

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: FLOW DIAGRAM

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.

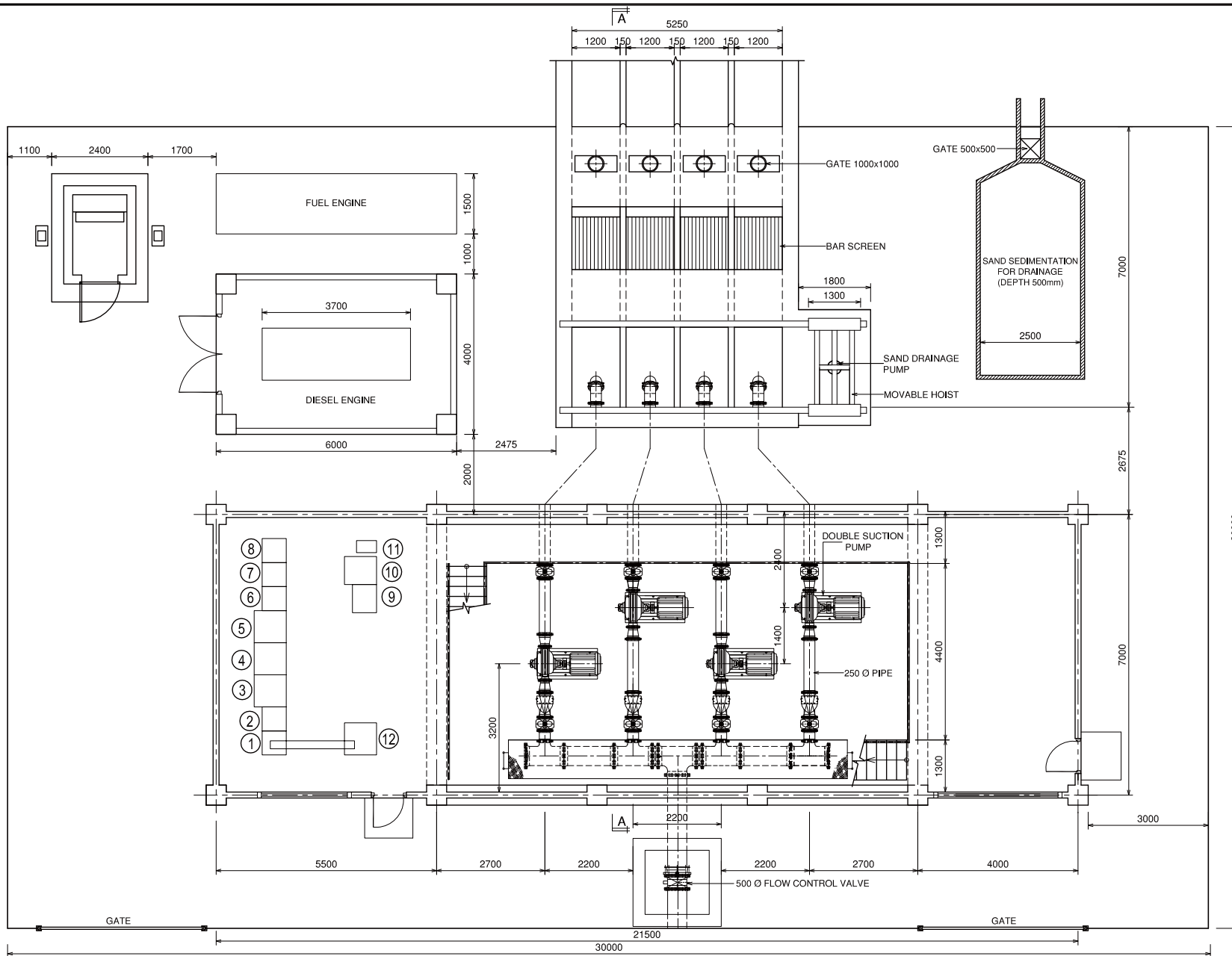
DESIGNED: DRAWN: THARAKA

CHECKED: AGM: (P&D)

PM: (CONSULTANT) DGM: (P&D)

DRAWING NO.: WWTP/G/M/01

DATE: 25/09/2012 SCALE: Not to Scale



Description of Electrical Panel

No.	Description
①	Power Incoming MCC-1 main
②	Generator Incoming MCC-G
③	Intake Pump-1 VSD
④	Intake Pump-2 VSD
⑤	Intake Pump-3 VSD
⑥	MCC-2 for other loads
⑦	MCC-3 for other loads
⑧	MCC-4 for other loads
⑨	Control Relay Panel
⑩	Instrumentation Panel
⑪	UPS
⑫	Intake Pump-4 VSD

Specification Of Pumps

No.	Pb
Pump Type	Double Suction
Flow (m ³ /m)	6.34
Total Head (m)	18
Motor kW (kW)	30

NOTE:-

All Dimensions Are in Millimeters

PLAN
Scale: 1:100

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project

JICA JAPAN INTERNATIONAL COOPERATION AGENCY

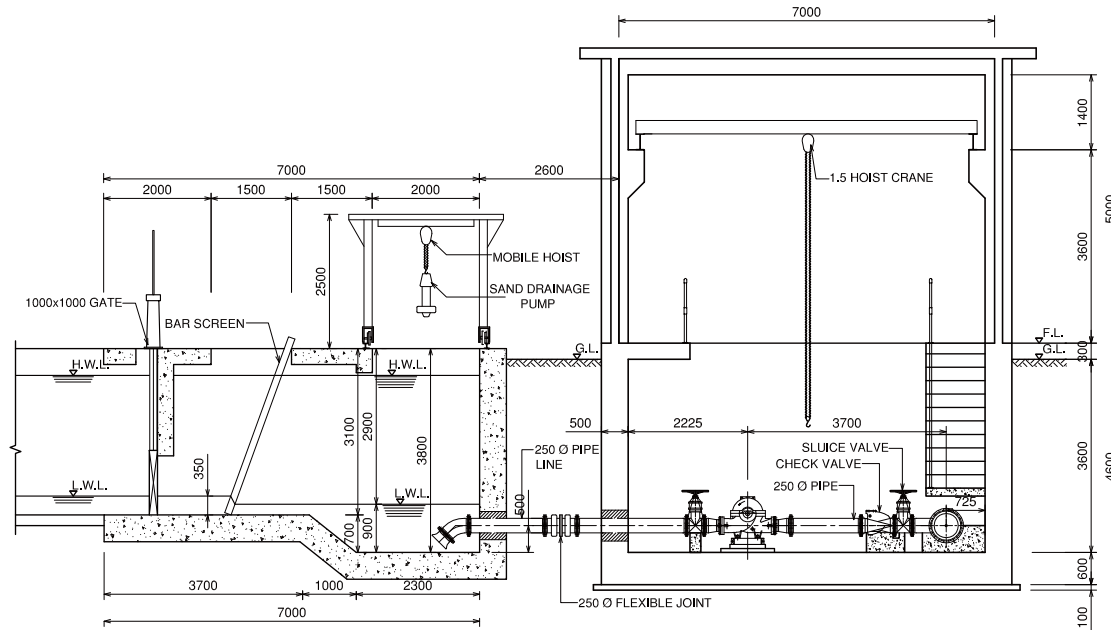
TITLE: INTAKE PUMPING STATION PLAN

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED:	DRAWN: THARAKA	PM: (CONSULTANT)	DRAWING NO.: WWTP/IP/M/01	
CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 03/09/2012	SCALE: As Given



SECTION A-A

Scale: 1:100

NOTE:-

All Dimensions Are in Millimeters

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: INTAKE PUMP STATION SECTION

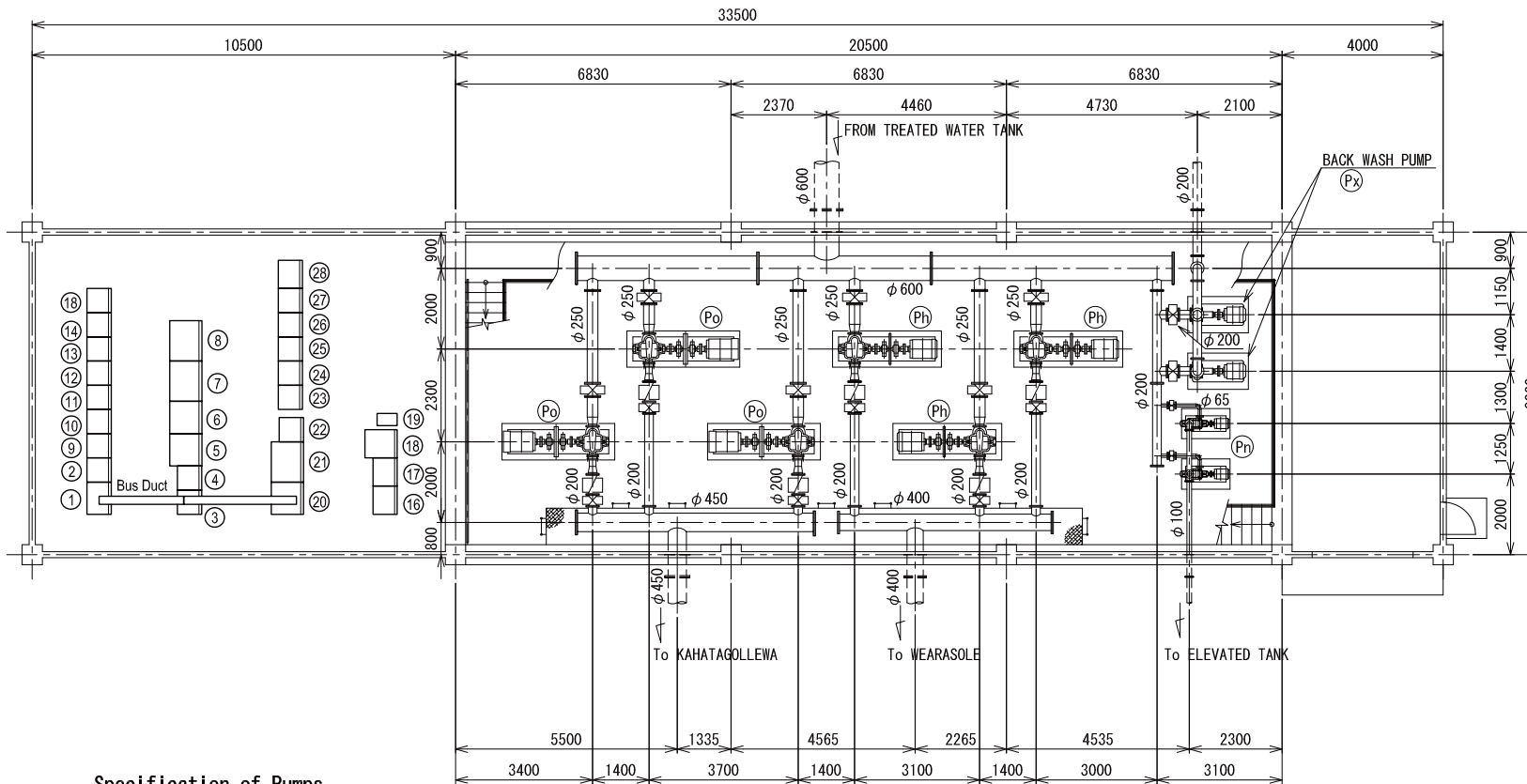
CLIENT: NATIONAL WATER SUPPLY
& DRAINAGE BOARD



CONSULTANTS :
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED:	DRAWN: THARAKA	PM: (CONSULTANT)	DRAWING NO.: WWTP/IP/M/02	
CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 03/09/2012	SCALE: As Given



Description of Electrical Panel

No.	Description
①	Power Incoming MCC-1 main
②	Generator Incoming MCC-G
③	Wahalkada Transmission Pump-1 VSD
④	Wahalkada Transmission Pump-2 VSD
⑤	North Area Transmission Pump-1 VSD
⑥	North Area Transmission Pump-2 VSD
⑦	South Area Transmission Pump-1 VSD
⑧	South Area Transmission Pump-2 VSD
⑨	MCC-2 for other loads
⑩	MCC-3 for other loads
⑪	MCC-4 for other loads
⑫	MCC-5 for other loads
⑬	MCC-6 for other loads
⑭	MCC-7 for other loads
⑮	MCC-8 for other loads
⑯	Control Relay Panel-1
⑰	Control Relay Panel-2
⑱	UPS
⑳	North Area Transmission Pump-3 VSD
㉑	South Area Transmission Pump-3 VSD
㉒	MCC-9 for other loads
㉓	Sludge System MCC-SL1
㉔	Sludge System MCC-SL2
㉕	Sludge System MCC-SL3
㉖	Sludge System MCC-SL4
㉗	Sludge System MCC-SL5
㉘	Sludge System RY-SL1

Specification of Pumps

No.	Ph	Pi	Po	Px	Py
Pump Type	Double Suction	Multi Stage	Double Suction	End Suction	End Suction
Flow (m ³ /m)	3.8	0.36	5.24	6.3	5.0
Total Head (m)	52	49	66	15	15
Motor (kW)	55	5.5	90	18.5	18.5

PLAN
Scale:- 1:125

NOTE:-

All Dimensions Are in Millimeters

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: CLEAR WATER PUMP STATION

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



CONSULTANTS:
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED:

CHECKED:

DRAWN:

AGM: (P&D)

