

BASIC DESIGN DRAWINGS

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GENERAL NOTES

NO.	DATE	DESCRIPTIONS	BY	APP'D

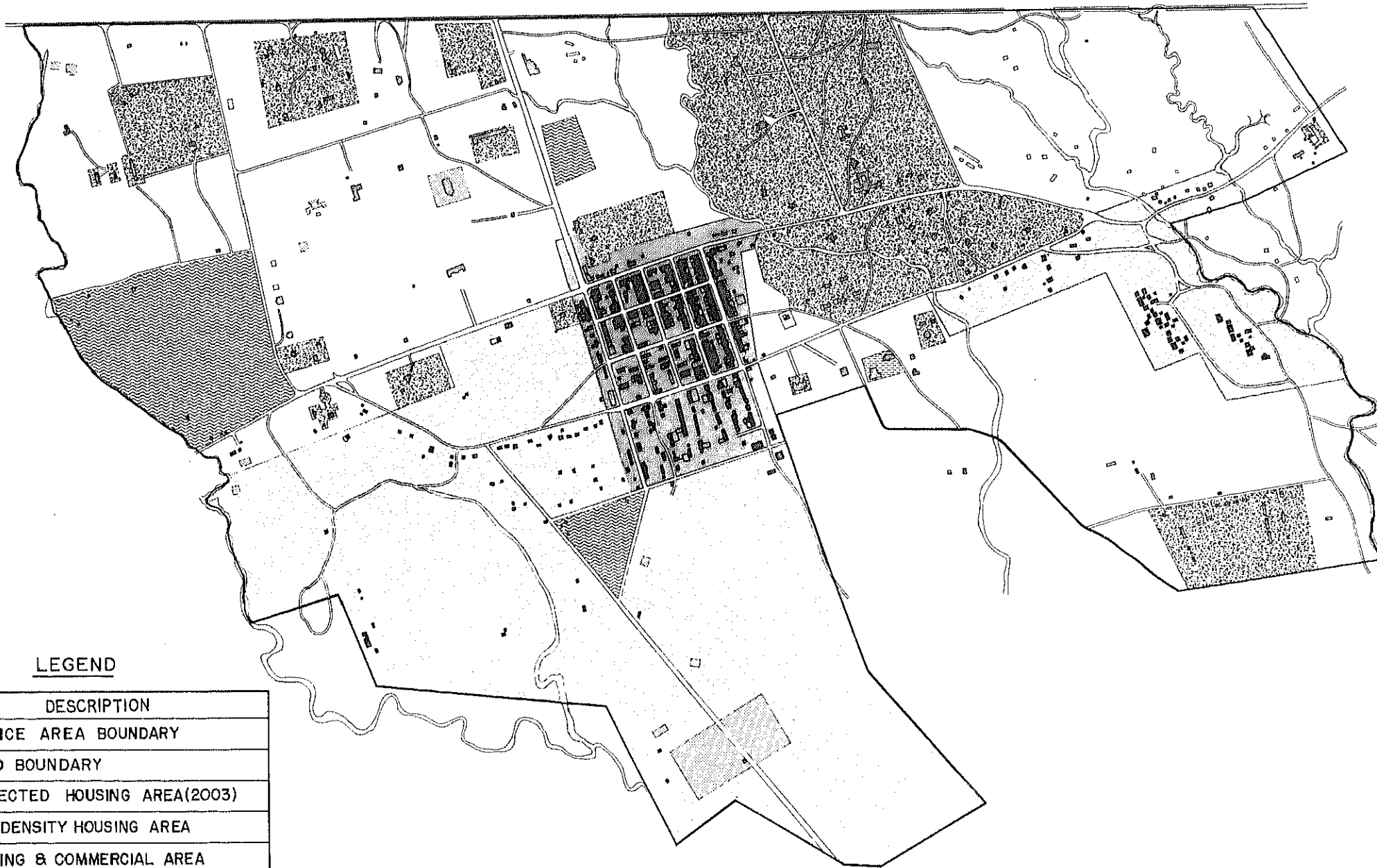
THE KINGDOM OF NEPAL
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS

DRAWING LIST

SUBMITTED	APPROVED	SCALE	REV. NO

DATE _____ DWG. NO. **A**

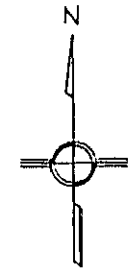
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)



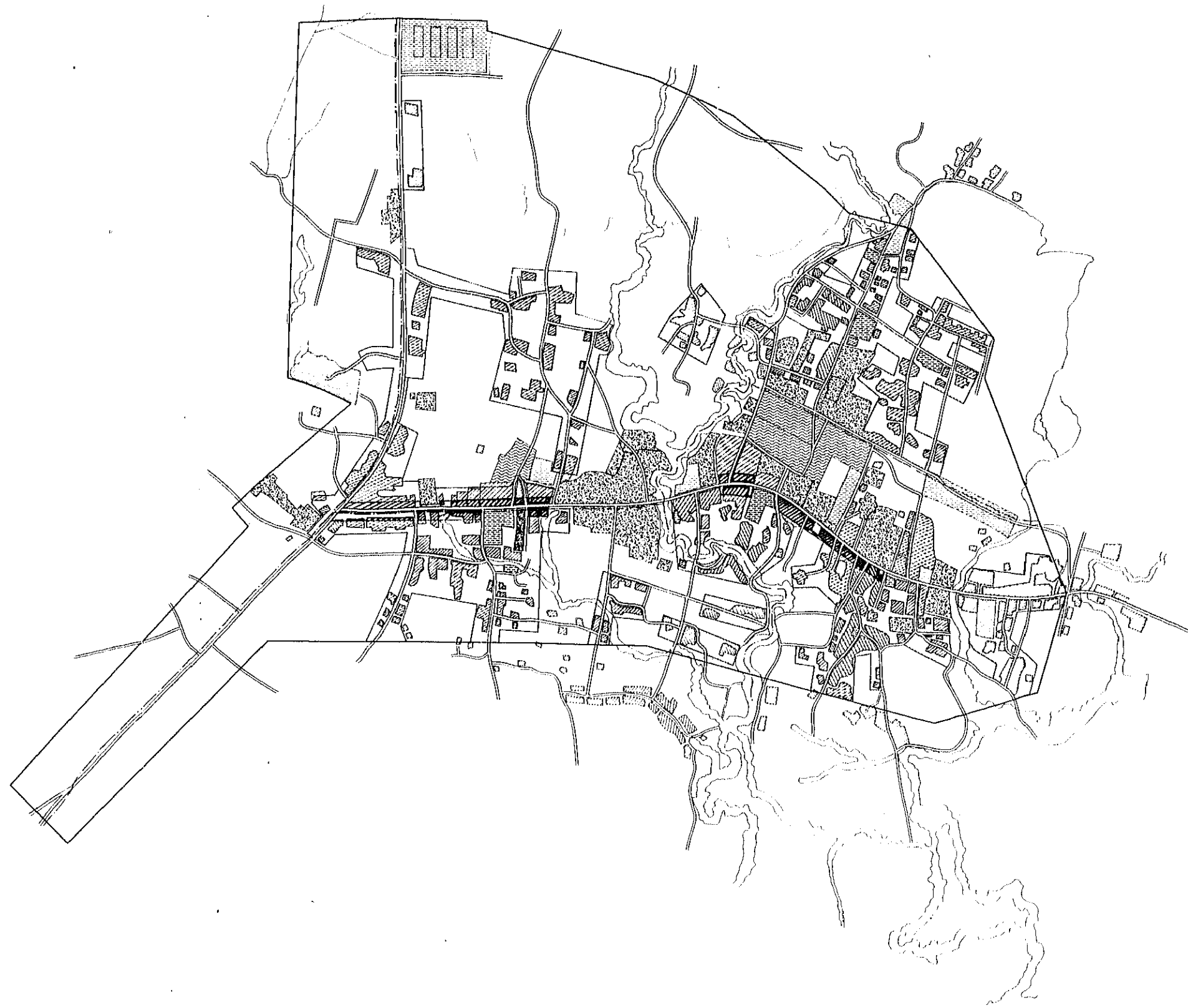
LEGEND

MARK	DESCRIPTION
—	SERVICE AREA BOUNDARY
- - -	WARD BOUNDARY
[Stippled pattern]	PROJECTED HOUSING AREA(2003)
[Dense stippled pattern]	HIGH DENSITY HOUSING AREA
[Diagonal lines]	HOUSING & COMMERCIAL AREA
[Horizontal lines]	HOSPITAL & SCHOOL
[Dotted pattern]	OFFICE AREA
[Wavy lines]	PUBLIC FACILITIES
[Cross-hatched pattern]	OTHER FACILITIES
==	ROAD
~	RIVER

MAHENDRANAGAR



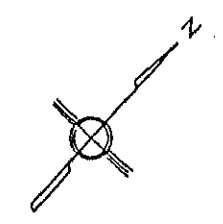
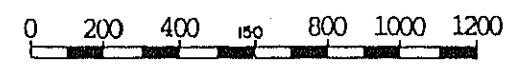
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THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
MAHENDRANAGAR			
SERVICE AREA & POPULATION DISTRIBUTION			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE		DWG. NO. A-1	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



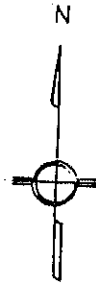
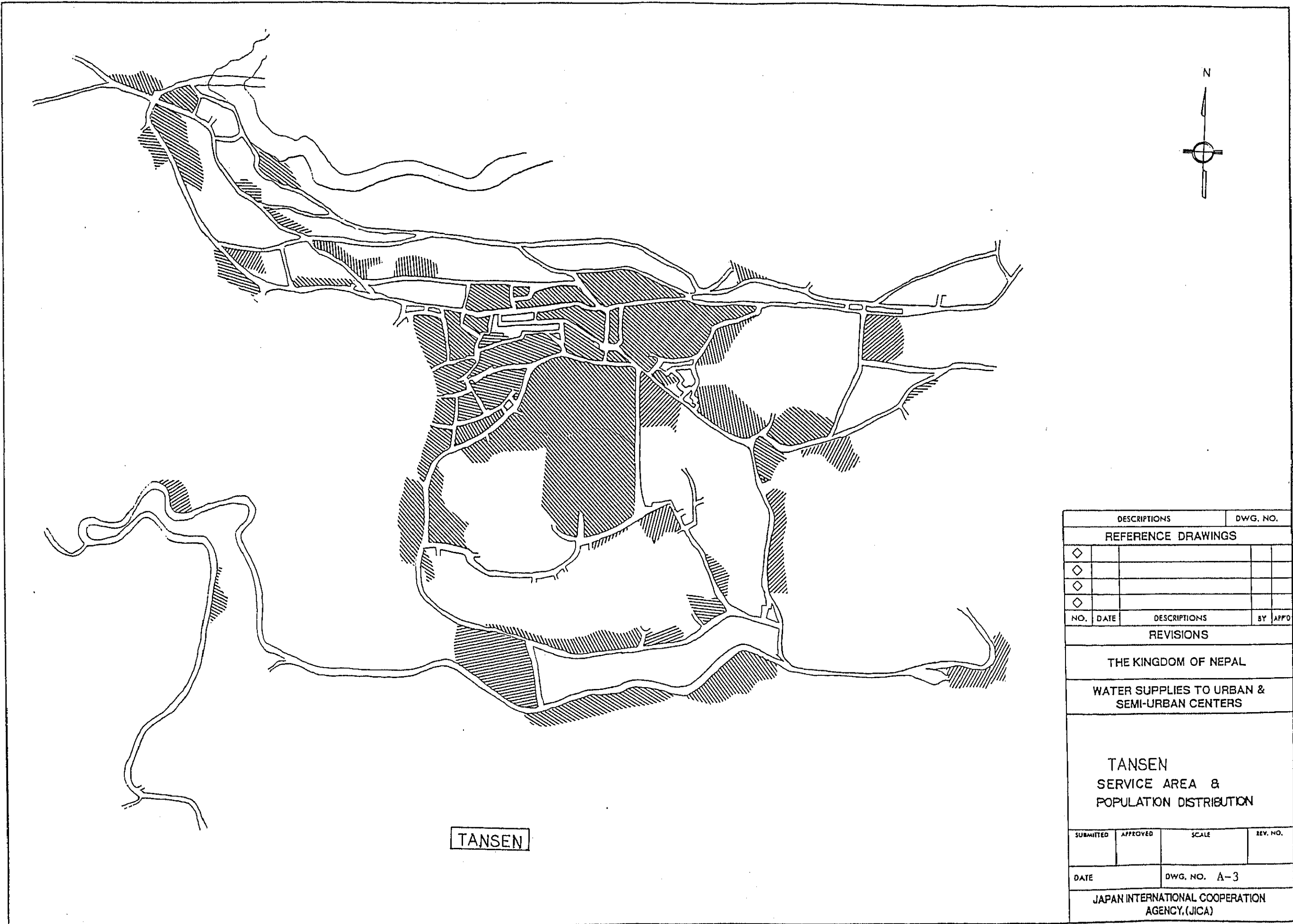
LEGEND

MARK	DESCRIPTION
—	SERVICE AREA BOUNDARY
- - -	WARD BOUNDARY
[Stippled Box]	PROJECTED HOUSING AREA(2003)
[Cross-hatched Box]	HIGH DENSITY HOUSING AREA
[Diagonal Hatched Box]	HOUSING & COMMERCIAL AREA
[Wavy Hatched Box]	HOSPITAL & SCHOOL
[Dotted Box]	OFFICE AREA
[Wavy Box]	PUBLIC FACILITIES
[Stippled Box]	OTHER FACILITIES
==	ROAD
~	RIVER

DHANGADHI

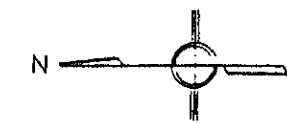


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THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
DHANGADHI			
SERVICE AREA & POPULATION DISTRIBUTION			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE	DWG. NO. A-2		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



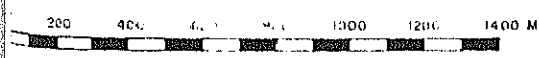
TANSEN

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NO.	DATE	DESCRIPTIONS	BY APP'D
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
TANSEN SERVICE AREA & POPULATION DISTRIBUTION			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE		DWG. NO. A-3	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



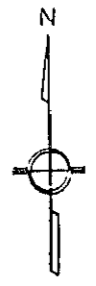
LEGEND

MARK	DESCRIPTION
—	SERVICE AREA BOUNDARY
—	WARD BOUNDARY
□	PROJECTED HOUSING AREA(2000.3)
■	HIGH DENSITY HOUSING AREA
▨	HOUSING & COMMERCIAL AREA
▩	HOSPITAL & SCHOOL
▧	OFFICE AREA
▦	PUBLIC FACILITIES
▥	OTHER FACILITIES
—	ROAD
—	RIVER



DESCRIPTIONS		DWG. NO.	
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NO.	DATE	DESCRIPTIONS	BY / APP'D
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
BHARATPUR			
SERVICE AREA & POPULATION DISTRIBUTION			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE		DWG. NO. A-4	
JAPAN INTERNATIONAL COOPERATION AGENCY.(JICA)			

GENERAL NOTES



SIVBHAKTI V.

RAJKHOR V.

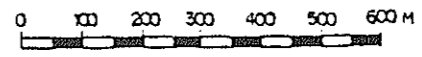
ZANGAHA
PANCHAYAT

MARHA RIVER
←

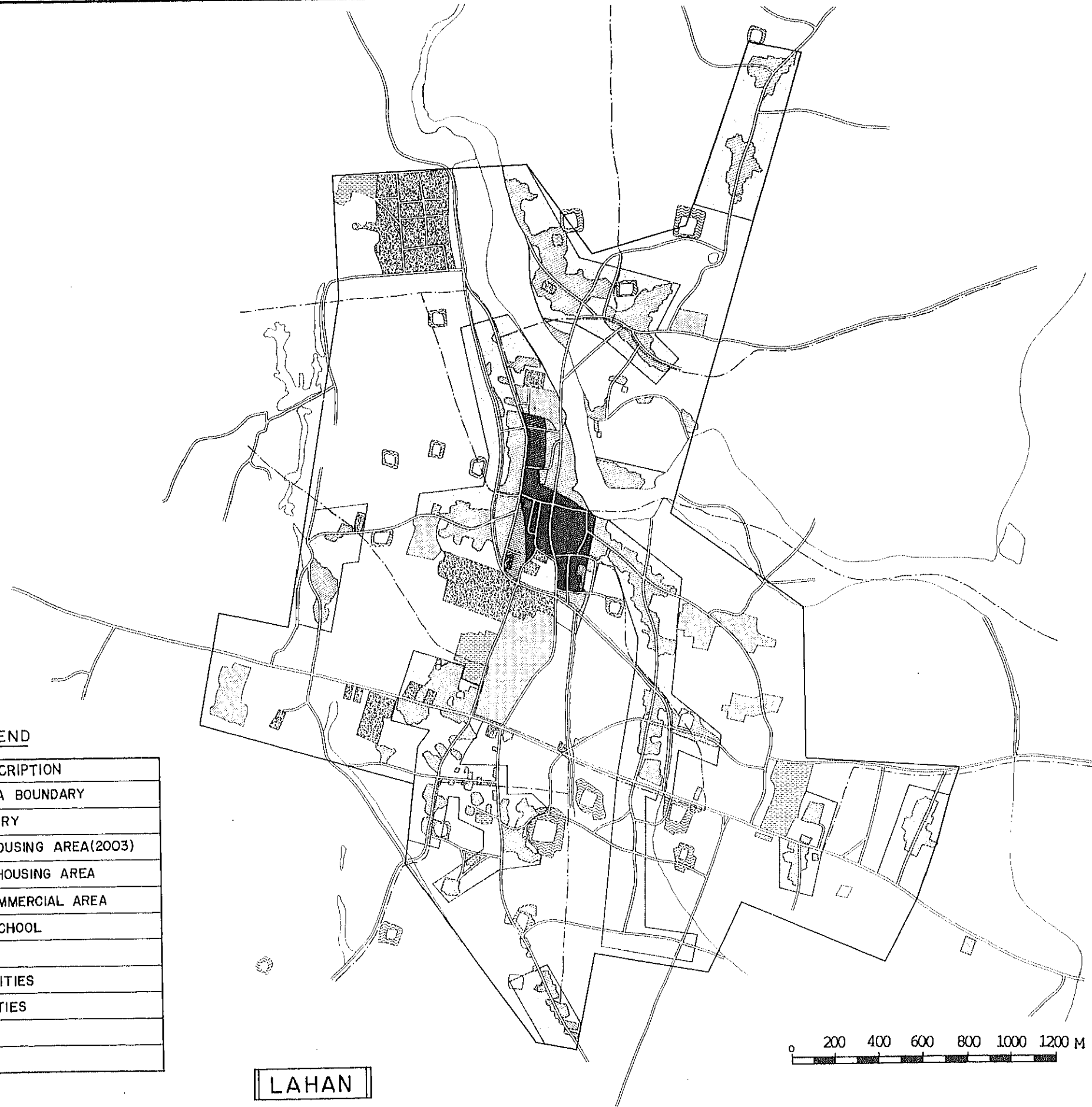
RAMNAGAR BIRTA V.

GAUSHALA

NIGAU
PANCHAYAT



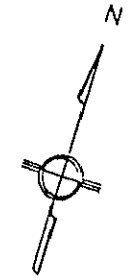
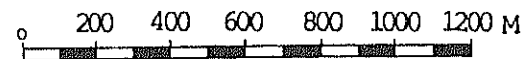
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REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
GAUSHALA : GENERAL SITE PLAN				
SUBMITTED	APPROVED	SCALE	REV. NO.	
DATE	DWG. NO.	A-5		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				



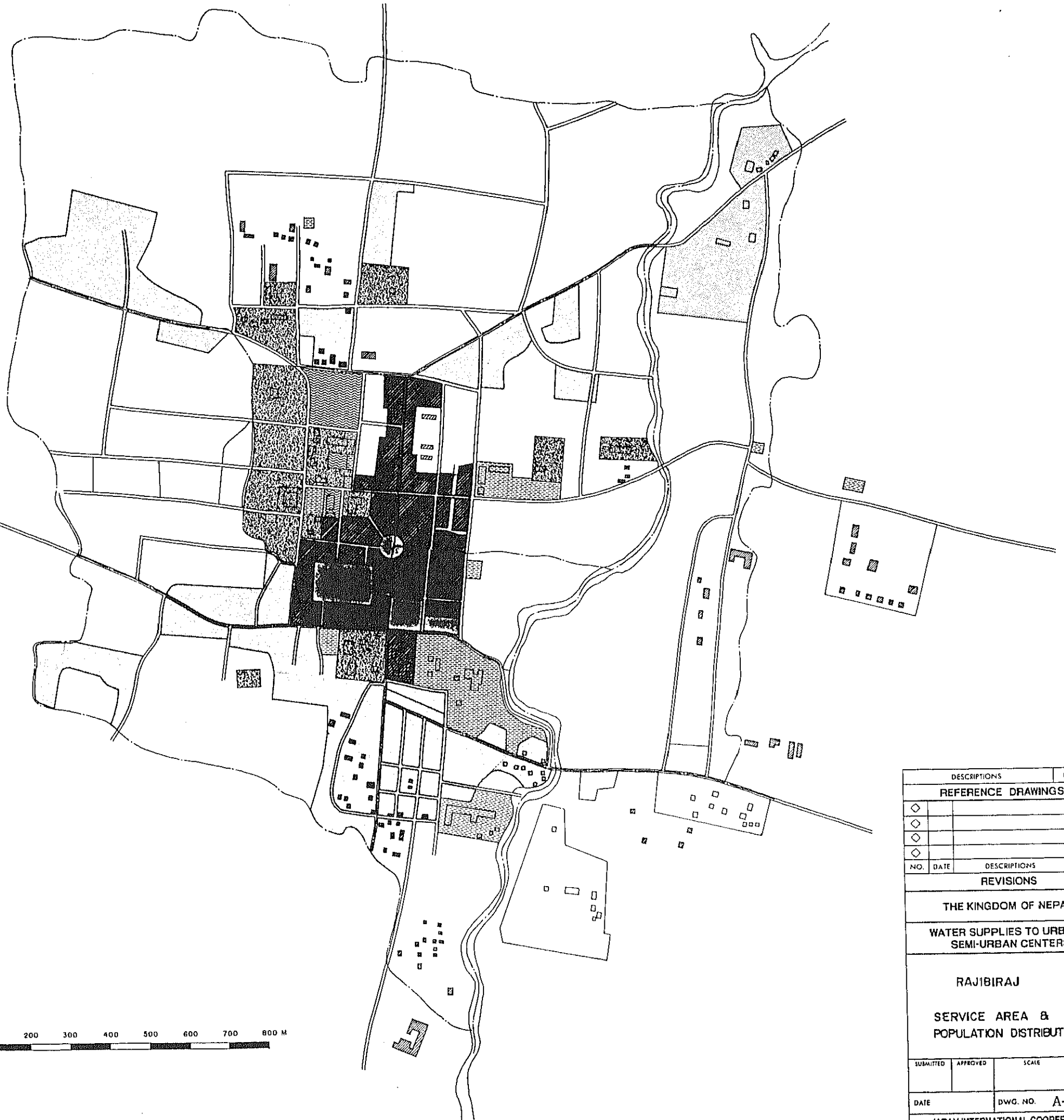
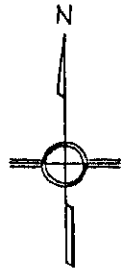
LEGEND

MARK	DESCRIPTION
—	SERVICE AREA BOUNDARY
- - -	WARD BOUNDARY
[Stippled Box]	PROJECTED HOUSING AREA(2003)
[Dark Stippled Box]	HIGH DENSITY HOUSING AREA
[Diagonal Lines Box]	HOUSING & COMMERCIAL AREA
[Cross-hatched Box]	HOSPITAL & SCHOOL
[Dotted Box]	OFFICE AREA
[Wavy Lines Box]	PUBLIC FACILITIES
[Small Dotted Box]	OTHER FACILITIES
==	ROAD
~	RIVER

LAHAN



DESCRIPTIONS		DWG. NO.	
REFERENCE DRAWINGS			
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NO.	DATE	DESCRIPTIONS	BY APPD
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
LAHAN			
SERVICE AREA & POPULATION DISTRIBUTION			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE		DWG. NO. A-6	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			

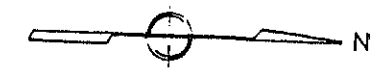


LEGEND

MARK	DESCRIPTION
—	SERVICE AREA BOUNDARY
- - - -	WARD BOUNDARY
□	PROJECTED HOUSING AREA(2003)
■	HIGH DENSITY HOUSING AREA
▨	HOUSING & COMMERCIAL AREA
▩	HOSPITAL & SCHOOL
▧	OFFICE AREA
▦	PUBLIC FACILITIES
▤	OTHER FACILITIES
—	ROAD
~	RIVER



DESCRIPTIONS		DWG. NO.	
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NO.	DATE	DESCRIPTIONS	BY APP'D
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
RAJIBIRAJ			
SERVICE AREA & POPULATION DISTRIBUTION			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE	DWG. NO.	A-7	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)			

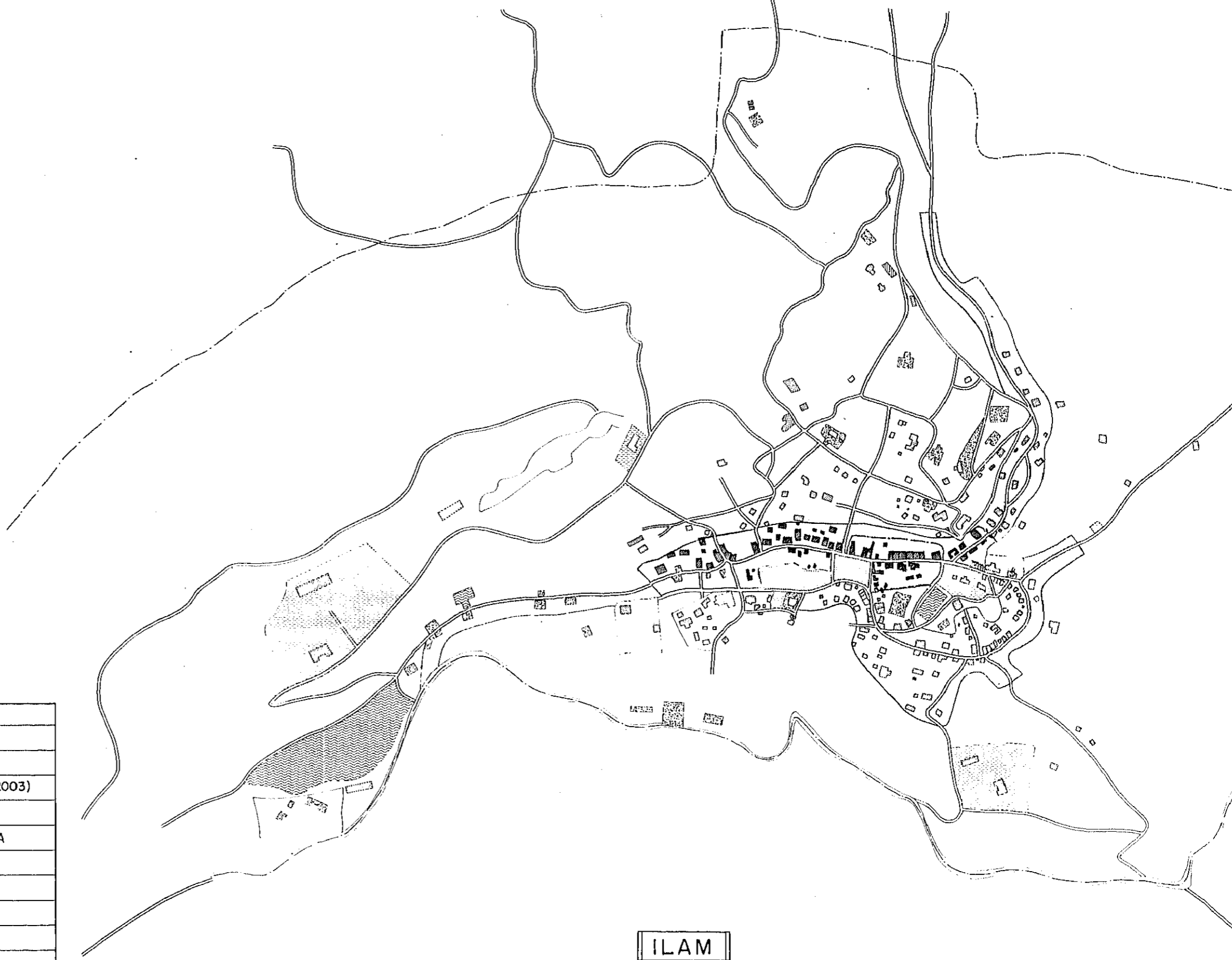


LEGEND

MARK	DESCRIPTION
—	SERVICE AREA BOUNDARY
—	WARD BOUNDARY
[Stippled pattern]	PROJECTED HOUSING AREA(2003)
[Dark cross-hatch pattern]	HIGH DENSITY HOUSING AREA
[Diagonal line pattern]	HOUSING & COMMERCIAL AREA
[Wavy line pattern]	HOSPITAL & SCHOOL
[Grid pattern]	OFFICE AREA
[Dotted pattern]	PUBLIC FACILITIES
[Horizontal line pattern]	OTHER FACILITIES
—	ROAD
~	RIVER



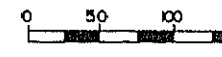
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NO.	DATE	DESCRIPTIONS	BY APP'D
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
BHADRAPUR & CHANDRAGADHI			
SERVICE AREA & POPULATION DISTRIBUTION			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE	DWG. NO. A-8		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



LEGEND

MARK	DESCRIPTION
—	SERVICE AREA BOUNDARY
- - -	WARD BOUNDARY
[Stippled Box]	PROJECTED HOUSING AREA(2003)
[Dense Stippled Box]	HIGH DENSITY HOUSING AREA
[Diagonal Lines Box]	HOUSING & COMMERCIAL AREA
[Cross-hatched Box]	HOSPITAL & SCHOOL
[Dotted Box]	OFFICE AREA
[Wavy Lines Box]	PUBLIC FACILITIES
[Grid Box]	OTHER FACILITIES
—	ROAD
~	RIVER

ILAM





BOUNDARIES
 International, Regional, Zonal, District

HEADQUARTERS
 Capital, Regional, Zonal, District

ROADS
 Highway, Secondary, Seasonal Under Construction

River, Lake, Peak, Pass (Bherlyin, Lign, LI)

LOCATION MAP OF PROJECT SITES

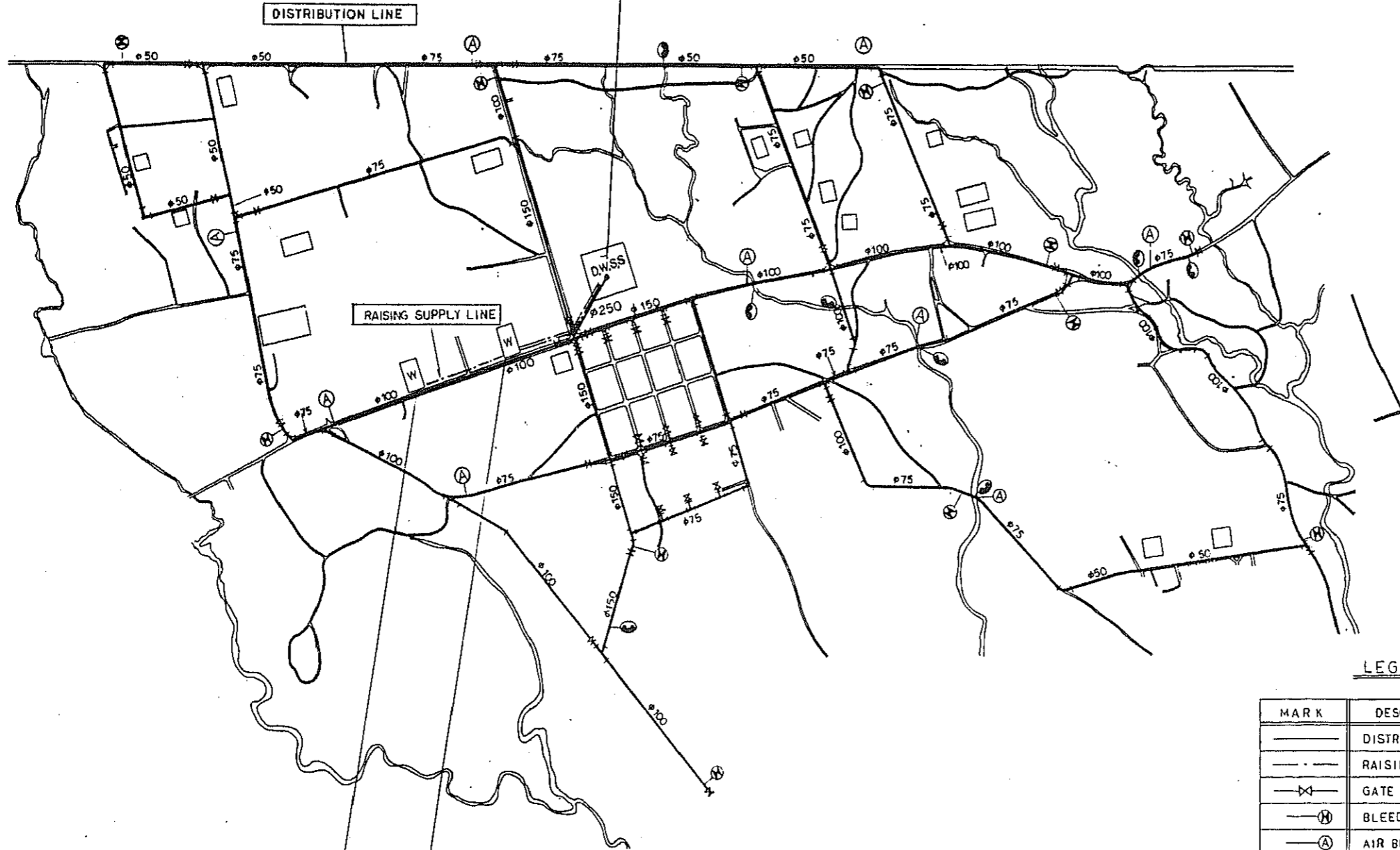
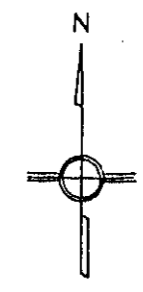
Prepared and Printed by Topographical Survey Branch, Survey Department P.M.G. Nepal in 1967

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NO.	DATE	DESCRIPTIONS	BY APP'D.
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
LOCATION MAP OF PROJECT SITES			
SUBMITTED	APPROVED	SCALE	REV. NO.
		NO SCALE	
DATE		DWG. NO. B-1	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			

GENERAL NOTES

DEPARTMENT WATER SUPPLY AND SEWERAGE
 POWER HOUSE
 CHLORINATION UNIT
 SEDIMENTATION TANK 38 m³
 RAPID FILTRATION 2700 m³/d
 ELEVATED WATER TANK 200 m³, H=20m

OFFICE
 No.1 WELL
 DISTRIBUTION RESERVOIR 900 m³
 PUMP HOUSE
 ELEVATED WATER TANK 180 m³, H=13m



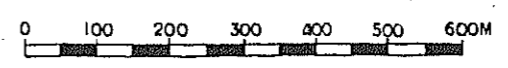
NO. 3 WELL
 φ300 x φ250
 DEPTH 100 m
 WELL HOUSE

NO. 2 WELL
 φ300 x φ250
 DEPTH 100 m
 WELL HOUSE

MAHENDRANAGAR

LEGEND

MARK	DESCRIPTION
—	DISTRIBUTION LINE
- - -	RAISING SUPPLY MAIN
— X —	GATE VALVE
— (X) —	BLEEDER VALVE
— (A) —	AIR BLEEDER VALVE
— (O) —	CROSSING : PIPE BRIDGE
— (W) —	CROSSING : INVERTED SIPHON
— (B) —	BREAK PRESSURE VALVE
— (T) —	BREAK PRESSURE TANK
[DWSS]	DWSS WATER YARD
[W]	DEEP WELL AND WELL HOUSE
[]	PROPOSED FACILITIES
[- - -]	EXISTING FACILITIES

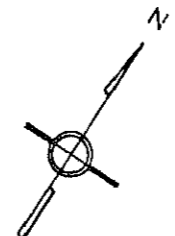


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REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
MAHENDRANAGAR :			
GENERAL SITE PLAN			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE	DWG. NO. C-1		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			

GENERAL NOTES

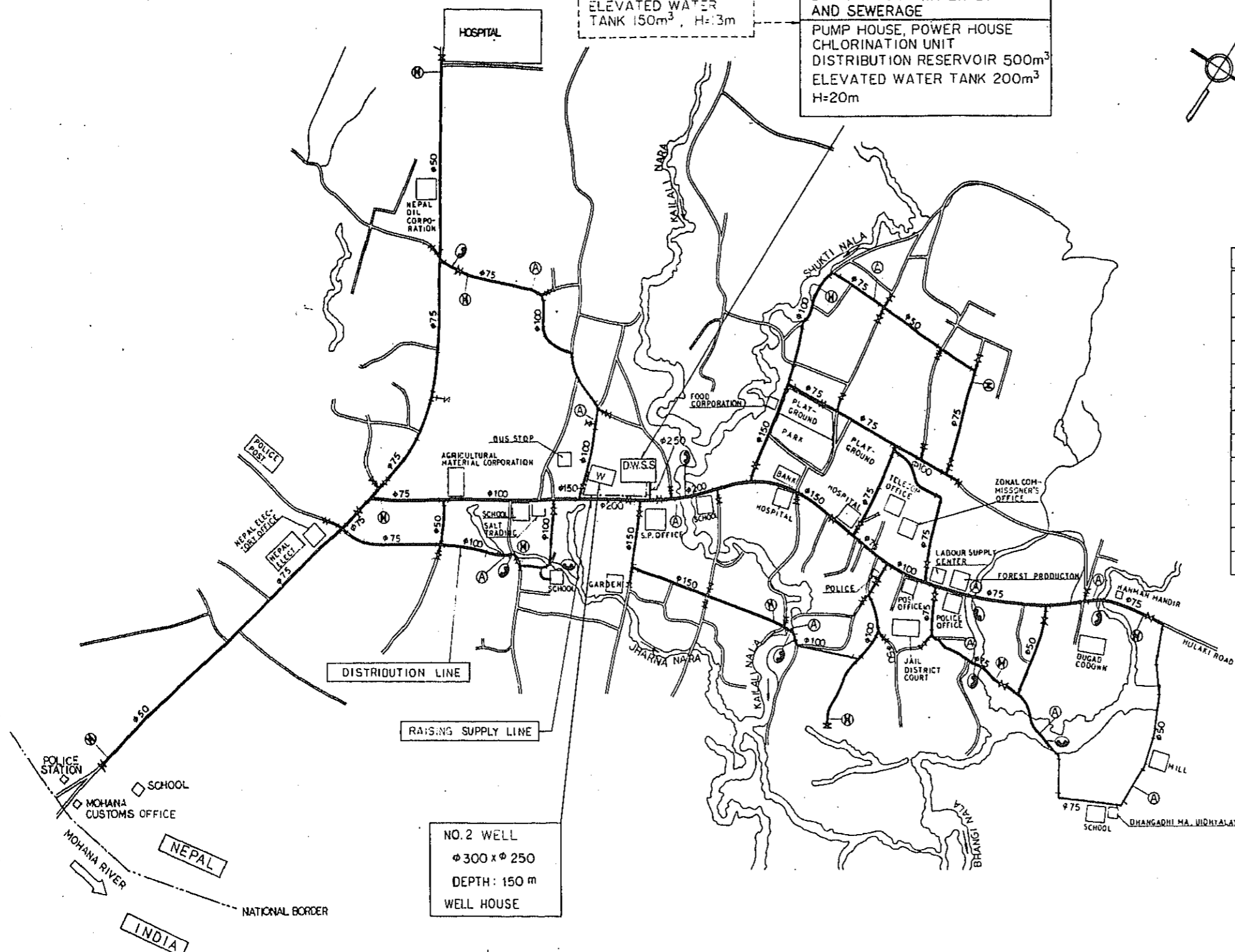
No.1 WELL
WELL HOUSE
OFFICE
ELEVATED WATER
TANK 150m³, H=13m

DEPARTMENT WATER SUPPLY
AND SEWERAGE
PUMP HOUSE, POWER HOUSE
CHLORINATION UNIT
DISTRIBUTION RESERVOIR 500m³
ELEVATED WATER TANK 200m³
H=20m



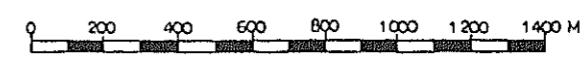
LEGEND

MARK	DESCRIPTION
—	DISTRIBUTION LINE
—	RAISING SUPPLY MAIN
⊗	GATE VALVE
⊕	BLEEDER VALVE
⊙	AIR BLEEDER VALVE
—	CROSSING: PIPE BRIDGE
∩	CROSSING: INVERTED SIPHON
⊖	BREAK PRESSURE VALVE
⊠	BREAK PRESSURE TANK
DW.S.S.	DWSS WATER YARD
W	DEEP WELL AND WELL HOUSE
□	PROPOSED FACILITIES
□	EXISTING FACILITIES

