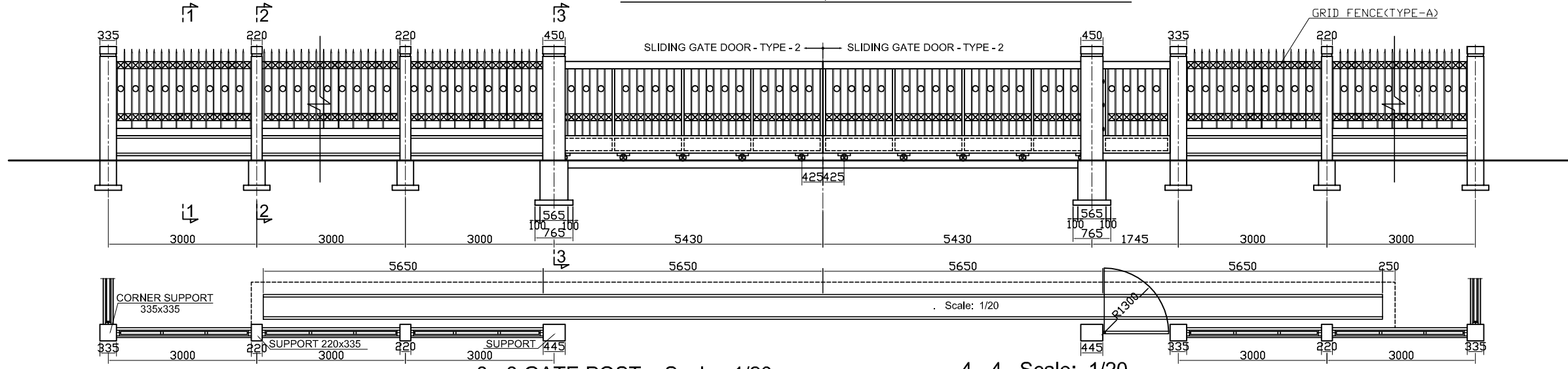


GATE AND FENCE PLAN, SECTION AND DETAIL. Scale: 1/ 50



1 - 1 Scale: 1/20

2 - 2 Scale: 1/20

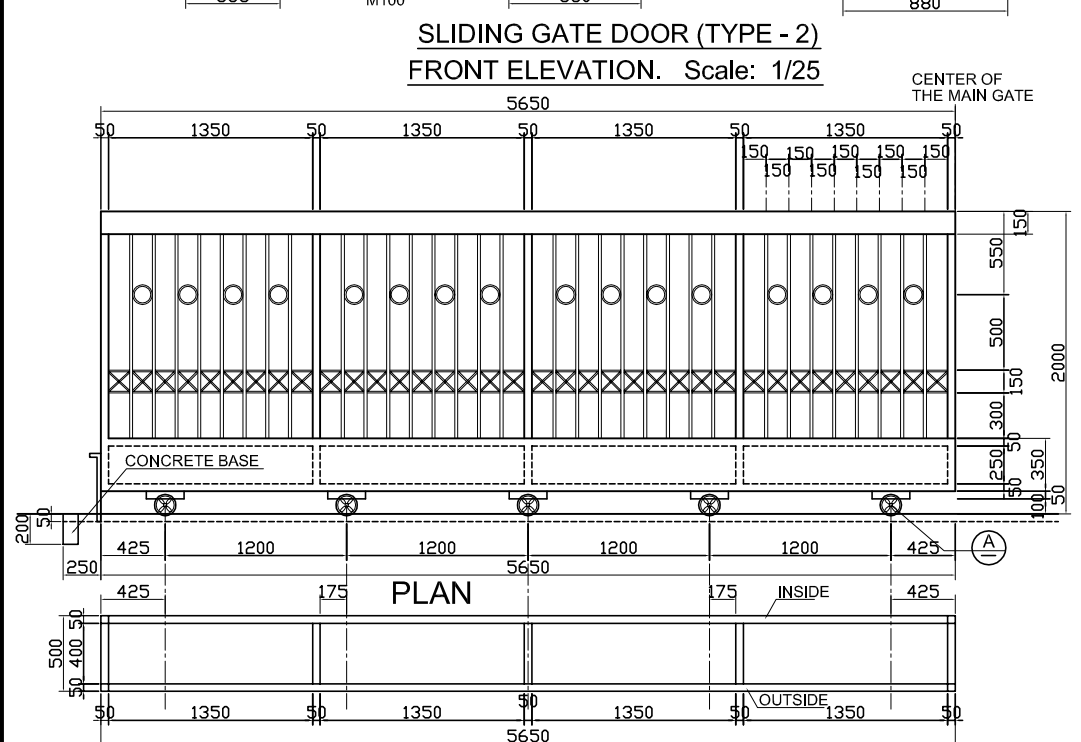
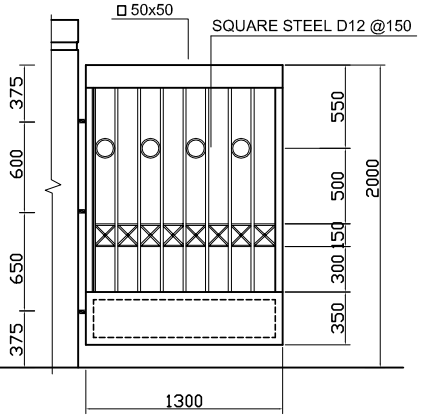
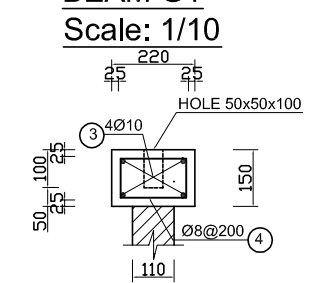
