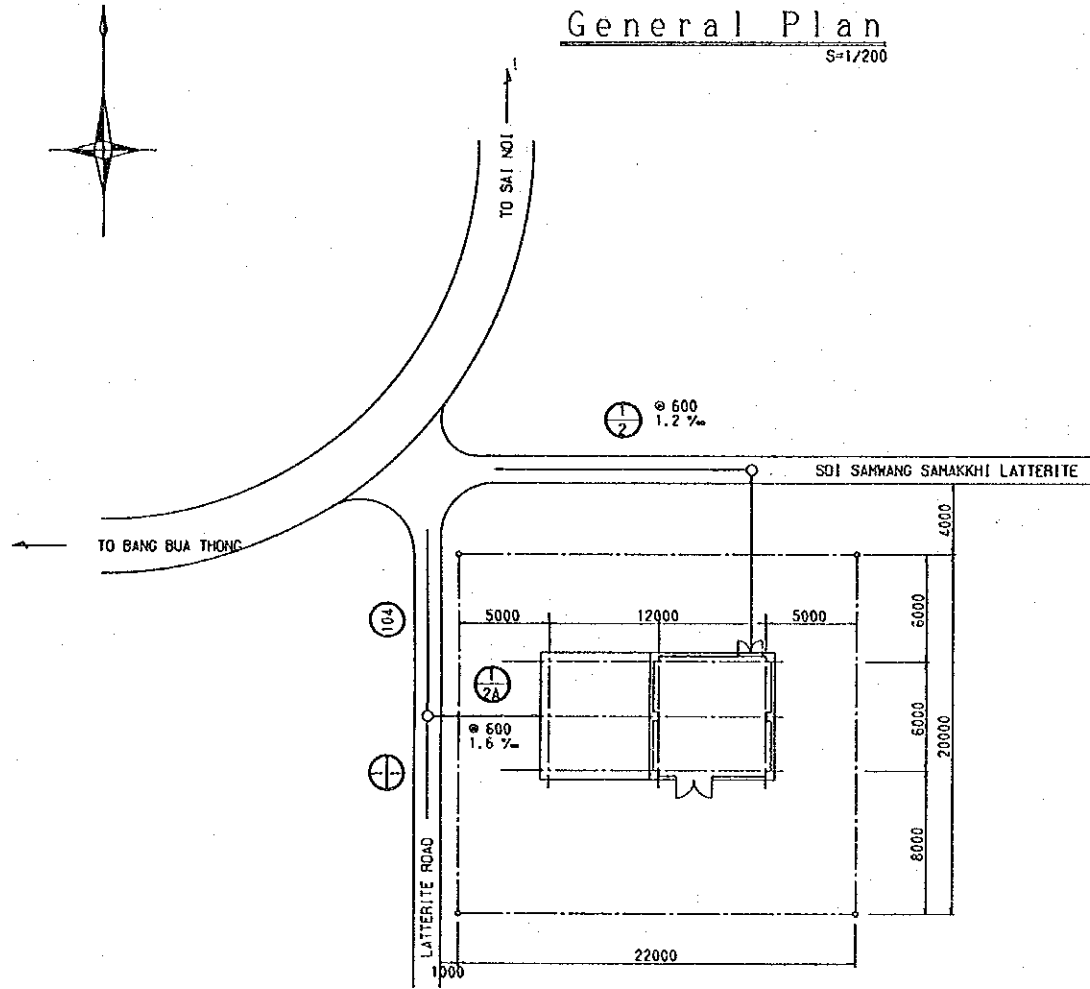


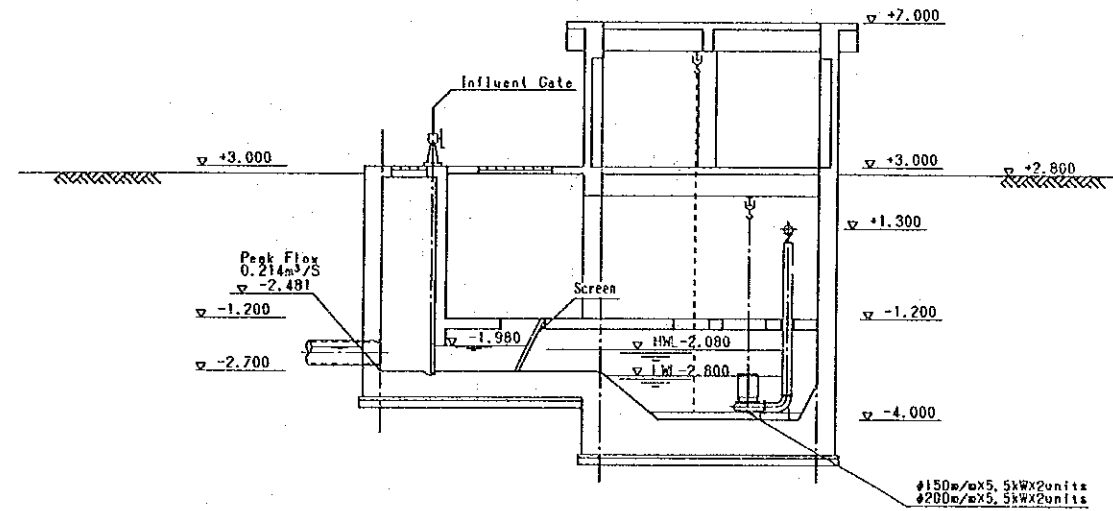
NO. 1 PUMP STATION (1)