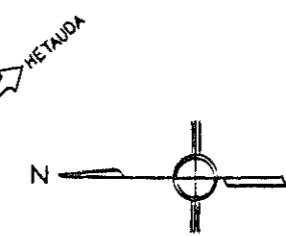
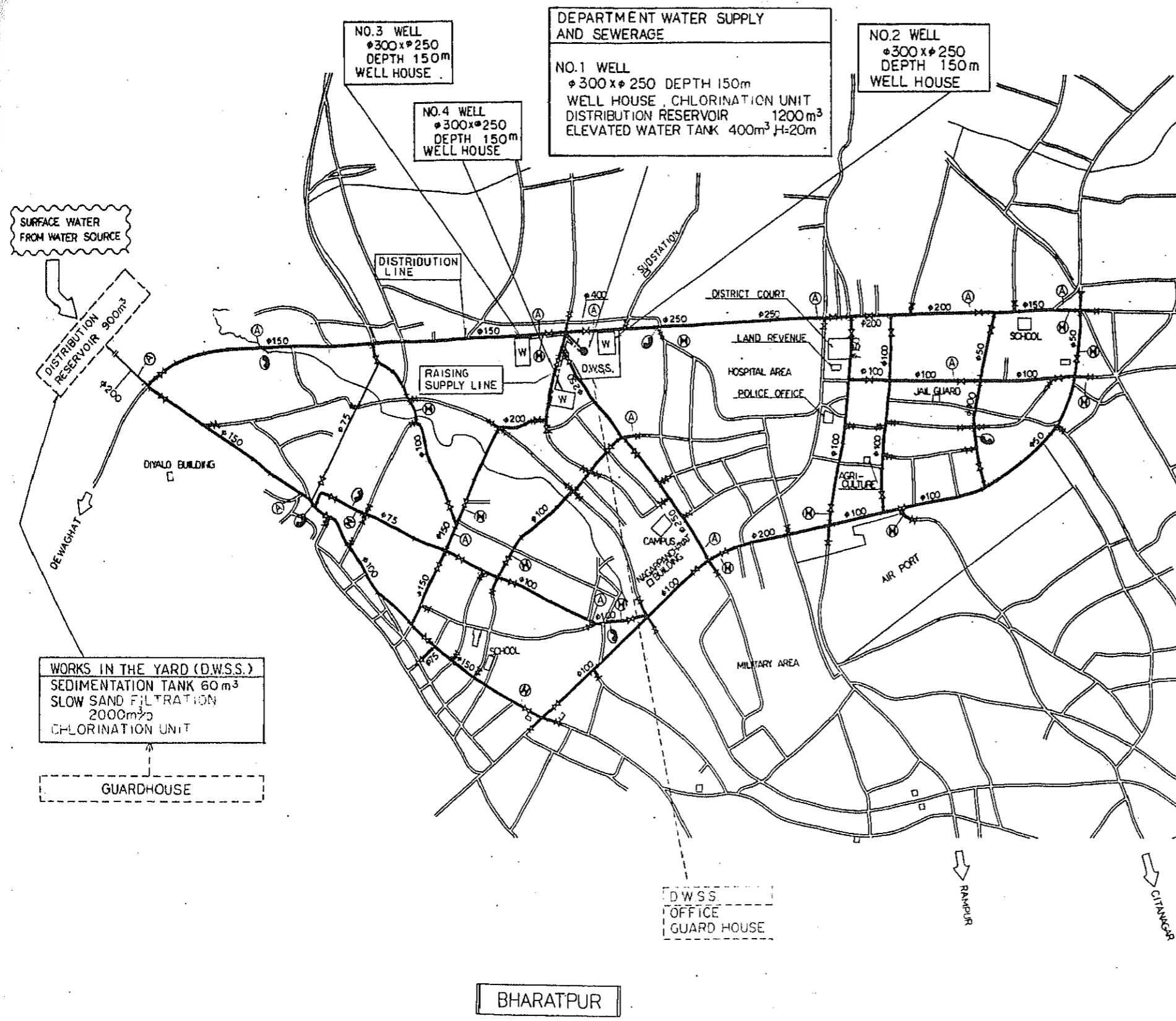


DESCRIPTIONS	DWG. NO.		
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NO. / DATE	DESCRIPTIONS BY / APP'D		
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
DHANGADHI : GENERAL SITE PLAN			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE	DWG. NO. C-2		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			

DHANGADHI

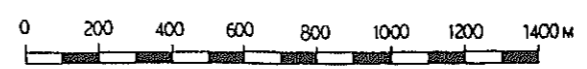


GENERAL NOTES



LEGEND

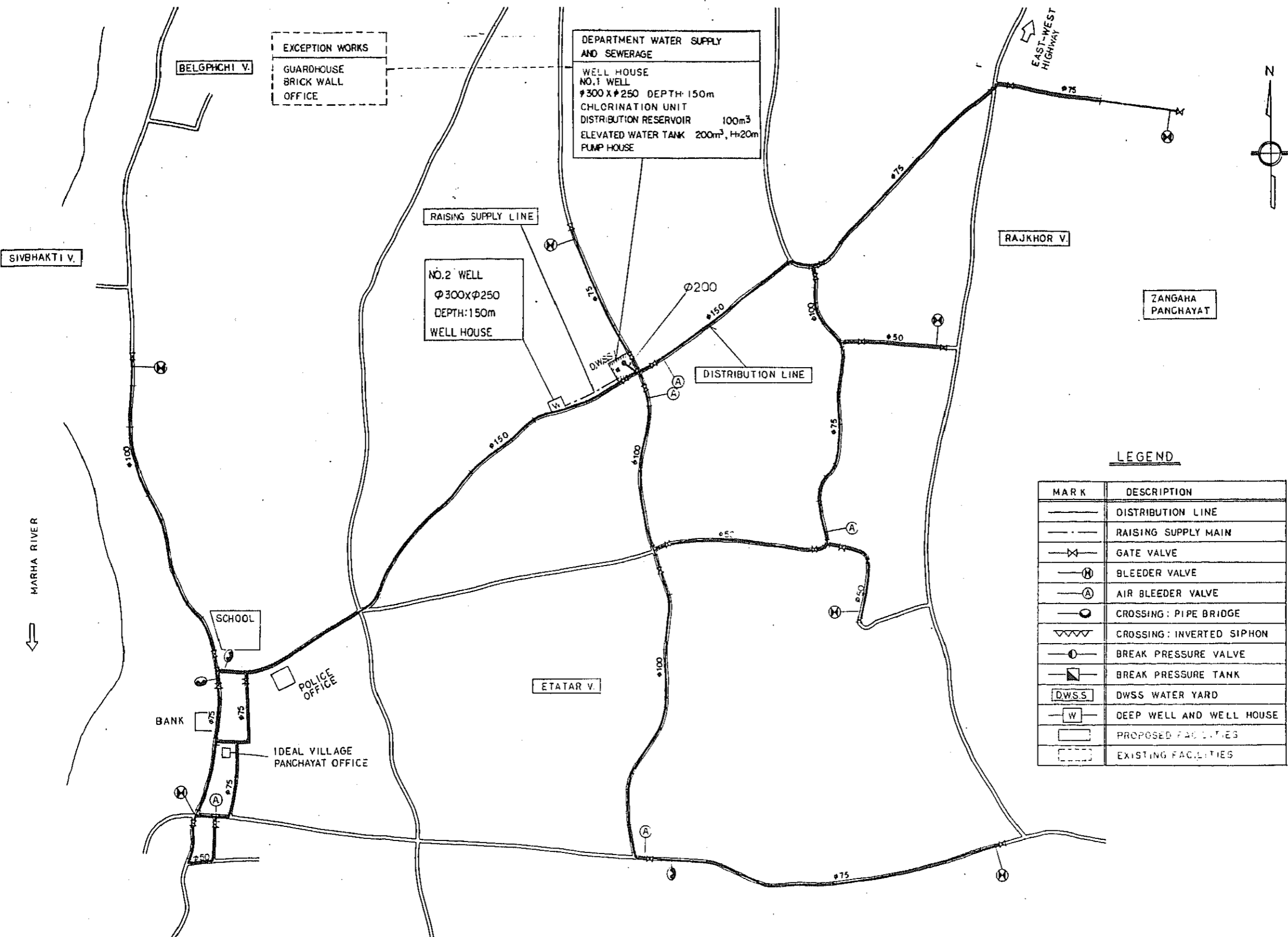
MARK	DESCRIPTION
—	DISTRIBUTION LINE
- - -	RAISING SUPPLY MAIN
⊗	GATE VALVE
⊙	BLEEDER VALVE
⊕	AIR BLEEDER VALVE
⊘	CROSSING: PIPE BRIDGE
∩	CROSSING: INVERTED SIPHON
⊖	BREAK PRESSURE VALVE
⊠	BREAK PRESSURE TANK
D.W.S.S.	DWSS WATER YARD
W	DEEP WELL AND WELL HOUSE
□	PROPOSED FACILITIES
⊞	EXISTING FACILITIES



DESCRIPTIONS		DWG. NO.		
REFERENCE DRAWINGS				
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REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
BHARATPUR: GENERAL SITE PLAN				
SUBMITTED	APPROVED	SCALE	REV. NO.	
DATE	DWG. NO. C-3			
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				

BHARATPUR

GENERAL NOTES

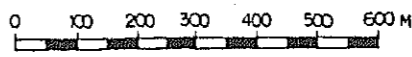


NO.2 WELL
 300x250
 DEPTH: 150m
 WELL HOUSE

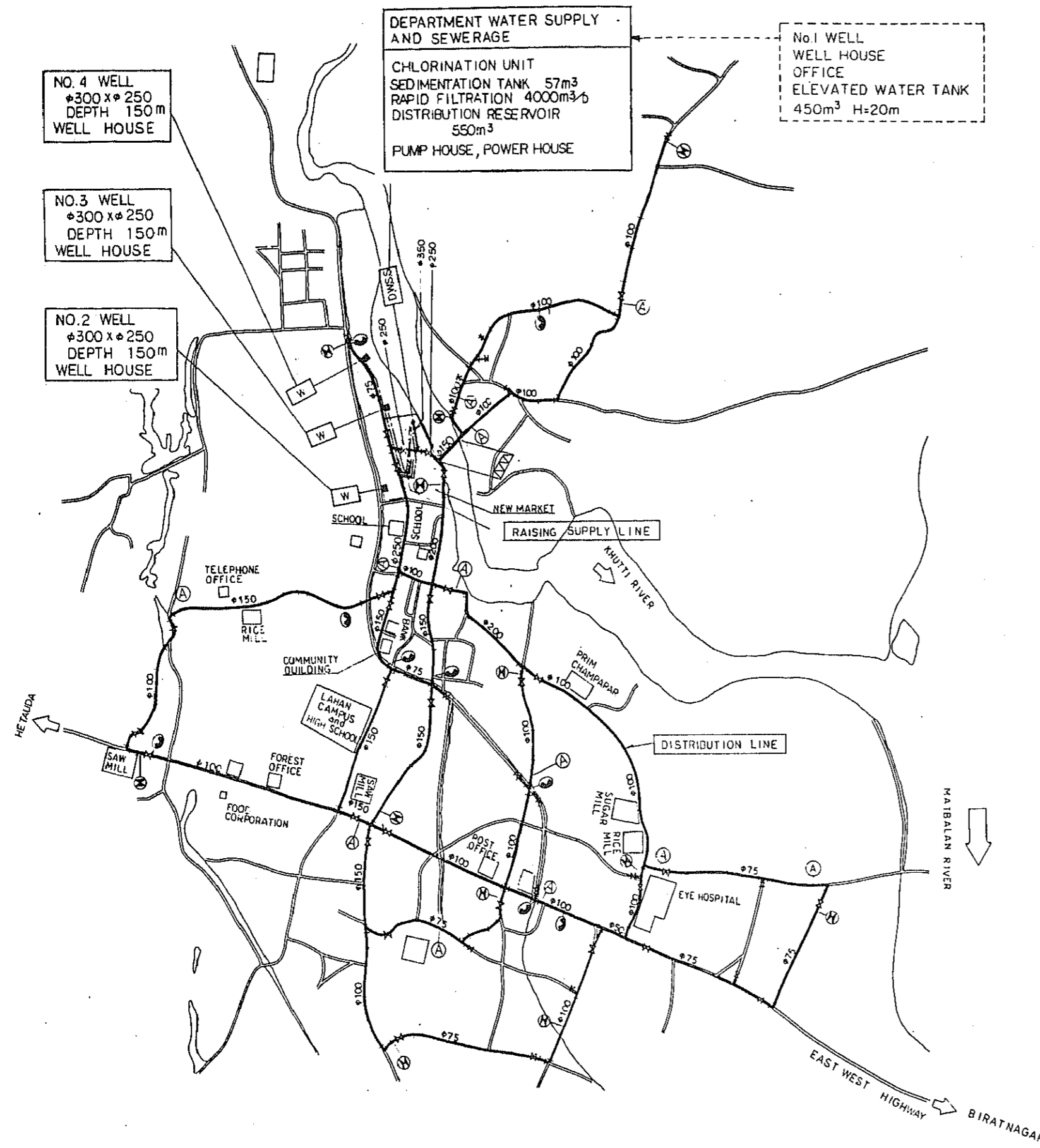
EXCEPTION WORKS
 GUARDHOUSE
 BRICK WALL
 OFFICE

LEGEND

MARK	DESCRIPTION
—	DISTRIBUTION LINE
- - -	RAISING SUPPLY MAIN
—X—	GATE VALVE
—(X)—	BLEEDER VALVE
—(A)—	AIR BLEEDER VALVE
—○—	CROSSING: PIPE BRIDGE
—∇∇∇—	CROSSING: INVERTED SIPHON
—○—	BREAK PRESSURE VALVE
—■—	BREAK PRESSURE TANK
[DWSS]	DWSS WATER YARD
[W]	DEEP WELL AND WELL HOUSE
[]	PROPOSED FACILITIES
[- - -]	EXISTING FACILITIES



DESCRIPTIONS	DWG. NO.			
REFERENCE DRAWINGS				
◇				
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NO.	DATE	DESCRIPTIONS	BY	APP'D
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
GAUSHALA : GENERAL SITE PLAN				
SUBMITTED	APPROVED	SCALE	REV. NO.	
DATE		DWG. NO. C-4		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				



DEPARTMENT WATER SUPPLY AND SEWERAGE
 CHLORINATION UNIT
 SEDIMENTATION TANK 57m³
 RAPID FILTRATION 4000m³/d
 DISTRIBUTION RESERVOIR 550m³
 PUMP HOUSE, POWER HOUSE

No.1 WELL
 WELL HOUSE
 OFFICE
 ELEVATED WATER TANK
 450m³ H=20m

NO.4 WELL
 φ300 x φ250
 DEPTH 150m
 WELL HOUSE

NO.3 WELL
 φ300 x φ250
 DEPTH 150m
 WELL HOUSE

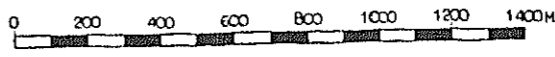
NO.2 WELL
 φ300 x φ250
 DEPTH 150m
 WELL HOUSE

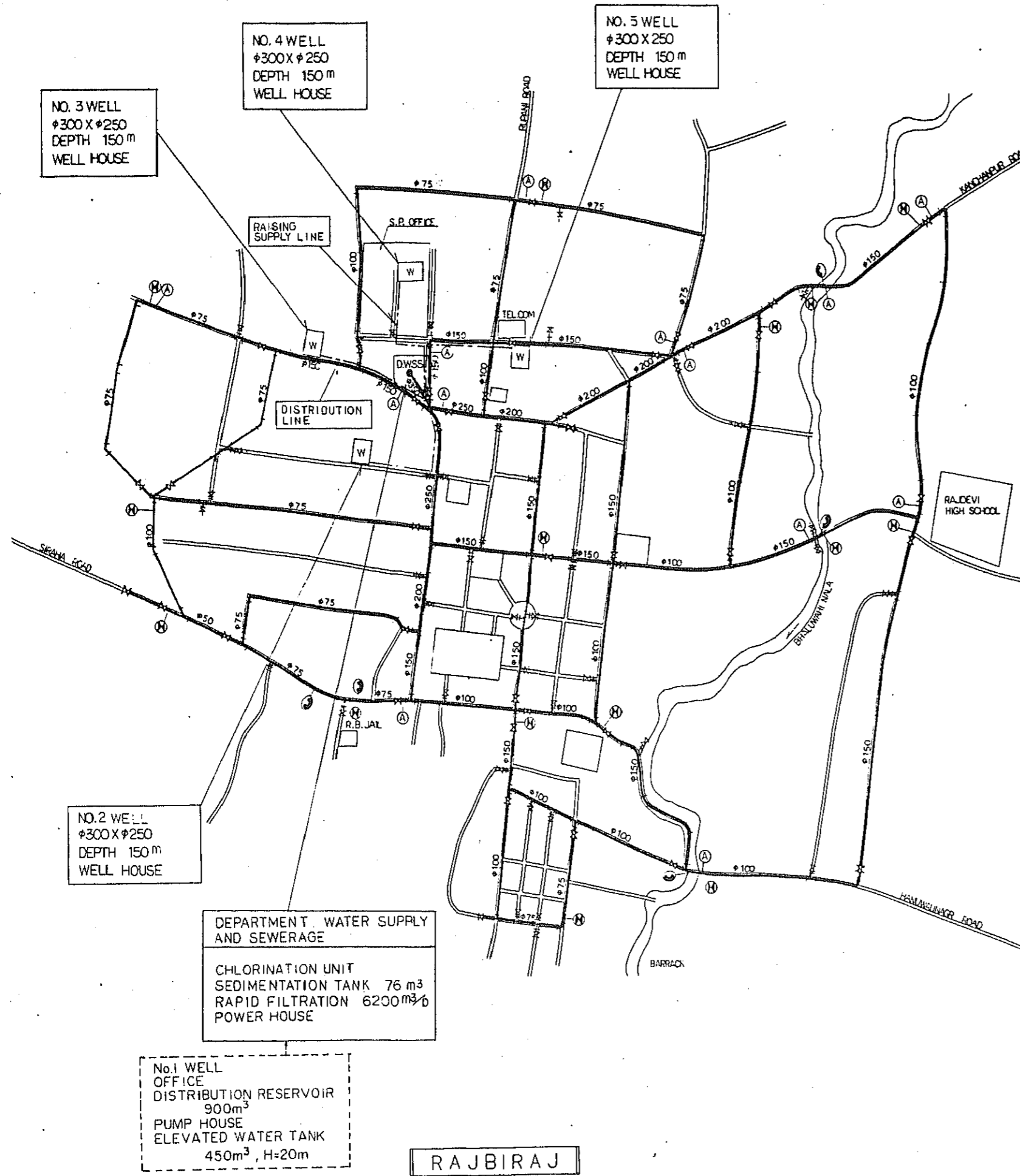
LEGEND

MARK	DESCRIPTION
—	DISTRIBUTION LINE
—	RAISING SUPPLY MAIN
⊗	GATE VALVE
⊕	BLEEDER VALVE
⊙	AIR BLEEDER VALVE
—	CROSSING: PIPE BRIDGE
∩	CROSSING: INVERTED SIPHON
⊖	BREAK PRESSURE VALVE
⊠	BREAK PRESSURE TANK
DWSS	DWSS WATER YARD
W	DEEP WELL AND WELL HOUSE
□	PROPOSED FACILITIES
□	EXISTING FACILITIES

DESCRIPTIONS		DWG. NO.	
REFERENCE DRAWINGS			
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NO.	DATE	DESCRIPTIONS	BY APPD.
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
LAHAN :			
GENERAL SITE PLAN			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE		DWG. NO. C-5	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			

LAHAN





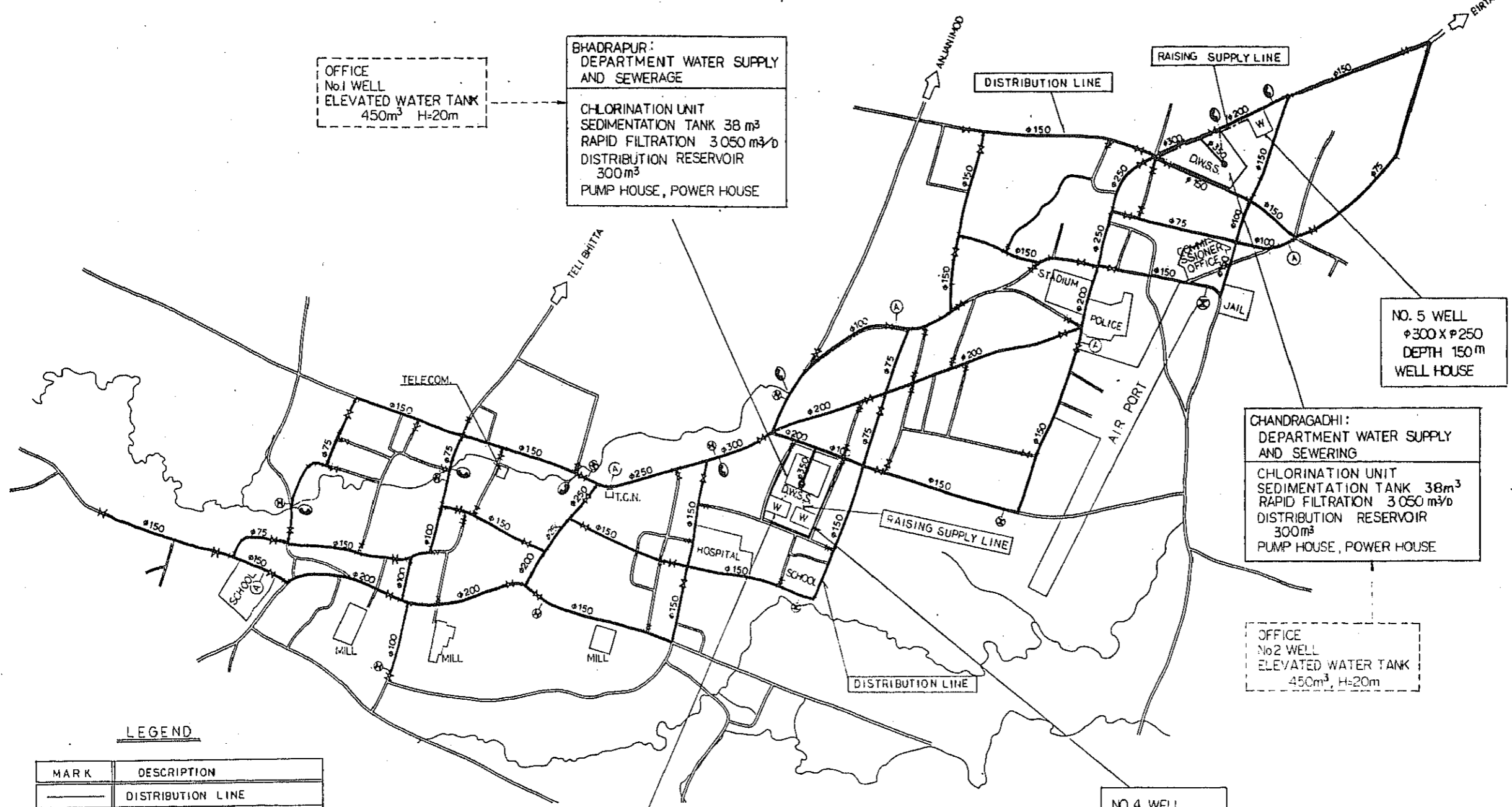
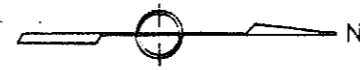
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MARK	DESCRIPTION
—	DISTRIBUTION LINE
—	RAISING SUPPLY MAIN
⊗	GATE VALVE
⊕	BLEEDER VALVE
⊙	AIR BLEEDER VALVE
—	CROSSING: PIPE BRIDGE
∩	CROSSING: INVERTED SIPHON
⊖	BREAK PRESSURE VALVE
⊠	BREAK PRESSURE TANK
DWSS	DWSS WATER YARD
W	DEEP WELL AND WELL HOUSE
□	PROPOSED FACILITIES
□	EXISTING FACILITIES

DESCRIPTIONS	DWG. NO.		
REFERENCE DRAWINGS			
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NO. DATE	DESCRIPTIONS BY APPD		
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
RAJBIRAJ			
GENERAL SITE PLAN			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE	DWG. NO. C-6		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			

RAJBIRAJ





OFFICE
No.1 WELL
ELEVATED WATER TANK
450m³ H=20m

BHADRAPUR:
DEPARTMENT WATER SUPPLY
AND SEWERAGE
CHLORINATION UNIT
SEDIMENTATION TANK 38 m³
RAPID FILTRATION 3 050 m³/d
DISTRIBUTION RESERVOIR
300 m³
PUMP HOUSE, POWER HOUSE

NO. 5 WELL
φ300 X φ250
DEPTH 150 m
WELL HOUSE

CHANDRAGADHI:
DEPARTMENT WATER SUPPLY
AND SEWERING
CHLORINATION UNIT
SEDIMENTATION TANK 38m³
RAPID FILTRATION 3 050 m³/d
DISTRIBUTION RESERVOIR
300m³
PUMP HOUSE, POWER HOUSE

OFFICE
No.2 WELL
ELEVATED WATER TANK
450m³, H=20m

NO.3 WELL
φ300 X φ250
DEPTH 150 m
WELL HOUSE

NO.4 WELL
φ300 X φ250
DEPTH 150 m
WELL HOUSE

BHADRAPUR & CHANDRAGADHI

LEGEND

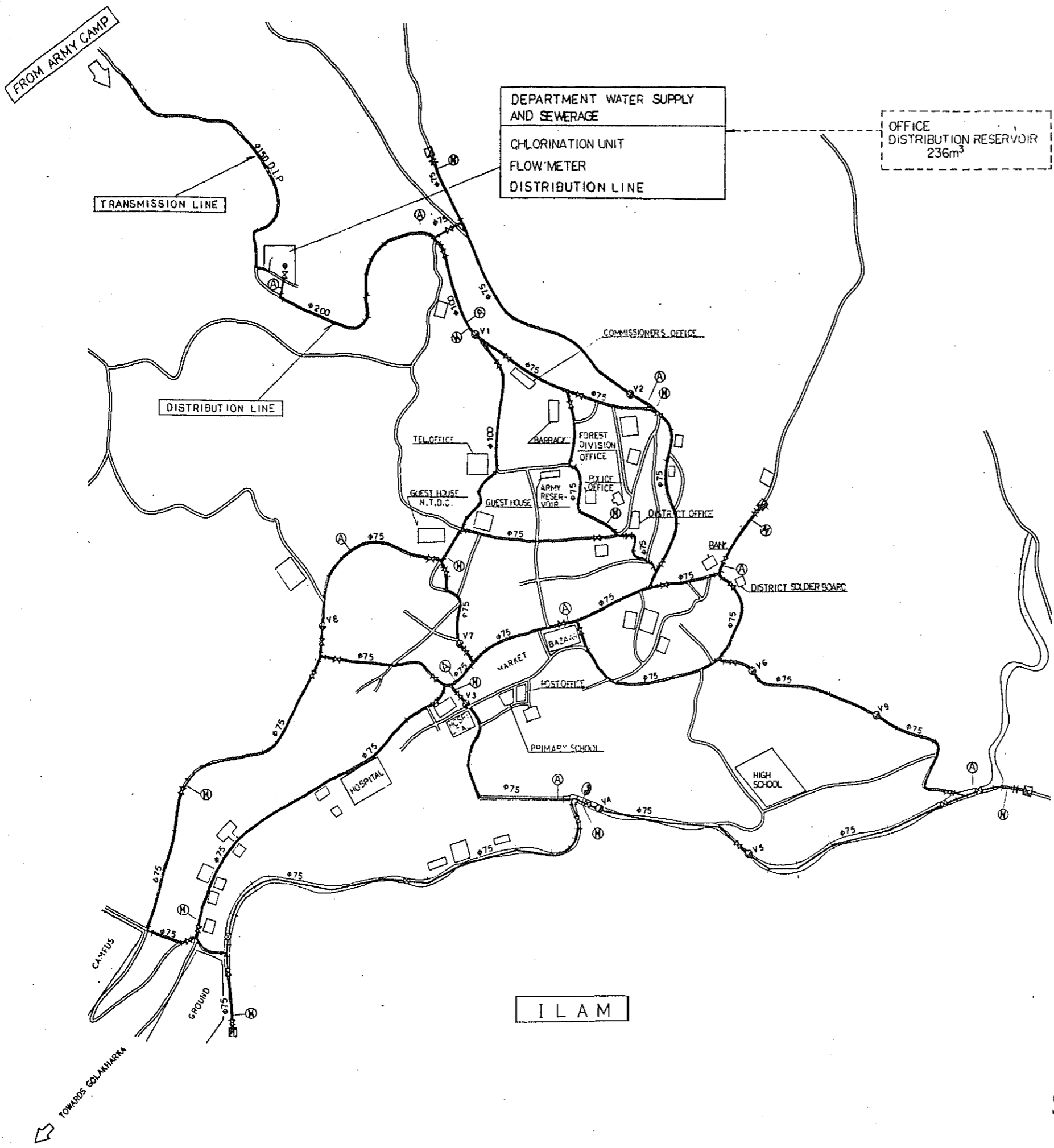
MARK	DESCRIPTION
—	DISTRIBUTION LINE
— — —	RAISING SUPPLY MAIN
— X —	GATE VALVE
— (H) —	BLEEDER VALVE
— (A) —	AIR BLEEDER VALVE
— (O) —	CROSSING: PIPE BRIDGE
— (V) —	CROSSING: INVERTED SIPHON
— (B) —	BREAK PRESSURE VALVE
— (T) —	BREAK PRESSURE TANK
[DWSS]	DWSS WATER YARD
[W]	DEEP WELL AND WELL HOUSE
[]	PROPOSED FACILITIES
[]	EXISTING FACILITIES



DESCRIPTIONS		DWG. NO.		
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NO.	DATE	DESCRIPTIONS	BY	APP.
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
BHADRAPUR & CHANDRAGADHI				
GENERAL SITE PLAN				
SUBMITTED	APPROVED	SCALE	REV. NO.	
DATE		DWG. NO. C-7		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				

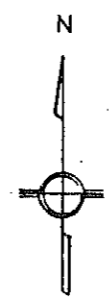
A
B
C
D
E
F
G
H
I
J
K

4 7 8 9 10 11 12 13 14 15 16



DEPARTMENT WATER SUPPLY AND SEWERAGE
 CHLORINATION UNIT
 FLOW METER
 DISTRIBUTION LINE

OFFICE DISTRIBUTION RESERVOIR
 236m³



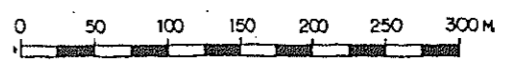
LEGEND

MARK	DESCRIPTION
—	DISTRIBUTION LINE
—	RAISING SUPPLY MAIN
⊗	GATE VALVE
⊗	BLEEDER VALVE
⊙	AIR BLEEDER VALVE
—	CROSSING: PIPE BRIDGE
∇	CROSSING: INVERTED SIPHON
⊙	BREAK PRESSURE VALVE
□	BREAK PRESSURE TANK
D.W.S.S.	DWSS WATER YARD
W	DEEP WELL AND WELL HOUSE
□	PROPOSED FACILITIES
□	EXISTING FACILITIES

GENERAL NOTES

DESCRIPTIONS	DWG. NO.			
REFERENCE DRAWINGS				
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NO.	DATE	DESCRIPTIONS	BY	APPD.

REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
ILAM: GENERAL SITE PLAN(1)			
SUBMITTED	APPROVED	SCALE	REV. NO.
DATE		DWG. NO. C-8	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



ILAM

FROM ARMY CAMP

TRANSMISSION LINE

DISTRIBUTION LINE

CANALS

GROUND

TOWARDS GOLAKHARRA

COMMISSIONER'S OFFICE

TEL OFFICE

BARRACK

FOREST DIVISION OFFICE

GUEST HOUSE N.T.D.C.

GUEST HOUSE

ARMY RESER-VIDIR

POLICE OFFICE

DISTRICT OFFICE

BANK

DISTRICT SOLDIER BOARD

BAZAAR

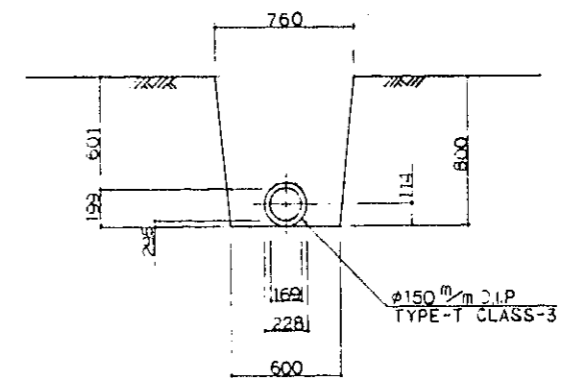
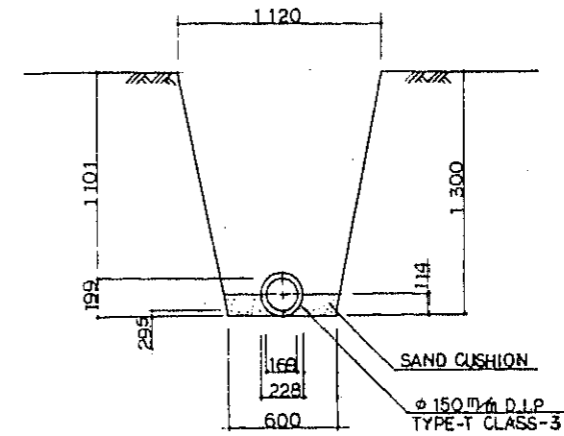
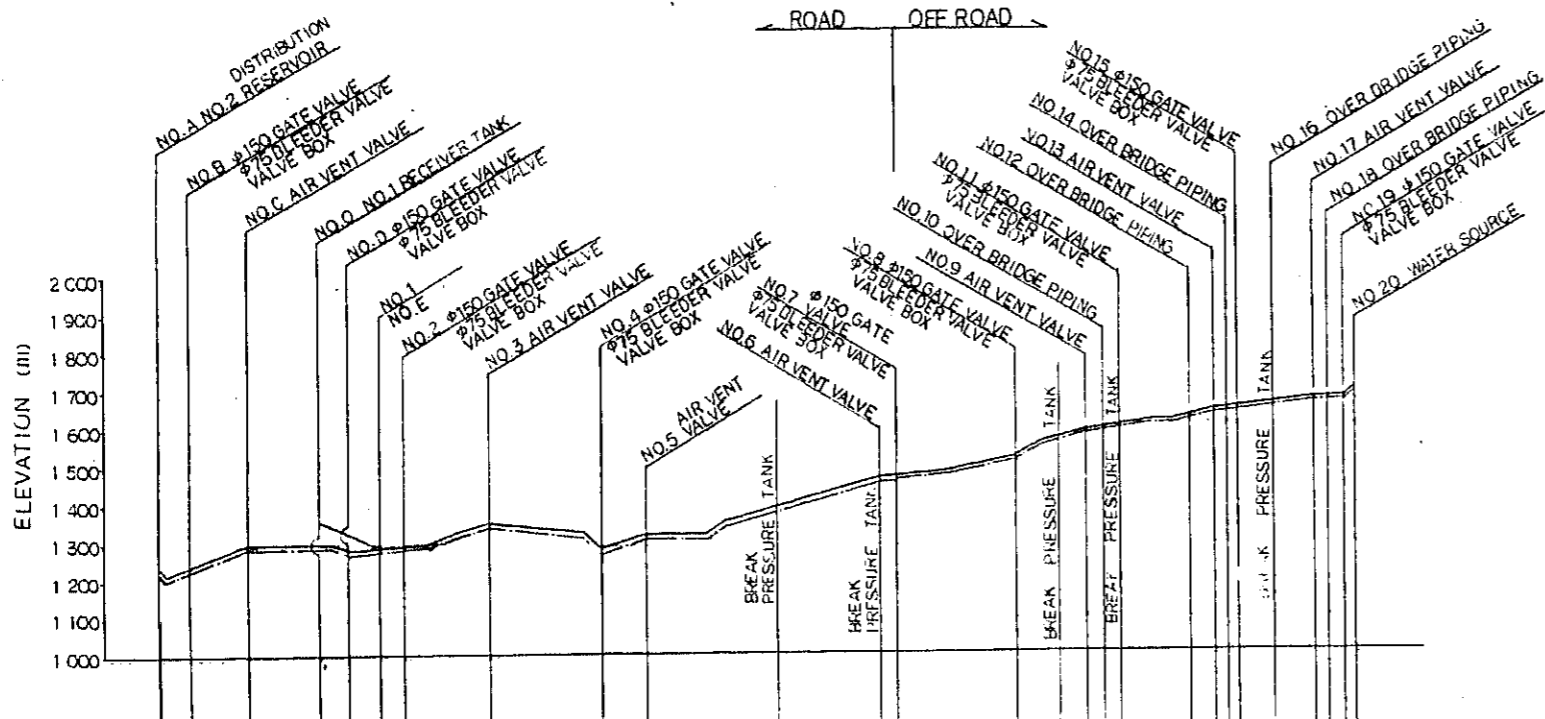
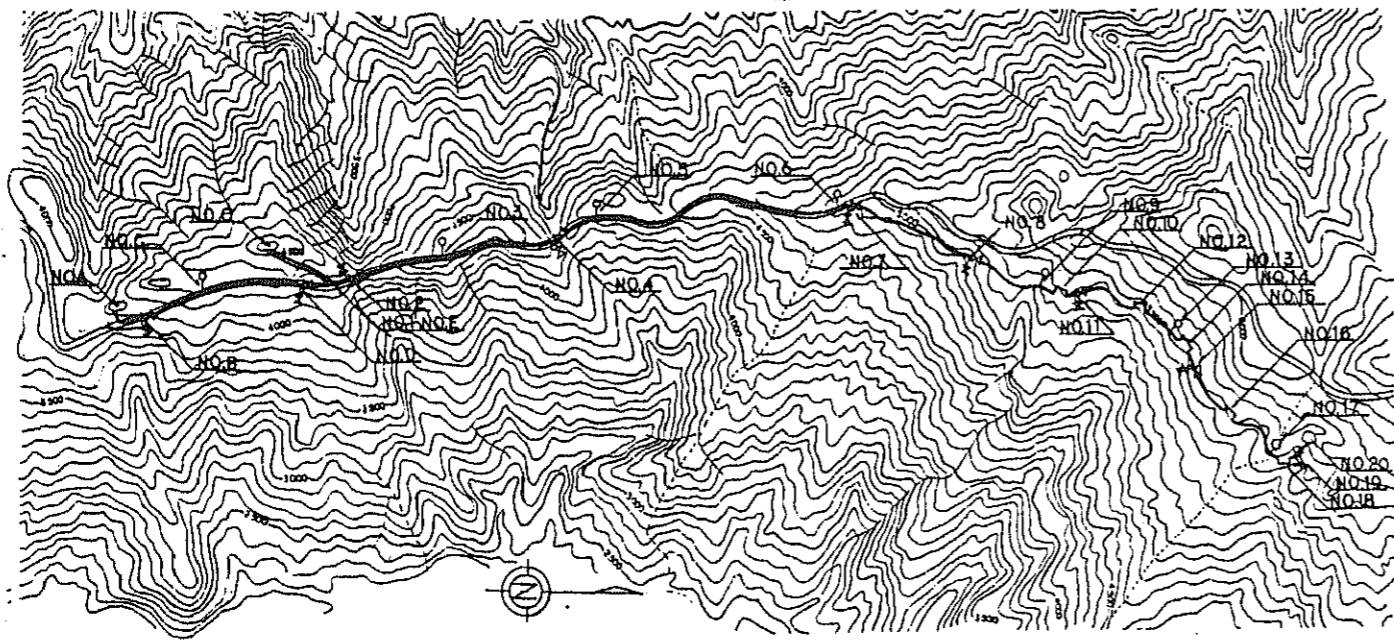
MARKET

POST OFFICE

PRIMARY SCHOOL

HIGH SCHOOL

HOSPITAL



INCLINATION (%/100)	44.5	9.7	10.34	36.3	7.14	10.00	6.82	5.17	6.41	40.5																	
DIAMETER, TYPE AND CLASS	φ 150 mm, D.I.P. TYPE-T, CLASS-3																										
PLANNING GROUND LEVEL (m)	1240	1240	1300	1350	1280	1320	1402	1470	1460	1530	1500	1500	1590	1600	1610	1630	1650	1650	1660	1670	1680	1710					
EARTH COVERING (m)	0.601	1.101	1.101	0.601	1.101	1.101	1.101	1.101	0.601	0.601	0.601	0.601	0.601	0.601	0.601	0.601	0.601	0.601	0.601	0.601	0.601	0.601	0.601				
POINT DISTANCE (m)	0.000	300	560	0.000	790	230	560	120	940	960	400	1090	1110	110	1050	580	350	170	480	450	120	120	120				
UNFOLD RANGE (m)	0.000	300	860	0.000	1650	1990	560	700	1640	2620	3020	4120	5220	5350	6380	7940	8290	8630	9110	9560	9680	9790	9910				
PLANNING EXTENSION (m)	0.000	310	910	0.000	1740	1990	610	730	1720	2730	3150	4250	5460	5590	6730	8450	8800	9210	9740	10330	10450	10560	10680				
POINT NUMBER	NO. A	NO. B	NO. C	NO. D	NO. E	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 5.1	NO. 6	NO. 7	NO. 8	NO. 8.1	NO. 9	NO. 10	NO. 11	NO. 12	NO. 13	NO. 14	NO. 15	NO. 16	NO. 17	NO. 18	NO. 19	NO. 20

