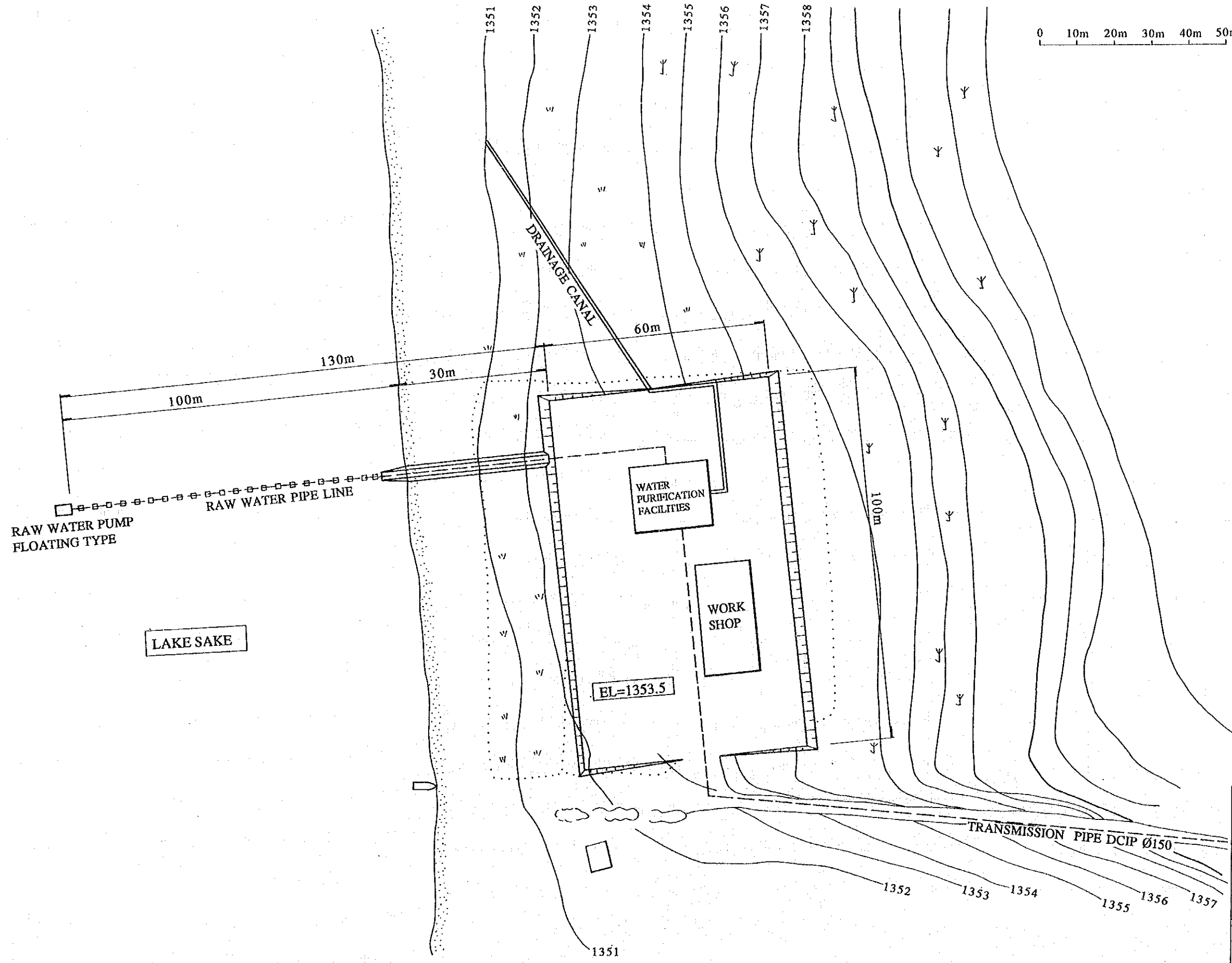
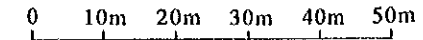


| LEGEND | |
|--------|-------------------|
| SYMBOL | DESCRIPTION |
| ■ | STAND PIPE |
| ○ | RESERVOIR |
| ⊙ | PUMP STATION |
| ⊗ | GATE VALVE |
| ⊠ | AIR VALVE |
| ⊡ | DRAIN VALVE |
| --- | PIPE LINE |
| --- | TRANSMISSION PIPE |

REPUBLIC OF RWANDA
 MINISTRY OF PUBLIC WORKS, ENERGY AND WATER
 BASIC PLAN OF RURAL WATER SUPPLY PROJECT
 IN THE EASTERN REGION (PHASE II)
 GENERAL PLAN OF SAKE AREA
 DESIGNED BY _____
 DATE _____ SCALE _____ DWG. NO. 2- 8
 JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

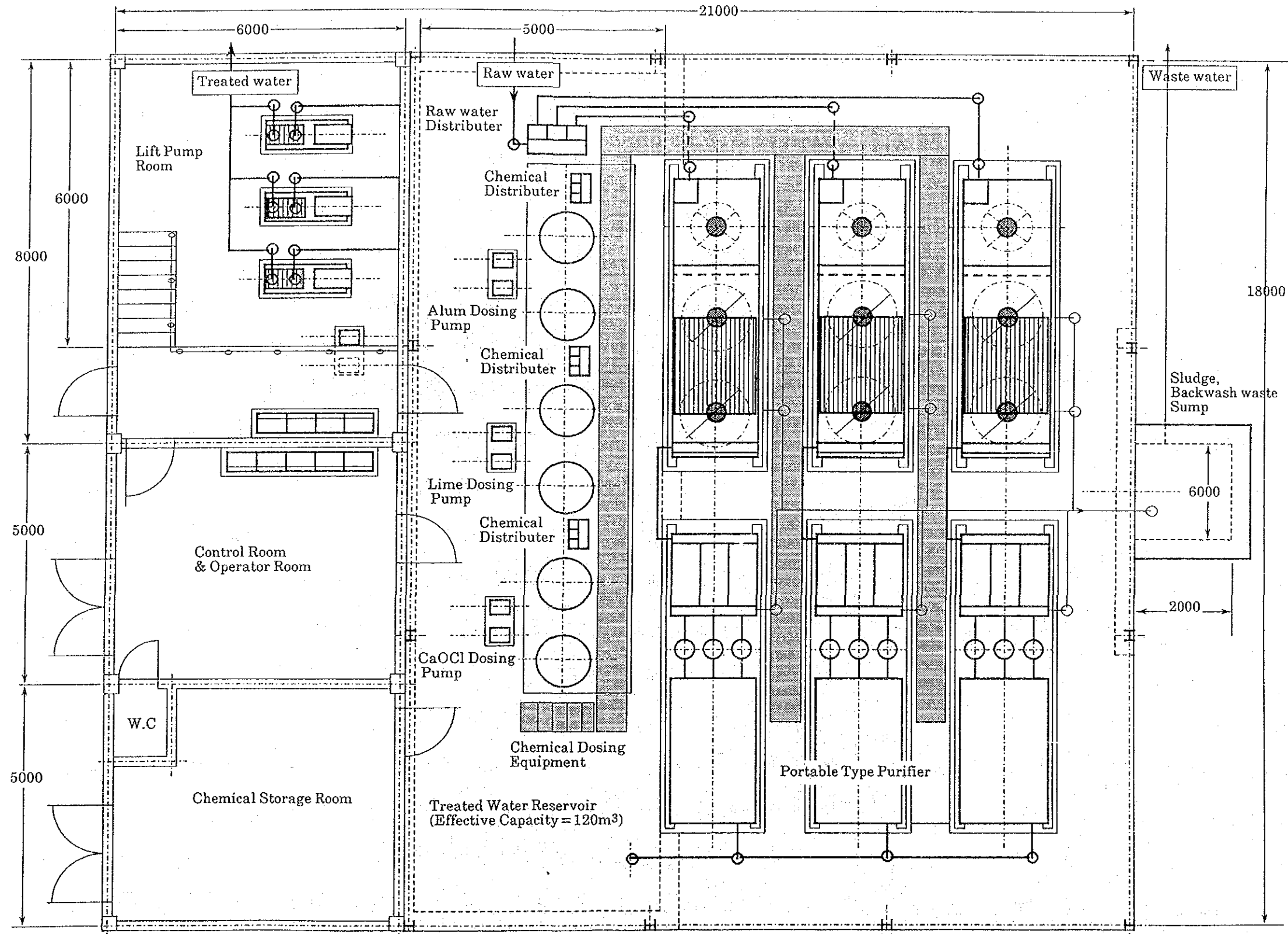
Water Purification Station for SAKE

GENERAL PLAN OF WATER PURIFICATION STATION FOR SAKE AREA



| | | | |
|---|-------|----------|-----|
| REPUBLIC OF RWANDA MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| GENERAL PLAN OF WATER PURIFICATION STATION FOR SAKE AREA | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 2-9 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

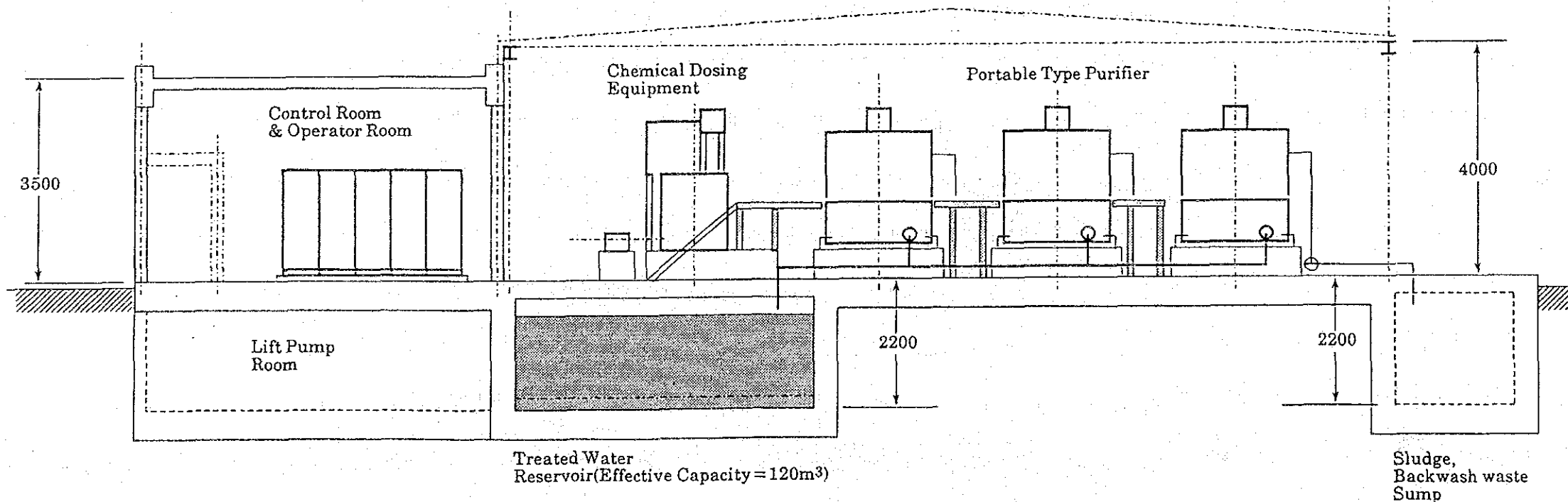
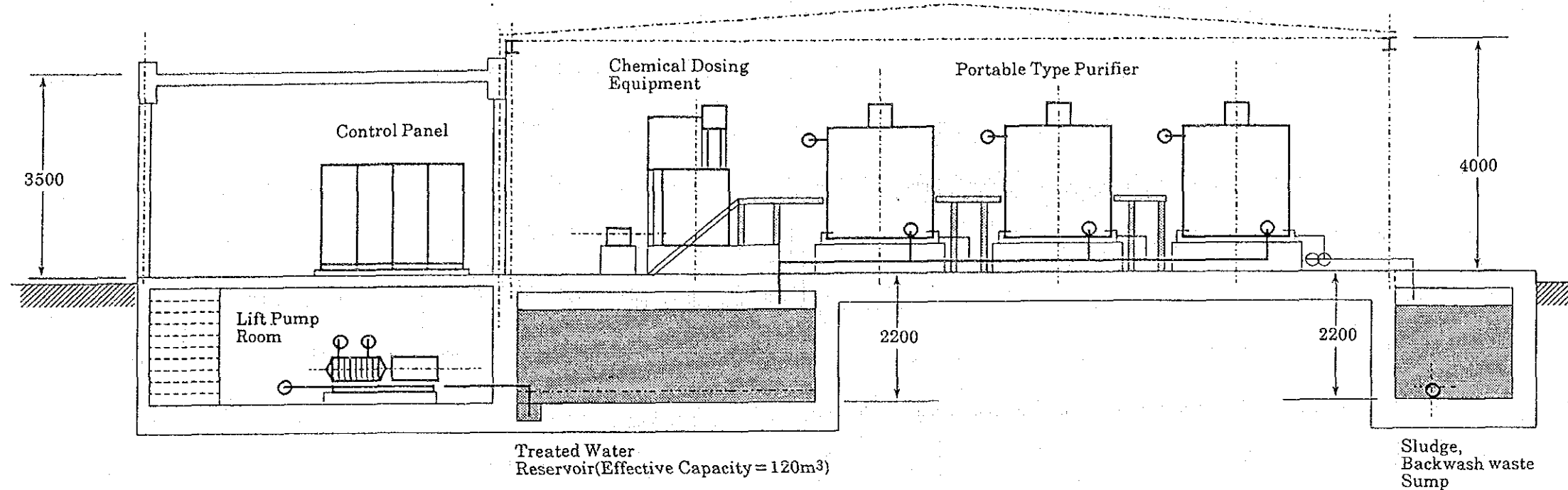
PLAN OF WATER PURIFICATION FACILITIES FOR SAKÉ AREA



Plan

| | | | |
|---|-------|----------|------|
| REPUBLIC OF RWANDA MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| PLAN OF WATER PURIFICATION FACILITY PLANT OF SAKÉ AREA | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 2-10 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