General Plan

S=1/200

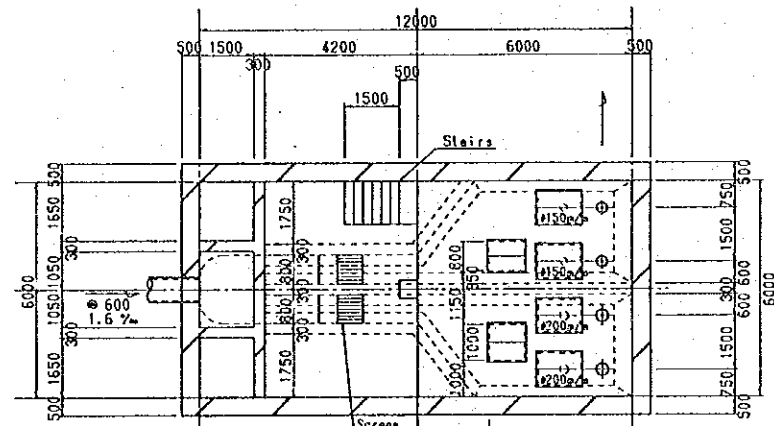


Water Levels Diagram

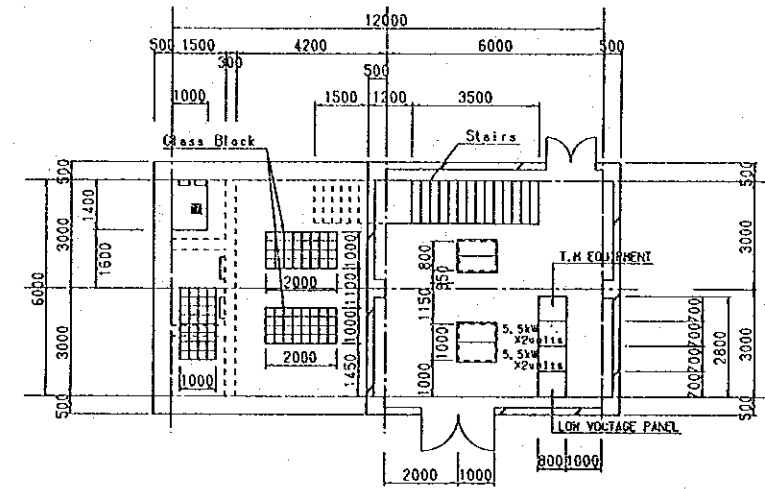


PRELIMINARY DESIGN	7 / 17
NO. 1 PUMP STATION (1)	S=1/200
BANG BUA THONG	S=1/100
MASTER PLANNING FOR THE SEWERAGE	
DEVELOPMENT PROJECT FOR LOWER CHAO PHRAYA RIVER BASIN	
JAPAN INTERNATIONAL COOPERATION AGENCY	

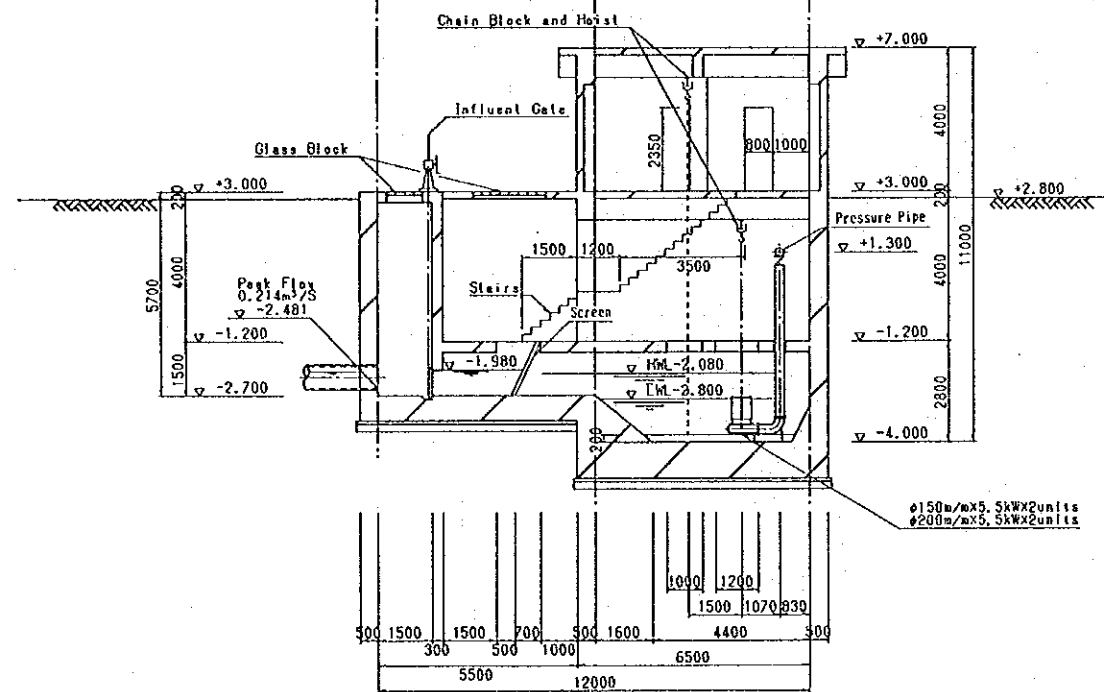
NO. 1 PUMP STATION (2)