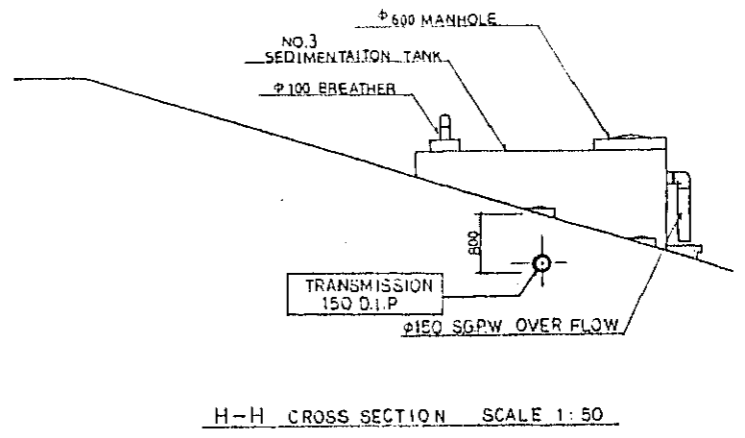
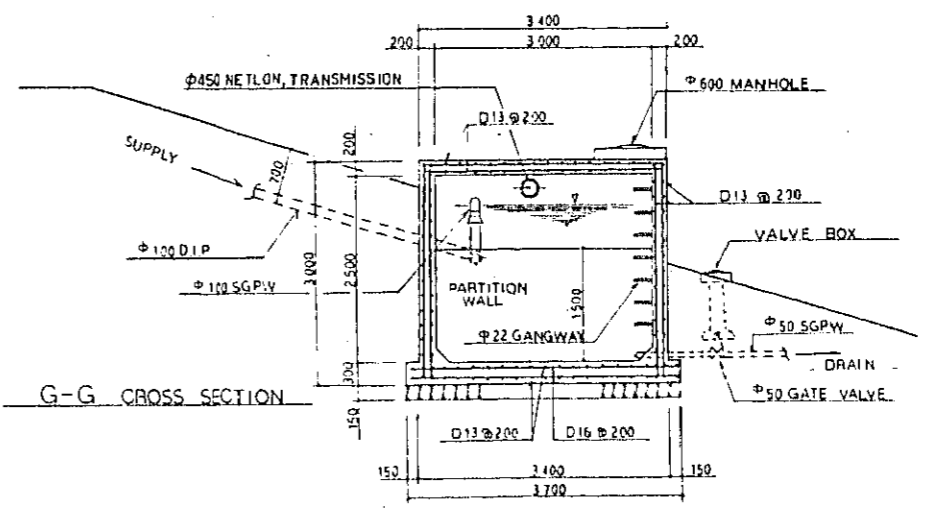
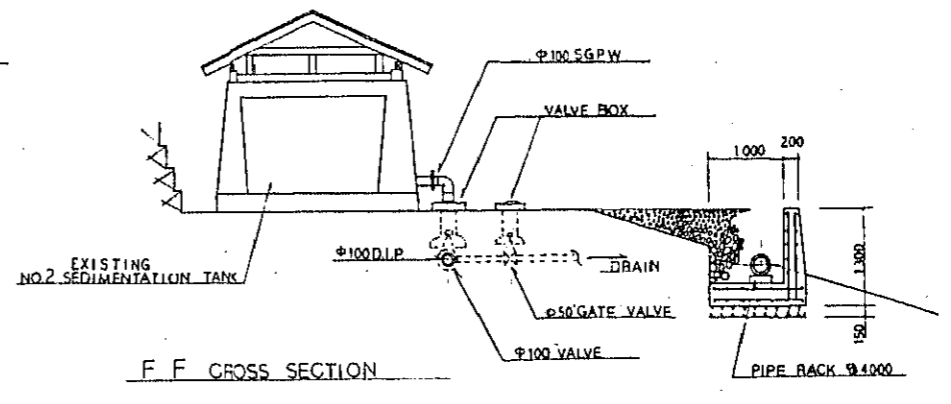
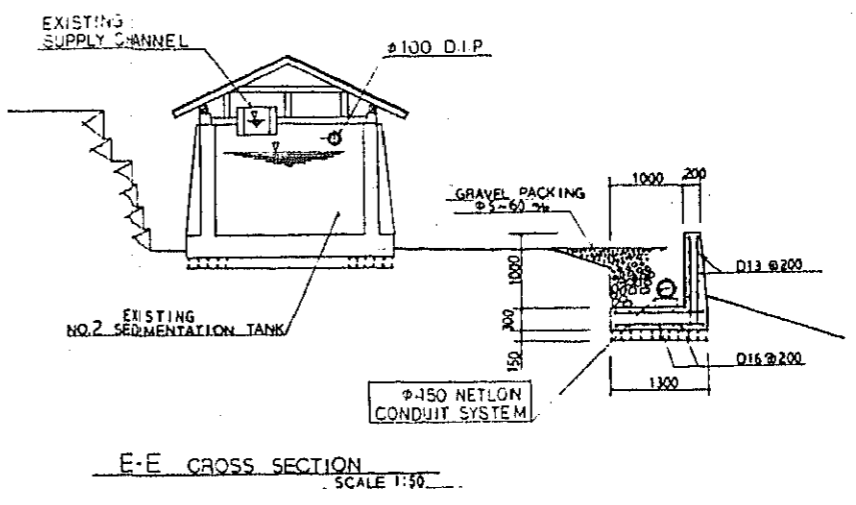
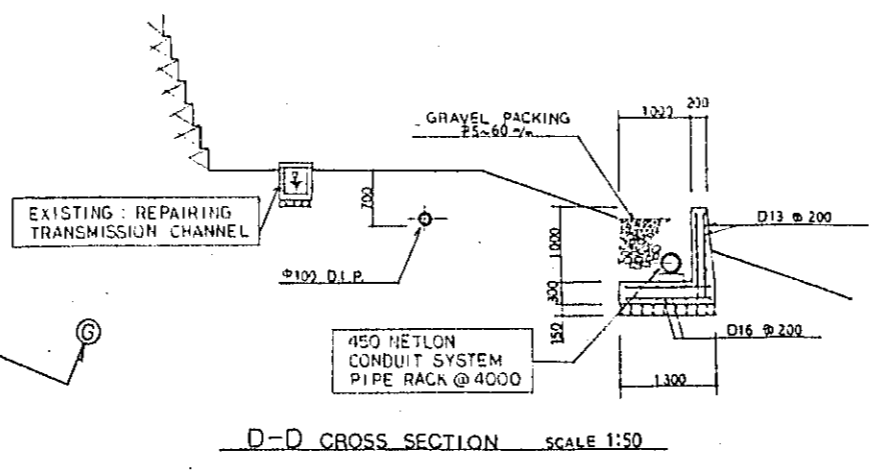
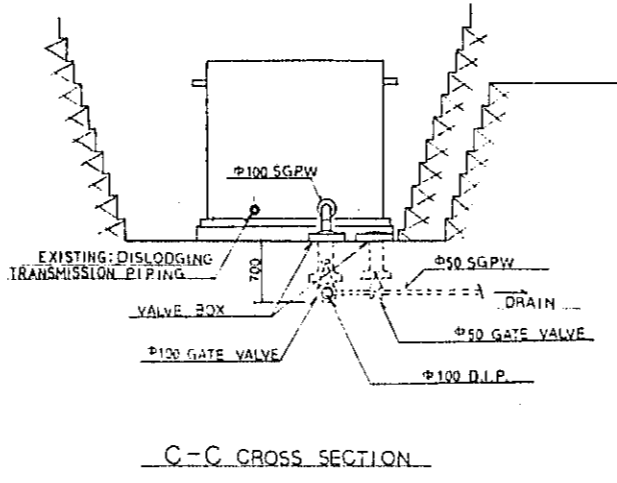
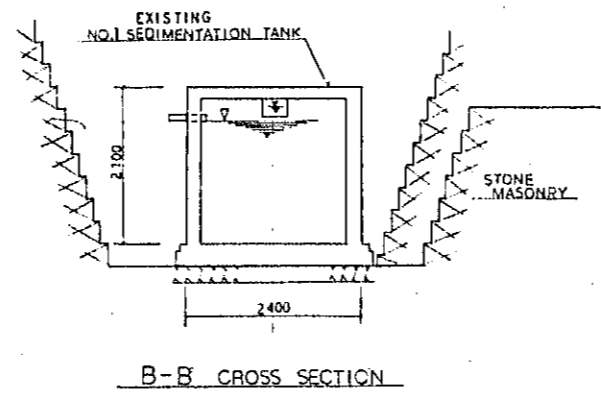
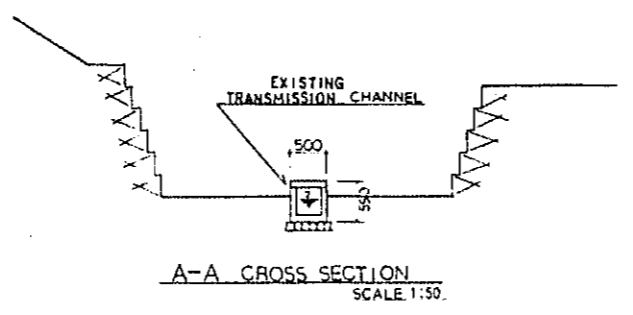
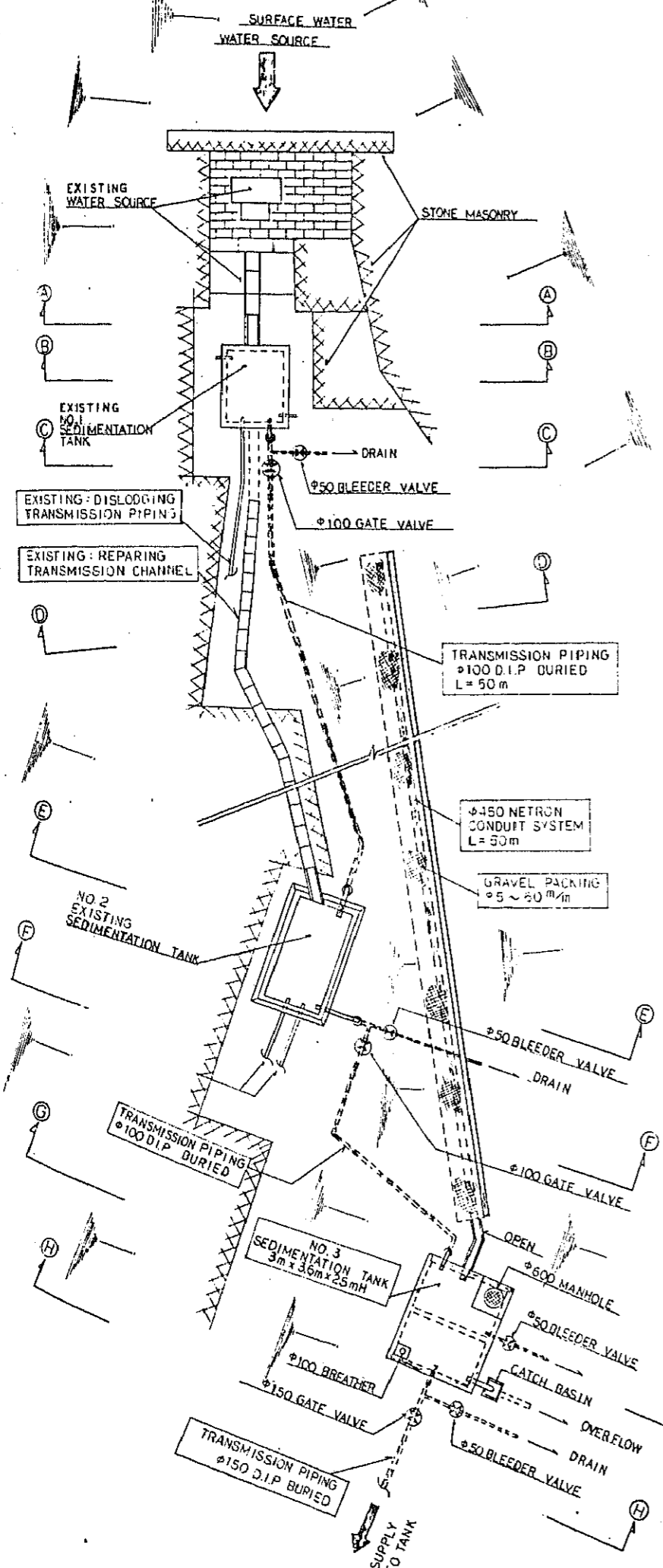
TRANSMISSION LINE PROFILE

ILAM CITY GENERAL SITE PLAN (2)

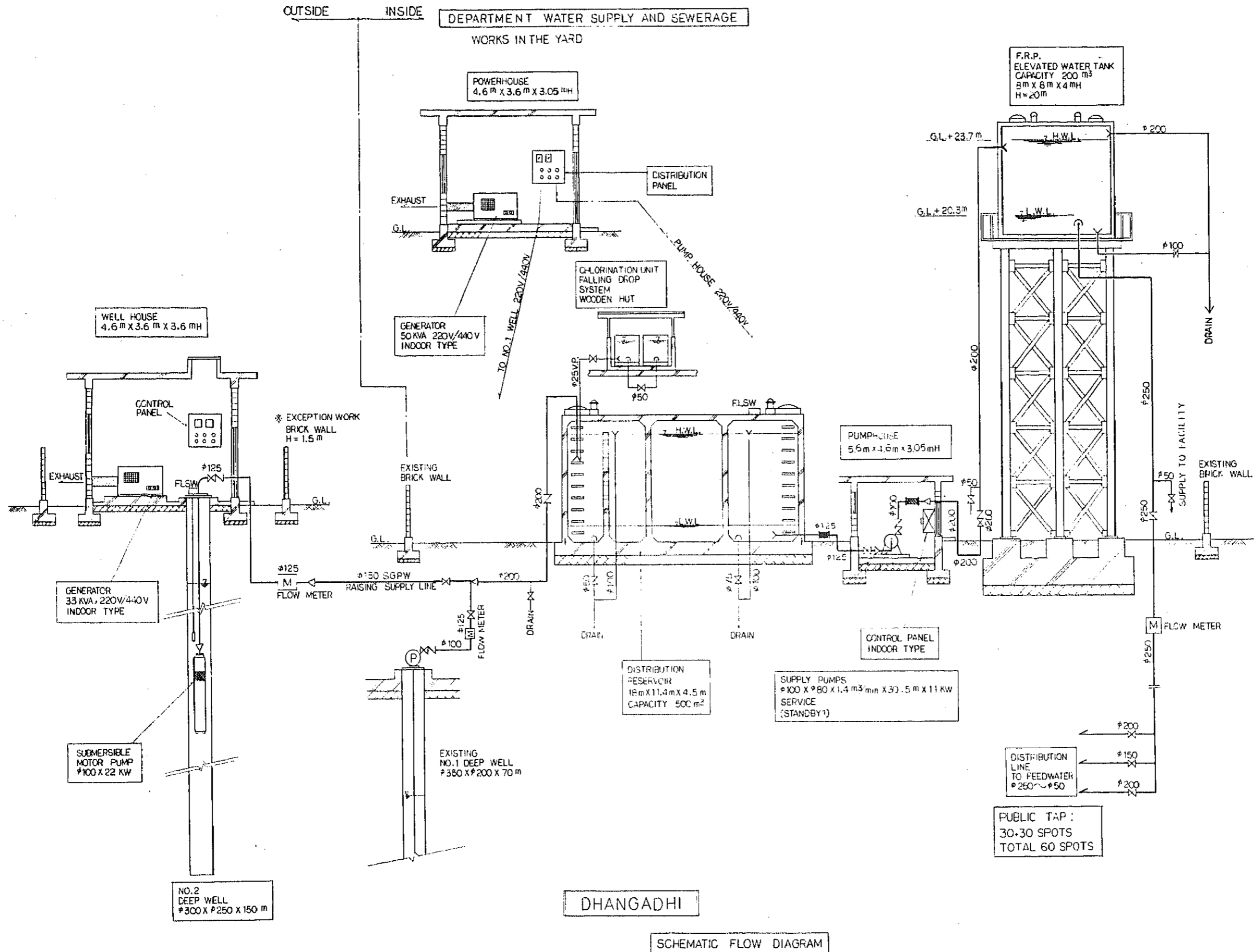
CROSS SECTION

GENERAL NOTES

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NO. 10 DATE	DESCRIPTIONS BY (APPD)		
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
ILAM CITY			
GENERAL SITE PLAN (2)			
SUBMITTED	APPROVED	SCALE	REV. NO.
		NO SCALE	
DATE	DWG. NO. C-9		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



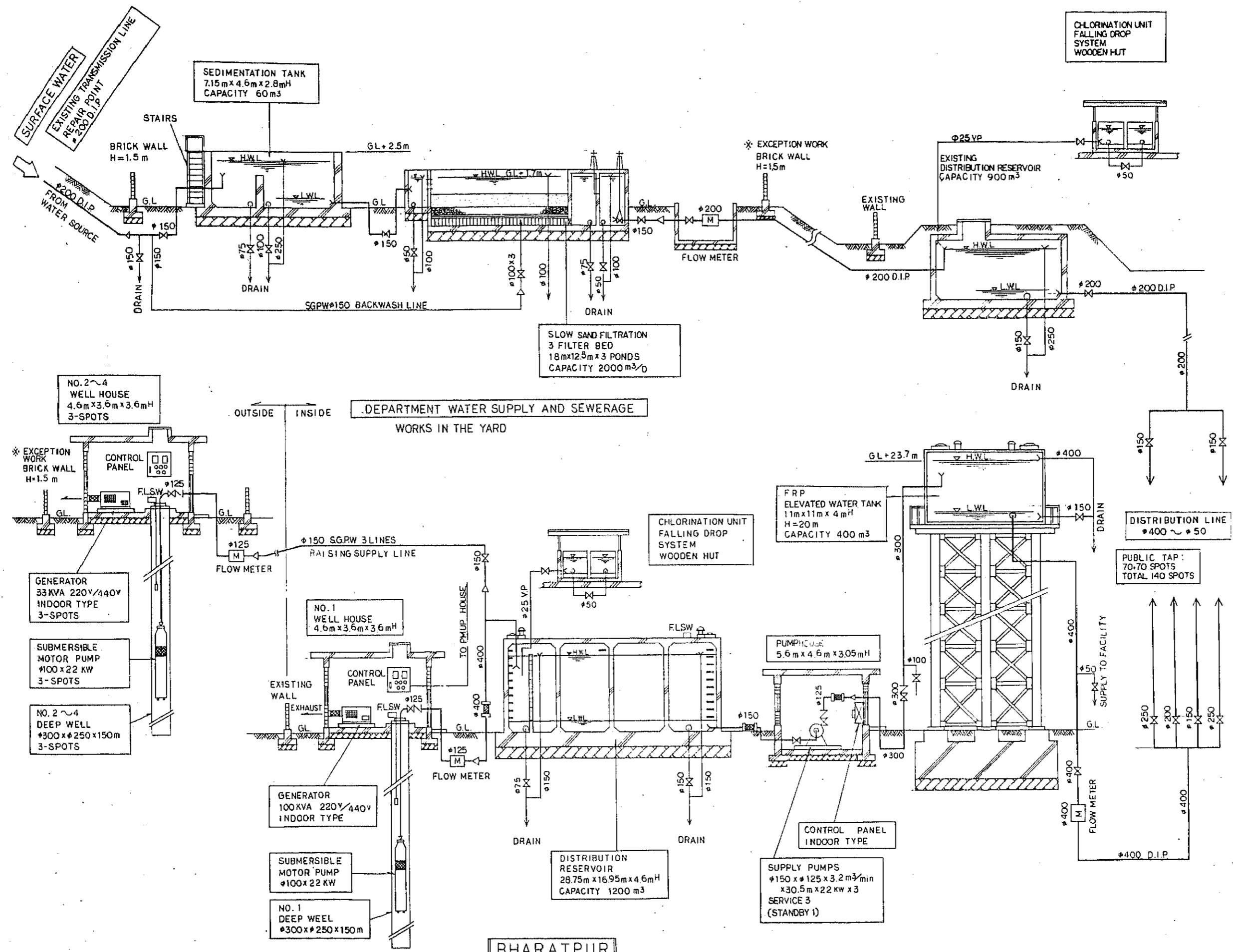
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		BY APPD
REVISIONS		
THE KINGDOM OF NEPAL		
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS		
ILAM CITY: WATER SOURCE REFORM PLAN		
SUBMITTED	APPROVED	SCALE
		1/100, 1/50
DATE	DWG. NO C-10	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)		



SHEMATIC FLOW DIAGRAM

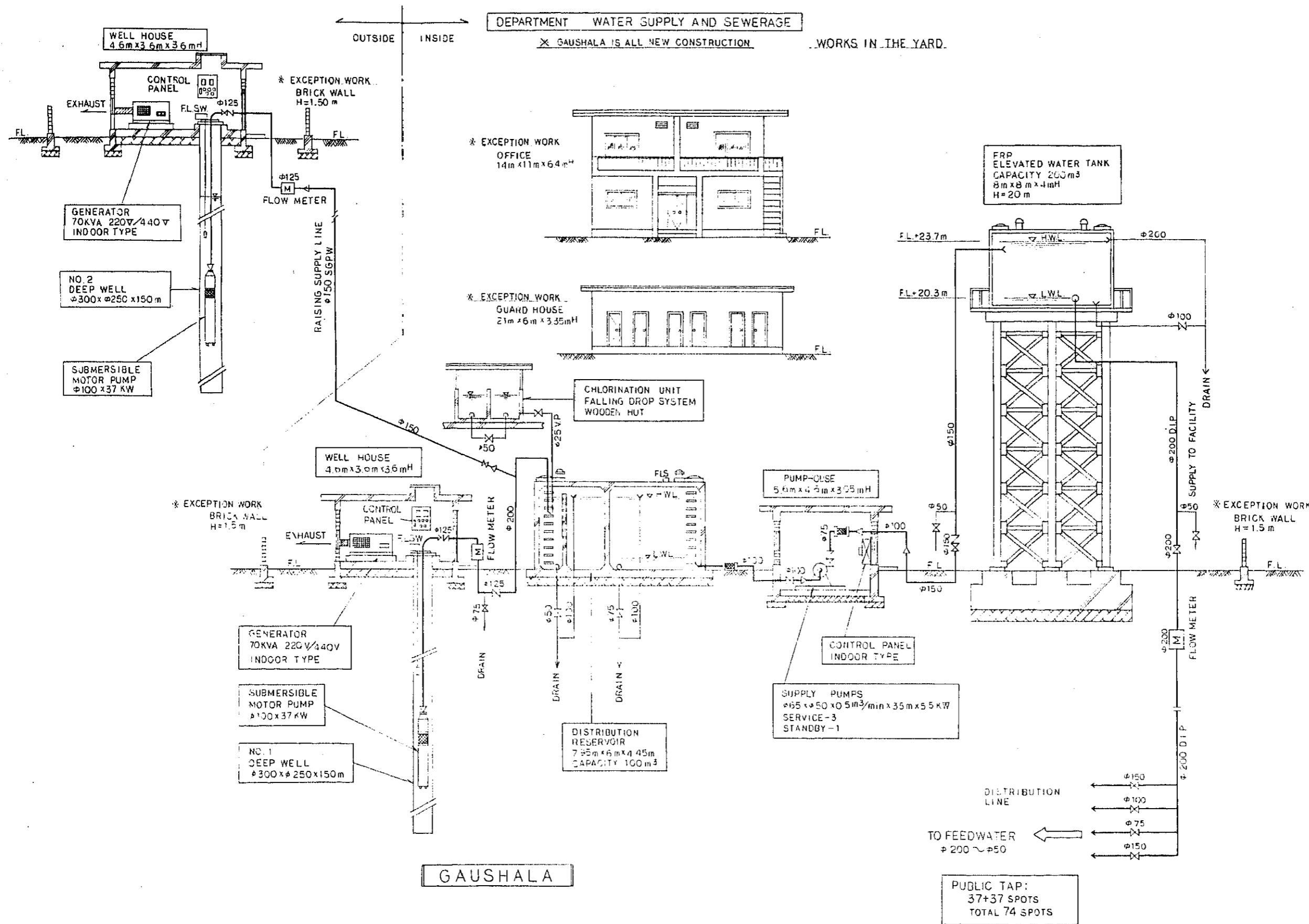
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REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
DHANGADHI				
SCHEMATIC FLOW DIAGRAM				
SUBMITTED	APPROVED	SCALE	REV. NO.	
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DATE		DWG. NO. D-2		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				



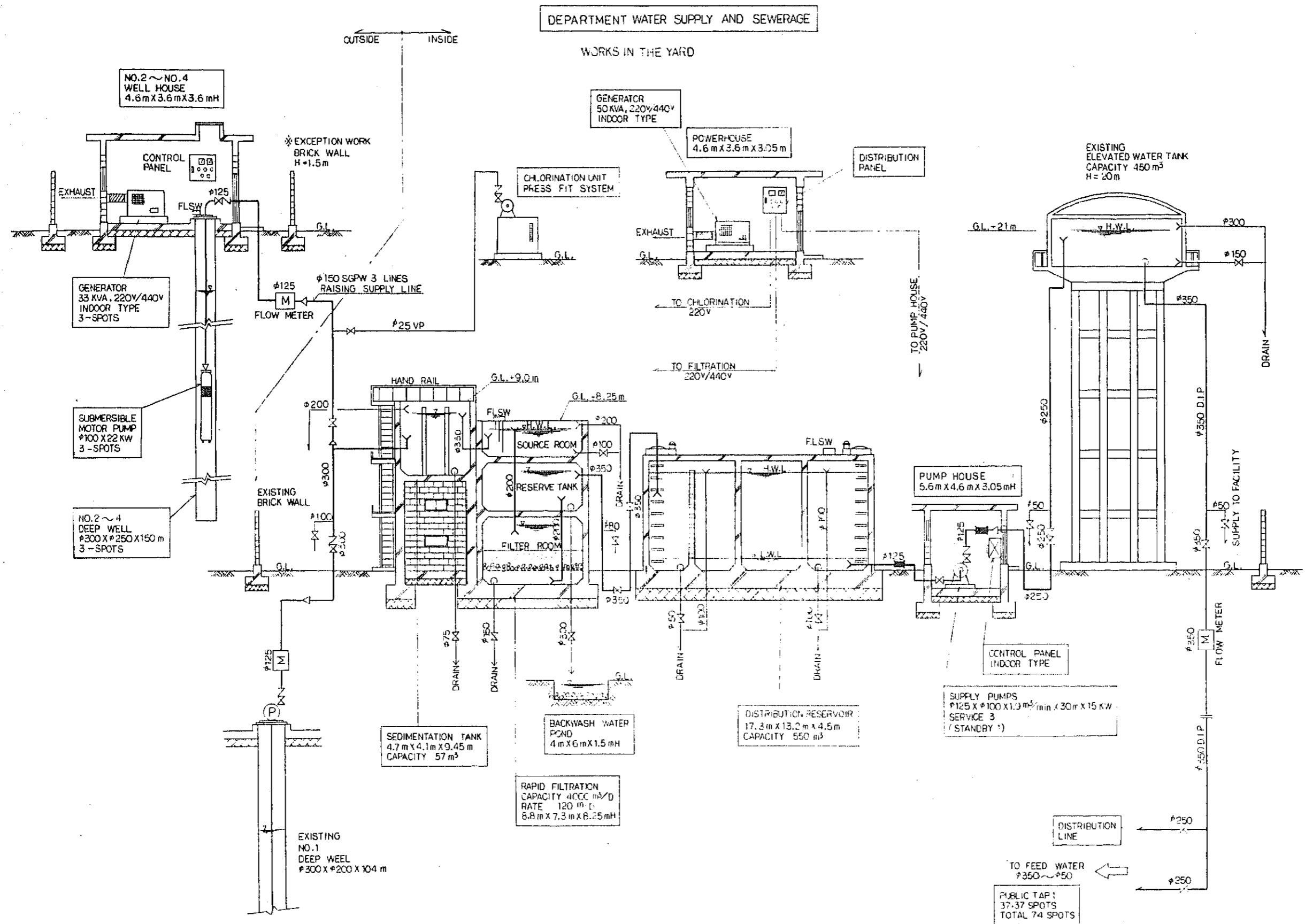
BHARATPUR
SCHEMATIC FLOW DIAGRAM
NO SCALE

NO.	DATE	DESCRIPTIONS	BY	APP'D
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
BHARATPUR : SCHEMATIC FLOW DIAGRAM				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		NO SCALE		
DATE	DWG. NO. D-3			
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				



SCHMATIC FLOW DIAGRAM
 NO SCALE

DESCRIPTIONS		DWG. NO.
REFERENCE DRAWINGS		
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NO.	DATE	DESCRIPTIONS BY IAPPD
REVISIONS		
THE KINGDOM OF NEPAL		
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS		
GAUSHALA:		
SCHMATIC FLOW DIAGRAM		
SUBMITTED	APPROVED	SCALE
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DATE	DWG. NO. D-4	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)		



DEPARTMENT WATER SUPPLY AND SEWERAGE

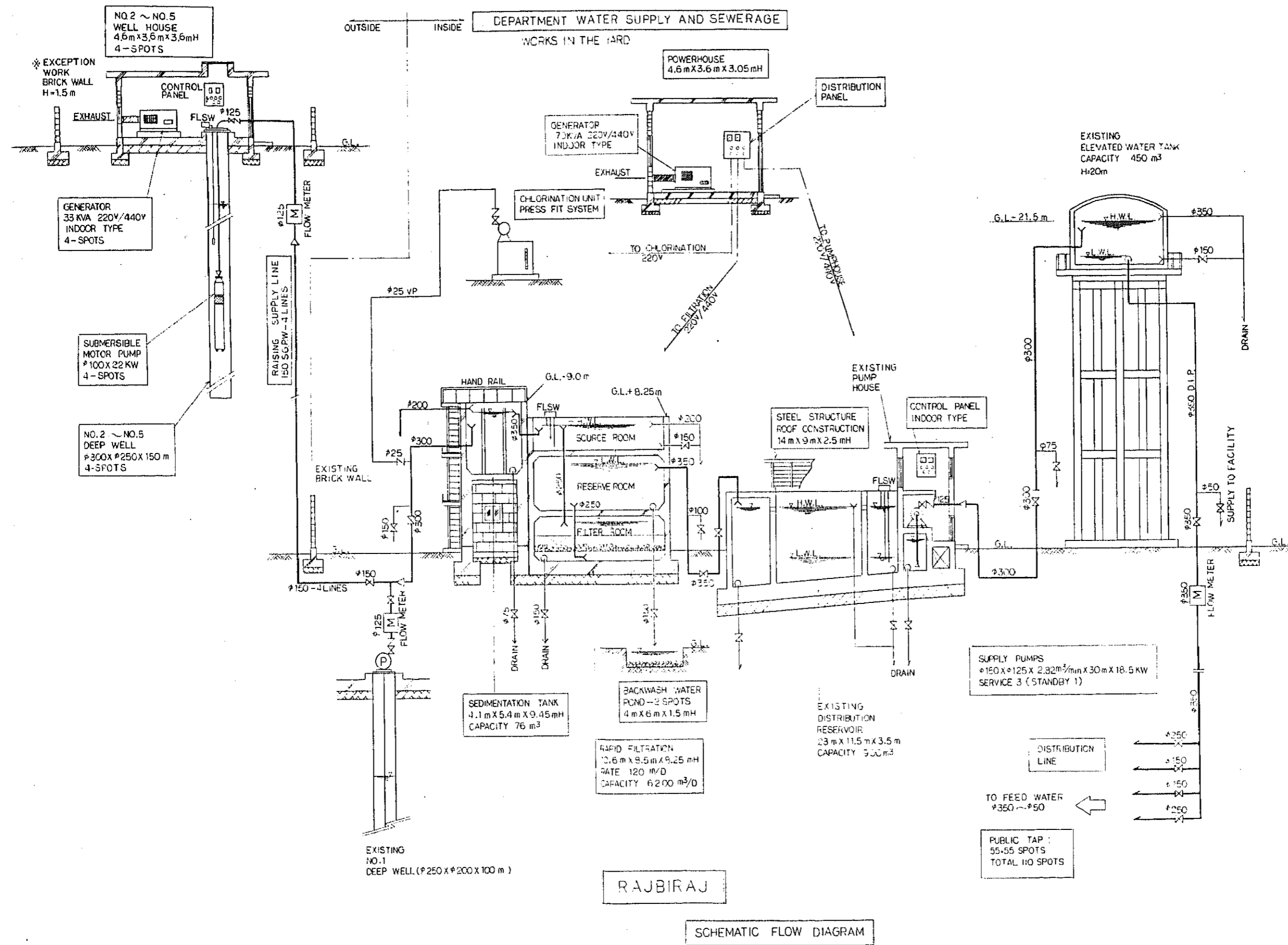
WORKS IN THE YARD

LAHAN

SCHEMATIC FLOW DIAGRAM

NO SCALE

DESCRIPTIONS		DWG. NO.
REFERENCE DRAWINGS		
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NO.	DATE	DESCRIPTIONS BY / APP'D
REVISIONS		
THE KINGDOM OF NEPAL		
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS		
LAHAN SCHEMATIC FLOW DIAGRAM		
SUBMITTED	APPROVED	SCALE
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DATE	DWG. NO. D-5	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)		

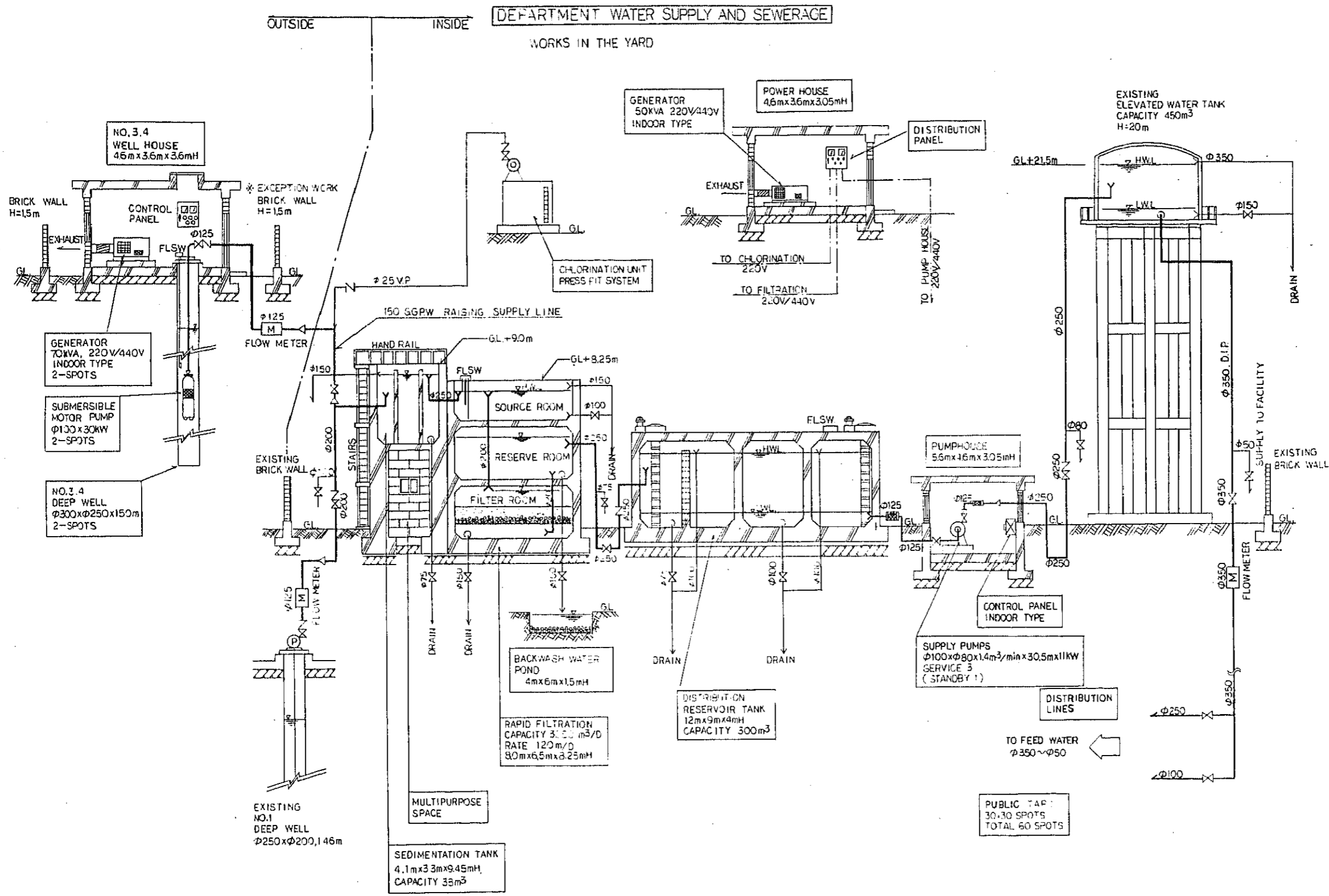


RAJBIRAJ

SCHMATIC FLOW DIAGRAM

NO SCALE

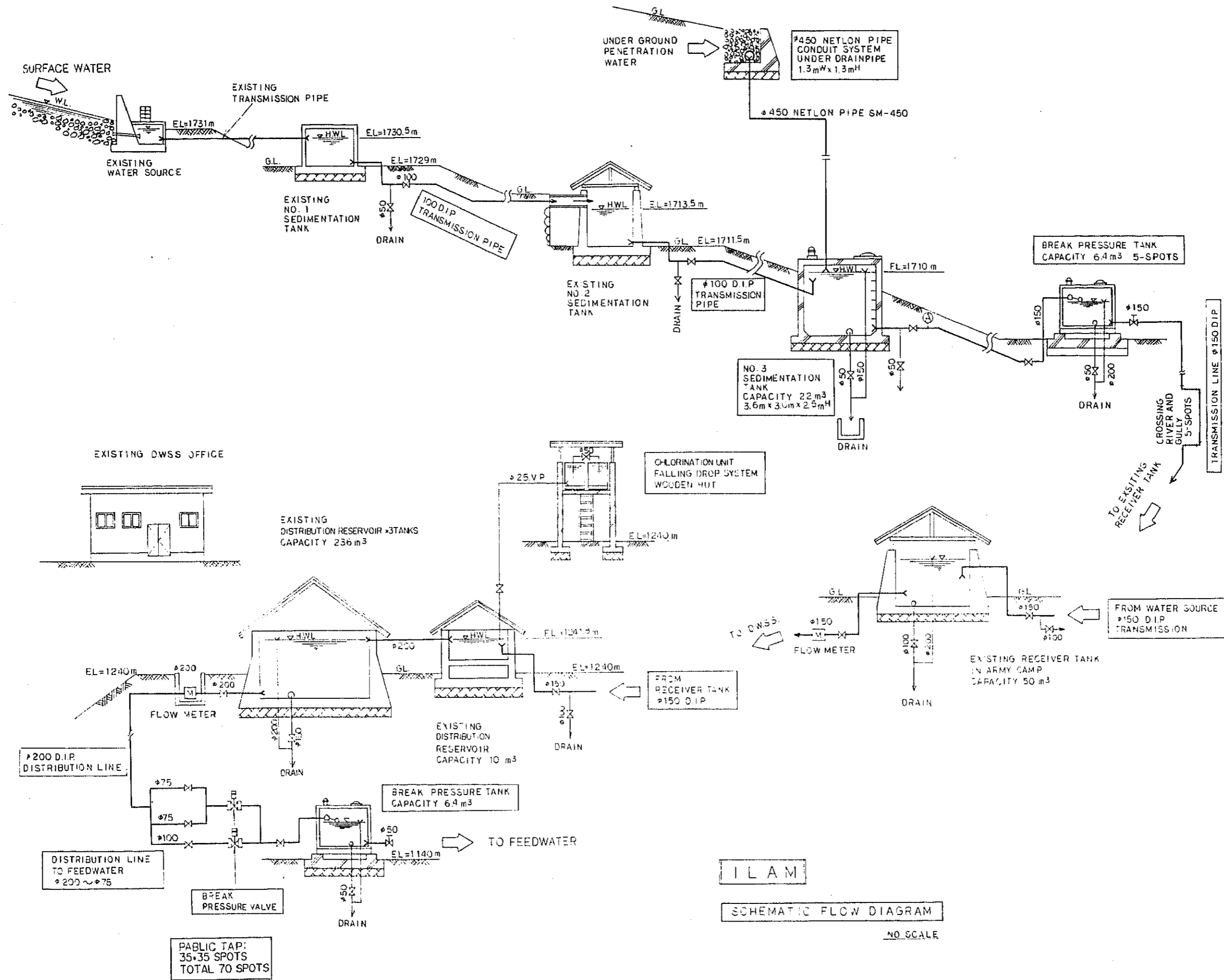
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<p>THE KINGDOM OF NEPAL</p> <p>WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS</p> <p>RAJBIRAJ:</p> <p>SCHMATIC FLOW DIAGRAM</p>																			
SUBMITTED	APPROVED	SCALE	REV. NO.																
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DATE	DWG. NO. D-6																		
<p>JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)</p>																			



BHADRAPUR
SCHEMATIC FLOW DIAGRAM

NO SCALE

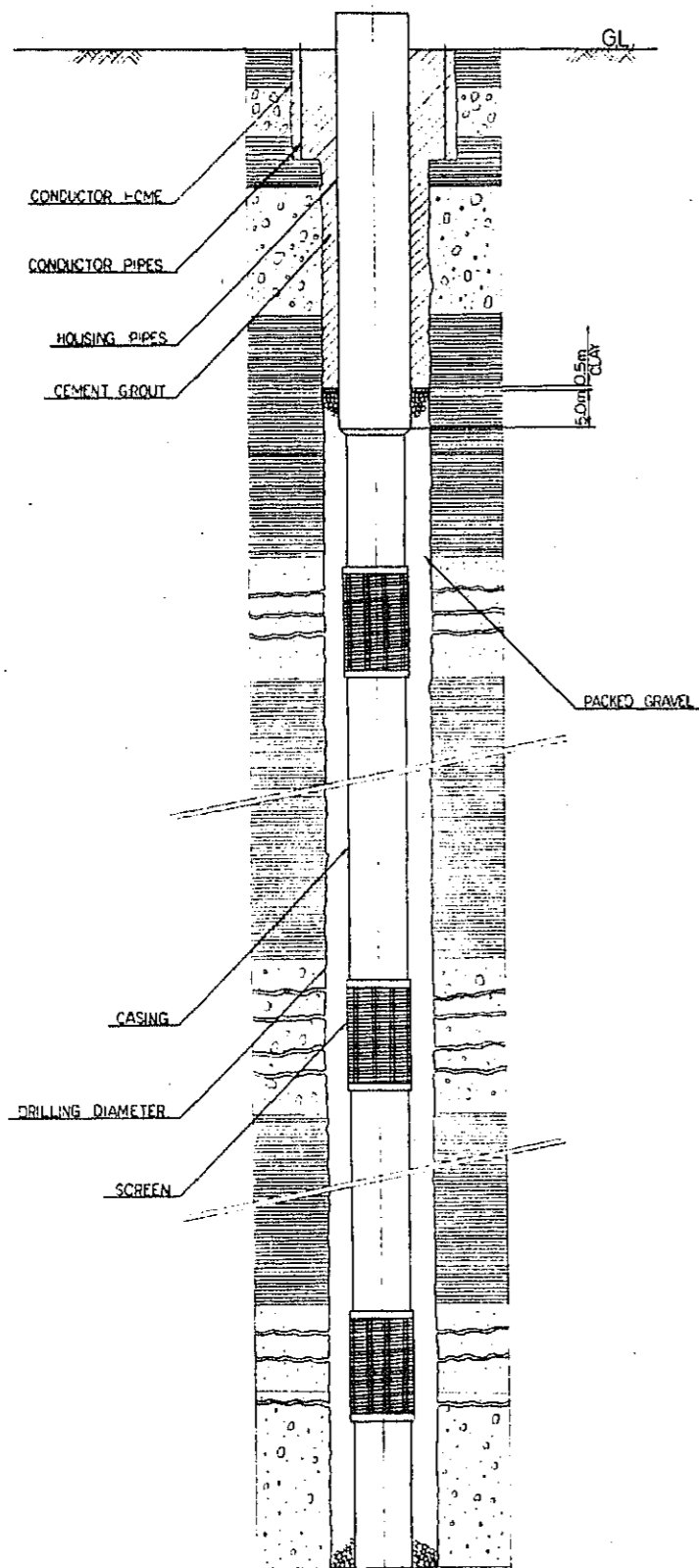
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REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
BHADRAPUR : SCHEMATIC FLOW DIAGRAM				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		NO SCALE		
DATE	DWG. NO. D-7			
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				



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REFERENCE DRAWINGS				
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NO.	DATE	DESCRIPTIONS	BY	APP'D
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
ILAM:				
SCHEMATIC FLOW DIAGRAM				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		NO SCALE		
DATE		DWG. NO. D-9		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				

LIST

CITY NAME	DRILLING DIAMETER (mm)	HOUSING PIPES DIAMETER AND LENGTH (mm,m)	CASING PIPES DIAMETER AND LENGTH (mm,m)	FINISH DEPTH (TOTAL DEPTH) (m)	STRAINED TOTAL LENGTH (m)	PROPOSED WELL QUANTITY	CONDUCTOR PIPES DIAMETER (mm)	PACKED GRAVEL DIAMETER (mm)
MAHENDRANAGAR	450	φ 300 mm 45 m	φ 250 mm 55 m	100	30	2 (1)	700	4 ~ 6
CHANGADHI	450	φ 300 45	φ 250 105	150	36	1 (1)	700	4 ~ 6
BHARATPUR	450	φ 300 54	φ 250 96	150	42	4 (2)	700	4 ~ 6
GAUSHALA	450	φ 300 87	φ 250 63	150	36	2 (1)	700	4 ~ 6
LAHAN	450	φ 300 54	φ 250 96	150	36	3 (1)	700	4 ~ 6
RAJBIRAJ	450	φ 300 45	φ 250 105	150	36	4 (2)	700	4 ~ 6
BHADRAPUR	450	φ 300 72	φ 250 78	150	36	2 (1)	700	4 ~ 6
CHANDRAGADHI	450	φ 300 72	φ 250 78	150	36	1 (1)	700	4 ~ 6



WELL CONSTRUCTION GENERAL SPECIFICATION

NO SCALE

DESCRIPTIONS DWG. NO.