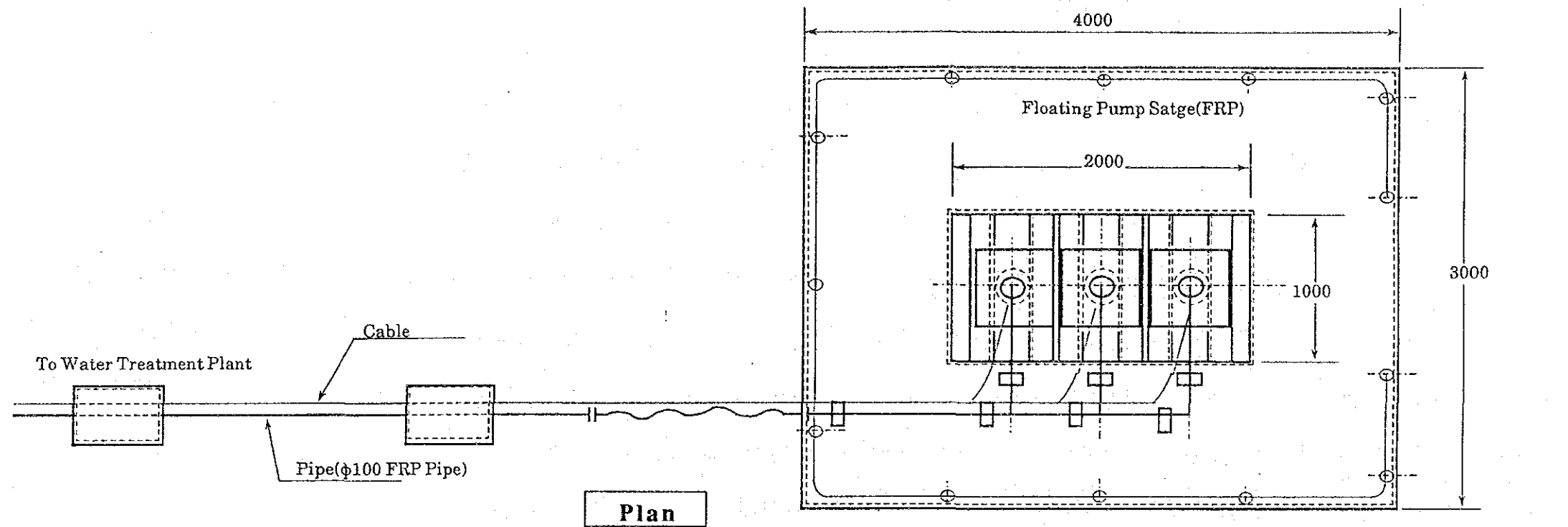
SECTION OF WATER PURIFICATION FACILITIES FOR SAKE AREA



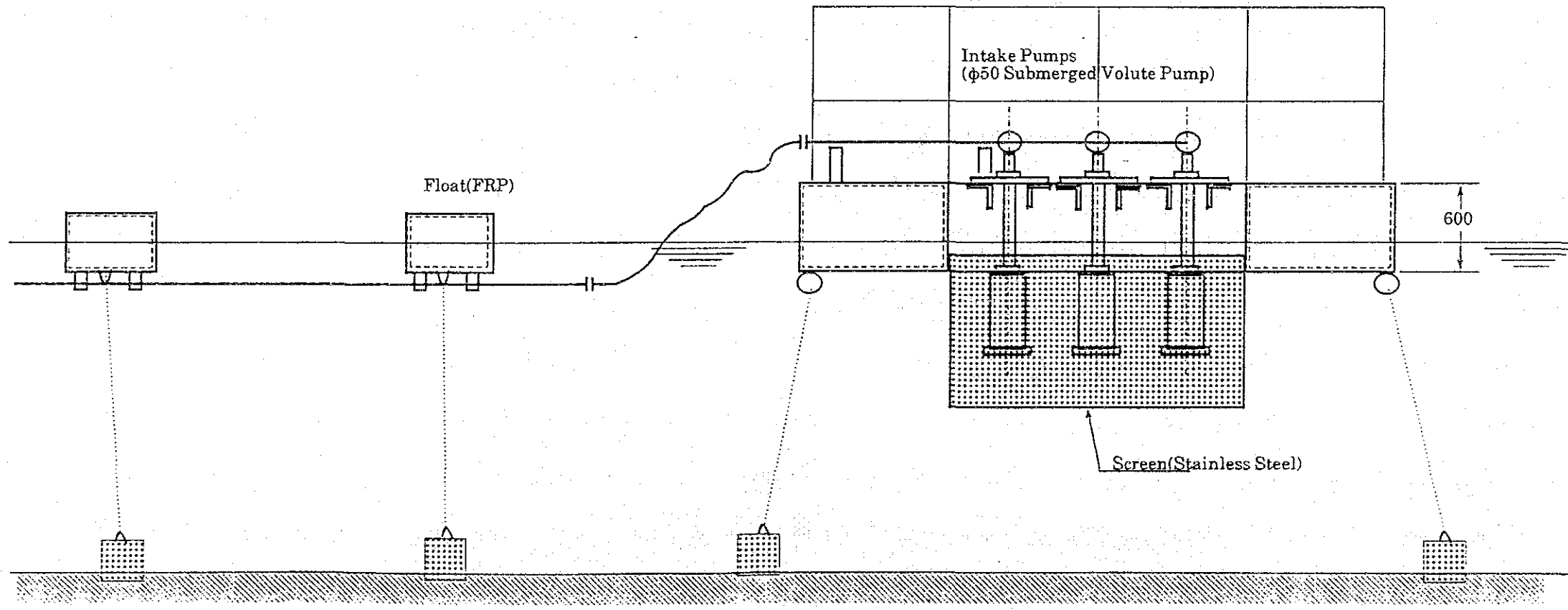
Section

| | | | |
|---|-------|----------|------|
| REPUBLIC OF RWANDA | | | |
| MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT | | | |
| IN THE EASTERN REGION (PHASE III) | | | |
| SECTION OF WATER PURIFICATION | | | |
| FACILITY PLANT OF SAKE AREA | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 2-11 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

INTAKE FACILITIES OF SAKE AREA



Plan

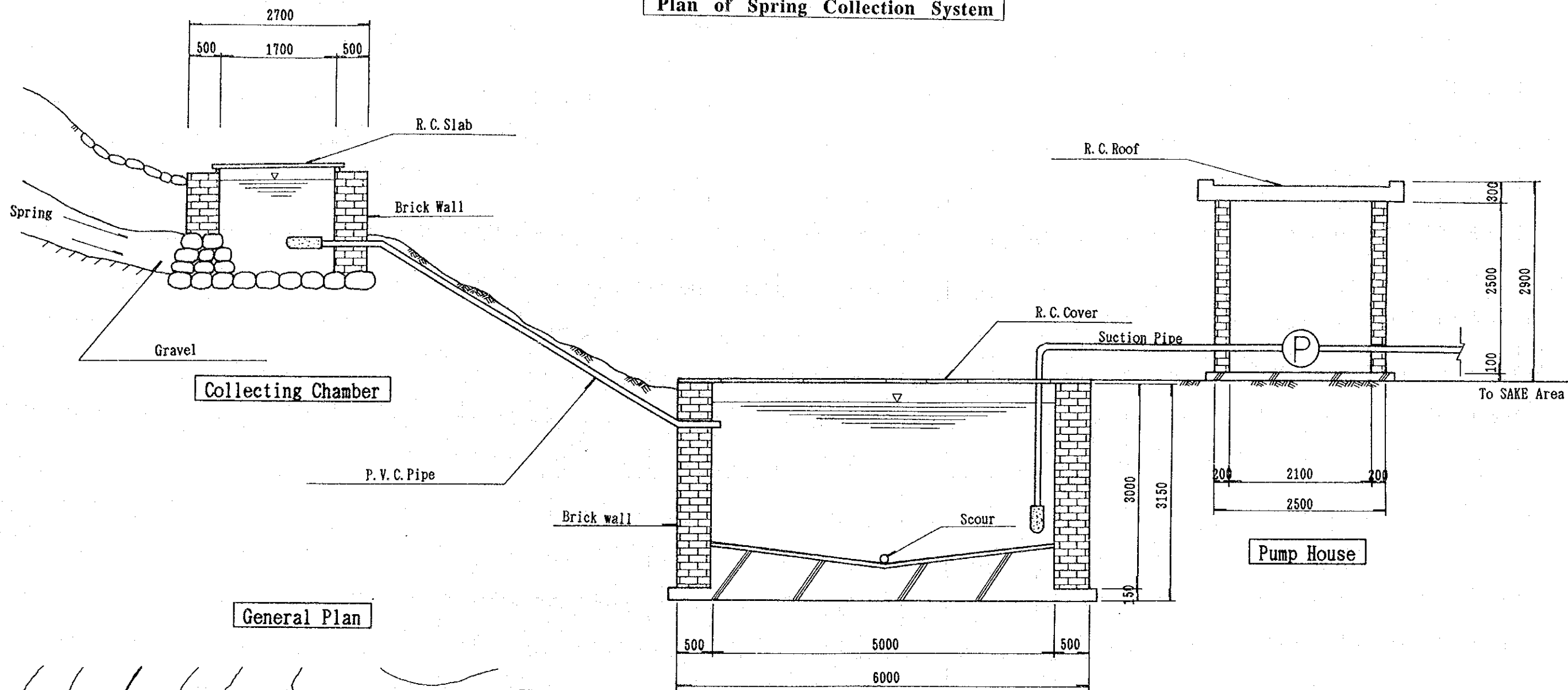


Section

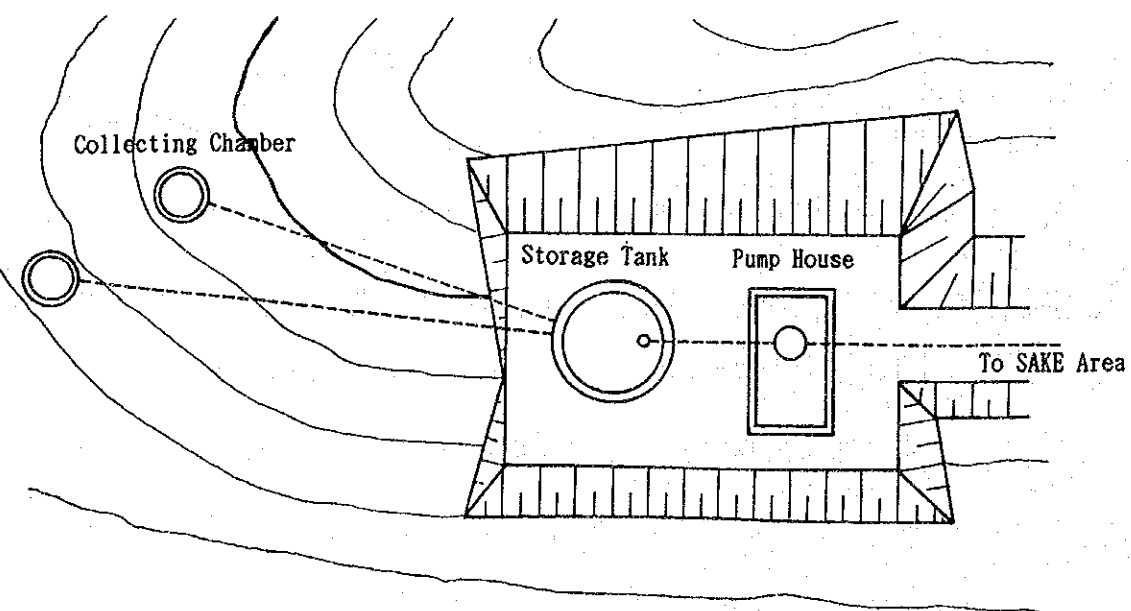
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| REPUBLIC OF RWANDA MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| INTAKE FACILITIES OF SAKE AREA. | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 2-12 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

INTAKE FACILITIES OF SAKE AREA (SPRING)

Plan of Spring Collection System



General Plan



Storage Tank

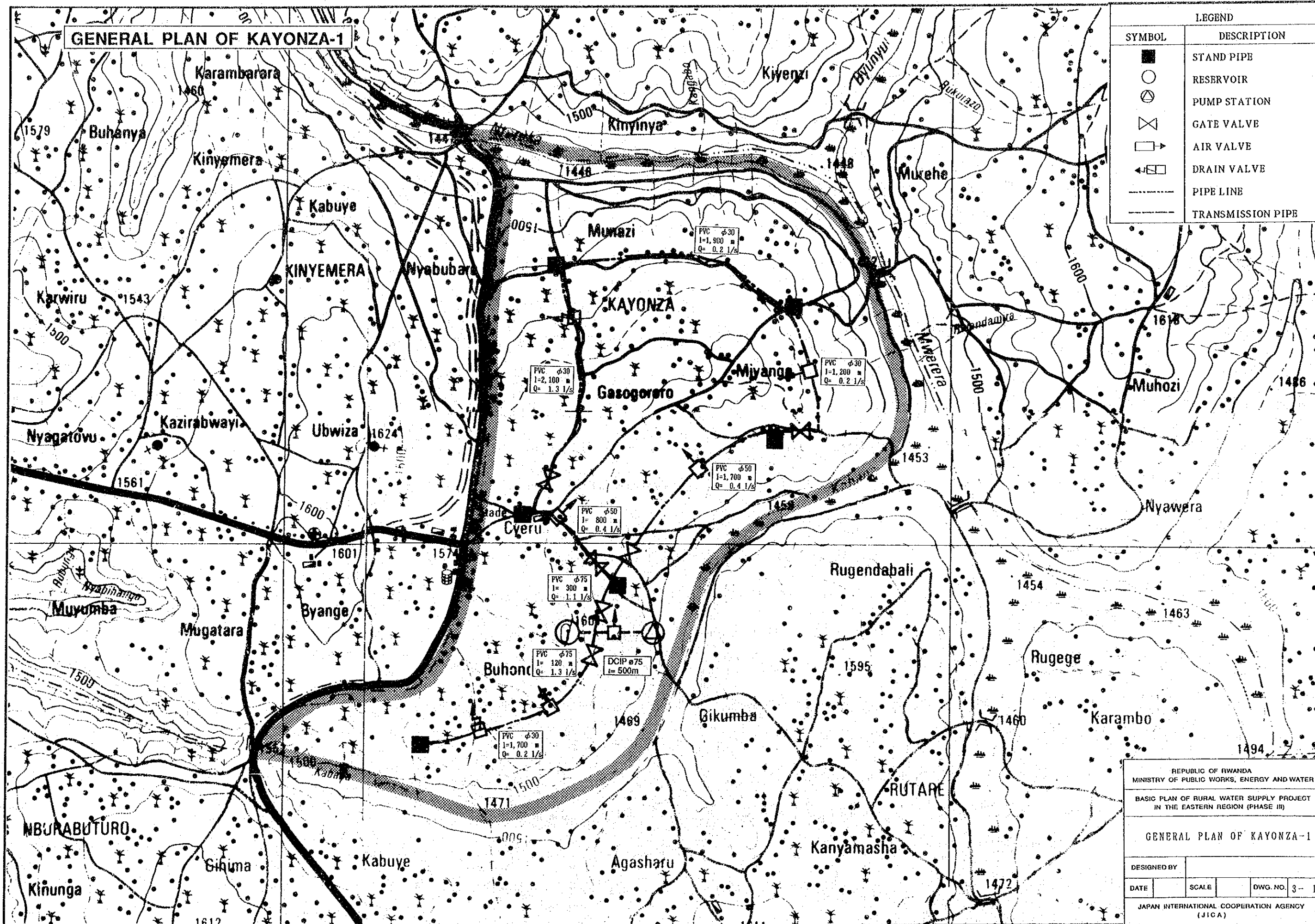
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| REPUBLIC OF RWANDA MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| INTAKE FACILITIES OF SAKE AREA (SPRING) | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 2-13 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

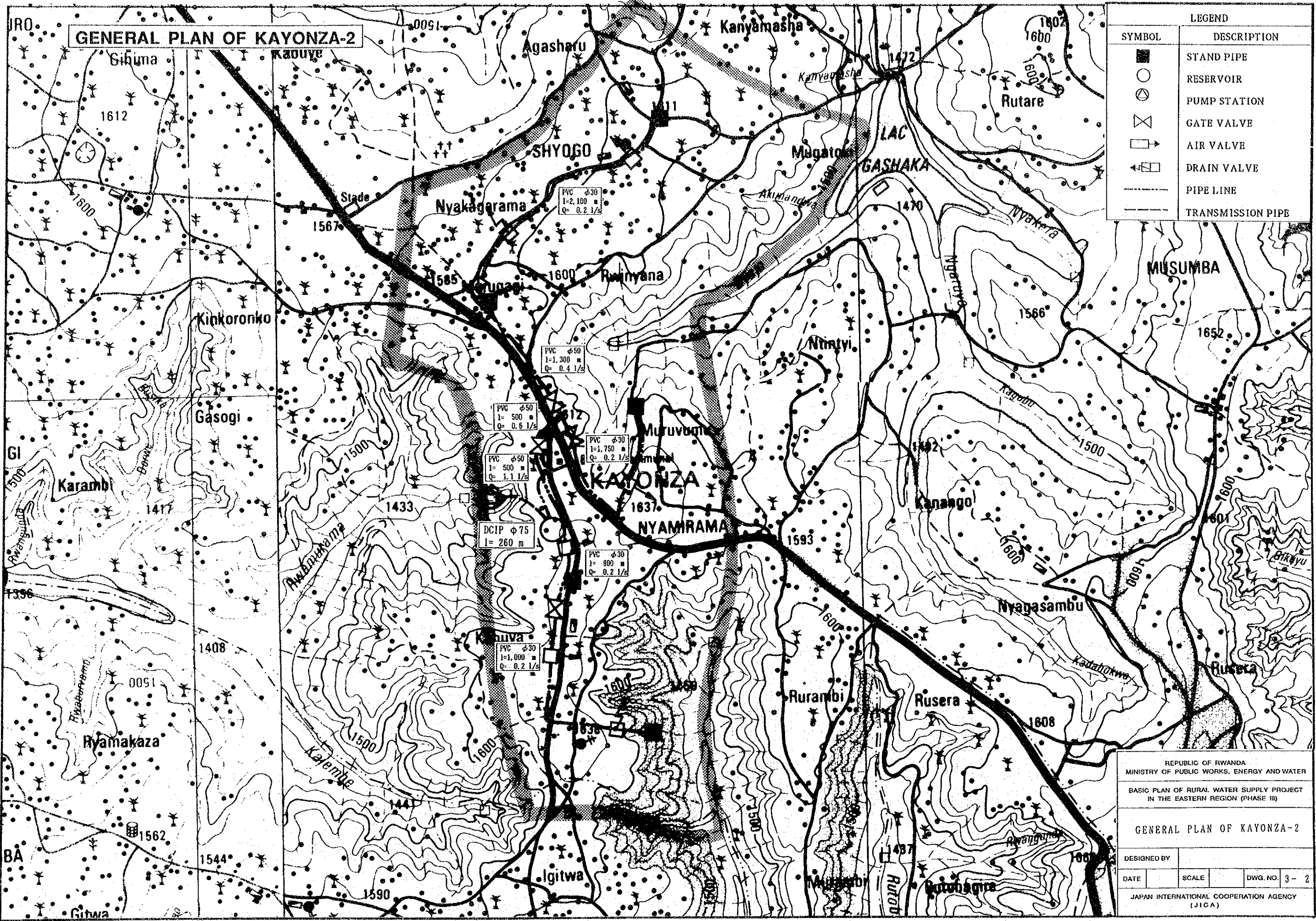
LIST OF WATER SUPPLY SCHEME FOR SYSTEM-2