1B Floor Plan



1 Floor Plan

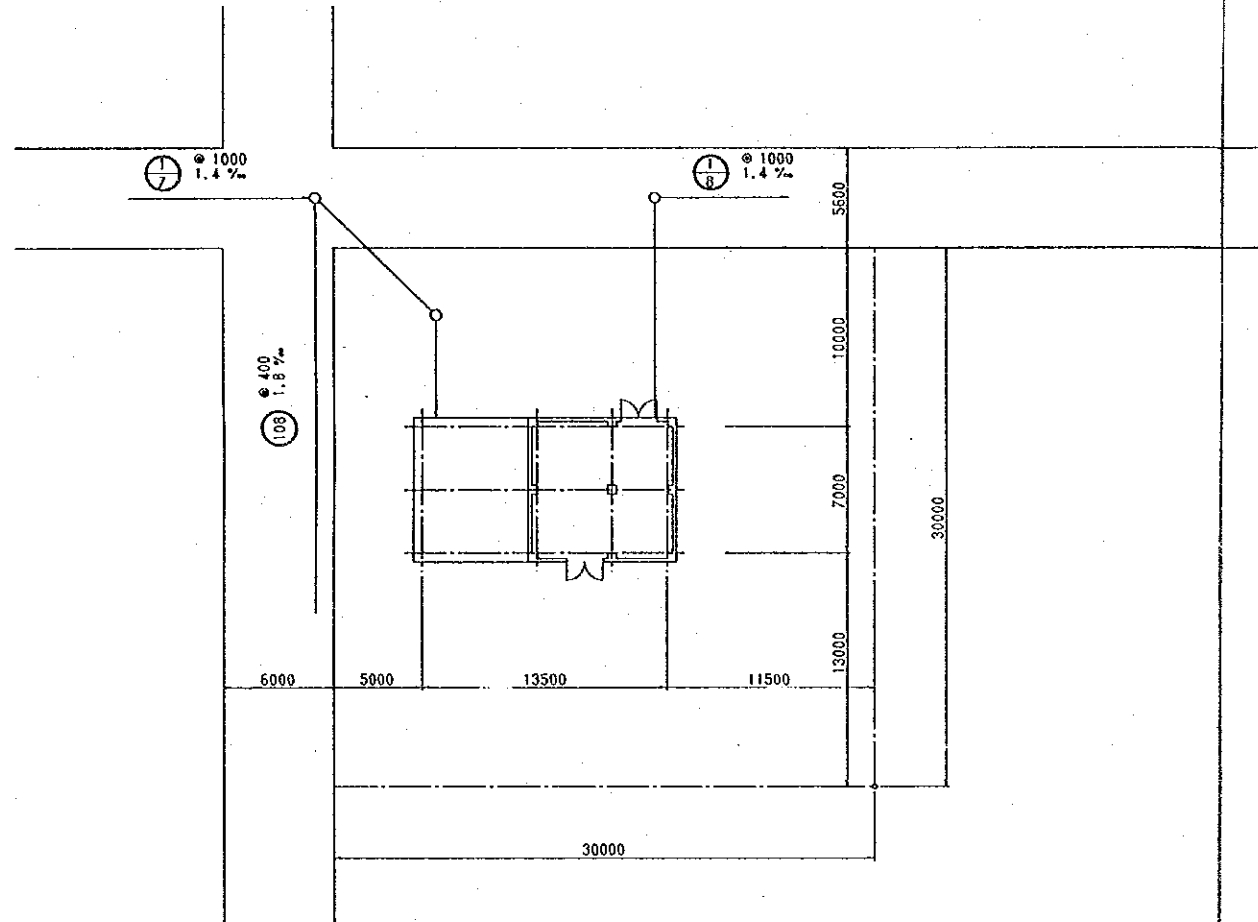


Section

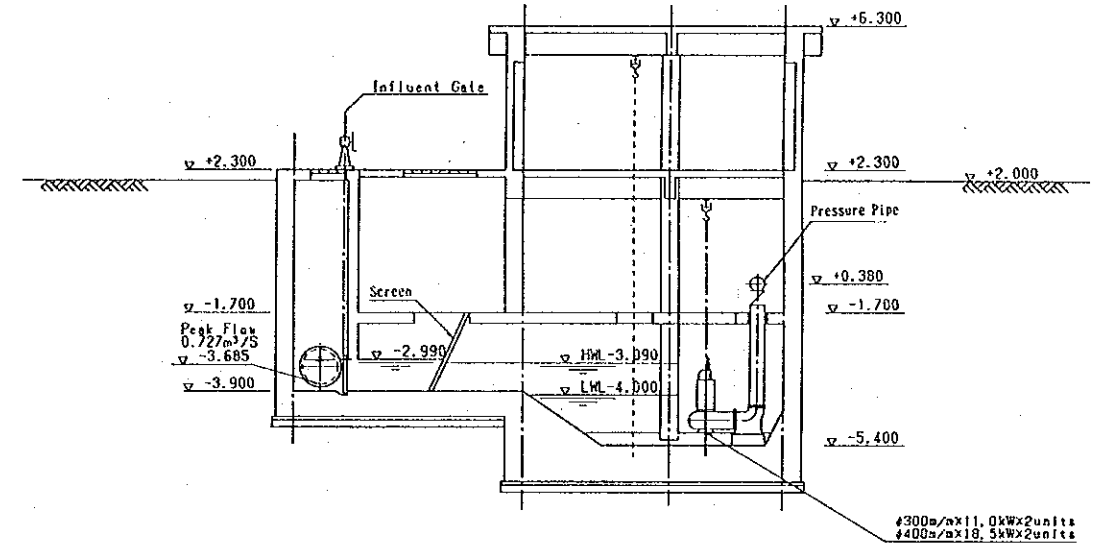
PRELIMINARY DESIGN	8	17
NO. 1 PUMP STATION (2)		
BANG BUA THONG		S=1/100
MASTER PLANNING FOR THE SEWERAGE		
DEVELOPMENT PROJECT FOR LOWER CHAO PHRAYA RIVER BASIN		
JAPAN INTERNATIONAL COOPERATION AGENCY		

NO. 2 PUMP STATION (1)

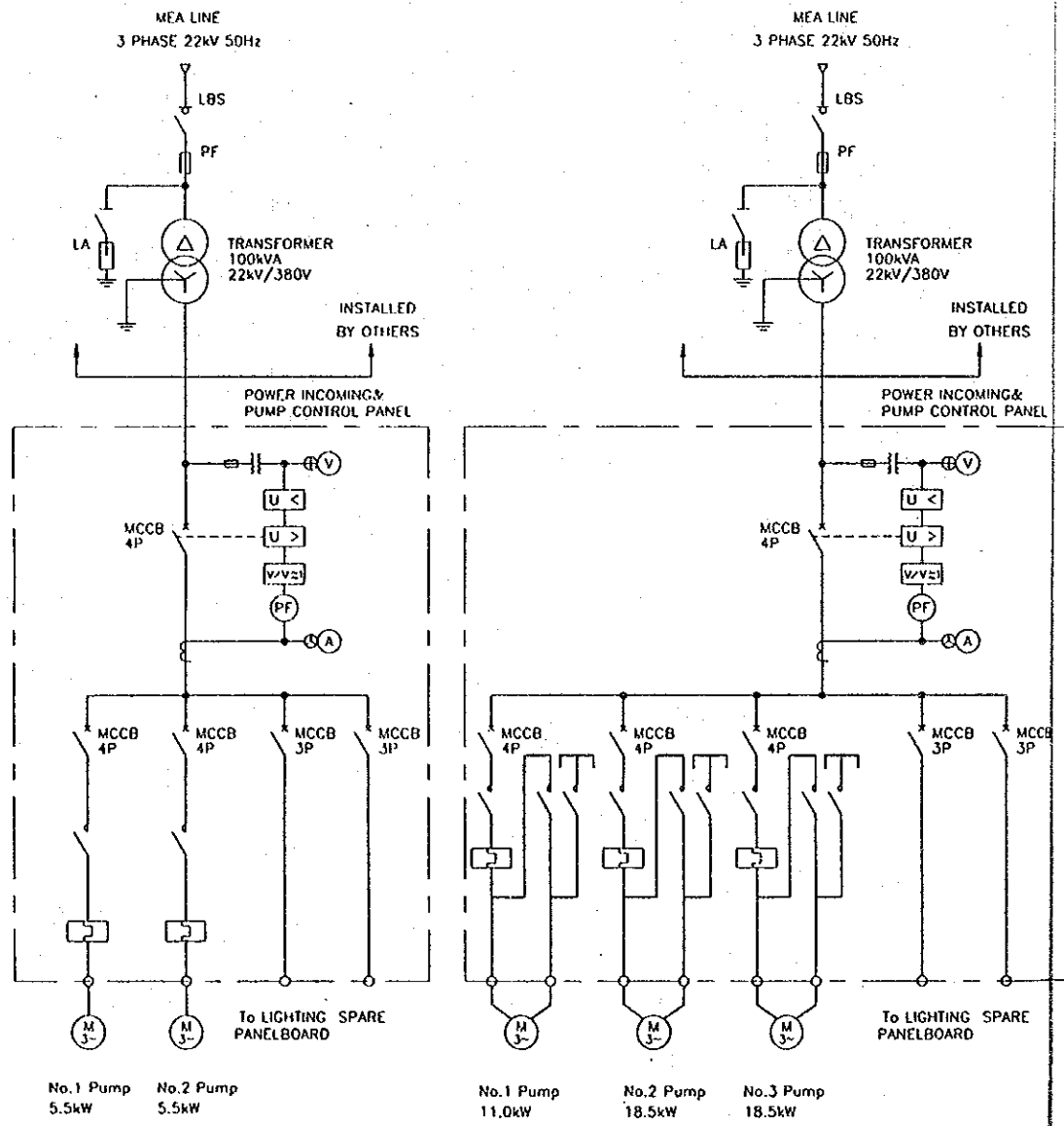
General Plan
S=1/200



Water Levels Diagram



PRELIMINARY DESIGN	9	17
NO. 2 PUMP STATION (1)	S=1/200	S=1/100
BANG BUA THONG		
MASTER PLANNING FOR THE SEWERAGE		
DEVELOPMENT PROJECT FOR LOWER CHAO PHRAYA RIVER BASIN		
JAPAN INTERNATIONAL COOPERATION AGENCY		