REFERENCE DRAWINGS

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NO. DATE DESCRIPTIONS BY IAPPC

REVISIONS

THE KINGDOM OF NEPAL

WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS

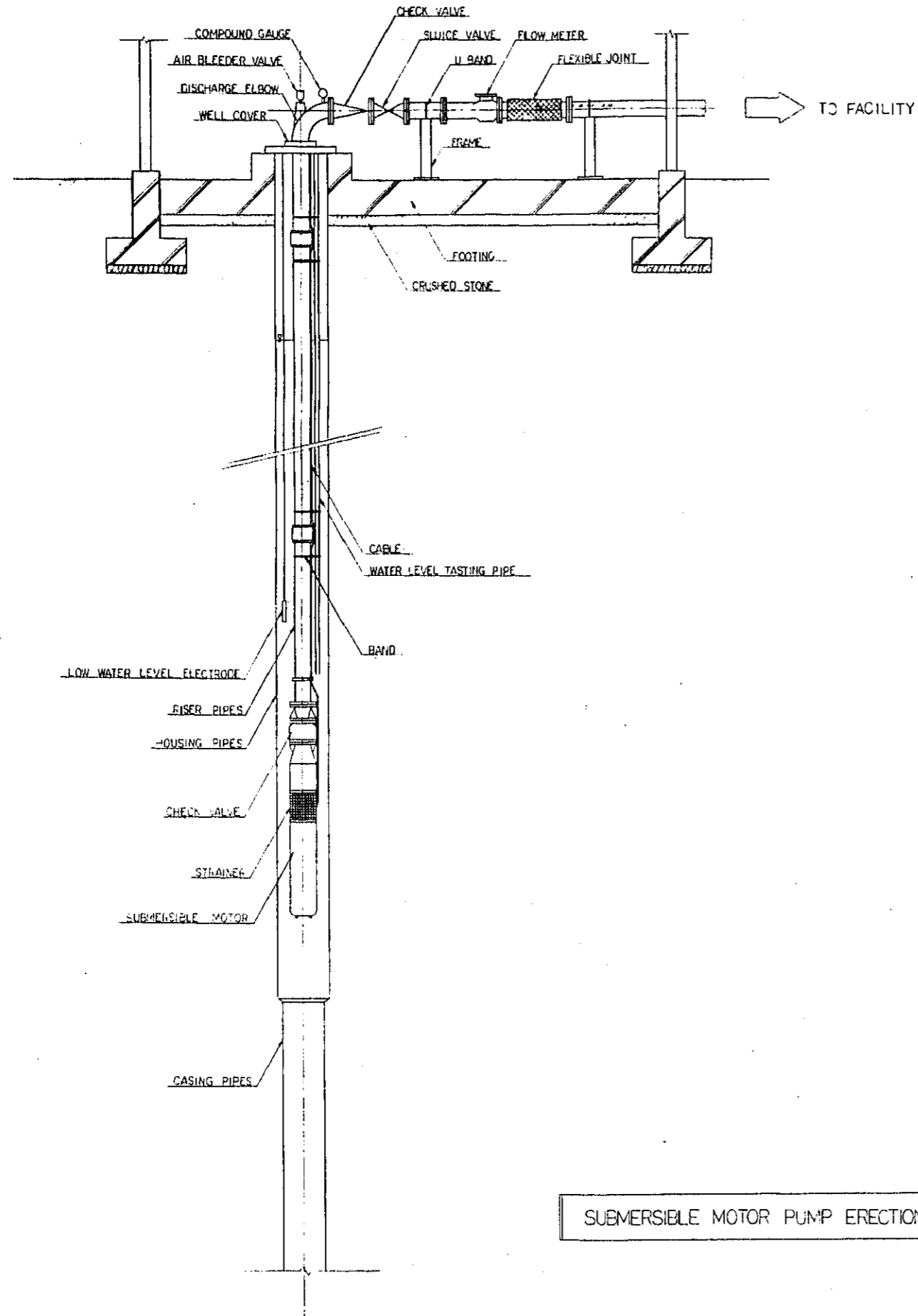
GENERAL SPECIFICATION OF PROJECT WELLS

SUBMITTED APPROVED SCALE REV. NO.

NO SCALE

DATE DWG. NO. E-1

JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)



(1) SUBMERSIBLE MOTOR PUMP LIST

CITY NAME	DIAMETER (mm)	DISCHARGE RATE (L/min)	TOTAL HEAD (m)	OUTPUT (kw)	REMARKS
MAHENDRANAGAR	100	900	56	18.5	2 SET (1)
CHANGADHI	100	1200	65	22	1 SET (1)
BHARATPUR	100	1200	65	22	4 SET (2)
GAUSHALA	100	900	114	37	2 SET (1)
LAHAN	100	900	74	22	3 SET (1)
RAJBIRAJ	100	900	74	22	4 SET (2)
BHADRAPUR CHANDRAGADHI	100	900	98	30	3 SET (2)

(2) RISER PIPES

CITY NAME	DIAMETER (mm)	LENGTH (m)	QUANTITY	TOTAL LENGTH (m)	REMARKS
MAHENDRANAGAR	125	2.75	11	30.25	S.G.P.W.
CHANGADHI	125	2.75	13	35.75	
BHARATPUR	125	2.75	17	46.75	
GAUSHALA	125	2.75	30	82.5	
LAHAN	125	2.75	19	52.25	
RAJBIRAJ	125	2.75	15	41.25	
BHADRAPUR CHANDRAGADHI	125	2.75	24	66	S.G.P.W.

(3) LEVEL FLOAT

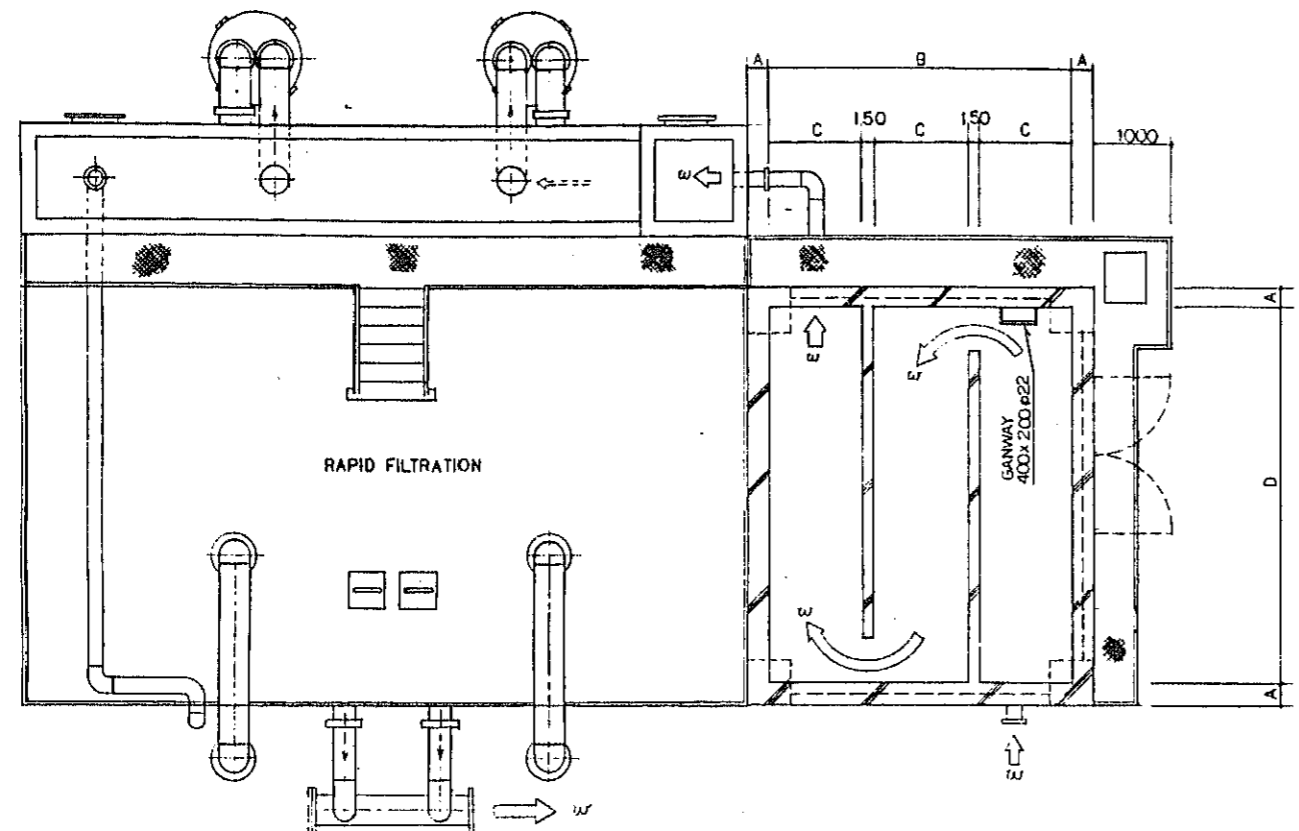
CITY NAME	QUANTITY	DEPTH (m)	STANDARD	REMARKS
MAHENDRANAGAR	2 (1)	27	FLOAT LESS	GUARD CHAMBER
CHANGADHI	1 (1)	32		
BHARATPUR	4 (2)	42		
GAUSHALA	2 (1)	77		
LAHAN	3 (1)	47		
RAJBIRAJ	4 (2)	37		
BHADRAPUR CHANDRAGADHI	3 (2)	62	FLOAT LESS	GUARD CHAMBER

SUBMERSIBLE MOTOR PUMP ERECTION DRAWING

DESCRIPTIONS	DWG. NO.
REFERENCE DRAWINGS	
◇	
◇	
◇	
◇	
NO. / DATE	DESCRIPTIONS BY / APPD.
REVISIONS	
THE KINGDOM OF NEPAL	
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS	
SUBMERSIBLE MOTOR PUMP LIST	
SUBMITTED	APPROVED
SCALE	REV. NO.
NO SCALE	
DATE	DWG. NO. E-2
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)	

PLAN

NO SCALE



ITEMS

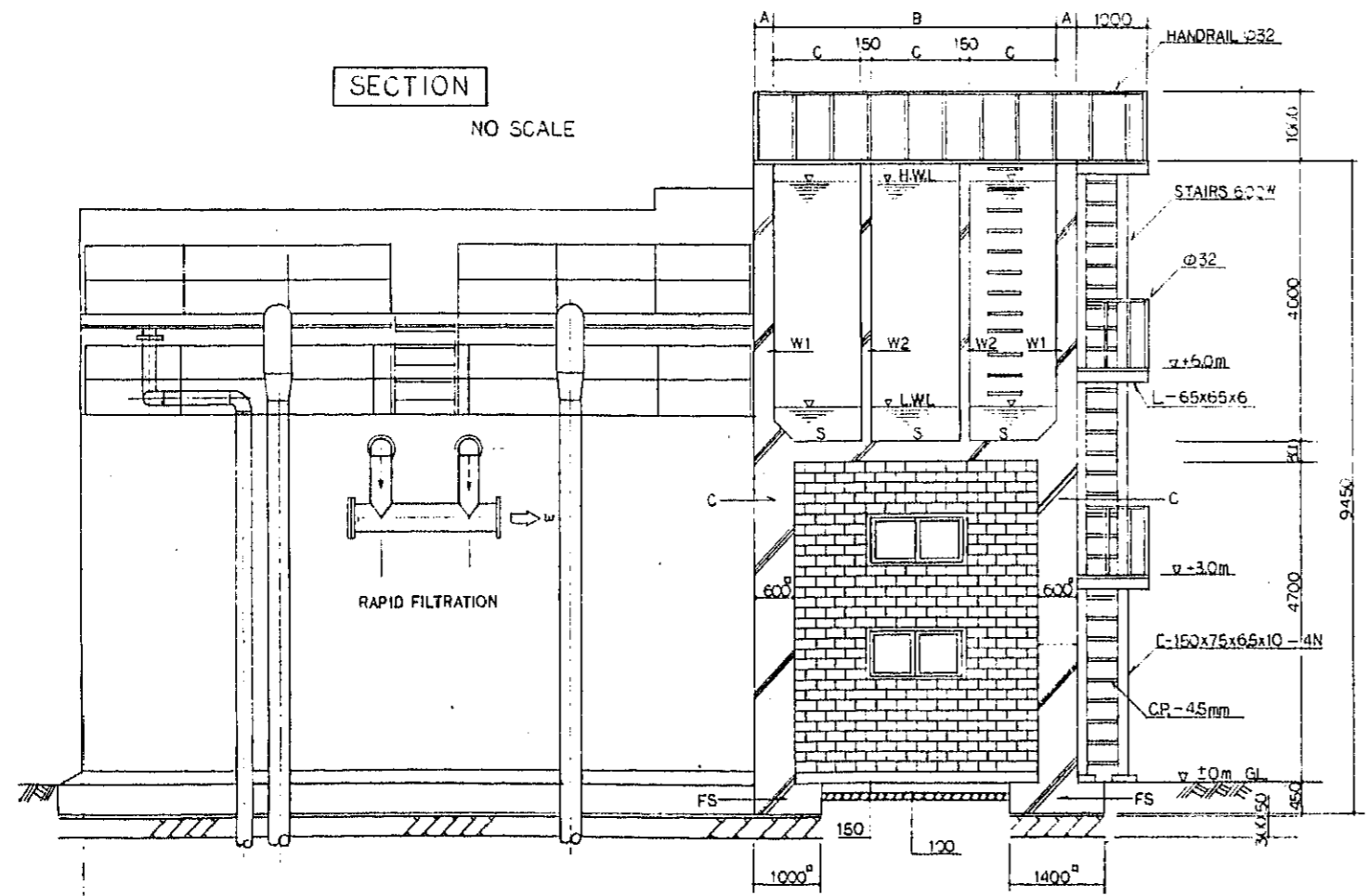
SEDIMENTATION TANK TYPE	CAPACITY m ³	PLANNING SITE	A	B	C	D
A	38	MAHENDRANAGAR BHADRAPUR CHANDRAGADHI	250	3 600	1 100	2 800
B	57	LHAN	250	4 200	1 300	3 600
C	76	RAJIBIRAJ	300	4 200	1 300	4 800

BAR ARRANGMENT LIST

SEDIMENTATION TANK TYPE	W1	W2	S	FS	C
A	V: D16@200 D H: D13@200 D	D16@200	X: D16@200 D Y: D16@150 D	TOP: D16@150 UND: D22@200	M: D 22-B STP: D13@300
B					
C	V: D16@200 D H: D16@200 D		X: D16@150 D Y: D16@150 D	TOP: D16@150 UND: D22@150	M: D 22-12 STP: D13@300

SECTION

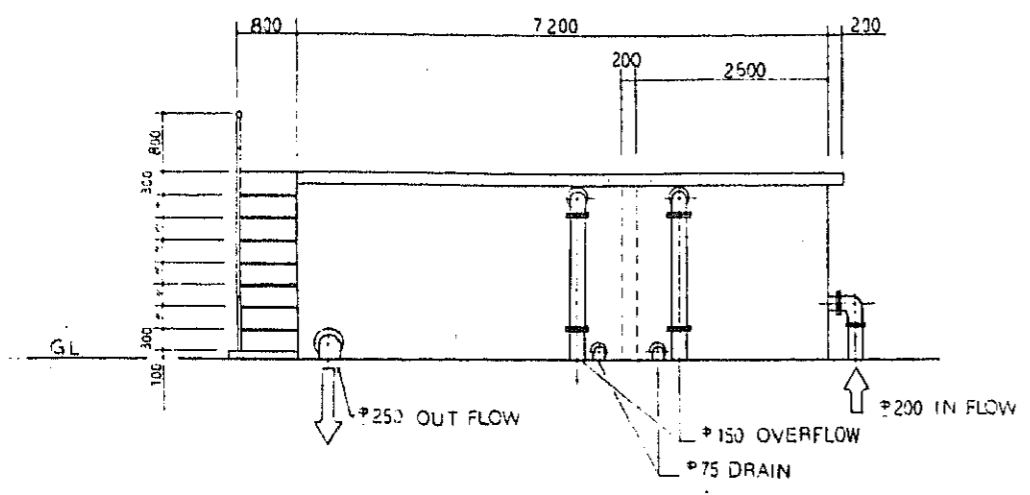
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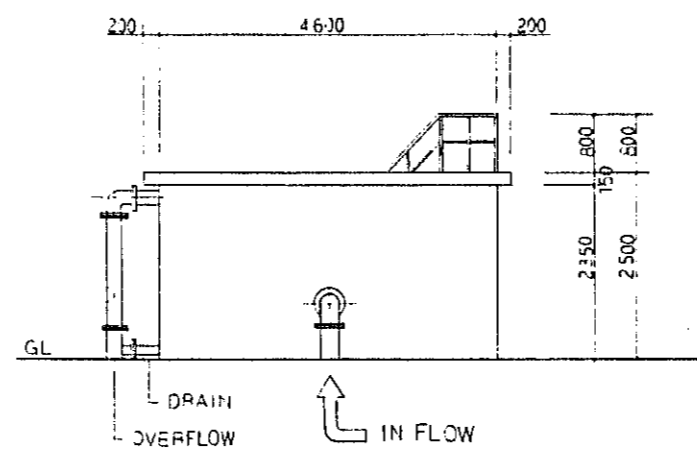
DETAILS OF SEDIMENTATION TANK

DESCRIPTIONS	DWG. NO.			
REFERENCE DRAWINGS				
○ 1				
○ 2				
○ 3				
○ 4				
NO.	DATE	DESCRIPTIONS	BY	APPD.
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
DETAILS OF SEDIMENTATION TANK				
38m ³ , 57m ³ AND 76m ³				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		NO SCALE		
DATE		DWG. NO. F-1		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				

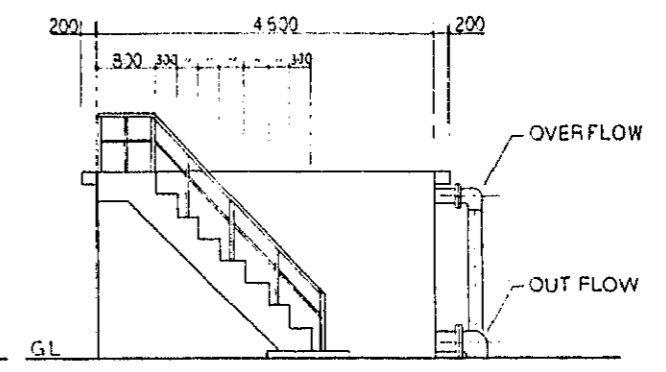
GENERAL NOTES



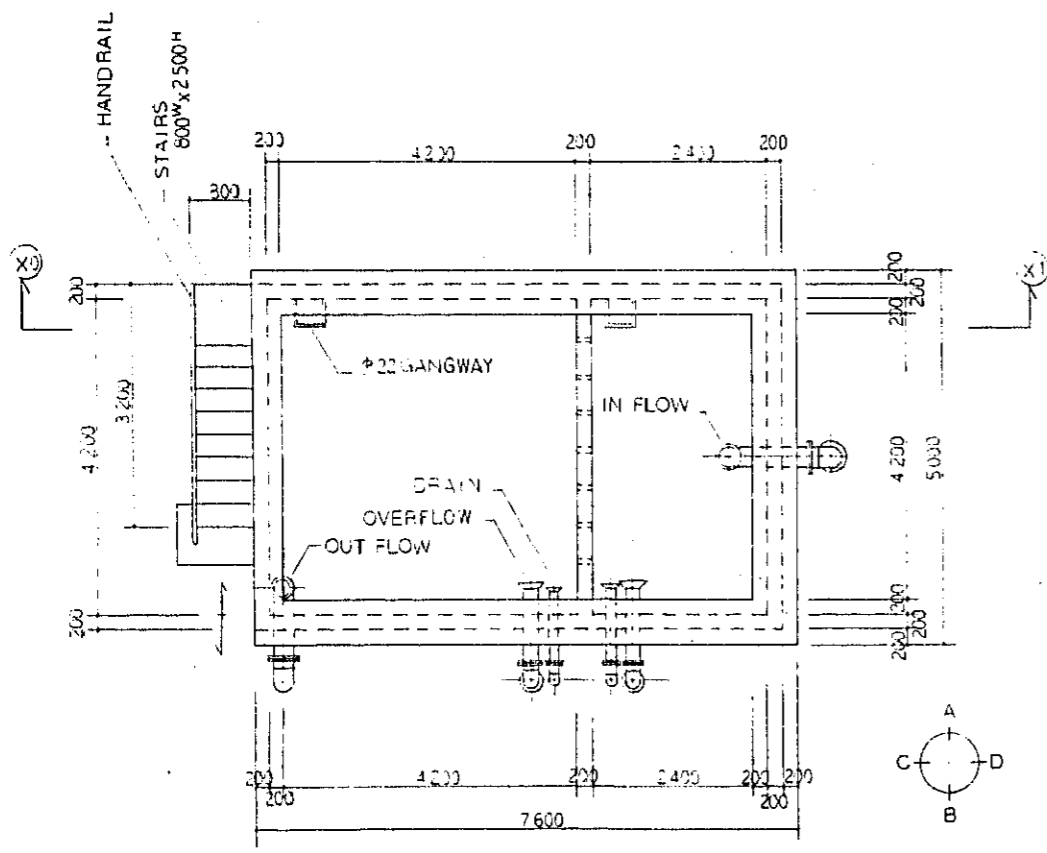
ELEVATION-B $S=1/50$



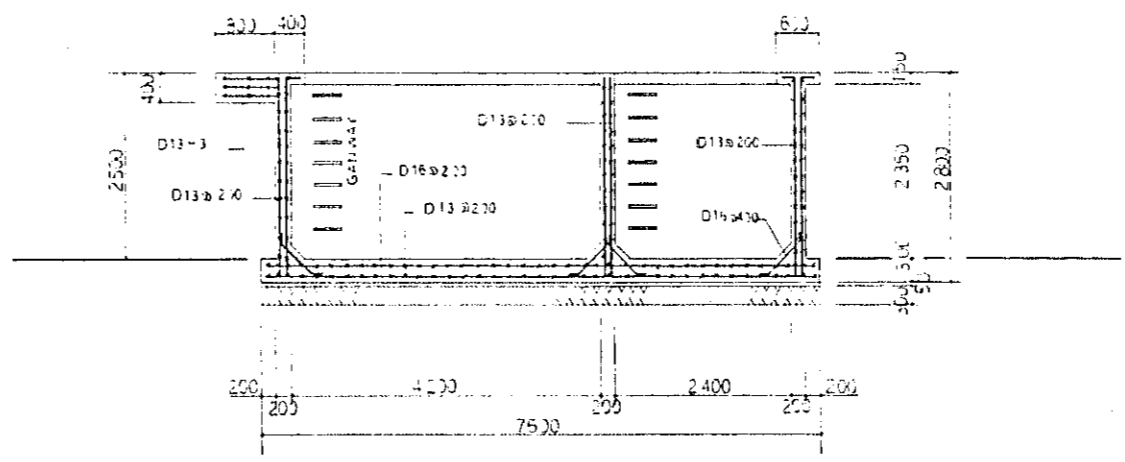
ELEVATION-D $S=1/50$



ELEVATION-C $S=1/50$

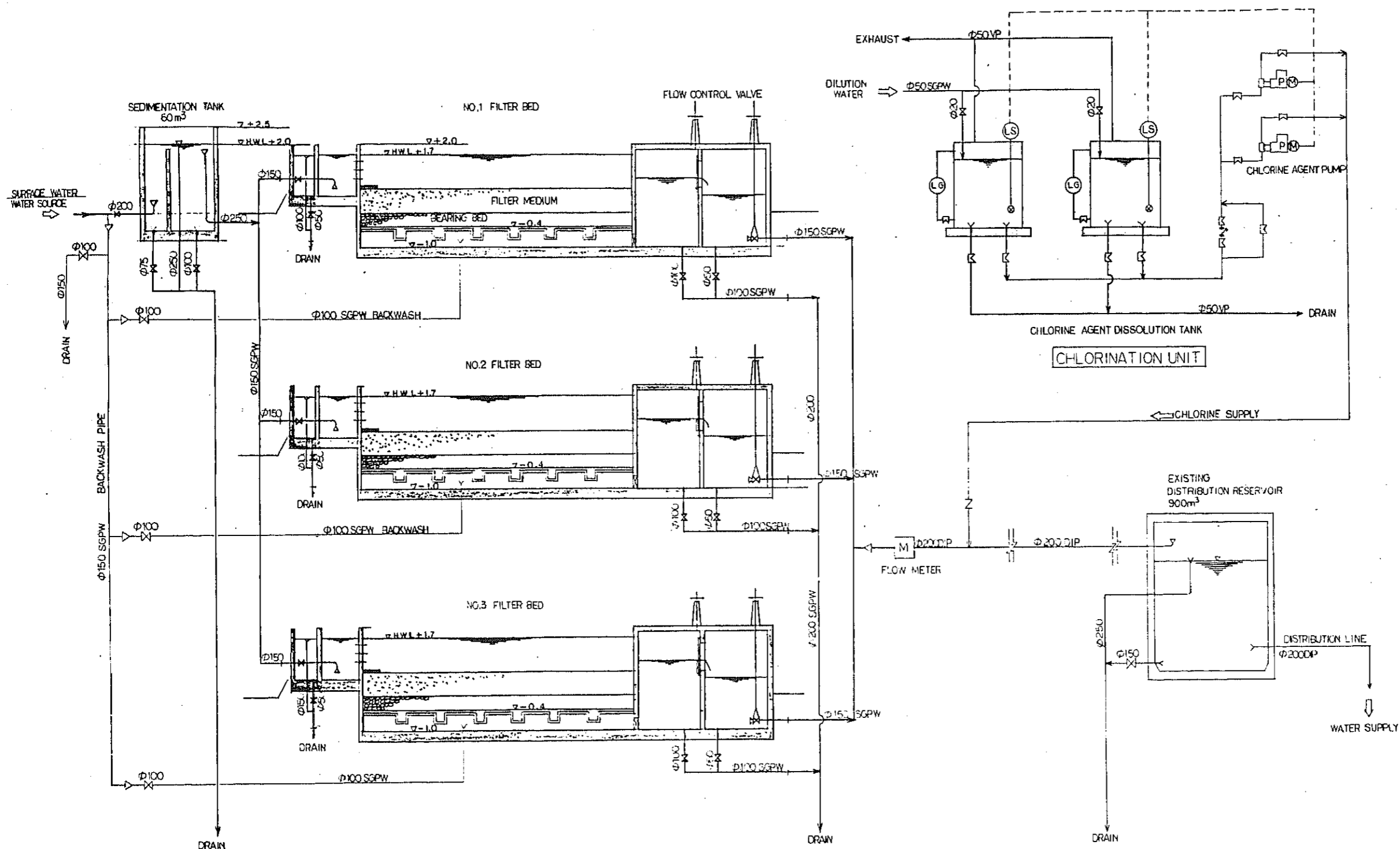


PLAN $S=1/50$



SECTION X0-X1 $S=1/50$

NO.	DATE	DESCRIPTIONS	BY	APP'D
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
DETAILS OF SEDIMENTATION TANK 60 M ³				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		1/50		
DATE	DWG. NO. F-2			
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				



SLOW SAND FILTRATION FLOW DIAGRAM

NO SCALE

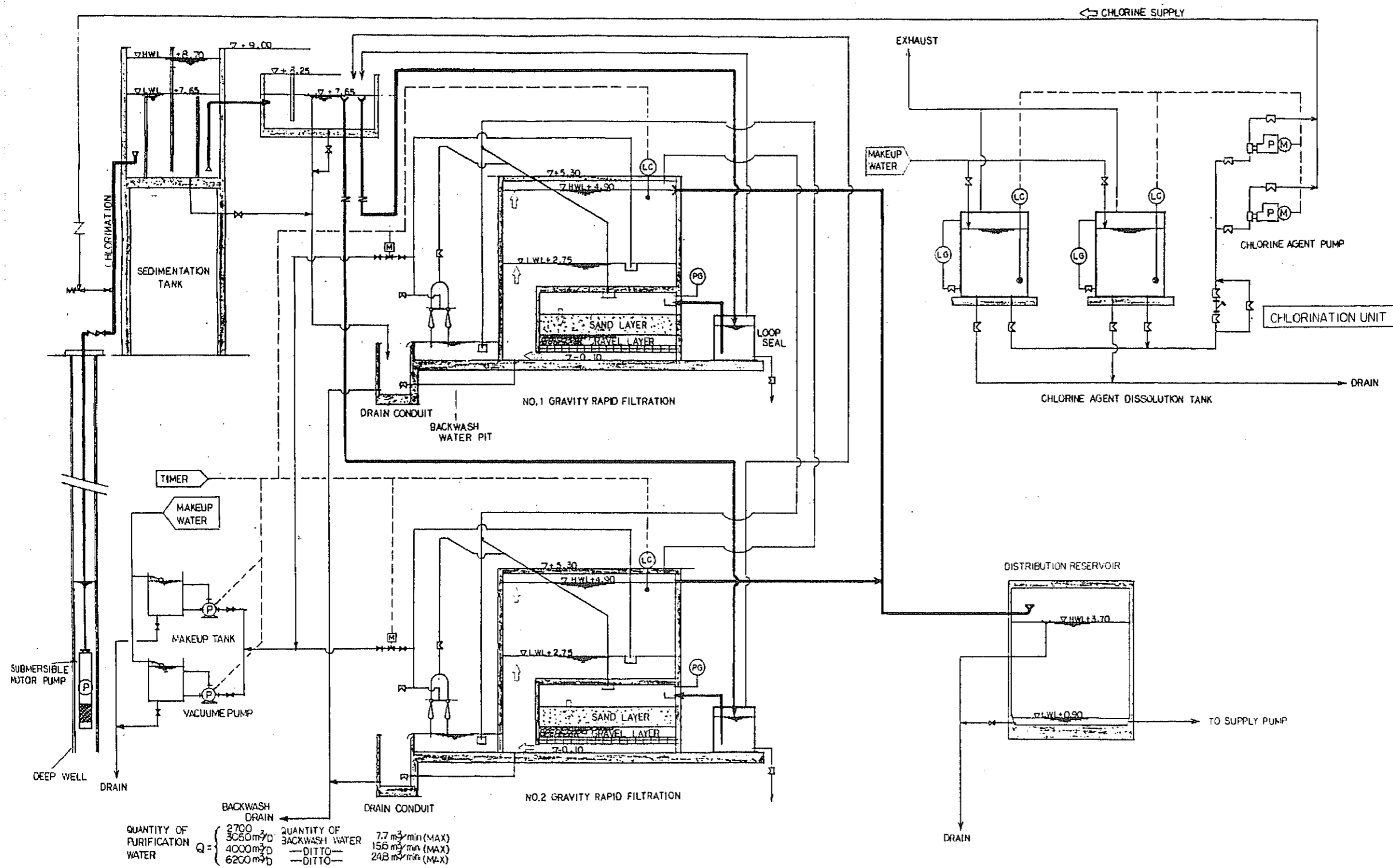
CAPACITY : 2000 ~ 2400 m³/day
 SYSTEM : SLOW SPEED
 GRAVITY FILTRATION
 TYPE : 3 FILTER BED TYPE

NO.	DATE	DESCRIPTIONS	BY	APP'D

THE KINGDOM OF NEPAL
 WATER SUPPLIES TO URBAN &
 SEMI-URBAN CENTERS

SLOW SAND FILTRATION
 FLOW DIAGRAM
 2000 ~ 2400 m³/d

SUBMITTED	APPROVED	SCALE	REV. NO.
		NO SCALE	
DATE		DWG. NO. G-1	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



QUANTITY OF PURIFICATION WATER	QUANTITY OF BACKWASH WATER	MAXIMUM FLOW RATE
2700 m ³ /D	7.7 m ³ /min (MAX)	7.7 m ³ /min (MAX)
3050 m ³ /D	DITTO	156 m ³ /min (MAX)
4000 m ³ /D	DITTO	248 m ³ /min (MAX)
6200 m ³ /D	DITTO	

RAPID FILTRATION FLOW DIAGRAM

NO SCALE

NO.	DATE	DESCRIPTIONS	BY	APP'D

DESCRIPTIONS	DWG. NO.
REFERENCE DRAWINGS	

NO.	DATE	DESCRIPTIONS	BY	APP'D

THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
RAPID FILTRATION FLOW DIAGRAM			

SUBMITTED	APPROVED	SCALE	REV. NO.
		NO SCALE	

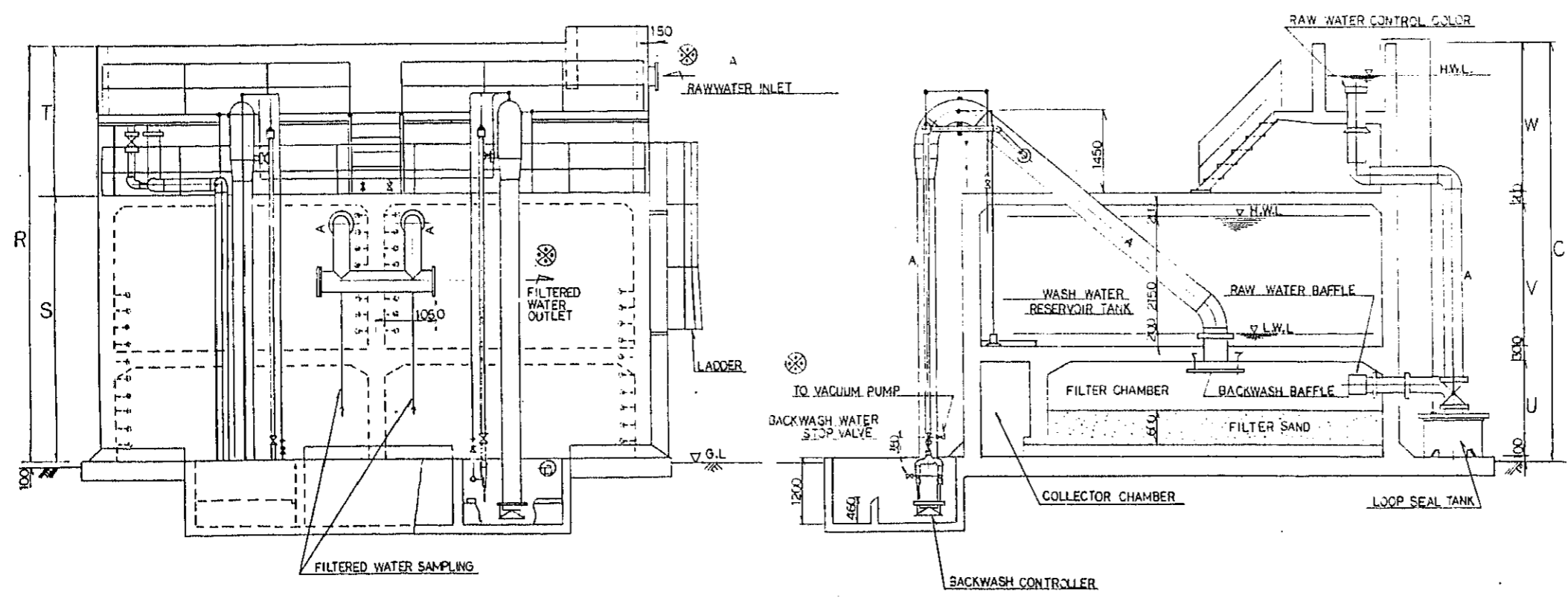
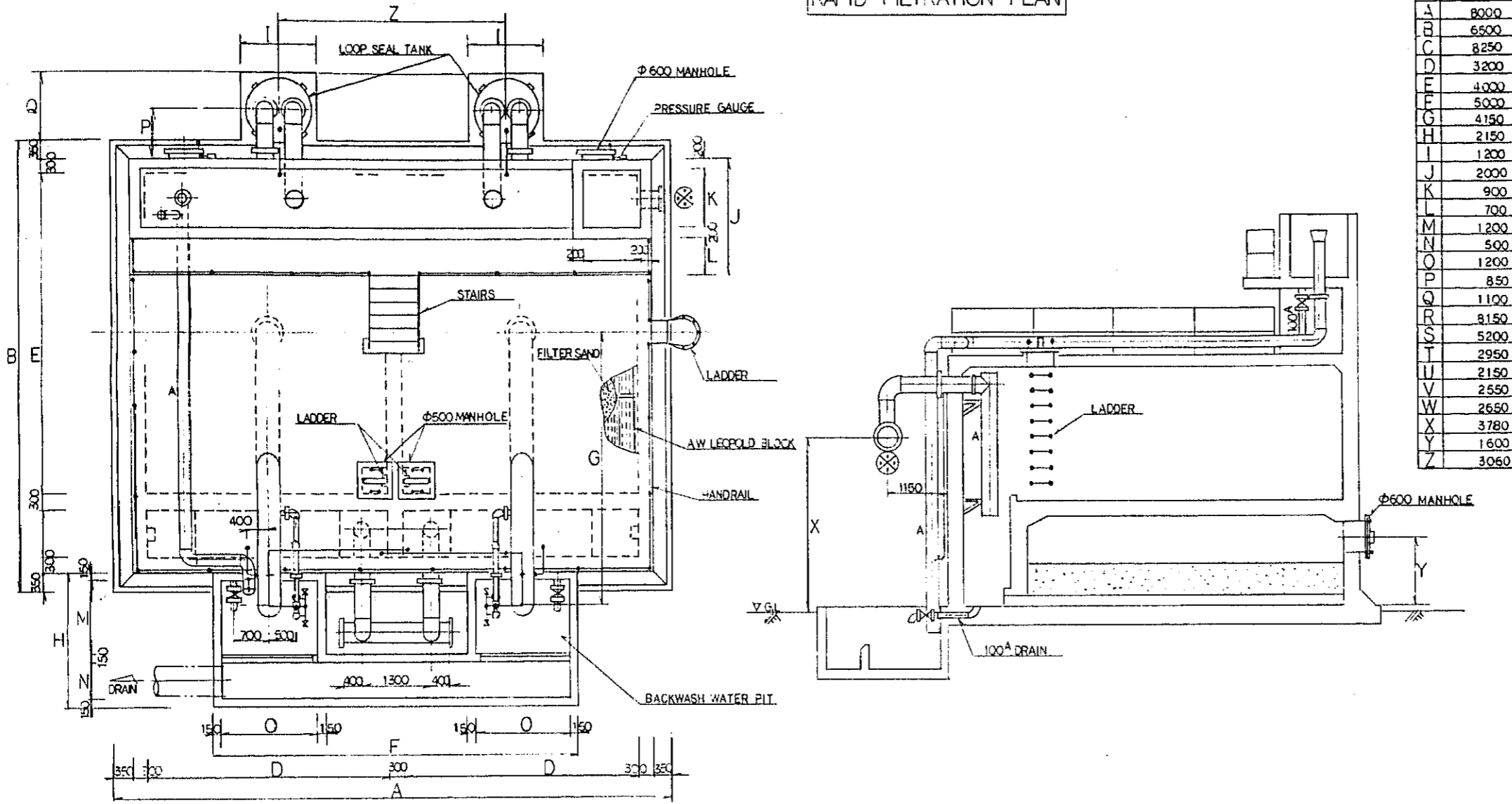
DATE	DWG. NO. G-3
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)	

