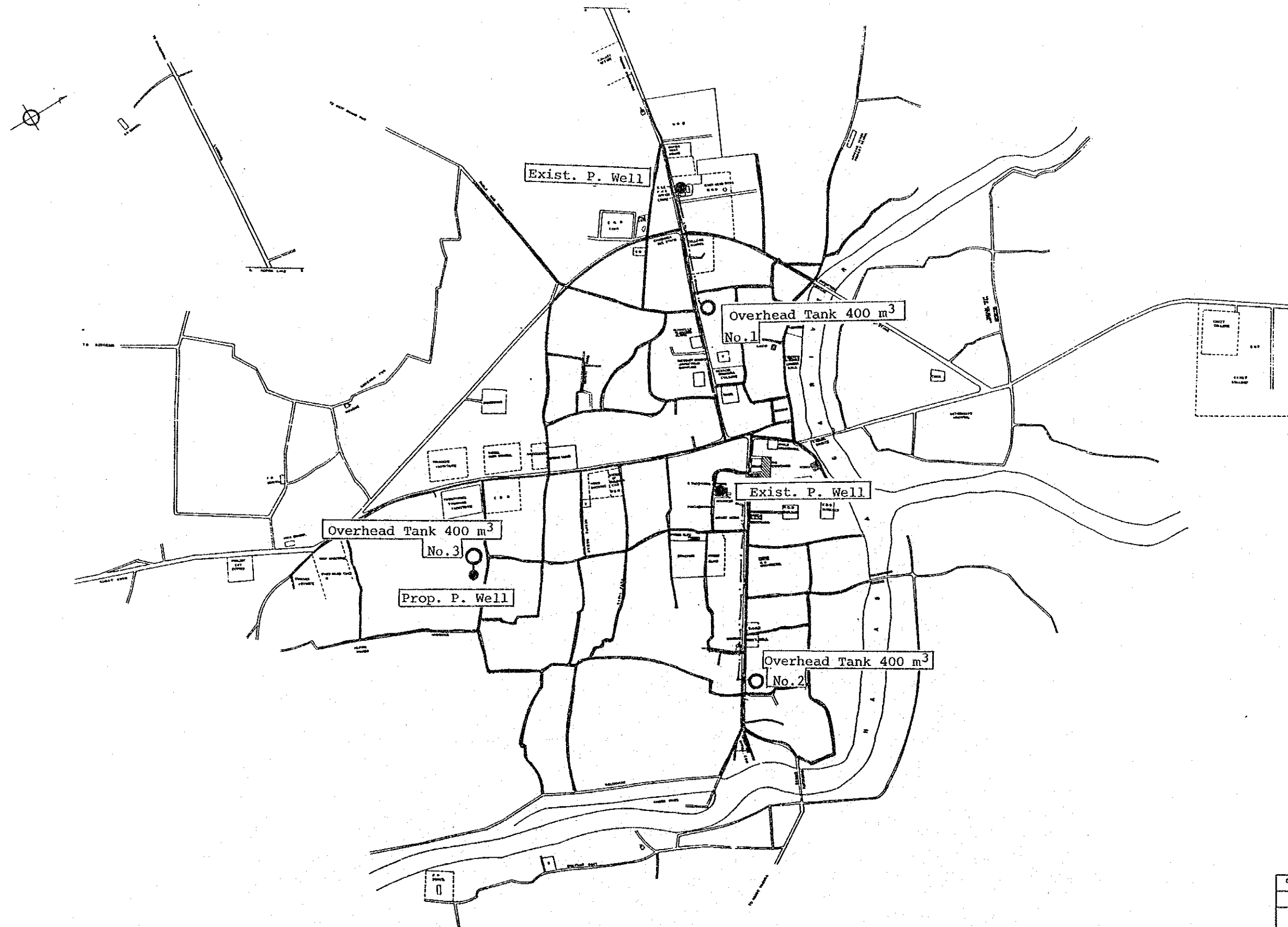
Pump Size: NO.1-B8D 12 Stages 19kw
 NO.2-B8D 12 19
 NO.3-B8D 14 15
 NO.5-B8D 13 15
 NO.6-B8D 14 15
 NO.8-B8D 12 15

Pump Size: NO.9-B10D 11 Stages 15kw
 NO.11-B10D 12 19
 NO.12-B10D 13 19
 NO.13-B10D 12 19
 NO.14-B10D 12 19



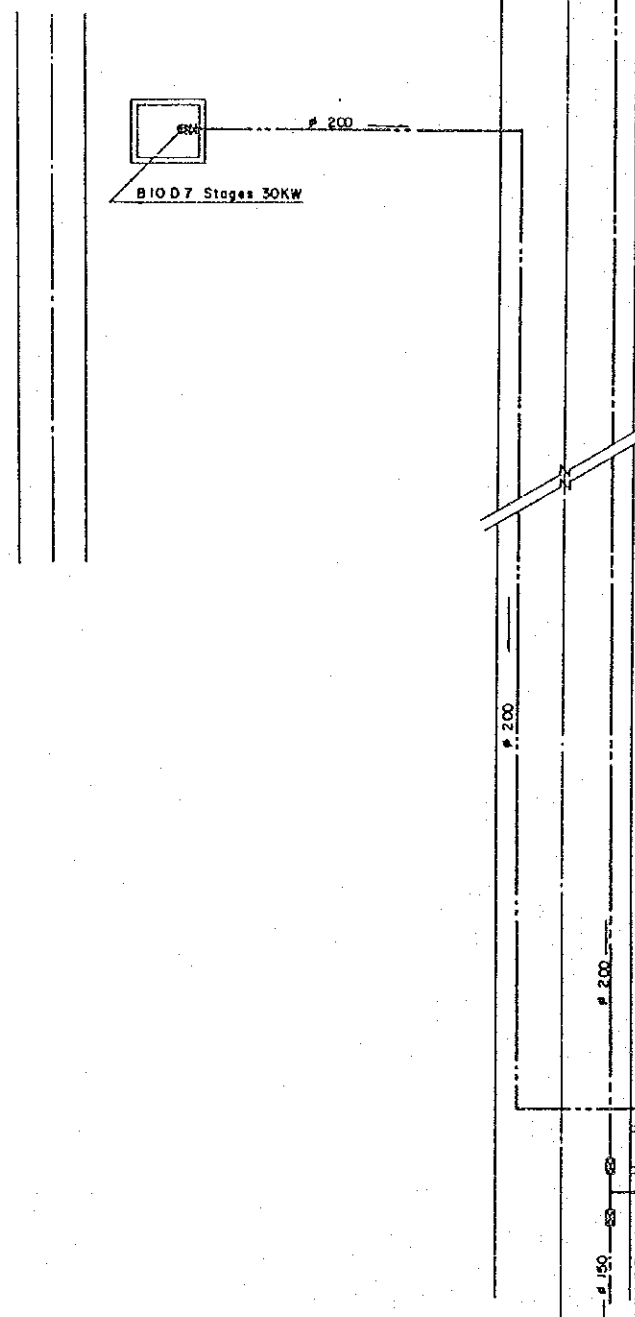
SV = 1:500
 0 10 20 30m
 SH = 1:10
 0 0.1 0.2 0.3 0.4 0.5m

DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
NARSINGDI			
DETAIL OF PRODUCTION WELL			
Date	Oct. 1984	Drawing No.	2-3
JAPAN INTERNATIONAL COOPERATION AGENCY			



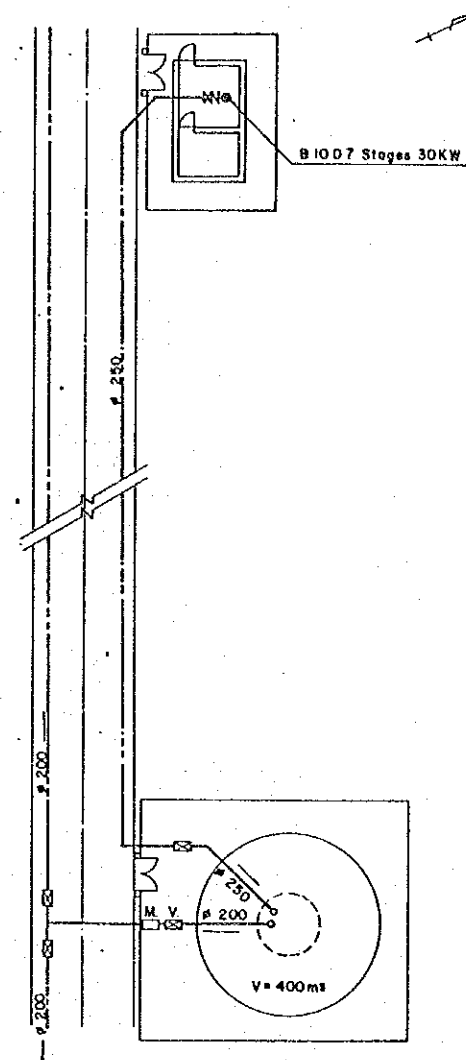
DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF SRI LANKA	
JHENIDA	
GENERAL PLAN	
Date	10 Oct 1984
Sheet No.	3-1
JAPAN INTERNATIONAL COOPERATION AGENCY	

NO.1 PRODUCTION WELL (EX.)



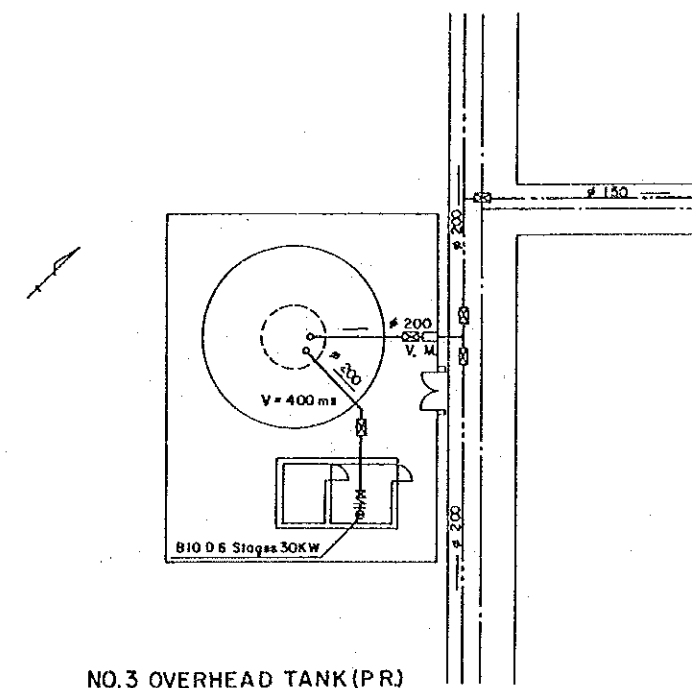
NO.2 OVERHEAD TANK (PR.)

NO.2 PRODUCTION WELL (EX.)



NO.1 OVERHEAD TANK (PR.)

NO.3 PRODUCTION WELL (PR.)



NO.3 OVERHEAD TANK (PR.)

NOTES

PR : Proposed
EX : Existing
M : Meter
V : Sluice Valve

S = 1 : 200
0 5 10 15 m

DIRECTORATE OF PUBLIC HEALTH ENGINEERING
GOVERNMENT OF BANGLADESH

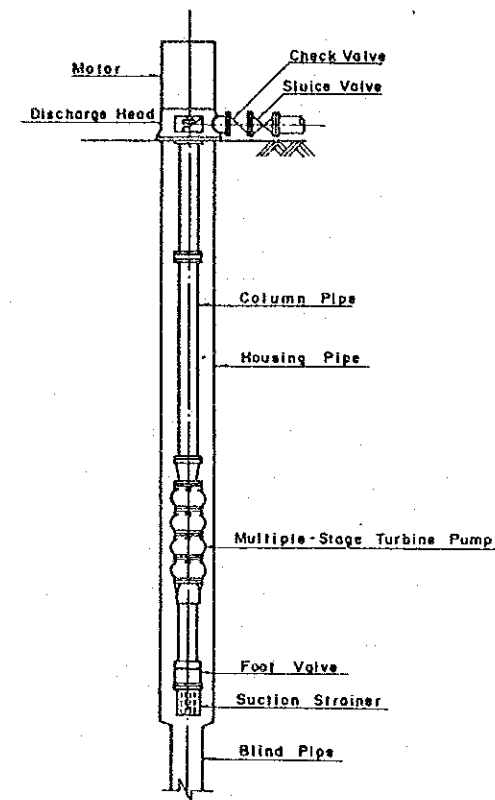
JENIDA

LAYOUT OF PRODUCTION WELL
AND OVERHEAD TANK

Date Oct. 1984 Drawing No. 3 - 2

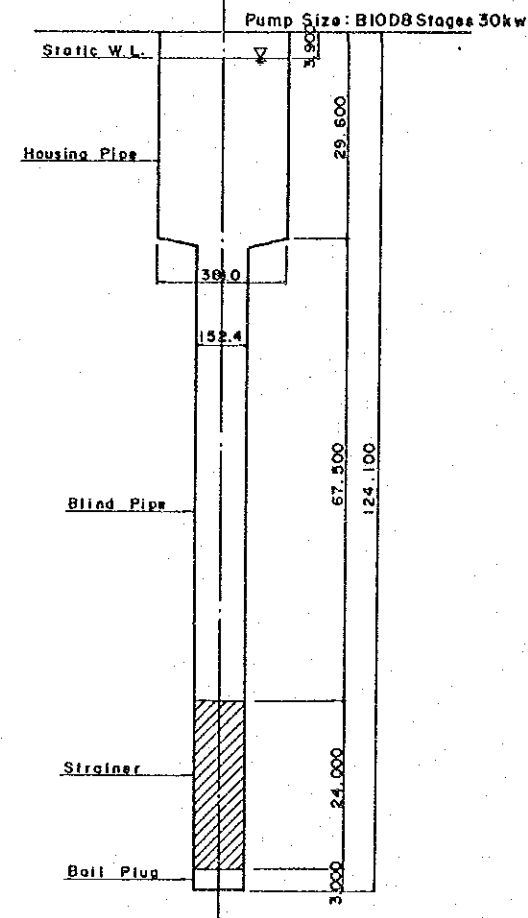
JAPAN INTERNATIONAL COOPERATION AGENCY

INSTALLATION OF PUMP

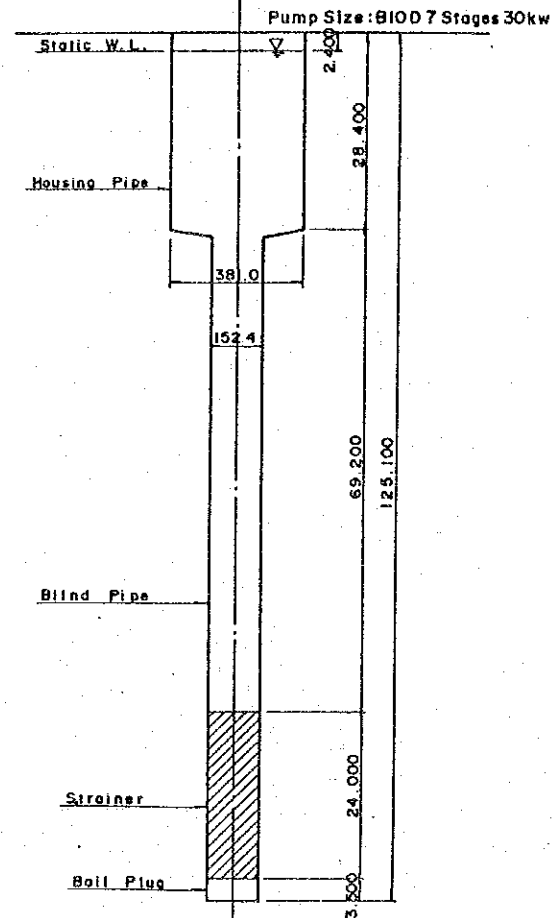


EXISTING PRODUCTION WELL

NO. 1 WELL

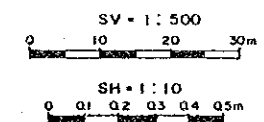
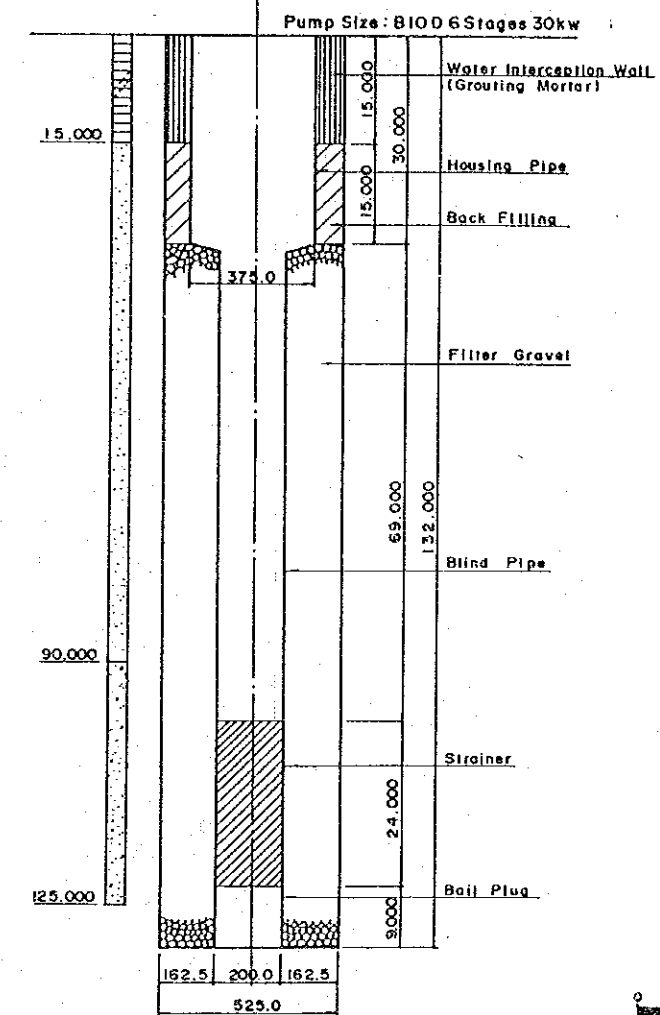