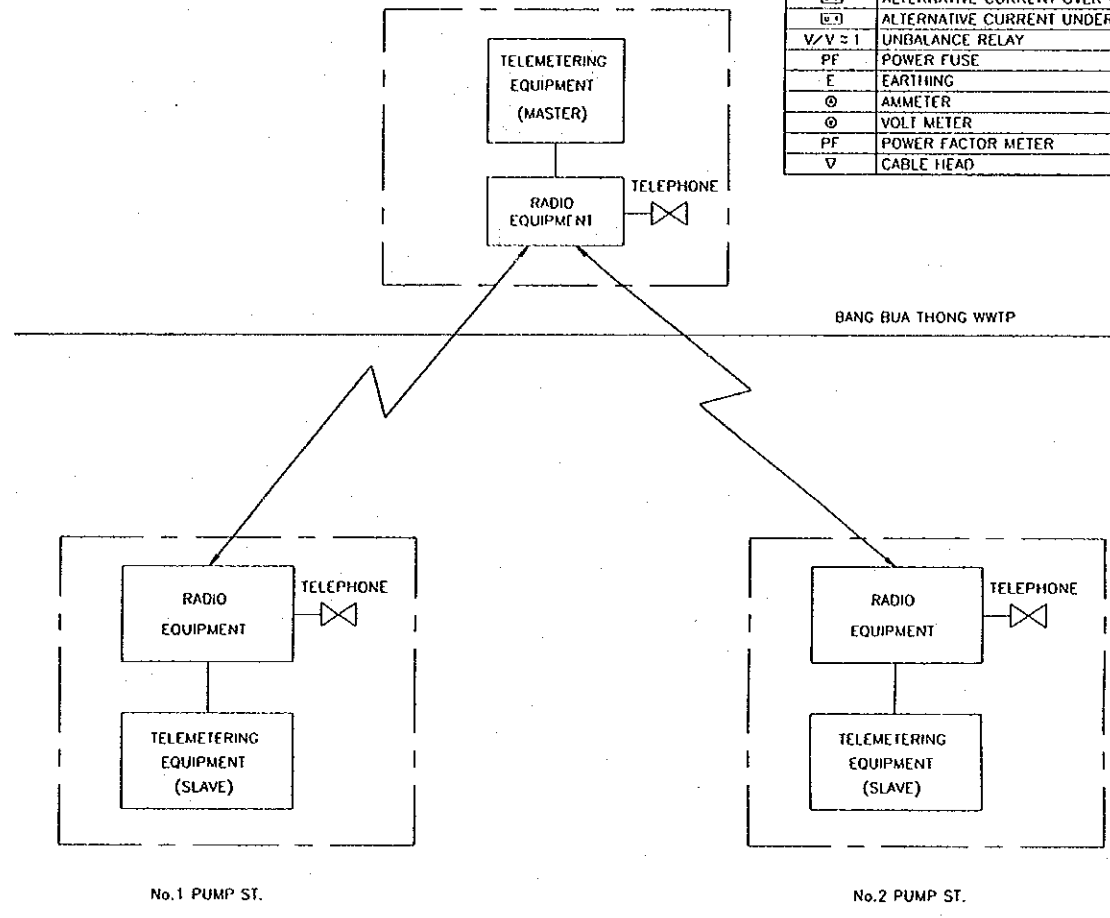


SINGLE LINE DIAGRAM FOR No.1 Pump ST.

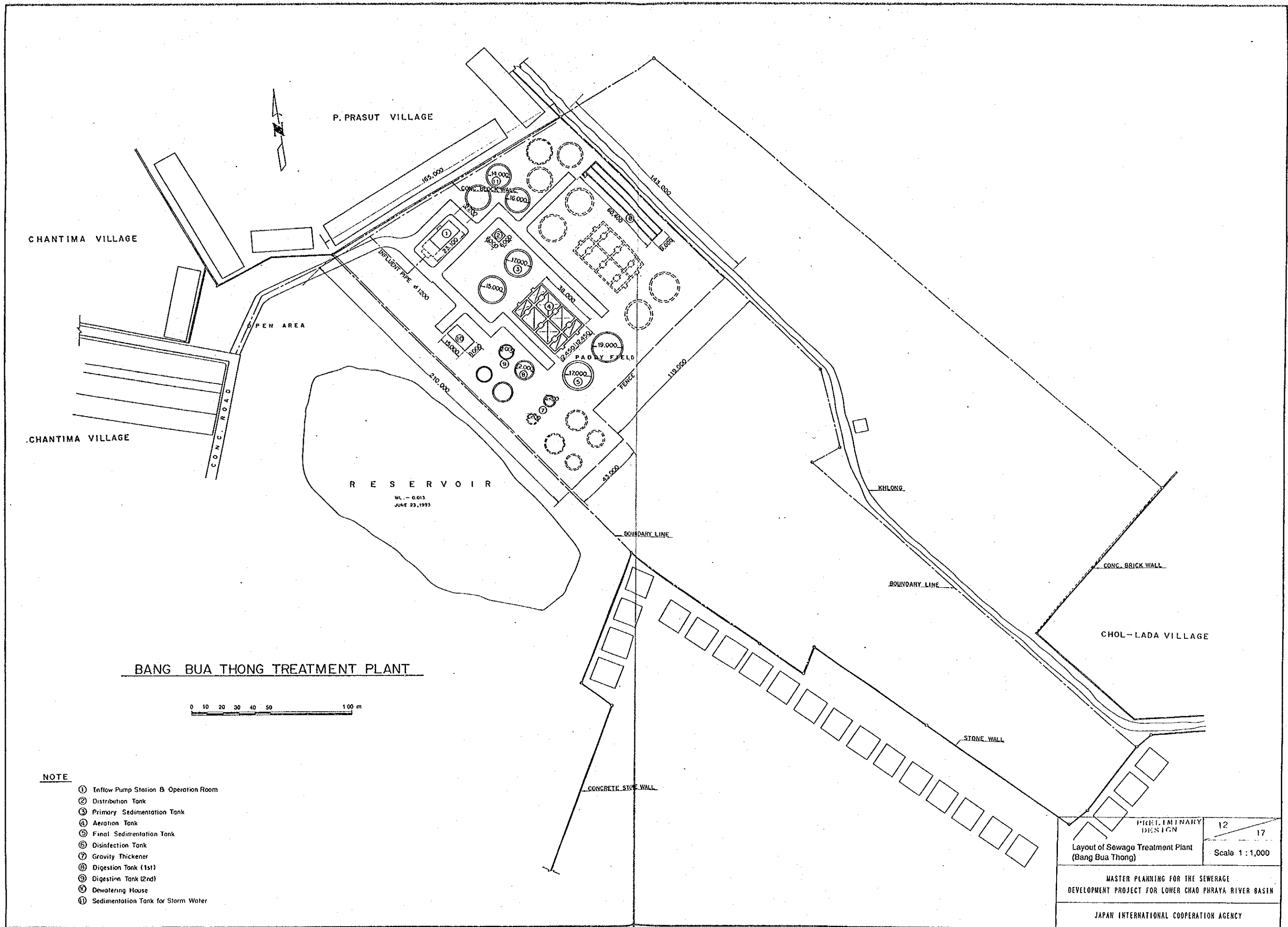
SINGLE LINE DIAGRAM FOR No.2 Pump ST.