RAPID FILTRATION PLAN

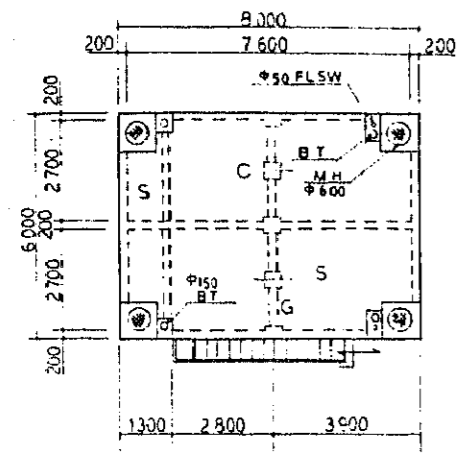
	2700 m ³ /D 3050 m ³ /D	4000 m ³ /D	6200 m ³ /D
A	8000	8800	10600
B	6500	7300	8500
C	8250	8250	8250
D	3200	3600	4800
E	4000	4800	6000
F	5000	5700	6900
G	4150	4550	5150
H	2150	2250	2550
I	1200	1400	1400
J	2000	2000	2200
K	900	900	1100
L	700	700	700
M	1200	1200	1400
N	500	600	700
O	1200	1500	1800
P	850	850	950
Q	1100	1100	1300
R	8150	8150	8150
S	5200	5200	5200
T	2950	2950	2950
U	2150	2150	2150
V	2550	2550	2550
W	2650	2650	2650
X	3780	3780	3780
Y	1600	1600	1600
Z	3060	3460	4300

GENERAL NOTES

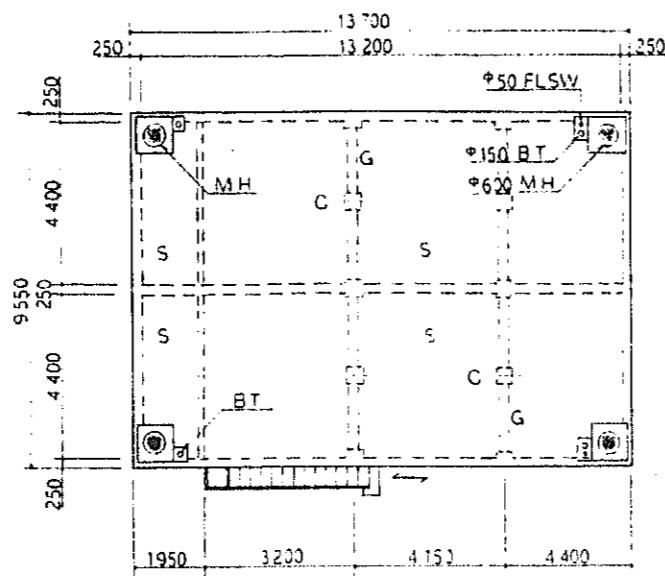
2700 m³/D:
 MAHENDRANAGAR
 3050 m³/D:
 BHADRAPUR
 CHANDRAGADHI
 4000 m³/D:
 LAHAN
 6200 m³/D:
 RAJBIRAJ



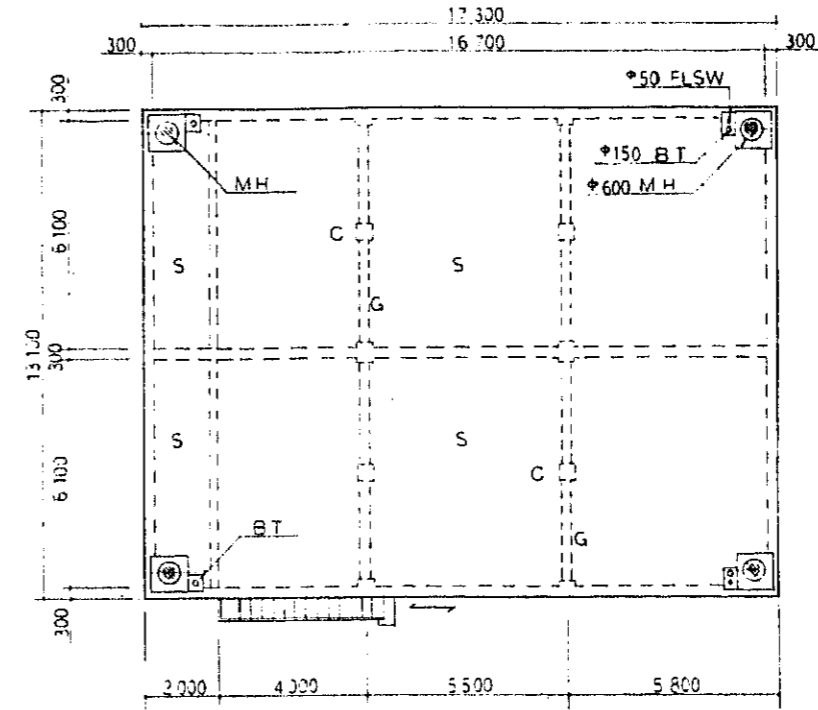
DESCRIPTIONS	DWG. NO.
REFERENCE DRAWINGS	
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NO. DATE	DESCRIPTIONS BY IAP/C
REVISIONS	
THE KINGDOM OF NEPAL	
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS	
RAPID FILTRATION PLAN	
2700 m ³ /D, 4000 m ³ /D, 6200 m ³ /D	
SUBMITTED	APPROVED
SCALE	REV. NO.
NO SCALE	
DATE	DWG. NO. G-4
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)	



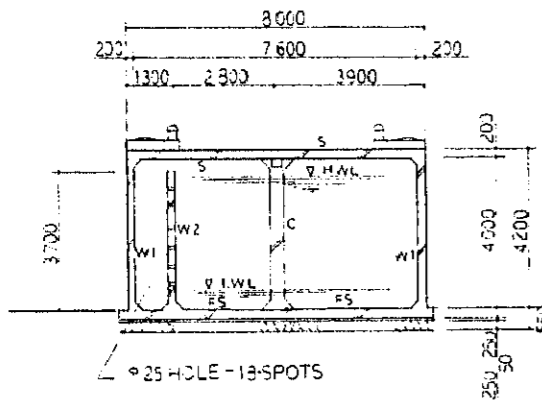
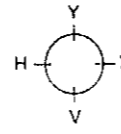
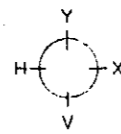
PLAN S = 1/100



PLAN S = 1/100



PLAN S = 1/100

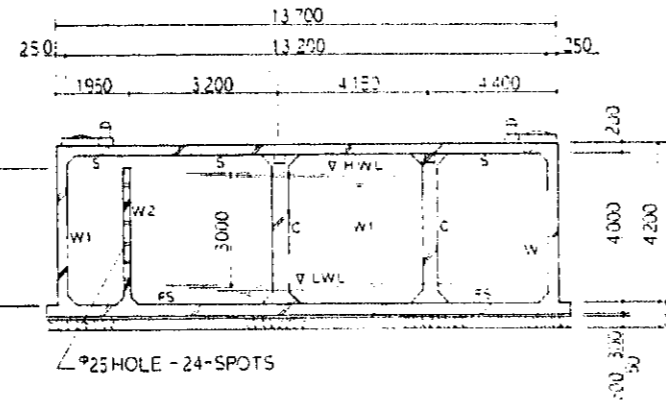


SECTION S = 1/100

TYPE : 100 m³

BAR ARRANGEMENT LIST

MARK	POSITION	THICKNESS	ARRANGEMENT
S	FLOOR	200	X: D13a 200d, Y: D13a 250d
C	COLUMN	400 x 400	V: D13-8, H: D13a 300
G	GIRDER	300 x 300	M: D13-6, STP: D10 300
W1	WALL	200	V: D13a 200d, H: D10a 200d
W2	WALL	200	V: D10a 200d, H: D10a 250d
FS	FOOTING	250	X: D13a 150d, H: D13a 200d

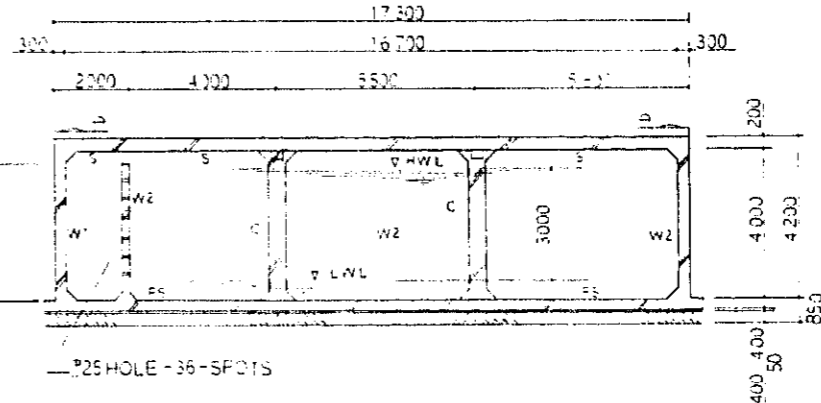


SECTION S = 1/100

TYPE : 300 m³

BAR ARRANGEMENT LIST

MARK	POSITION	THICKNESS	ARRANGEMENT
S	FLOOR	200	X: D13a 150d, Y: D13a 200d
C	COLUMN	450 x 450	V: D16-8, H: D13a 300
G	GIRDER	350 x 350	M: D16-6, STP: D13a 400
W1	WALL	250	V: D13a 150d, H: D13a 200d
W2	WALL	200	V: D13a 200d, H: D10a 200d
FS	FOOTING	300	X: D16a 200d, Y: D13a 200d



SECTION S = 1/100

TYPE : 550 m³

BAR ARRANGEMENT LIST

MARK	POSITION	THICKNESS	ARRANGEMENT
S	FLOOR	200	X: D16a 200d, Y: D13a 150d
C	COLUMN	500 x 500	V: D22-8, H: D13a 400
G	GIRDER	400 x 400	M: D15-6, STP: D13a 400
W1	WALL	300	V: D16a 200d, H: D13a 200d
W2	WALL	250	V: D13a 200d, H: D10a 200d
FS	FOOTING	400	X: D22a 200d, Y: D16a 250d

NO.	DATE	DESCRIPTIONS	BY	APP'D

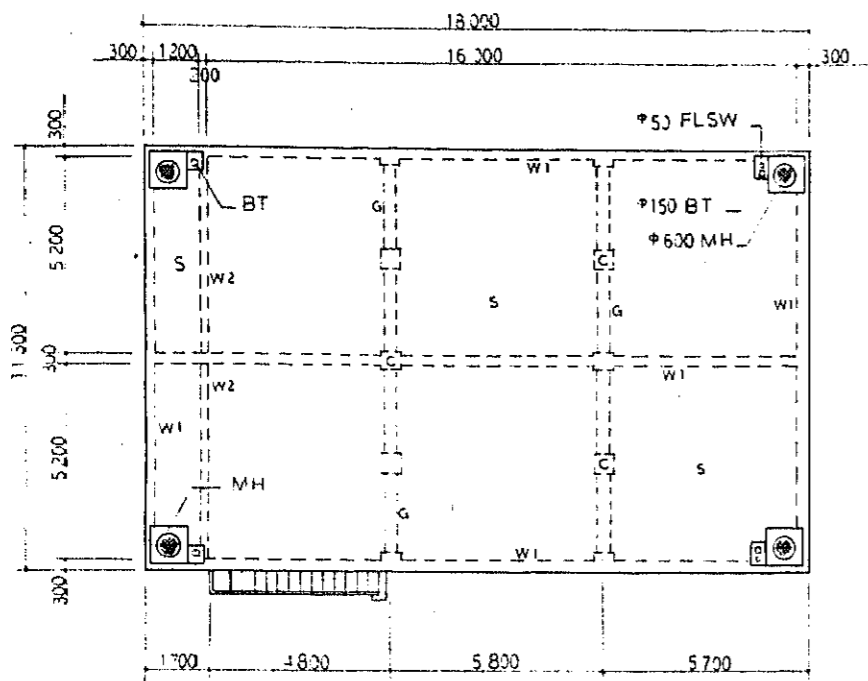
THE KINGDOM OF NEPAL
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS

DISTRIBUTION RESERVOIR
100m³ 300m³ 550m³

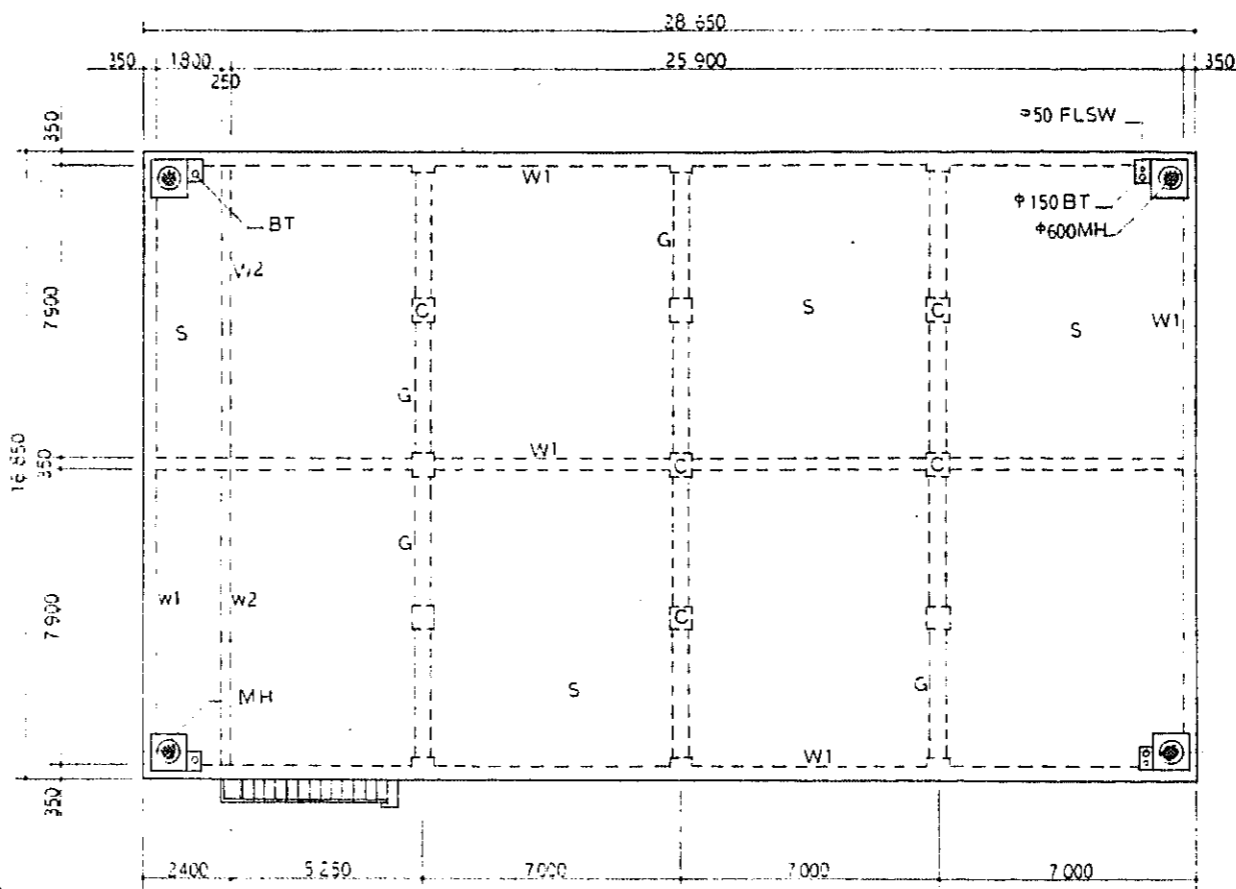
SUBMITTED	APPROVED	SCALE	REV. NO.
		1/100	
DATE	DWG. NO.	H-1	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			

GENERAL NOTES

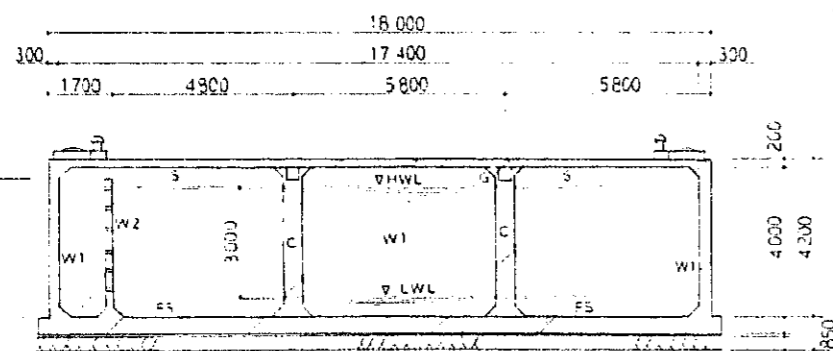
MH : MANHOLE
 BT : BREATHER (AIR)
 FLSW : FLOATLESS SWITCH



PLAN S=1/100

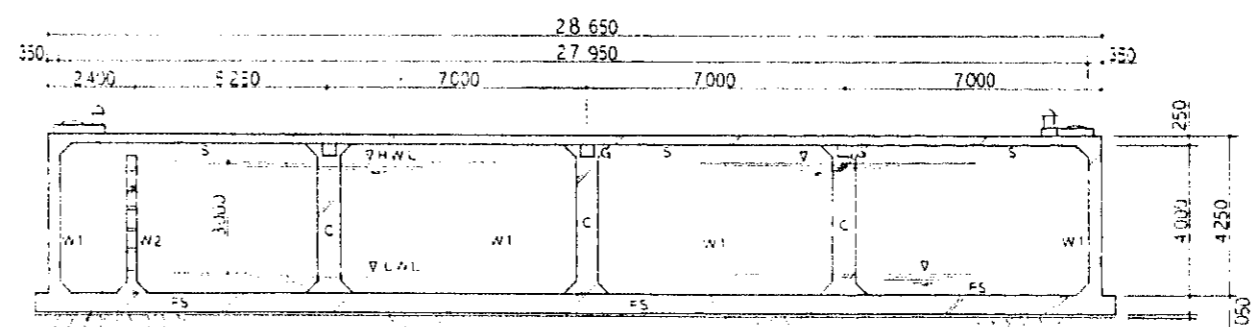


PLAN S=1/100



SECTION S=1/100

∠25HOLE-36-SPOTS



SECTION S=1/100

∠25HOLE-42-SPOTS

TYPE : 500m³

BAR ARRANGEMENT LIST

MARK	POSITION	THICKNESS	ARRANGEMENT
S	FLOOR	200	X: D16@2000, Y: D13@1500
C	COLUMN	500x500	V: D22-8, H: D13@400
G	GIRDER	400x400	M: D16-6, STP: D13@400
W1	WALL	300	V: D16@2000, H: D13@2000
W2	WALL	200	V: D13@2000, H: D10@2000
FS	FOOTING	400	X: D22@2000, Y: D16@2500

TYPE 1200m³

BAR ARRANGEMENT LIST

MARK	POSITION	THICKNESS	ARRANGEMENT
S	FLOOR	250	X: D16@1500, Y: D16@1500
C	COLUMN	600x600	V: D22-12, H: D13@300
G	GIRDER	450x450	M: D22-6, STP: D13@300
W1	WALL	350	V: D16@1500, H: D16@2000
W2	WALL	250	V: D13@1500, H: D13@2000
FS	FOOTING	500	X: D22@1500, Y: D16@1500

NO.	DATE	DESCRIPTIONS	BY	APP.

REVISIONS

THE KINGDOM OF NEPAL

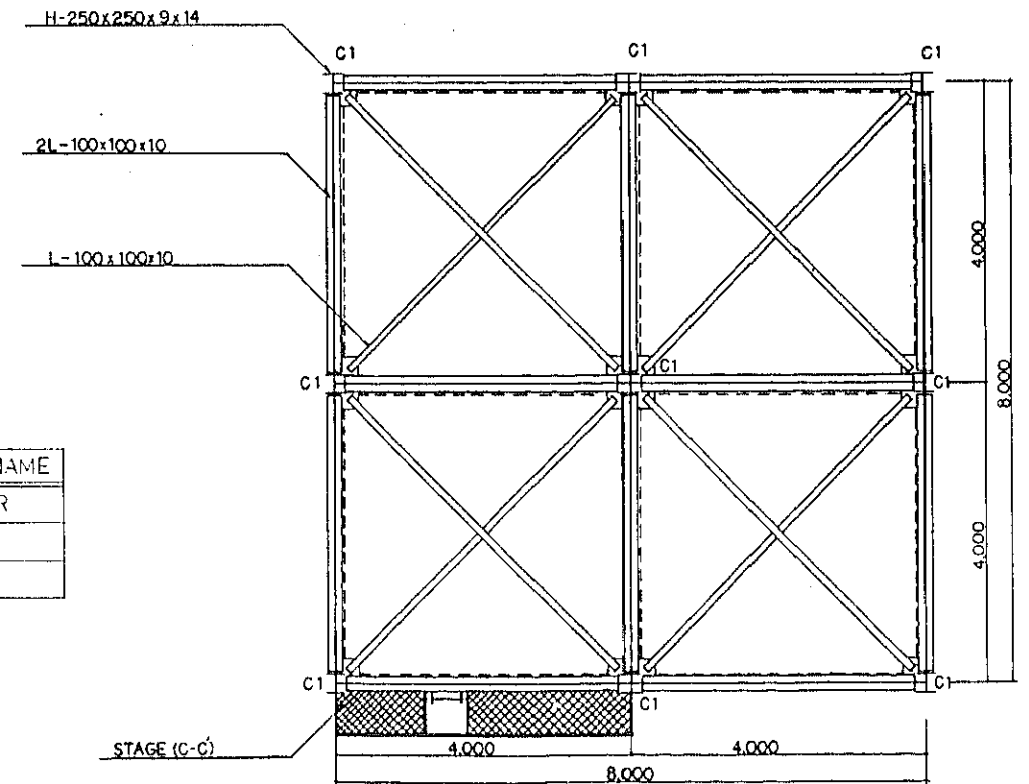
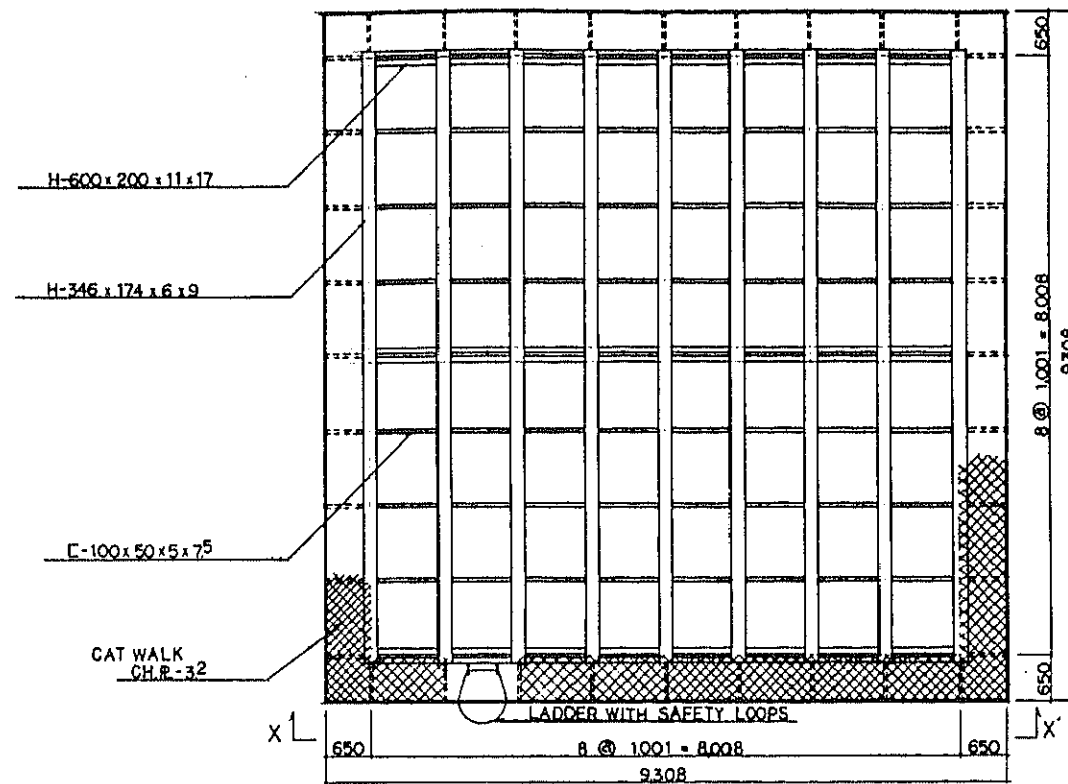
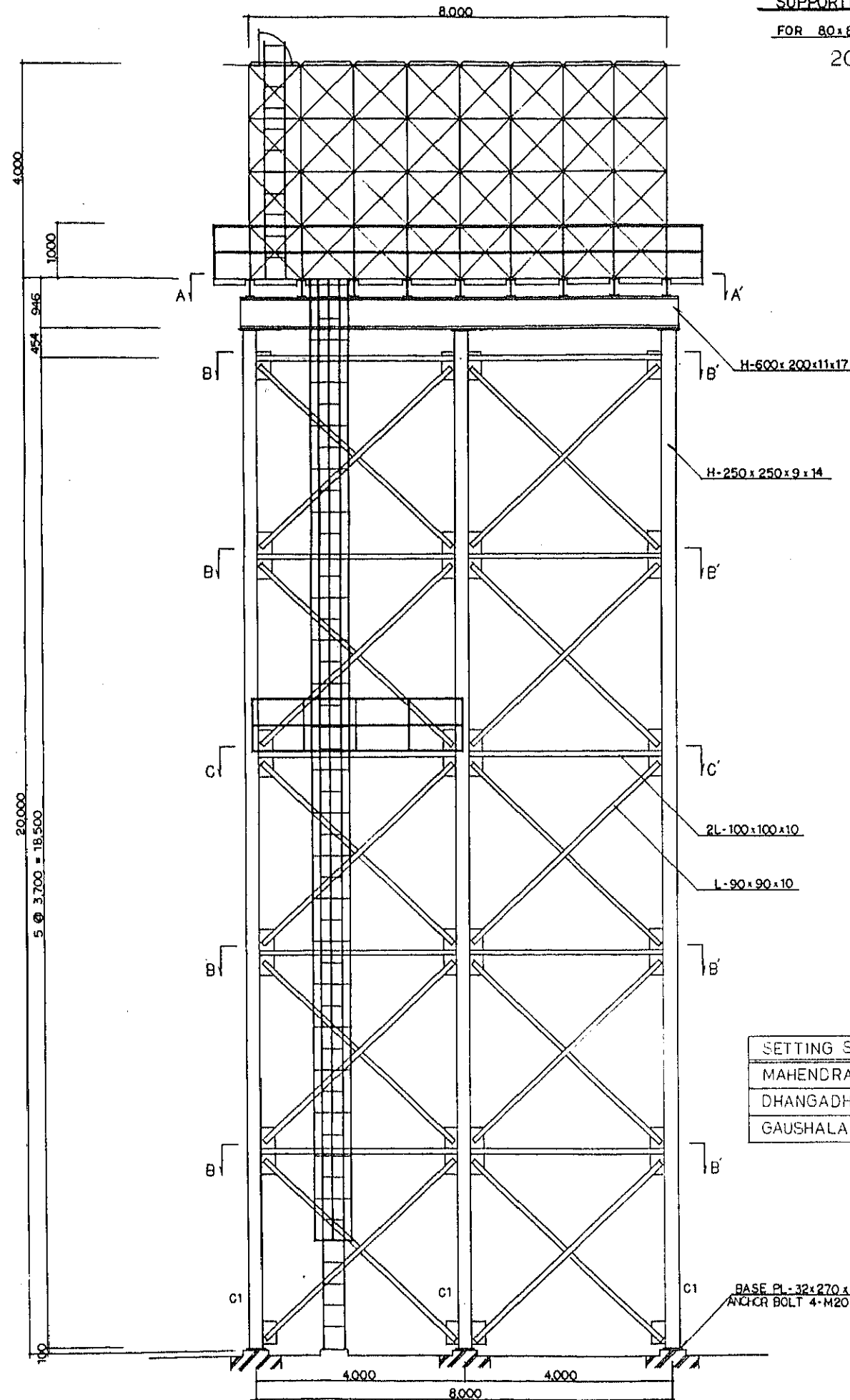
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS

DISTRIBUTION RESERVOIR
 500m³, 1200m³.

SUBMITTED	APPROVED	SCALE	REV. NO.
		1/100	
DATE	DWG. NO. H-2		

JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)

SUPPORTING TOWER
FOR 80x80x40 H=200m
200 m³



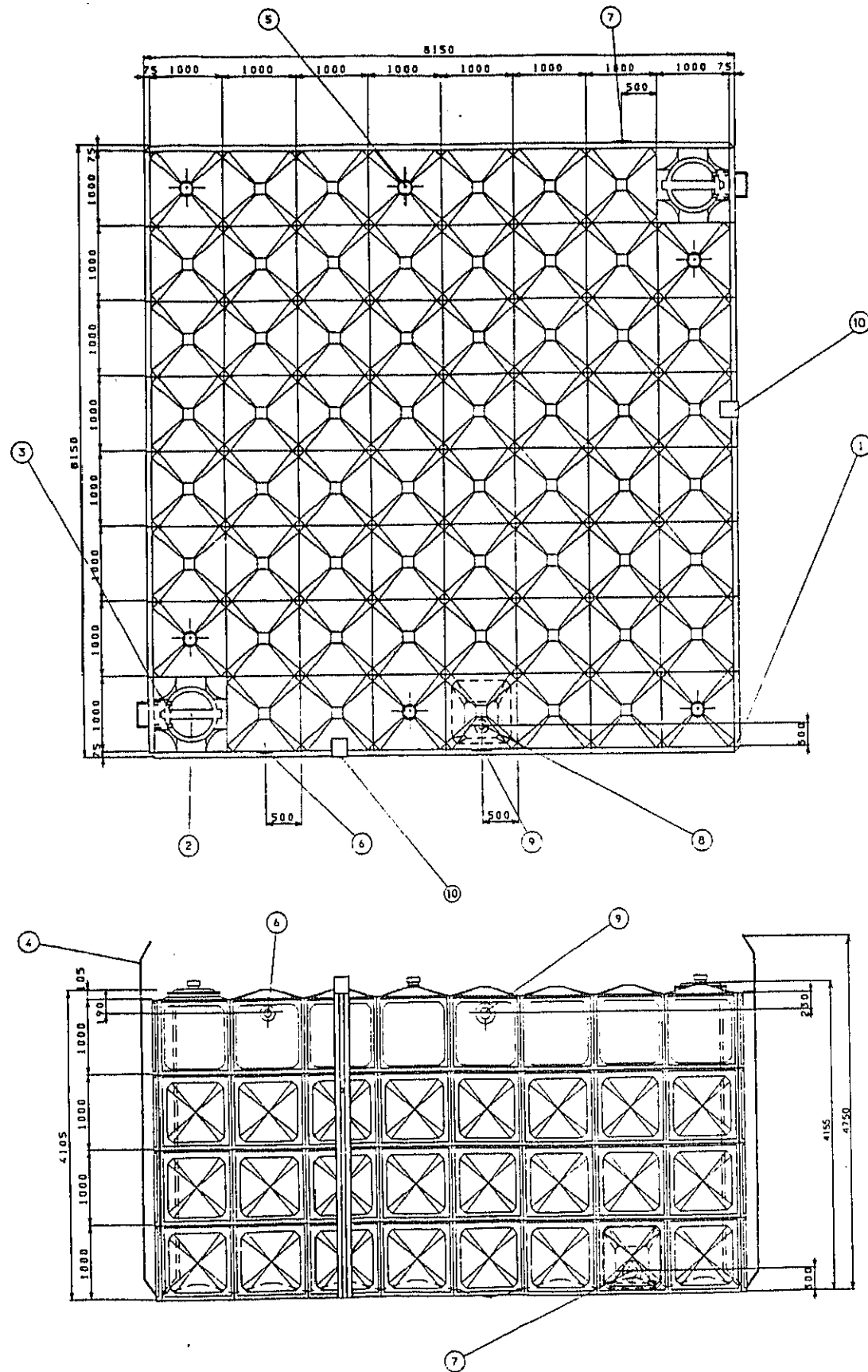
SETTING SITE NAME
MAHENDRANAGAR
DHANGADHI
GAUSHALA

F.R.P. ELEVATED WATER TANK
STANDARD PLAN OF 200 m³

GENERAL NOTES

1. ALL MATERIAL IS JIS G 3101 SS 41
2. CONNECTION DOLT IS JIS G 1186 F 10T
3. CIVIL WORK SHALL NOT BE INCLUDED

DESCRIPTIONS		DWG. NO.	
REFERENCE DRAWINGS			
◇			
◇			
◇			
NO.	DATE	DESCRIPTIONS	BY APP.
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
F.R.P. ELEVATED WATER TANK STANDARD PLAN OF 200 m ³			
SUBMITTED	APPROVED	SCALE	REV. NO.
		1/50	
DATE	DWG. NO. -		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



SETTING SITE NAME
MAHENDRANAGR
DHANGADHI
GAUSHALA

No.	N A M E	M A T E R I A L	Q U A N T I T Y	R E M A R K S
10	WATER LEVEL INDICATOR		1	
9	OVERFLOW (6')	STEEL	1	SCREWED JOIST/IRON PLANGE
8	DRAINAGE (3')	STEEL	1	SCREWED JOIST/IRON PLANGE
7	OUTLET (6')	STEEL	1	SCREWED JOIST/IRON PLANGE
6	INLET (4')	STEEL	1	SCREWED JOIST/IRON PLANGE
5	AIR VENT	P. V. C	6	4' GOUL TYPE
4	EXTERNAL LADDER	S. G. P	2	HOT DIP GALVANIZED
3	INTERNAL LADDER	P. V. C	2	
2	MANHOLE	G. R. P	2	
1	WATER TANK	G. R. P	1	COLOUR GREY

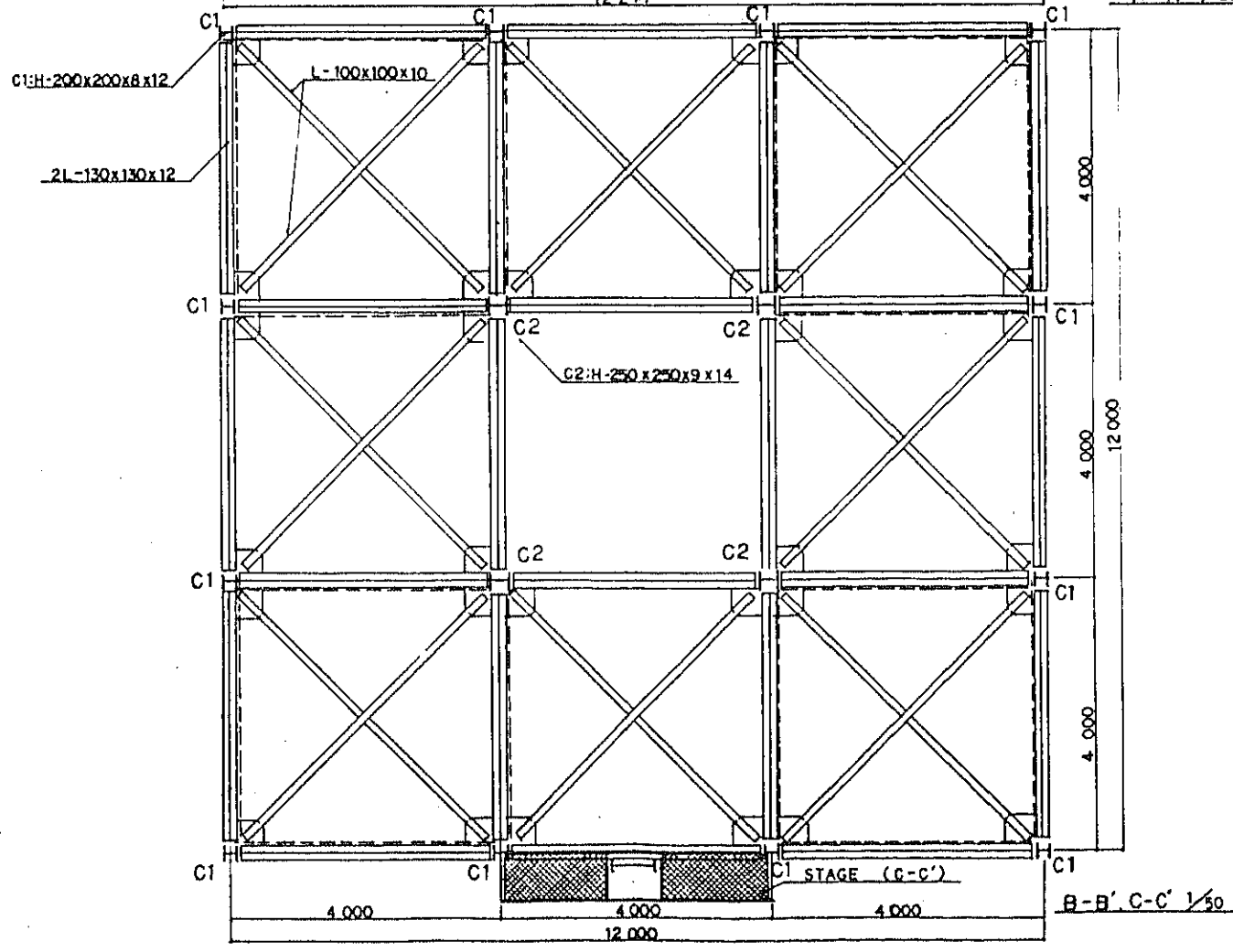
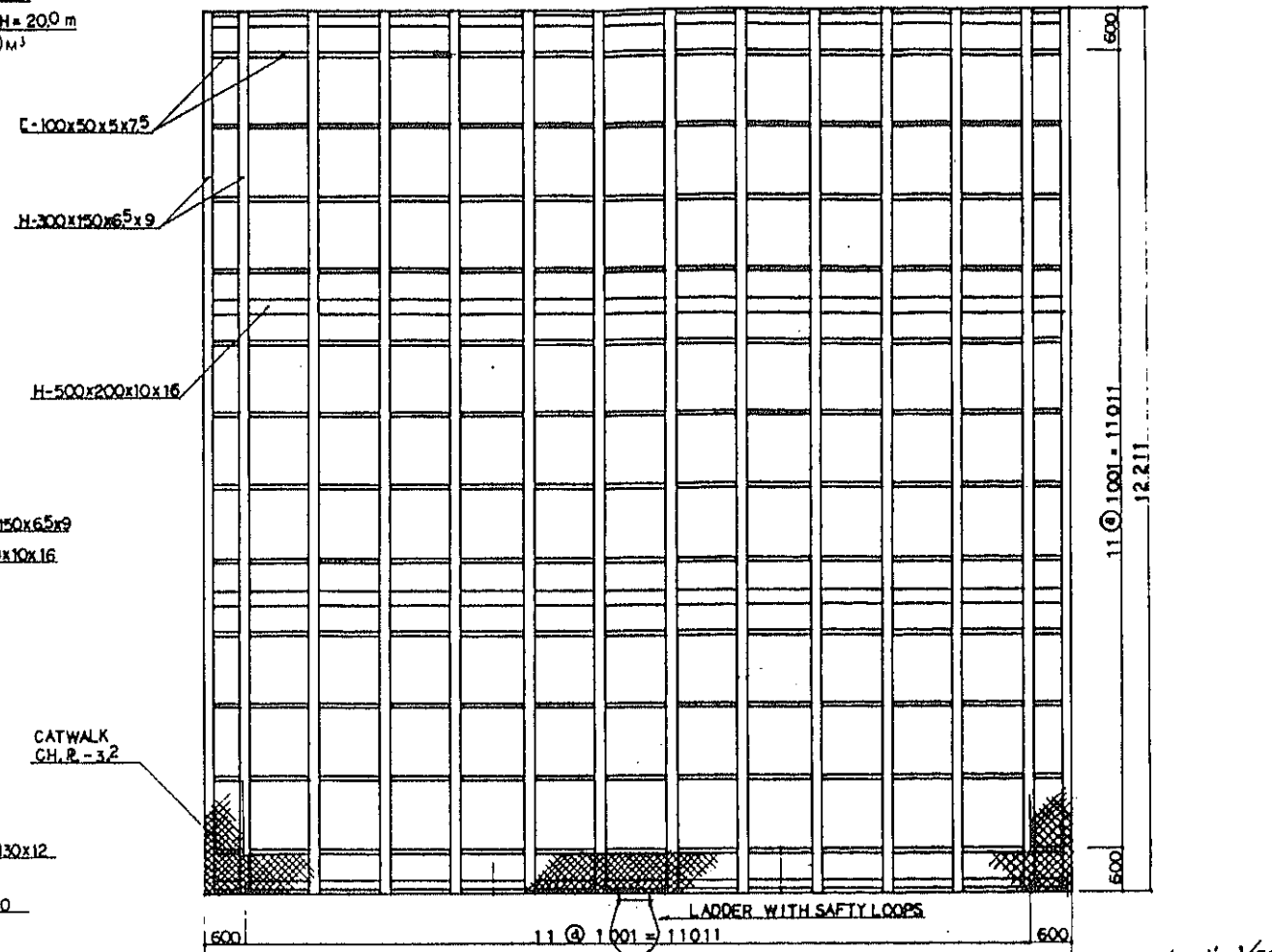
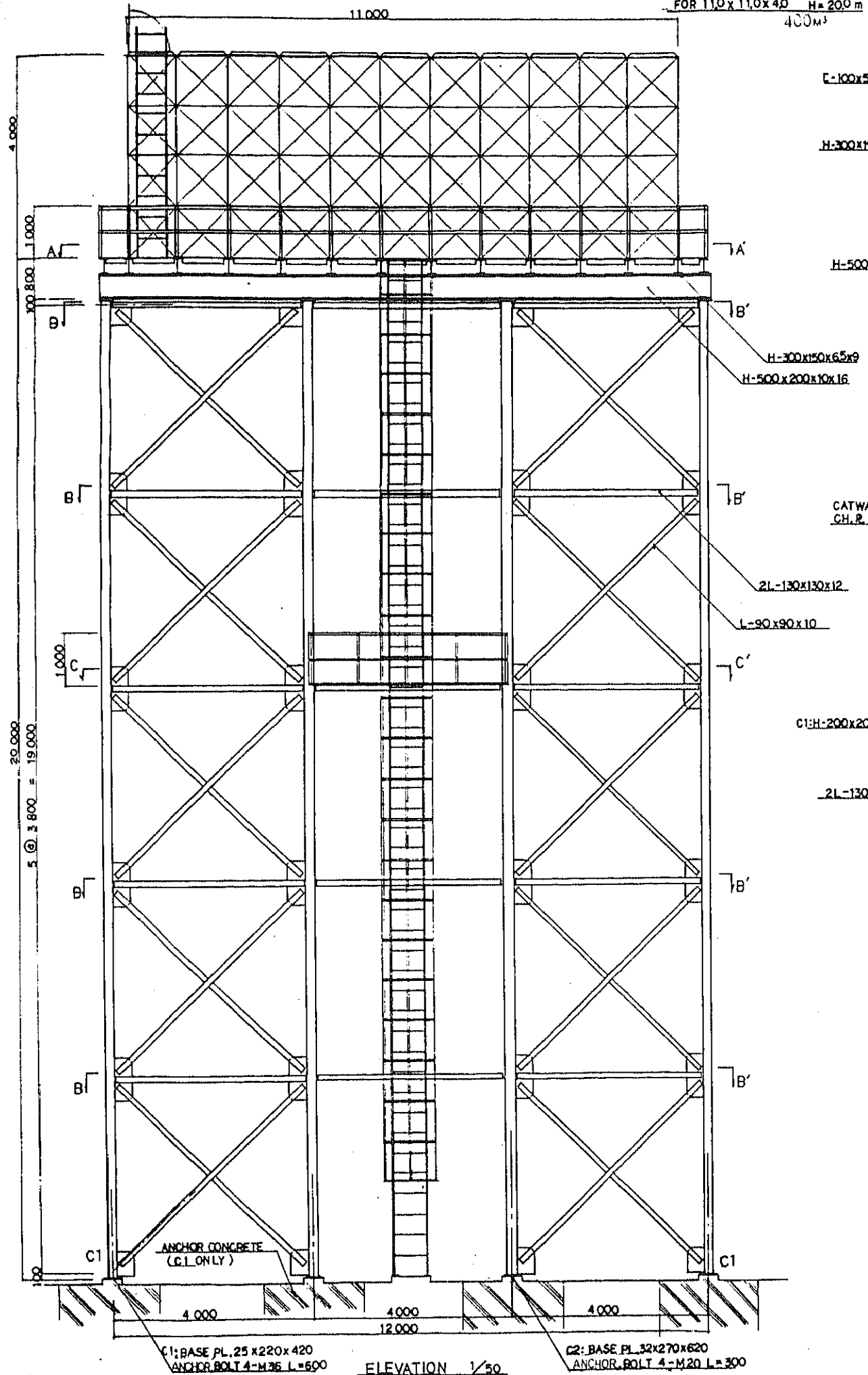
TANK SIZE 8 x 8 x 4 2/36
200 m³