NO. 2 WELL

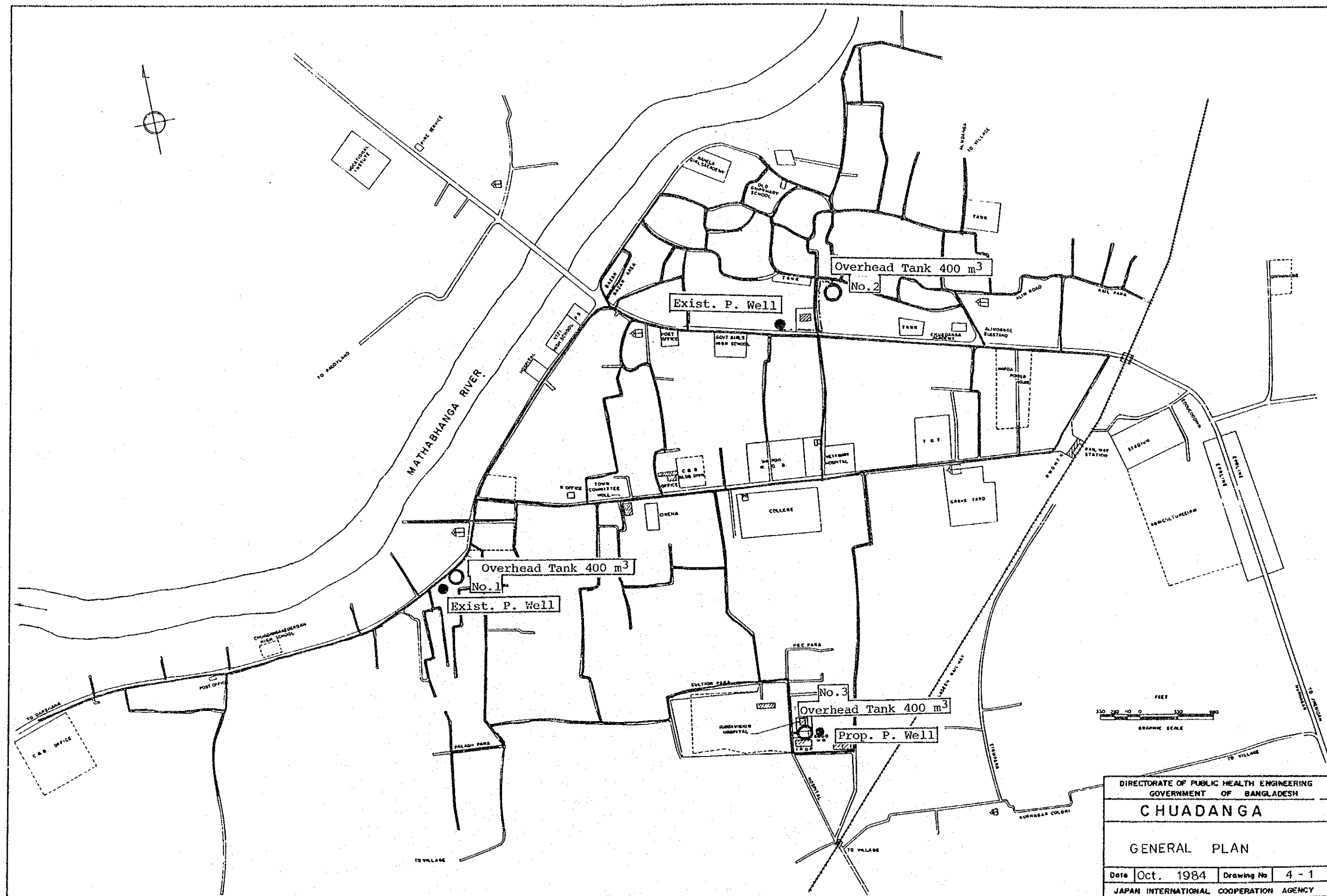


PROPOSED PRODUCTION WELL

NO. 3 WELL

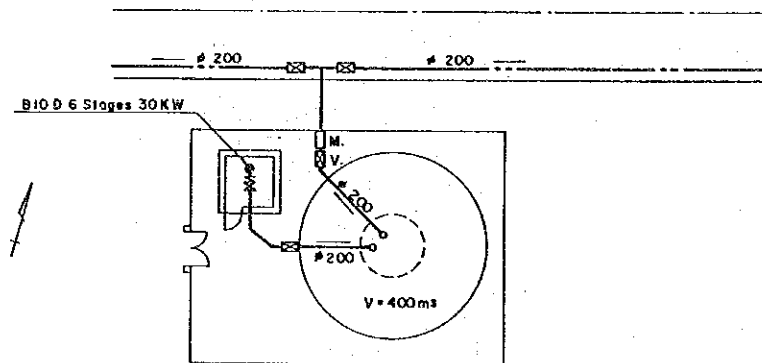


DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
JENIDAH			
DETAIL OF PRODUCTION WELL			
Date	Oct. 1984	Drawing No.	3-3
JAPAN INTERNATIONAL COOPERATION AGENCY			



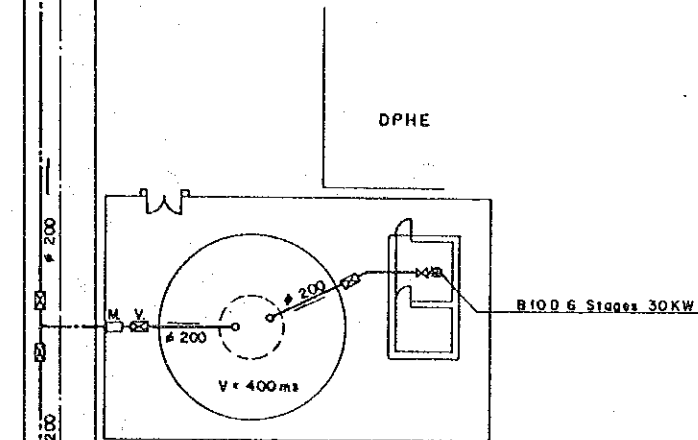
DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
CHUADANGA			
GENERAL PLAN			
Date	Oct. 1984	Drawing No	4 - 1
JAPAN INTERNATIONAL COOPERATION AGENCY			

NO.1 PRODUCTION WELL (EX)



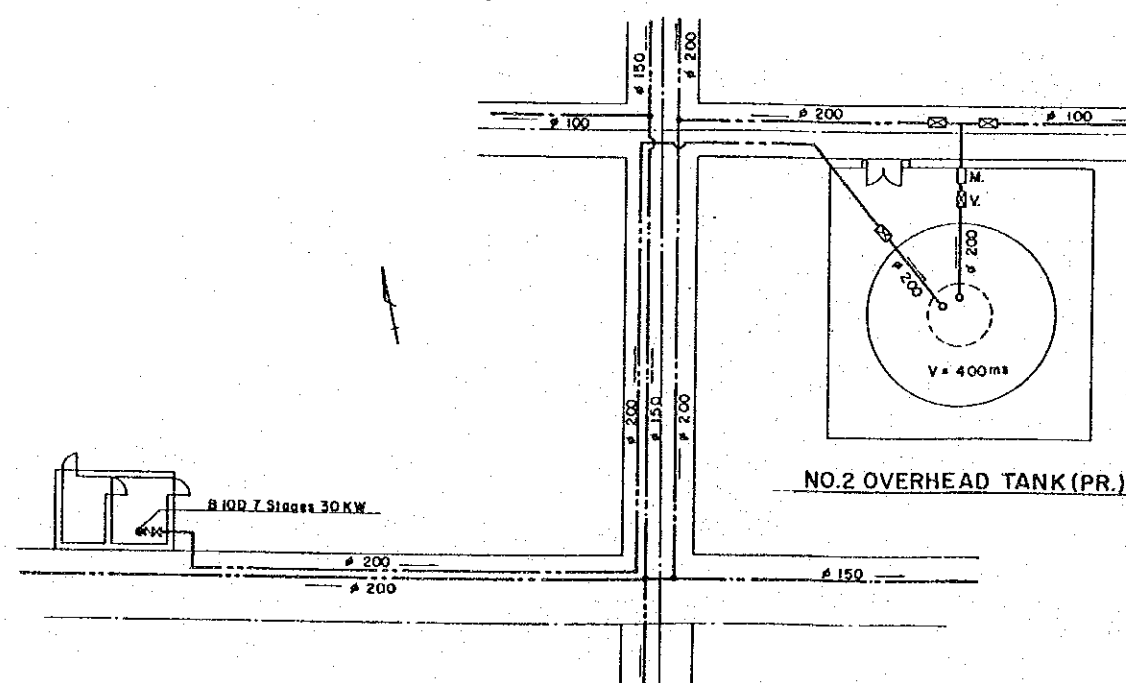
NO.1 OVERHEAD TANK (PR.)

NO.3 PRODUCTION WELL (PR)



NO.3 OVERHEAD TANK (PR.)

NO.2 PRODUCTION WELL (EX)



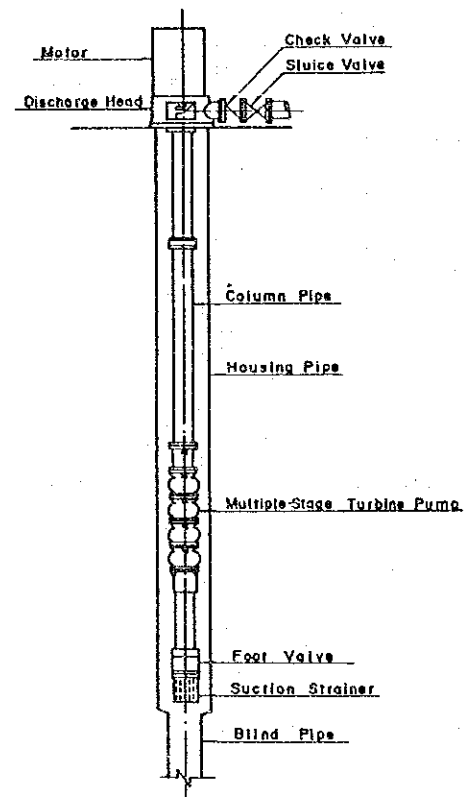
NO.2 OVERHEAD TANK (PR.)

NOTES
 PR : Proposed
 EX : Existing
 M : Meter
 V : Sluice Valve

S = 1 : 200
 0 5 10 15 m

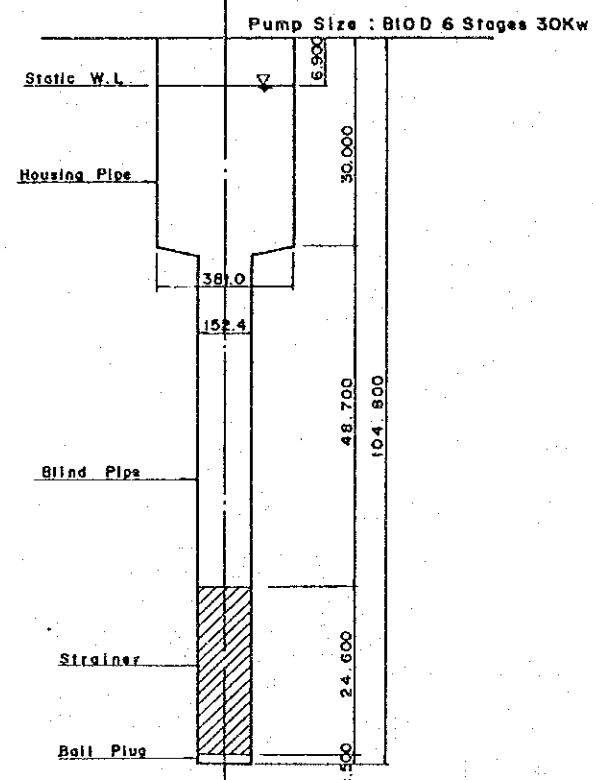
DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
CHUADANGA			
LAYOUT OF PRODUCTION WELL AND OVERHEAD TANK			
Date	Oct. 1984	Drawing No.	4 - 2
JAPAN INTERNATIONAL COOPERATION AGENCY			

INSTALLATION OF PUMP

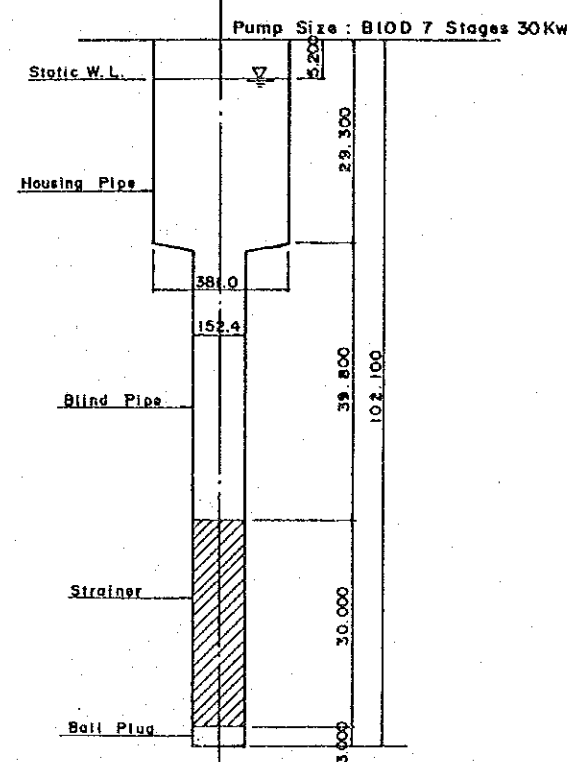


EXISTING PRODUCTION WELL

NO. 1 WELL

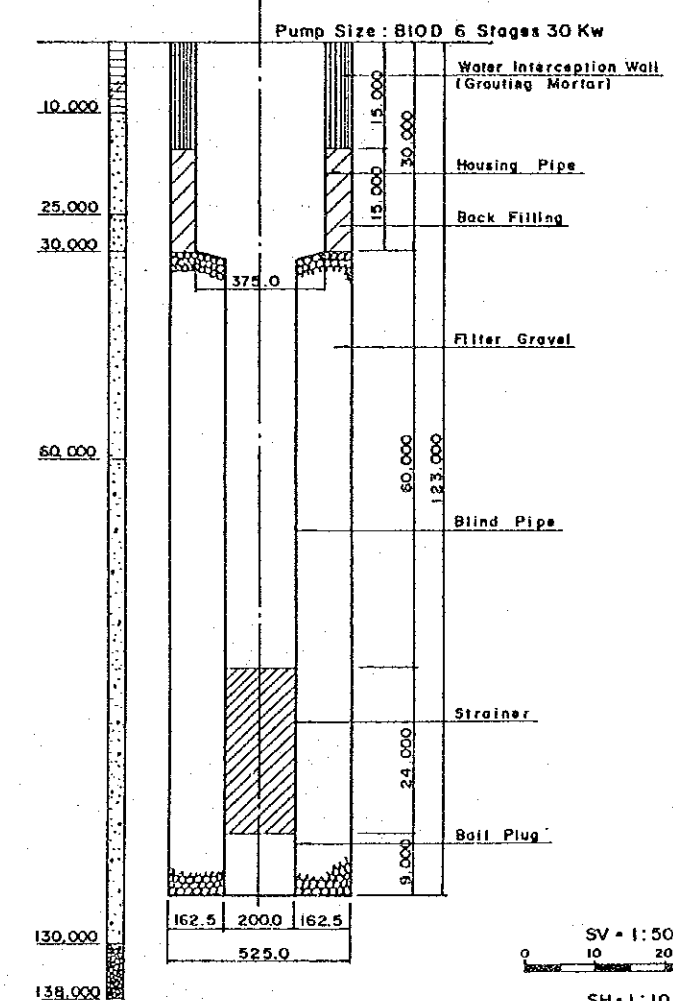


NO. 2 WELL



PROPOSED PRODUCTION WELL

NO. 3 WELL



SV = 1:500
0 10 20 30m

SH = 1:10
0 0.1 0.2 0.3 0.4 0.5m

DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
CHUADANGA			
DETAIL OF PRODUCTION WELL			
Date	Oct. 1984	Drawing No.	4-3
JAPAN INTERNATIONAL COOPERATION AGENCY.			



No. 1
Overhead Tank 400 m³

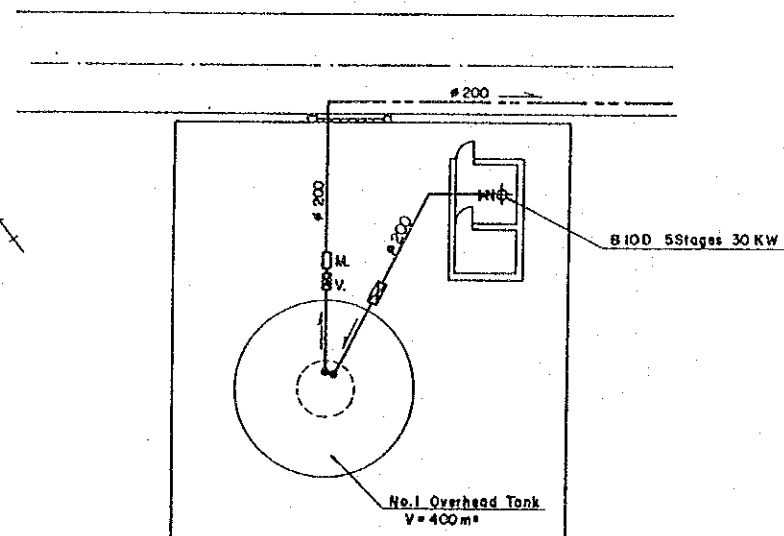


FEET
500 100 0 100 500
GRAPHIC SCALE

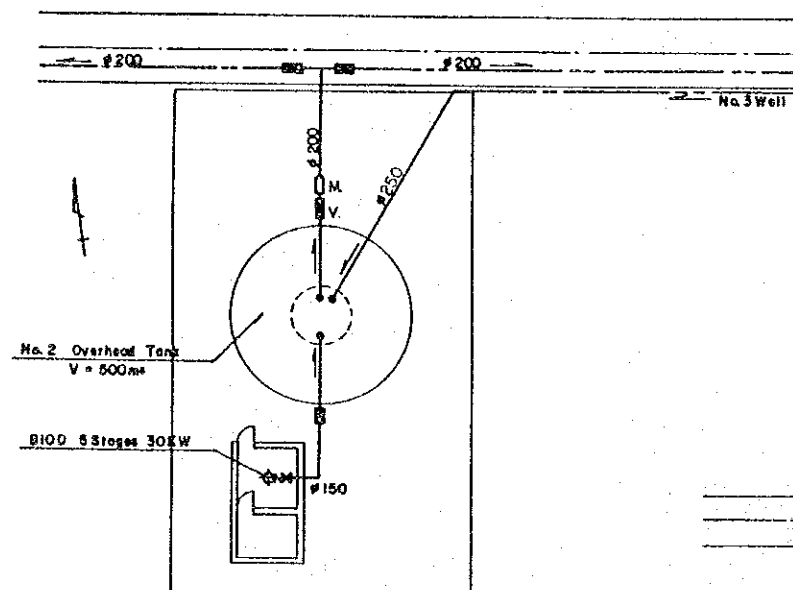
DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
GAIBANDA			
GENERAL PLAN			
Date	Oct. 1984	Drawing No	5-1
JAPAN INTERNATIONAL COOPERATION AGENCY			

GAIBANDA

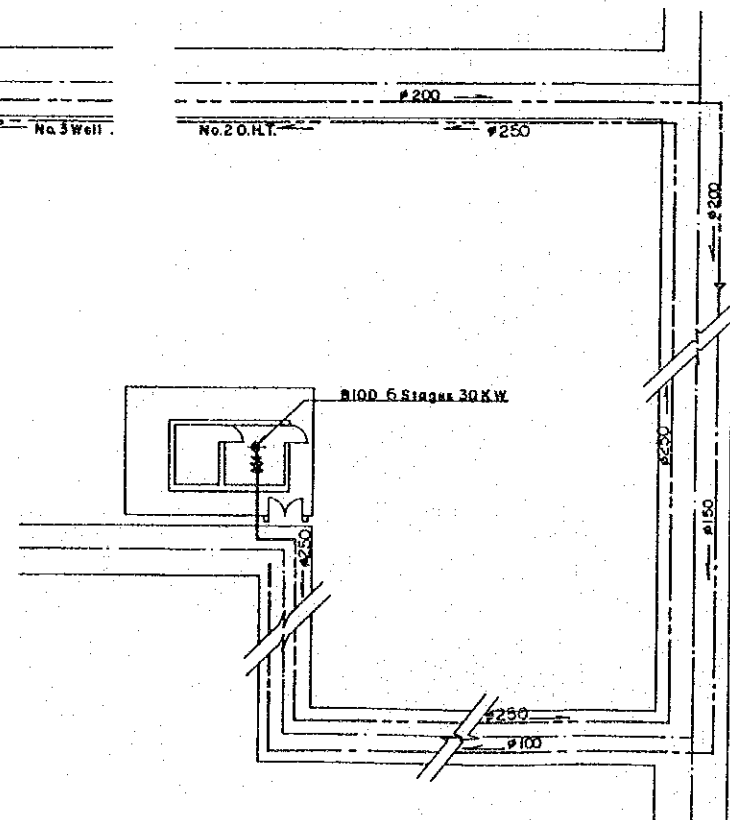
NO. 1 PRODUCTION WELL (PR)