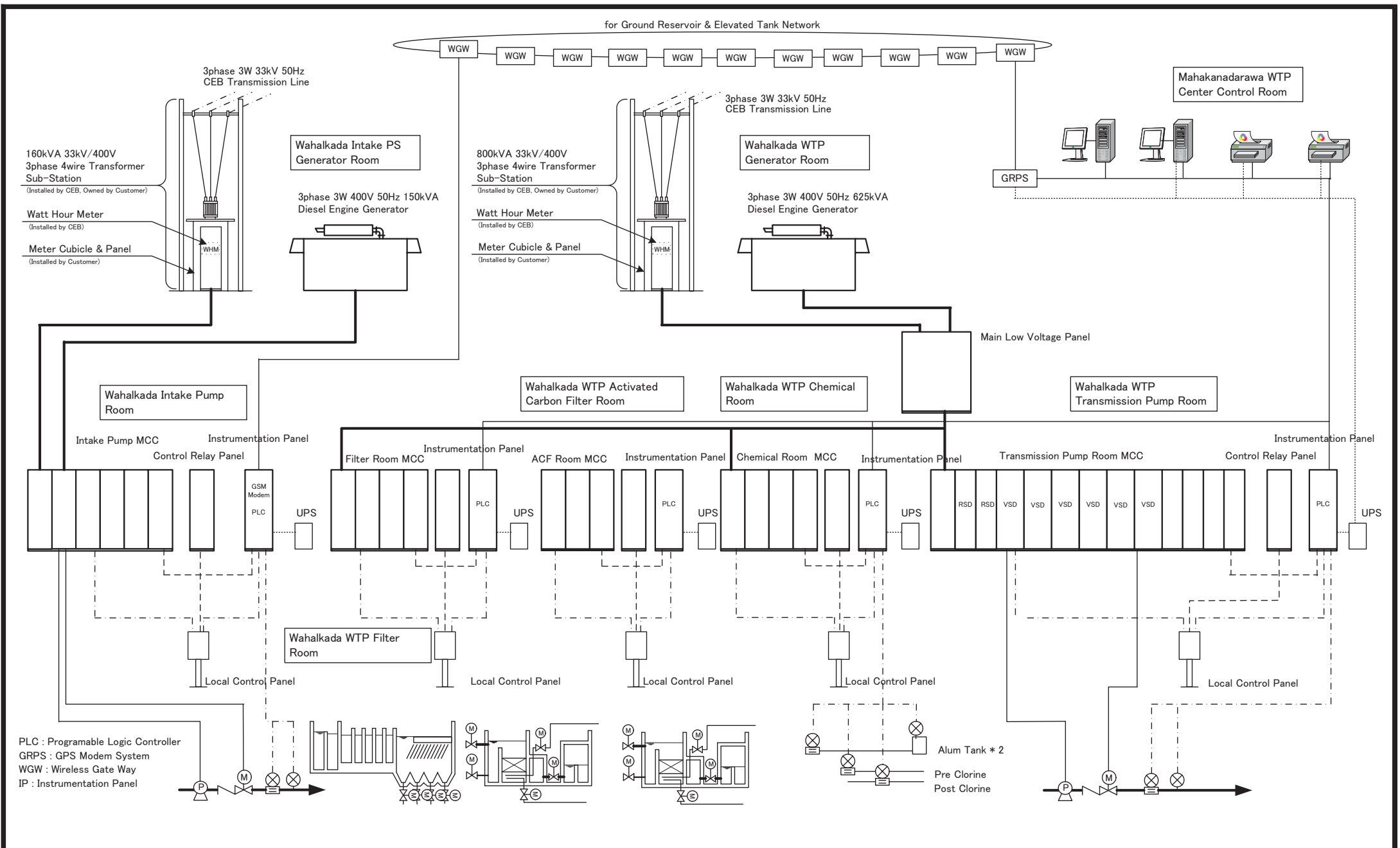
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DGM: (P&D)

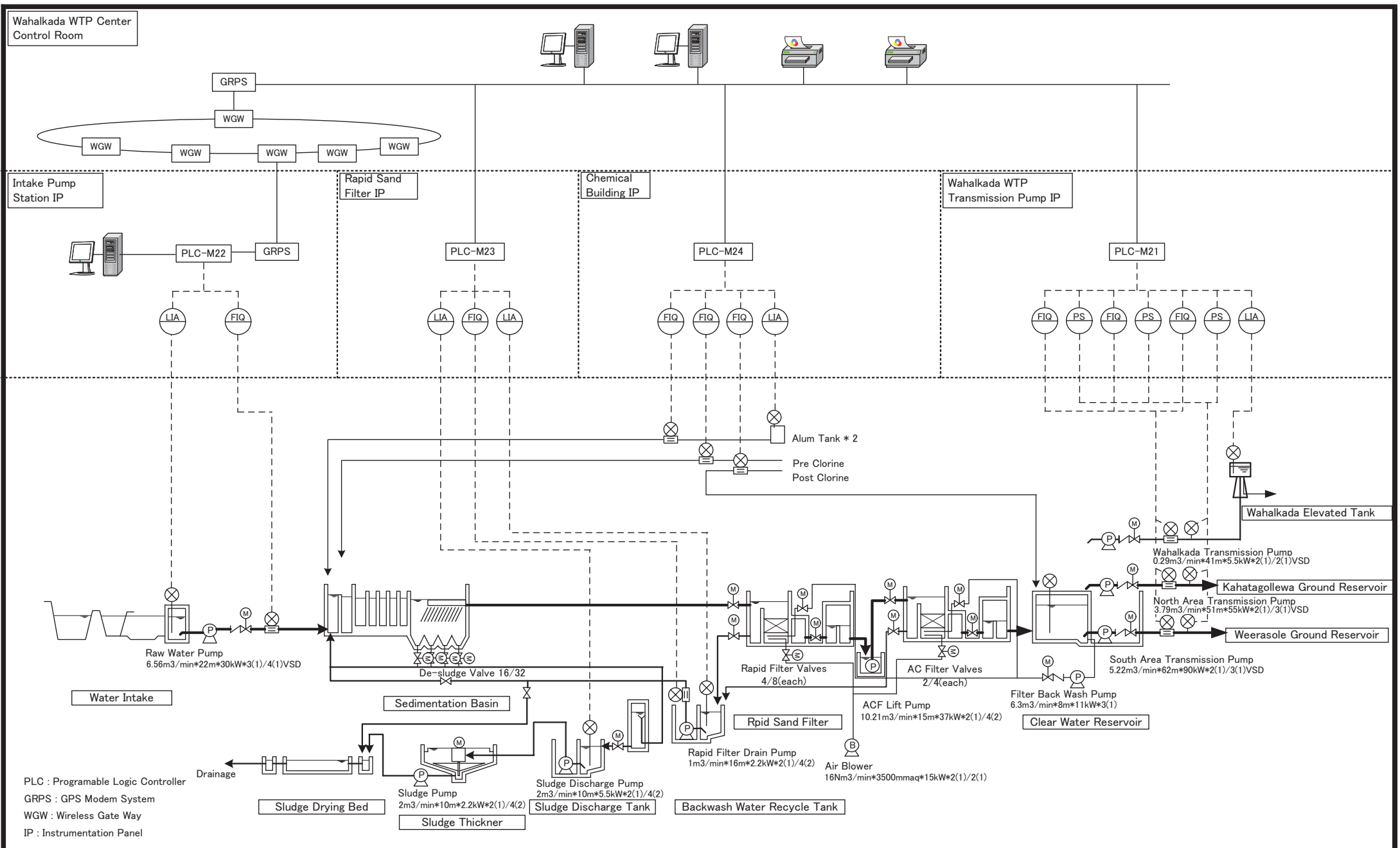
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DATE:
04/09/2012

SCALE:
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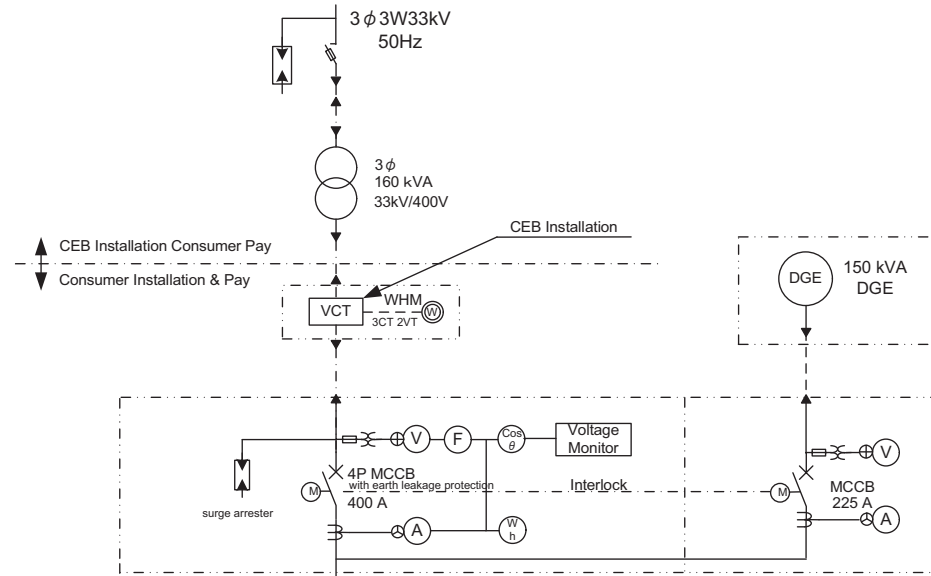


PROJECT: Preparatory Study for Andhra Pradesh Integrated Water Supply Project		JICA JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: WAHALKADA SYSTEM CONFIGURATION DIAGRAM								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: AKIYAMA	DRAWN: AKIYAMA	PM (CONSULTANT): MWA	DRAWING NO.: WWTP/STD/E/01	
								CHECKED:	AGM (P&D)	DGM (P&D)	DATE: 15/09/2012	SCALE: NON



PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project		JAPAN INTERNATIONAL COOPERATION AGENCY		TITLE: WAHALKADA WATER TREATMENT PLANT INSTRUMENTATION FLOW DIAGRAM								
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD		CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN NIHON SUDO CONSULTANTS CO., LTD. - JAPAN		REV.	DESCRIPTION	DATE	SIGN.	DESIGNED: AKIYAMA	DRAWN: AKIYAMA	PM: (CONSULTANT) MIWA	DRAWING NO.: WWTP/STD/E/02	
								CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 15/09/2012	SCALE: NON

From CEB Transmission Line



Load	Sand Pump	Intake Pump	Discharge Valve	Drain Pump	Overhead Crane	Ventilation	Lighting	For Generator				For Control
Output (kW)	5.5	30	0.4	3.7	5	0.2	10	10				3
Starting Method	NR	VSD	R	NR	F	F	F	F				F
MCCB (AF)	50	50	50	50	50	50	50	50				50
Earth Fault Protection	Install	Install	Install	Install	Install	Install	Install					
Ammeter	Install	Install		Install								
Run Hour Meter	Install	Install		Install								
Capacitor (kVar)												
Q'ty	1st Stage	1	3	3	2	1	4	1	1			1
	Final	1	4	4	2	1	4	1	1			1

Legend

NR	Direct On Line Starter
R	Reversible Starter
VSD	Variable Speed Driver
SS	Soft Starter
RSD	Closed Transition Star Delta Starter
F	MCCB Feeder

Voltage monitor shall be provided with the following features and interlocked with all motor starters.

1. Phase failure protection
2. Supply voltage imbalance (adjustable)
3. Under and over voltage (adjustable)
4. Phase revers

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE:

WAHALKADA INTAKE PUMPING STATION SINGLE LINE DIAGRAM

CLIENT:



NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:



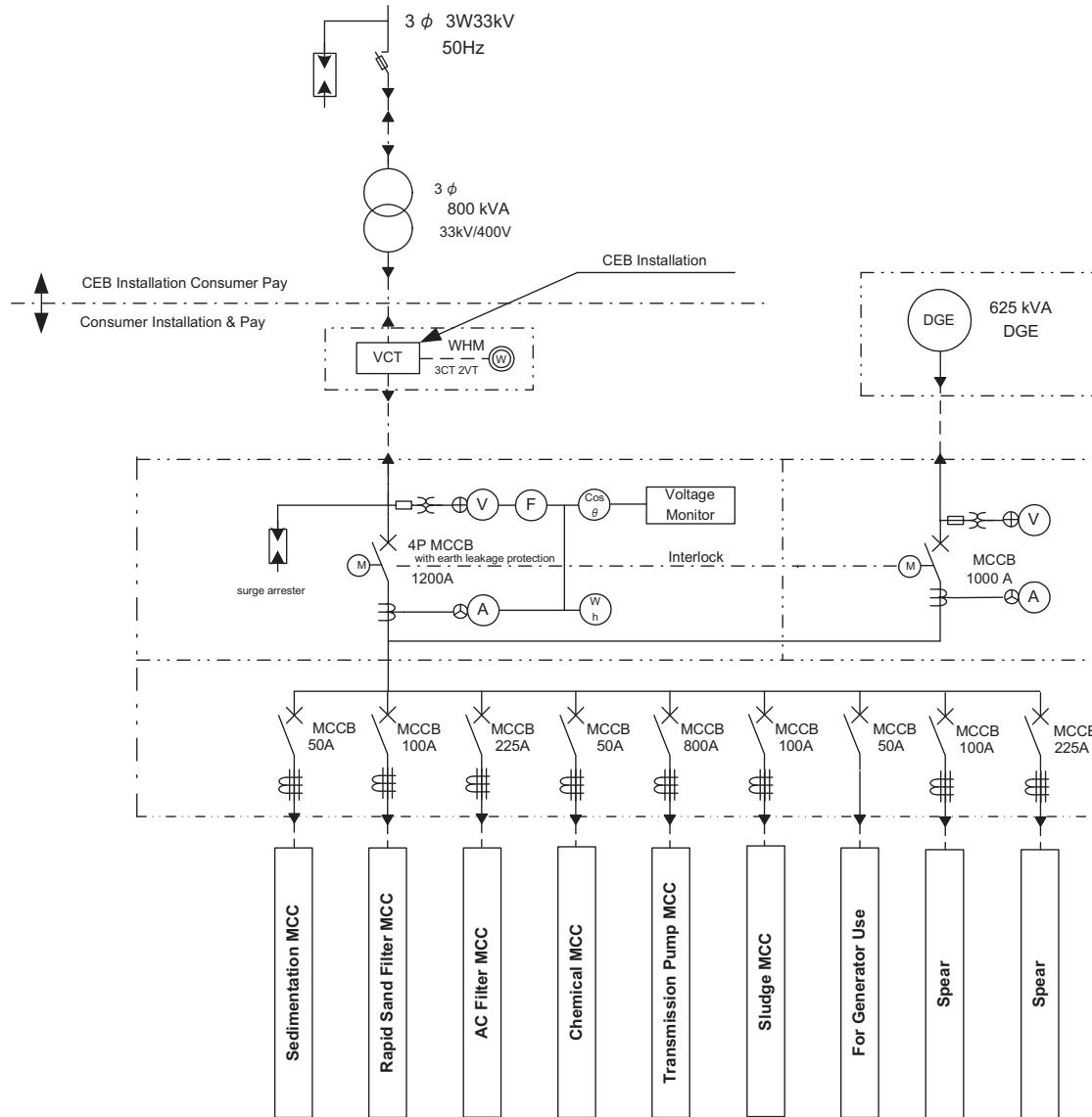
NJS CONSULTANTS CO., LTD. - JAPAN



NIHON SUDO CONSULTANTS CO., LTD.- JAPAN

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:
AKIYAMA	AKIYAMA	MIWA	WWTP/STD/E/03
CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE:
			15/09/2012
			SCALE:
			NON



Voltage monitor shall be provided with the following features and interlocked with all motor starters.