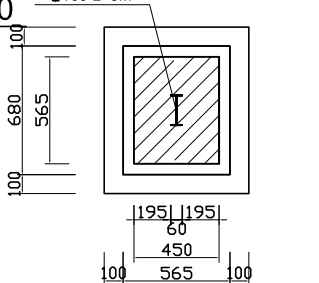
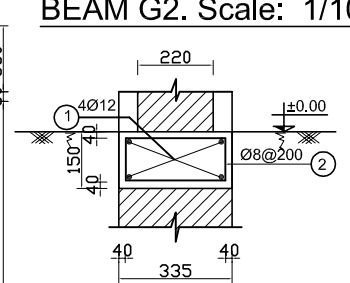
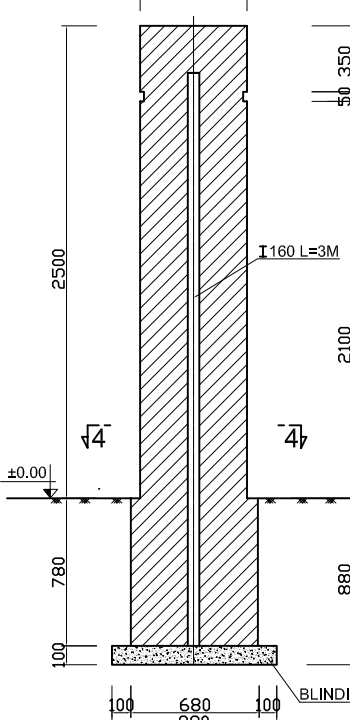
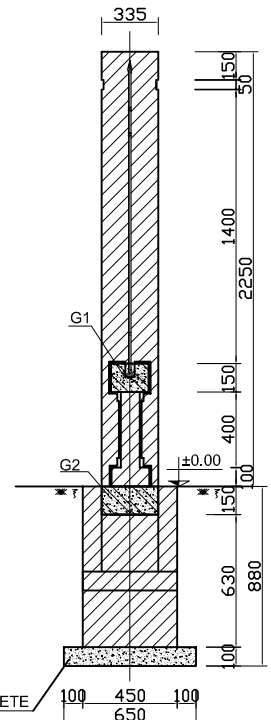
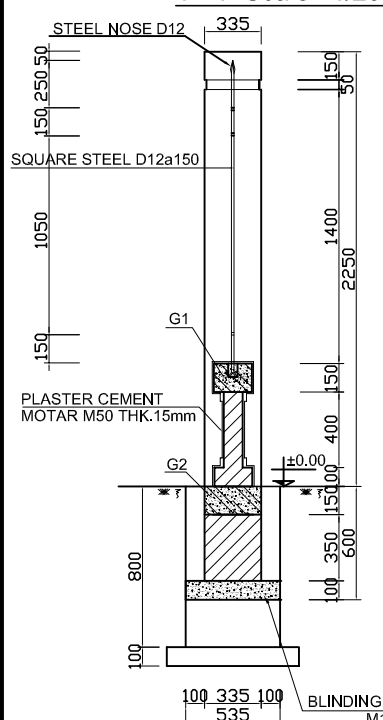
3 - 3 GATE POST. Scale: 1/20