LIST OF WATER SUPPLY SCHEME FOR SYSTEM-2

| Service Block Name | Intake Facilities | | | | | Transmission | | Reservoir Tank | | | | Distribution Facilities | | | | | | | | | | | Power Supply Facilities | | | | | | | | | |
|--------------------|-------------------|---------------|----------|----------|----------------|--------------|----------------|-----------------------|----------|----------|----------|-------------------------|---------------|---------------|--------------|--------------|------------------------|-------------|-------------------|-----------|-----------|------------------|-------------------------|-----------|-----------|------------------------|------------------|----------|----------|----------|------------|---|
| | No. of Well | Pump Facility | | | Total Head (m) | DCIP (m) | Air Valve (mm) | (unit) m ³ | | | | PVC Pipe (m) | | | | | Air Stand Valve (unit) | Pipe (unit) | Drain Valve (pcs) | | | Gate Valve (pcs) | | | | Trans-mission Line (m) | Generator (unit) | | | | | |
| | | φ 40 (unit) | | | | | | 60 | 80 | 100 | 120 | φ 30 (mm) | φ 50 (mm) | φ 75 (mm) | φ 100 (mm) | Total | | | φ 30 (mm) | φ 50 (mm) | φ 75 (mm) | Total | φ 30 (mm) | φ 50 (mm) | φ 75 (mm) | | Total | 5.5 (kw) | 7.5 (kw) | 11 (kw) | Total (kw) | |
| | | 5.5 | 7.5 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| KAYONZA-1 | 1 | | 1 | | 1 | 180 | 506 | 1 | 1 | | | | 6,700 | 2,500 | 420 | | | | | 2 | | 2 | 3 | 2 | 1 | 6 | 1,800 | | | | | |
| KAYONZA-2 | 1 | | | 1 | 1 | 220 | 260 | 1 | 1 | | | | 5,750 | 2,300 | | | | | | 2 | | 2 | | 2 | 3 | 5 | 1,200 | | | | | |
| KABARONDO | 2 | | 2 | | 2 | 185 | 600 | 1 | | 1 | | | 5,050 | 1,700 | 30 | | | | | 4 | | 4 | 3 | 3 | 1 | 7 | 1,800 | | | | | |
| RUTONDE | 1 | 1 | | | 1 | 125 | 796 | 1 | 1 | | | | 3,600 | 130 | | | | | | | | 0 | 5 | | | 5 | | 1 | | | 1 | |
| BIRNGA | 1 | | | 1 | 1 | 220 | 950 | 1 | 1 | | | | 6,400 | 1,200 | | | | | | 2 | | 2 | 5 | 1 | | 6 | | | 1 | 1 | | |
| RUSUMO-1 | 2 | | 2 | | 2 | 180 | 1,290 | 2 | | | 1 | | 7,400 | 4,250 | 1,450 | | | | | 7 | 8 | 4 | 2 | 6 | 4 | 2 | 2 | 8 | | 2 | 2 | |
| RUSUMO-2 | 2 | | | 2 | 2 | 250 | 1,365 | 2 | | | 1 | | 7,750 | 7,200 | 2,700 | 550 | | | | 6 | 11 | 3 | 2 | 5 | 6 | 5 | 2 | 13 | | | 2 | 2 |
| RUSUMO-3 | 2 | | 2 | | 2 | 185 | 714 | 1 | | | 1 | | 6,550 | 10,400 | 700 | 6,000 | | | | 8 | 17 | 3 | 3 | 6 | 7 | 5 | 2 | 14 | | 2 | 2 | |
| TOTAL | 12 | 1 | 7 | 4 | 12 | | 6,481 | 10 | 4 | 1 | 2 | 1 | 49,200 | 29,680 | 5,300 | 6,550 | 90,730 | 41 | 65 | 20 | 7 | 27 | 33 | 20 | 11 | 64 | 4,800 | 1 | 4 | 3 | 8 | |

REPUBLIC OF RWANDA
 MINISTRY OF PUBLIC WORKS, ENERGY AND WATER
 BASIC PLAN OF RURAL WATER SUPPLY PROJECT
 IN THE EASTERN REGION (PHASE III)
**LIST OF WATER SUPPLY SCHEME
 FOR SYSTEM-2**
 DESIGNED BY _____
 DATE _____ SCALE _____ DWG. NO. 3
 JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)





GENERAL PLAN OF KAYONZA-2

| LEGEND | |
|--------|-------------------|
| SYMBOL | DESCRIPTION |
| ■ | STAND PIPE |
| ○ | RESERVOIR |
| ⊗ | PUMP STATION |
| ⊗ | GATE VALVE |
| □→ | AIR VALVE |
| ←□ | DRAIN VALVE |
| --- | PIPE LINE |
| --- | TRANSMISSION PIPE |

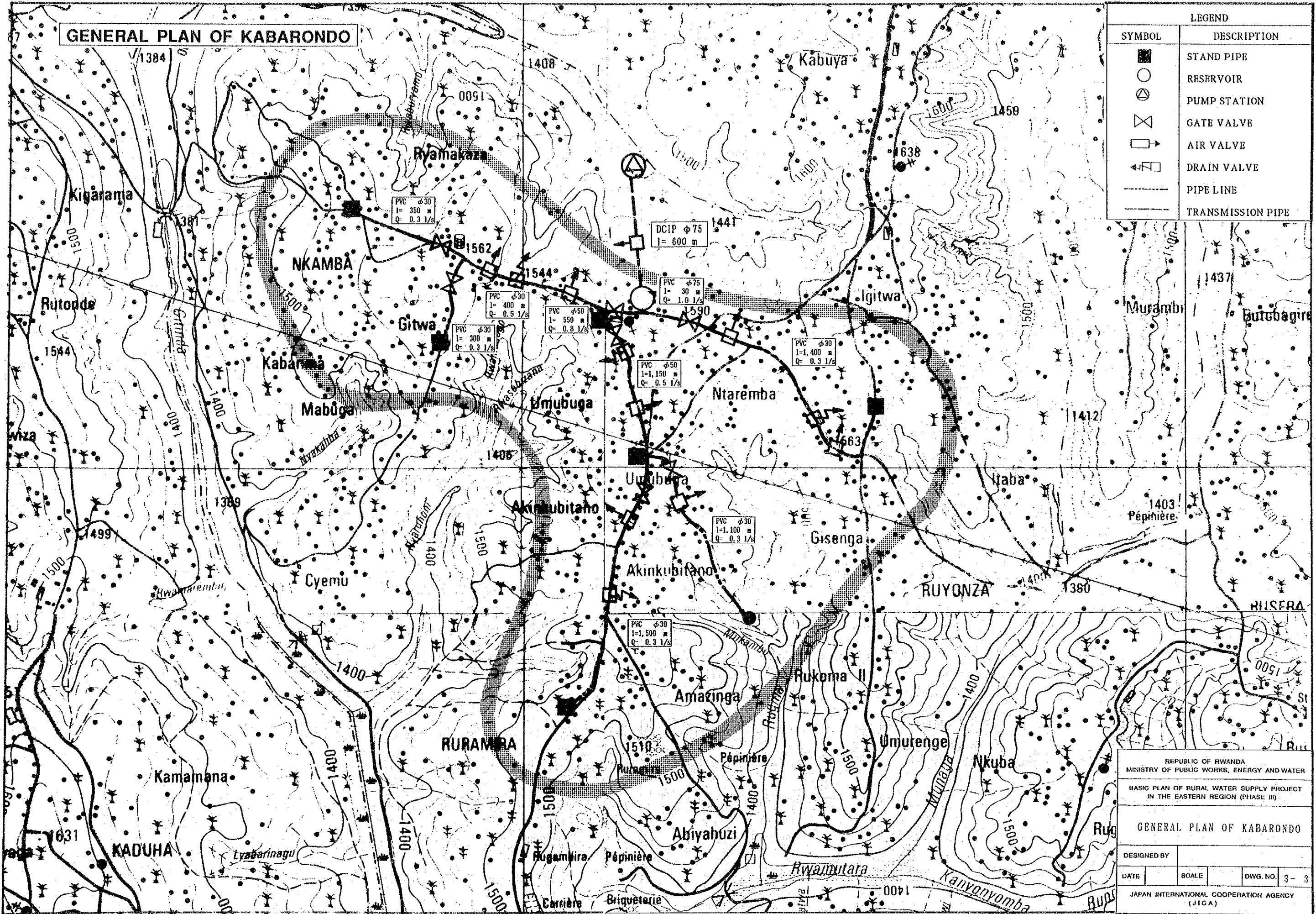
REPUBLIC OF RWANDA
 MINISTRY OF PUBLIC WORKS, ENERGY AND WATER
 BASIC PLAN OF RURAL WATER SUPPLY PROJECT
 IN THE EASTERN REGION (PHASE III)

GENERAL PLAN OF KAYONZA-2

| | |
|---|-------|
| DESIGNED BY | |
| DATE | |
| SCALE | |
| DWG. NO. | 3 - 2 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | |

GENERAL PLAN OF KABARONDO

| LEGEND | |
|--------|-------------------|
| SYMBOL | DESCRIPTION |
| ■ | STAND PIPE |
| ○ | RESERVOIR |
| ⊙ | PUMP STATION |
| ⊗ | GATE VALVE |
| □ | AIR VALVE |
| ◁ | DRAIN VALVE |
| — | PIPE LINE |
| — | TRANSMISSION PIPE |



REPUBLIC OF RWANDA
 MINISTRY OF PUBLIC WORKS, ENERGY AND WATER

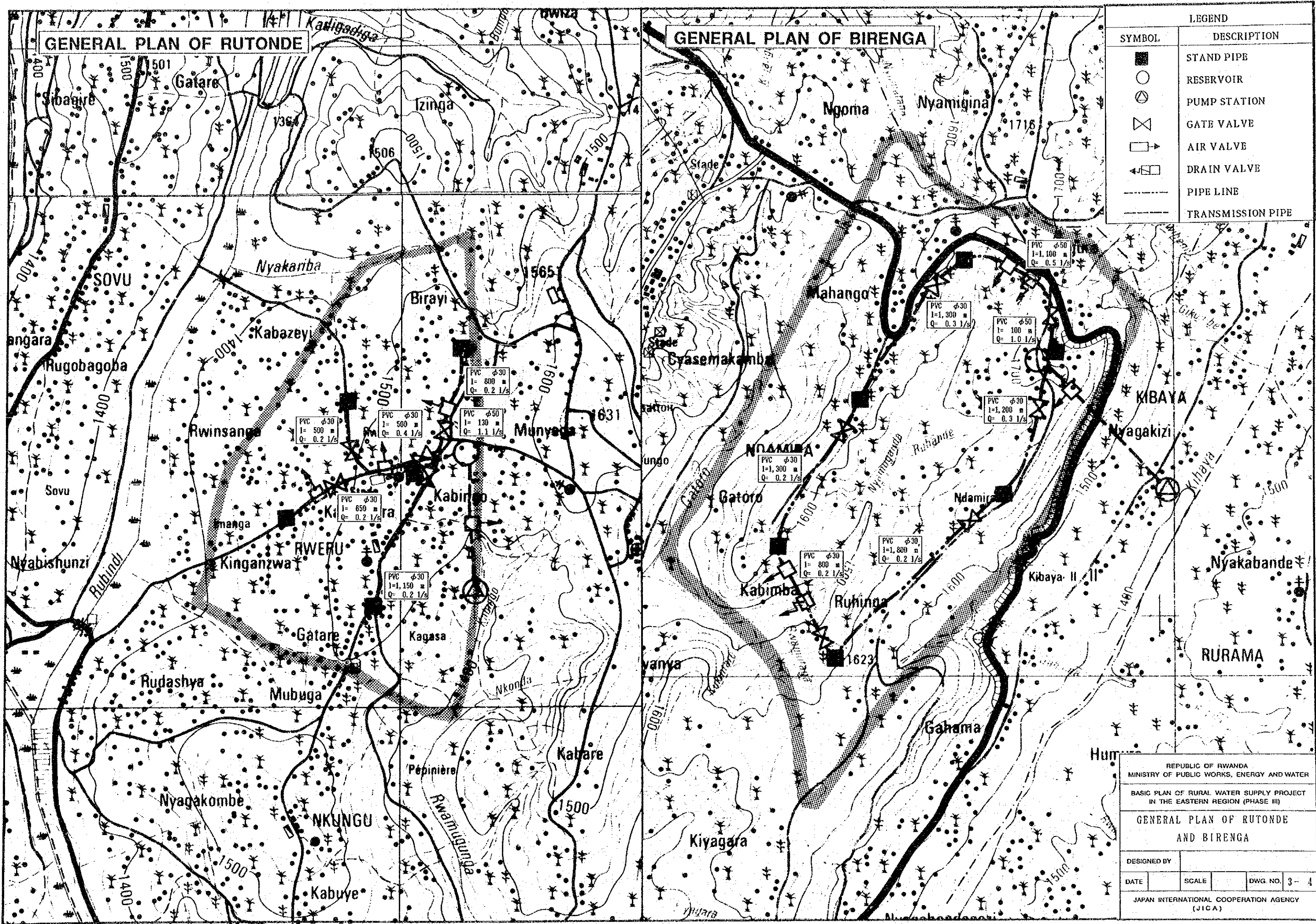
BASIC PLAN OF RURAL WATER SUPPLY PROJECT
 IN THE EASTERN REGION (PHASE III)

GENERAL PLAN OF KABARONDO

DESIGNED BY _____

DATE _____ SCALE _____ DWG. NO. 3-3

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



| LEGEND | |
|--------|-------------------|
| SYMBOL | DESCRIPTION |
| ■ | STAND PIPE |
| ○ | RESERVOIR |
| ⊙ | PUMP STATION |
| ⊗ | GATE VALVE |
| ◻↗ | AIR VALVE |
| ◻⊥ | DRAIN VALVE |
| --- | PIPE LINE |
| --- | TRANSMISSION PIPE |