1. Phase failure protection
2. Supply voltage imbalance (adjustable)
3. Under and over voltage (adjustable)
4. Phase revers

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE:

WAHALKADA WATER TREATMENT PLANT SINGLE LINE DIAGRAM-1

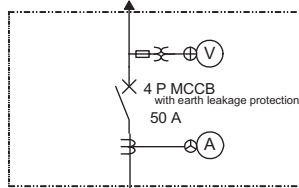
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.

DESIGNED: AKIYAMA	DRAWN: AKIYAMA	PM: (CONSULTANT) MIWA	DRAWING NO.: WWTP/STD/E/04
CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 15/09/2012
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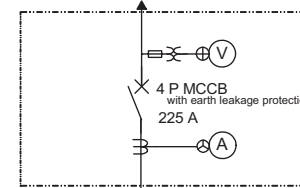
From Main MCC Feeder



Load	De-sludge Valve	Sump Drainage Pump	Inlet Water Sampling Pump	Front of Filter Water Sampling Pump	For Control
Output (kW)	0.2	1.5	0.4	0.4	3
Starting Method	R	NR	NR	NR	F
MCCB (AF)	50	50	50	50	50
Earth Fault Protection	Install	Install	Install	Install	
Ammeter	Install	Install	Install	Install	
Run Hour Meter	Install	Install	Install	Install	
Capacitor (kVar)					
Q'ty	1st Stage	16	2	1	1
	Final	32	2	1	1

Wahalkada WTP Sedimentation MCC Single Line Diagram

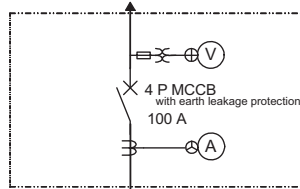
From Main MCC Feeder



Load	ACF Lift Pump	ACF Inflow Gate	ACF Backwash Drainage Gate	ACF Effluent Valve	ACF Backwash Valve	ACF Air Source Valve	ACF Sump Drainage Pump	ACF Water Sampling Pump	For Control
Output (kW)	37	0.75	0.75	0.4	0.4	0.4	1.5	0.4	3
Starting Method	VSD	R	R	R	R	R	NR	NR	F
MCCB (AF)	50	50	50	50	50	50	50	50	50
Earth Fault Protection	Install	Install	Install	Install	Install	Install	Install	Install	
Ammeter	Install						Install	Install	
Run Hour Meter	Install						Install	Install	
Capacitor (kVar)									
Q'ty	1st Stage	2	2	2	2	2	2	1	1
	Final	4	4	4	4	4	2	1	1

Wahalkada WTP Activated Carbon Filter MCC Single Line Diagram

From Main MCC Feeder



Load	Inflow Gate	Backwash Drainage Gate	Effluent Valve	Backwash Valve	Air Source Valve	Air Blower	Sump Drainage Pump	Filtrated Water Sampling Pump	For Control
Output (kW)	0.75	0.75	0.4	0.4	0.4	22	1.5	0.4	3
Starting Method	R	R	R	R	R	RSD	NR	NR	F
MCCB (AF)	50	50	50	50	50	50	50	50	50
Earth Fault Protection	Install	Install	Install	Install	Install	Install	Install	Install	
Ammeter						Install	Install	Install	
Run Hour Meter						Install	Install	Install	
Capacitor (kVar)									
Q'ty	1st Stage	4	4	4	4	2	2	1	1
	Final	8	8	8	8	2	2	1	1

Wahalkada WTP Rapid Sand Filter MCC Single Line Diagram

Legend

NR	Direct On Line Starter
R	Reversible Starter
VSD	Variable Speed Driver
SS	Soft Starter
RSD	Closed Transition Star Delta Starter
F	MCCB Feeder

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE:

WAHALKADA WATER TREATMENT PLANT SINGLE LINE DIAGRAM-2

CLIENT:



NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:

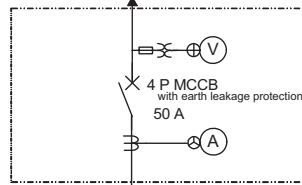


NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.

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AKIYAMA	AKIYAMA	MIWA	WWTP/STD/E/05
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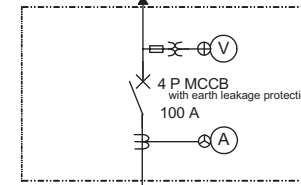
From Main MCC Feeder



Load	Alum Mixer	Alum Pump	Chlorinator-Pre	Chlorinator-Post	Chemical Crane	Exhaust Fan		For Control
Output (kW)	1.5	0.75	0.025	0.025	1.15	0.4		3
Starting Method	NR	NR	F	F	F	NR		F
MCCB (AF)	50	50	50	50	50	50		50
Earth Fault Protection	Install	Install	Install	Install	Install	Install		
Ammeter	Install	Install				Install		
Run Hour Meter	Install	Install						
Capacitor (kVar)								
Q'ty	1st Stage	4	2	3	2	1	3	1
	Final	4	2	3	3	1	3	1

Wahalkada Chemical MCC Single Line Diagram

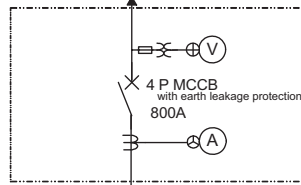
From Main MCC Feeder



Load	Backwash Recovery Pump	Sludge Drainage Pump	Sludge Thickener	Sludge Pump		For Control
Output (kW)	11	2.2	0.4	2.2		3
Starting Method	SS	NR	NR	NR		F
MCCB (AF)	50	50	50	50		50
Earth Fault Protection	Install	Install	Install	Install		
Ammeter	Install	Install	Install	Install		
Run Hour Meter	Install	Install	Install	Install		
Capacitor (kVar)						
Q'ty	1st Stage	2	2	1	2	1
	Final	2	4	2	4	1

Wahalkada WTP Sludge MCC Single Line Diagram

From Main MCC Feeder



Load	Wahalkada ET Transmission Pump	Discharge Valve	North Area Transmission Pump	Discharge Valve	South Area Transmission Pump	Discharge Valve	Back Wash Pump	Discharge Valve	Transmission PST Drain Pump	Overhead Crane		For Control
Output (kW)	5.5	0.4	55	0.4	90	0.4	22	0.4	2.2	5		3
Starting Method	RSD	R	VSD	R	VSD	R	SS	R	NR	F		F
MCCB (AF)	50	50	100	50	225	50	50	50	50	50		50
Earth Fault Protection	Install	Install	Install	Install	Install	Install	Install	Install	Install	Install		
Ammeter	Install		Install		Install				Install	Install		
Run Hour Meter	Install		Install		Install				Install	Install		
Capacitor (kVar)												
Q'ty	1st Stage	2	2	2	2	2	2	2	4	1		1
	Final	3	3	3	3	3	2	2	4	1		1

Wahalkada WTP Transmission Pump MCC Single Line Diagram

Legend

NR	Direct On Line Starter
R	Reversible Starter
VSD	Variable Speed Driver
SS	Soft Starter
RSD	Closed Transition Star Delta Starter
F	MCCB Feeder

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE:

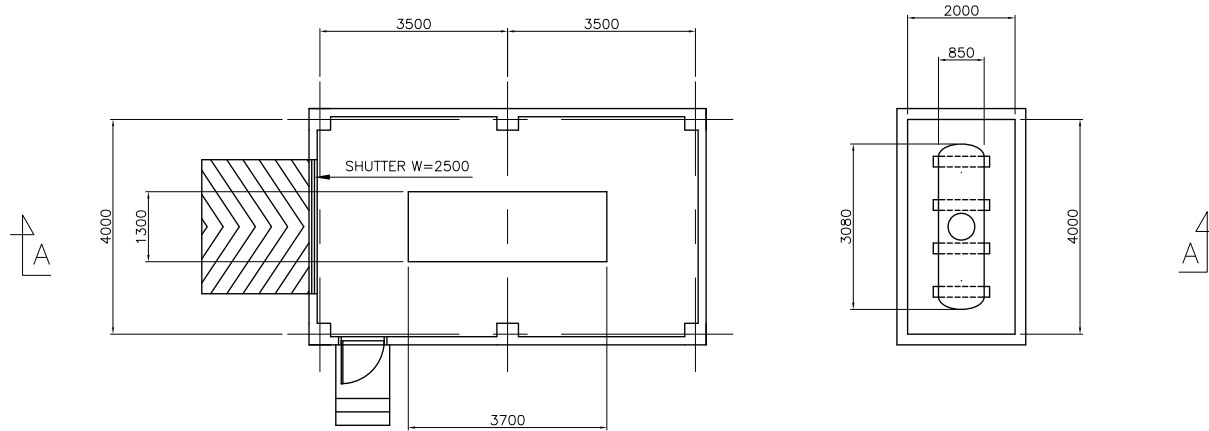
WAHALKADA WATER TREATMENT PLANT SINGLE LINE DIAGRAM-3

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

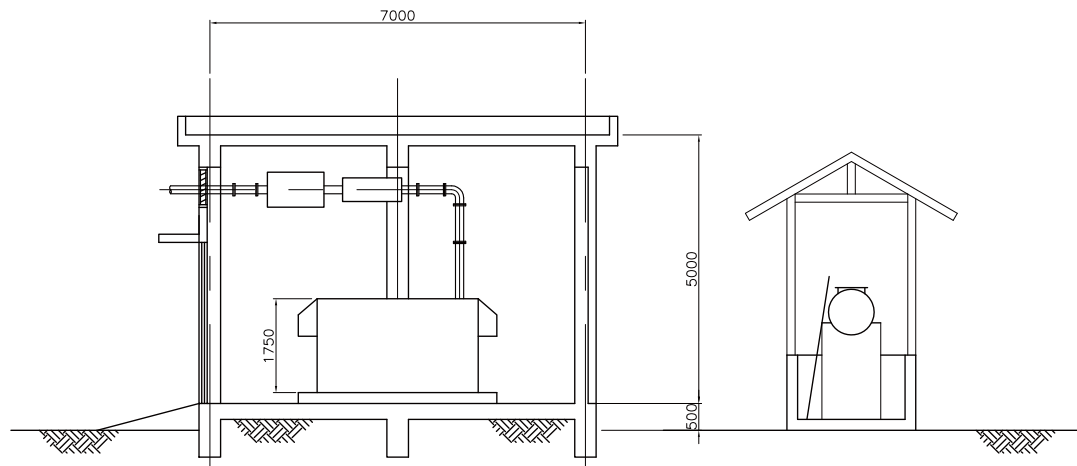
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.

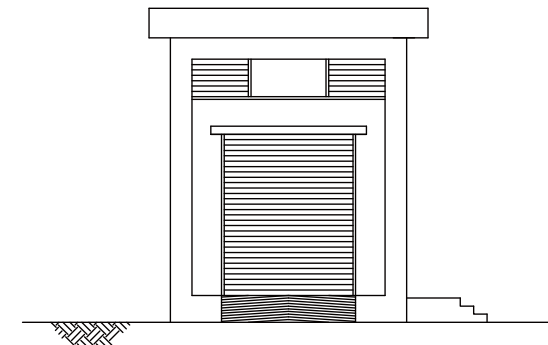
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			15/09/2012
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PLAN S=1:100



SECTION A-A S=1:100



FRONT ELEVATION S=1:100



PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



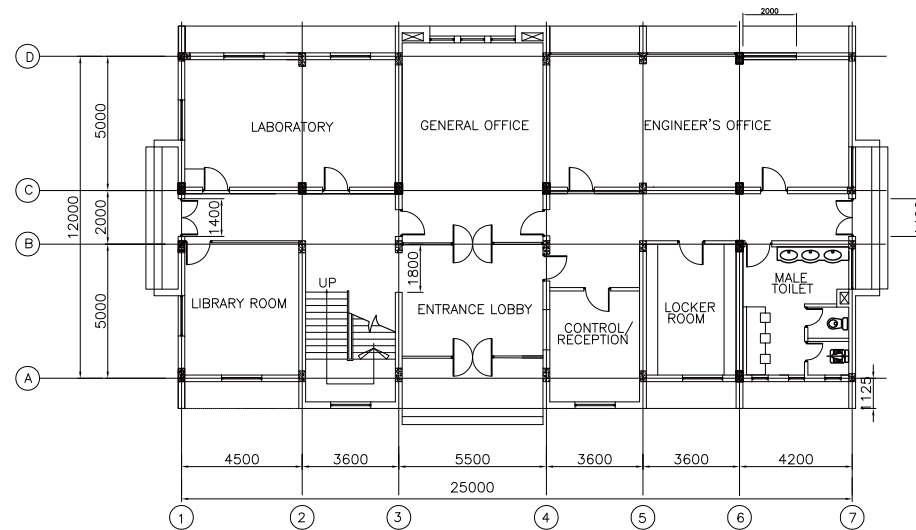
JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: INTAKE GENERATOR BUILDING