4 - 4. Scale: 1/20

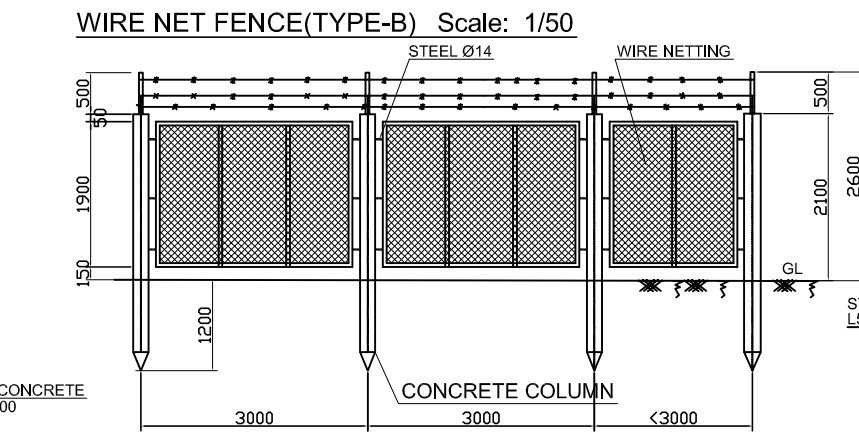
BEAM G2. Scale: 1/10

BEAM G1 Scale: 1/10

DETAILS OF SWING DOOR SCALE: 1/25



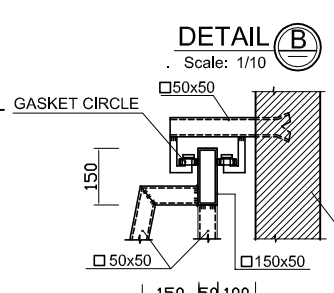
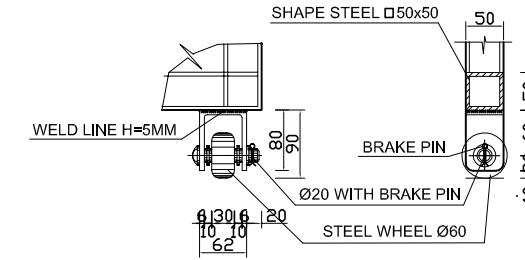
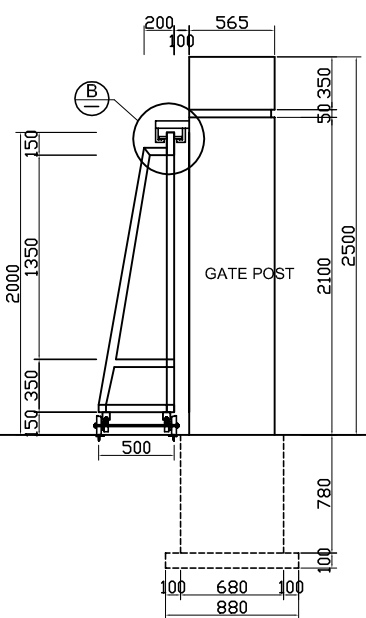
SLIDING GATE DOOR (TYPE - 2) FRONT ELEVATION. Scale: 1/25