NO. 2 PRODUCTION WELL (PR)

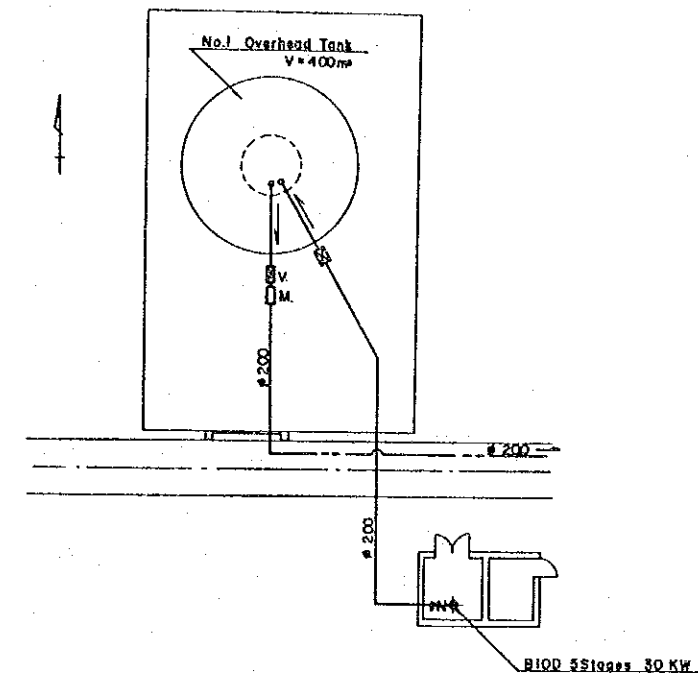


NO. 3 PRODUCTION WELL (PR)

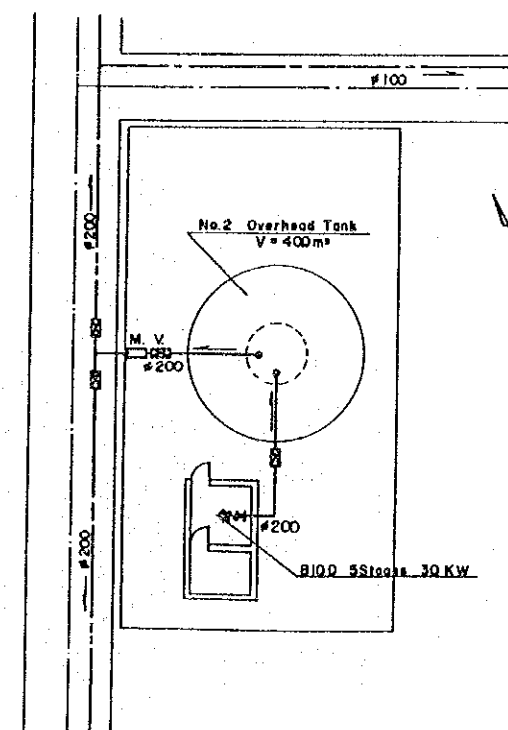


KURIGRAM

NO. 1 PRODUCTION WELL (PR)



NO. 2 PRODUCTION WELL (PR)

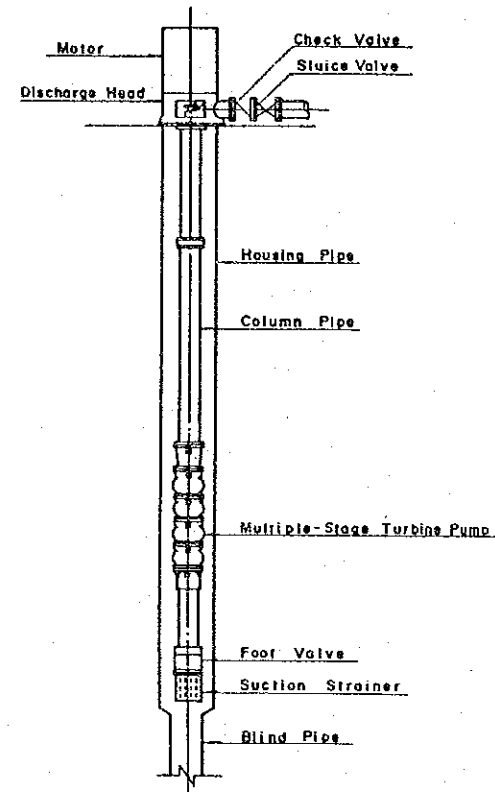


S = 1:200

0 5 10 15 m

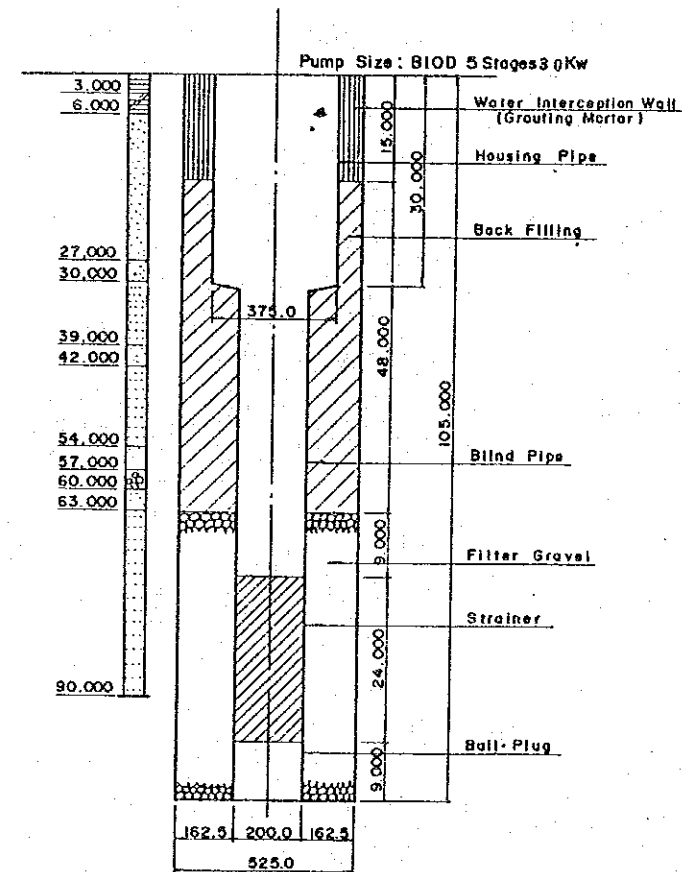
DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH		
GAIBANDA, KURIGRAM		
LAYOUT OF PRODUCTION WELL AND OVERHEAD TANK		
Date	Oct. 1984	Drawing No. 5-2.6-2
JAPAN INTERNATIONAL COOPERATION AGENCY		

INSTALLATION OF PUMP

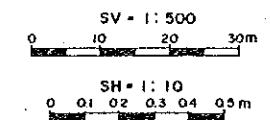
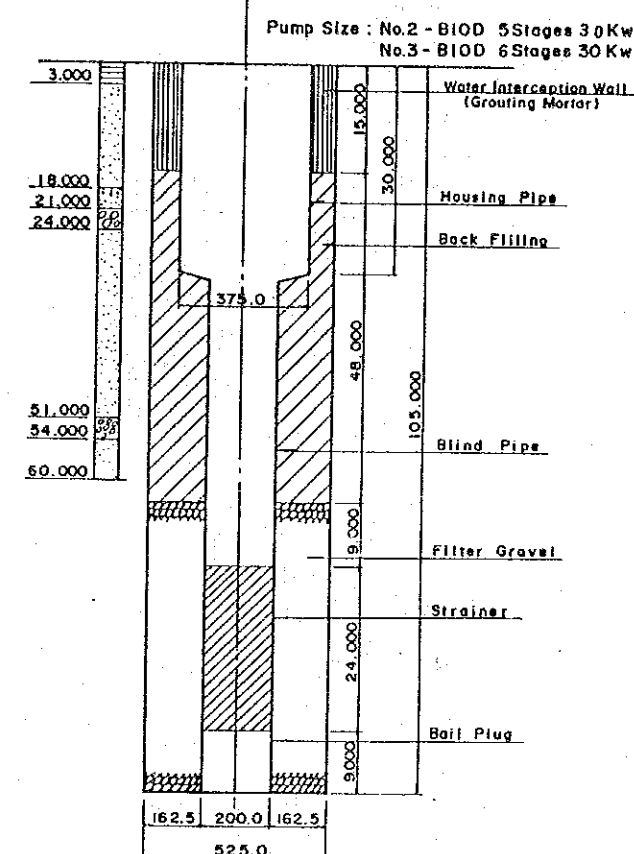


PROPOSED PRODUCTION WELL

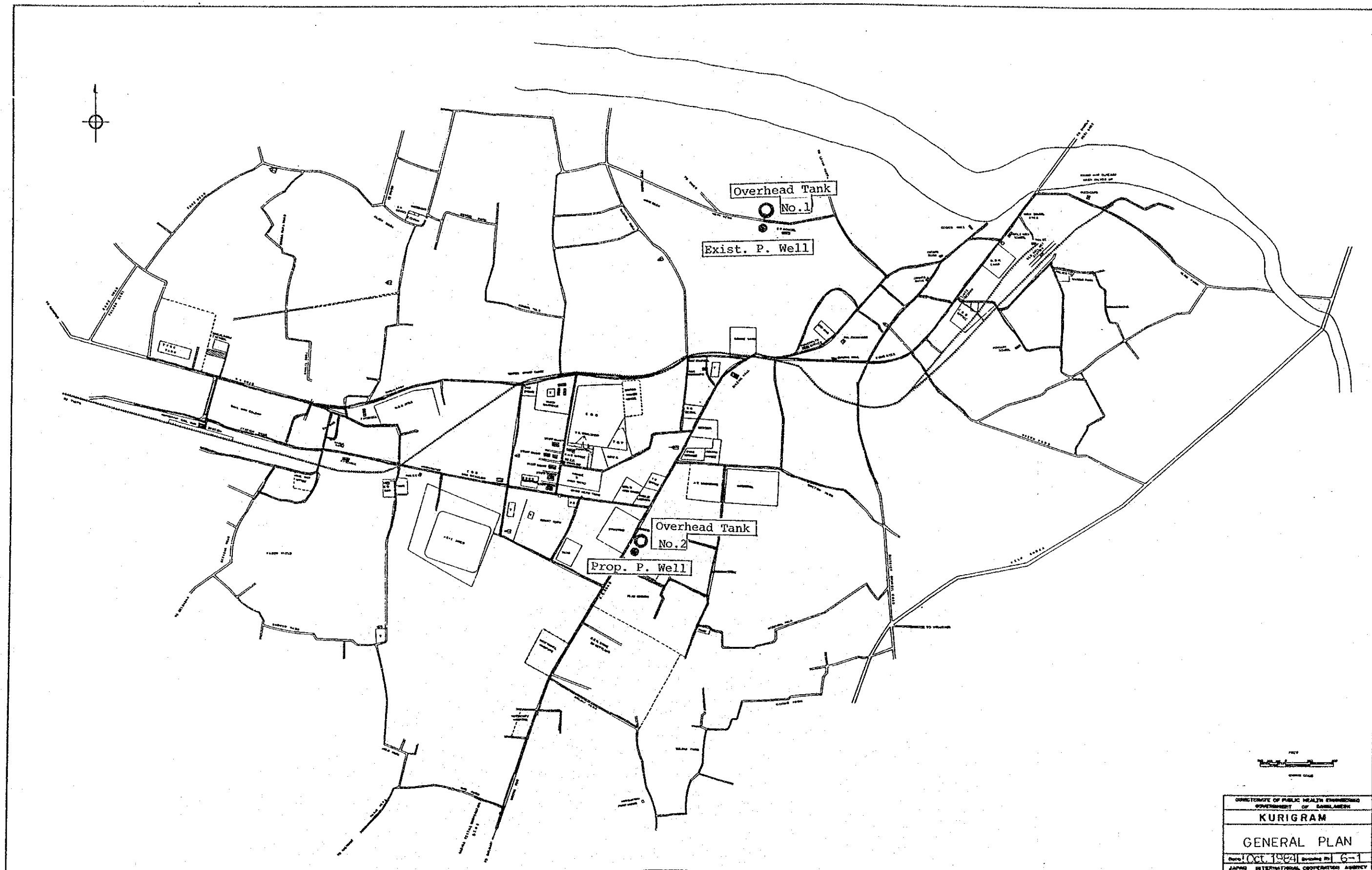
NO. 1 WELL



NO. 2,3 WELL

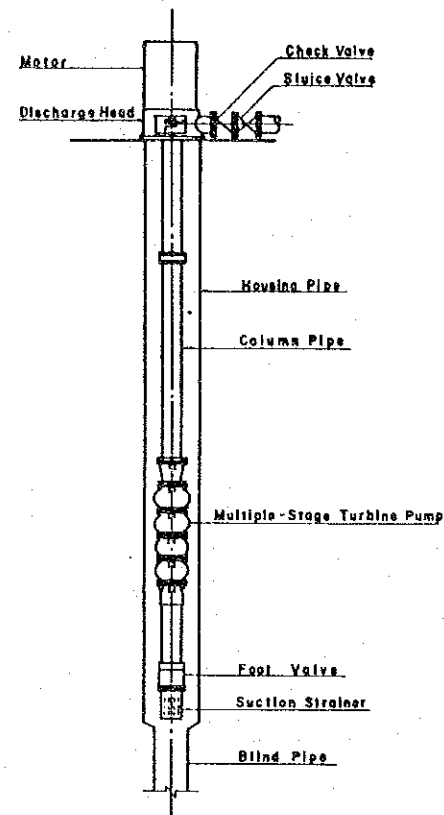


DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
GAIBANDA			
DETAIL OF PRODUCTION WELL			
Date	Oct. 1984	Drawing No.	5 - 3
JAPAN INTERNATIONAL COOPERATION AGENCY			



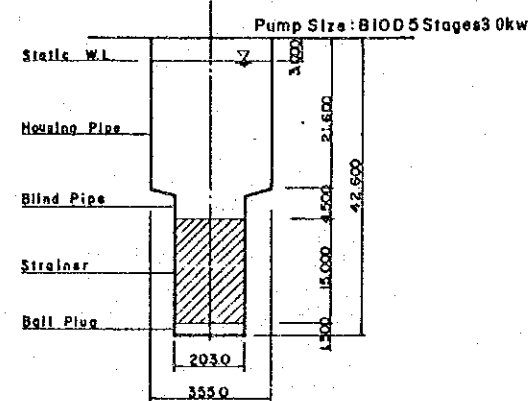
DIRECTORATE OF PUBLIC HEALTH ENGINEERING
GOVERNMENT OF BANGLADESH
KURIGRAM
GENERAL PLAN
Date: Oct. 1984 Drawing No: 6-1
JAPAN INTERNATIONAL COOPERATION AGENCY

INSTALLATION OF PUMP



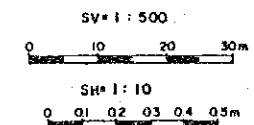
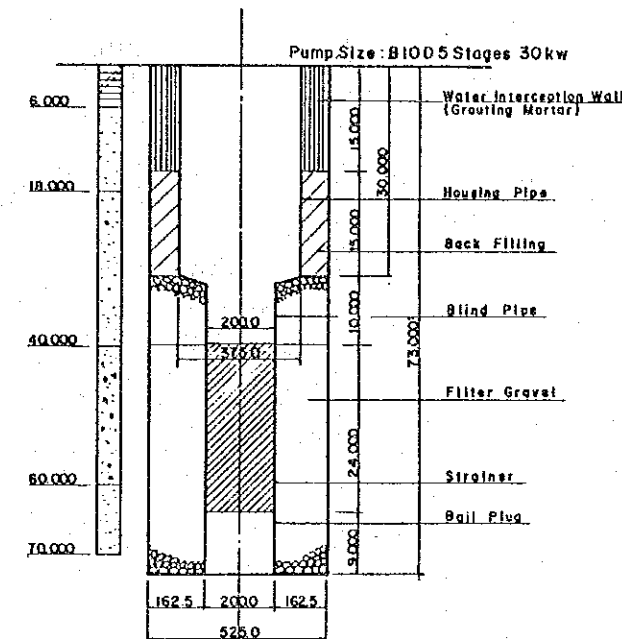
EXISTING PRODUCTION WELL

NO. 1 WELL

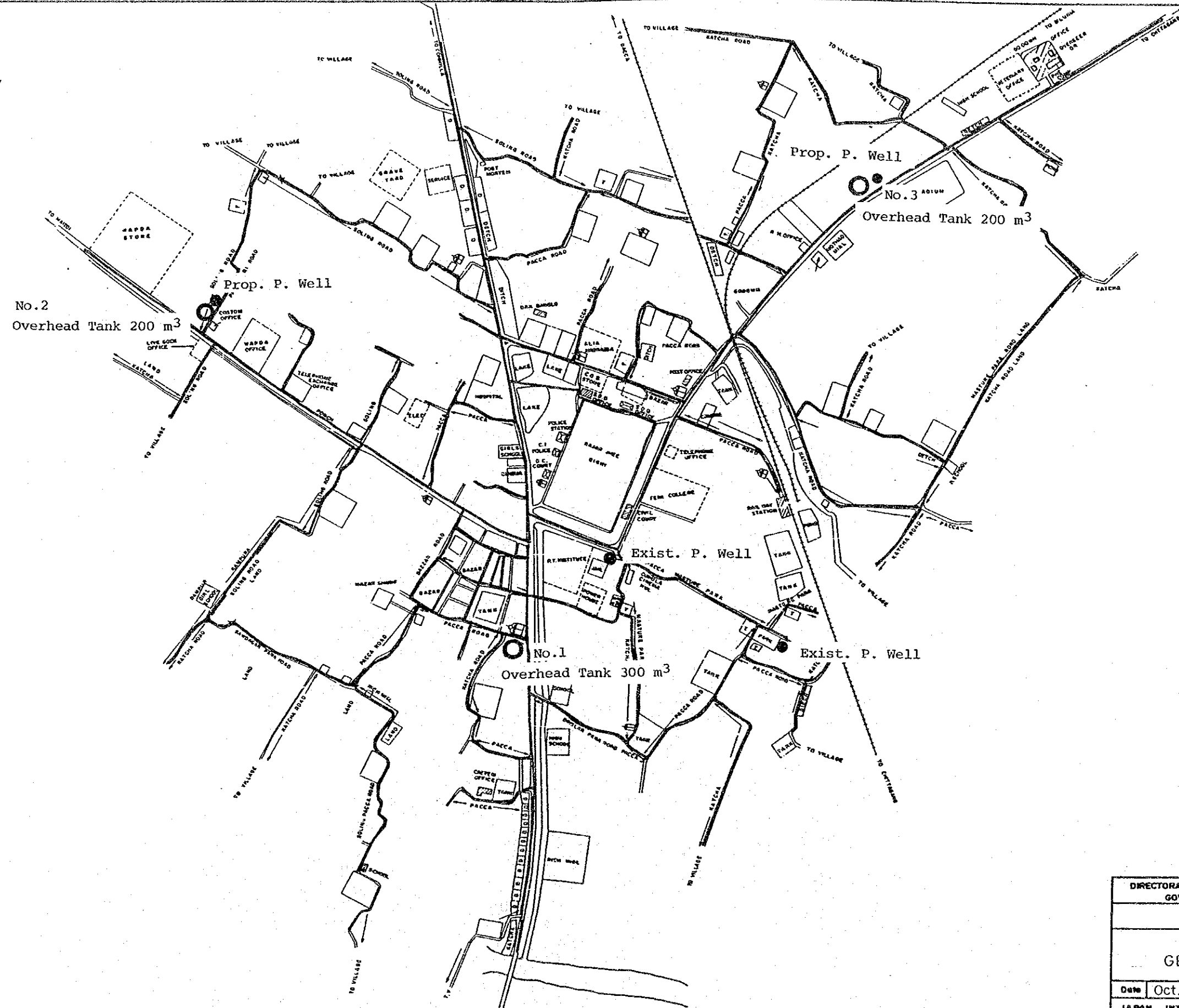
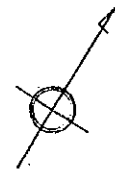