LEGEND

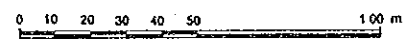
SYMBOL	DESCRIPTION
DS	DISCONNECTING SWITCH
LBS	LOAD BREAK SWITCH
MC	MAGNETIC CONTACTOR
MCCB	MOLDED CASE CIRCUIT BREAKER
LA	LIGHTNING ARRESTER
IM	INDUCTION MOTOR
3φ-T	3PHASE TRANSFORMER
PT	POTENTIAL TRANSFORMER
CT	CURRENT TRANSFORMER
⊖	VOLT SELECTOR
⊖	AMPERE SELECTOR
U<	ALTERNATIVE CURRENT OVER VOLTAGE RELAY
U>	ALTERNATIVE CURRENT UNDER VOLTAGE RELAY
V/V≠1	UNBALANCE RELAY
PF	POWER FUSE
E	EARTHING
⊖	AMMETER
⊖	VOLT METER
PF	POWER FACTOR METER
V	CABLE HEAD



REMOTE MONITORING SYSTEM DIAGRAM

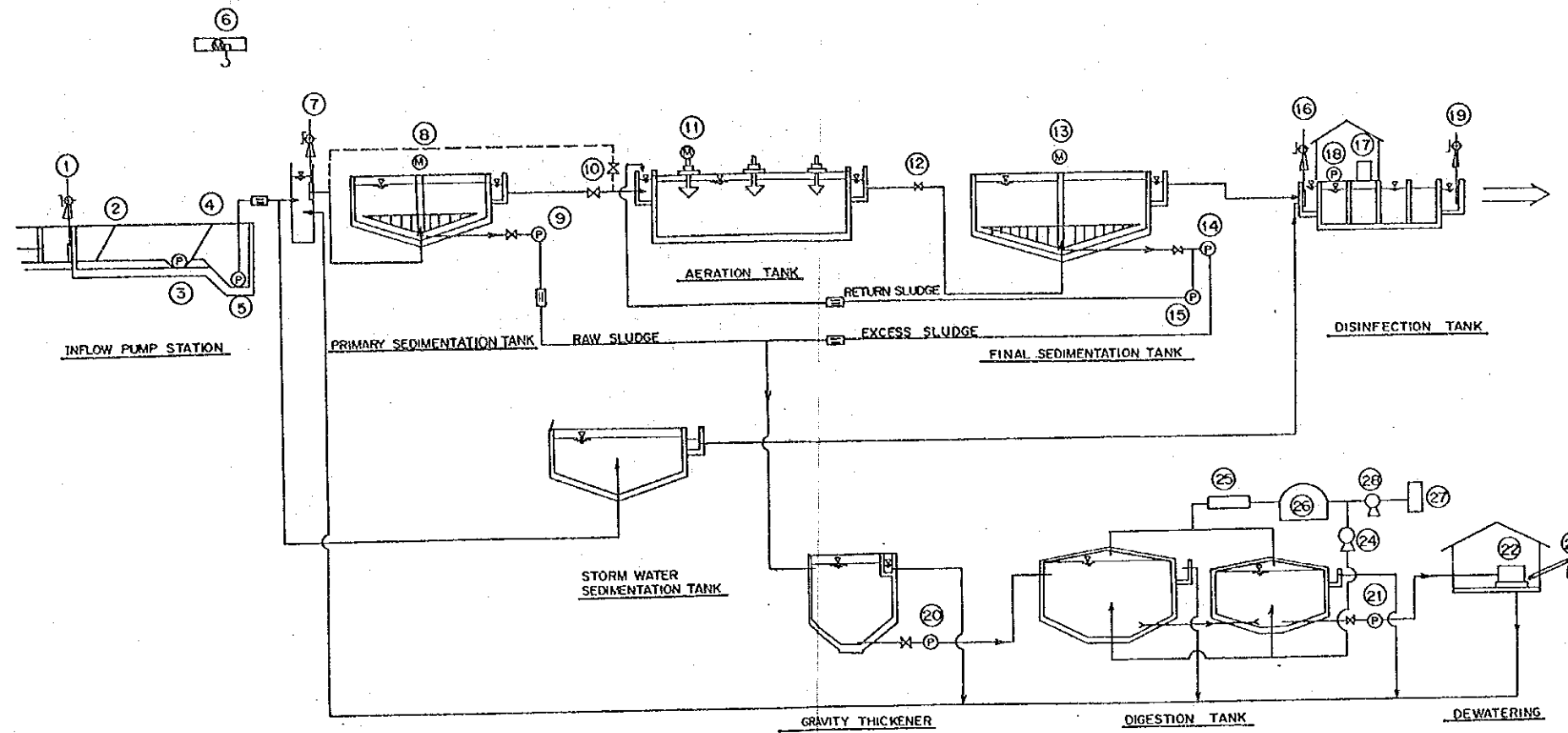


BANG BUA THONG TREATMENT PLANT



- NOTE**
- ① Inflow Pump Station & Operation Room
 - ② Distribution Tank
 - ③ Primary Sedimentation Tank
 - ④ Aeration Tank
 - ⑤ Final Sedimentation Tank
 - ⑥ Disinfection Tank
 - ⑦ Gravity Thickener
 - ⑧ Digestion Tank (1st)
 - ⑨ Digestion Tank (2nd)
 - ⑩ Dewatering House
 - ⑪ Sedimentation Tank for Storm Water

PRELIMINARY DESIGN	12	17
Layout of Sewage Treatment Plant (Bang Bua Thong)	Scale 1:1,000	
MASTER PLANNING FOR THE SEWERAGE DEVELOPMENT PROJECT FOR LOWER CHAO PHRAYA RIVER BASIN		
JAPAN INTERNATIONAL COOPERATION AGENCY		