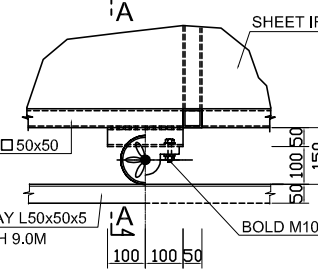
WIRE NET FENCE (TYPE-B) Scale: 1/50

SIDE ELEVATION

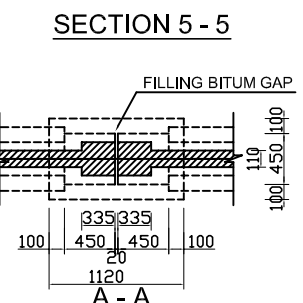
DETAILS OF WHEEL Scale: 1/10



DETAIL A Scale: 1/10

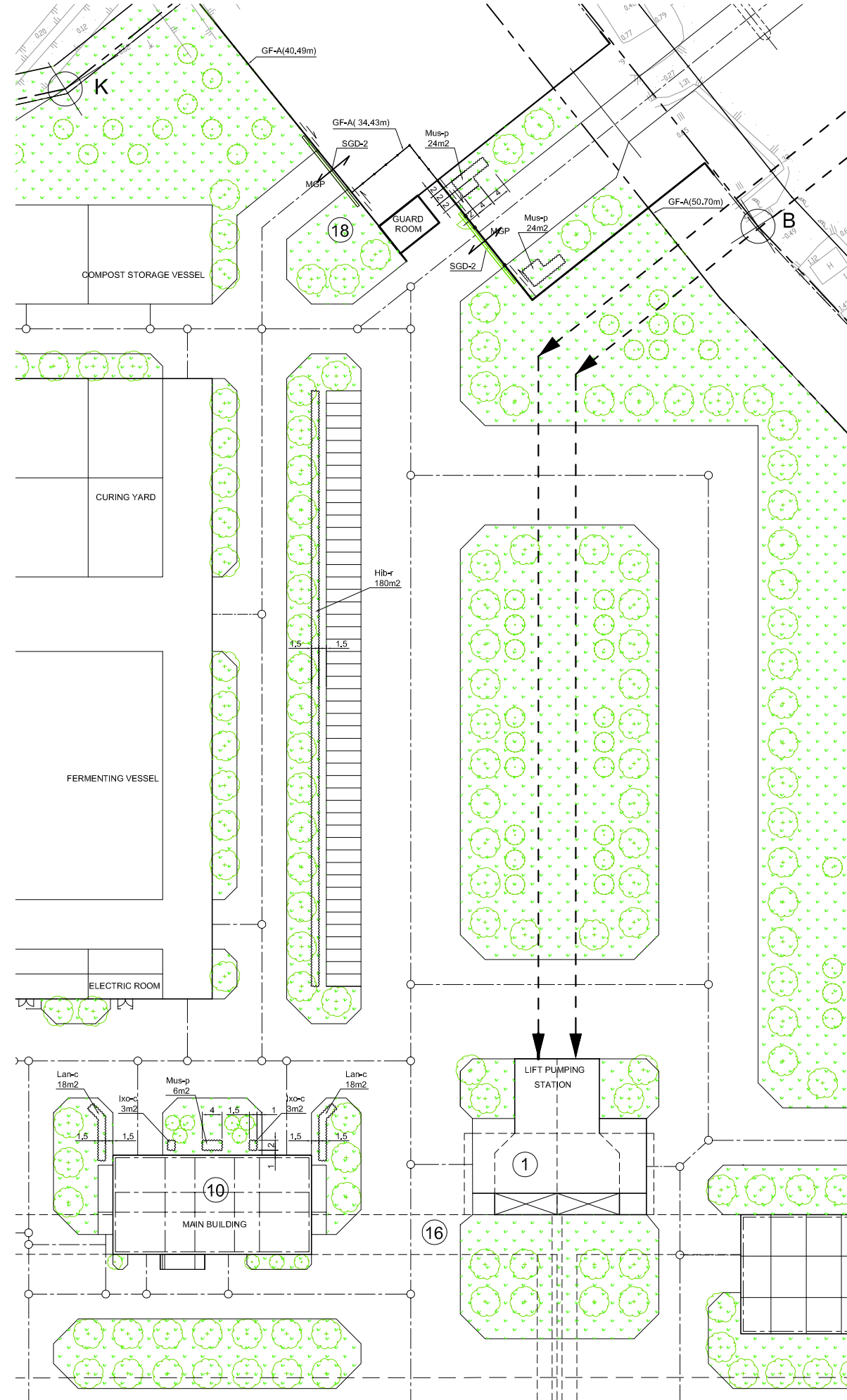


SECTION 5 - 5 DEFORMATION GAP WIDE 2CM

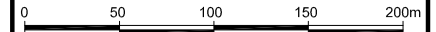


NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN STUDY ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE E WASTEWATER TREATMENT PLANT				
GATE AND FENCE PLAN SECTION AND DETAIL				
SCALE : AS SHOWN				
JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KIMURA TORU		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 223 - 01		

DETAIL LAYOUT PLAN Scale 1:500

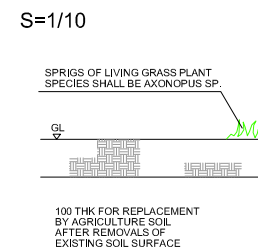
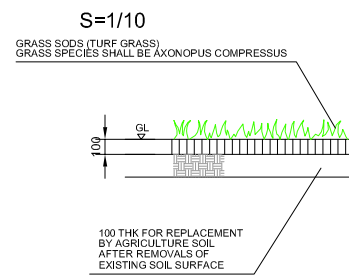
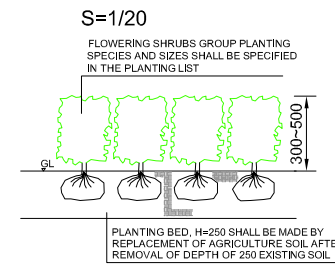