PROPOSED PRODUCTION WELL

NO. 2 WELL

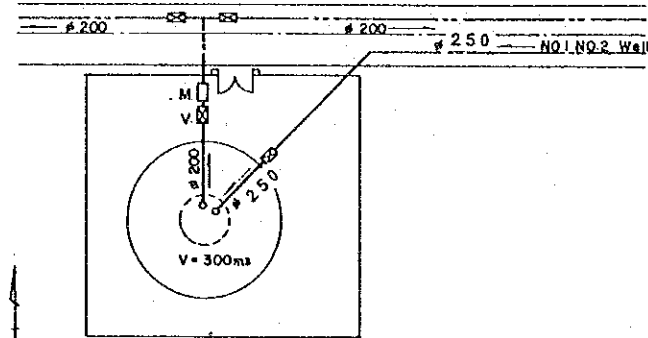


DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
KURIGRAM			
DETAIL OF PRODUCTION WELL			
Date	Oct. 1984	Drawing No.	6-3
JAPAN INTERNATIONAL COOPERATION AGENCY			

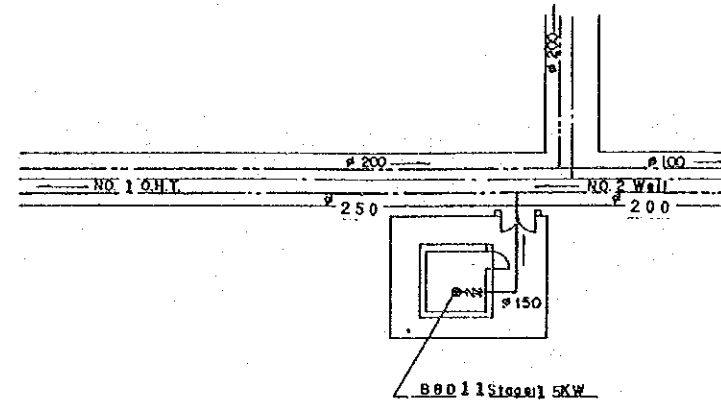


DIRECTORATE OF PUBLIC HEALTH ENGINEERING	
GOVERNMENT OF BANGLADESH	
FENI	
GENERAL PLAN	
Date	Oct. 1984
Drawing No	7-1
JAPAN INTERNATIONAL COOPERATION AGENCY	

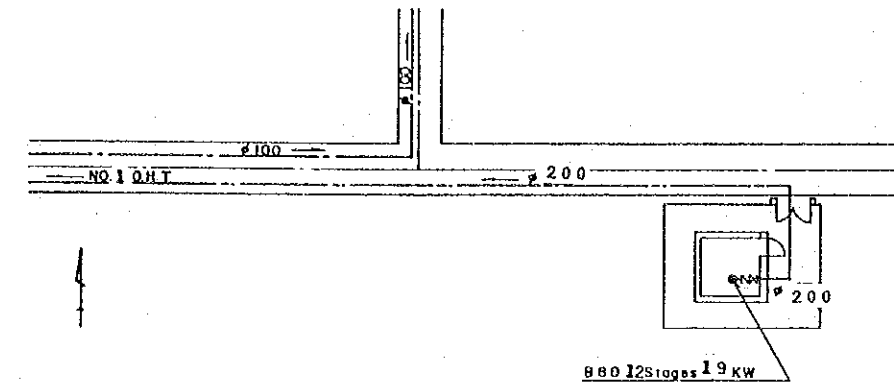
NO.1 OVERHEAD TANK (PR.)



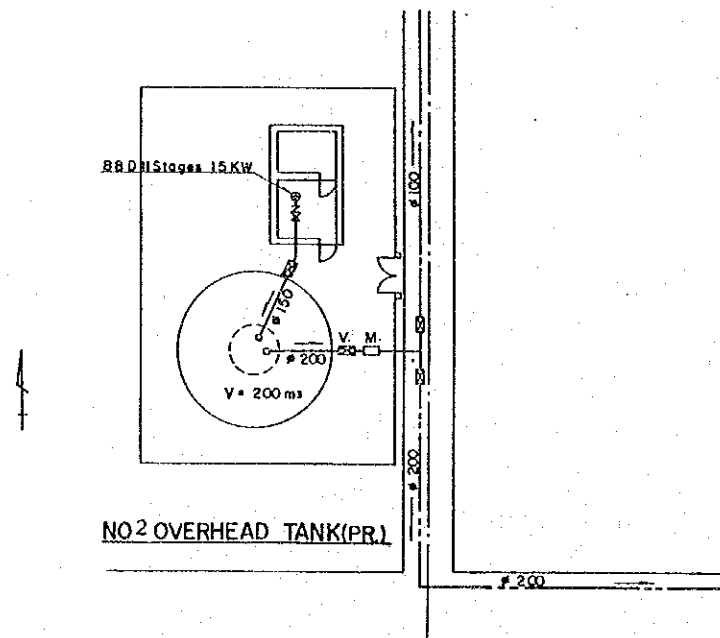
NO.1 PRODUCTION WELL (EX.)



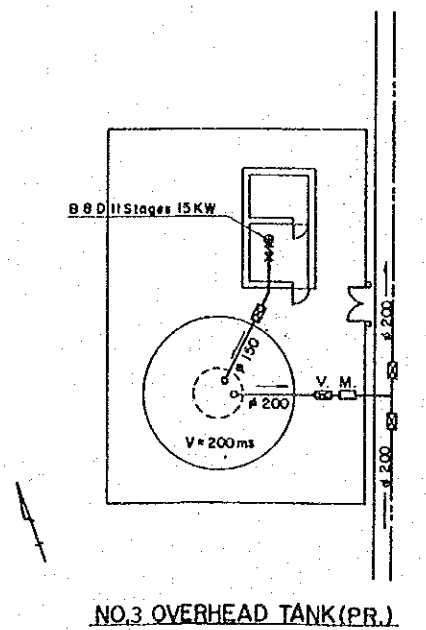
NO.2 PRODUCTION WELL (EX.)



NO.3 PRODUCTION WELL (PR.)



NO.4 PRODUCTION WELL (PR.)



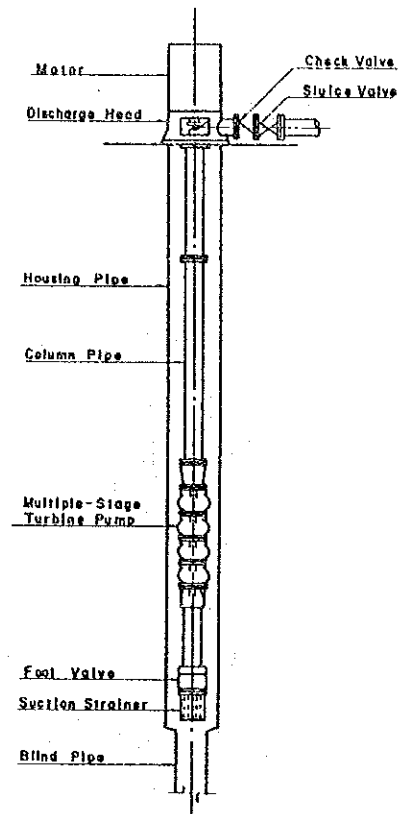
NOTES

PR. : Proposed
EX : Existing
O.H.T. : Overhead Tank
M. : Meter
V. : Sluice Valve

S = 1 : 200
0 5 10 15 m

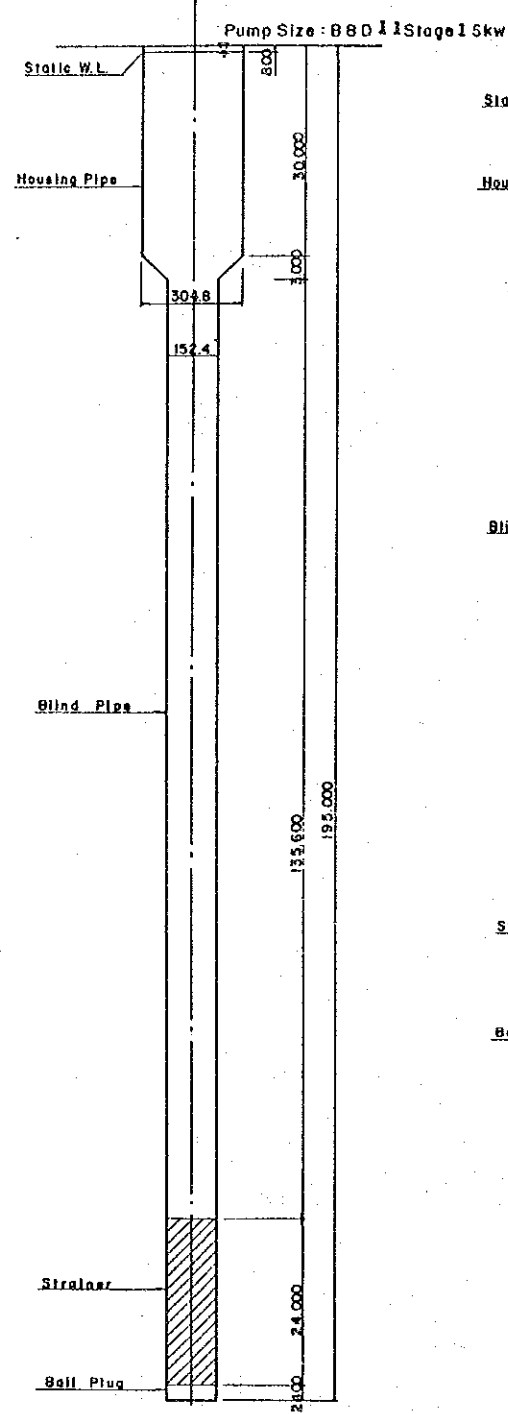
DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
FENI			
LAYOUT OF PRODUCTION WELL AND OVERHEAD TANK			
Date	Oct. 1984	Drawing No.	7 - 2
JAPAN INTERNATIONAL COOPERATION AGENCY			

INSTALLATION OF PUMP

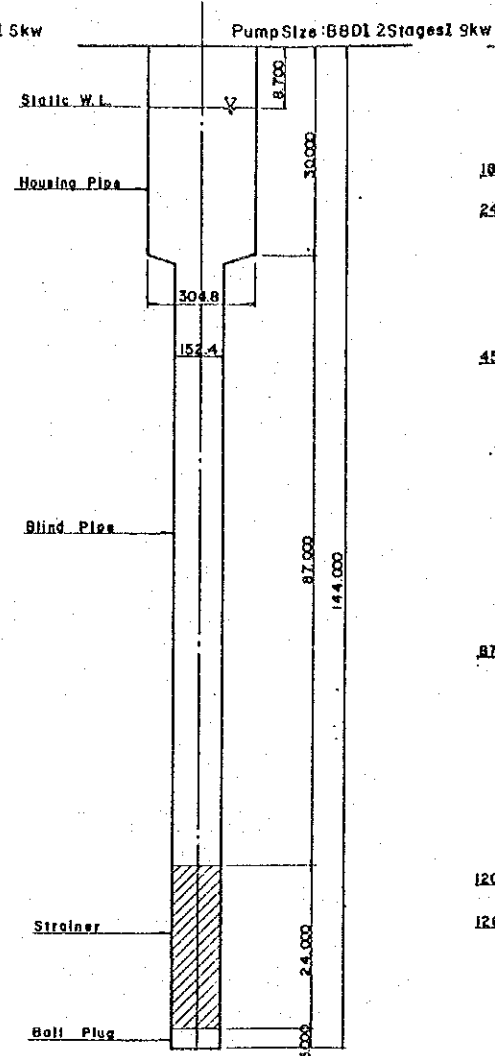


EXISTING PRODUCTION WELL

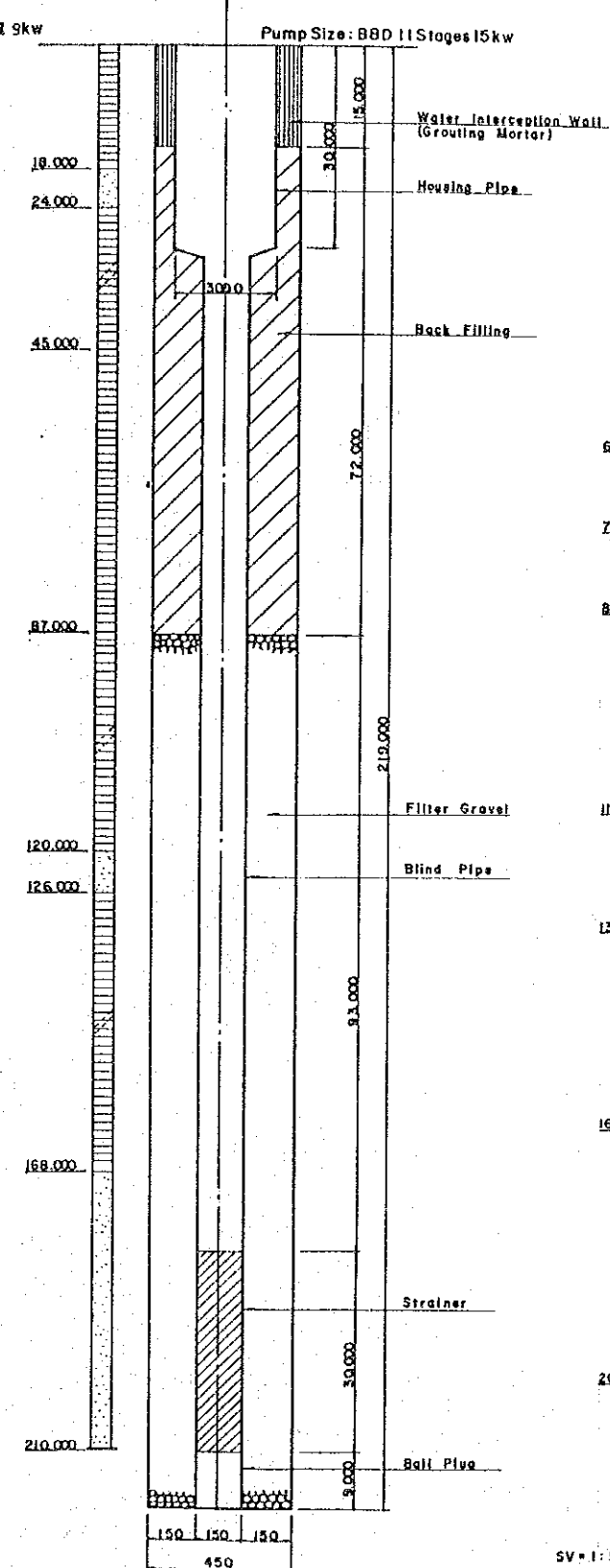
NO. 1 WELL



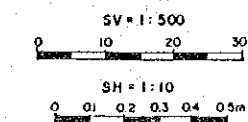
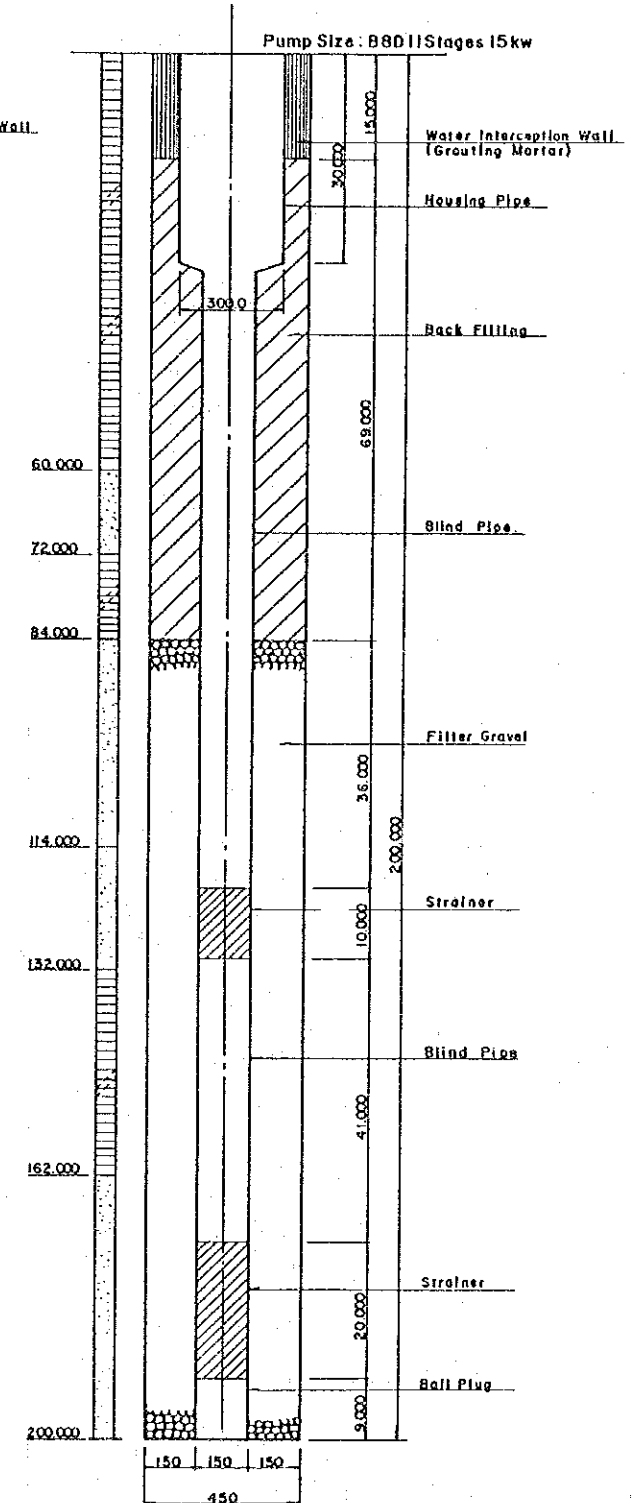
NO. 2 WELL