REPUBLIC OF RWANDA
 MINISTRY OF PUBLIC WORKS, ENERGY AND WATER

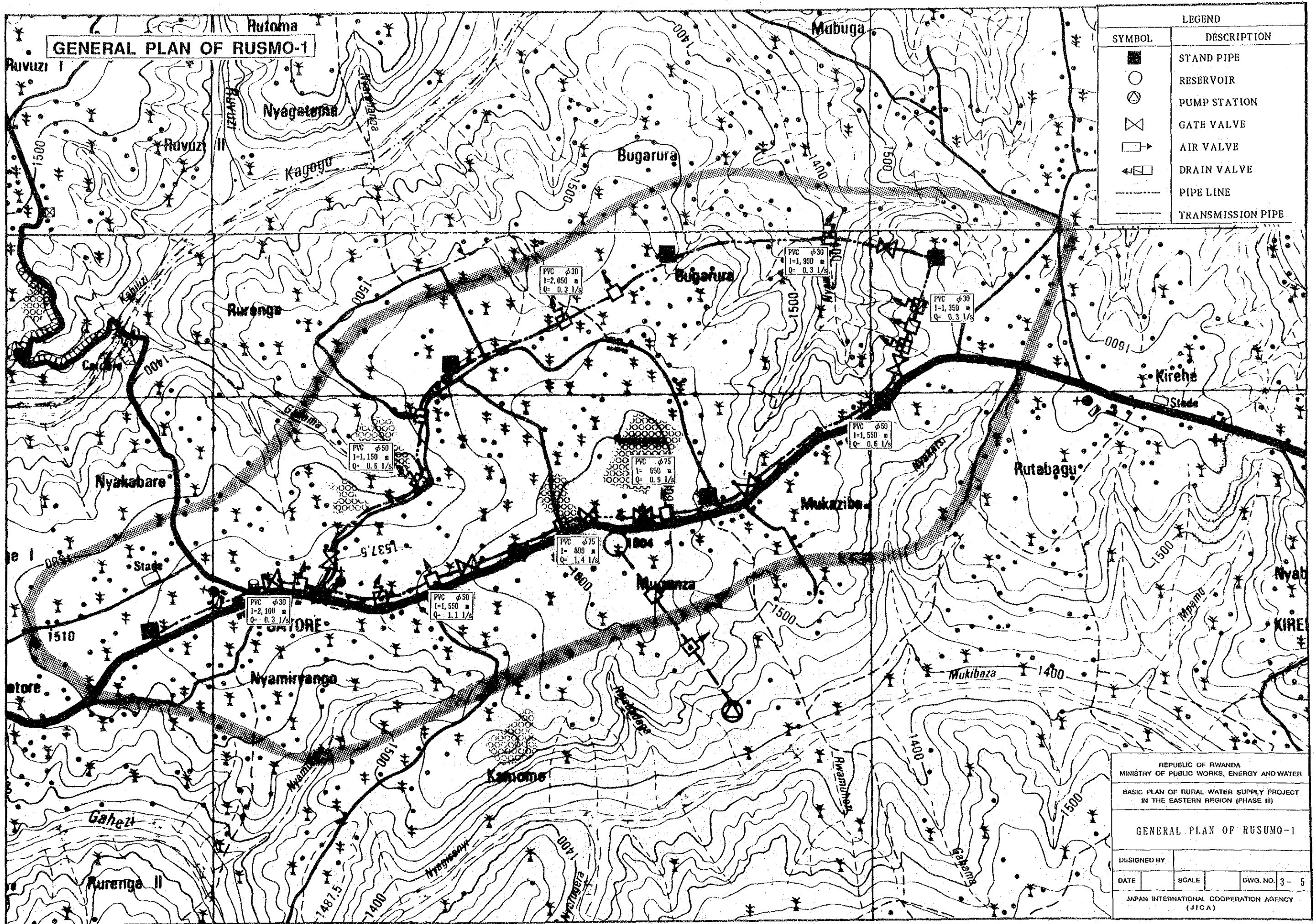
BASIC PLAN OF RURAL WATER SUPPLY PROJECT
 IN THE EASTERN REGION (PHASE III)

GENERAL PLAN OF RUTONDE
 AND BIRENGA

DESIGNED BY _____

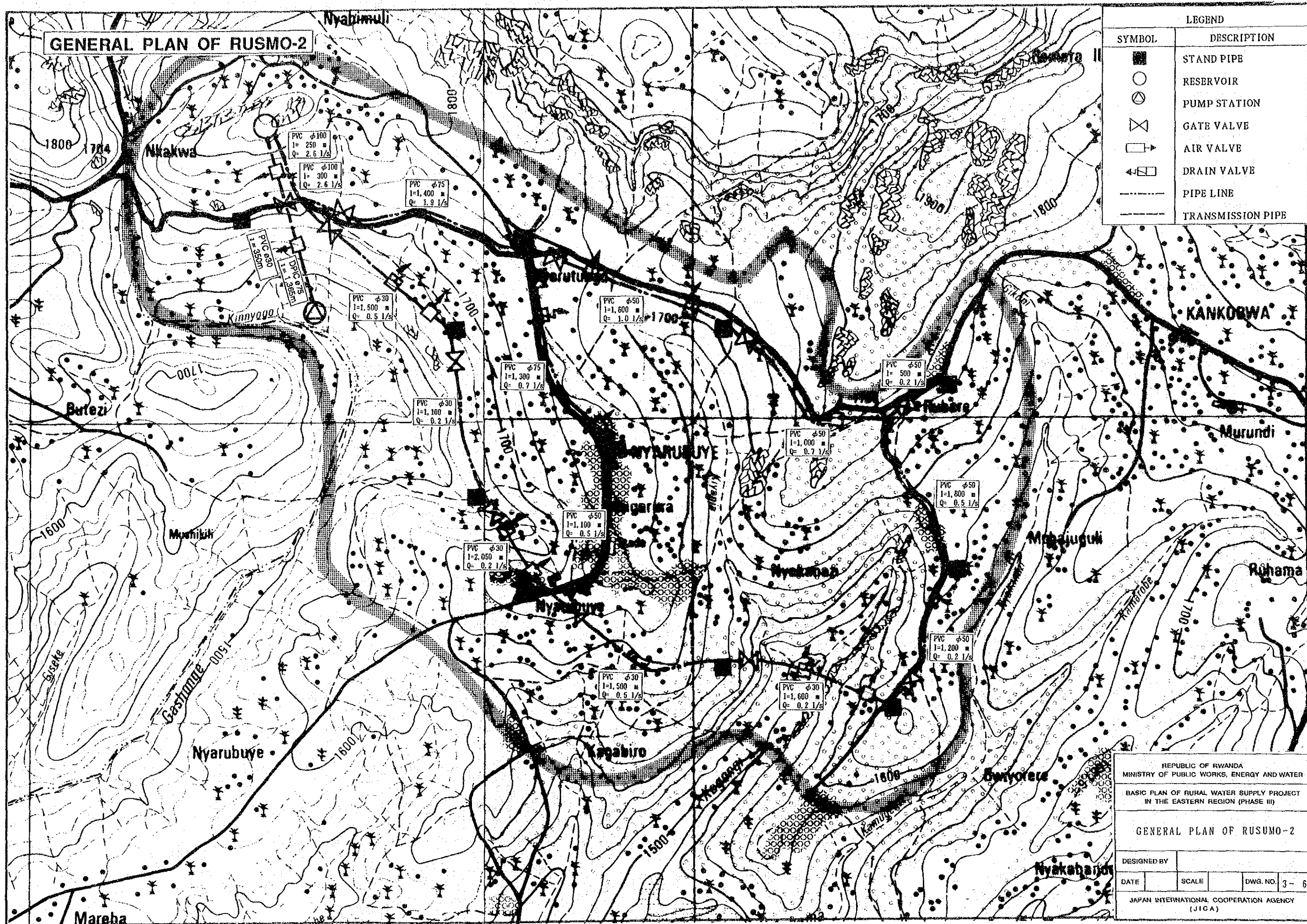
DATE _____ SCALE _____ DWG. NO. 3-4

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)



| LEGEND | |
|--------|-------------------|
| SYMBOL | DESCRIPTION |
| ■ | STAND PIPE |
| ○ | RESERVOIR |
| ⊗ | PUMP STATION |
| ⊗ | GATE VALVE |
| □→ | AIR VALVE |
| ⊗ | DRAIN VALVE |
| --- | PIPE LINE |
| --- | TRANSMISSION PIPE |

| | | | |
|---|-------|----------|-------|
| REPUBLIC OF RWANDA MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| GENERAL PLAN OF RUSUMO-1 | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 3 - 5 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |



GENERAL PLAN OF RUSMO-2

| LEGEND | |
|--------|-------------------|
| SYMBOL | DESCRIPTION |
| ■ | STAND PIPE |
| ○ | RESERVOIR |
| ⊙ | PUMP STATION |
| ⊗ | GATE VALVE |
| ⊠ | AIR VALVE |
| ⊡ | DRAIN VALVE |
| --- | PIPE LINE |
| --- | TRANSMISSION PIPE |

REPUBLIC OF RWANDA
 MINISTRY OF PUBLIC WORKS, ENERGY AND WATER

BASIC PLAN OF RURAL WATER SUPPLY PROJECT
 IN THE EASTERN REGION (PHASE III)

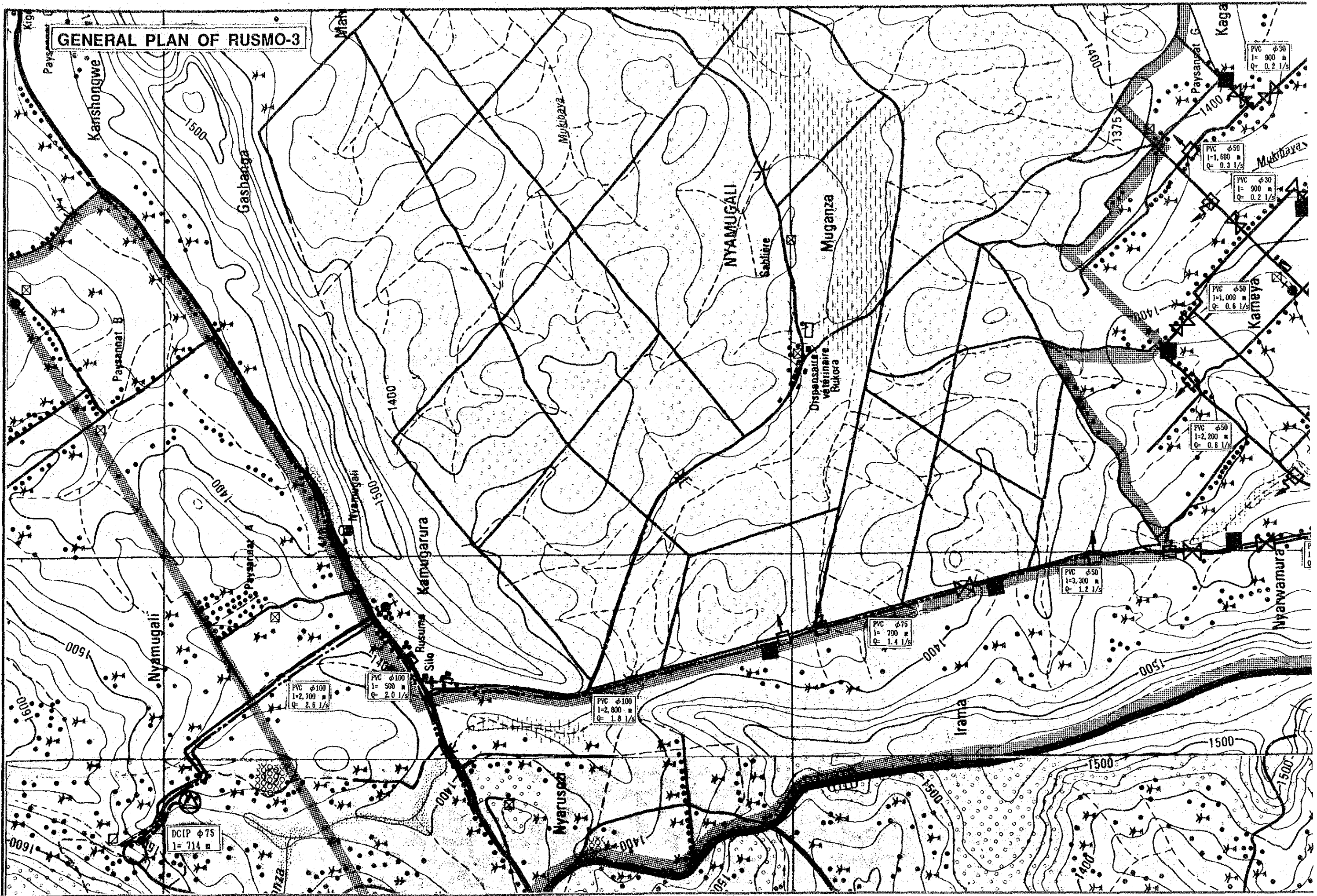
GENERAL PLAN OF RUSMO-2

DESIGNED BY

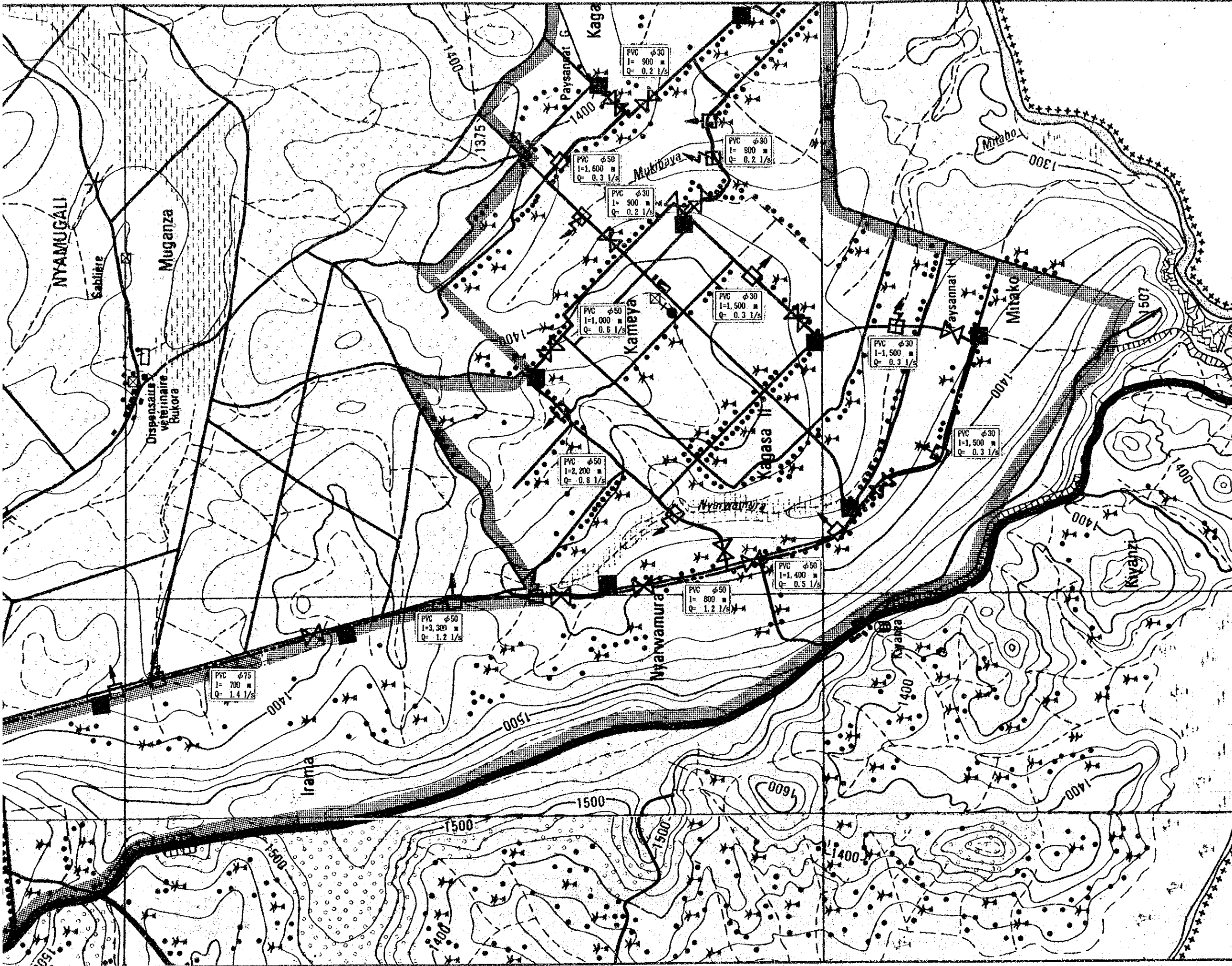
| | | | |
|------|-------|----------|-----|
| DATE | SCALE | DWG. NO. | 3-6 |
|------|-------|----------|-----|