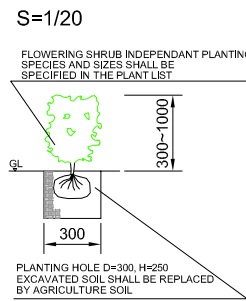


TREE AND VEGETATION PLAN, ELEVATION AND DETAIL.

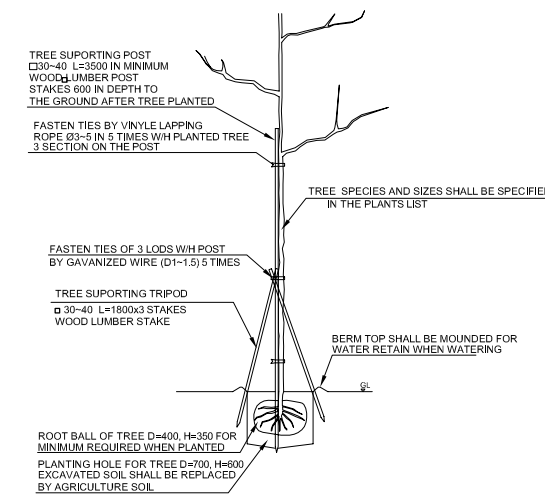


PLANT LIST: PACKAGE E: DEVELOPMENT (WASTEWATER TREATMENT PLANT) PE-WWTP-253-01

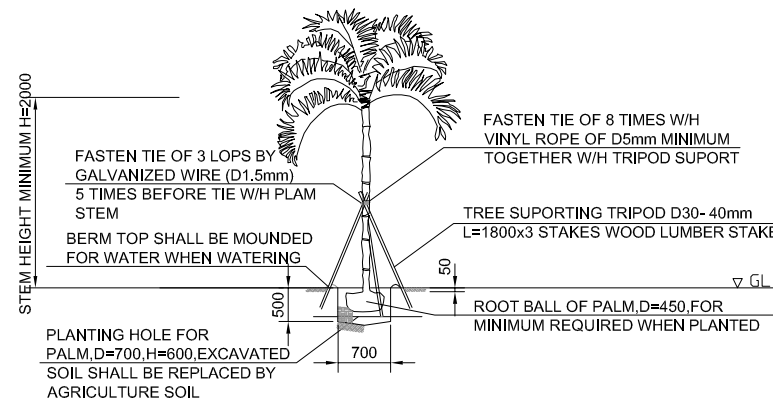
LEGEND	PLANT CATEGORY	SPECIES (SCIENTIFIC NAME)	UNIT	QUANTITY	DIMENSION & SIZE AT DELIVERY TIME (m)				TREE SUPPORT	REMARKS
					HEIGHT	STEM DIA. IN 1.2m HEIGHT	CROWN DIA.	ROOT BALL DIA.		
Hib-r	SHRUB	Hibiscus rosa-sinensis	m ²	180.0	0.4		0.25			GROUP PLANTING (10Nos/m ²)
Ixo-c	SHRUB	Ixora coccinea (=Ixora chinensis)	m ²	6.0	0.4		0.25			GROUP PLANTING (10Nos/m ²)
Lan-c	SHRUB	Lantana camara	m ²	36.0	0.4		0.25			GROUP PLANTING (10Nos/m ²)
Mus-p	SHRUB	Musaenda pubescens	m ²	54.0	0.4		0.25			GROUP PLANTING (10Nos/m ²)