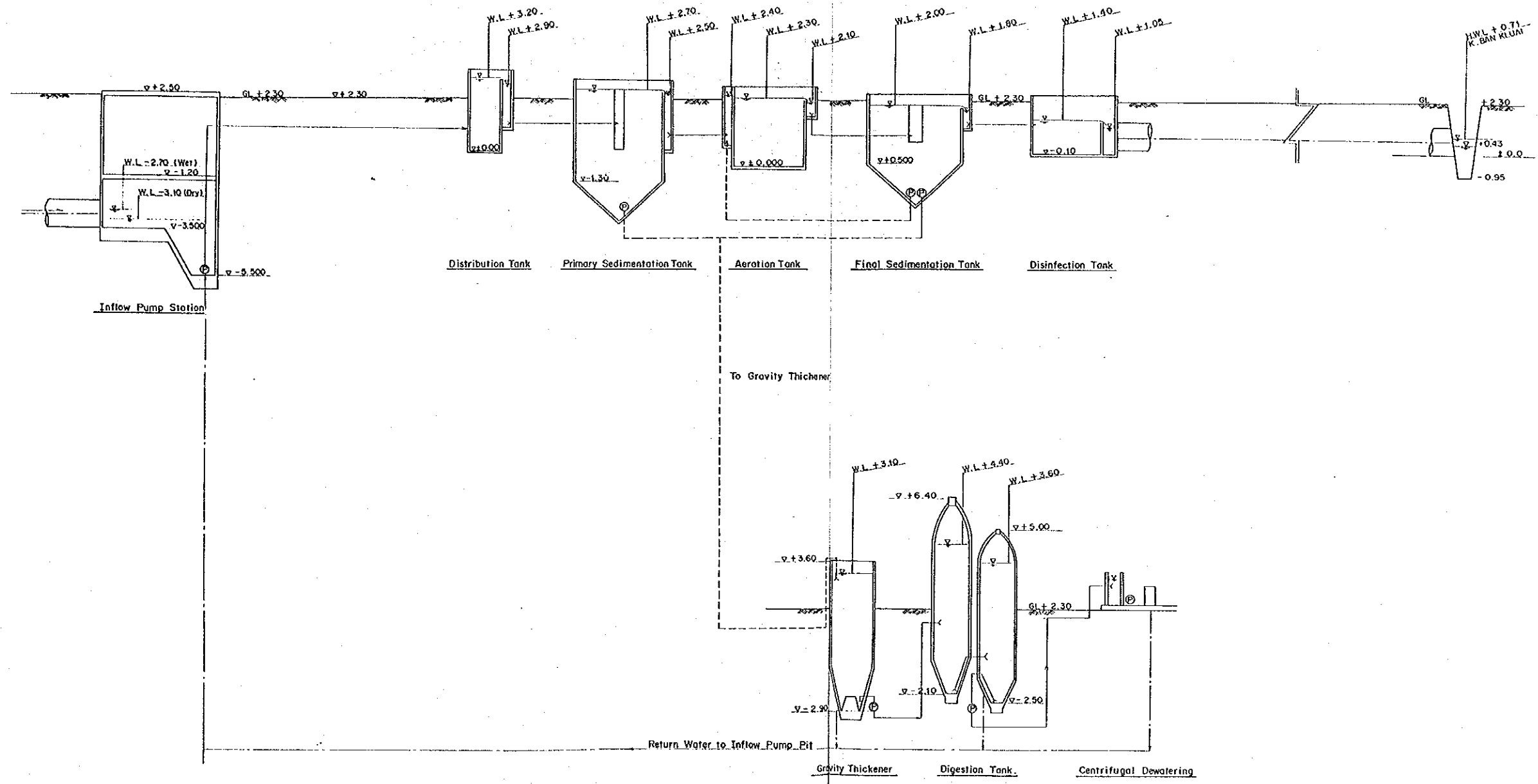
Facility No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Name	Influent Gate	Bar Screen	Sand Pump	Bar Screen	Sewage Pump	Chain Hoist	Distribution Tank Outlet Gate	Sludge Scraper	Sludge Draw off Pump	Aeration Tank Inlet Valve	Surface Aerator	Final Sedimentation Inlet Valve	Sludge Scraper	Excess Sludge Draw off Pump	Sludge Return Pump
Type	Manual Sluice Type	Manual Coarse Screen	Submersible	Manual Fine Screen	Submersible	Power Operated	Sluice Type Manual	Suspended Center Drive	Horizontal Sewage Pump	Sluice Valve Manual	Mechanical type	Sluice Valve Manual	Suspended Sludge Center Drive	Horizontal Sludge	Horizontal Sludge
Specification	700(w)x700(h) 800(w)x800(h)	1000(w)x1000(h) 1400(w)x2600(w)	ø80x0.5m ³ /min. x10m	1000(w)x1000(h) 1400(w)x2600(h)	ø250x1.8m ³ /min. ø350x9.0m ³ /min. ø450x23.8m ³ /min.	2.6t x8m	500(w) x 500(h)	ø15m x 3.6m(h)	ø100x0.12 ³ /min. ø6	ø350	Bridge Mount	ø350	ø17m x 2.3m(h)	ø100x0.12m ³ /min. x6m	ø150x1.0m ³ /min. x5m
Power (kw)			2.2		15, 37, 55	2.2		0.4	5		11		0.75	5.5	15
Quantity (M/P)	2 + 2	2 + 2	1 (1)	2 + 2	2 + 1 (1) + 1 (1)	1	4	2 (2)	2 (1)	2 (2)	6 (6)	2 (2)	2 (2)	2 (2)	2 (2)

Facility No.	16	17	18	19	20	21	22	23	24	25	26	27	28
Name	Disinfection Tank Inlet Gate	Hypochlorite Storage Tank	Hypochlorite Dosing Pump	Outlet Gate	Sludge Draw off Pump (thickener)	Sludge Draw off Pump (digester)	Mechanical Dewatering Centrifugal Type	Beltconveyor & Hopper	Digestion Tank Agitation Blower	Desulfurizer	Gas Storage Tank	Waste Gas Burner	Gas Transfer Blower
Type	Sluice Gate Manual	Steel, Anti-hypochlorite Lining		Sluice Type Manual	Horizontal Sludge	Horizontal Sludge	Centrifugal Type			Dry type			
Specification	1000(w)x1000(h)	4m ³	0-3 l/min.	1200(w)x1200(h)	ø100x0.15m ³ /min. x6m	ø100x0.15m ³ /min. x6m	4-5m ³ /hr 7-8m ³ /hr	10m ³	2.8m ³ /hr. x7m	1000m ³ /day	200m ³	1m ³ /min.	12 ³ /min. x6m
Power (kw)			0.4		5.5	5.5	7.5+2.2, 11+2.2	0.75	1				5.5
Quantity (M/P)	1	2	2	1	1 (1)	2 (2)	2 + (1)	1 + 1	2 (1)	1	1	1	2 (2)

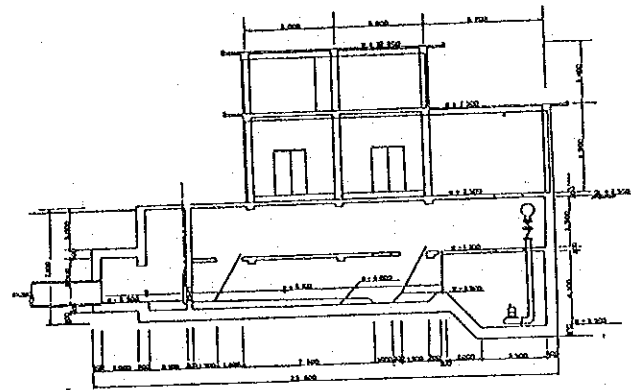
Note: Numbers in the parentheses of Quantity mean the unit of equipment installed at the Master Plan stage.