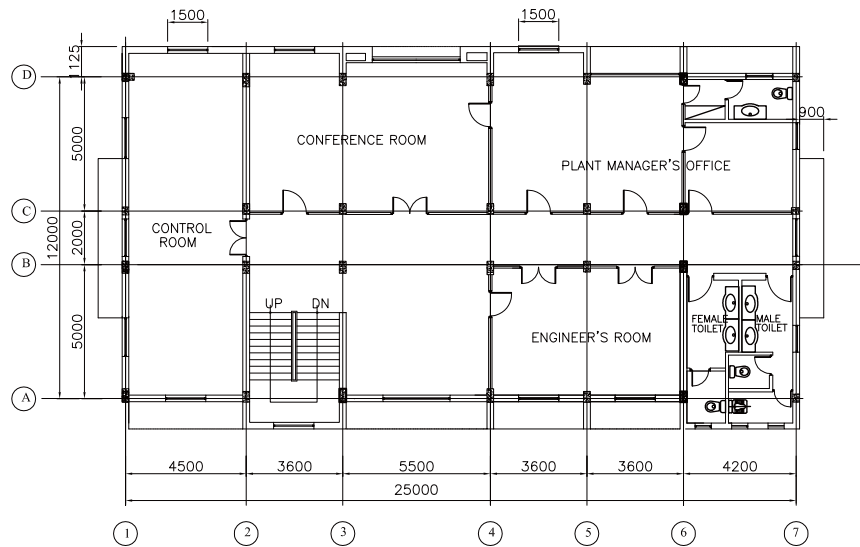
CLIENT:
 NATIONAL WATER SUPPLY
& DRAINAGE BOARD

CONSULTANTS:
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:	
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							13/09/2012	As Given



GROUND FLOOR PLAN S=1:200



FIRST FLOOR PLAN S=1:200

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project





JAPAN INTERNATIONAL COOPERATION AGENCY

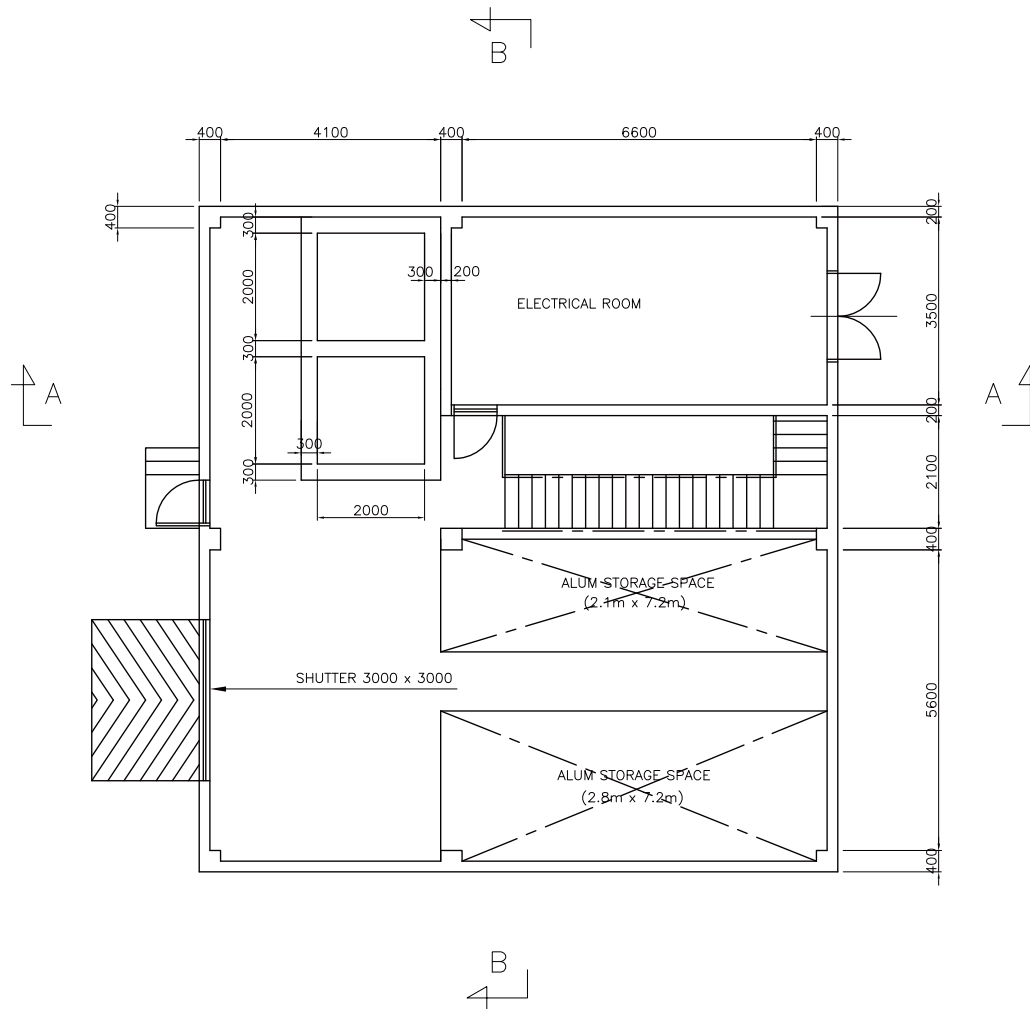
TITLE: ADMINISTRATION BUILDING

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



CONSULTANTS:
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:
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							SCALE: As Given



PLAN S=1:100

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: CHEMICAL BUILDING PLAN

CLIENT: NATIONAL WATER SUPPLY
& DRAINAGE BOARD

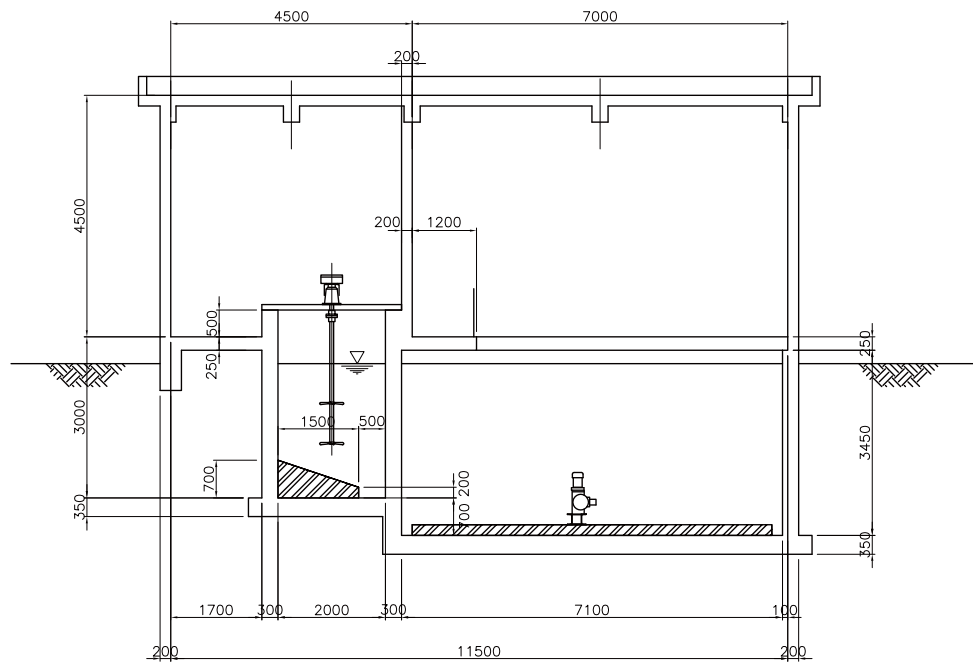


CONSULTANTS:
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

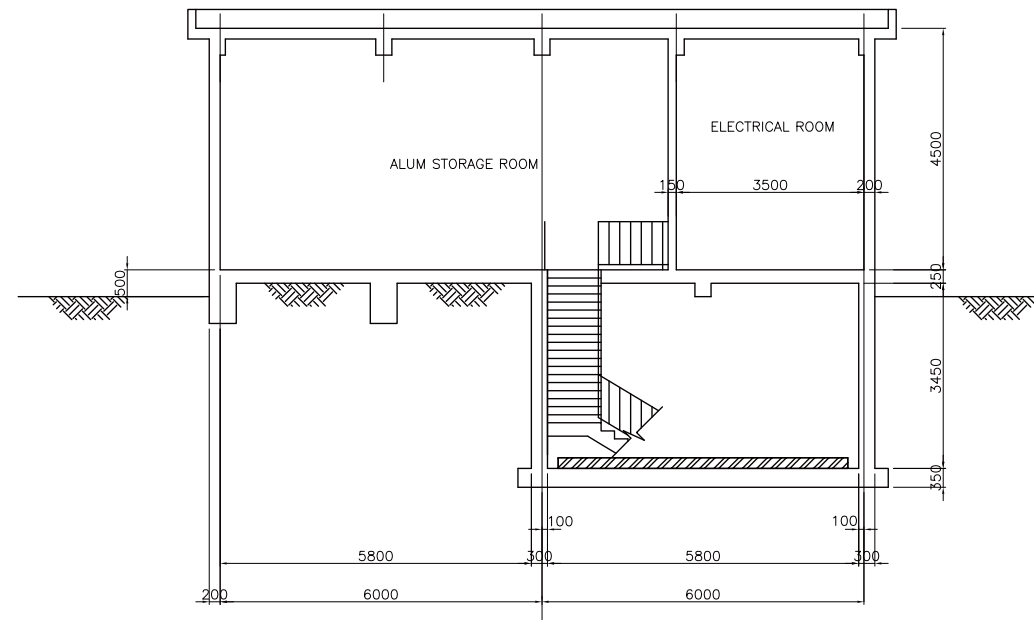


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CHECKED:	AGM: (P&D)	DGM: (P&D)	DATE: 12/09/2012	SCALE: As Given



SECTION A-A S=1:100




SECTION B-B S=1:100



PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



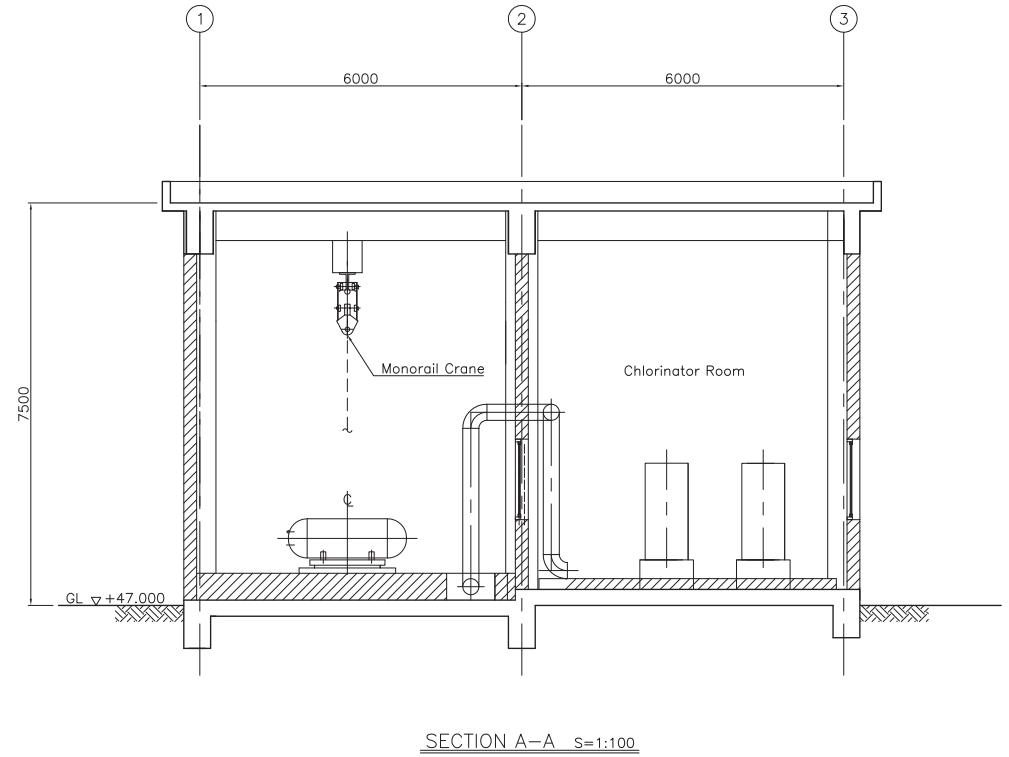
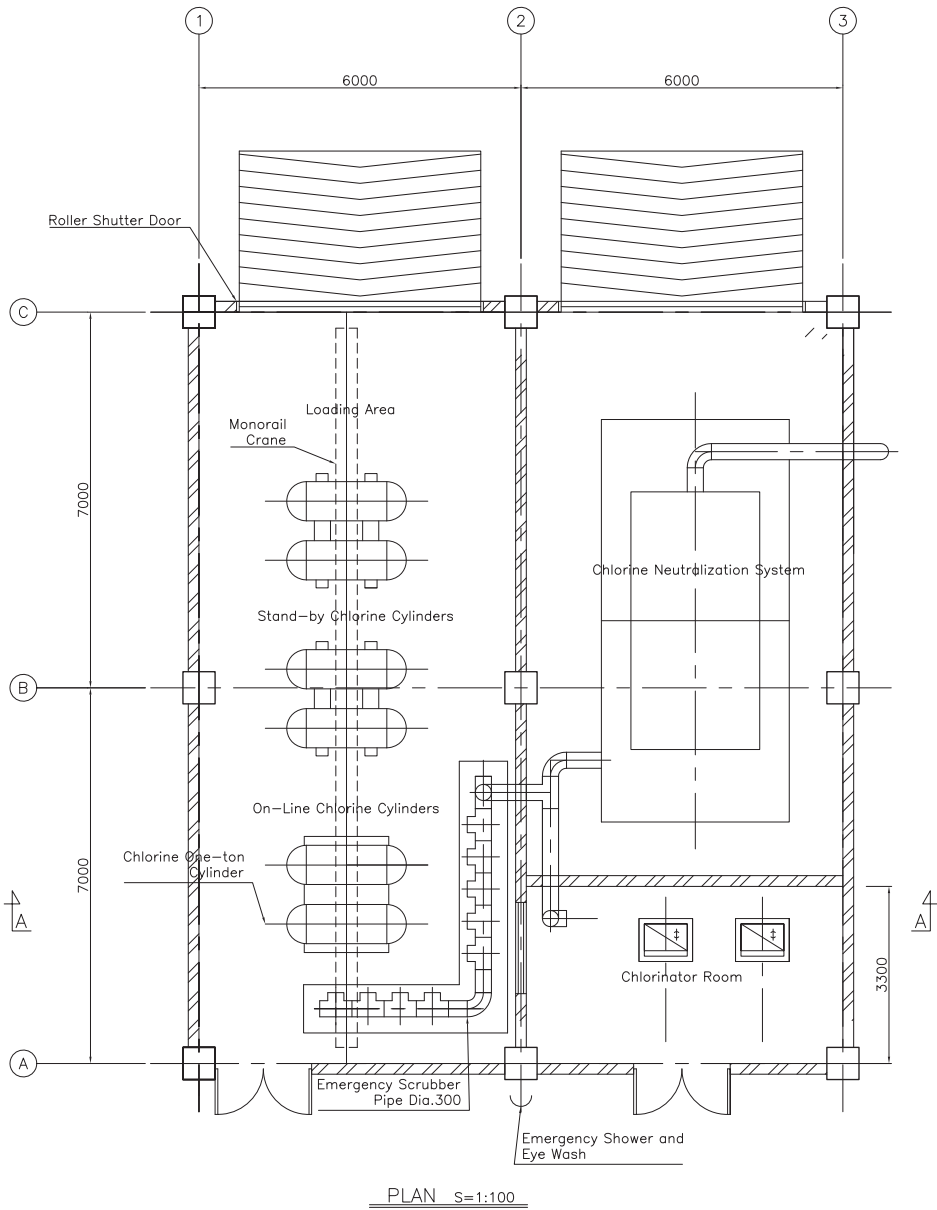
JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: CHEMICAL BUILDING SECTIONS