DETAIL OF 200m³ F.R.P. TANK

GENERAL NOTES

DESCRIPTIONS	DWG. NO.			
REFERENCE DRAWINGS				
◇				
◇				
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◇				
NO.	DATE	DESCRIPTIONS	BY	APP.
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
DETAIL OF 200m ³ F.R.P. TANK				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		1/50		
DATE		DWG. NO.	1-2	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				

SUPPORTING TOWER
FOR 110x110x40 H=200m
400m³



GENERAL NOTES

1. ALL MATERIAL IS JIS G 3101 SS 41
2. CONNECTION BOLT IS JIS B 1186 F 10 T
3. CIVIL WORK SHALL NOT BE INCLUDED

ONLY BHARATPUR
FRP ELEVATED WATER TANK
STANDARD PLAN
OF 400m³

DESCRIPTIONS		DWG. NO.		
REFERENCE DRAWINGS				
◇				
◇				
◇				
◇				
NO.	DATE	DESCRIPTIONS	BY	APP.
REVISIONS				

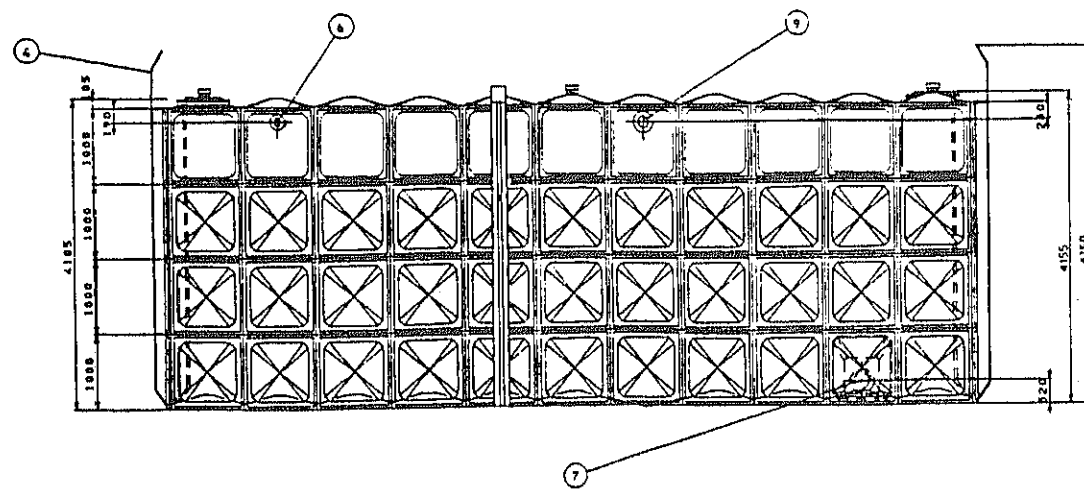
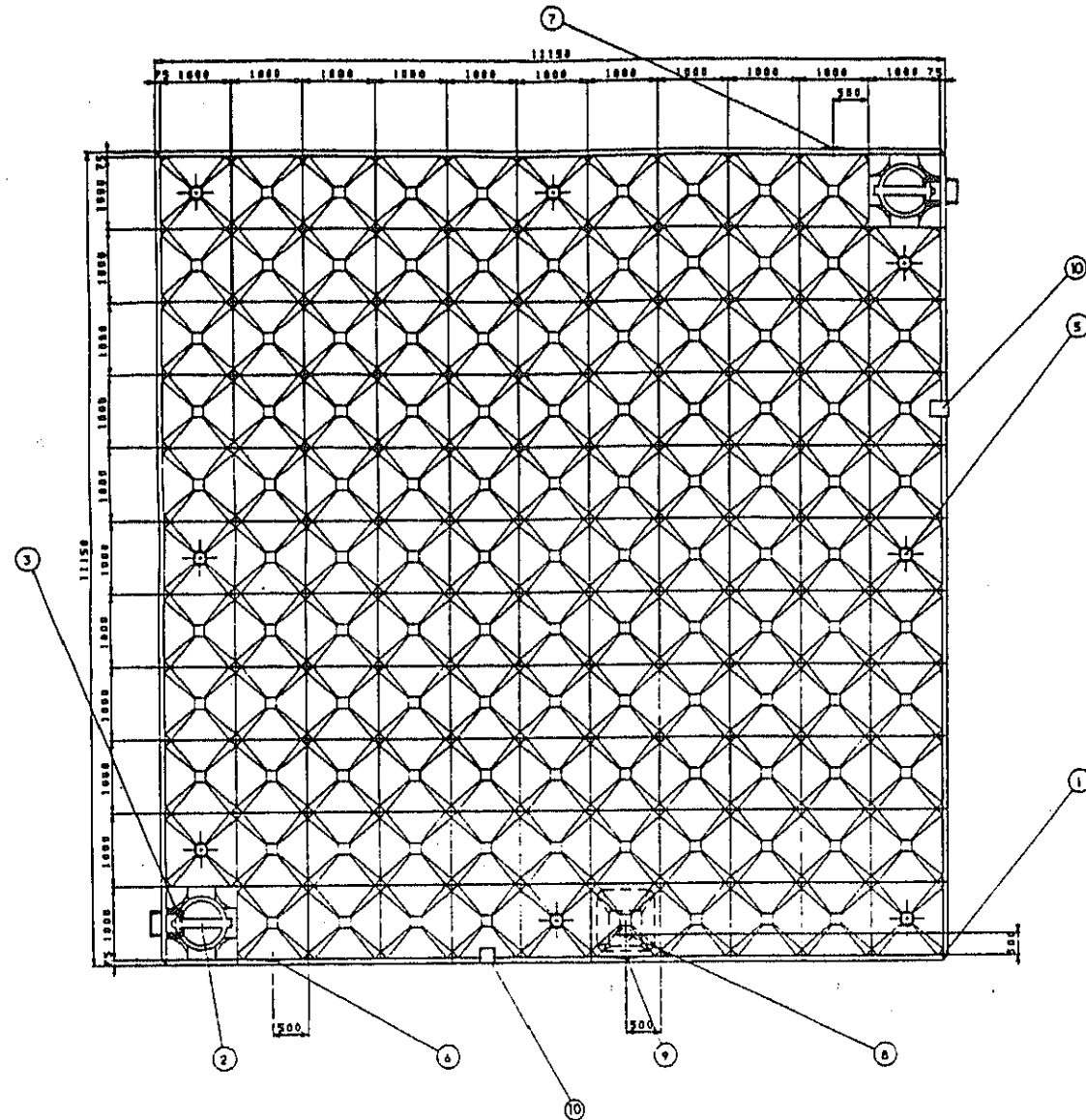
THE KINGDOM OF NEPAL
WATER SUPPLIES TO URBAN &
SEMI-URBAN CENTERS

BHARATPUR:
FRP ELEVATED WATER TANK
STANDARD PLAN OF 400m³

SUBMITTED	APPROVED	SCALE	REV. NO.
		1/50	
DATE		DWG. NO. 1-3	

JAPAN INTERNATIONAL COOPERATION
AGENCY, (JICA)

GENERAL NOTES



ONLY BHARATPUR SITE

DETAIL OF 400 m³ F.R.P. TANK

No.	N A M E	MATERIAL	QUANTITY	REMARKS
10	WATER LEVEL INDICATOR		1	
9	OVERFLOW (6')	STEEL	1	SCREWED JOIST/80*80* FLANGE
8	DRAINAGE (3')	STEEL	1	SCREWED JOIST/80*80* FLANGE
7	OUTLET (8')	STEEL	1	SCREWED JOIST/80*80* FLANGE
6	INLET (4')	STEEL	1	SCREWED JOIST/80*80* FLANGE
5	AIR VENT	P. V. C	8	4' COWL TYPE
4	EXTERNAL LADDER	S. G. P	2	HOT DIP GALVANIZED
3	INTERNAL LADDER	P. V. C	2	
2	MANHOLE	G. R. P	2	
1	WATER TANK	G. R. P	1	COLOUR: GREY

TANK SIZE 11 x 11 x 4 2/3 6

400 m³

DESCRIPTIONS | DWG. NO.

REFERENCE DRAWINGS

NO.	DATE	DESCRIPTIONS	BY	APP.

REVISIONS

THE KINGDOM OF NEPAL

WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS

BHARATPUR:

DETAIL OF 400 m³ F.R.P. TANK

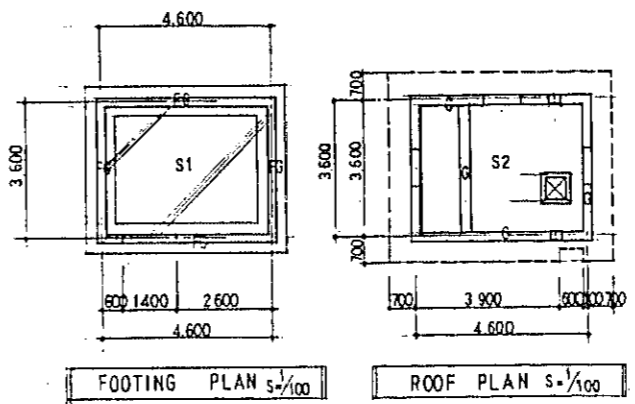
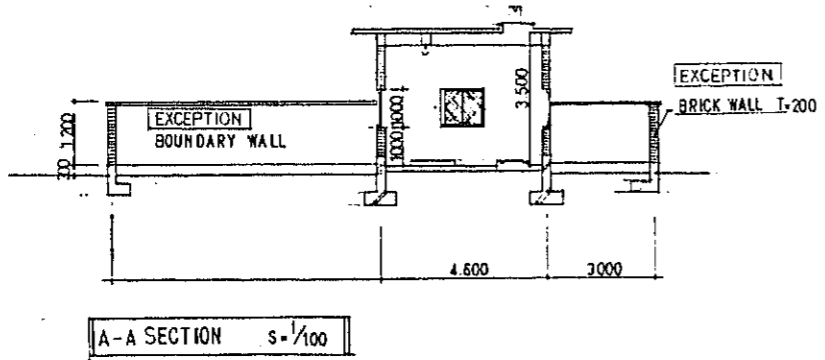
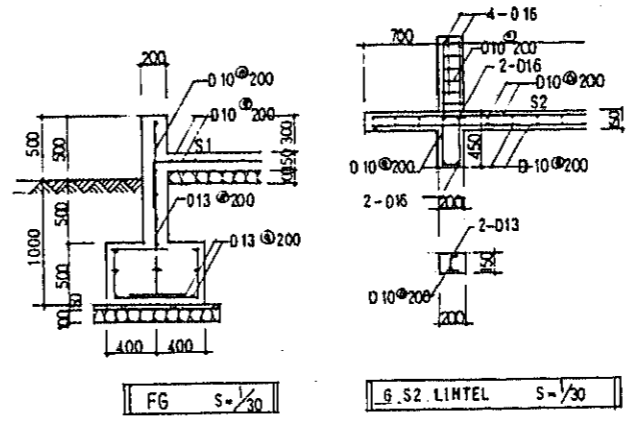
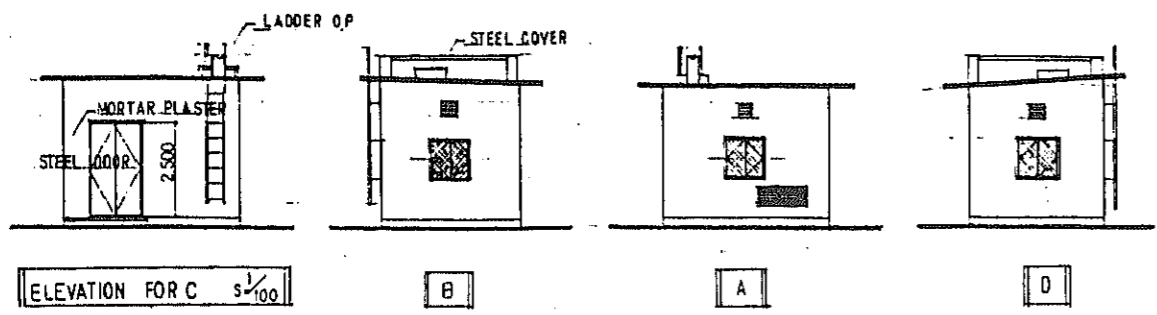
SCALE 1/50

REV. NO. 1-4

DATE

DWG. NO. 1-4

JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)



DESCRIPTIONS		DWG. NO.	
REFERENCE DRAWINGS			
NO.	DATE	DESCRIPTIONS	BY APPR
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
TYPICAL STRUCTURE OF WELL HOUSE (1)			
SUBMITTED	APPROVED	SCALE 1/30, 1/100	REV. NO.
DATE	DWG. NO. J-1		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			

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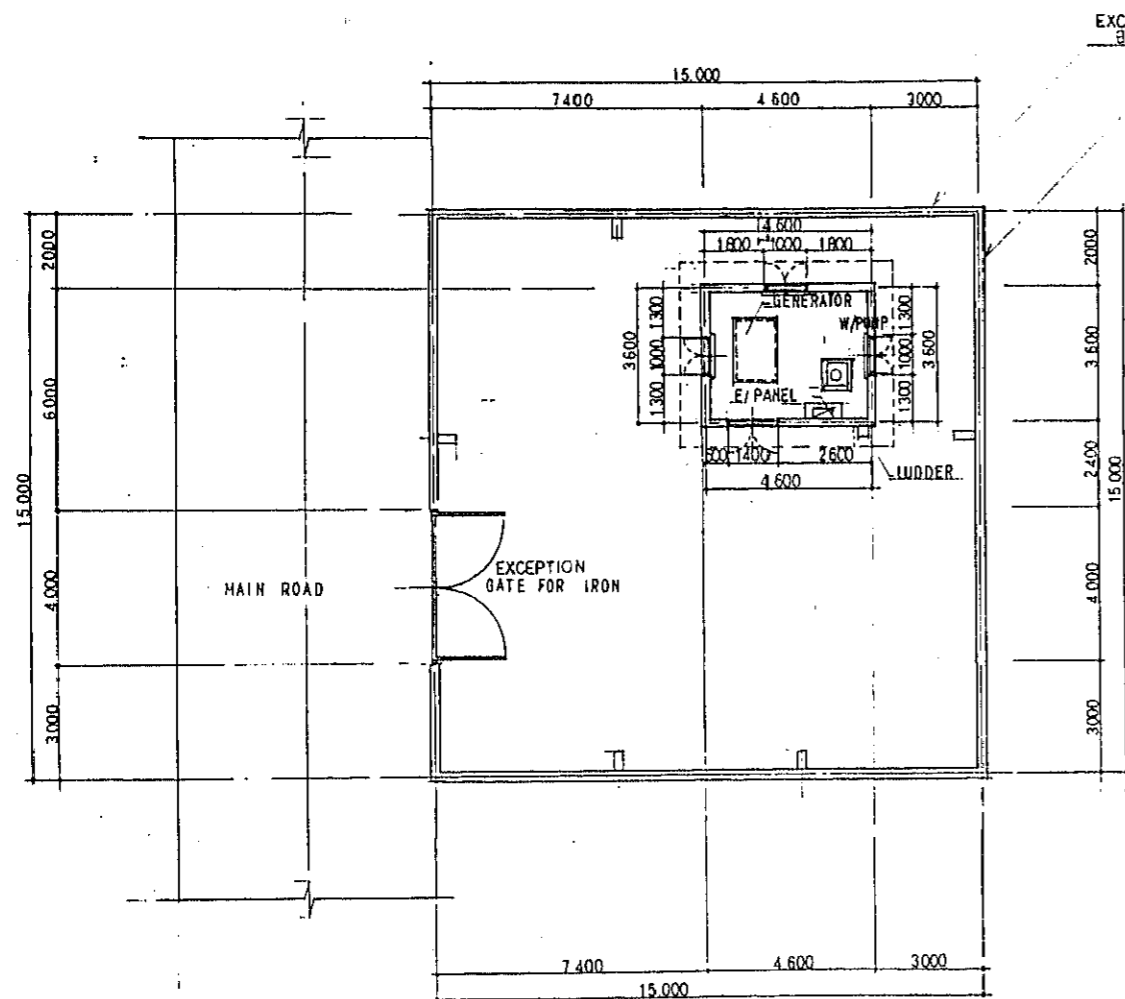
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EXTERIOR FINISH SCHEDULE

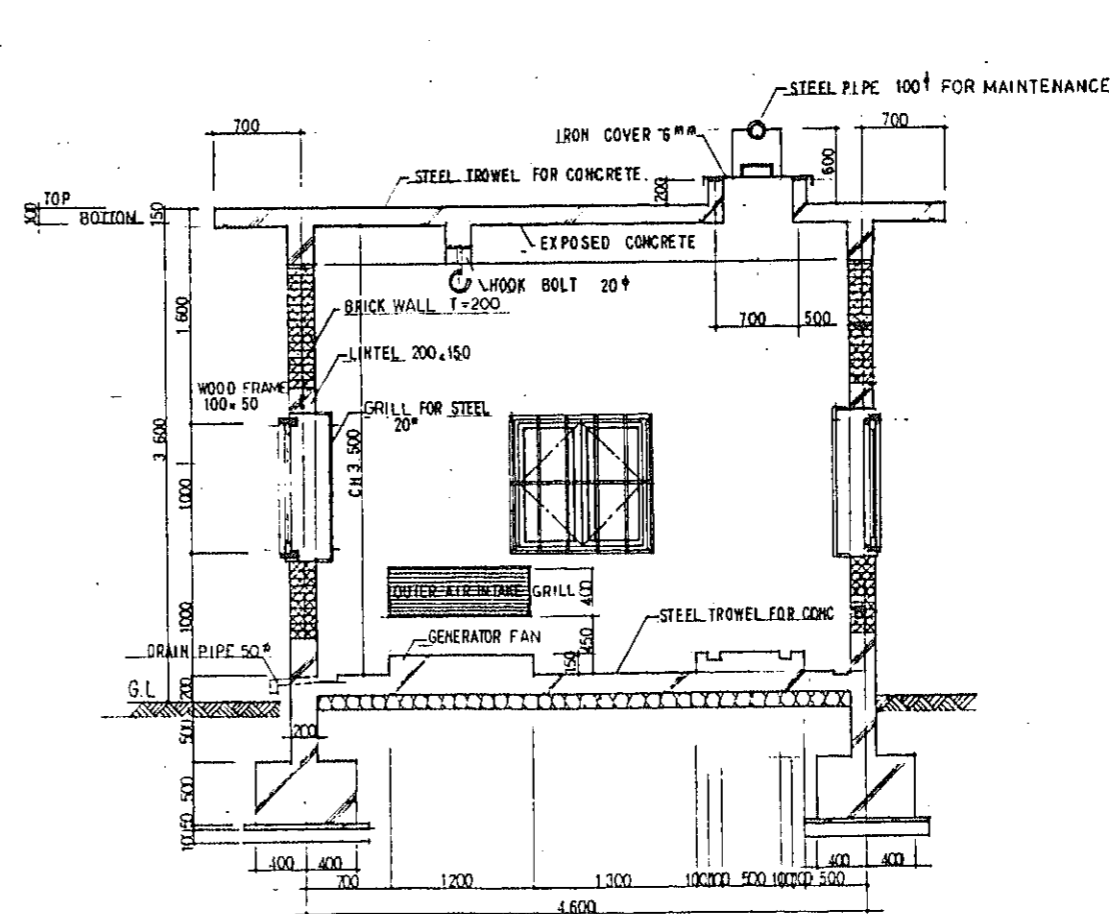
ROOF	STEEL TROWEL FOR CONCRETE
WALL	EXPOSED BRICK LADDER H-4000
GATE	STEEL GRILL DOOR H-2000, W-5000 EXCEPTION
DOOR	WOODEN DOOR H-2500, W-1400
WINDOW	WOODEN WINDOW HINGED WINDOW

INTERIOR FINISH SCHEDULE

FLOOR	STEEL TROWEL FOR CONCRETE
BASEBOARD	MORTAR PLASTER STEEL TROWEL
WALL	EXPOSED BRICK
CEILING	EXPOSED CONCRETE

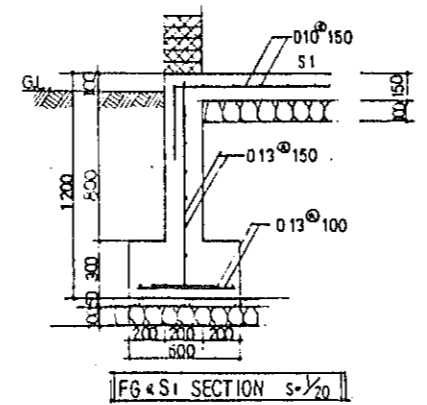
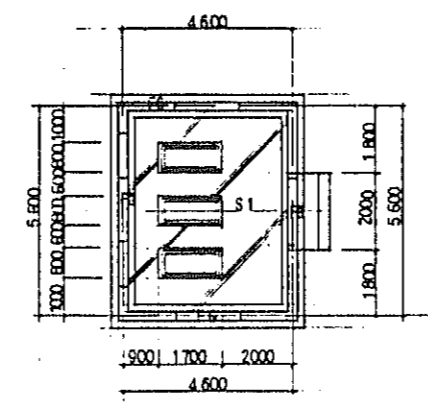
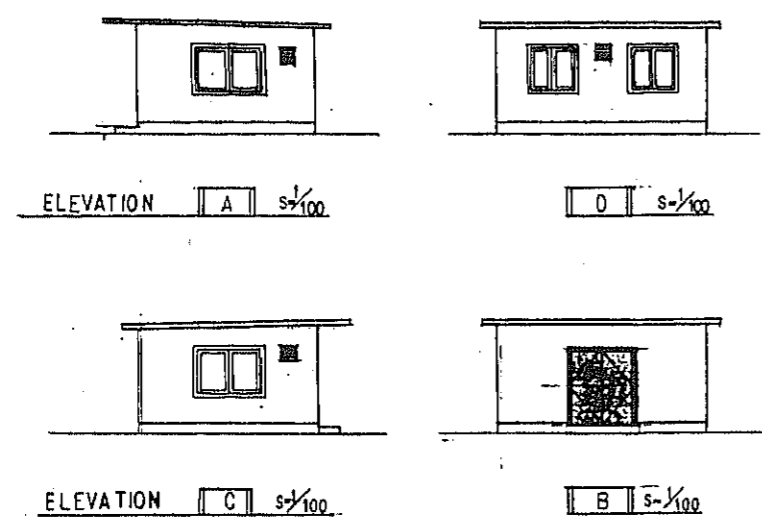


WELL HOUSE PLAN s=1/100



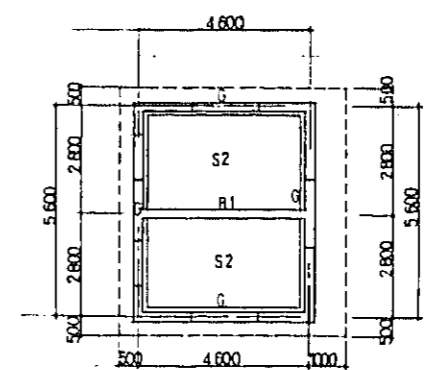
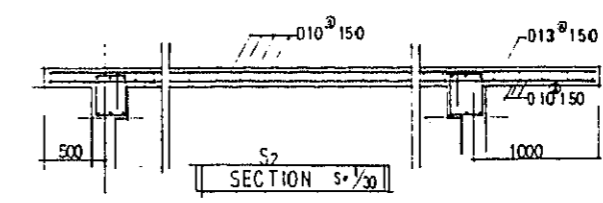
SECTION s=1/30

DESCRIPTIONS		DWG. NO.		
REFERENCE DRAWINGS				
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NO.	DATE	DESCRIPTIONS	BY	APPD.
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
TYPICAL STRUCTURE OF WELL HOUSE (2)				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		1/30, 1/100		
DATE		DWG. NO. J-2		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				



SCHEDULE OF GIRDERS

SECTION	G	B1
TOP	3 - 016	2 - 016
BOTTOM	3 - 016	2 - 016
HOOP	010 @ 150	010 @ 150

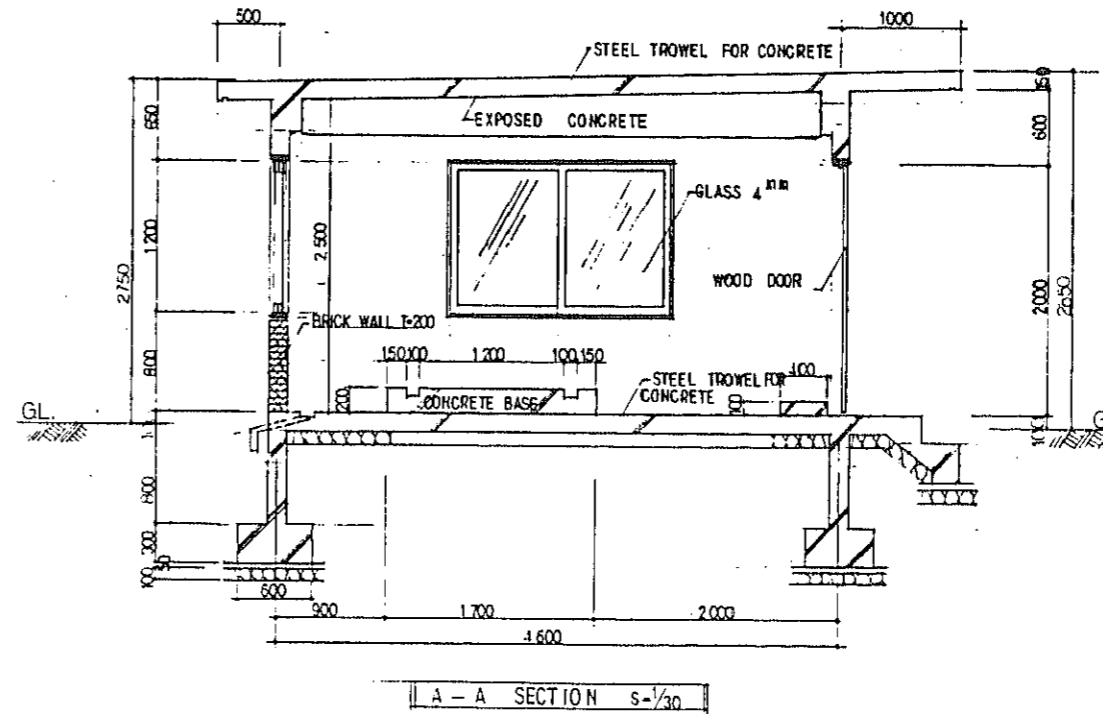
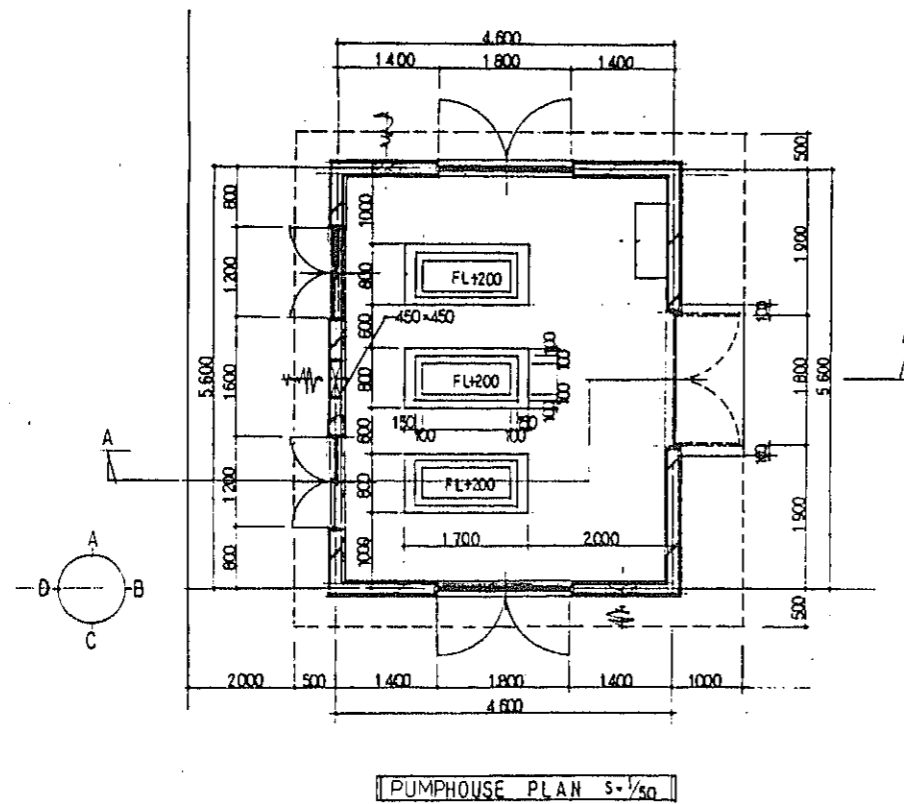


DESCRIPTIONS		DWG. NO.
REFERENCE DRAWINGS		
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NO.	DATE	DESCRIPTIONS
REVISIONS		
THE KINGDOM OF NEPAL		
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS		
TYPICAL STRUCTURE OF PUMPHOUSE (1)		
SUBMITTED	APPROVED	SCALE
		1/20, 1/100
DATE	DWG. NO. J-3	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)		

GENERAL NOTES

EXTERIOR FINISH SCHEDULE	
ROOF	STEEL TROWEL FOR CONCRETE
WALL	EXPOSED BRICK WALL
WINDOW	WOOD WINDOW GLASS T-4 ^{mm}
DOOR	WOOD DOOR E.P
FLOOR	STEEL TROWEL FOR CONCRETE T-150

INTERIOR FINISH SCHEDULE	
FLOOR	STEEL TROWEL FOR CONCRETE DRAIN PIPE 50 ⁺
BASEBOARD	EXPOSED BRICK
WALL	D.O.
CEILING	EXPOSED CONCRETE
MARK	



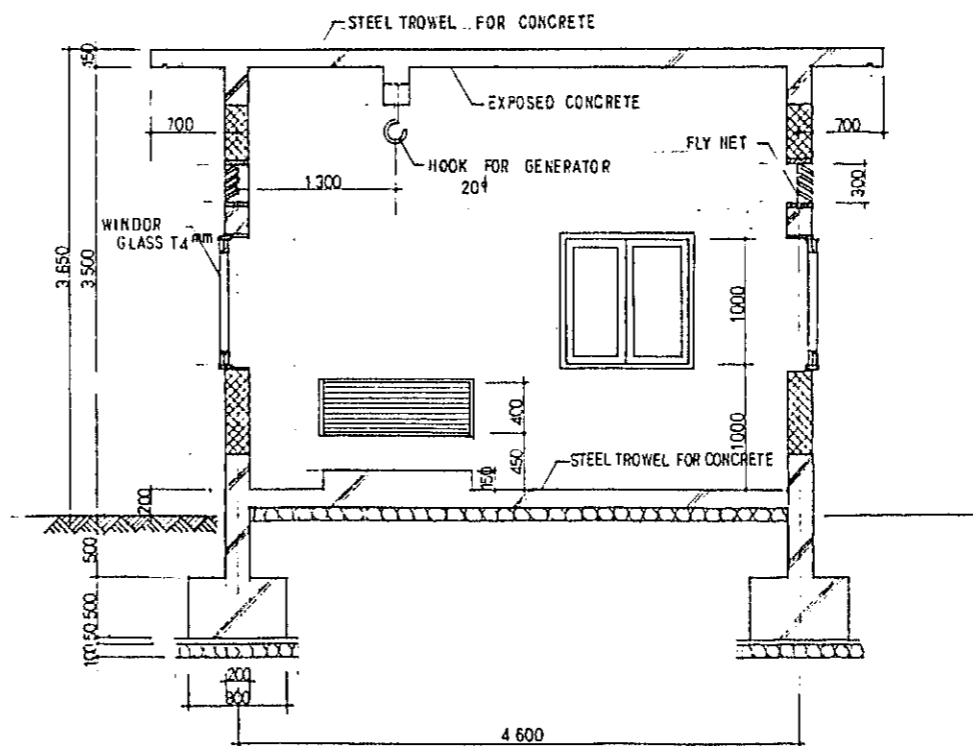
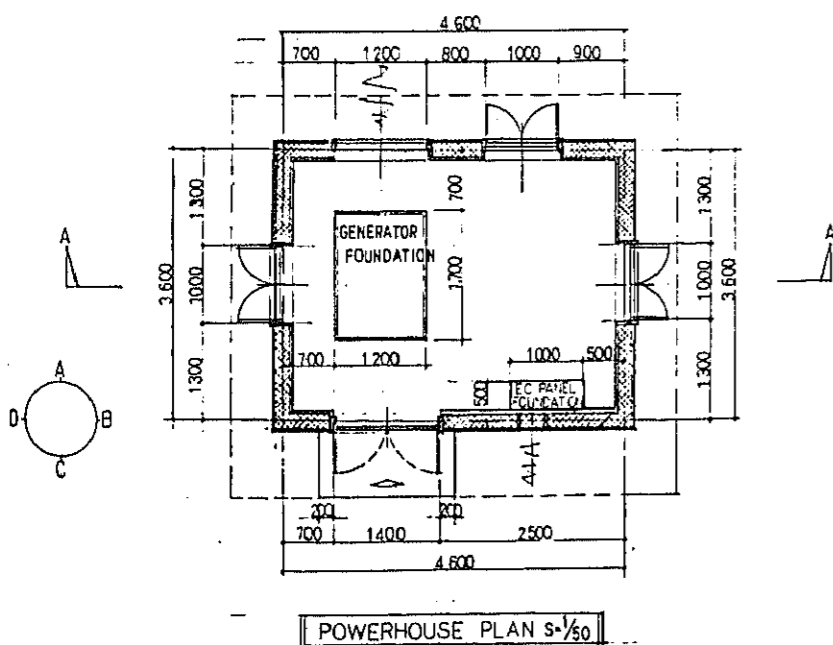
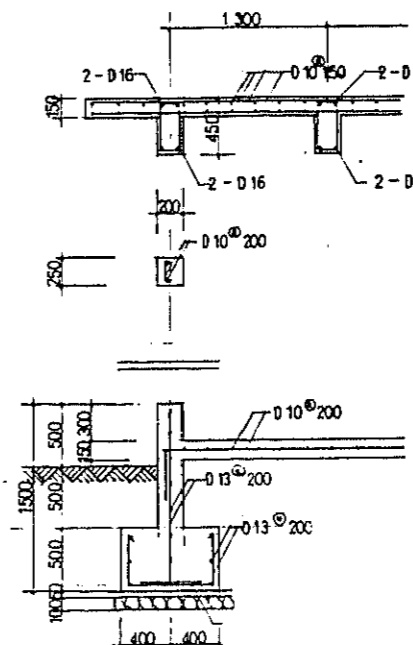
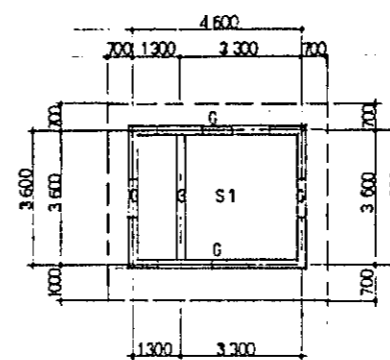
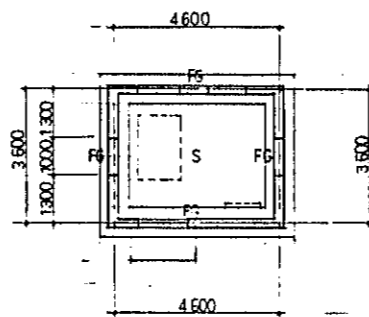
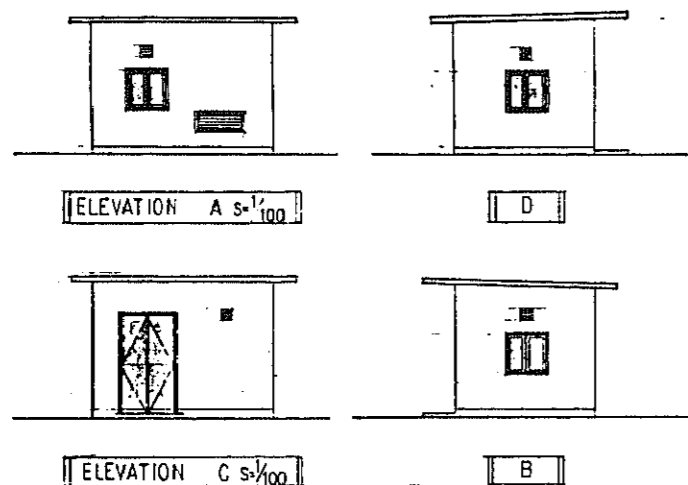
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NO.	DATE	DESCRIPTIONS	BY	APP'D
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
TYPICAL STRUCTURE OF PUMPHOUSE				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		1/30, 1/50		
DATE		DWG. NO. J-4		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				

EXTERIOR FINISH SCHEDULE

ROOF	STEEL TROWEL FOR CONCRETE
WALL	EXPOSED BRICK WALL
BASEBOARD	DO.
DOOR	WOODEN HINGED DOOR H=2500 W=1400
WINDOW	WOODEN HINGED WINDOW GLASS T-4 ^{mm} H 1000 W 1000
LOUVER	WOOD H 300 W 300