PRELIMINARY DESIGN	13	17
Process Diagram of Sewage Treatment Plant (Bang Bua Thong)	NOT TO SCALE	
MASTER PLANNING FOR THE SEWERAGE DEVELOPMENT PROJECT FOR LOWER CHAO PHRAYA RIVER BASIN		
JAPAN INTERNATIONAL COOPERATION AGENCY		

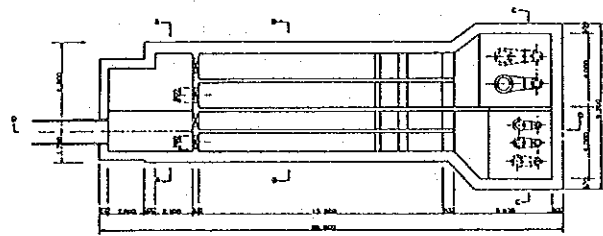
HYDRAULIC PROFILE



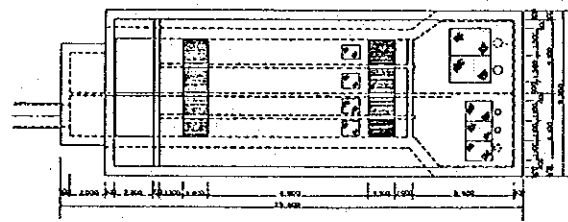
PRELIMINARY DESIGN	14 / 17
Hydraulic Profile of Sewage Treatment Plant (Bang Bua Thong)	NOT TO SCALE
MASTER PLANNING FOR THE SEWERAGE DEVELOPMENT PROJECT FOR LOWER CHAO PHRAYA RIVER BASIN	
JAPAN INTERNATIONAL COOPERATION AGENCY	



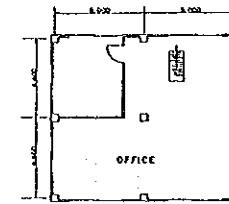
SECTION D-D



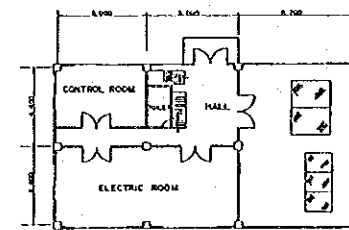
2nd BASEMENT



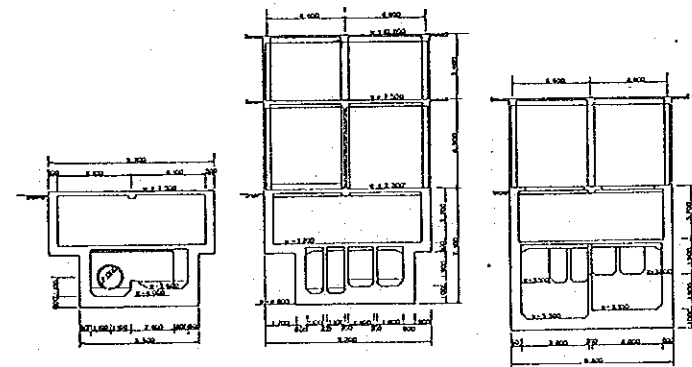
1st BASEMENT



2nd FLOOR



1st FLOOR

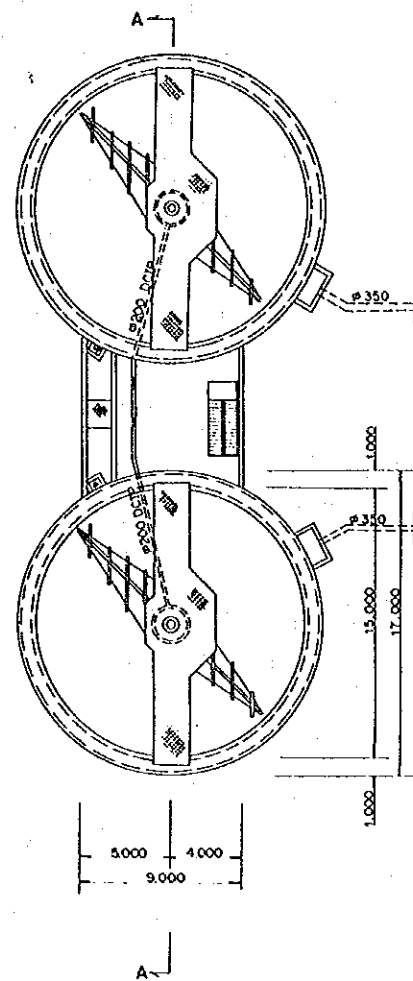


SECTION A-A

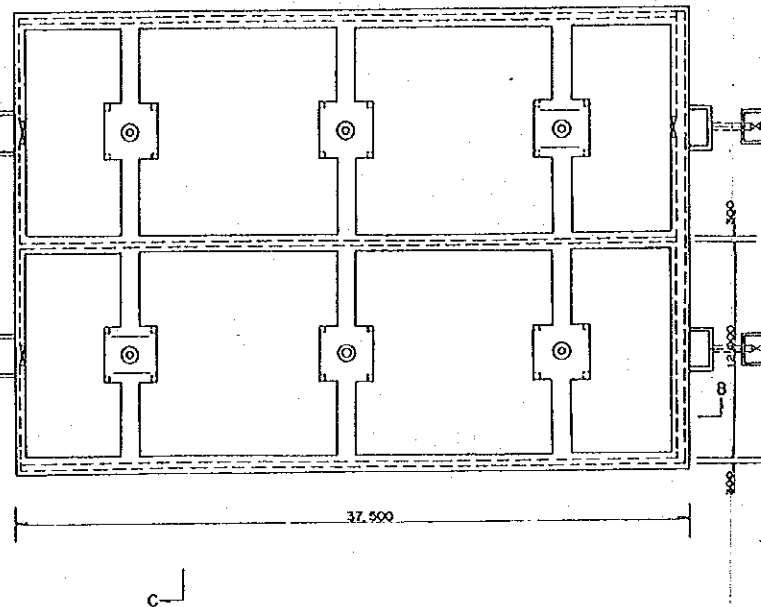
SECTION B-B

SECTION C-C

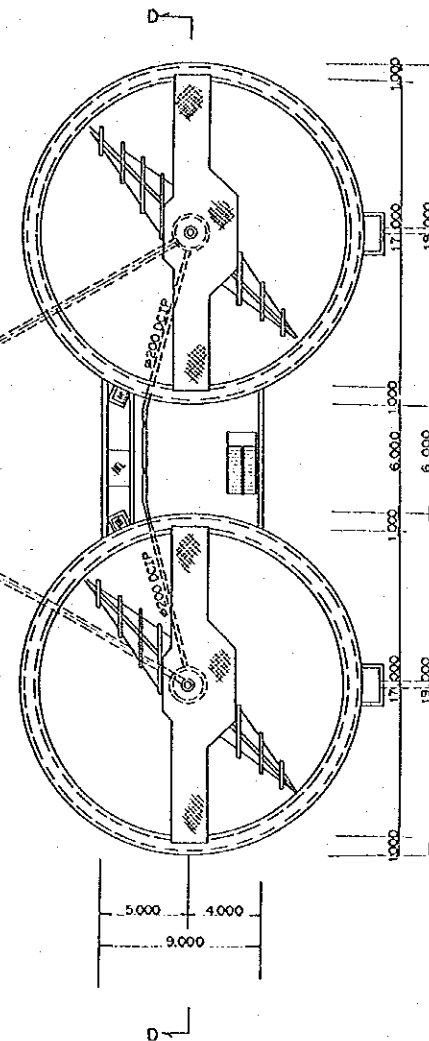
PRELIMINARY DESIGN	15 / 17
Plan and Section (Inflow Pump Station) (Bang Bua Thong)	Scale 1:200
MASTER PLANNING FOR THE SEWERAGE DEVELOPMENT PROJECT FOR LOWER CHAO PHRAYA RIVER BASIN	
JAPAN INTERNATIONAL COOPERATION AGENCY	