NO. 3 WELL



NO. 4 WELL

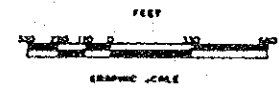
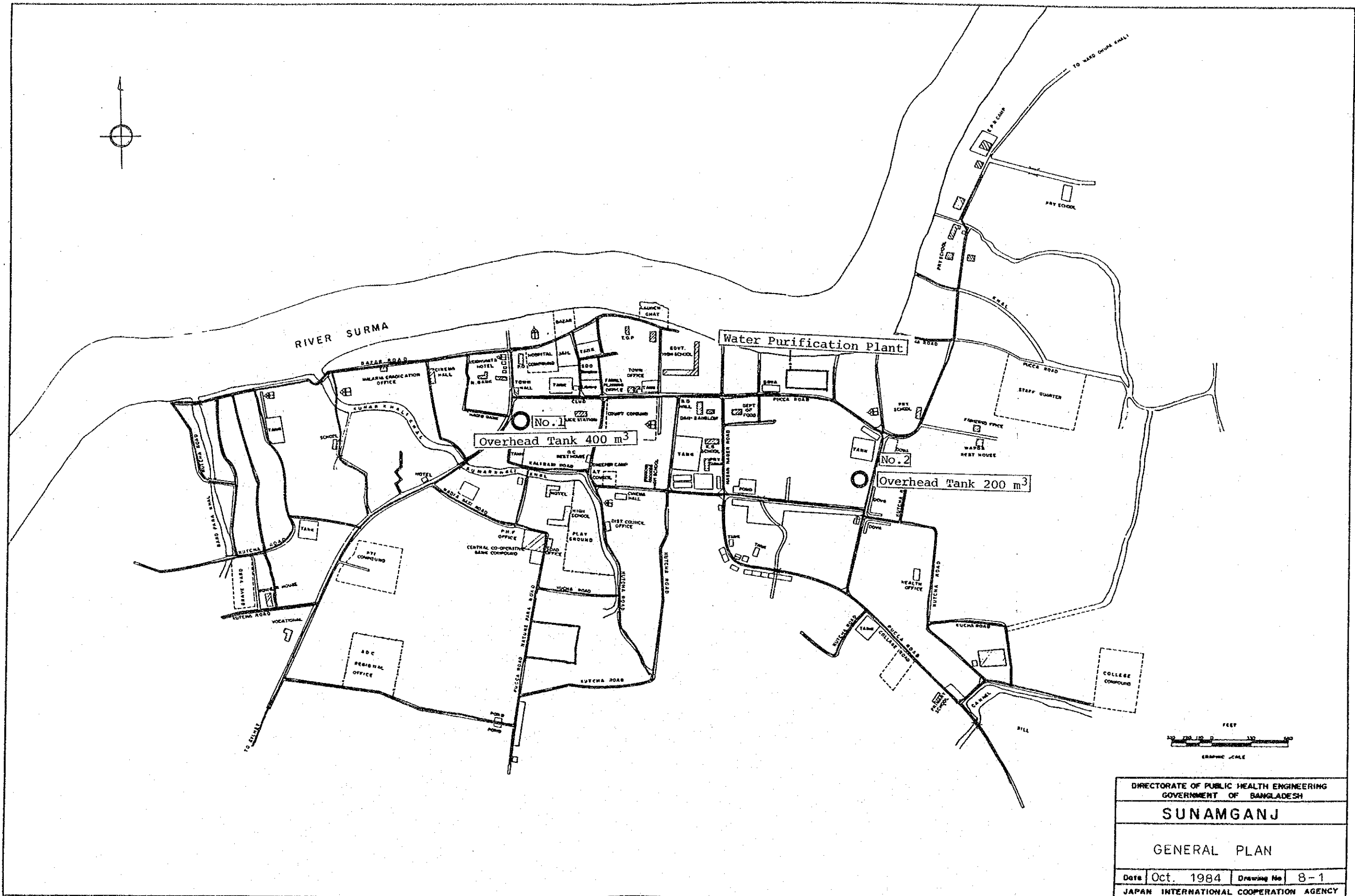
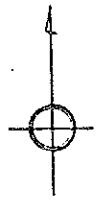


DIRECTORATE OF PUBLIC HEALTH ENGINEERING
GOVERNMENT OF BANGLADESH

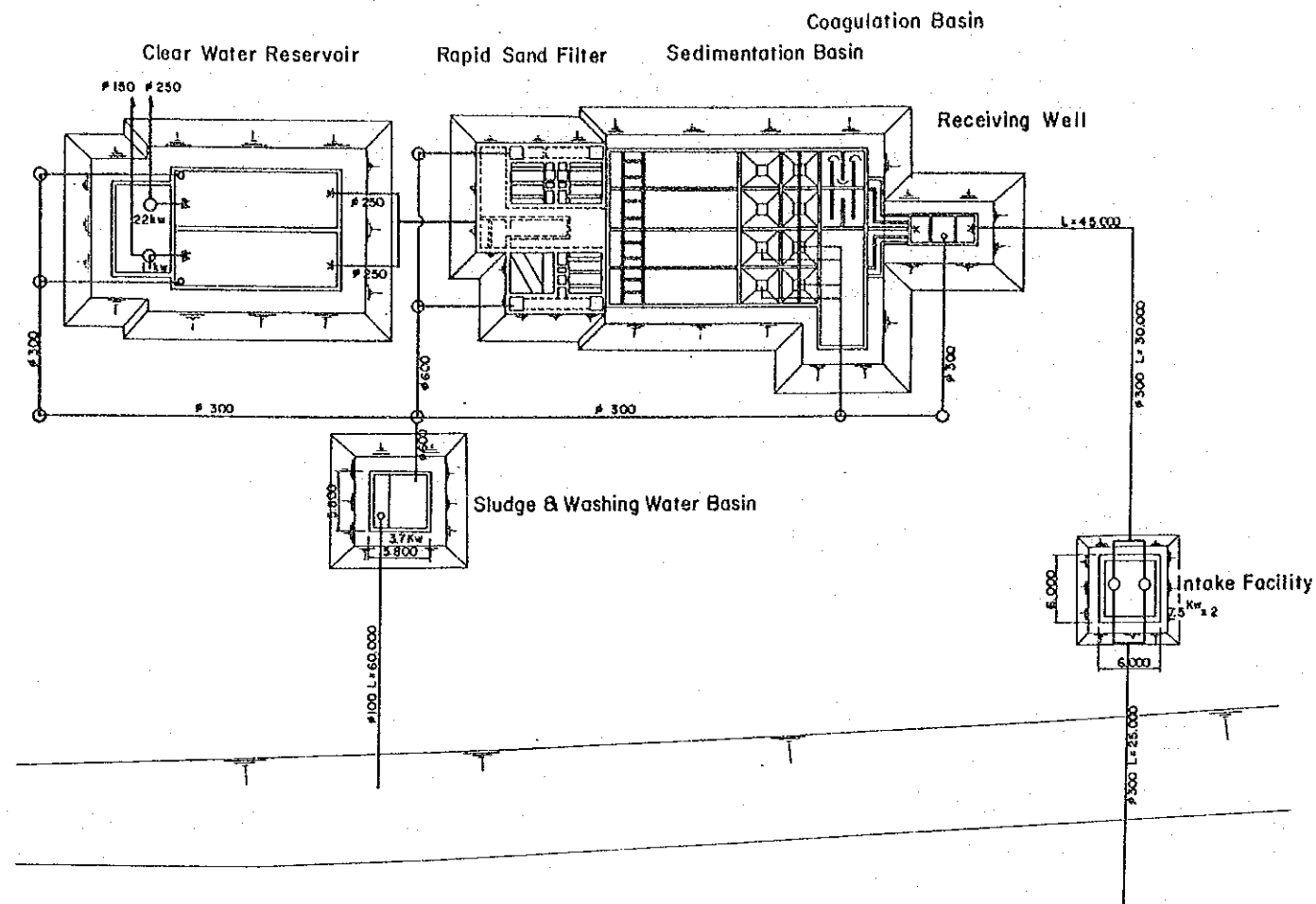
FENI

DETAIL OF PRODUCTION WELL

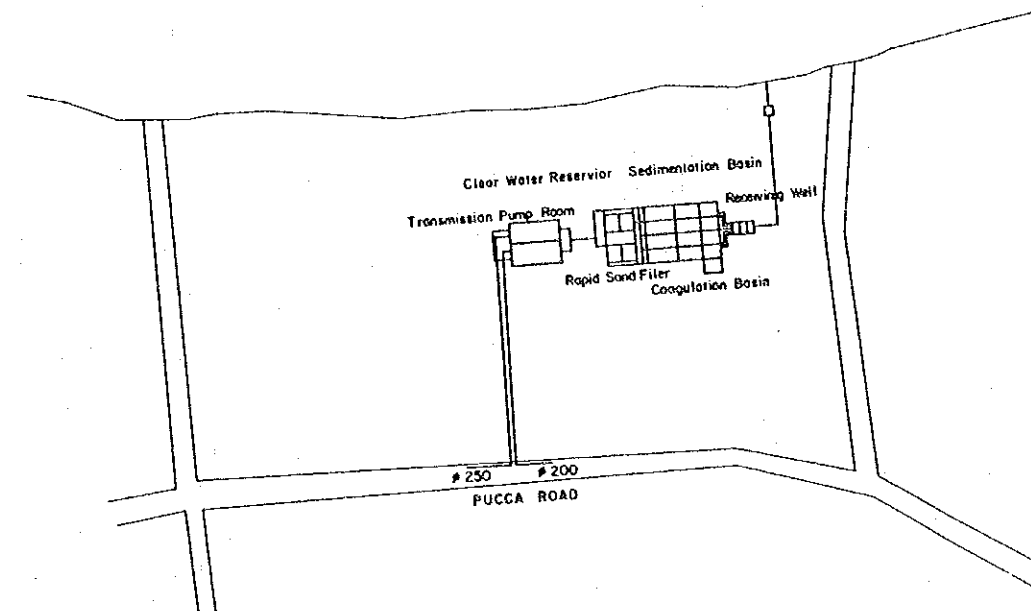
Date: Oct. 1984 Drawing No. 7-3
JAPAN INTERNATIONAL COOPERATION AGENCY



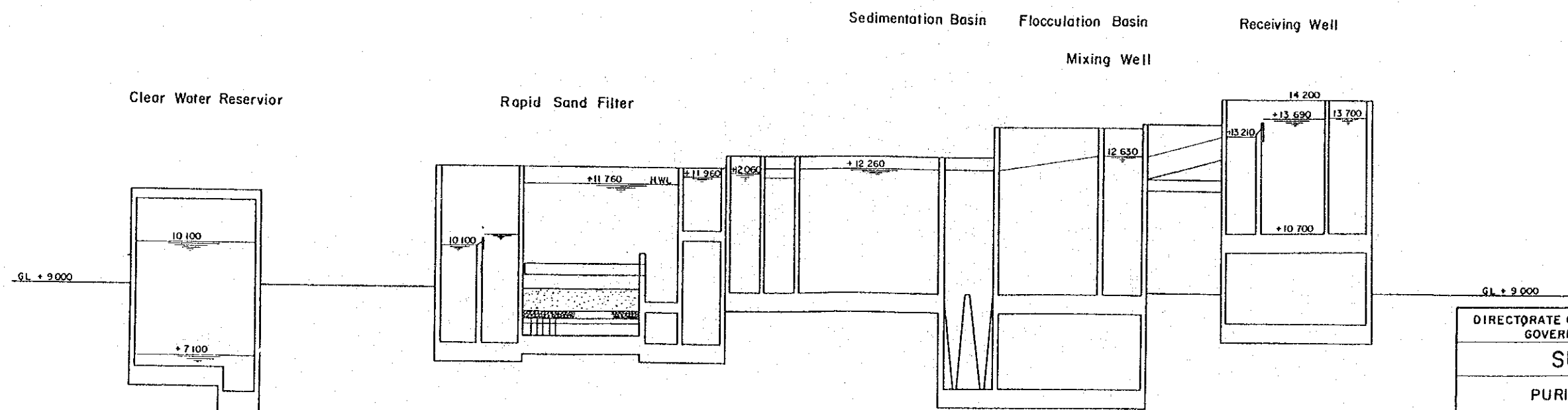
DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
SUNAMGANJ			
GENERAL PLAN			
Date	Oct. 1984	Drawing No	8-1
JAPAN INTERNATIONAL COOPERATION AGENCY			



LAYOUT S = 1:1000

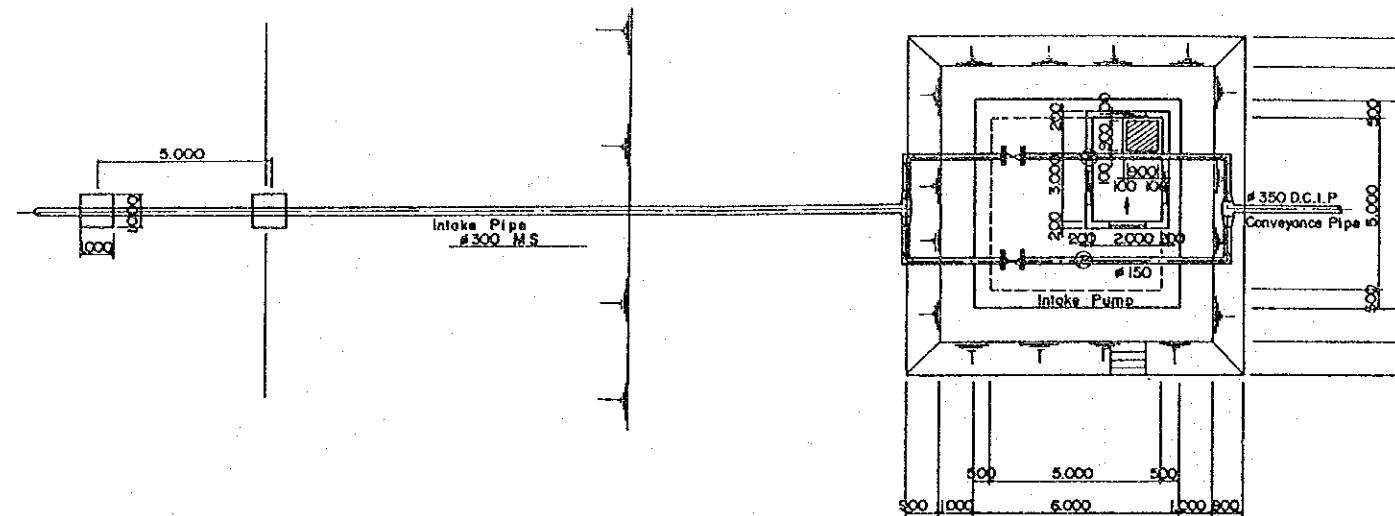


DIFFERENCE OF WATER LEVELS

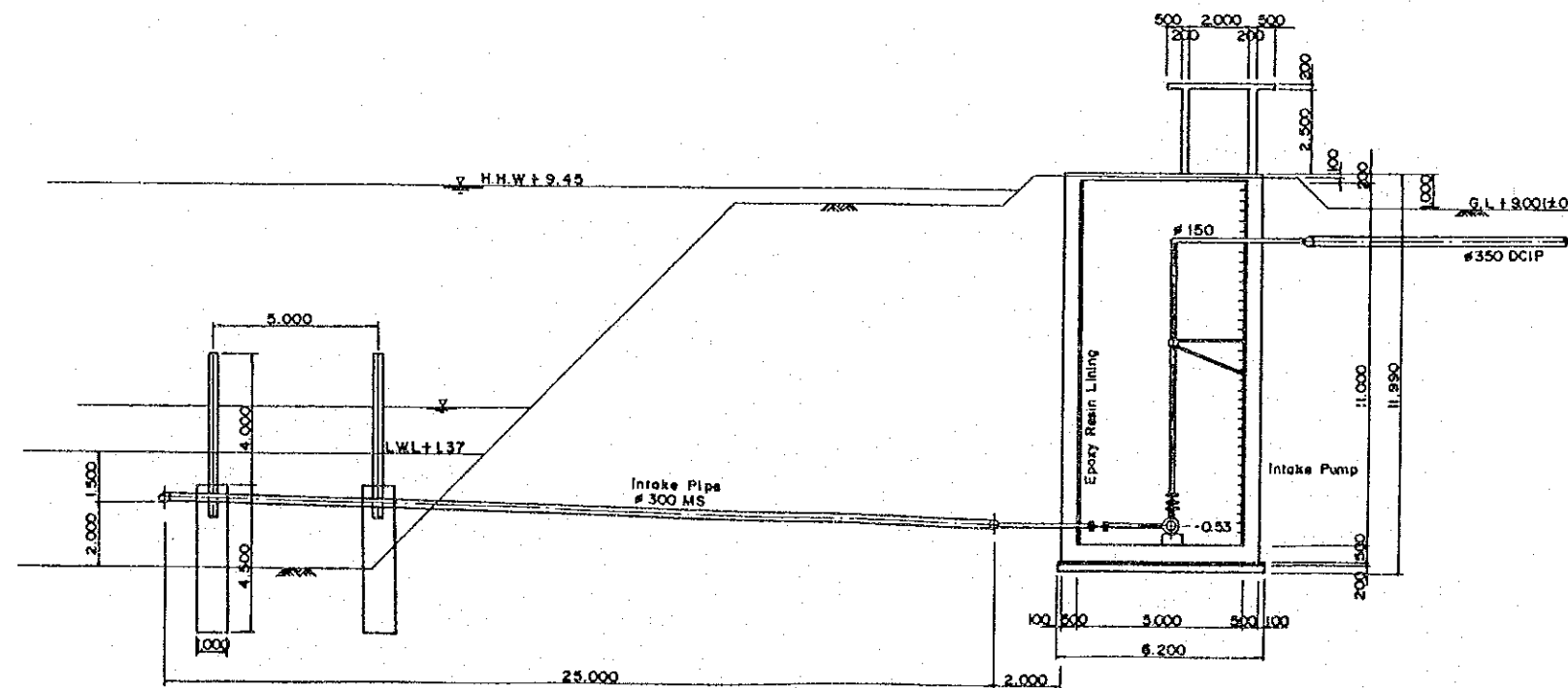


DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH		
SUNAMGANJ		
PURIFICATION PLANT		
LAYOUT AND DIFFERENCE OF WATER LEVELS		
Date	Oct. 1984	Drawing No. 8-2
JAPAN INTERNATIONAL COOPERATION AGENCY		