INTERIOR FINISH SCHEDULE

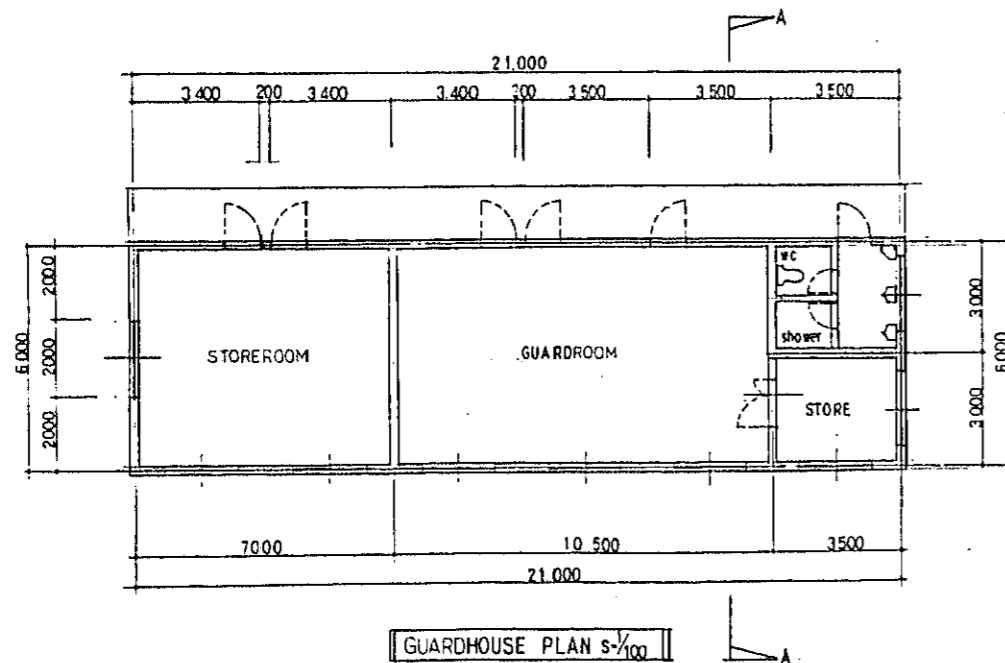
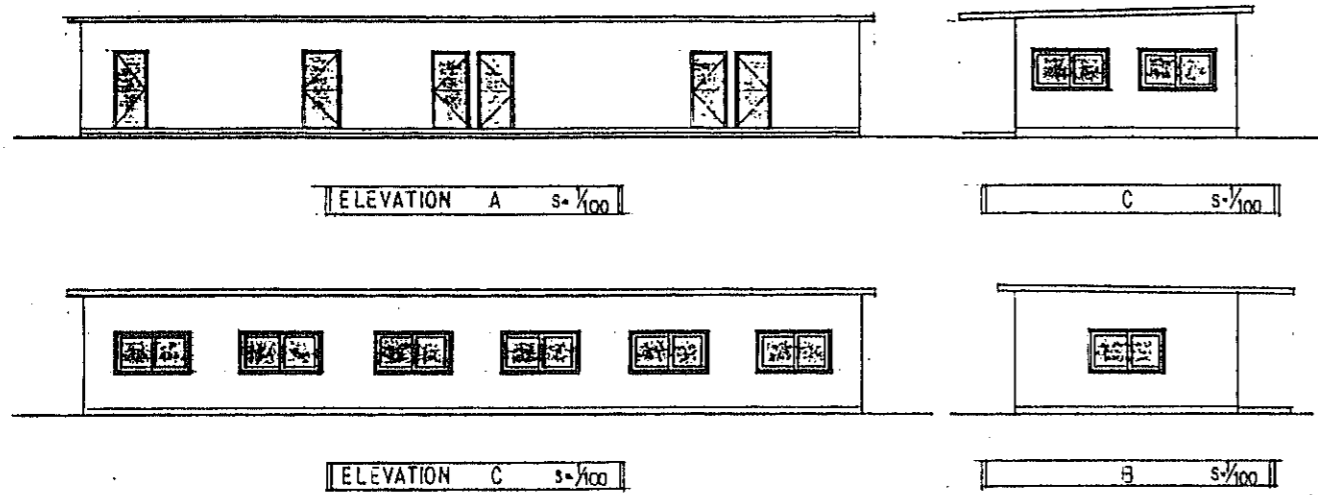
FLOOR	STEEL TROWEL FOR CONCRETE
BASEBOARD	EXPOSED BRICK
WALL	DO.
CEILING	EXPOSED CONCRETE
MARK	



TYPICAL STRUCTURE OF POWERHOUSE

DESCRIPTIONS		DWG. NO.
REFERENCE DRAWINGS		
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NO	DATE	DESCRIPTIONS BY IAPP
REVISIONS		
THE KINGDOM OF NEPAL		
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS		
TYPICAL STRUCTURE OF POWERHOUSE		
SUBMITTED	APPROVED	SCALE 1/30, 1/50, 1/100
DATE	DWG. NO.	REV. NO.
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)		

GENERAL NOTES



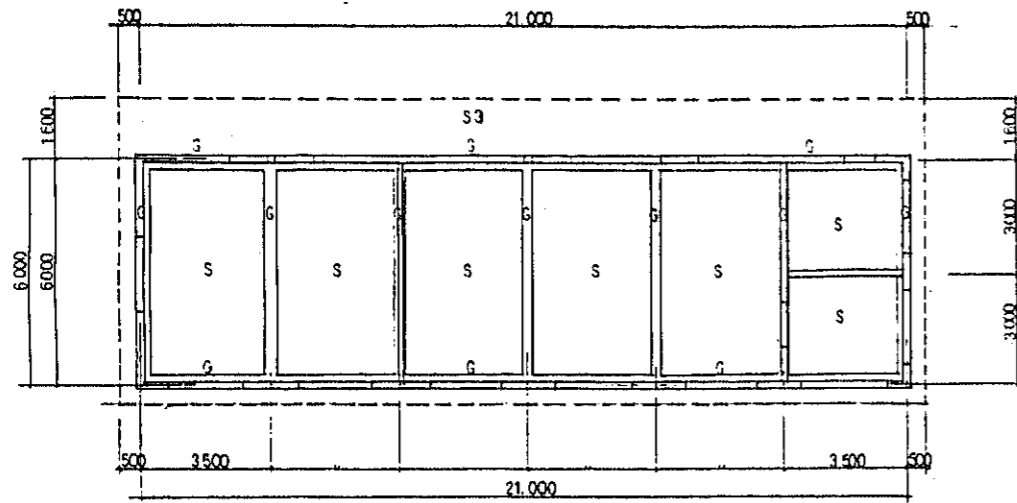
EXTERIOR FINISH SCHEDULE

ROOF	STEEL TROWEL FOR CONCRETE
WALL	MORTAR PLASTER ON BRICK WALL
DOOR	PLYWOOD FLUSH DOOR OP
WINDOW	HINGED WINDOW
EAVES	EXPOSED CONCRETE

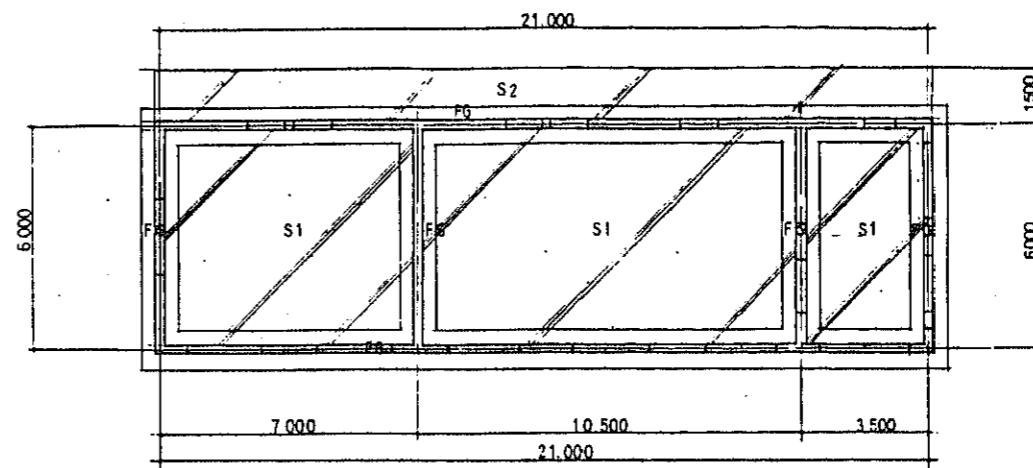
INTERIOR FINISH SCHEDULE

FLOOR	MORTAR PLASTER ON CONCRETE
BASE BOARD	DO.
WALL	DO.
CEILING	EXPOSED CONCRETE

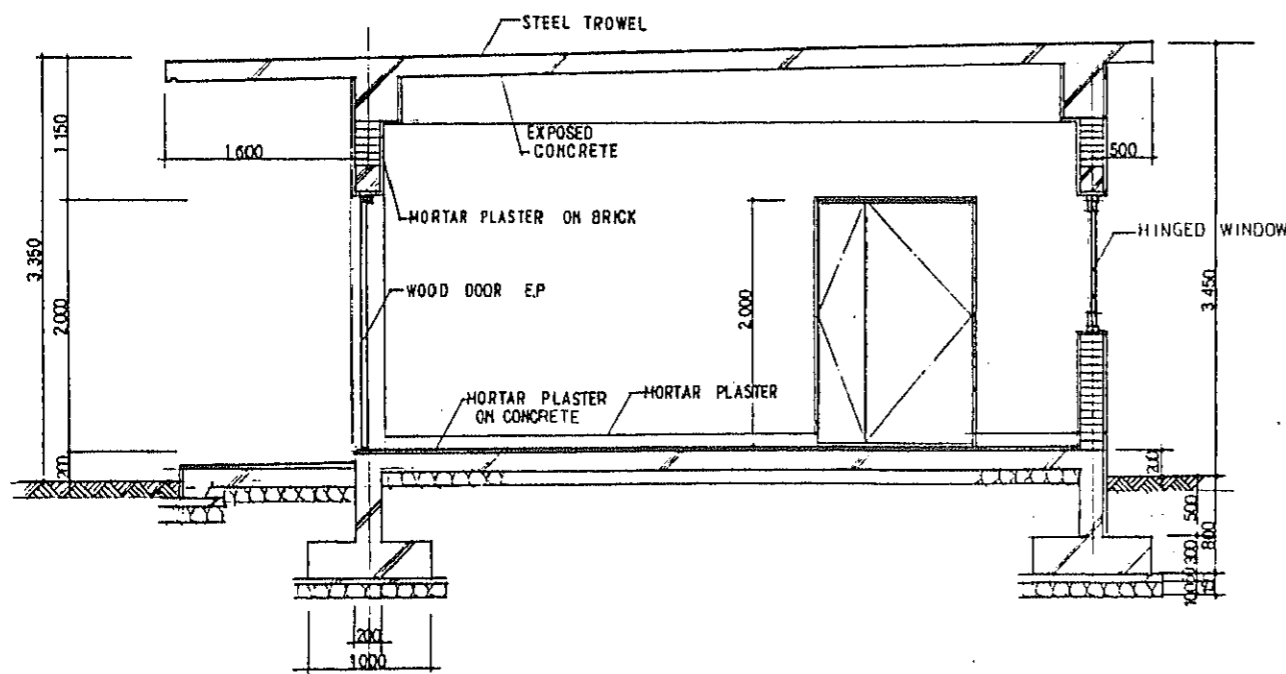
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NO.	DATE	DESCRIPTIONS	BY APPD.
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
TYPICAL STRUCTURE OF GUARDHOUSE (1)			
SUBMITTED	APPROVED	SCALE	REV. NO.
		1/100	
DATE	DWG. NO. J-6		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



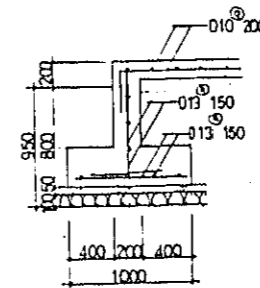
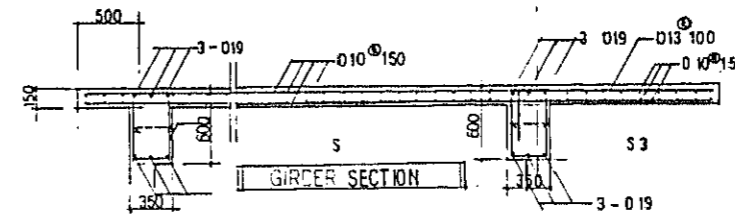
GIRDER PLAN s=1/100



FOUNDATION PLAN s=1/100



A-A SECTION s=1/30



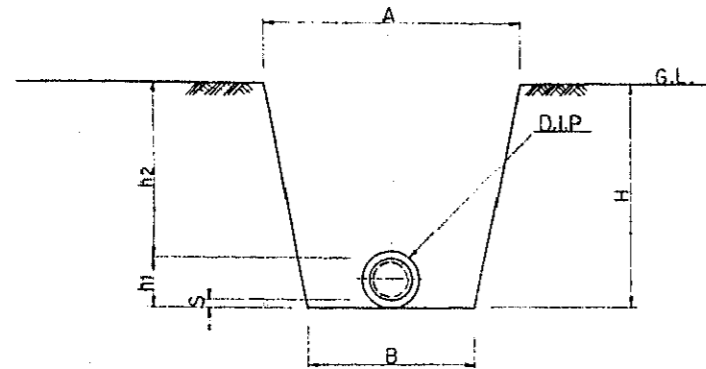
FG SECTION s=1/30

DESCRIPTIONS		DWG. NO.
REFERENCE DRAWINGS		
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NO	DATE	DESCRIPTIONS BY APP'D
REVISIONS		
THE KINGDOM OF NEPAL		
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS		
TYPICAL STRUCTURE OF GARDHOUSE(2)		
SUBMITTED	APPROVED	SCALE
		1/30, 1/100
DATE	DWG. NO. J-7	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)		

TYPE A

D.I.P. TYPE T CLASS 3 (JIS-G5526) DISTRIBUTION LINE, TRANSMISSION LINE, RAISING SUPPLY LINE LIST

X MACHINE EXCAVATION INCLINATION 1:0.2



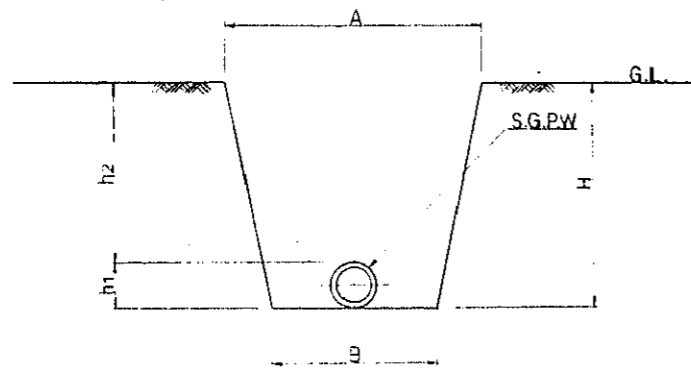
TYPE A

ITEM DIAMETER (mm)	STRAIGHT RUN OF PIPE ACTUAL OUTER DIAMETER (mm)	STRAIGHT RUN OF PIPE ACTUAL OUTER DIAMETER (mm)	S (mm)	h1 (m)	h2 (m)	H (m)	A (m)	B (m)	EXCAVATION SECTIONAL AREA (m ²)	STRAIGHT RUN OF PIPE SECTIONAL AREA (m ²)	BACKFILLING PART SECTIONAL AREA (m ²)	SURPLUS SOIL DISPOSAL SECTIONAL AREA (m ²)
φ 75	144	93	25.5	0.119	1.181	1.3	1.02	0.5	0.988	0.007	0.981	0.007
φ 100	174	118	28	0.146	1.154	1.3	1.12	0.6	1.118	0.011	1.107	0.011
φ 150	228	169	29.5	0.199	1.101	1.3	1.12	0.6	1.118	0.022	1.096	0.022
φ 200	282	220	31	0.251	1.149	1.4	1.26	0.7	1.372	0.038	1.334	0.038
φ 250	334	271.5	31.2	0.303	1.197	1.5	1.4	0.8	1.65	0.058	1.592	0.058
φ 300	386	322.8	31.6	0.354	1.146	1.5	1.5	0.9	1.8	0.082	1.718	0.082
φ 350	450	374	38	0.412	1.188	1.6	1.64	1.0	2.112	0.11	2.002	0.11
φ 400	502	425.6	38.2	0.464	1.136	1.6	1.74	1.1	2.272	0.142	2.13	0.142
φ 450	552	476.8	39.1	0.516	1.184	1.7	1.88	1.2	2.618	0.178	2.44	0.178
φ 500	608	528	40	0.568	1.132	1.7	1.98	1.3	2.788	0.219	2.569	0.219

TYPE B

S.G.P.W (WHITE SCREW) JIS-G3452 RAISING SUPPLY LINE AND TRANSMISSION LINE LIST

X MACHINE EXCAVATION INCLINATION 1:0.2



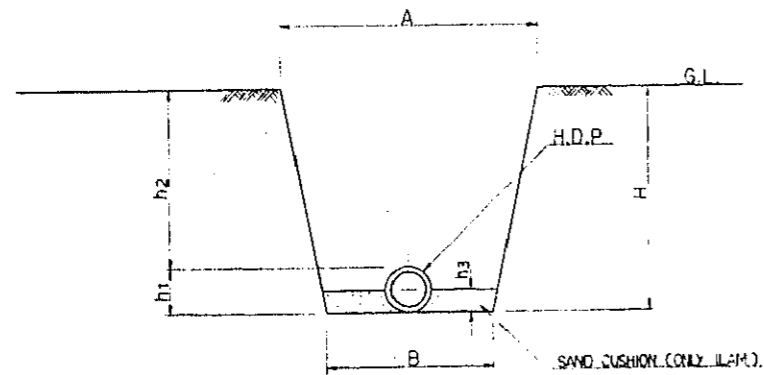
TYPE B

ITEM DIAMETER (mm)	STRAIGHT RUN OF PIPE ACTUAL OUTER DIAMETER (mm)	h1 (m)	h2 (m)	H (m)	A (m)	B (m)	EXCAVATION SECTIONAL AREA (m ²)	STRAIGHT RUN OF PIPE SECTIONAL AREA (m ²)	BACKFILLING PART SECTIONAL AREA (m ²)	SURPLUS SOIL DISPOSAL SECTIONAL AREA (m ²)
φ 25	34.0	0.034	0.866	0.9	0.86	0.5	0.612	0.001	0.611	0.001
φ 32	42.7	0.045	0.857	0.9	0.86	0.5	0.612	0.0015	0.6105	0.0015
φ 40	48.6	0.049	0.851	0.9	0.86	0.5	0.612	0.002	0.61	0.002
φ 50	60.5	0.061	0.839	0.9	0.86	0.5	0.612	0.003	0.609	0.003
φ 65	76.3	0.076	1.024	1.1	0.94	0.5	0.792	0.0045	0.7875	0.0045
φ 75	89.1	0.089	1.011	1.1	0.94	0.5	0.792	0.006	0.732	0.006
φ 100	114.3	0.114	1.086	1.2	1.08	0.6	1.008	0.01	0.998	0.01
φ 125	139.8	0.140	1.06	1.2	1.08	0.6	1.008	0.015	0.993	0.015
φ 150	165.2	0.165	1.035	1.2	1.08	0.6	1.008	0.021	0.987	0.021
φ 200	216.3	0.216	1.034	1.3	1.22	0.7	1.248	0.037	1.211	0.037
φ 250	267.4	0.267	1.033	1.3	1.22	0.7	1.248	0.056	1.192	0.056

TYPE C

H.D.P. (MADE IN NEPAL SERIES 5, 10kg/cm²) DISTRIBUTION LINE LIST
(NOMINAL DIAMETER φ63mm, BORE 49mm, WALL THICKNESS 7mm)

X MACHINE EXCAVATION INCLINATION 1:0.2

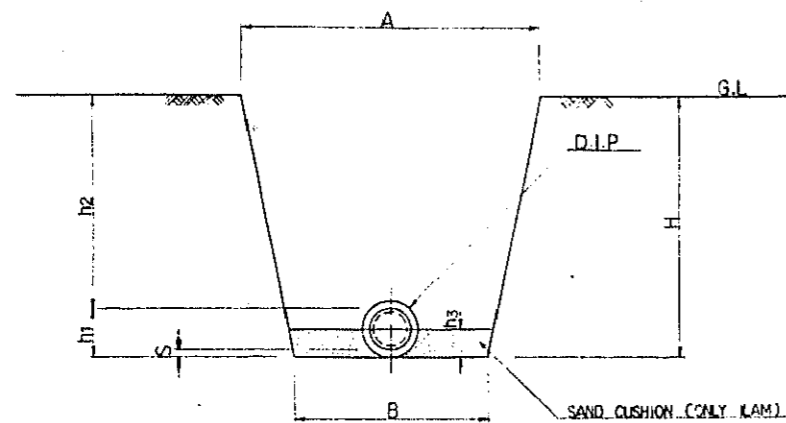


TYPE C

ITEM DIAMETER (mm)	STRAIGHT RUN OF PIPE ACTUAL OUTER DIAMETER (mm)	h1 (m)	h2 (m)	h3 (m)	H (m)	A (m)	B (m)	EXCAVATION SECTIONAL AREA (m ²)	STRAIGHT RUN OF PIPE SECTIONAL AREA (m ²)	SAND CUSHION SECTIONAL AREA (m ²)	BACKFILLING PART SECTIONAL AREA (m ²)	SURPLUS SOIL DISPOSAL SECTIONAL AREA (m ²)
7TH SITE φ 63 (BORE 49mm)	63	0.063	0.837	—	0.9	0.86	0.5	0.612	0.003	—	0.609	0.003
ONLY I&M φ 63 (BORE 49mm)	63	0.063	0.837	0.04	0.9	0.86	0.5	0.612	0.003	0.019	0.59	0.022

PIPING CONSTRUCTION LIST

DESCRIPTIONS		DWG. NO.	
REFERENCE DRAWINGS			
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NO.	DATE	DESCRIPTIONS	BY APP'D
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
STANDARD PLAN OF PIPING (1)			
SUBMITTED	APPROVED	SCALE	REV. NO.
		NO SCALE	
DATE	DWG. NO. K-1		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



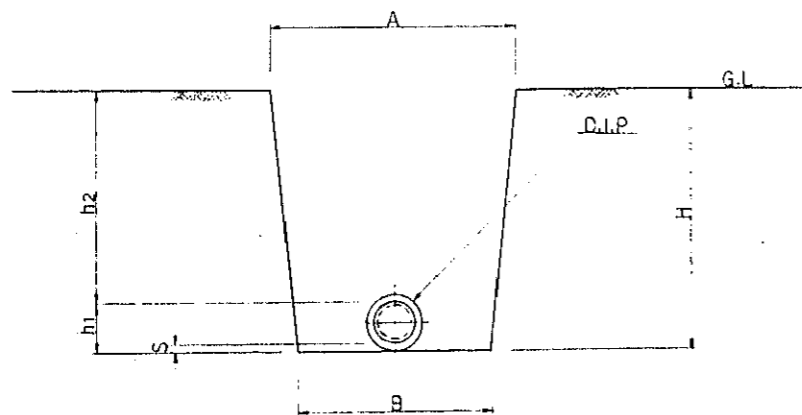
TYPE D

TYPE D

ONLY I.A.M. D.I.P. TYPE T CLASS 3 (JIS-G5526) DISTRIBUTION LINE LIST

* MACHINE EXCAVATION INCLINATION 1:0.2

ITEM DIAMETER (mm)	STRAIGHT RUN OF PIPE MAXIMUM OUTER DIAMETER (mm)	STRAIGHT RUN OF PIPE ACTUAL OUTER DIAMETER (mm)	S (mm)	h1 (mm)	h2 (m)	h3 (m)	H (m)	A (m)	B (m)	EXCAVATION SECTIONAL AREA (m ²)	STRAIGHT RUN OF PIPE SECTIONAL AREA (m ²)	SAND CUSHION SECTIONAL AREA (m ²)	BACKFILLING PART SECTIONAL AREA (m ²)	SURPLUS SOIL DISPOSAL SECTIONAL AREA (m ²)
φ 75	144	93	25.5	0.119	1.181	0.072	1.3	1.02	0.5	0.988	0.007	0.034	0.947	0.041
φ 100	174	118	28	0.146	1.154	0.087	1.3	1.12	0.6	1.118	0.011	0.048	1.059	0.059
φ 150	228	169	29.5	0.199	1.101	0.114	1.3	1.12	0.6	1.118	0.022	0.060	1.036	0.082
φ 200	282	220	31	0.251	1.149	0.141	1.4	1.26	0.7	1.372	0.038	0.084	1.25	0.122
φ 250	334	271.6	31.2	0.303	1.197	0.167	1.5	1.4	0.8	1.65	0.058	0.110	1.482	0.168
φ 300	386	322.8	31.6	0.354	1.146	0.193	1.5	1.5	0.9	1.8	0.082	0.140	1.578	0.222



TYPE E

TYPE E

ONLY I.A.M. D.I.P. TYPE T CLASS 3 (JIS-G5526) TRANSMISSION LINE LIST

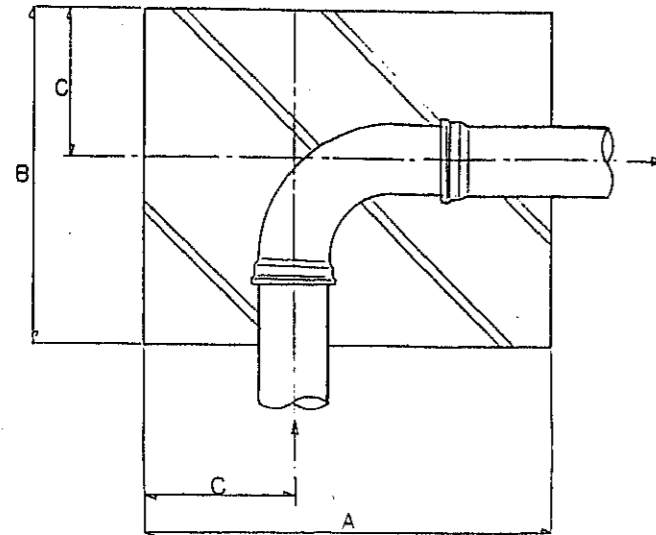
* HUMAN POWER EXCAVATION INCLINATION 1:0.1

ITEM DIAMETER (mm)	STRAIGHT RUN OF PIPE MAXIMUM OUTER DIAMETER (mm)	STRAIGHT RUN OF PIPE ACTUAL OUTER DIAMETER (mm)	S (mm)	h1 (mm)	h2 (m)	H (m)	A (m)	B (m)	EXCAVATION SECTIONAL AREA (m ²)	STRAIGHT RUN OF PIPE SECTIONAL AREA (m ²)	BACKFILLING PART SECTIONAL AREA (m ²)	SURPLUS SOIL DISPOSAL SECTIONAL AREA (m ²)
φ 75	144	93	25.5	0.119	0.581	0.7	0.54	0.4	0.329	0.007	0.322	0.007
φ 100	174	118	28	0.146	0.554	0.7	0.64	0.5	0.399	0.011	0.388	0.011
φ 150	228	169	29.5	0.199	0.601	0.8	0.76	0.6	0.544	0.022	0.522	0.022
φ 200	282	220	31	0.251	0.519	0.8	0.86	0.7	0.624	0.038	0.586	0.038
φ 250	334	271.6	31.2	0.303	0.597	0.9	0.98	0.8	0.801	0.058	0.743	0.058
φ 300	386	322.8	31.6	0.354	0.516	0.9	1.08	0.9	0.891	0.082	0.809	0.082

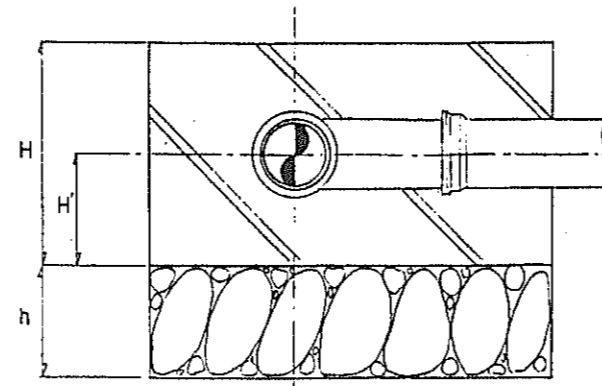
DISTRIBUTION LINE AND TRANSMISSION CONSTRUCTION LIST

NO SCALE

DESCRIPTIONS		DWG. NO.
REFERENCE DRAWINGS		
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NO. DATE	DESCRIPTIONS	BY APPD
REVISIONS		
THE KINGDOM OF NEPAL		
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS		
STANDARD PLAN OF PIPING (2)		
SUBMITTED	APPROVED	SCALE NO SCALE
DATE	DWG. NO. K-2	
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)		



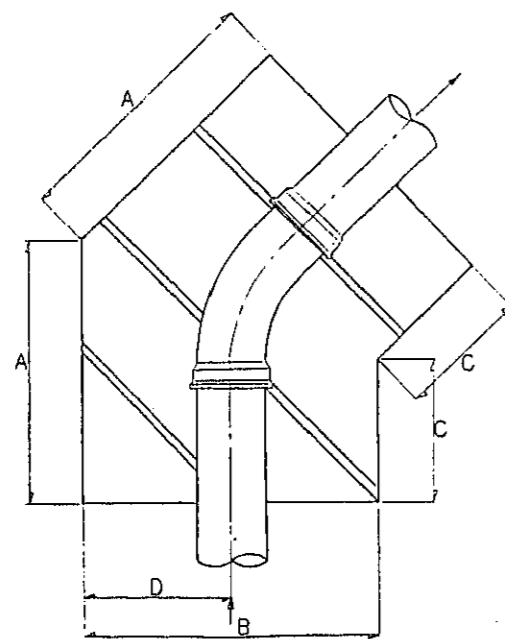
PLAN



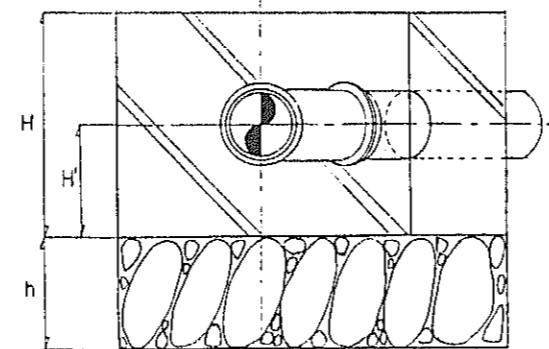
SECTION

ELBOW 90°

ΦD	A	B	C	H	H'	h
250	1,400	1,200	500	750	380	150
200	1,200	950	400	600	300	150
150	950	800	300	450	230	150
100	700	600	200	300	150	100
75	650	550	150	250	130	100



PLAN



SECTION

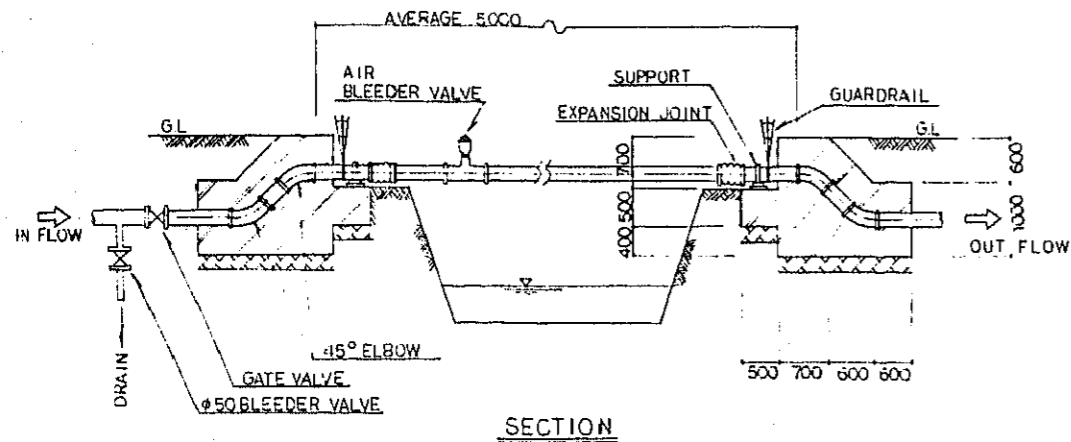
ELBOW 45°

ΦD	A	B	C	D	H	H'	h
250	910	1,000	540	500	750	380	150
200	820	800	490	400	600	300	150
150	690	600	440	300	450	230	150
100	500	400	340	200	300	150	100
75	400	300	340	150	250	130	100

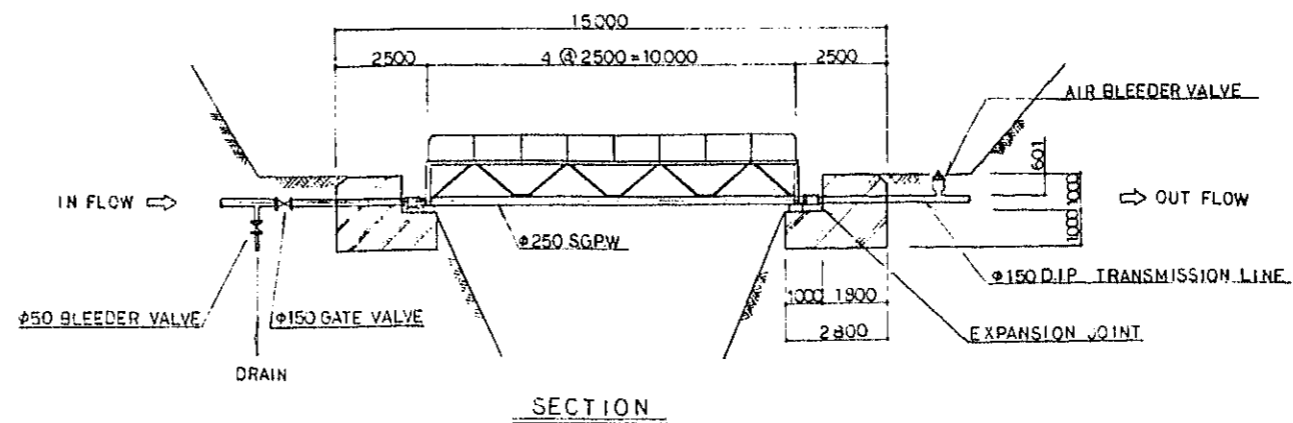
THRUST BLOCK LIST • ONLY ILAM

NO SCALE

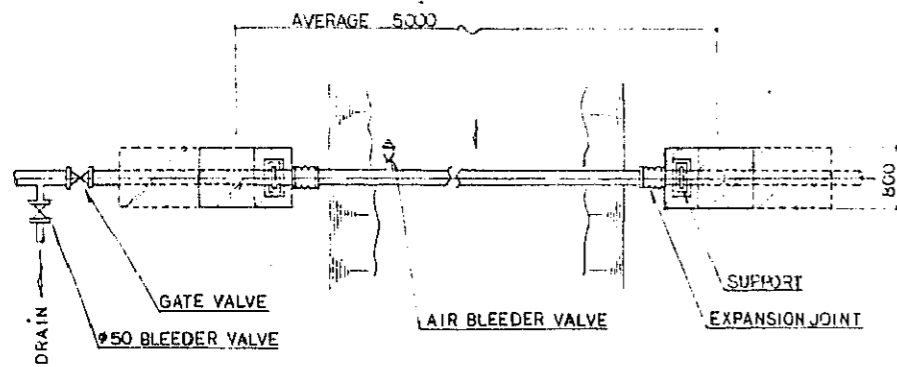
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REFERENCE DRAWINGS				
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NO.	DATE	DESCRIPTIONS	BY	APPROVED
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
STANDARD PLAN OF THRUST BLOCK				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		NO SCALE		
DATE	DWG. NO. K-3			
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				