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

GENERAL PLAN OF RUSMO-3



| LEGEND | |
|--------|-------------------|
| SYMBOL | DESCRIPTION |
| ■ | STAND PIPE |
| ○ | RESERVOIR |
| ⊗ | PUMP STATION |
| ⊗ | GATE VALVE |
| ⊗ | AIR VALVE |
| ⊗ | DRAIN VALVE |
| --- | PIPE LINE |
| --- | TRANSMISSION PIPE |



REPUBLIC OF RWANDA
 MINISTRY OF PUBLIC WORKS, ENERGY AND WATER

BASIS PLAN OF RURAL WATER SUPPLY PROJECT
 IN THE EASTERN REGION (PHASE III)

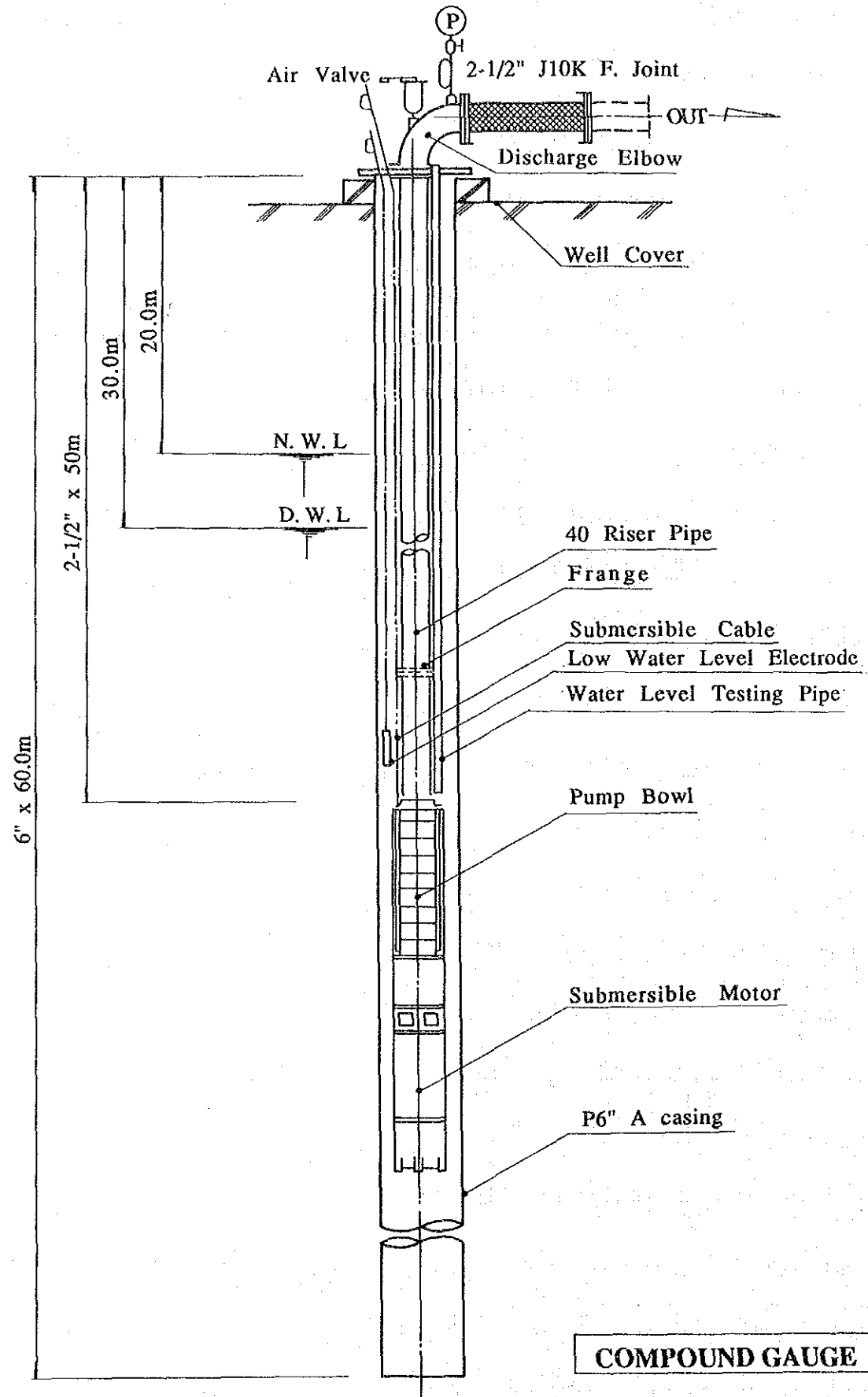
GENERAL PLAN OF RUSUMO-3

DESIGNED BY _____

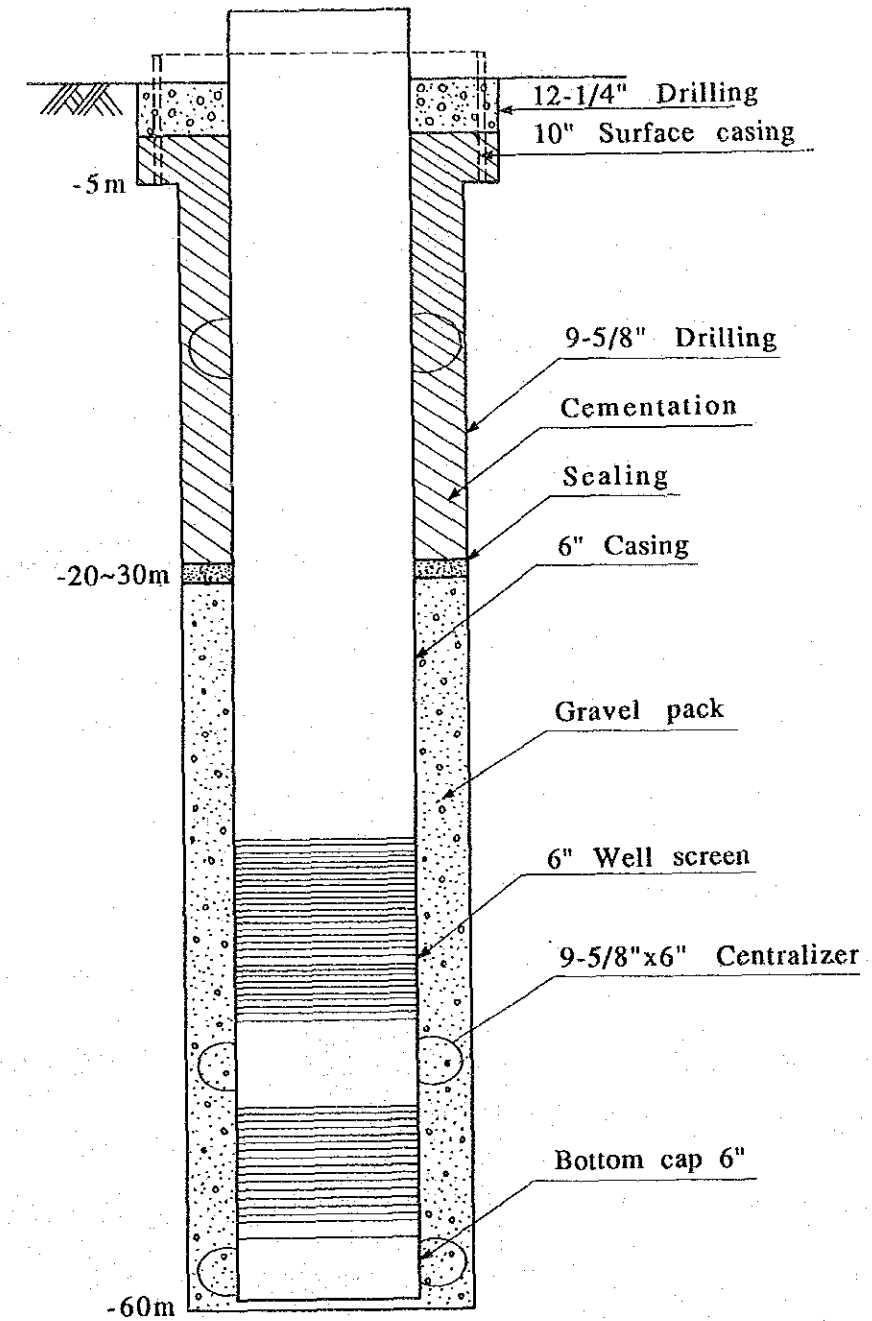
DATE _____ SCALE _____ DWG. NO. 3-7

JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

SUBMERSIBLE PUMP



COMPOUND GAUGE

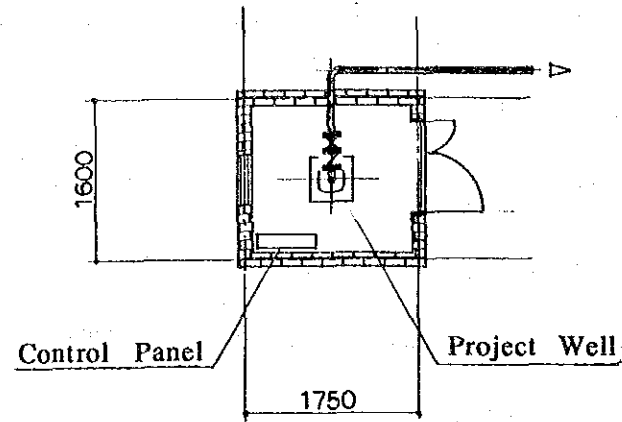


Well Structure

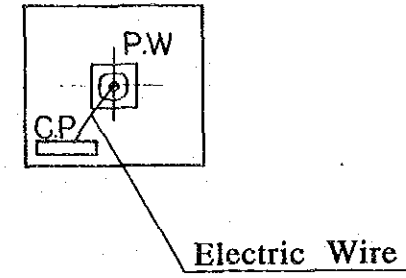
(No Scale)

| | | | |
|---|-------|----------|-----|
| REPUBLIC OF RWANDA MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| SUBMERSIBLE PUMP | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 3-8 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

MACHINERY HOUSE TYPE-A

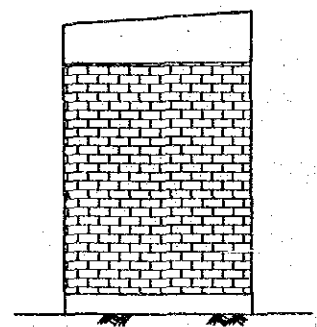
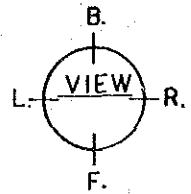


Including Project Well Type

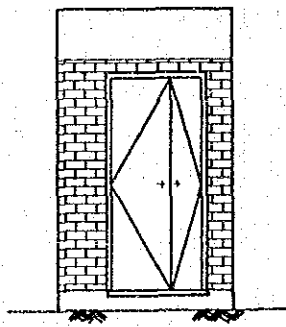


C.P. CONTROL PANEL
P.W. PROJECT WELL

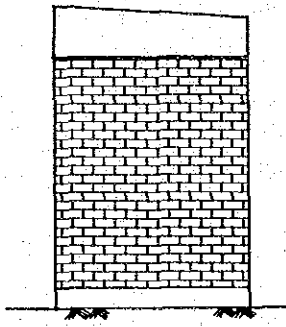
Explanation of Machinery Houses



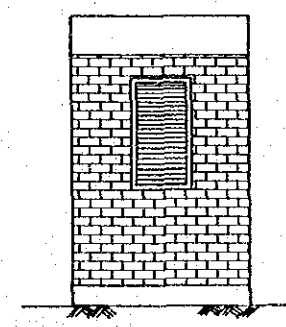
Front View



Right Side View



Back View

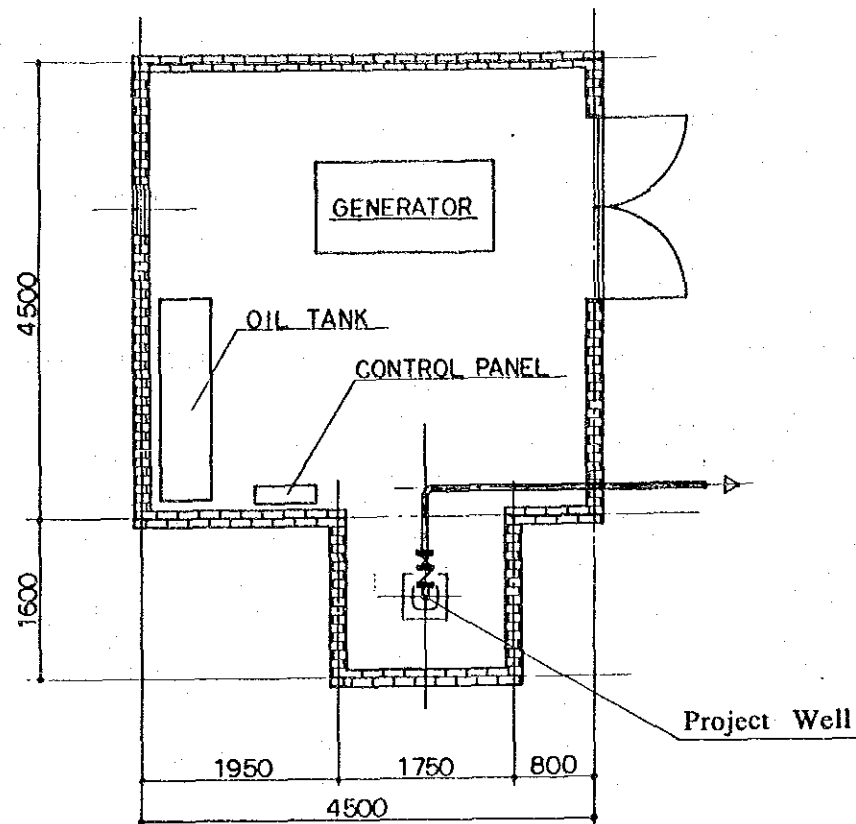


Left Side View

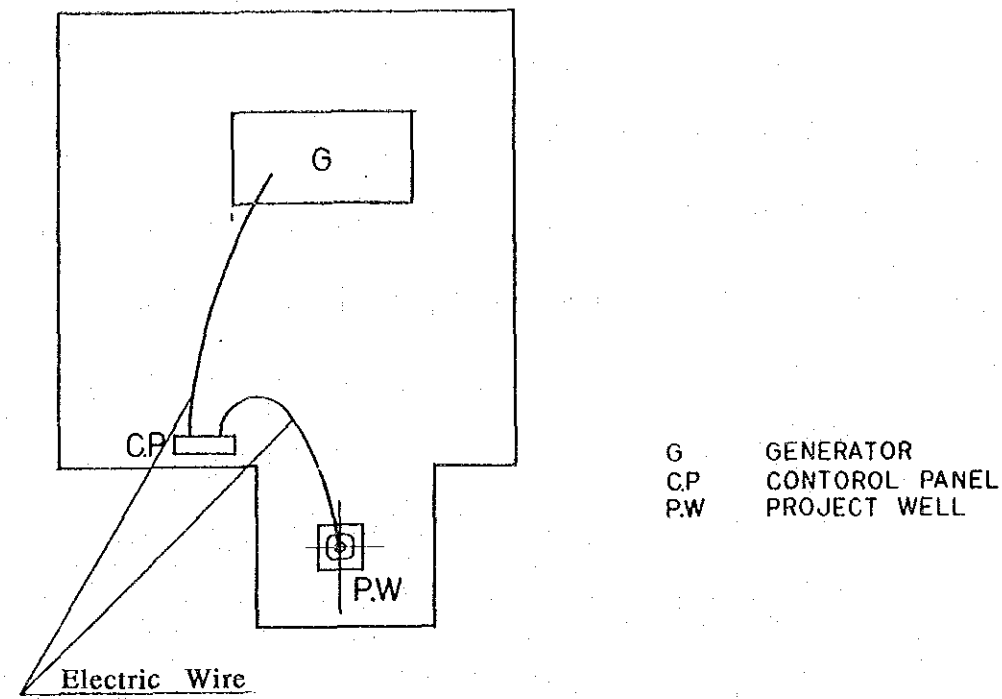
Typical Layout of Water Well & Machinery House

| | | | |
|---|-------|----------|-----|
| REPUBLIC OF RWANDA MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| MACHINERY HOUSE TYPE-A | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 3-9 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