PLAN

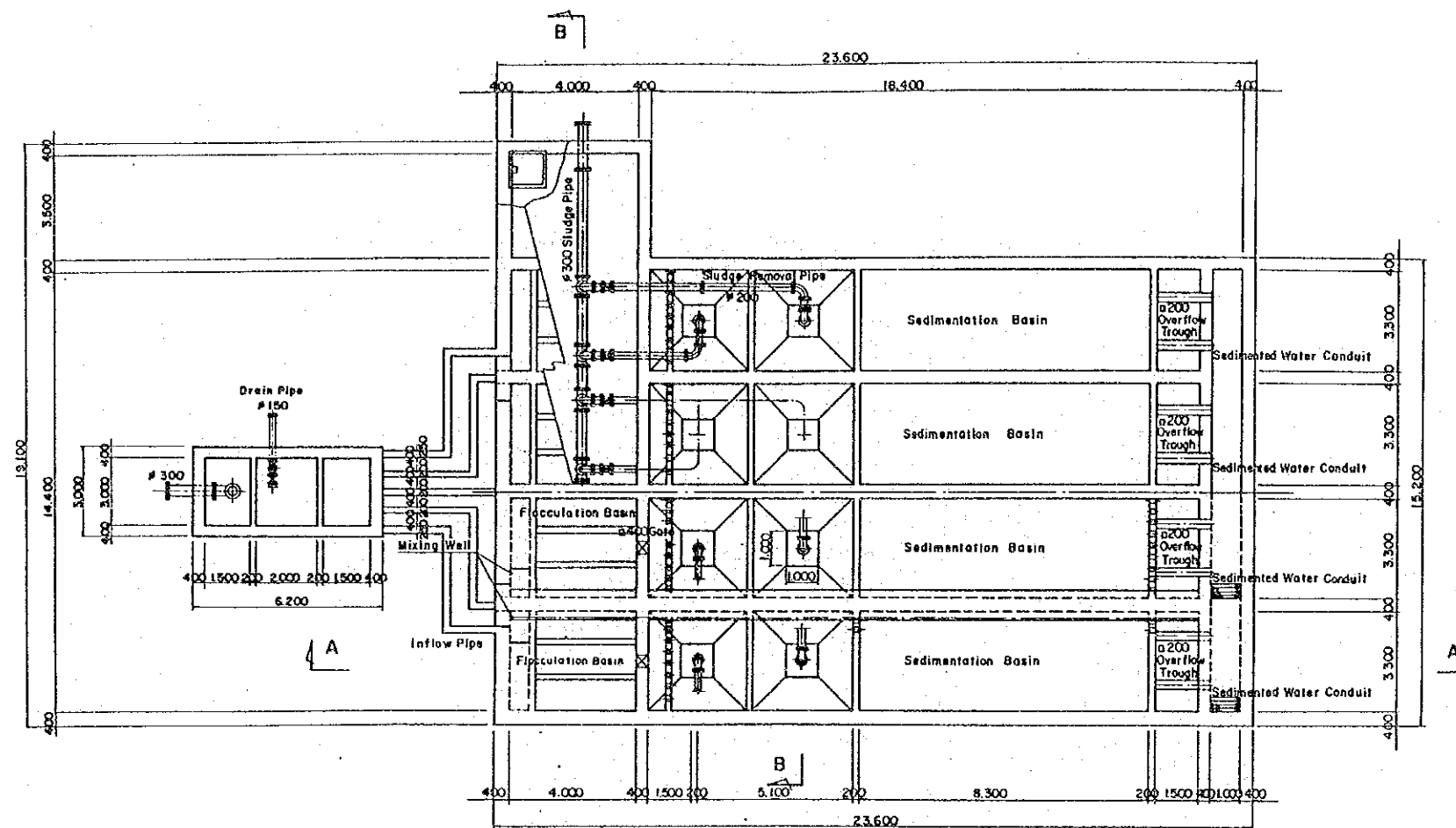


CROSS SECTION

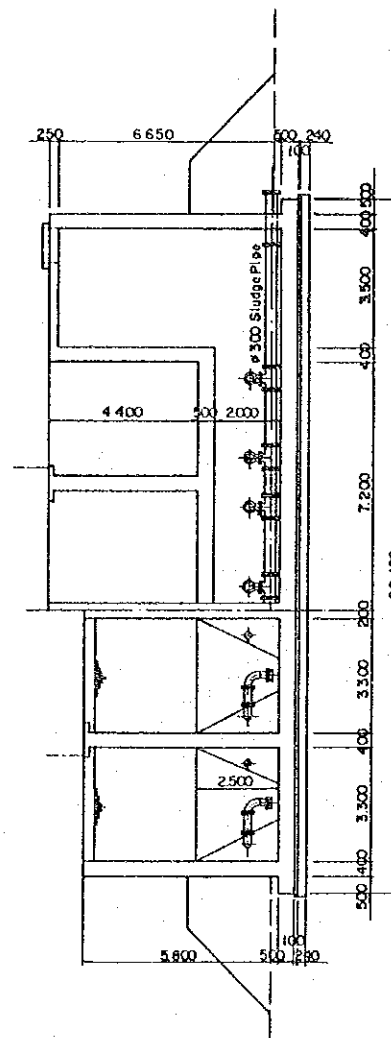


DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
SUNAMGANJ			
PURIFICATION PLANT INTAKE FACILITIES			
Date	Oct. 1984	Drawing No.	8-3
JAPAN INTERNATIONAL COOPERATION AGENCY			

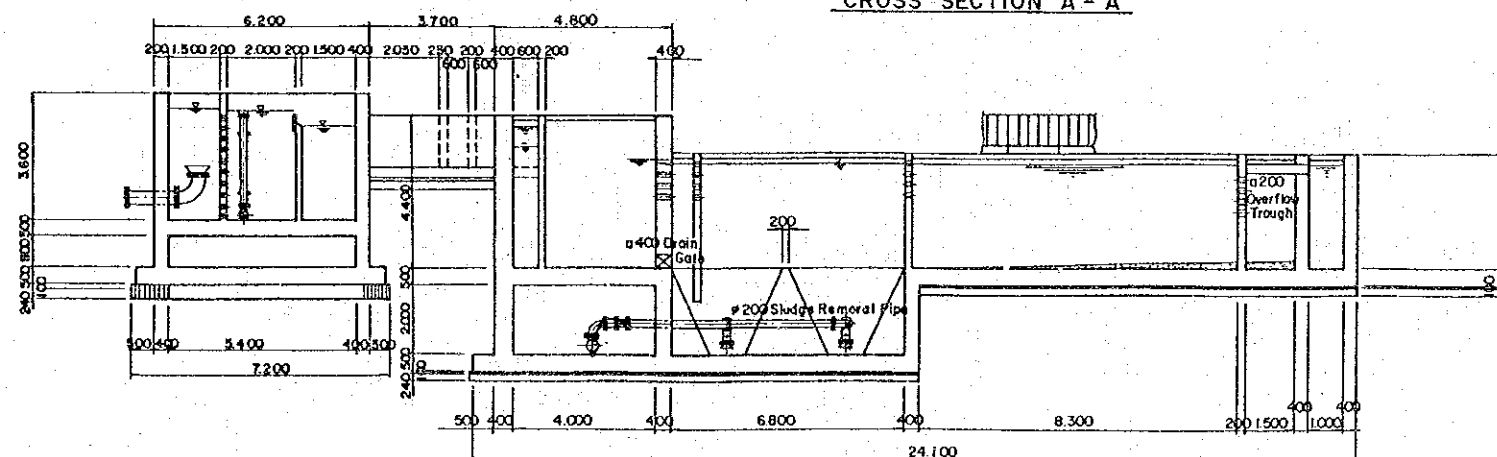
PLAN



SECTION B - B

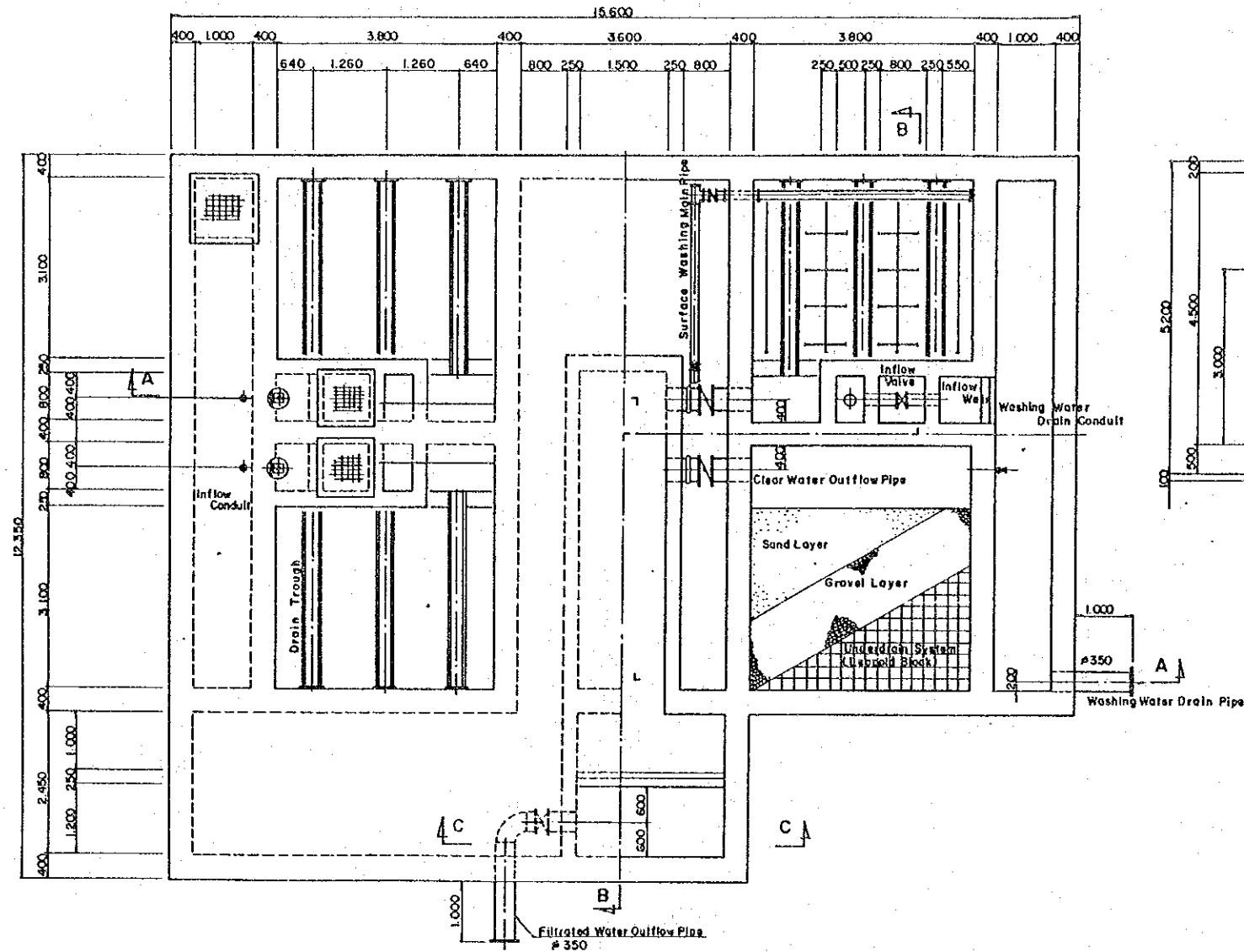


CROSS SECTION A - A

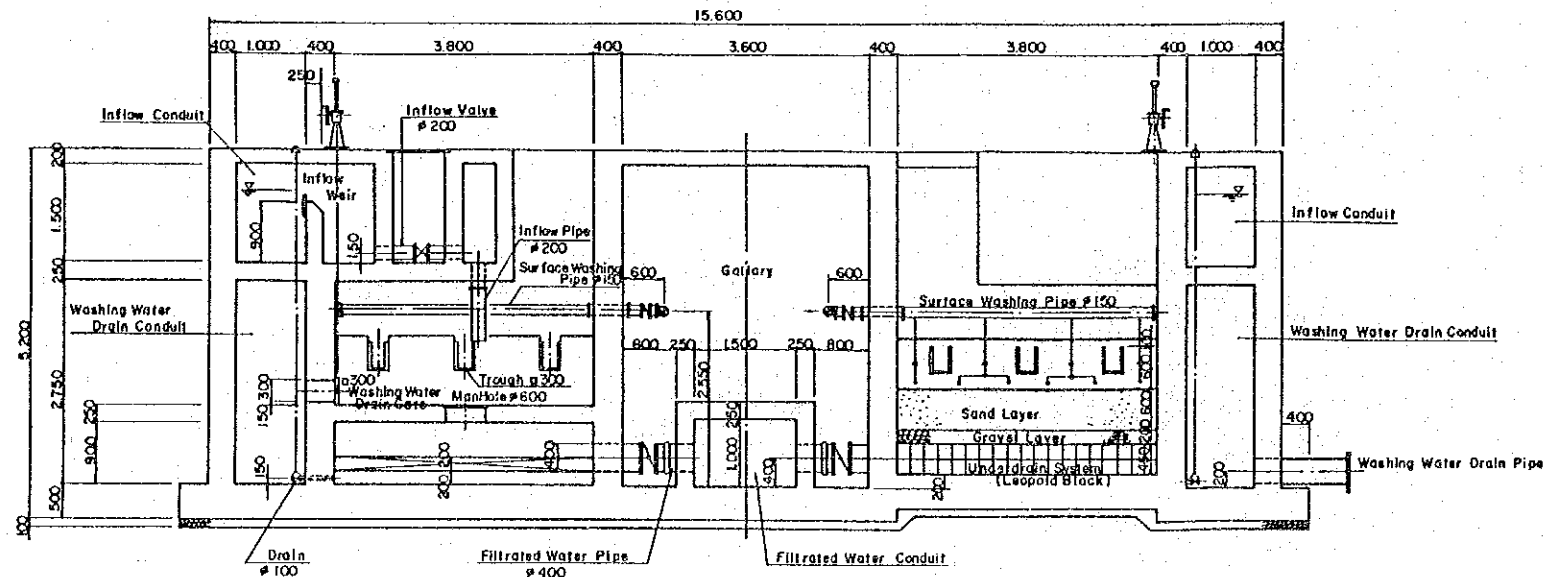


DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
SUNAMGANJ			
PURIFICATION PLANT SEDIMENTATION BASIN			
Date	Oct. 1984	Drawing No.	8-4
JAPAN INTERNATIONAL COOPERATION AGENCY			