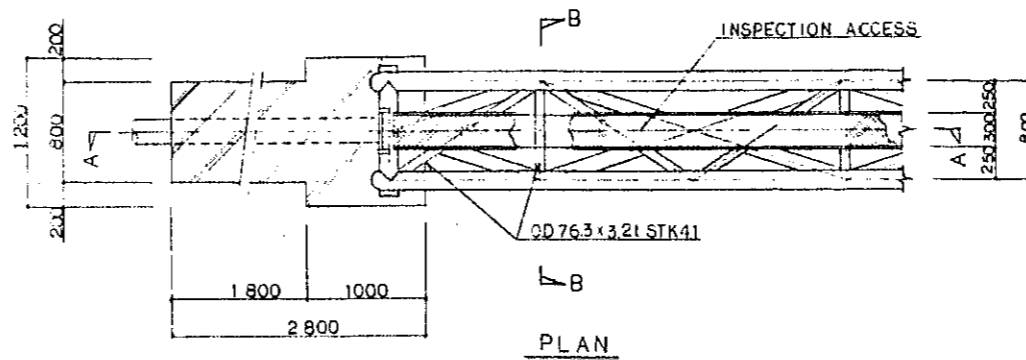
SECTION



SECTION

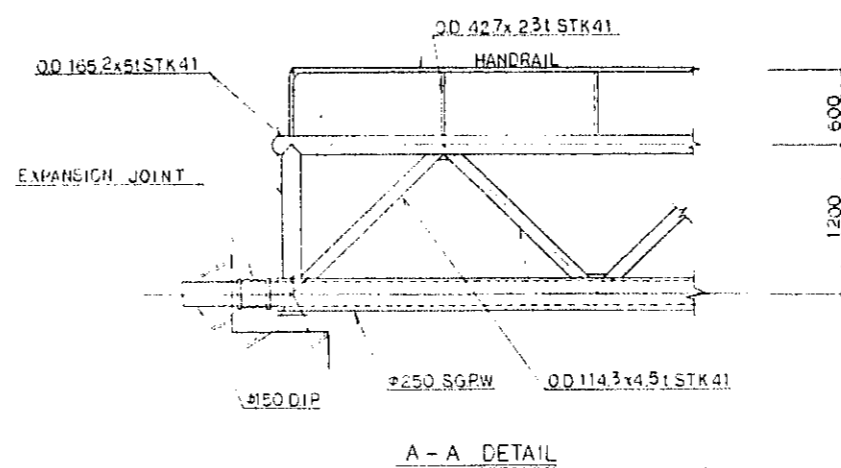


PLAN

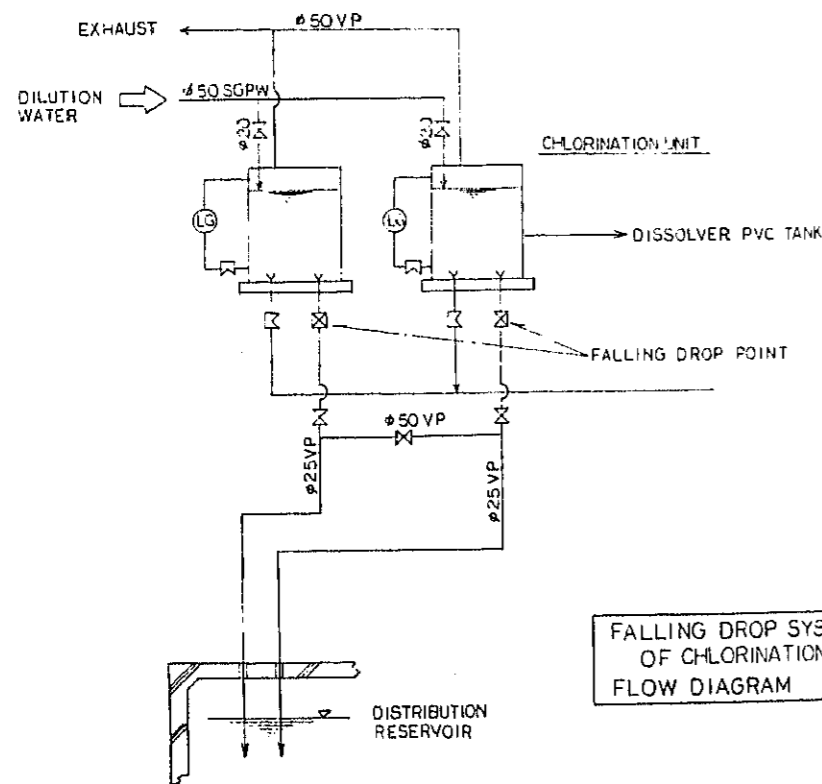


PLAN

STANDARD PLAN OF PIPE BRIDGE
NO SCALE

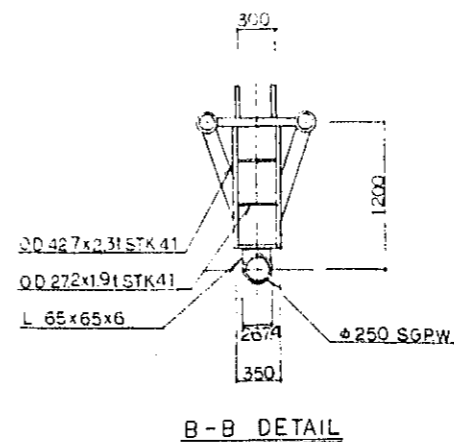


A - A DETAIL



FALLING DROP SYSTEM
OF CHLORINATION
FLOW DIAGRAM

NO SCALE

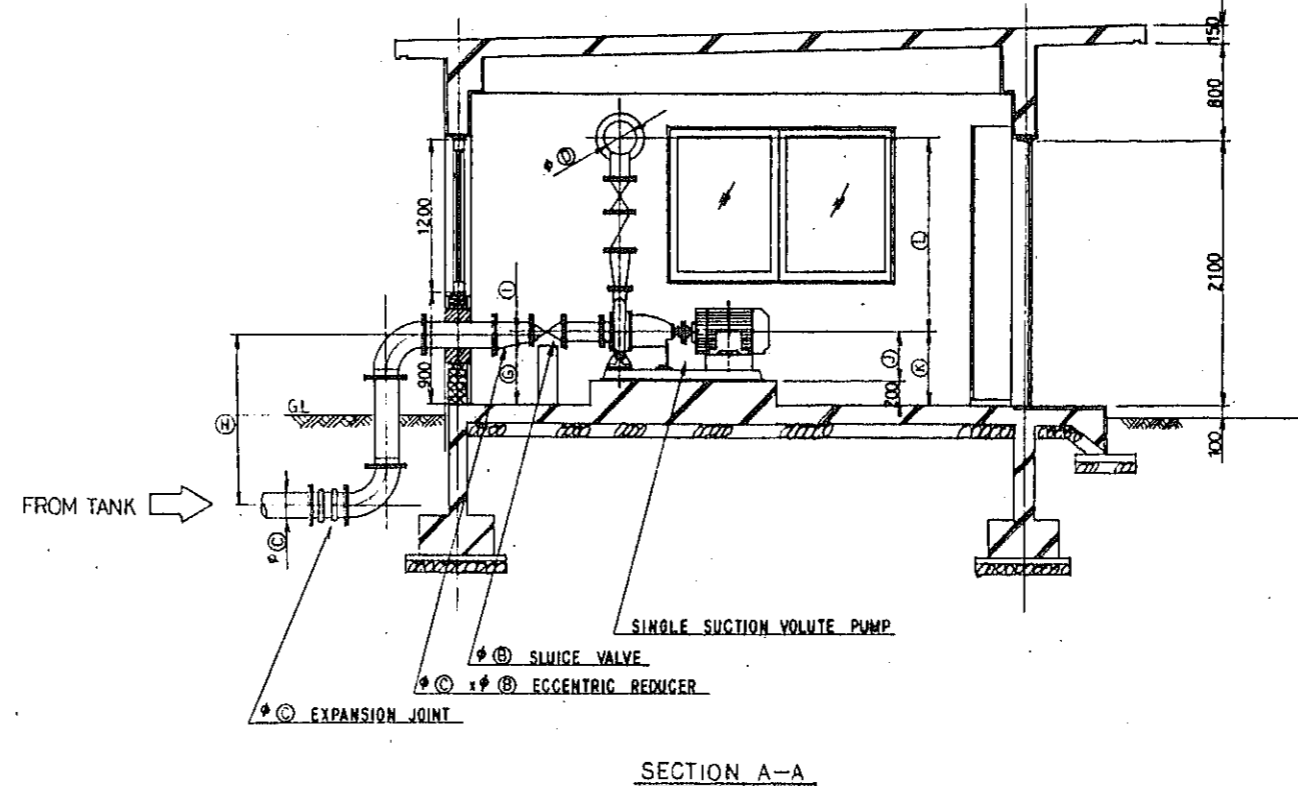
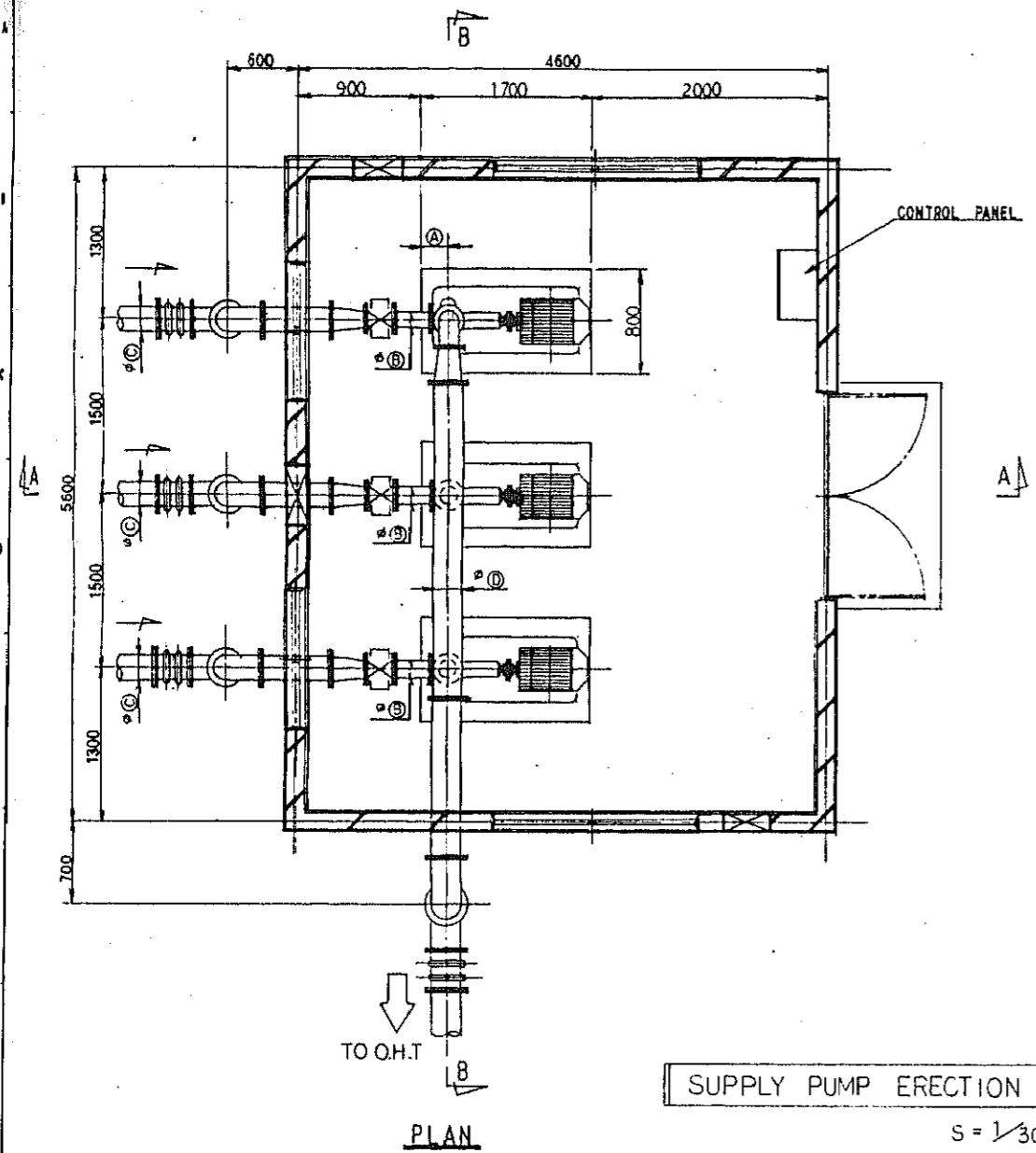


B - B DETAIL

DETAIL OF PIPE BRIDGE
ILAM CITY

NO SCALE

DESCRIPTIONS		DWG. NO.	
REFERENCE DRAWINGS			
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◇			
NO.	DATE	DESCRIPTIONS	BY APP.
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
STANDARD PLAN OF PARTICULAR PIPING			
SUBMITTED	APPROVED	SCALE	REV. NO.
		NO SCALE	
DATE	DWG. NO. K-4		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			

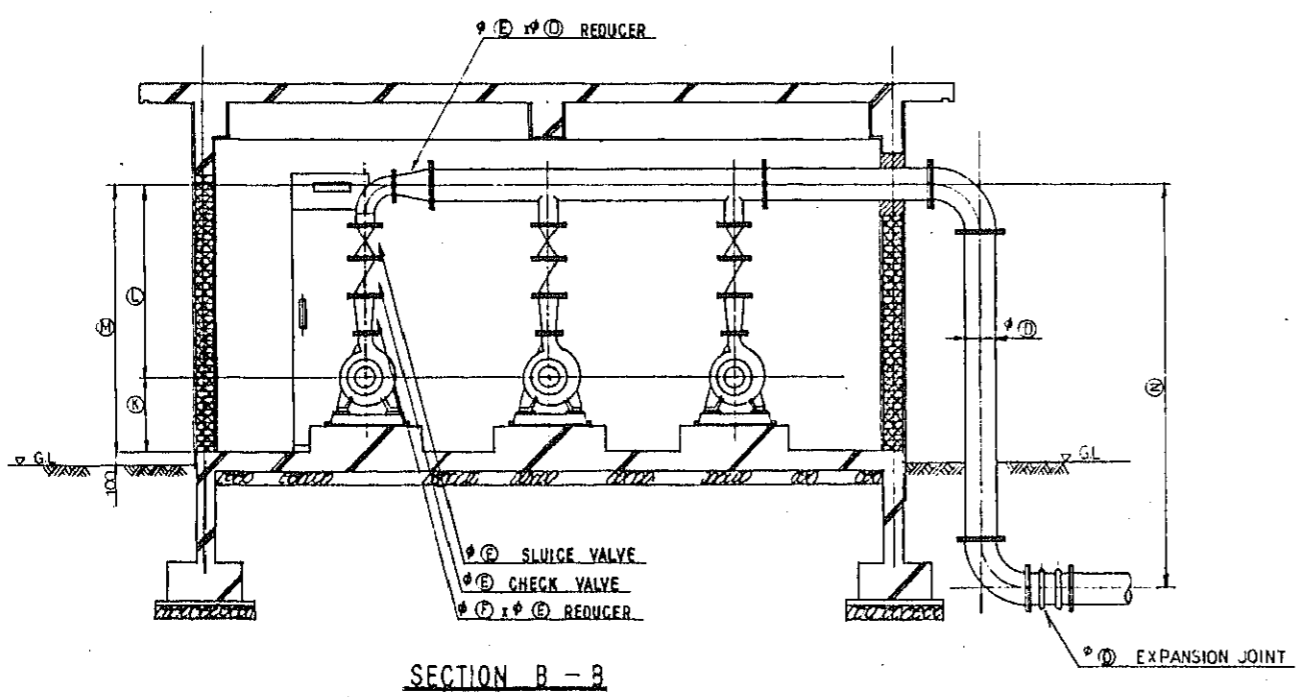


SPECIFICATION OF PUMPS

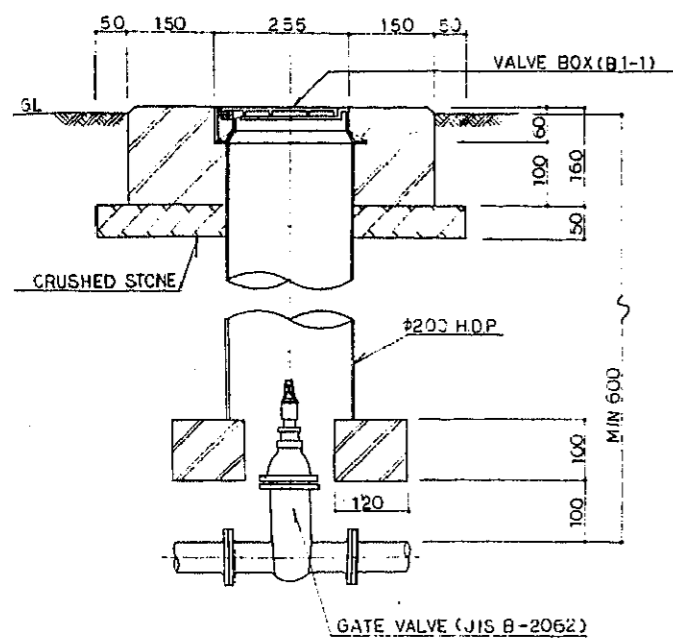
PUMP STATION	TYPE	Q'TY	CAPACITY (LIT/MIN)/UNIT	TOTAL HEAD (M)	SPEED (RPM)	MOTOR OUT PUT (KW)
MAHENDRA NAGAR	SINGLE SUCTION VOLUTE	3 (2+1)	1400	30.5	2900	11
DHANGADHI	-DITTO-	-DITTO-	1400	30.5	2900	11
BHARATPUR	1	1	3200	30.5	1450	22
GAUSHALA	1	1	500	35.0	2900	5.5
LAHAN	1	1	1900	30.0	1450	15
RAJBIRAJ	1	1	2820	30.0	1450	18.5
BHADRA/CHANDRA	1	1	1400	30.5	1450	11

DIMENSION LIST

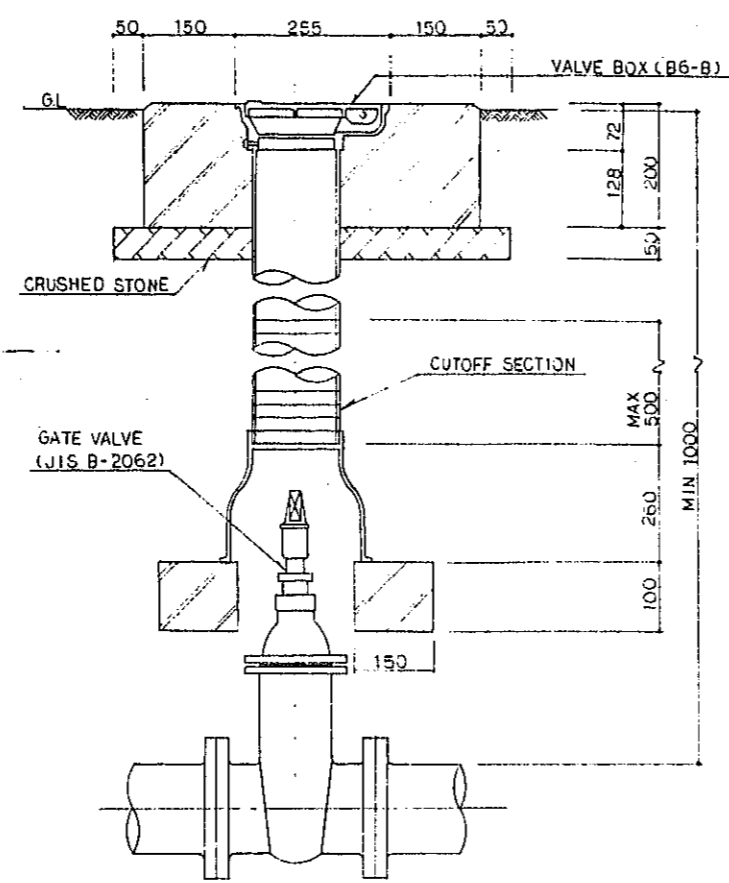
PUMP STATION	TYPE	A	B	C	D	E	F	G	H	I	J	K	L	M	N
MAHENDRANAGAR	SV-JA 102AK 11KW	400	100	125	200	100	75	522.5	1422.5	12.5	235	435	1100	1535	2635
DHANGADHI	1	400	100	125	200	100	75	522.5	1422.5	12.5	235	435	1100	1535	2635
BHARATPUR	SV JA 155AK 22KW	300	150	150	300	150	125	632.5	1570	25	395	595	1555	2150	3250
GAUSHALA	SV JA 72 AK 5.5KW	400	65	100	150	65	50	498.5	1384.5	7.5	192	392	650	1242	2342
LAHAN	SV JA 135AK 15KW	400	125	125	250	125	100	522.5	1532.5	12.5	345	545	1335	1880	2980
RAJBIRAJ	SV JA 155AK 18.5 KW	300	150	150	300	150	125	632.5	1570	25	395	595	1555	2150	3250
BHADRA/CHANDRA	SV JA 102 AK 11KW	300	100	125	250	100	75	522.5	1422.5	12.5	235	435	1100	1535	2635



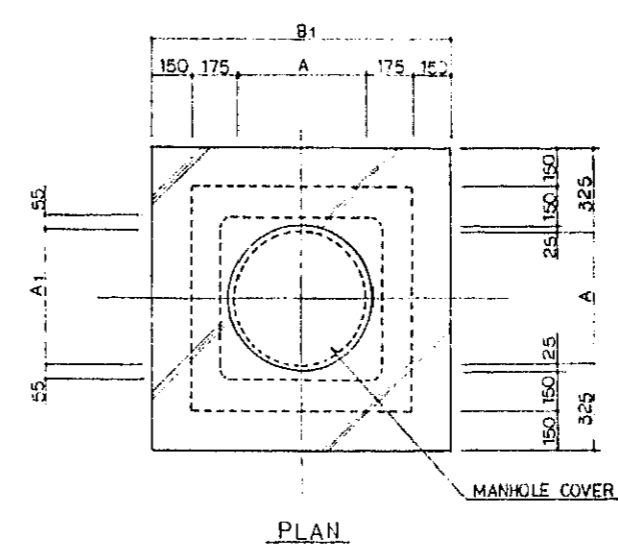
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REFERENCE DRAWINGS				
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NO.	DATE	DESCRIPTIONS	BY	APP'D
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
STANDARD PLAN OF SUPPLY PUMP ERECTION				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		S=1/30		
DATE	DWG. NO. K-5			
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				



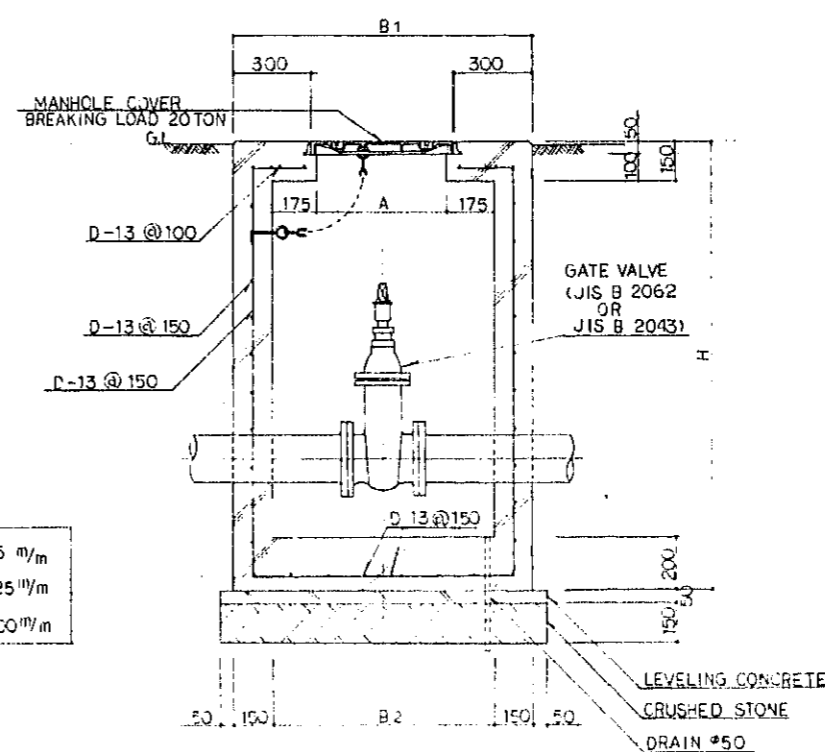
TYPE-A



TYPE-B

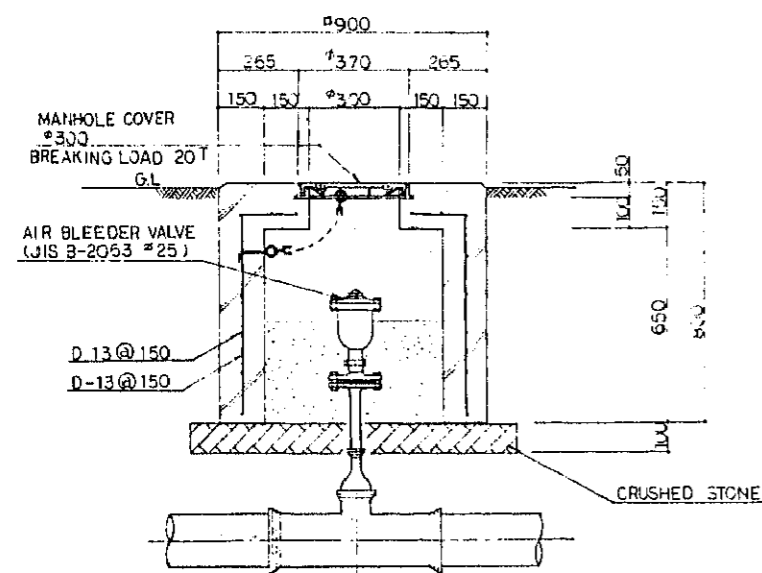


PLAN



SECTION

TYPE A : VALVE BOX FOR GATE VALVE OF $\phi 50$ mm TO $\phi 75$ mm
 TYPE B : VALVE BOX FOR GATE VALVE OF $\phi 75$ mm TO $\phi 125$ mm
 TYPE C : VALVE BOX FOR GATE VALVE OF $\phi 75$ mm TO $\phi 400$ mm



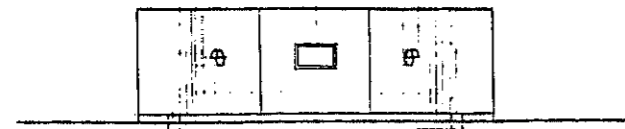
AIR BLEEDER VALVE BOX

ϕ (mm)	A	B1	B2	H
75, 100	150	1100	800	1700
150	500	1150	850	1700
200	500	1150	850	1800
250, 300	600	1250	950	1900
350, 400	600	1250	950	2000

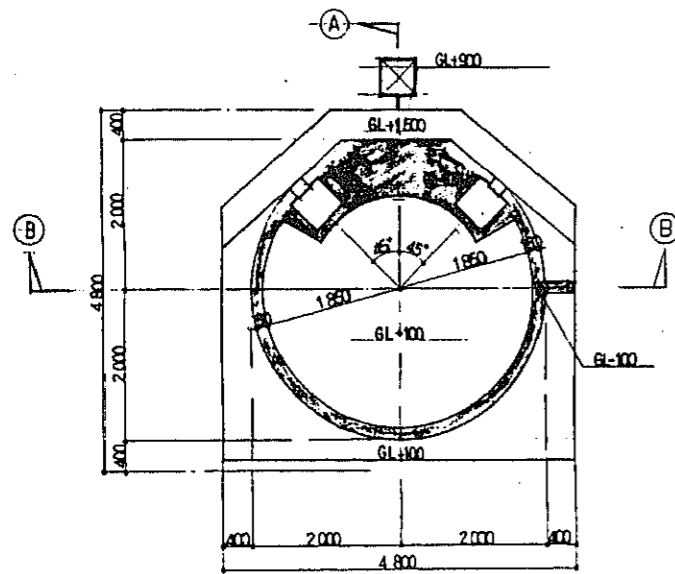
TYPE-C

STANDARD PLAN OF VALVE BOX

DESCRIPTIONS		DWG. NO.		
REFERENCE DRAWINGS				
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◇				
NO.	DATE	DESCRIPTIONS	BY	APP.
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
STANDARD PLAN OF VALVE BOX				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		NO SCALE		
DATE		DWG. NO. K-6		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				

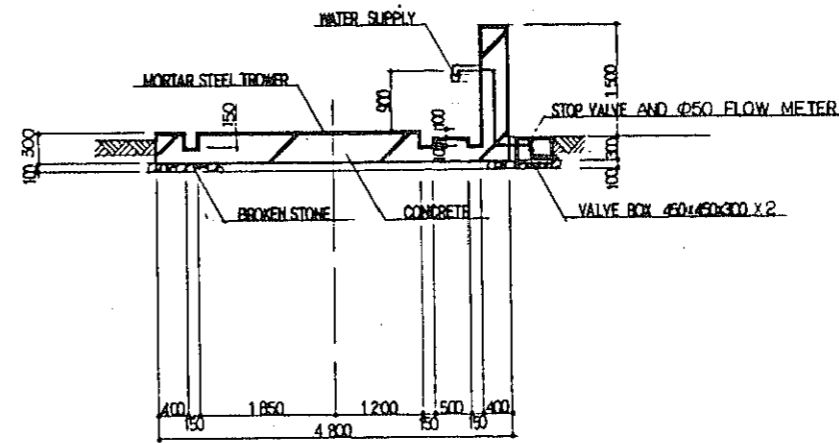


ELEVATION S: 1/50

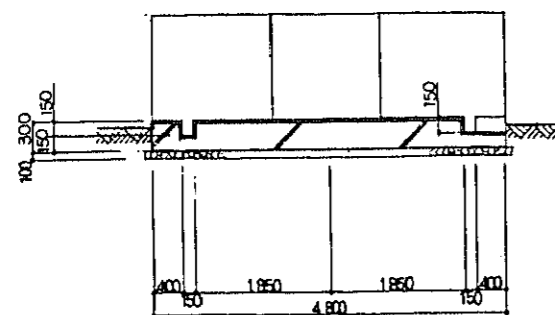


PUBLIC TAP PLAN S: 1/50

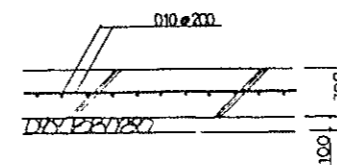
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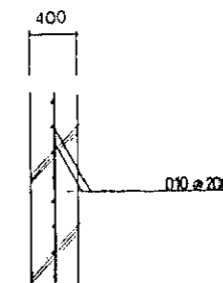
A - A SECTION S: 1/50



B - B SECTION S: 1/50



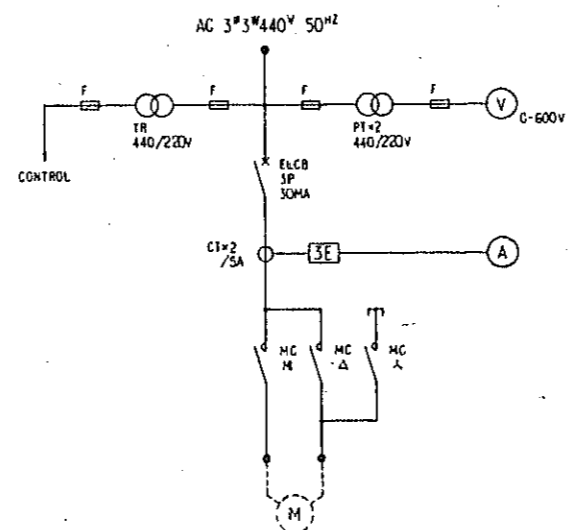
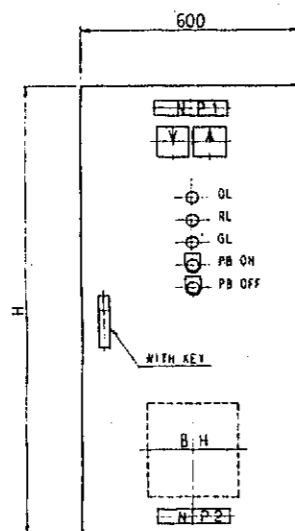
SLAB SECTION S: 1/50



WALL SECTION S: 1/50

PUBLIC TAP STANDARD DRAWING

DESCRIPTIONS		DWG. NO.	
REFERENCE DRAWINGS			
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◇			
◇			
NO.	DATE	DESCRIPTIONS	BY APP'D
REVISIONS			
THE KINGDOM OF NEPAL			
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS			
PUBLIC TAP STANDARD DRAWING			
SUBMITTED	APPROVED	SCALE	REV. NO.
		1/50	
DATE	DWG. NO. [-]		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			



MOTOR CAPACITY KW	PANEL HEIGHT MM	ELCB		CT /5A	AMMETER A	REMARKS
		A	KA			
15	1200	50/50	2.5	60	0 - 60 - 120	
18.5	1200	100/60	7.5	60	0 - 60 - 120	
22	1200	100/75	7.5	60	0 - 60 - 120	
30	1300	100/100	7.5	100	0 - 100 - 200	
37	1400	225/125	10	100	0 - 100 - 200	

CONTROL PANEL FOR SUBMERSIBLE PUMP

GENERAL NOTES

- ELCB : EARTH LEAKAGE CIRCUIT BREAKER
- MC : MAGNETIC CONTACTOR
- CT : CURRENT TRANSFORMER
- PT : POTENTIAL TRANSFORMER
- TR : TRANSFORMER
- V : VOLTMETER
- A : AMMETER
- F : FUSE
- 3E : MOTOR RELAY
OVERLOAD OPEN-PHASE
REVERSE-PHASE
- OL : ORANGE LAMP FOR FAULT
- RL : RED LAMP FOR FAULT
- GL : GREEN LAMP FOR OPENING
- PB : PUSH BUTTON SWITCH

DESCRIPTIONS	DWG. NO.
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REFERENCE DRAWINGS

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◇			

NO.	DATE	DESCRIPTIONS	BY	APP'D
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REVISIONS

THE KINGDOM OF NEPAL

WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS

STANDARD PLAN OF CONTROL PANEL (1)
(FOR SUBMERSIBLE PUMP)

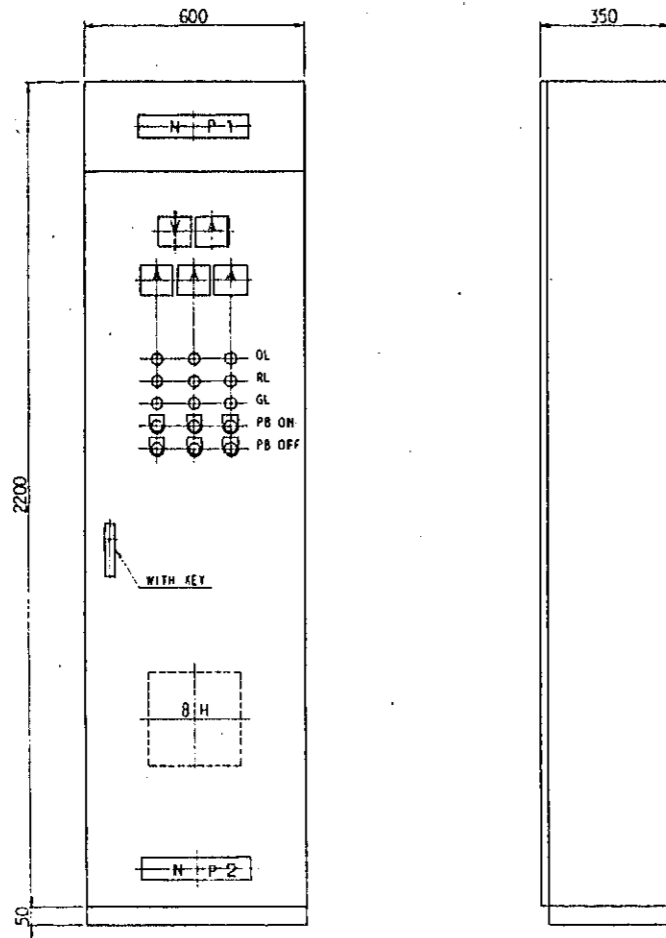
SUBMITTED	APPROVED	SCALE	REV. NO.
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NO SCALE

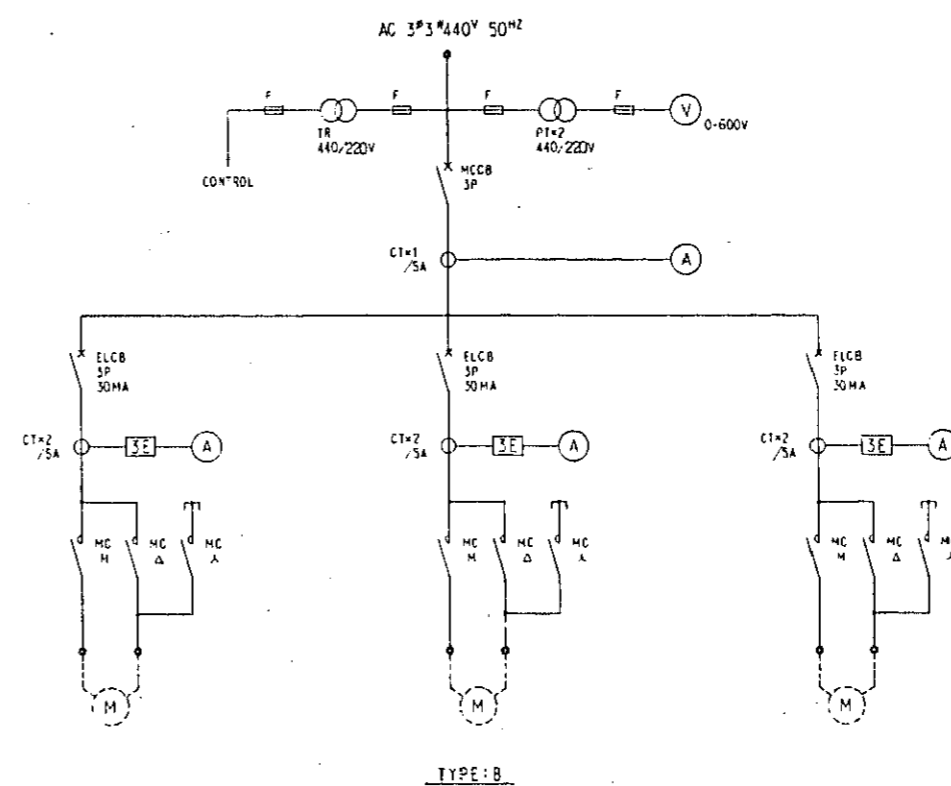
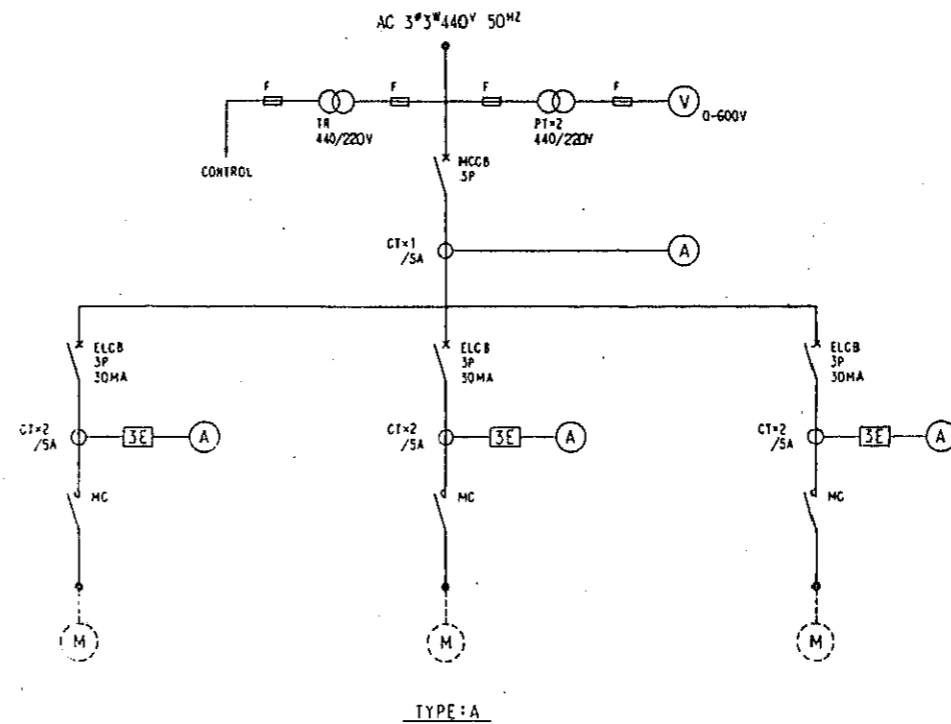
DATE	DWG. NO.
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M-1

JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)



TYPE	MOTOR CAPACITY KW	MCCB		CT MAIN /5A	AMMETER MAIN A	ELCB		CT BRANCH /5A	AMMETER BRANCH A	REMARKS
		A	KA			A	KA			
A	× 3	100/75	7.5	75	0 - 75	50/30	2.5	20	0 - 20 - 40	
B	11 × 3	100/100	7.5	100	0 - 100	50/40	2.5	30	0 - 30 - 60	
B	15 × 3	100/100	7.5	100	0 - 100	50/50	2.5	60	0 - 60 - 120	
B	18.5 × 3	225/150	10	150	0 - 150	100/60	7.5	60	0 - 60 - 120	
B	22 × 3	225/200	10	200	0 - 200	100/75	7.5	60	0 - 60 - 120	

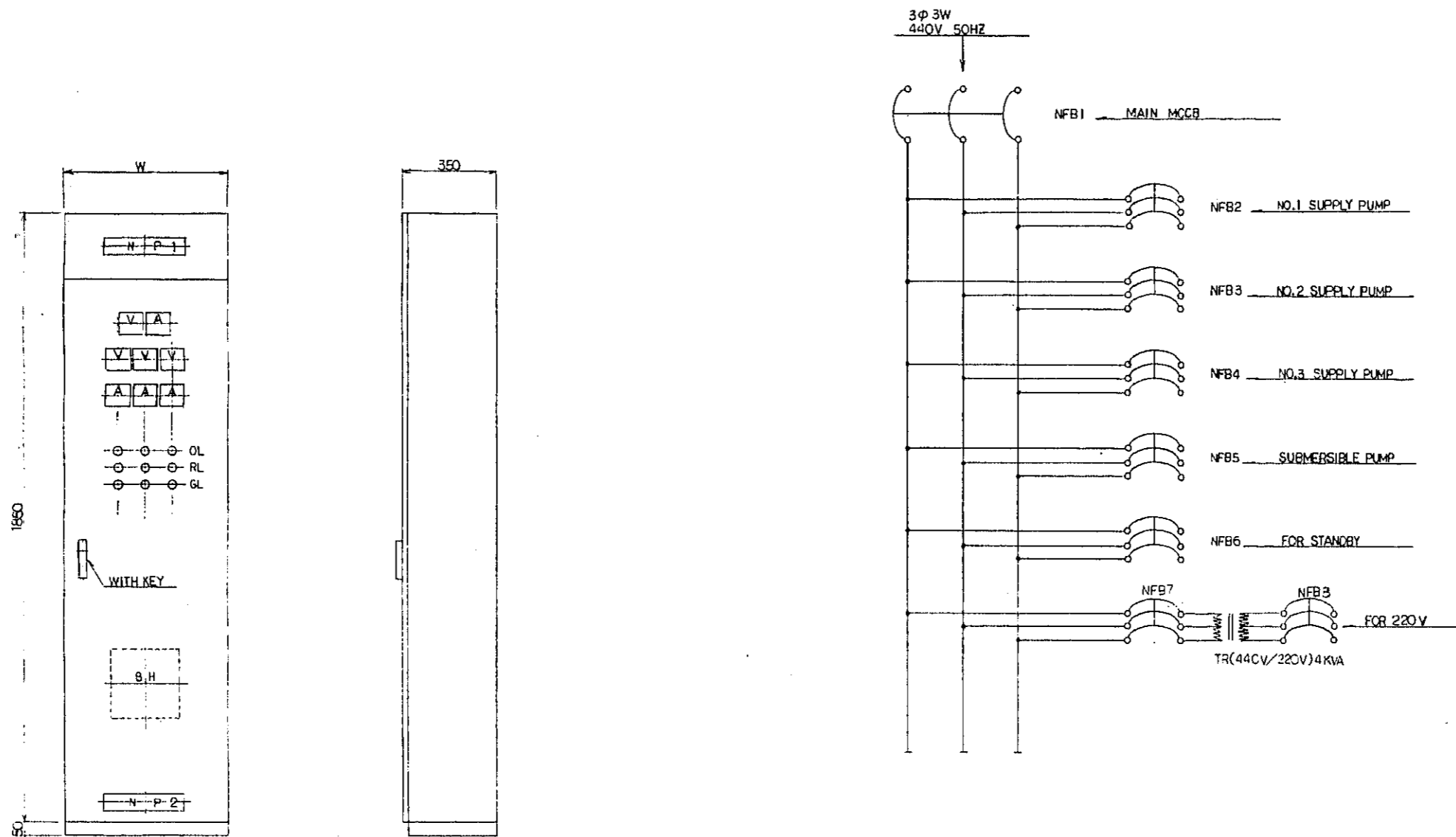


CONTROL PANEL FOR SUPPLY PUMP

GENERAL NOTES

- MCCB : MOLDED CASE CIRCUIT BREAKER
- ELCB : EARTH LEAKAGE CIRCUIT BREAKER
- MC : MAGNETIC CONTACTOR
- CT : CURRENT TRANSFORMER
- PT : POTENTIAL TRANSFORMER
- TR : TRANSFORMER
- V : VOLTMETER
- A : AMMETER
- F : FUSE
- 3E : MOTOR RELAY
- OVERLOAD OPEN - PHASE
- REVERSE - PHASE
- OL : ORANGE LAMP FOR FAULT
- RL : RED LAMP FOR CLOSING
- GL : GREEN LAMP FOR OPENING
- PB : PUSH BUTTON SWITCH

DESCRIPTIONS		DWG. NO.		
REFERENCE DRAWINGS				
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NO.	DATE	DESCRIPTIONS	BY	APP'D
REVISIONS				
THE KINGDOM OF NEPAL				
WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS				
STANDARD PLAN OF CONTROL PANEL (2) (FOR SUPPLY PUMP)				
SUBMITTED	APPROVED	SCALE	REV. NO.	
		NO SCALE		
DATE	DWG. NO. M-2			
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)				



TYPE	POWER SUPPLY CAPACITY (kw)	W	MAIN ISOLATOR A	BRANCH ISOLATOR A	BRANCH AMMETER A	STANDBY SUPPLY CAPACITY A	STANDBY SUPPLY CAPACITY (kw)	220V SUPPLY CAPACITY A	220V SUPPLY CAPACITY kw	REMARKS
55kw	55kw X 3 37Ckw X 1	600	200	30 150	0-75	20	5	20	5	
11.0kw	11Ckw X 3 15Ckw X 1 (15Ckw X 2)	700	200	50 75	0-150	20	5	20	5	
15.0kw	15.0kw X 3 15.0kw X 1	700	200	75 75	0-150	20	5	20	5	
18.5kw	18.5kw X 3 15.0kw X 2	700	300	100 75	0-200	20	5	20	5	
22.0kw	22.0kw X 3 15.0kw X 1	700	300	150 75	0-200	20	5	20	5	

STANDARD PLAN OF DISTRIBUTION PANEL

NO.	DATE	DESCRIPTIONS	BY	DATE

REVISIONS

THE KINGDOM OF NEPAL

WATER SUPPLIES TO URBAN & SEMI-URBAN CENTERS

STANDARD PLAN OF DISTRIBUTION PANEL

SUBMITTED	APPROVED	SCALE	REV. NO.
		NO SCALE	
DATE	DWG. NO. M-3		
JAPAN INTERNATIONAL COOPERATION AGENCY, (JICA)			