CLIENT:
 NATIONAL WATER SUPPLY
& DRAINAGE BOARD

CONSULTANTS:
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:	
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PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: CHLORINE BUILDING

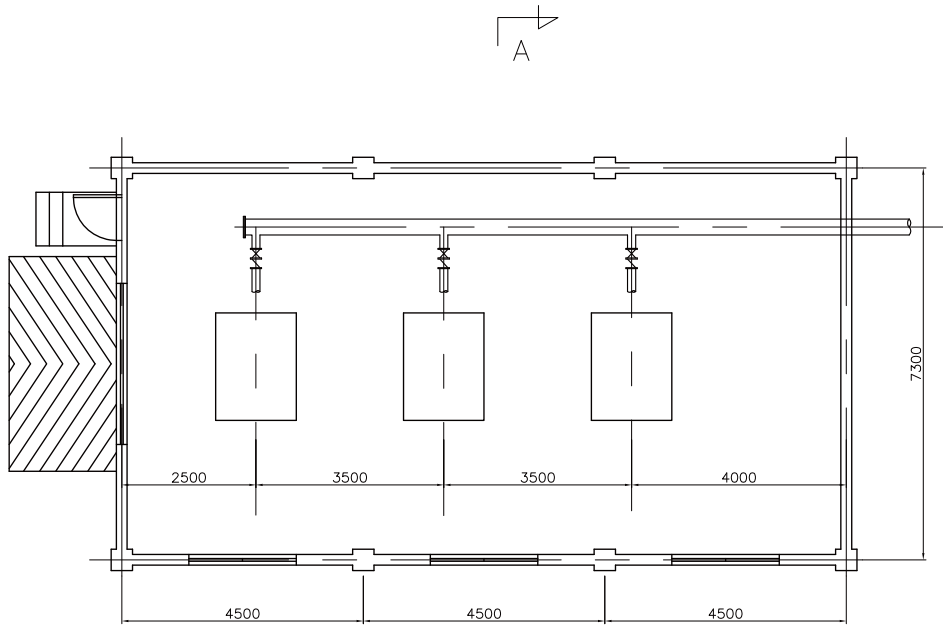
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



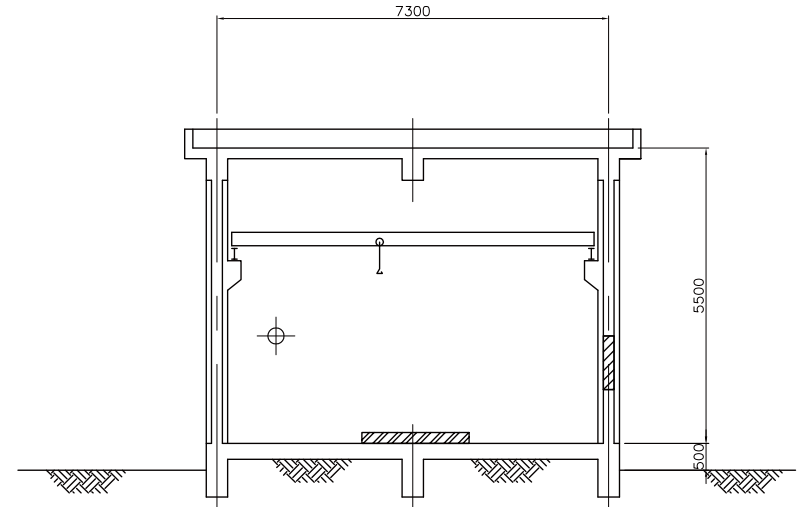
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN



REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:	
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							16/07/2012	As Given



PLAN S=1:100



SECTION A-A S=1:100



PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

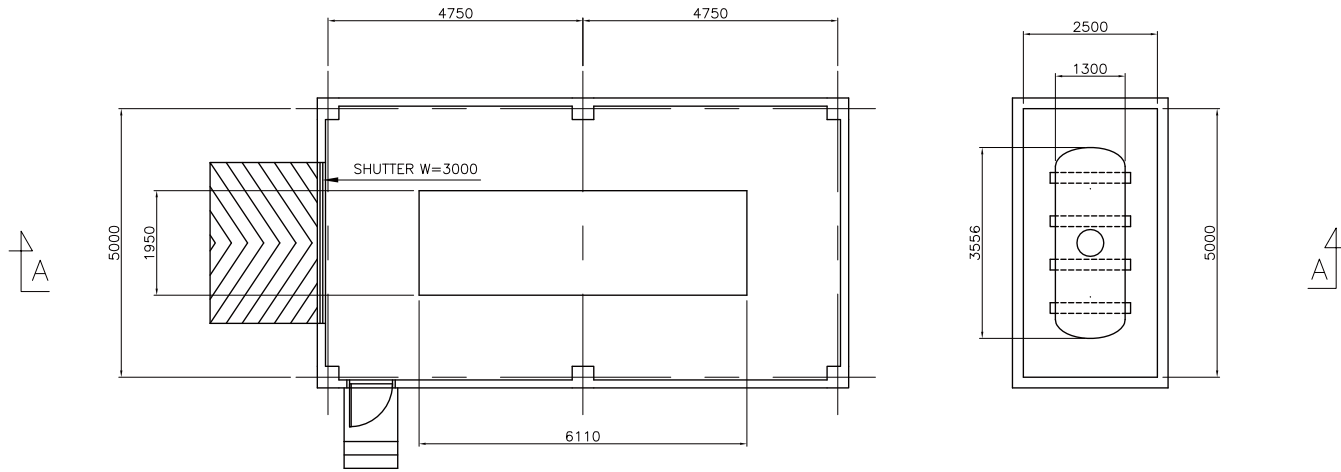
TITLE: BLOWER ROOM

CLIENT:
 NATIONAL WATER SUPPLY
& DRAINAGE BOARD

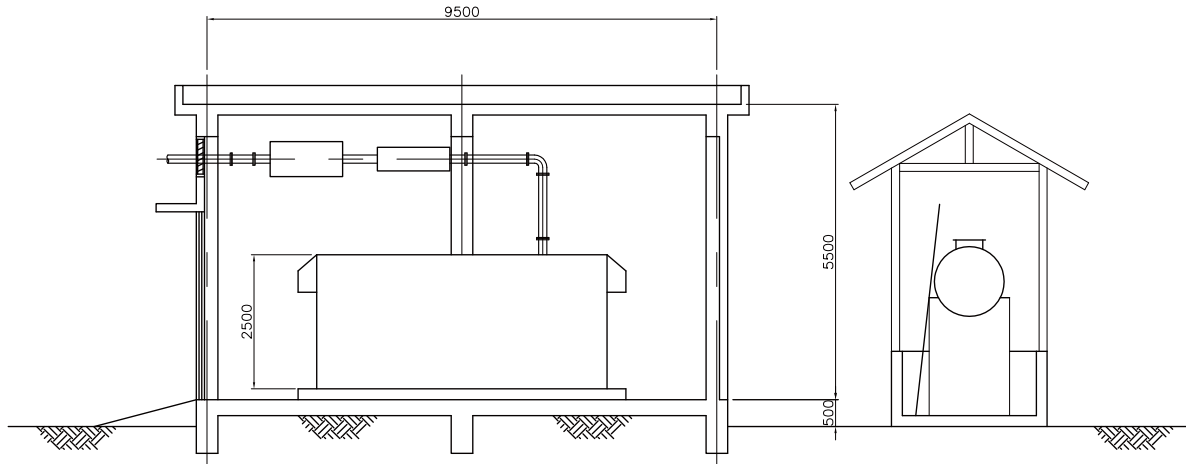
CONSULTANTS:
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

REV.	DESCRIPTION	DATE	SIGN.

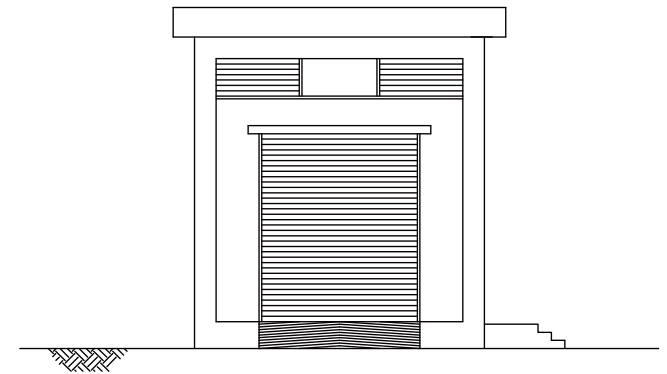
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PLAN S=1:100



SECTION A-A S=1:100



FRONT ELEVATION S=1:100



PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: ELECTRICAL BUILDING

CLIENT:
 NATIONAL WATER SUPPLY
& DRAINAGE BOARD

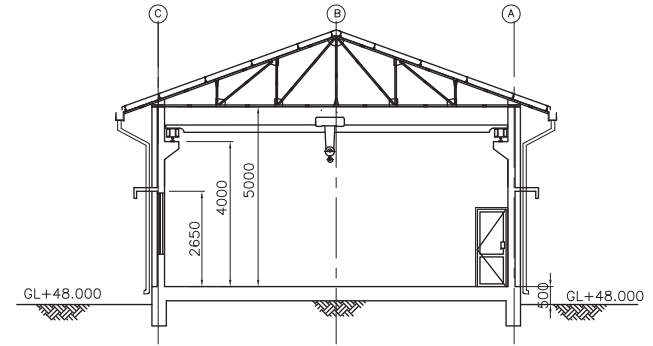
CONSULTANTS:
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

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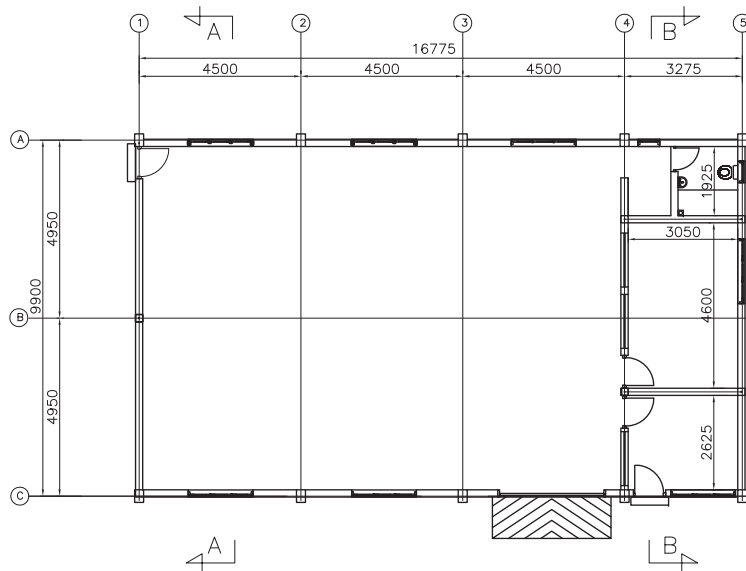
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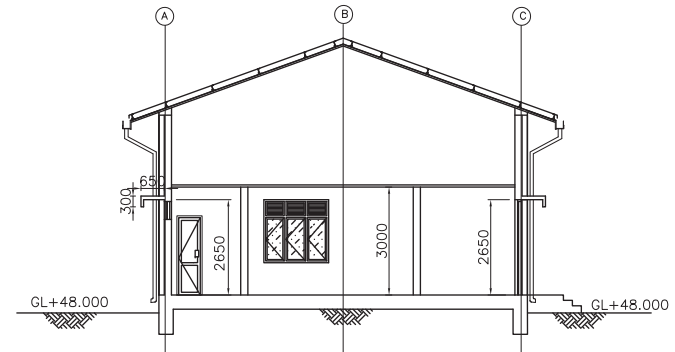
FRONT ELEVATION S=1:150



SECTION A-A S=1:150



PLAN S=1:150



SECTION B-B S=1:150

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: WAREHOUSE

CLIENT:



NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:

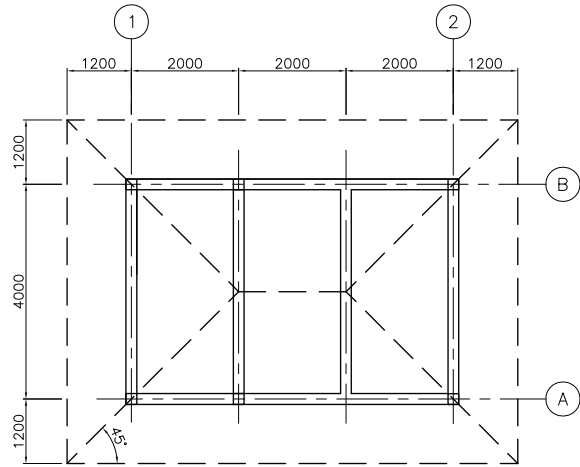


NJS CONSULTANTS CO., LTD. - JAPAN

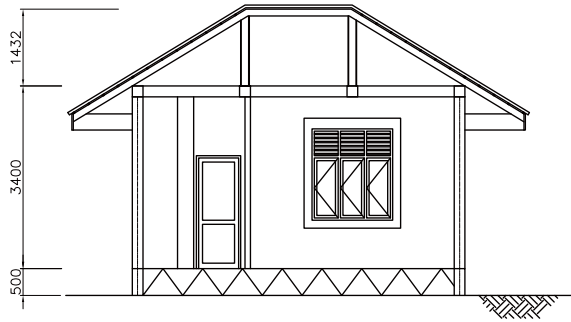


NIHON SUIDO CONSULTANTS CO., LTD.- JAPAN

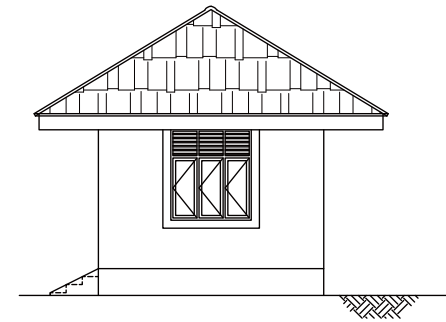
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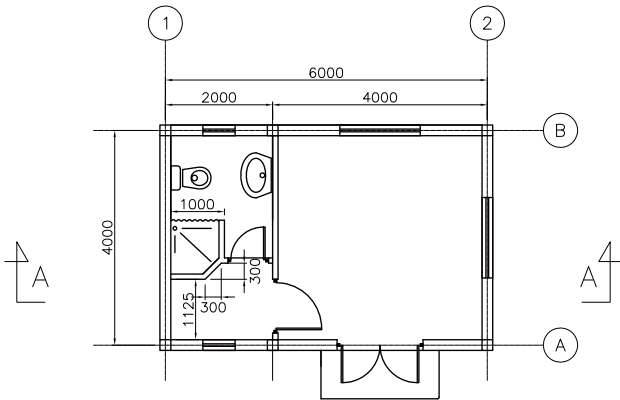
ROOF PLAN S=1:100



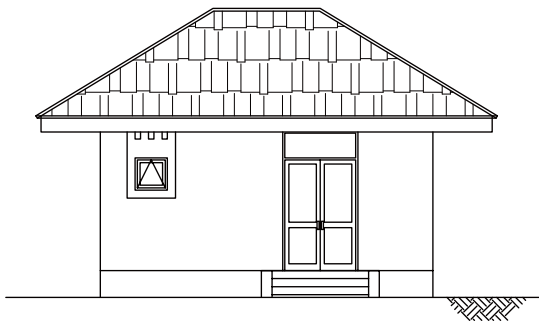
SECTION A-A S=1:100



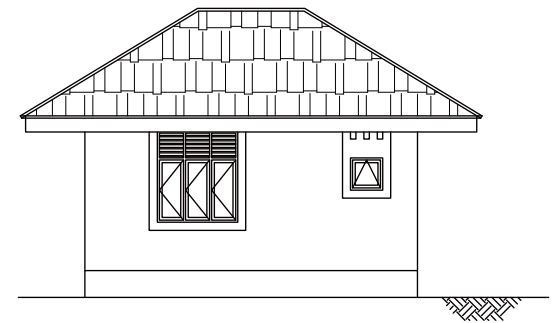
RIGHT ELEVATION S=1:100



GROUND FLOOR PLAN S=1:100



FRONT ELEVATION S=1:100



REAR ELEVATION S=1:100

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: GUARD HOUSE

CLIENT:



NATIONAL WATER SUPPLY & DRAINAGE BOARD

CONSULTANTS:

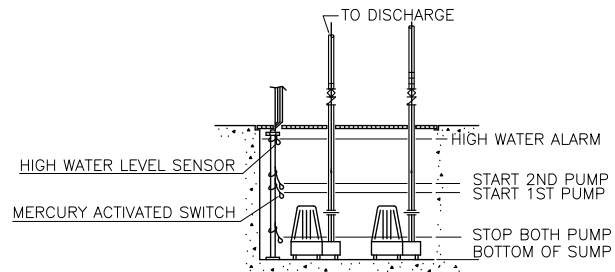


NJS CONSULTANTS CO., LTD. - JAPAN

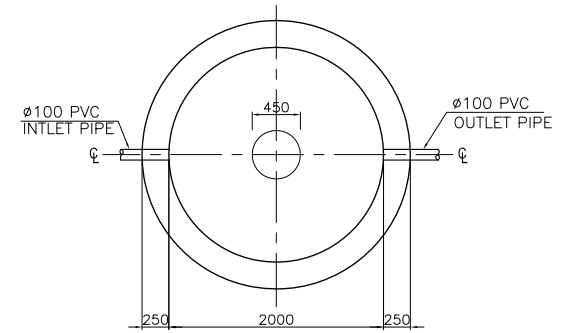


NIHON SUIDO CONSULTANTS CO., LTD.- JAPAN

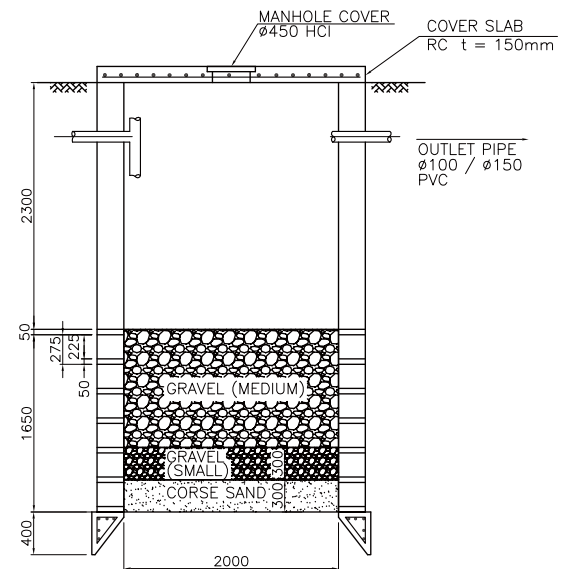
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							07/09/2012	As Given



SUMP PIT NOT TO SCALE



PLAN OF SOAK PIT S=1:50



SECTION OF SOAK PIT S=1:50

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: SUMP PIT AND SOAK PIT

CLIENT:



NATIONAL WATER SUPPLY
& DRAINAGE BOARD

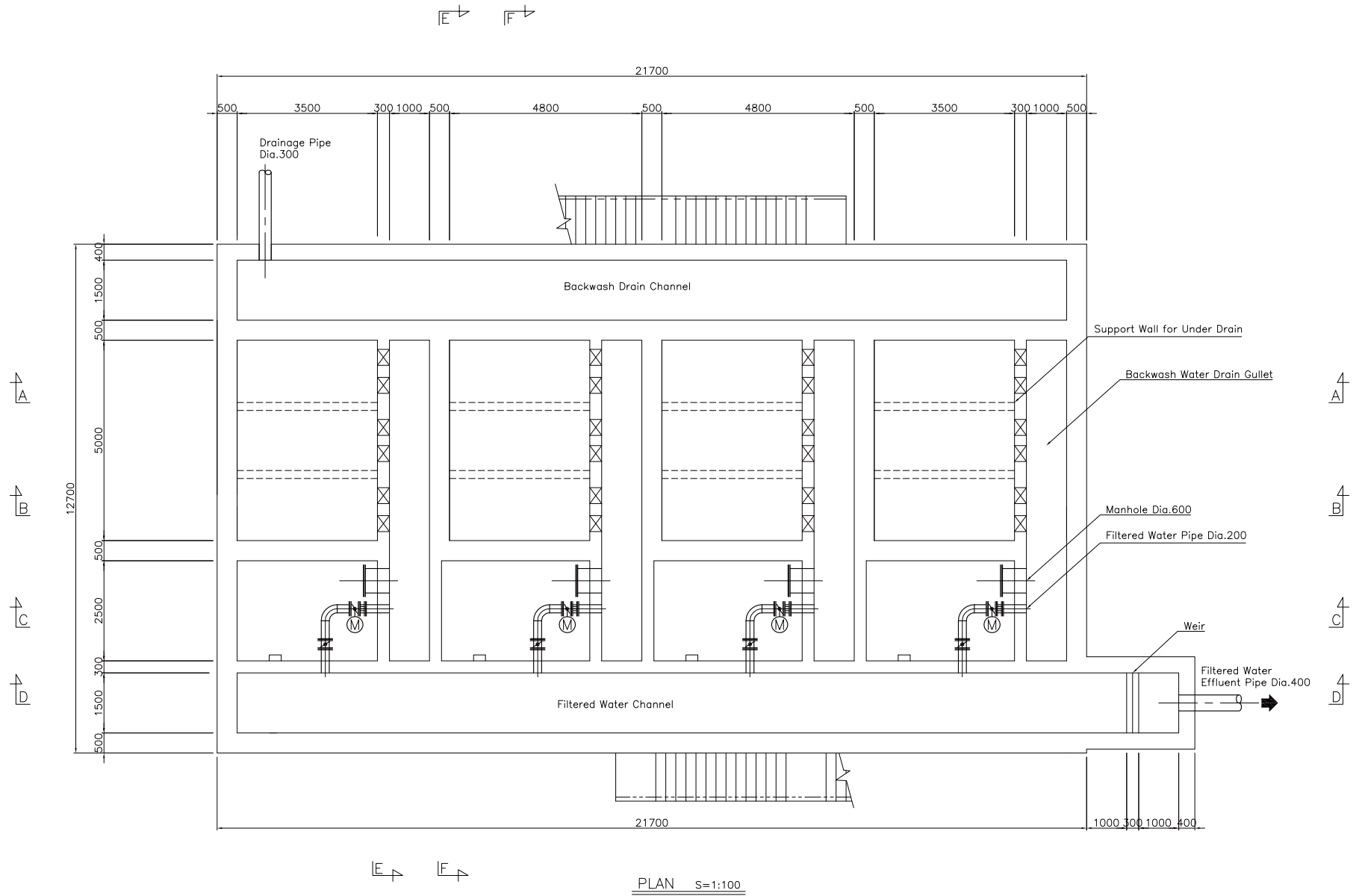
CONSULTANTS:



NJS CONSULTANTS CO., LTD. - JAPAN

NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

REV.	DESCRIPTION	DATE	SGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:	
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							07/09/2012	As Given



PLAN S=1:100

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: ACTIVATED CARBON FILTER

CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD

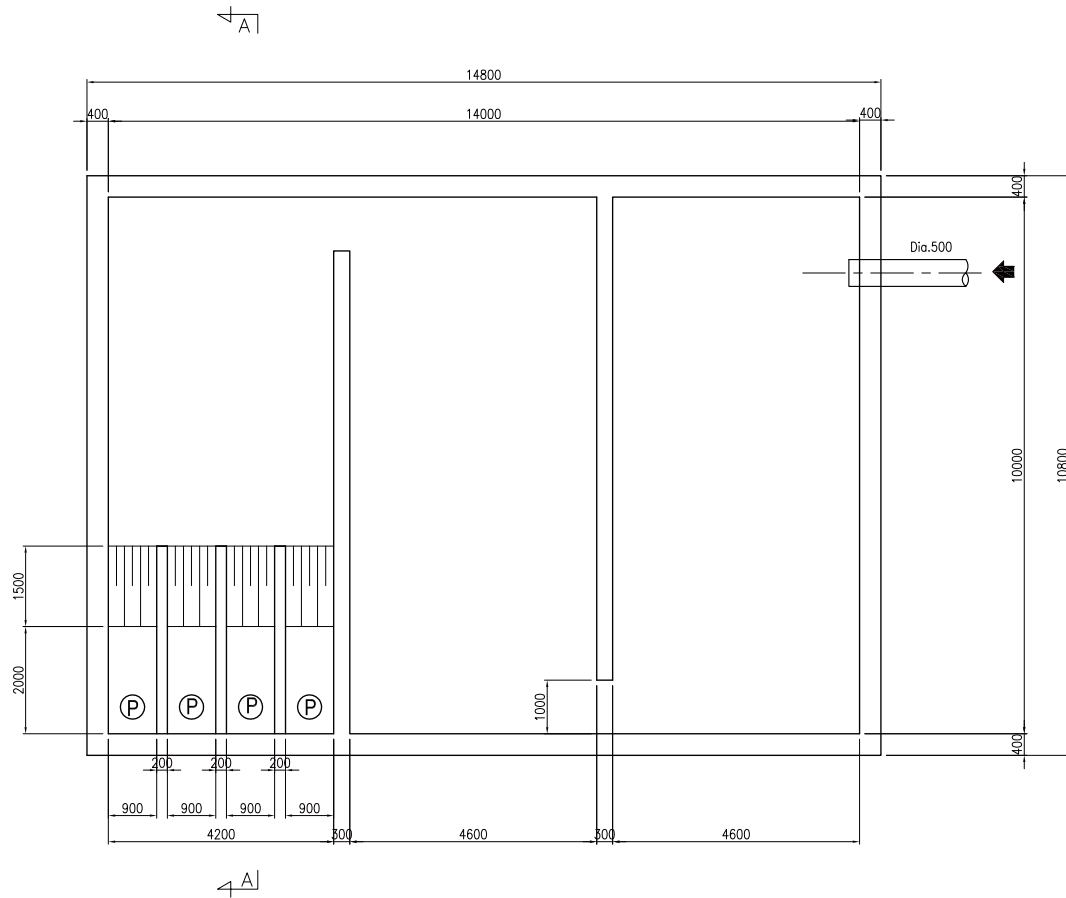


CONSULTANTS:

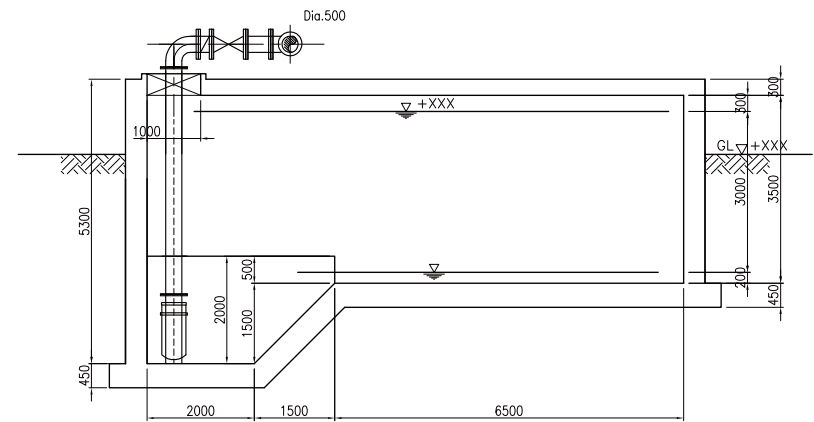


NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:	
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							14/09/2012	As Given