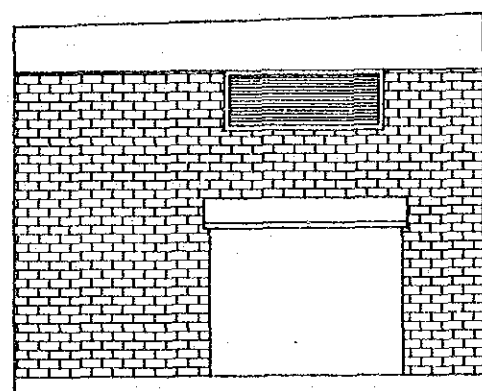
MACHINERY HOUSE TYPE-B (FOR GENERATOR)



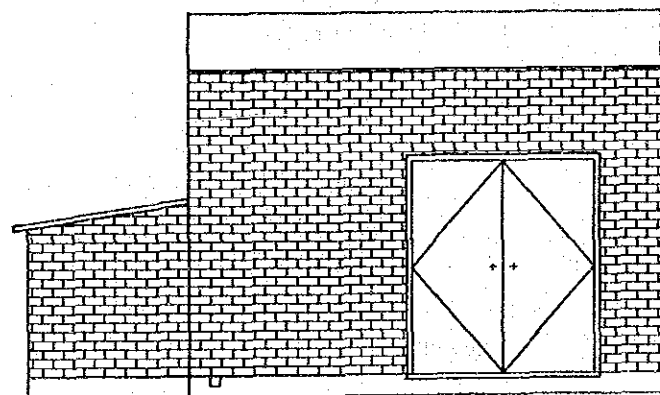
Including Project Well Type



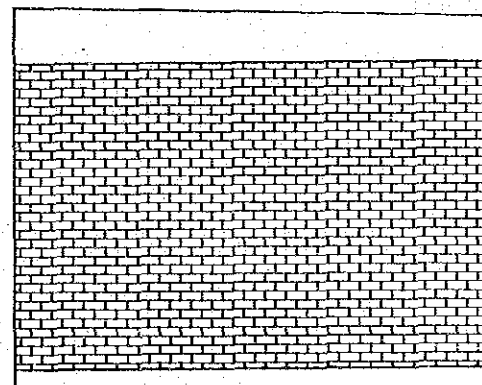
Explanation of Machinery Houses



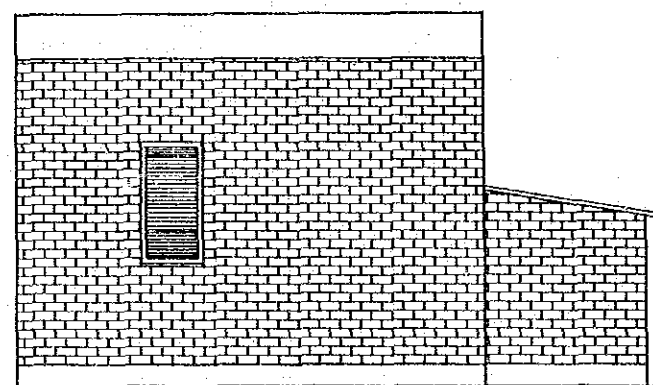
Front View



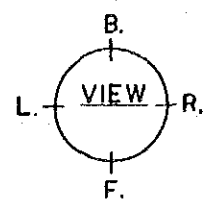
Right Side View



Back View



Left Side View



Typical Layout of Water Well & Machinery House

| | | | |
|---|-------|----------|------|
| REPUBLIC OF RWANDA MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| MACHINERY HOUSE TYPE-B (FOR GENERATOR) | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 3-10 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

LIST OF WATER SUPPLY SCHEME FOR SYSTEM-3

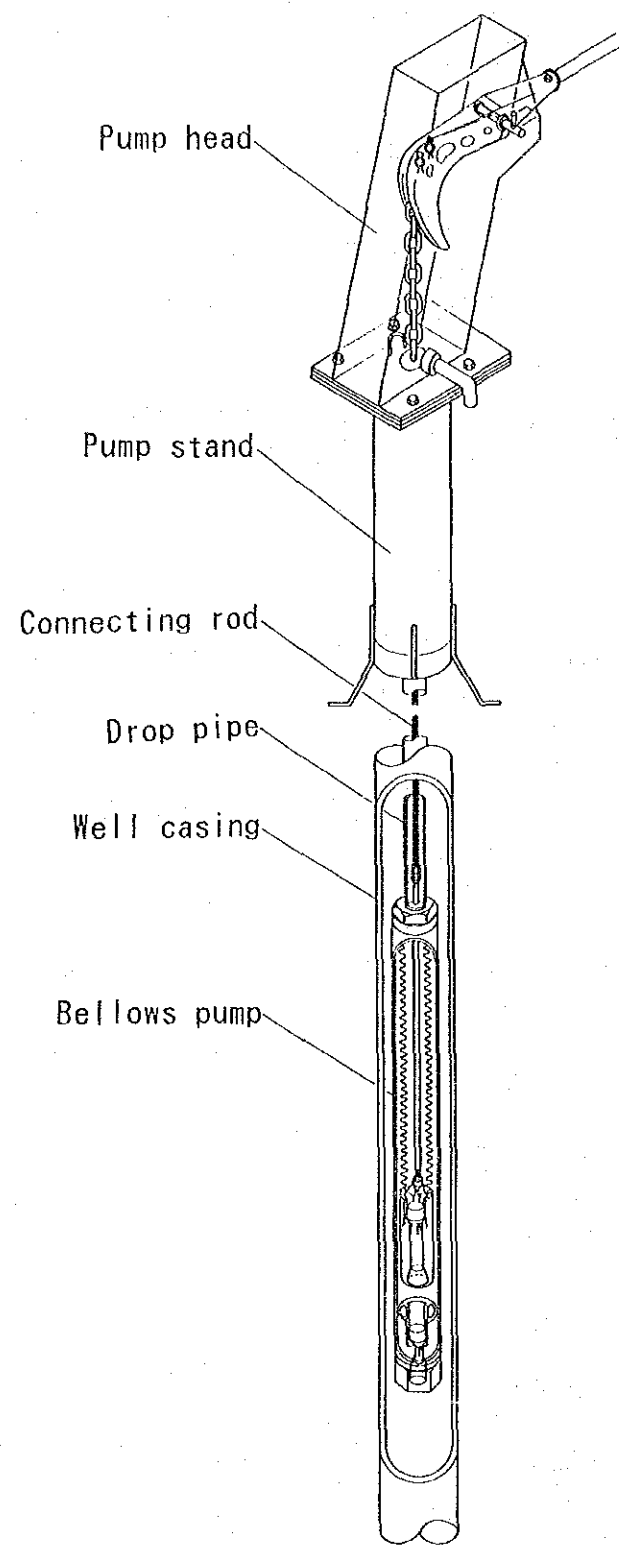
LIST OF WATER SUPPLY SCHEME FOR SYSTEM-3

| Commune Name | Classification | Sa | Sb | Sc | Sd | Total | Remark |
|--------------|----------------|------|------|------|------|-------|--------|
| | Depth | 50m | 60m | 50m | 50m | | |
| | Safty Factor | 1.00 | 1.25 | 1.25 | 1.25 | | |
| | Sector Name | | | | | | |
| RUKARA | GAHINI | 12 | | | | 12 | |
| | KIYENZI | 6 | | | | 6 | |
| | NYAKABUNGO | 5 | | | | 5 | |
| | NYAWERA | 8 | | | | 8 | |
| | RUKARA | | 12 | | | 12 | |
| | RWIMISHINYA | 6 | | | | 6 | |
| | RYAMANYONI | | | | 14 | 14 | |
| | TOTAL | 37 | 12 | 0 | 14 | 63 | |
| MUGESERA | CYIZIHIRA | | | | 8 | 8 | |
| | GATARE | | | | 9 | 9 | |
| | KAGASHI | | | | 11 | 11 | |
| | KAREMBO | 1 | | | | 1 | |
| | KIBARE | | | | 10 | 10 | |
| | KIBILIZI-1, 2 | | 9 | | | 9 | |
| | KIRAMBO | | | | 7 | 7 | |
| | KUKABUYE | 5 | | | | 5 | |
| | MATONGO | | | | 7 | 7 | |
| | NGARA | 7 | | | | 7 | |
| | NYANGE | | | | 8 | 8 | |
| | SANGAZA | | | | 9 | 9 | |
| | SHYWA | | | | 8 | 8 | |
| | ZAZA | | | | 13 | 13 | |
| TOTAL | 13 | 9 | 0 | 90 | 112 | | |
| SAKE | MBUYE | | 4 | | | 4 | |
| | MURWA | | | | 13 | 13 | |
| | RUKUMBERI | | | | 13 | 13 | |
| | SHOLI | | | | 12 | 12 | |
| | TOTAL | 0 | 4 | 0 | 38 | 42 | |
| Sub-Total | | 50 | 25 | 0 | 142 | 217 | |

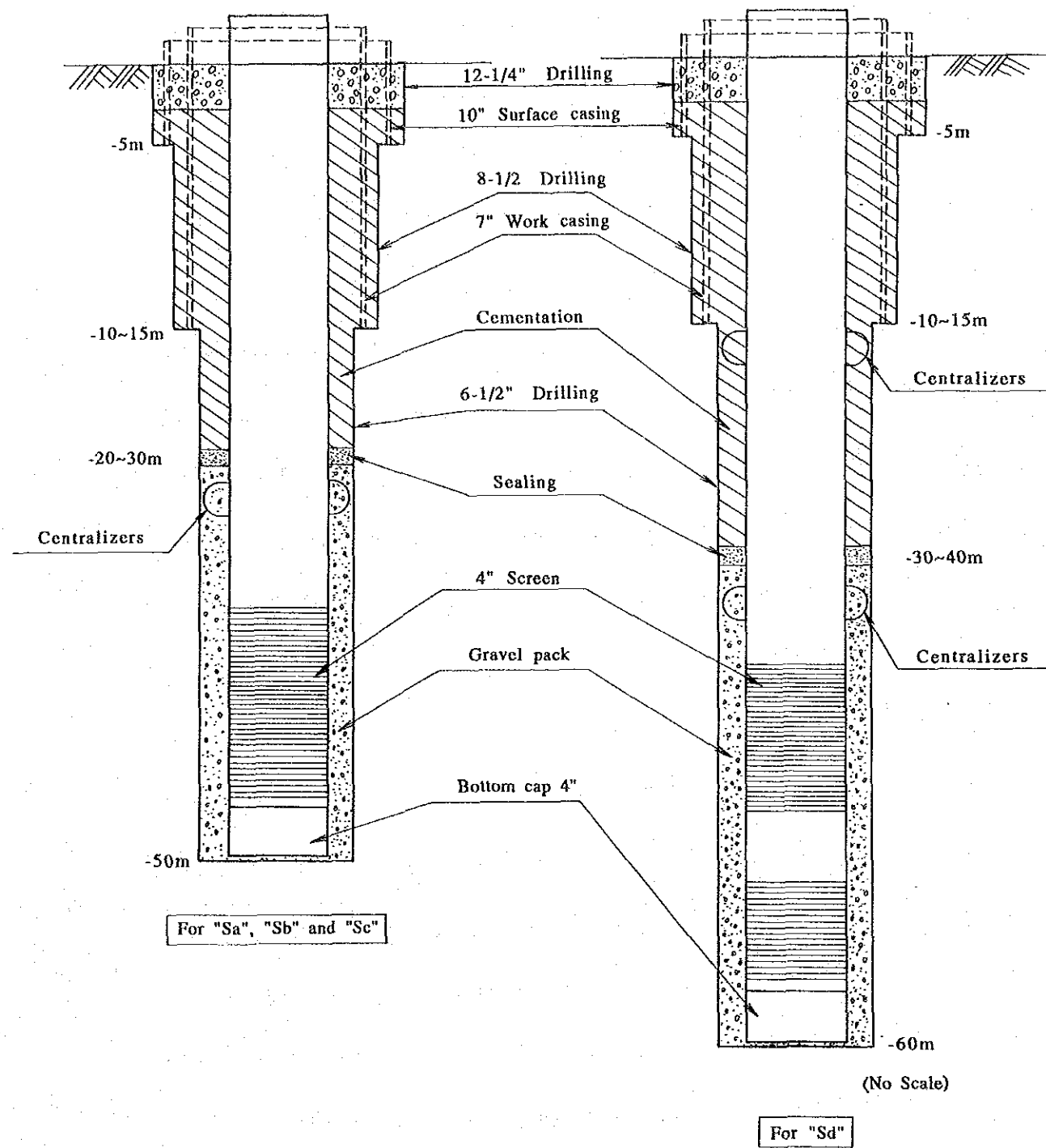
| Commune Name | Classification | Sa | Sb | Sc | Sd | Total | Remark | |
|--------------|----------------|---------|------|------|------|-------|--------|--|
| | Depth | 50m | 60m | 50m | 50m | | | |
| | Safty Factor | 1.00 | 1.25 | 1.25 | 1.25 | | | |
| | Sector Name | | | | | | | |
| KAYONZA | GASOGI | | 5 | | | 5 | | |
| | MBURABUTURO | | 3 | | | 3 | | |
| | MUSUMBA | 3 | | | | 3 | | |
| | NYAMIRAMA | 6 | | | | 6 | | |
| | RUTARE | | 6 | | | 6 | | |
| | RWINKWAVU | 2 | | | | 2 | | |
| | SHYOGO | | 3 | | | 3 | | |
| | TOTAL | 11 | 17 | 0 | 0 | 28 | | |
| | RUTONDE | KADUHA | 3 | | | | 3 | |
| RUTONDE | | 6 | | | | 6 | | |
| RWERU | | | 2 | | | 2 | | |
| SOVU | | | 6 | | | 6 | | |
| TOTAL | | 9 | 8 | 0 | 0 | 17 | | |
| KABARONDO | BISENGA | 4 | | | | 4 | | |
| | MURAMA | 2 | | | | 2 | | |
| | NKAMBA | 2 | | | | 2 | | |
| | RURAMIRA | | 4 | | | 4 | | |
| | RUSERA | 4 | | | | 4 | | |
| | RUYONZA | 2 | | | | 2 | | |
| | SHYANDA | | 2 | | | 2 | | |
| | TOTAL | 14 | 6 | 0 | 0 | 20 | | |
| | KIGARAMA | GASETSA | 3 | | | | 3 | |
| GASHANDA | | 5 | | | | 5 | | |
| KABARE-1 | | 4 | | | | 4 | | |
| KABARE-2 | | 10 | | | | 10 | | |
| KABERANGWE | | | 3 | | | 3 | | |
| KANSANA | | 5 | | | | 5 | | |
| REMERA | | | 4 | | | 4 | | |
| RUBONA | | | 11 | | | 11 | | |
| RURENGE | | 4 | | | | 4 | | |
| VUMWE | | 8 | | | | 8 | | |
| TOTAL | | 39 | 18 | 0 | 0 | 57 | | |
| Sub-Total | | 73 | 49 | 0 | 0 | 122 | | |

| Commune Name | Classification | Sa | Sb | Sc | Sd | Total | Remark |
|--------------|----------------|------|------|------|------|-------|--------|
| | Depth | 50m | 60m | 50m | 50m | | |
| | Safty Factor | 1.00 | 1.25 | 1.25 | 1.25 | | |
| | Sector Name | | | | | | |
| RUKIRA | GASIRU | | | | 4 | 4 | |
| | GITWE | | | 4 | | 4 | |
| | MUSHIKILI | | | 4 | | 4 | |
| | NTARUKA | | | 1 | | 1 | |
| | RUGARAMA | | | 3 | | 3 | |
| | TOTAL | 0 | 0 | 12 | 4 | 16 | |
| | BIRENGA | BARE | 3 | | | | 3 |
| BIRENGA | | 3 | | | | 3 | |
| GAHARA | | | 7 | | | 7 | |
| GAHULIRE | | 3 | | | | 3 | |
| GASHONGORA | | 4 | | | | 4 | |
| KIBAYA | | | 6 | | | 6 | |
| KIBIMBA | | 3 | | | | 3 | |
| SAKARA | | 4 | | | | 4 | |
| TOTAL | 20 | 13 | 0 | 0 | 33 | | |
| RUSUMO | GATORE | | | 6 | | 6 | |
| | KANKOBWA | 30 | | | | 30 | |
| | KIGARAMA | 6 | | | | 6 | |
| | KIGINA | 11 | | | | 11 | |
| | KIREHE | 4 | | | | 4 | |
| | MUSAZA | | | 11 | | 11 | |
| | NYABITARE | | | 9 | | 9 | |
| | NYAMUGALI | | | | 5 | 5 | |
| | NYARUBUYE | | | 7 | | 7 | |
| TOTAL | 51 | 0 | 33 | 5 | 89 | | |
| Sub-Total | | 71 | 13 | 45 | 9 | 138 | |
| TOTAL | | 194 | 87 | 45 | 151 | 477 | |