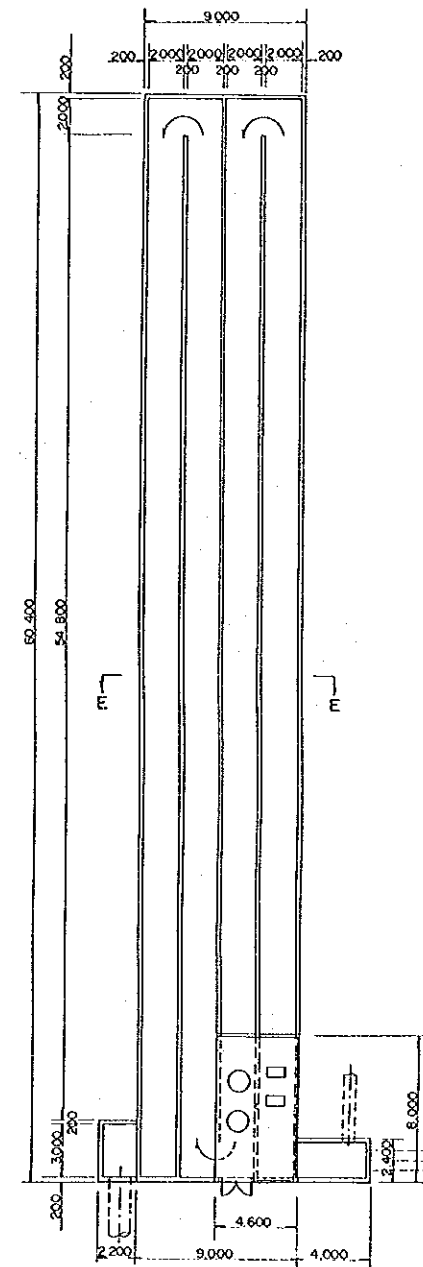
PRIMARY SEDIMENTATION TANK



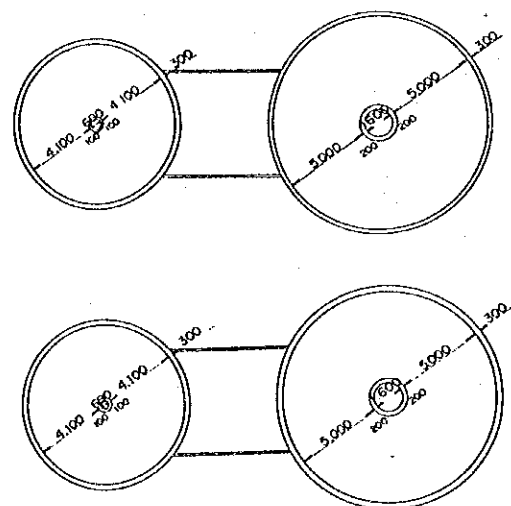
AERATION TANK



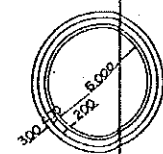
FINAL SEDIMENTATION TANK



DISINFECTION TANK



DIGESTION TANK



GRAVITY THICKENER

PRELIMINARY DESIGN

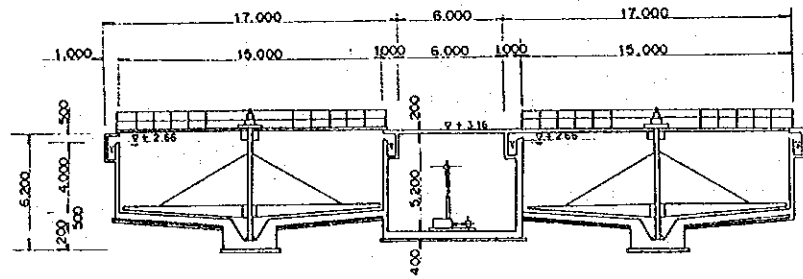
16 17

Layout Plan (Bang Bua Thong)

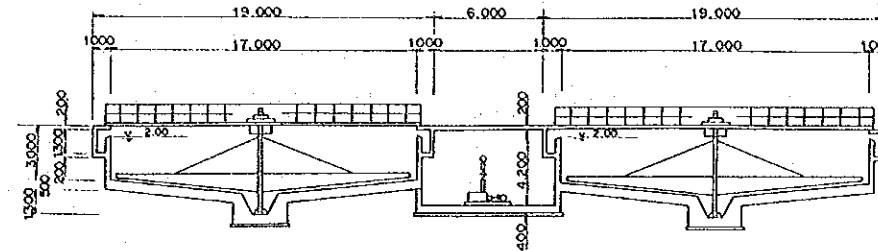
Scale 1 : 200

MASTER PLANNING FOR THE SEWERAGE
DEVELOPMENT PROJECT FOR LOWER CHAO PHRAYA RIVER BASIN

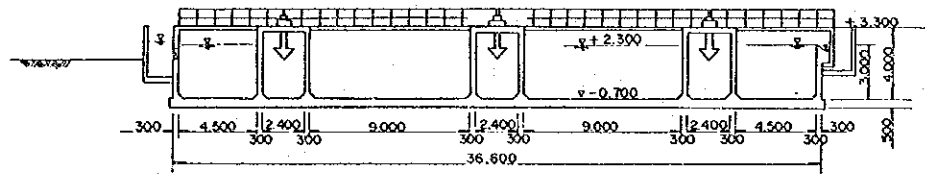
JAPAN INTERNATIONAL COOPERATION AGENCY



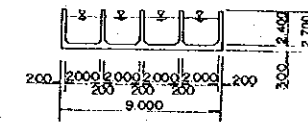
SECTION A-A



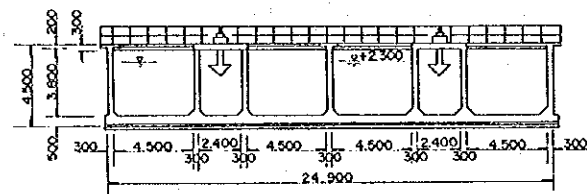
SECTION D-D



SECTION B-B



SECTION E-E



SECTION C-C

PRELIMINARY DESIGN	17
Layout Section (Bang Bua Thong)	17
Scale 1 : 200	
MASTER PLANNING FOR THE SEWERAGE DEVELOPMENT PROJECT FOR LOWER CHAO PHRAYA RIVER BASIN	
JAPAN INTERNATIONAL COOPERATION AGENCY	

JICA