PLAN S=1:100



SECTION A-A S=1:100



PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: AC FILTER PUMP SUMP





CLIENT:
 NATIONAL WATER SUPPLY
& DRAINAGE BOARD

CONSULTANTS:
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

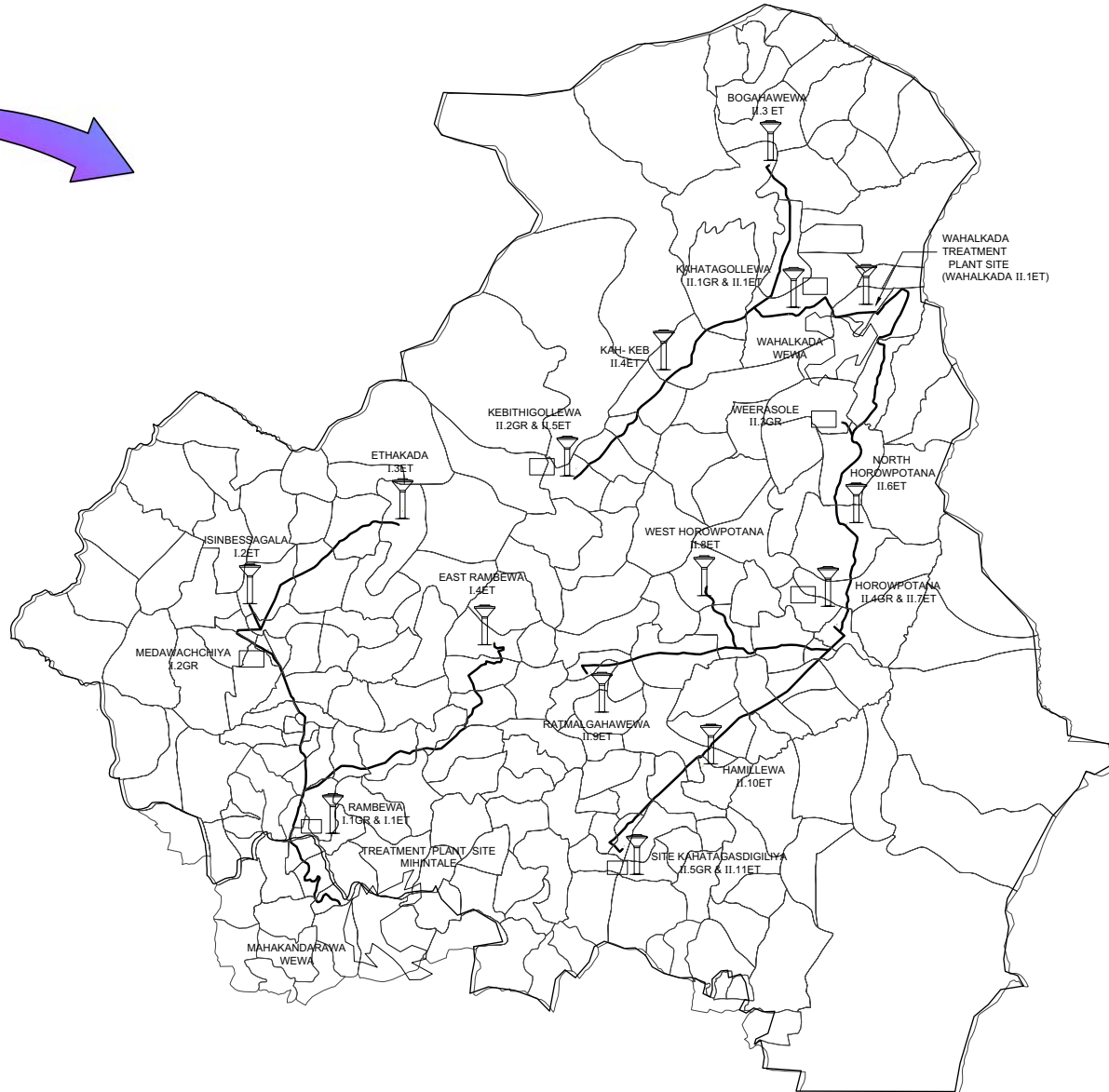
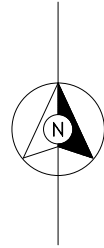
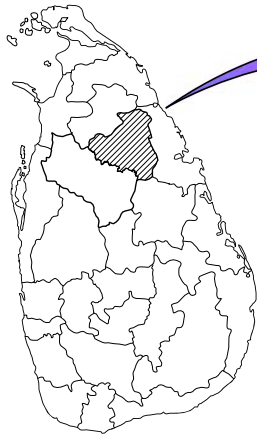
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**PREPARATORY STUDY
ON
ANURADHAPURA NORTH
INTEGRATED WATER SUPPLY PROJECT
IN
THE DEMOCRATIC SOCIALIST REPUBLIC
OF
SRI LANKA**

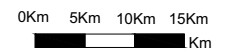
**TRANSMISSION & DISTRIBUTION
DRAWINGS**

PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project	 JAPAN INTERNATIONAL COOPERATION AGENCY	TITLE:								
 NATIONAL WATER SUPPLY & DRAINAGE BOARD	CONSULTANTS :  NJS CONSULTANTS CO., LTD. - JAPAN  NIHON SUIDO CONSULTANTS CO., LTD.- JAPAN	REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:	
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SRI LANKA



G.R. - SUMP
E.T. - TOWER



PROJECT: Preparatory Study for Anuradhapura North Integrated Water Supply Project



JAPAN INTERNATIONAL COOPERATION AGENCY

TITLE: LOCATION MAP OF ANURADHAPURA NORTH INTEGRATED WATER SUPPLY PROJECT

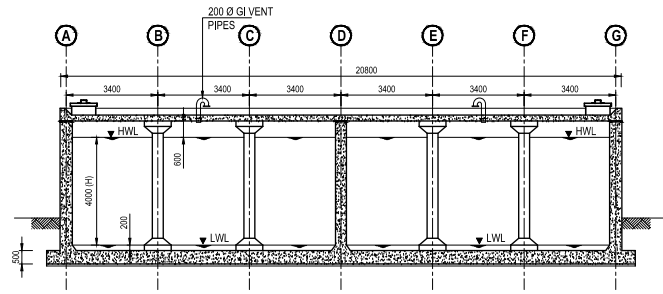
CLIENT: NATIONAL WATER SUPPLY & DRAINAGE BOARD



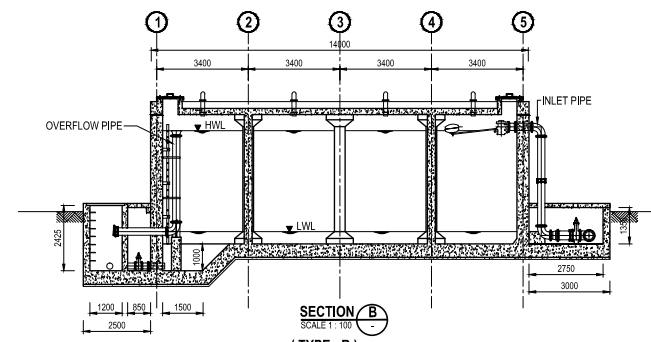
CONSULTANTS: NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD. - JAPAN



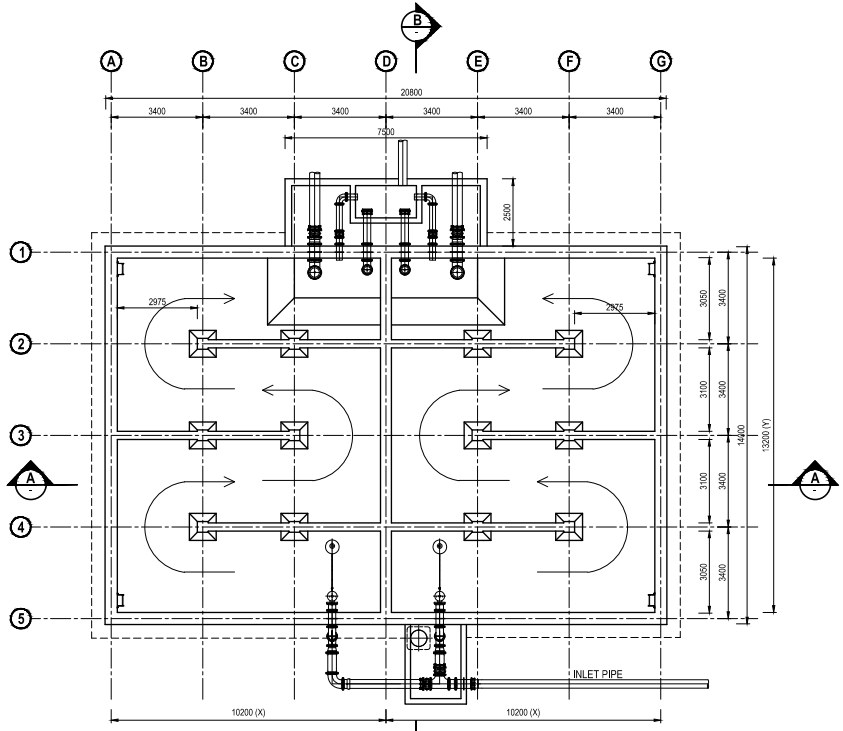
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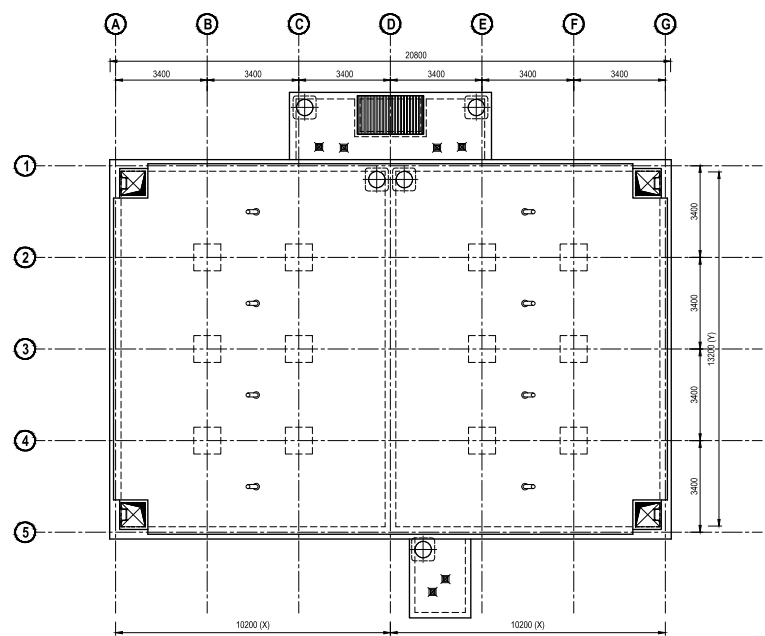
SECTION A
SCALE 1:100
(TYPE - B)



SECTION B
SCALE 1:100
(TYPE - B)



PLAN
SCALE 1:100
(TYPE - B)



ROOF PLAN
SCALE 1:100
(TYPE - B)

STANDARD DIMENSION OF GROUND RESERVOIR

TYPE	CAPACITY (m ³)	X (m)	Y (m)	H (m)
A	500	7.3	9.7	4
B	1000	10.2	13.2	4
C	1500	12.4	16.3	4


NOTE :- 01. ALL DIMENSIONS ARE IN MILLIMETERS.

**PRELIMINARY DRAWING
NOT FOR CONSTRUCTION**

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project

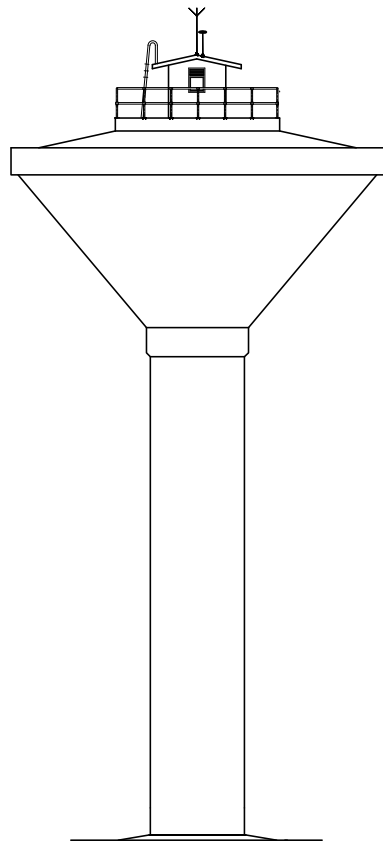
JICA JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: STANDARD DRAWING - GROUND RESERVOIR

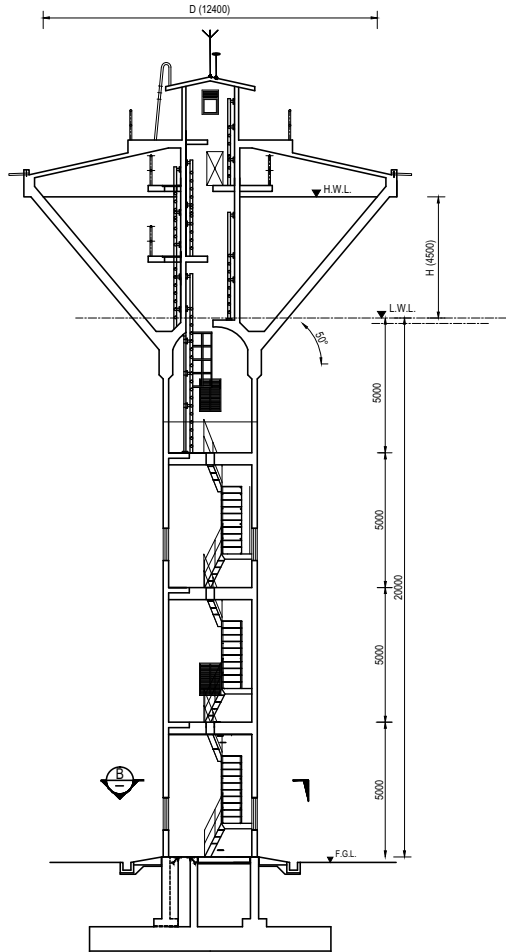
CLIENT:  NATIONAL WATER SUPPLY
& DRAINAGE BOARD