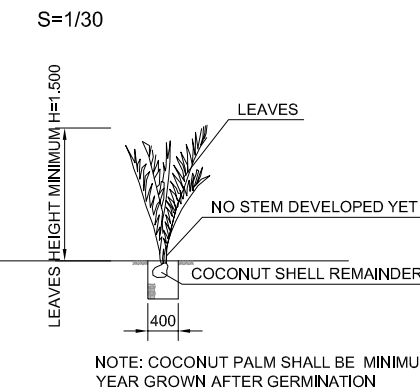
PLANTING WORK SECTION S=1/30



PALM PLANTING WORK S=1/30



ARECA PALM PLANTING Scale 1:50



COCONUT PALM PLANTING Scale 1:50

NO.	DATE	DESCRIPTIONS	BY	APRO.
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REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN STUDY ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				

PACKAGE E
WASTEWATER TREATMENT PLANT
TREE AND VEGETATION PLAN
ELEVATION AND DETAIL

SCALE : AS SHOW

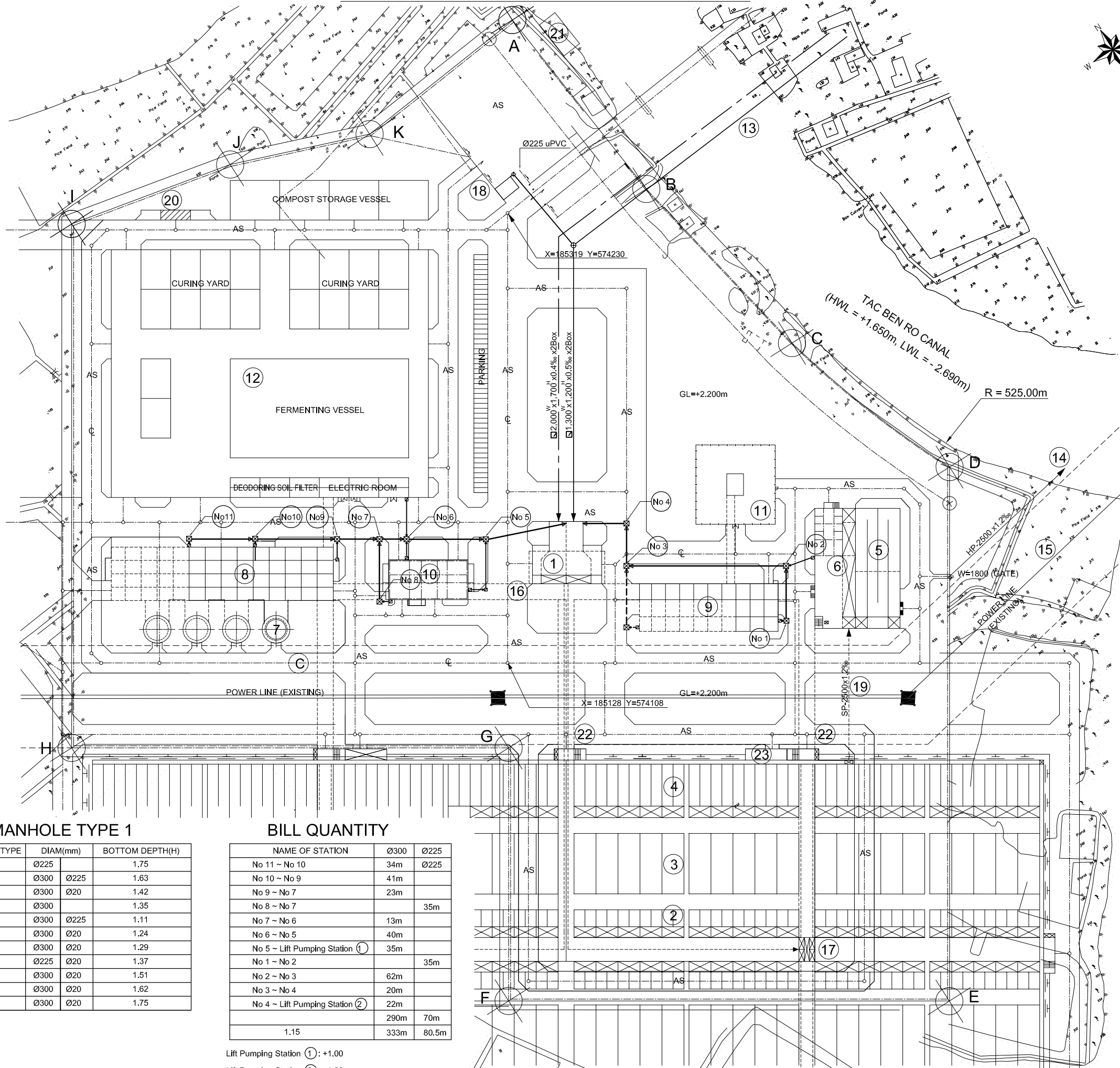
JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED: KIMURA TORU
CHECKED: KONDO MASAMI