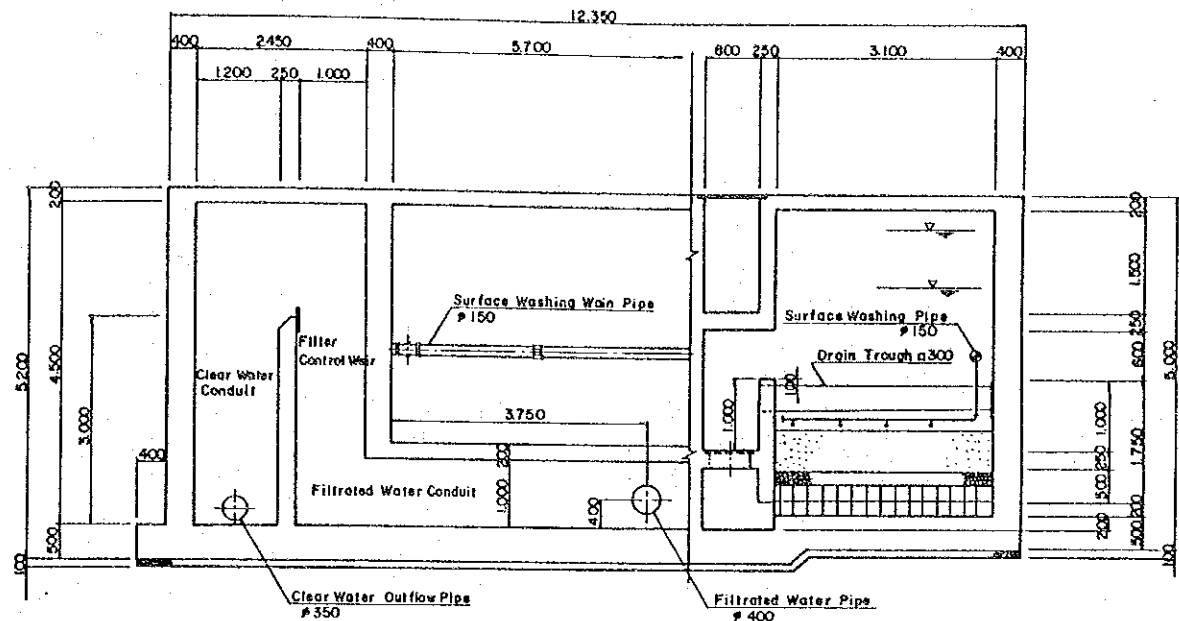
PLAN



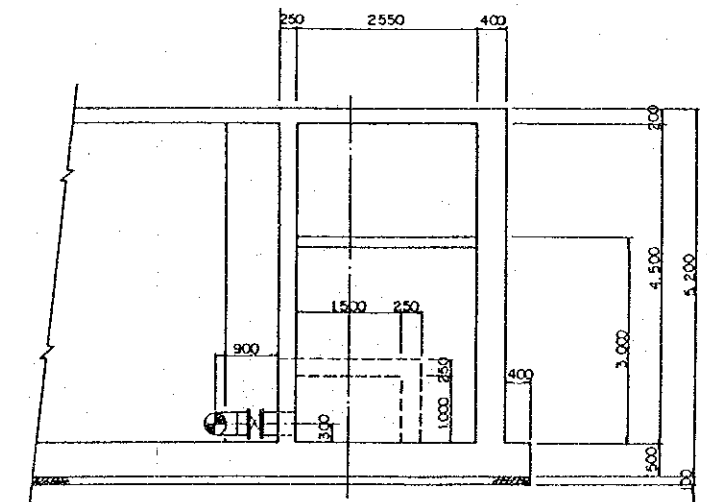
SECTION A - A



SECTION B - B



SECTION C - C



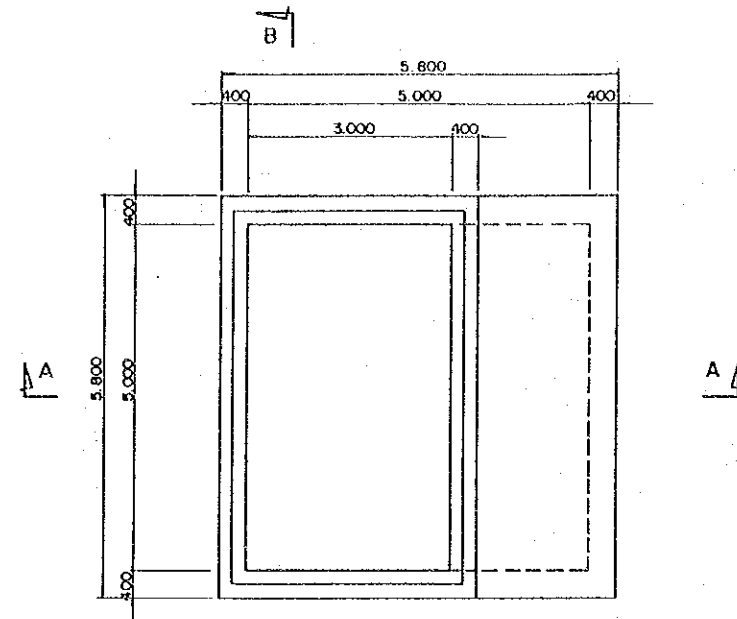
DIRECTORATE OF PUBLIC HEALTH ENGINEERING
GOVERNMENT OF BANGLADESH

SUNAMGANJ

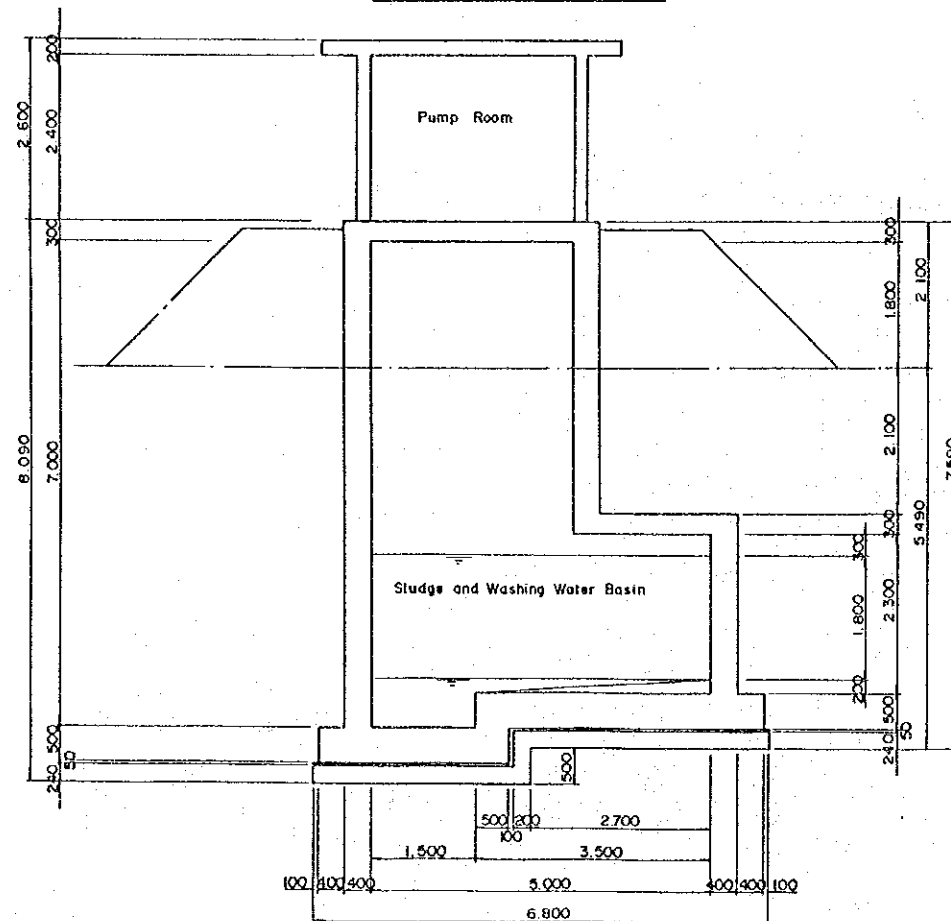
PURIFICATION PLANT
RAPID SAND FILTER

Date	Oct. 1984	Drawing No.	8-5
JAPAN INTERNATIONAL COOPERATION AGENCY			

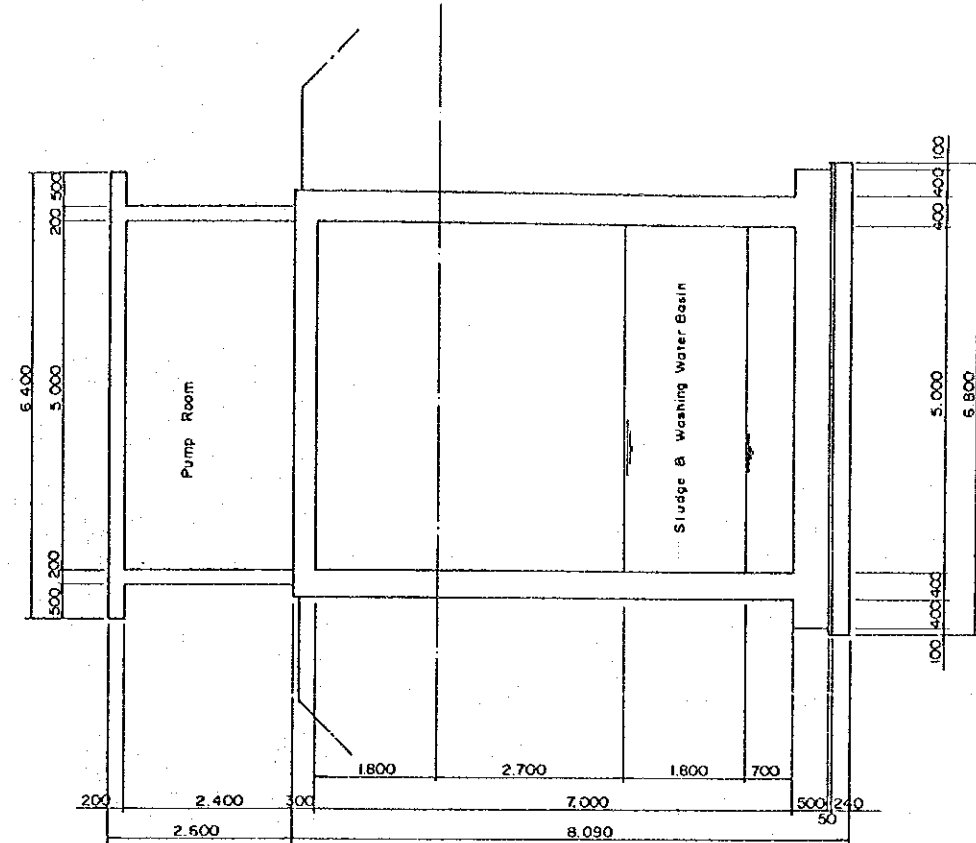
PLAN



CROSS SECTION A - A

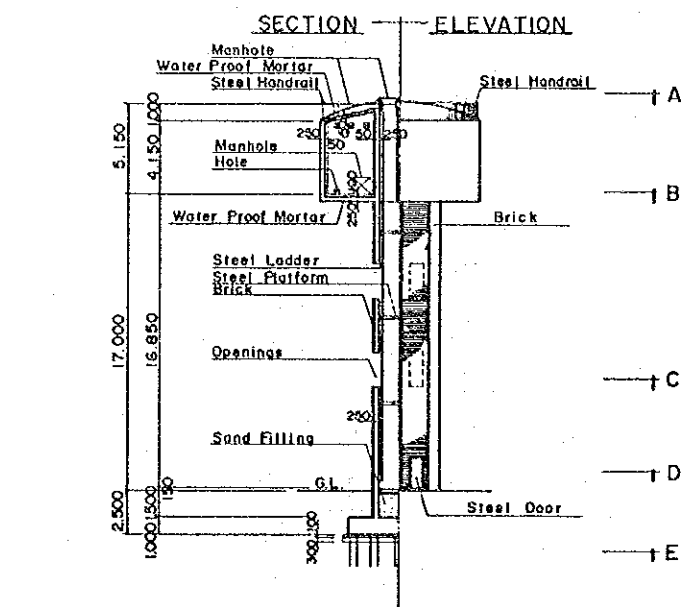


CROSS SECTION B - B

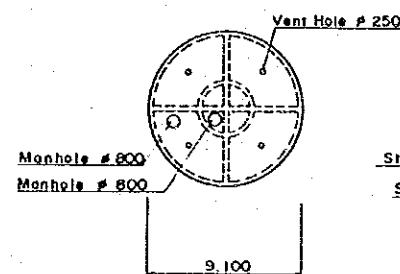


DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
SUNAMGANJ			
PURIFICATION PLANT SLUDGE AND WASHING WATER BASIN			
Date	Oct. 1984	Drawing No.	8 - 6
JAPAN INTERNATIONAL COOPERATION AGENCY			

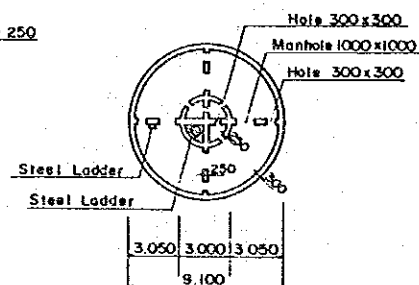
200m³ OVER HEAD TANK



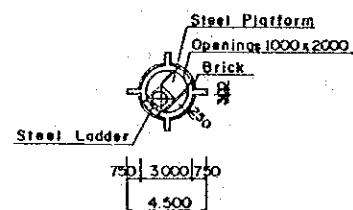
A-SECTION



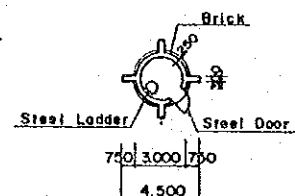
B-SECTION



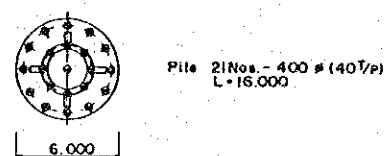
C - SECTION



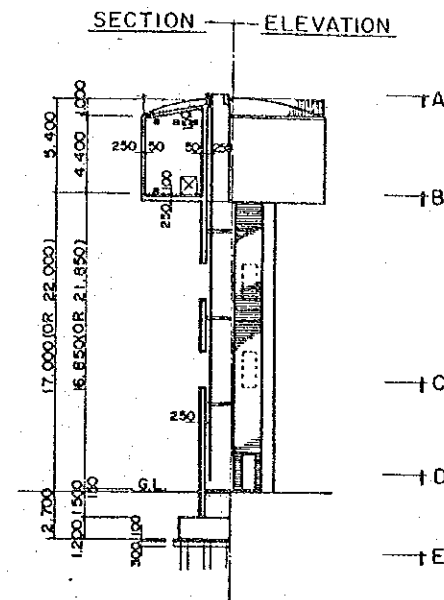
D - SECTION



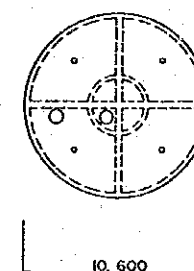
E - SECTION



300m³ OVERHEAD TANK



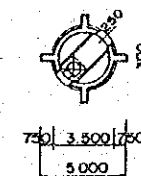
A - SECTION



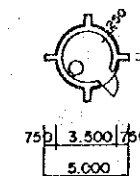
B-SECTION



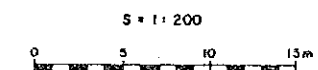
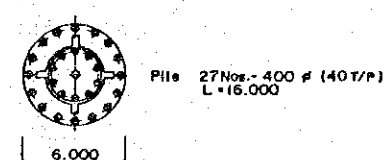
C - SECTION



D - SECTION



E-SECTION

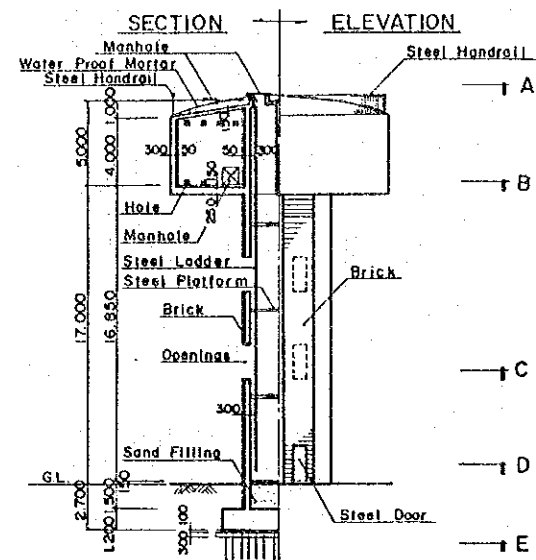


DIRECTORATE OF PUBLIC HEALTH ENGINEERING
GOVERNMENT OF BANGLADESH

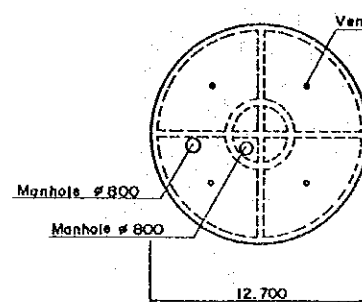
OVERHEAD TANK (200m³, 300m³)
SECTION AND ELEVATION

Date	Oct. 1984	Drawing No.	9-1
JAPAN INTERNATIONAL COOPERATION AGENCY.			

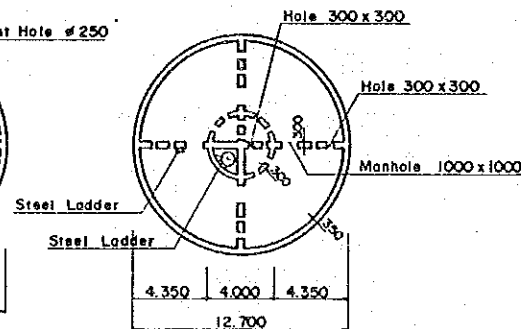
400m³ OVERHEAD TANK



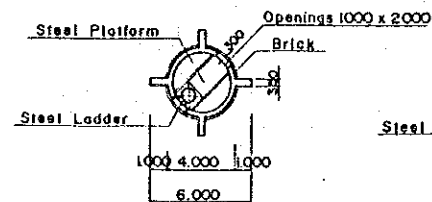
A - SECTION



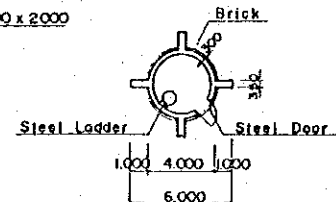
B - SECTION



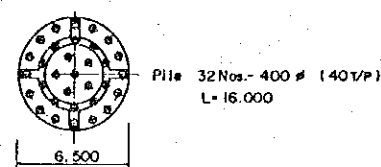
C - SECTION



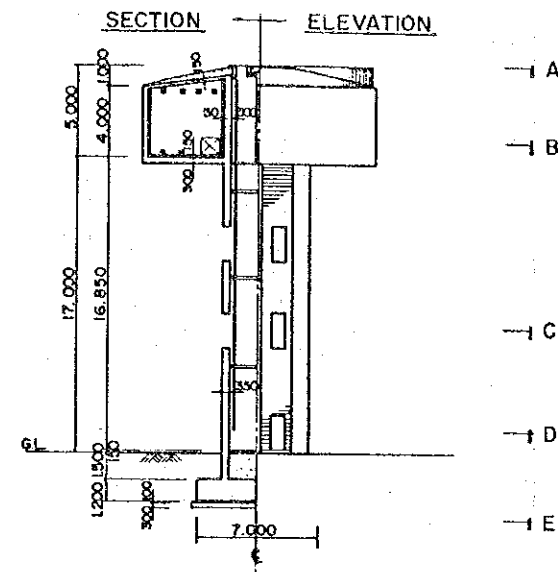
D - SECTION



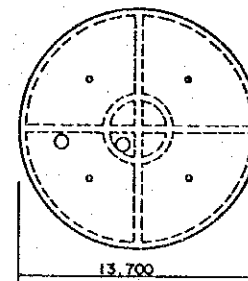
E - SECTION



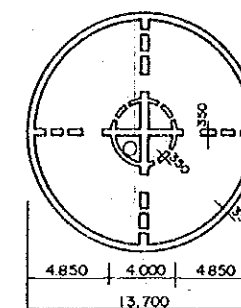
500m³ OVERHEAD TANK



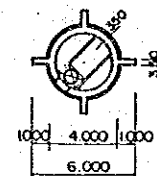
A - SECTION



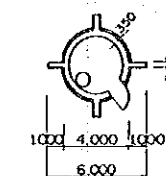
B - SECTION



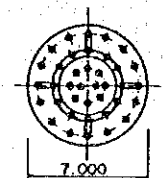
C - SECTION



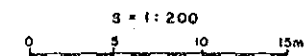
D - SECTION



E - SECTION



Pile 32Nos- 400 # (40T/P)
L=16.000



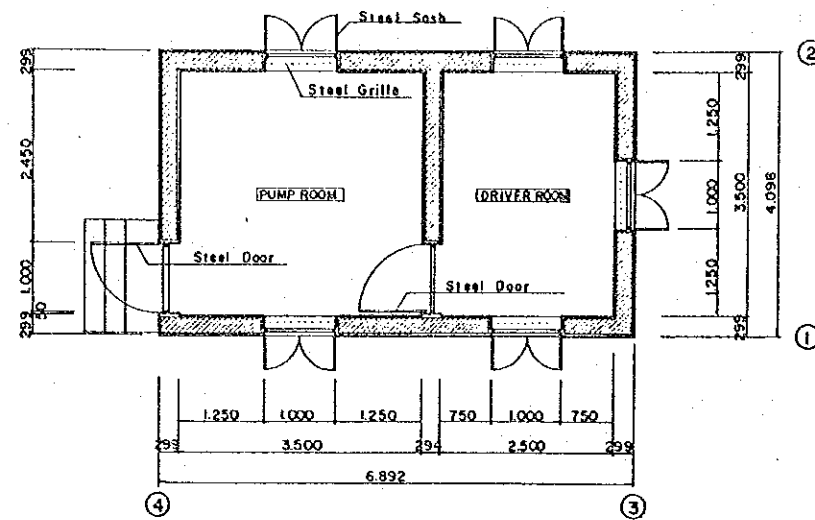
DIRECTORATE OF PUBLIC HEALTH ENGINEERING
GOVERNMENT OF BANGLADESH

OVERHEAD TANK (400m³, 500m³)
SECTION AND ELEVATION

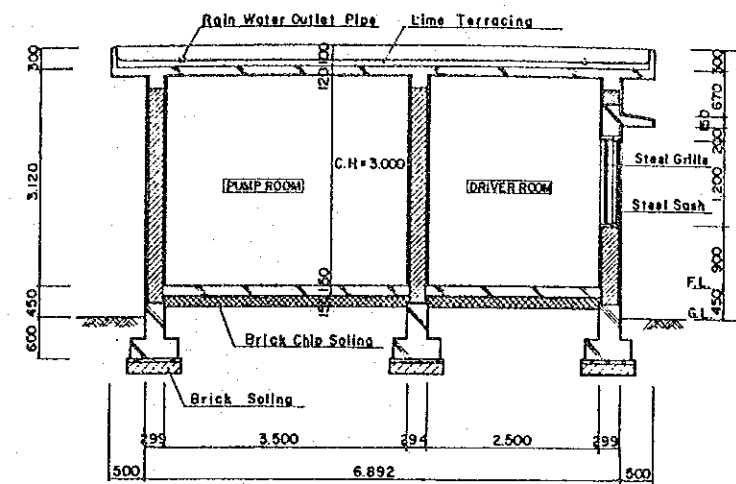
Date Oct. 1984 Drawing No. 9-2

JAPAN INTERNATIONAL COOPERATION AGENCY

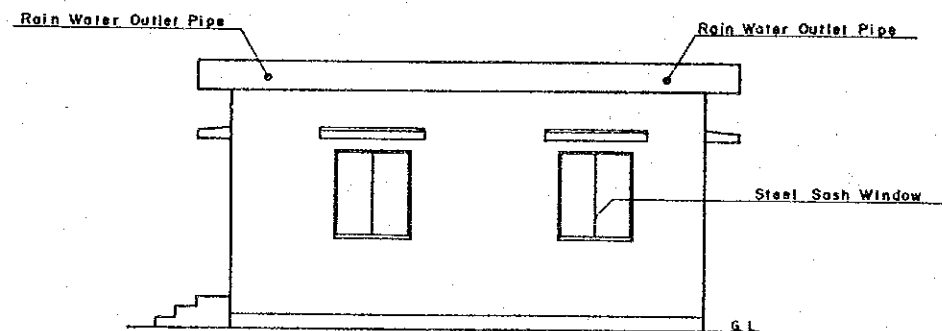
PLAN



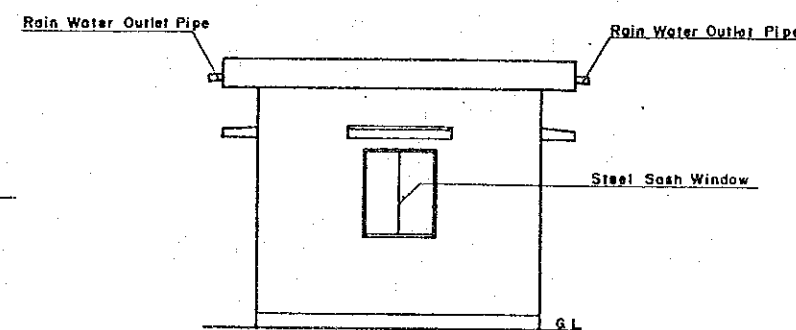
CROSS SECTION



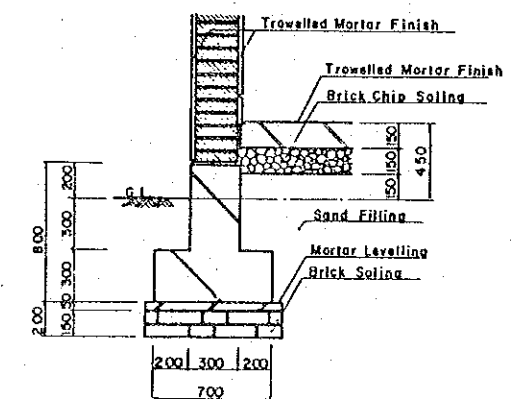
ELEVATION - (1)



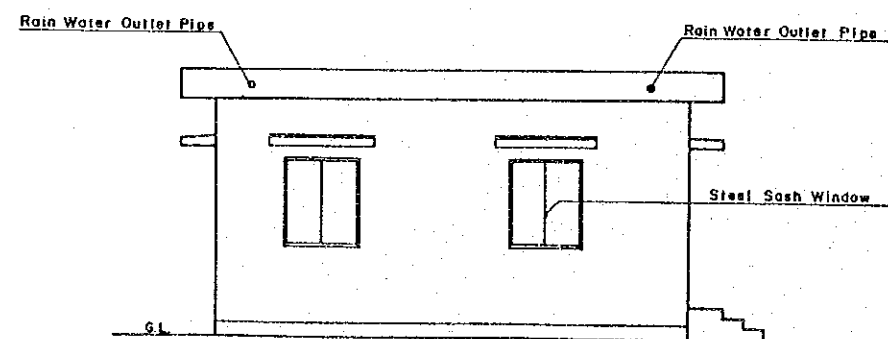
ELEVATION - (3)