CONSULTANTS :
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

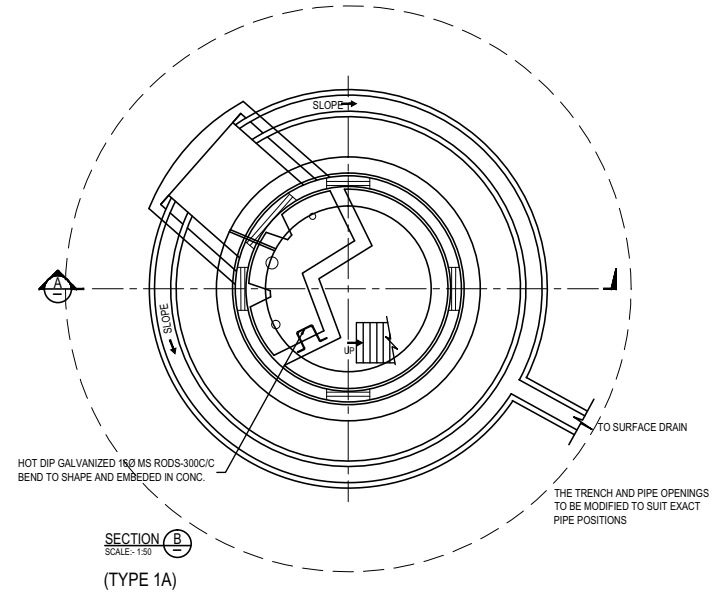
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							SCALE: AS SHOWN



ELEVATION
(TYPE 1A)



SECTION A
SCALE: 1:100
(TYPE 1A)



STANDARD DIMENSION OF WATER TOWER

TYPE 1	VOLUME (m ³)	D (m)	H (m)
1A	250	12.4	4.5
1B	500	15.4	5.5

- NOTE :- 01. ALL PIPES MATERIAL ARE DI.
02. STRUCTURE MEMBERS ARE R/F CONCRETE.
03. ALL DIMENSIONS ARE IN MILLIMETERS.

**PRELIMINARY DRAWING
NOT FOR CONSTRUCTION**

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

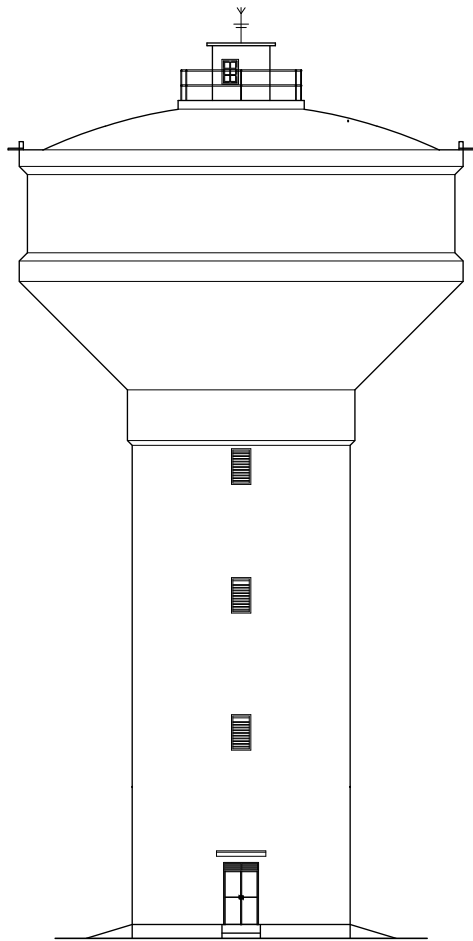
TITLE: STANDARD DRAWING - WATER TOWER 250m³ & 500m³

CLIENT: NATIONAL WATER SUPPLY
& DRAINAGE BOARD

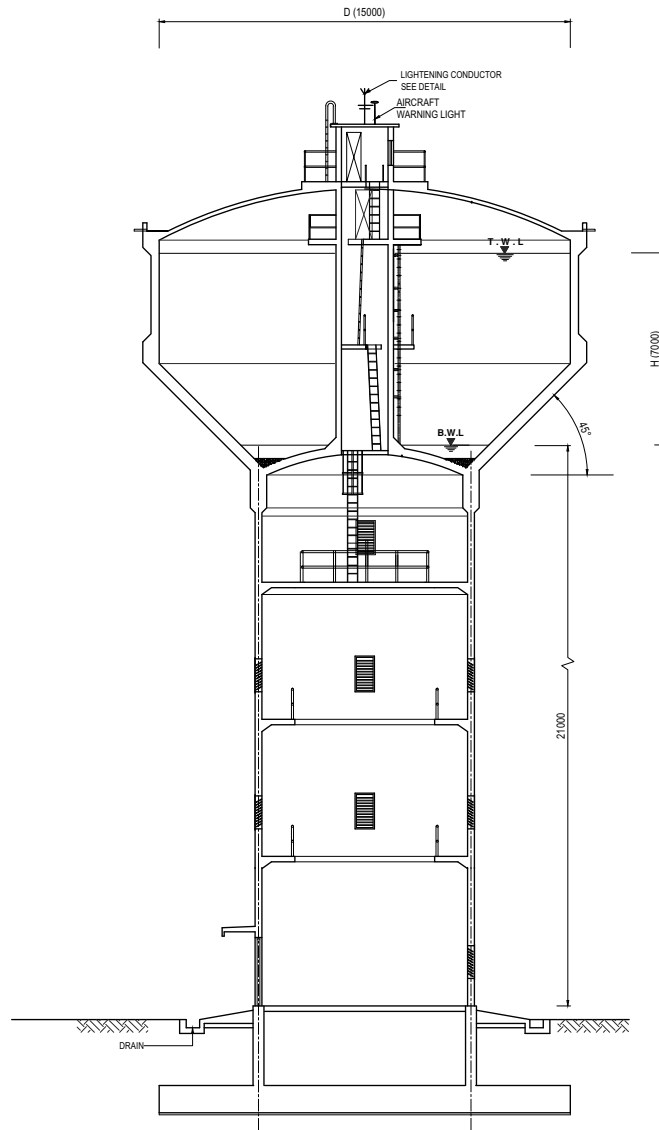


CONSULTANTS :
NJS CONSULTANTS CO., LTD. - JAPAN
NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:
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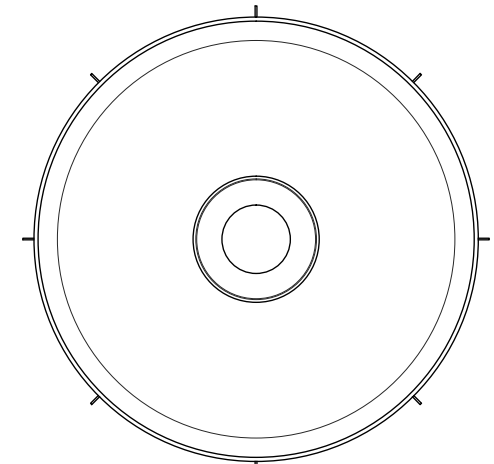


ELEVATION
SCALE 1:200
(TYPE 2B)



SECTION A
SCALE 1:200

(TYPE 2B)



TOP PLAN
SCALE 1:200
(TYPE 2B)

STANDARD DIMENSION OF WATER TOWER

TYPE 2	VOLUME (m ³)	D (m)	H (m)
2A	750	14.0	6.0
2B	1000	15.0	7.0
2C	1250	15.0	7.0
2D	1500	16.6	7.0
2E	2000	19.0	7.0

- NOTE :- 01. ALL PIPES MATERIAL ARE DI.
02. STRUCTURE MEMBERS ARE R/F CONCRETE.
03. ALL DIMENSIONS ARE IN MILLIMETERS.

**PRELIMINARY DRAWING
NOT FOR CONSTRUCTION**

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



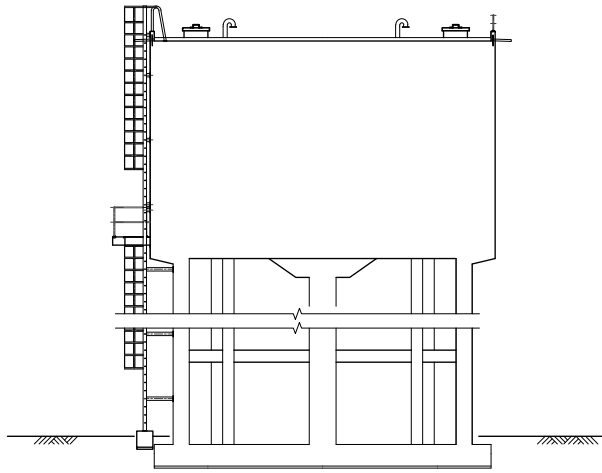
JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: STANDARD DRAWING - WATER TOWER 750m³ / 1000m³ / 1250m³

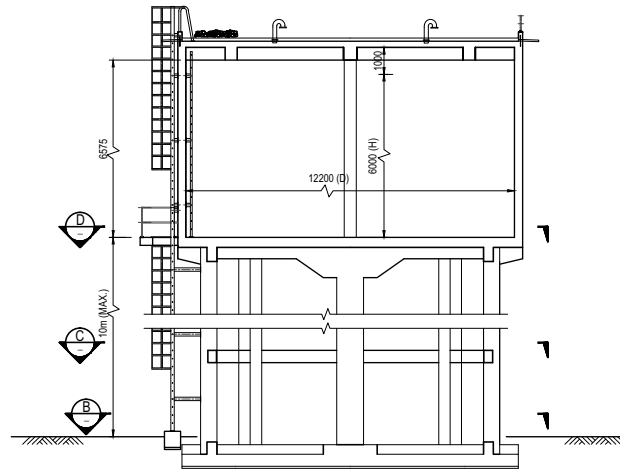
CLIENT:
 NATIONAL WATER SUPPLY
& DRAINAGE BOARD

CONSULTANTS :
 NJS CONSULTANTS CO., LTD. - JAPAN
 NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

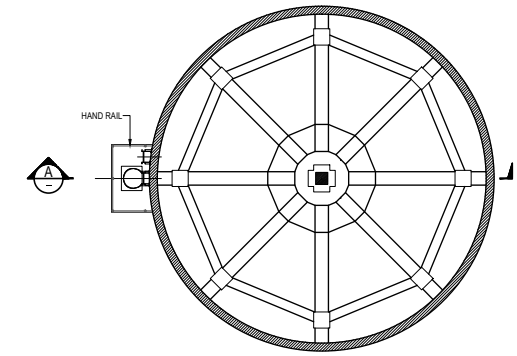
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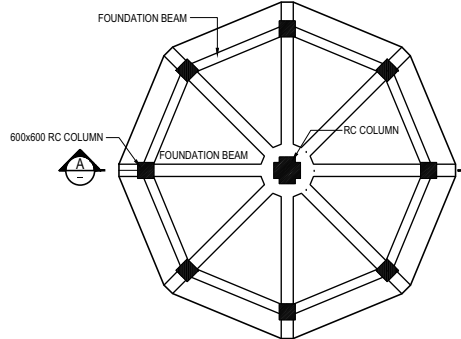
ELEVATION
[SCALE: 1:100]
TYPE 3B



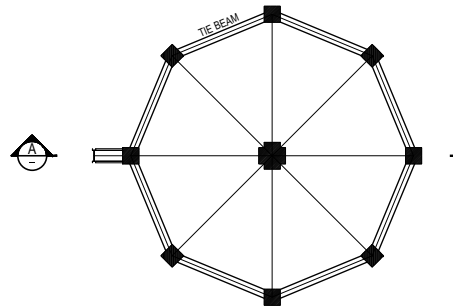
SECTION A-A
[SCALE: 1:100]
TYPE 3B



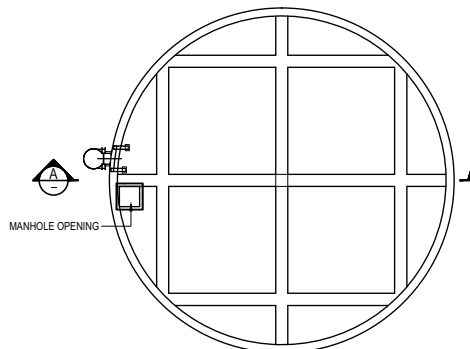
SECTION D-D
[SCALE: 1:100]
TYPE 3B



SECTION B-B
[SCALE: 1:100]
TYPE 3B



SECTION C-C
[SCALE: 1:100]
TYPE 3B



ROOF PLAN
[SCALE: 1:100]
TYPE 3B

STANDARD DIMENSION OF WATER TOWER

TYPE 3	VOLUME (m ³)	D (m)	H (m)
3A	500	10.8	5.5
3B	750	12.2	6.0

- NOTE :- 01. ALL PIPES MATERIAL ARE DI.
02. STRUCTURE MEMBERS ARE R/F CONCRETE.
03. ALL DIMENSIONS ARE IN MILLIMETERS.

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION

PROJECT: Preparatory Study for Anuradhapura North
Integrated Water Supply Project



JAPAN INTERNATIONAL
COOPERATION AGENCY

TITLE: STANDARD DRAWING - WATER TOWER 500m³ / 750m³ (LAW HIGH)

CLIENT:



NATIONAL WATER SUPPLY
& DRAINAGE BOARD

CONSULTANTS :



NJS CONSULTANTS CO., LTD. - JAPAN



NIHON SUIDO CONSULTANTS CO., LTD.-
JAPAN

REV.	DESCRIPTION	DATE	SIGN.	DESIGNED:	DRAWN:	PM: (CONSULTANT)	DRAWING NO.:	
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