TYPICAL SECTION OF WATER WELL



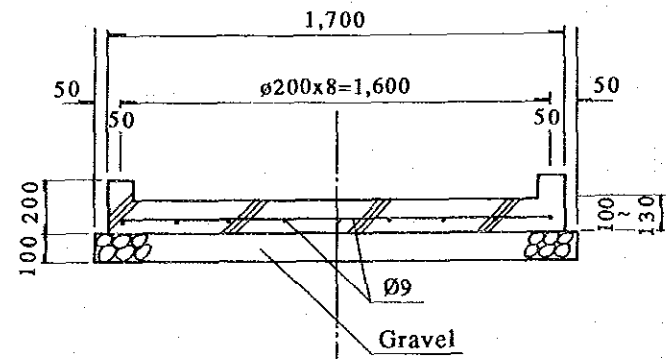
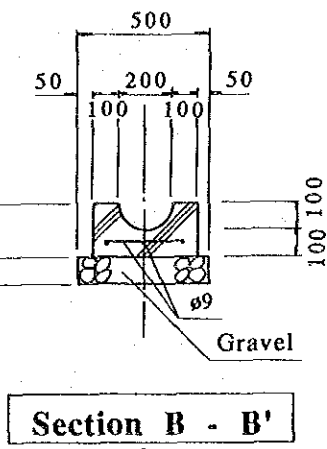
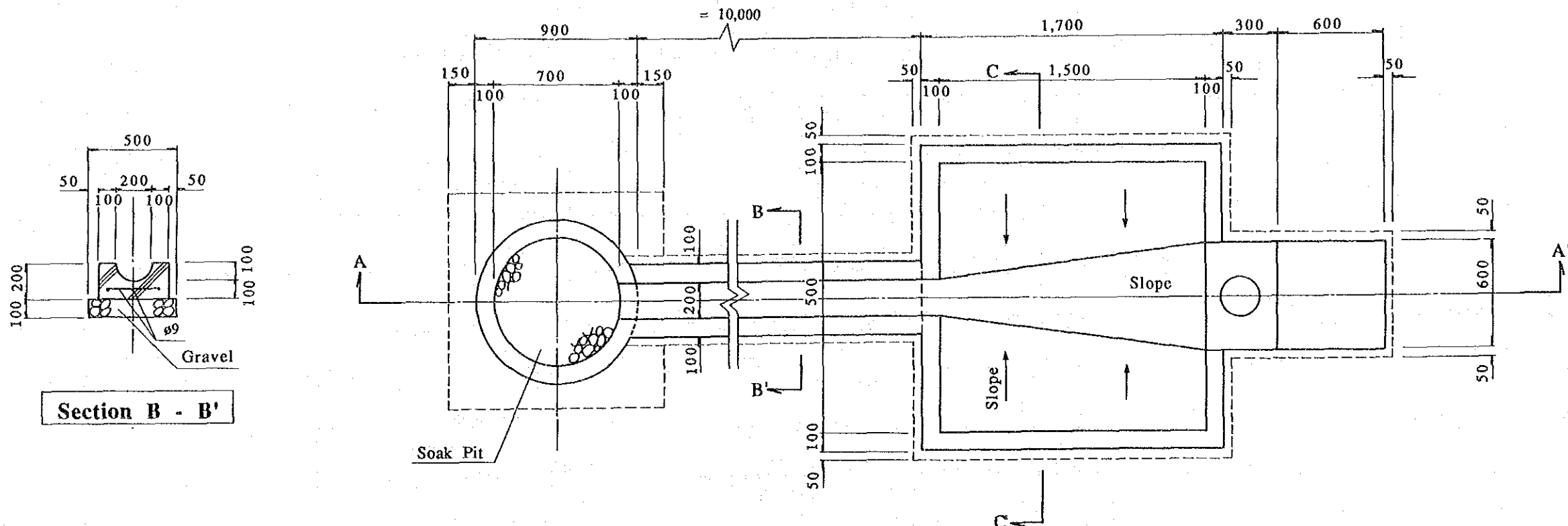
General Assembly



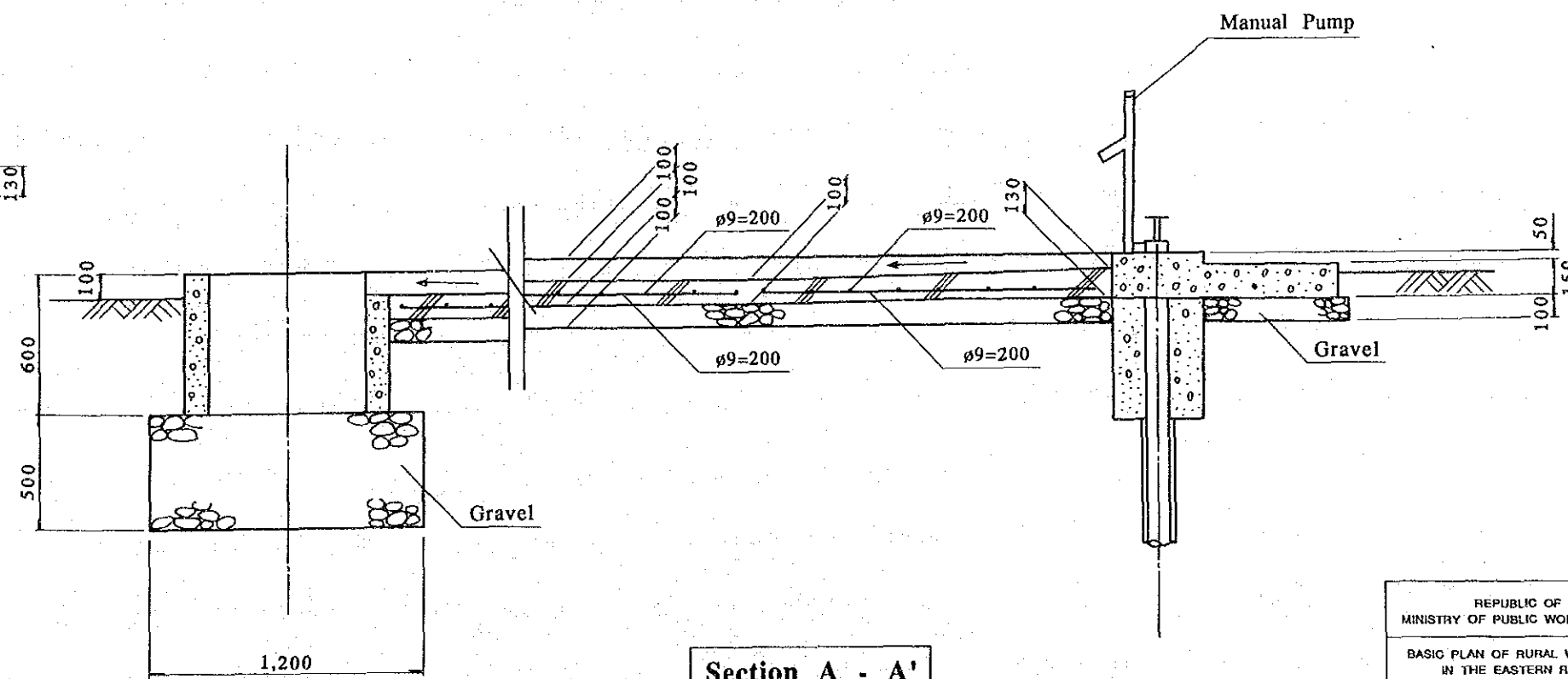
Well Structure

| | | | |
|---|-------|----------|-----|
| REPUBLIC OF RWANDA | | | |
| MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT | | | |
| IN THE EASTERN REGION (PHASE III) | | | |
| TYPICAL SECTION OF WATER WELL | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 4-1 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

DETAIL OF PLATFORM



Section C - C'



Section A - A'

| | | | |
|--|-------|----------|-------|
| REPUBLIC OF RWANDA | | | |
| MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT | | | |
| IN THE EASTERN REGION (PHASE III) | | | |
| DETAIL OF PLATFORM | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 4 - 2 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

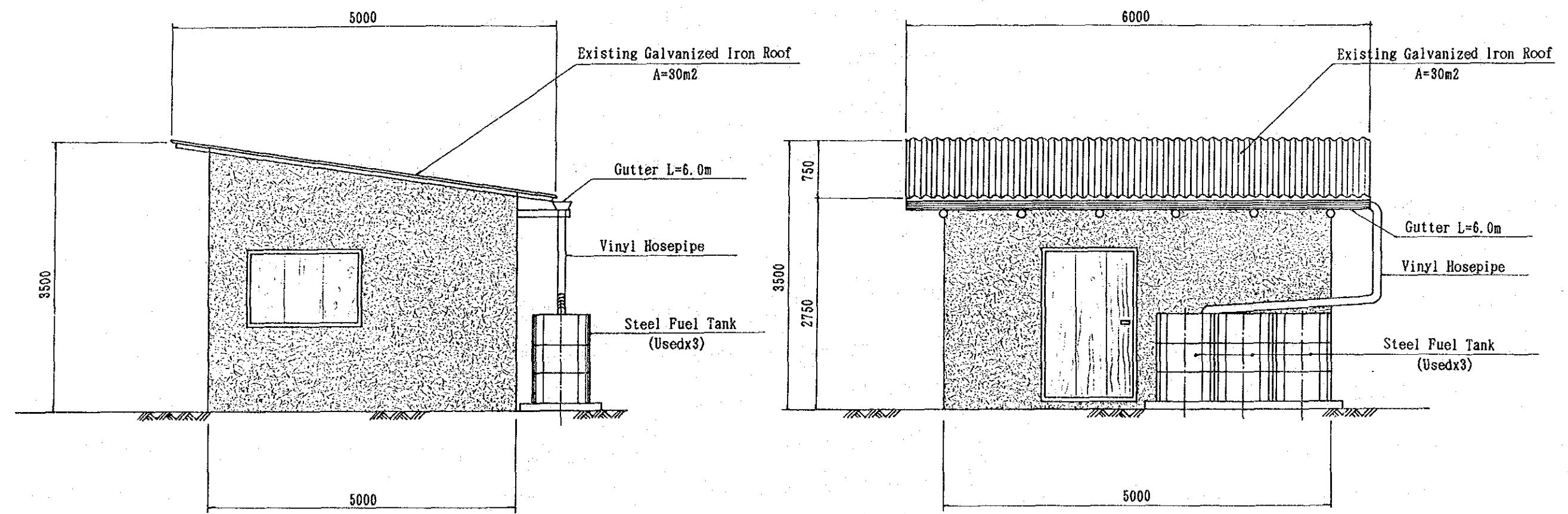
LIST OF WATER SUPPLY SCHEME FOR SYSTEM-4

LIST OF WATER SUPPLY SCHEME FOR SYSTEM-4

| Commune Name | Sector Name | Unit No. | Remark | Commune Name | Sector Name | Unit No. | Remark |
|--------------|-------------|----------|---------|--------------|-------------|----------|--------|
| RUKARA | KIYENZI | 251 | | KIGARAMA | KABARE-2 | 281 | |
| | NYAKABUNGO | 283 | | | REMERA | 134 | |
| | NYAWERA | 288 | | | RUBONA | 191 | |
| | RUKARA | 154 | | | TOTAL | 606 | |
| | RWIMISHINYA | 375 | | RUKIRA | GASIRU | 116 | |
| | RYAMANYONI | 79 | | | GITUKU | 100 | |
| | TOTAL | 1,430 | | | MUSHIKILI | 199 | |
| | | | NTARUKA | | 38 | | |
| KAYONZA | GASOGI | 187 | | RUGARAMA | 210 | | |
| | MBURABUTURO | 138 | | TOTAL | 663 | | |
| | MUSUMBA | 306 | | BIRENGA | BIRENGA | 301 | |
| | RWINKWAVU | 112 | | | GAHARA | 344 | |
| | TOTAL | 743 | | | TOTAL | 645 | |
| RUTONDE | KADUHA | 151 | | RUSUMO | GATORE | 274 | |
| | TOTAL | 151 | | | KANKOBWA | 1,185 | |
| KABARONDO | BISENGA | 185 | | | KIGARAMA | 841 | |
| | MURAMA | 236 | | | KIGINA | 122 | |
| | RUSERA | 178 | | | MUSAZA | 582 | |
| | SHYANDA | 251 | | | NYABITARE | 144 | |
| | TOTAL | 850 | | | NYAMUGALI | 0 | |
| | | | | | NYARUBUYE | 115 | |
| | | | | TOTAL | 3,263 | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |
| Sub-Total | | 3,174 | | Sub-Total | | 5,177 | |
| | | | | TOTAL | | 8,351 | |