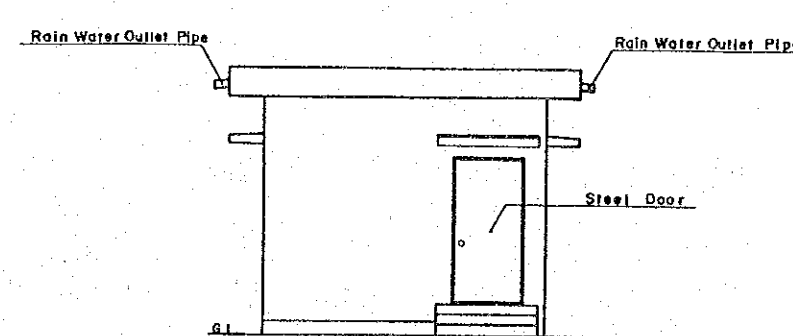
DETAIL OF FOUNDATION



ELEVATION - (2)

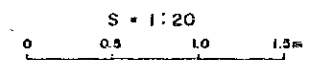
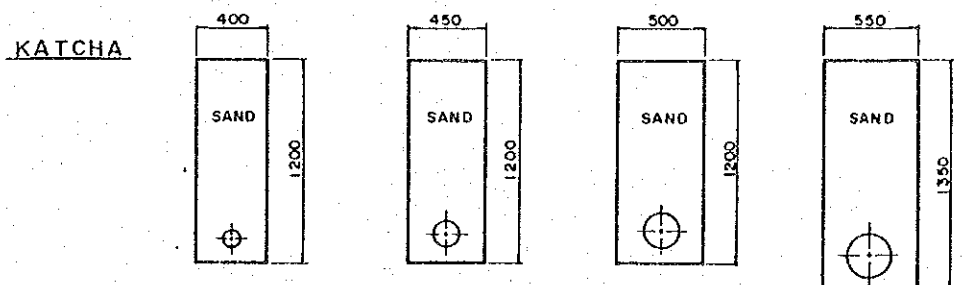
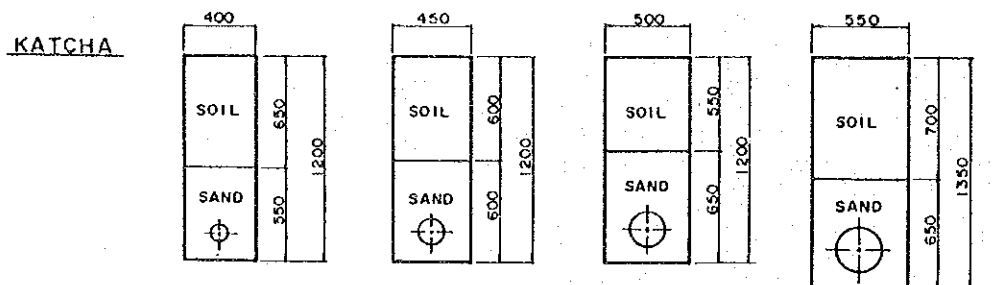
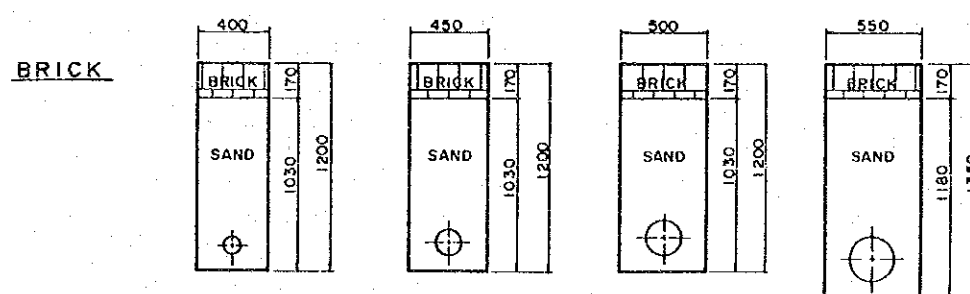
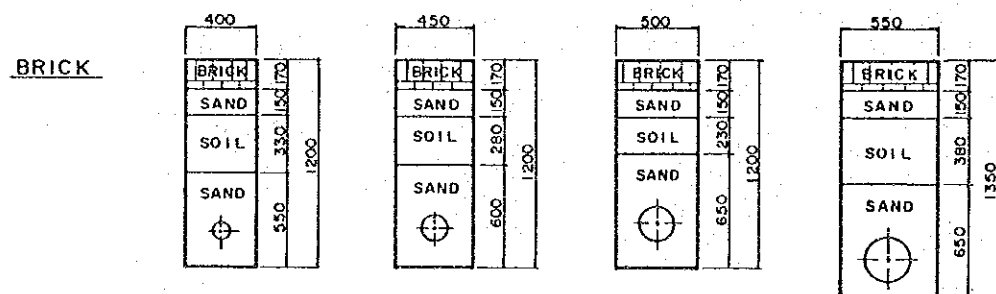
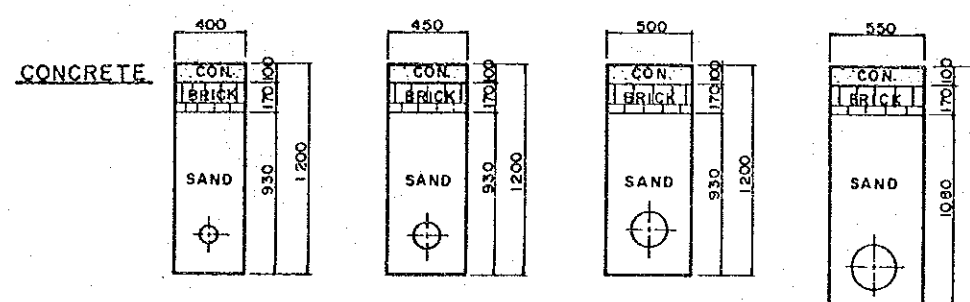
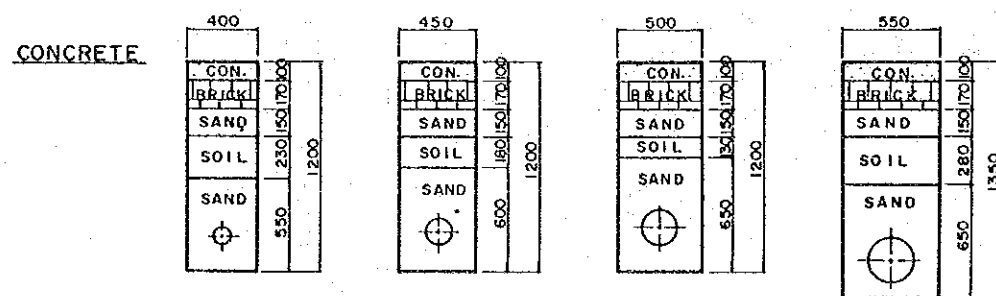
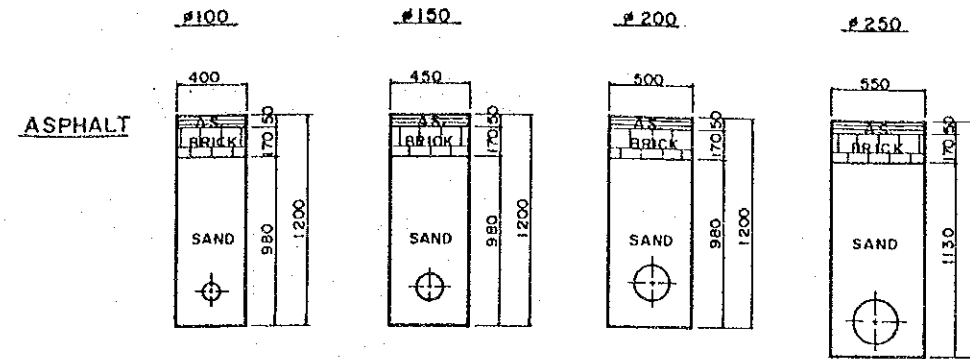
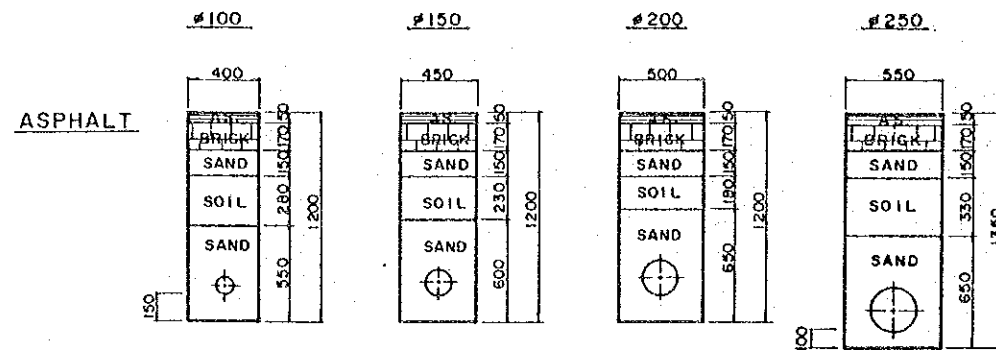


ELEVATION - (4)



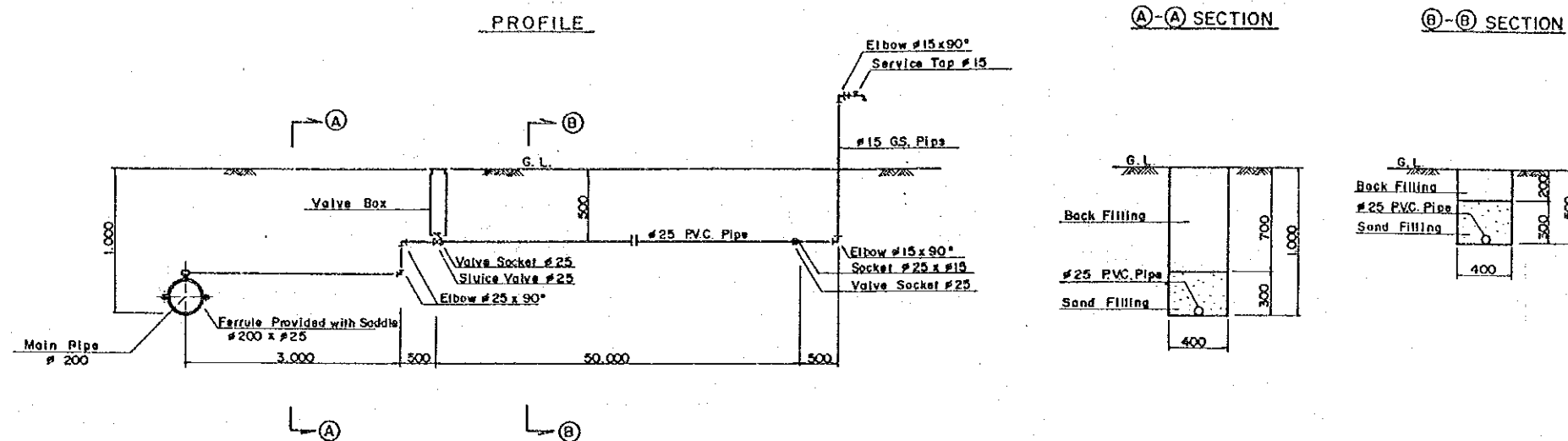
DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
PUMP HOUSE PLAN, CROSS SECTION AND ELEVATIONS			
Date	Oct. 1984	Drawing No.	9-3
JAPAN INTERNATIONAL COOPERATION AGENCY			

ROAD CROSSING

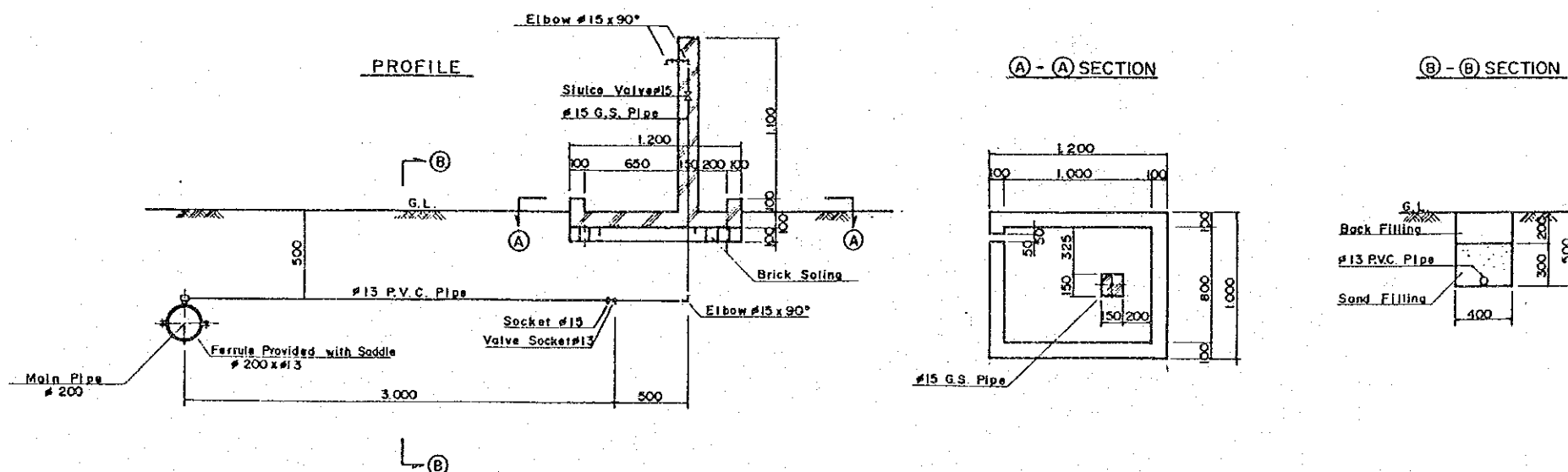


DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
LAYING DISTRIBUTION PIPE EXCAVATION AND REFILLING			
Date	Oct. 1984	Drawing No.	9-4
JAPAN INTERNATIONAL COOPERATION AGENCY			

HOUSE CONNECTION



PUBLIC STANDPOST

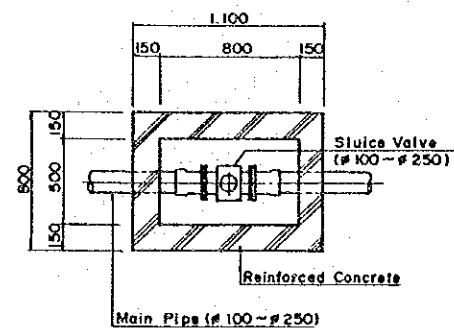


S = 1 : 20
0 0.5 10 15m

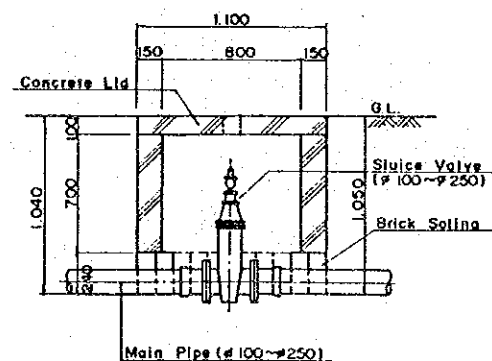
DIRECTORATE OF PUBLIC HEALTH ENGINEERING GOVERNMENT OF BANGLADESH			
HOUSE CONNECTION AND PUBLIC STANDPOST PROFILE AND SECTION			
Date	Oct. 1984	Drawing No.	9-5
JAPAN INTERNATIONAL COOPERATION AGENCY			

VALVE BOX

PLAN

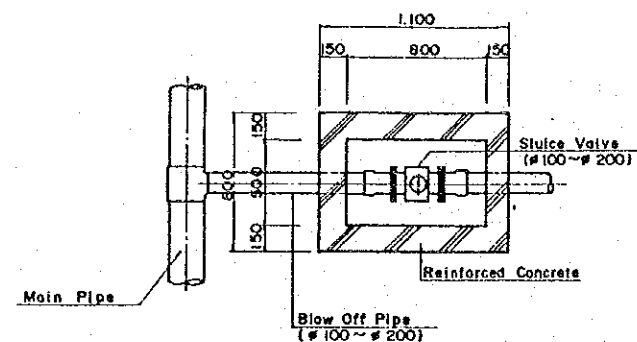


CROSS SECTION

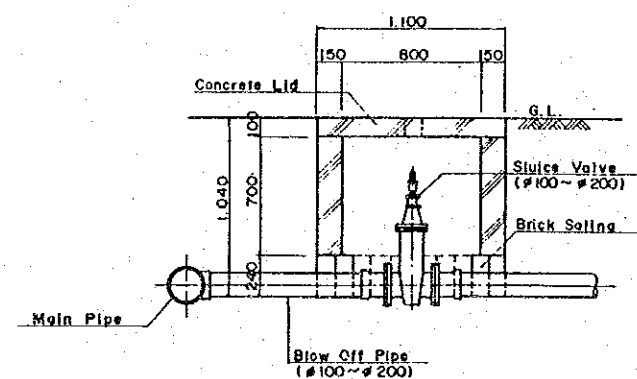


BLOW OFF

PLAN

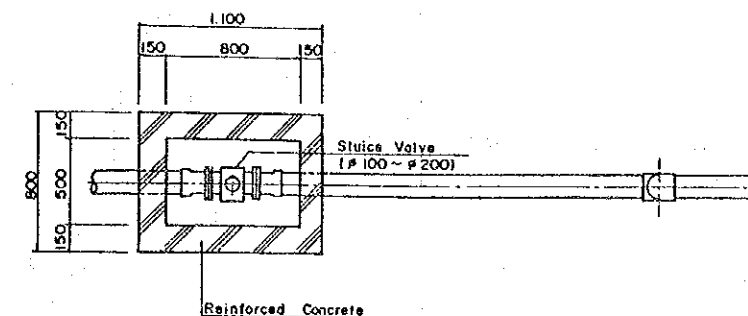


CROSS SECTION

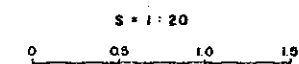
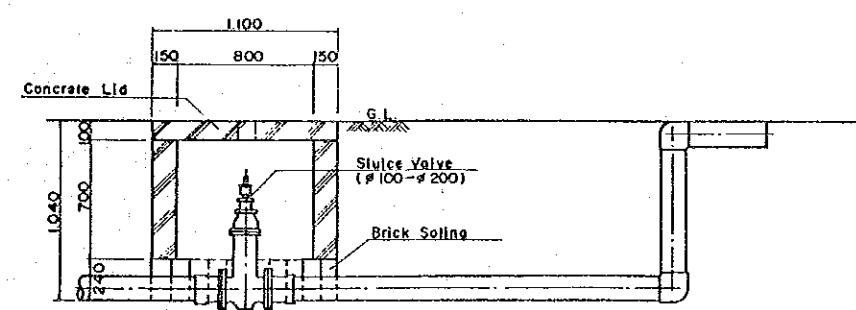


PIPE-END WORKS

PLAN



CROSS SECTION



DIRECTORATE OF PUBLIC HEALTH ENGINEERING
GOVERNMENT OF BANGLADESH

VALVE BOX, BLOW OFF AND PIPE-END WORKS PLAN AND CROSS SECTION

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JAPAN INTERNATIONAL COOPERATION AGENCY