PROPOSED RAIN WATER HARVESTING SYSTEM

Plan of Rain Water Harvesting System

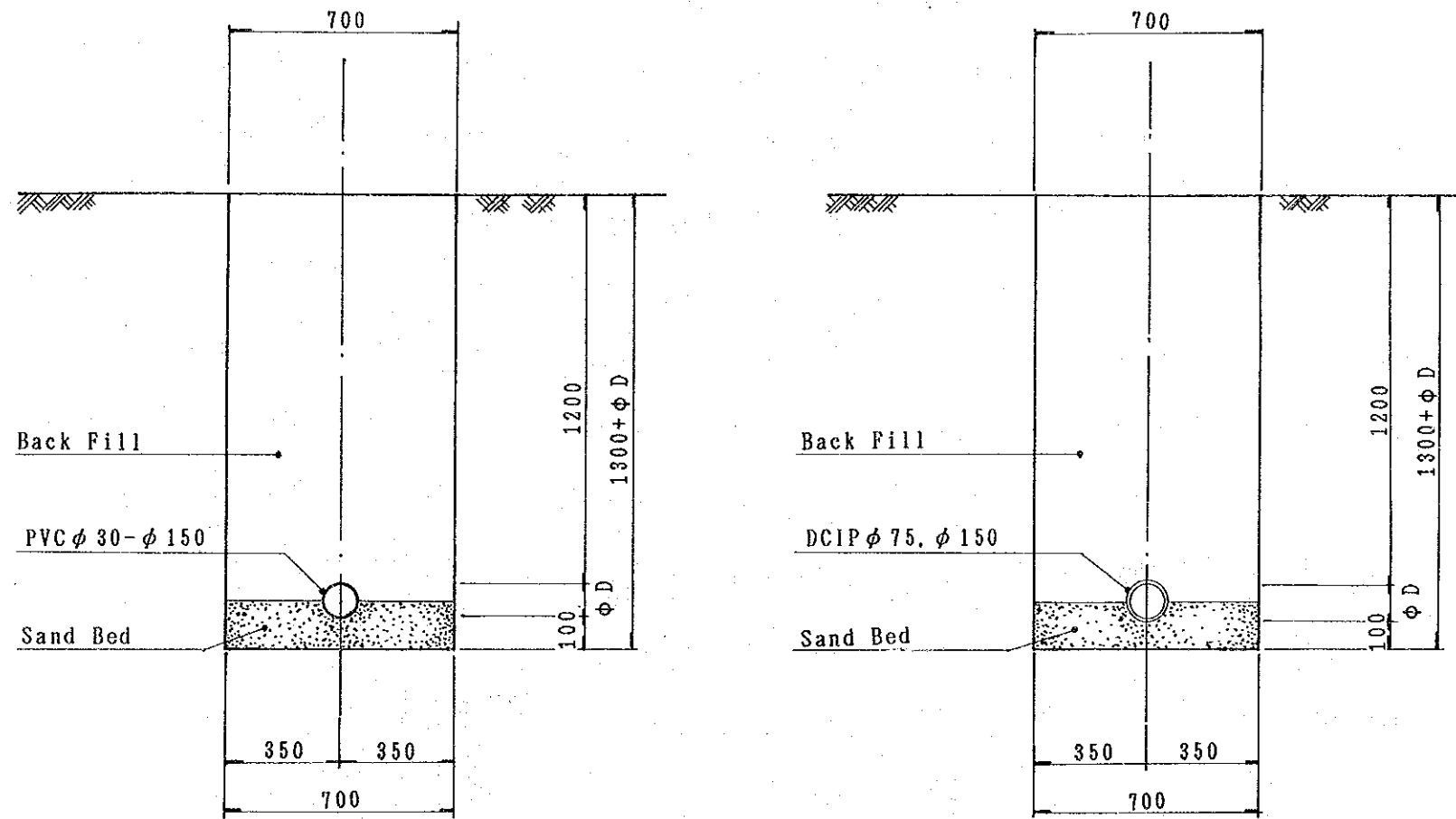


Side View

Front View

| | | | |
|---|-------|------------------|--|
| REPUBLIC OF RWANDA | | | |
| MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| PROPOSED | | | |
| RAIN WATER HARVESTING SYSTEM | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. 5 - 1 | |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

TYPICAL CROSS SECTION OF DISTRIBUTION PIPE



REPUBLIC OF RWANDA
 MINISTRY OF PUBLIC WORKS, ENERGY AND WATER

BASIC PLAN OF RURAL WATER SUPPLY PROJECT
 IN THE EASTERN REGION (PHASE III)

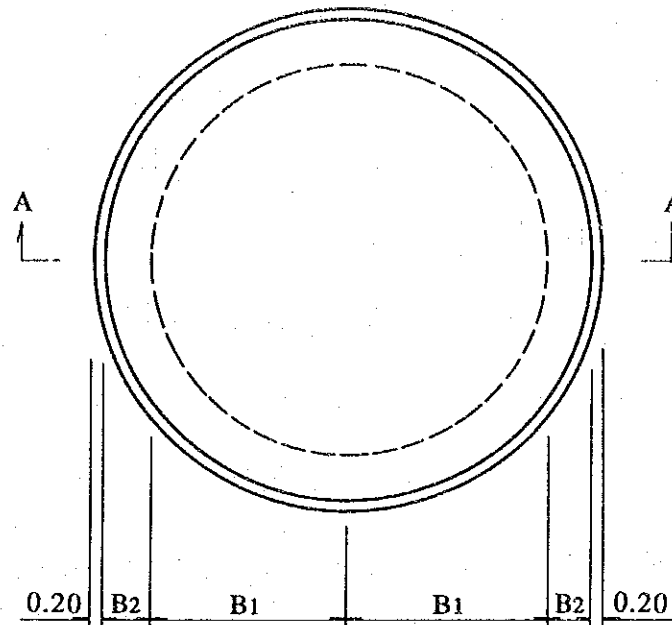
TYPICAL CROSS SECTION OF
 DISTRIBUTION PIPE

| | |
|-------------|--------------|
| DESIGNED BY | |
| DATE | DWG. NO. 6-1 |

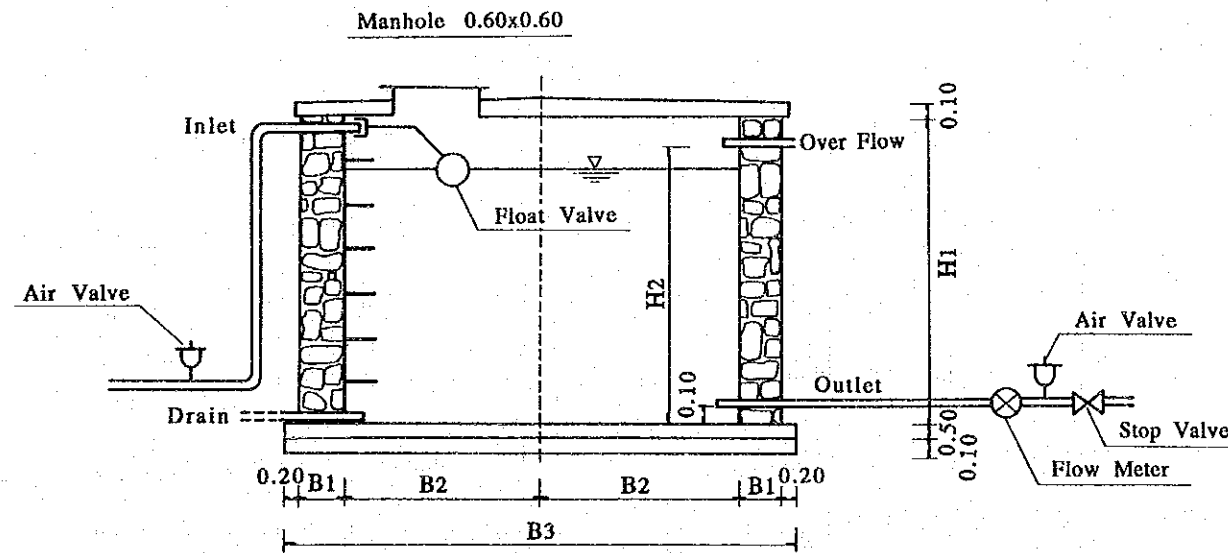
JAPAN INTERNATIONAL COOPERATION AGENCY
 (JICA)

DISTRIBUTION RESERVOIR (10 - 40m³)

Reservoir 10 ~ 40m³



Plan



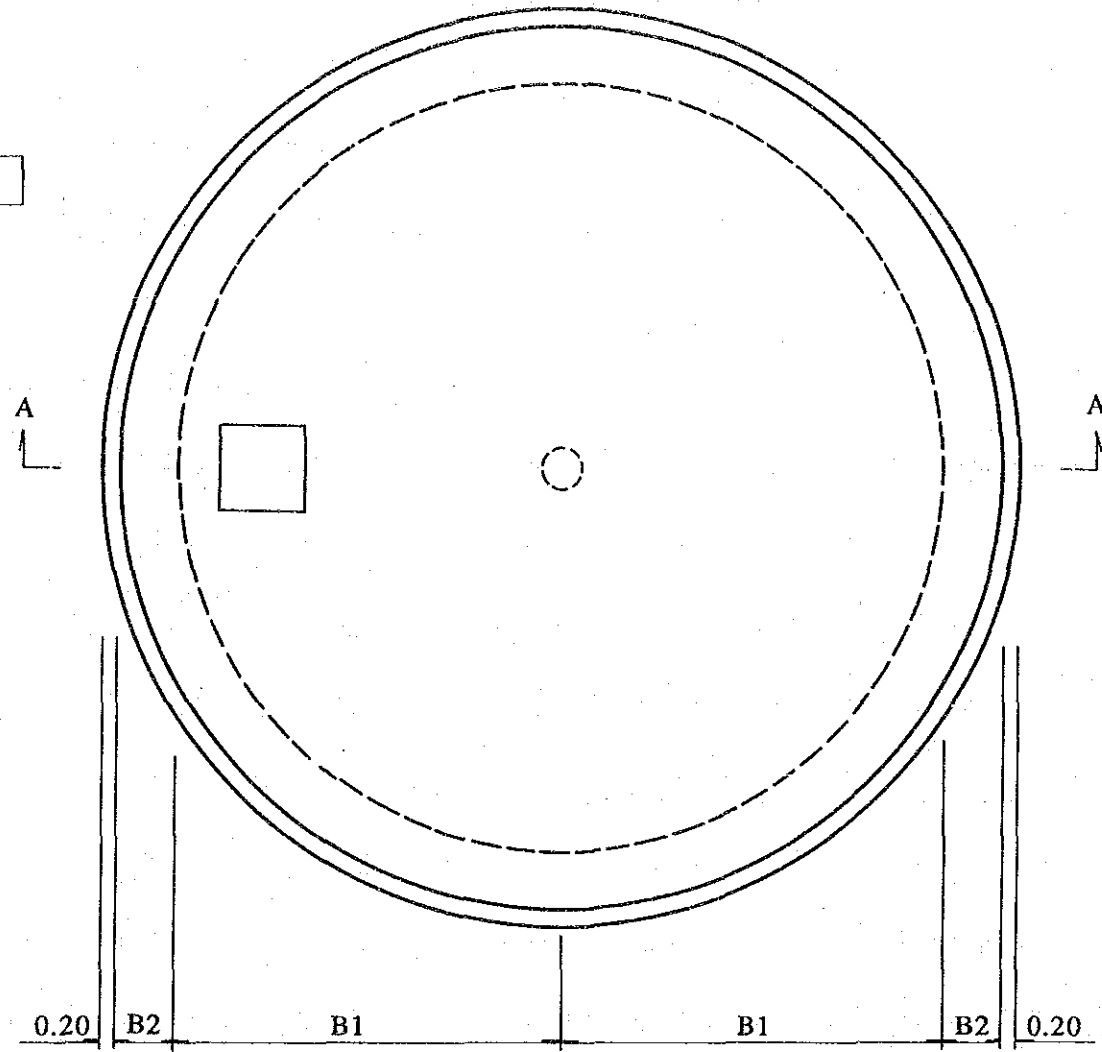
Section A - A'

| Capacity | B ₁ | B ₂ | B ₃ | H ₁ | H ₂ |
|------------------|----------------|----------------|----------------|----------------|----------------|
| 10m ³ | 0.30 | 1.41 | 3.82 | 1.80 | 1.50 |
| 20m ³ | 0.30 | 1.90 | 4.80 | 2.00 | 1.70 |
| 30m ³ | 0.30 | 2.20 | 5.40 | 2.20 | 1.90 |
| 40m ³ | 0.30 | 2.50 | 6.00 | 2.50 | 2.20 |

| | | | |
|---|-------|----------|------|
| REPUBLIC OF RWANDA MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| DISTRIBUTION RESERVOIR (10-40m ³) | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 6- 2 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |

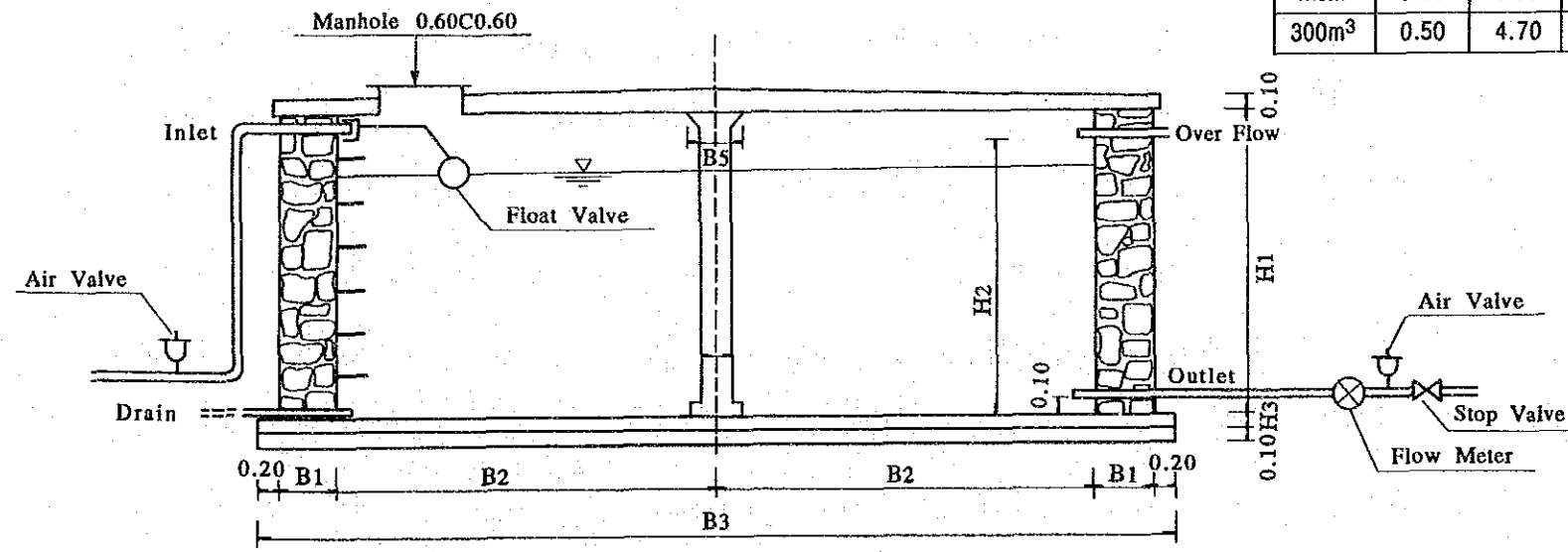
DISTRIBUTION RESERVOIR (60 - 300m³)

Reservoir 60 ~ 300m³



Plan

| Capacity | B ₁ | B ₂ | B ₃ | B ₄ | B ₅ | H ₁ | H ₂ | H ₃ |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 60m ³ | 0.40 | 2.80 | 6.80 | 0.20 | 0.40 | 2.80 | 2.50 | 0.50 |
| 80m ³ | 0.40 | 3.10 | 7.40 | 0.20 | 0.40 | 3.10 | 2.80 | 0.50 |
| 100m ³ | 0.50 | 3.30 | 8.00 | 0.30 | 0.50 | 3.30 | 3.00 | 0.60 |
| 120m ³ | 0.50 | 3.50 | 8.40 | 0.30 | 0.50 | 3.50 | 3.20 | 0.60 |
| 300m ³ | 0.50 | 4.70 | 10.80 | 0.40 | 0.60 | 4.00 | 3.70 | 0.60 |



Section A - A'

| | | | |
|---|-------|----------|-------|
| REPUBLIC OF RWANDA MINISTRY OF PUBLIC WORKS, ENERGY AND WATER | | | |
| BASIC PLAN OF RURAL WATER SUPPLY PROJECT IN THE EASTERN REGION (PHASE III) | | | |
| DISTRIBUTION RESERVOIR (60-300m ³) | | | |
| DESIGNED BY | | | |
| DATE | SCALE | DWG. NO. | 6 - 3 |
| JAPAN INTERNATIONAL COOPERATION AGENCY (JICA) | | | |