DATE : JUNE 2001
DWG. No. PE - WWTP - 224 - 01

SANITARY SEWER PLAN Scale: 1/ 1000



0 100 200 300 400

MANHOLE
 HOUSE INLET
 Ø300 HP
 Ø225 uPVC

LEGEND

- ① LIFT PUMPING STATION
- ② PRIMARY SEDIMENTATION TANK (5.0m² x13.0m² x3.0m² x160 waterway 80 tank)
- ③ AERATION TANK (10.5m² x28.0m² x5.5m² x80 tank)
- ④ FINAL SEDIMENTATION TANK (5.0m² x26.0m² x3.5m² x160 waterway 80 tank)
- ⑤ DISINFECTION TANK (5.0m² x54.0m² x5.0m² x3 bend 4 waterway 1 tank)
- ⑥ CHLORINATION STORAGE BUILDING (SAND FILTRATION EFFLUENT TANK, SECONDARY TREATMENT TANK)
- ⑦ GRAVITY THICKENER (14.0m² x3.5m² x4 tank)
- ⑧ DEWATERING & CENTRIFUGAL THICKENER BUILDING
- ⑨ BLOWER BUILDING
- ⑩ MAIN BUILDING (Control Room, Electrical Room, etc.)
- ⑪ MAIN SUBSTATION
- ⑫ COMPOST PLANT FACILITY
- ⑬ INLET PIPE (Ø1,300 x1,200 x0.5% x2Box, Ø2,000 x1,700 x0.4% x2Box)
- ⑭ EFFLUENT PIPE (Ø2,500mm x1.2% HP)
- ⑮ POWER LINE (EXISTING)
- ⑯ PIPE GALLERY
- ⑰ DISTRIBUTION TANK
- ⑱ GUARD ROOM
- ⑲ CONNECTION PIPE (Ø2,500mm x1.2%, SP)
- ⑳ TRUCK SCALE
- ㉑ JETTY
- ㉒ STAIRCASE
- ㉓ WWTP ELECTRICAL ROOM
- AS : ASPHALT CONCRETE

MANHOLE TYPE 1			
No.	CONNECTION TYPE	DIAM(mm)	BOTTOM DEPTH(H)
No 1.	Type B	Ø225	1.75
No 2.	Type C	Ø300 Ø225	1.63
No 3.	Type C	Ø300 Ø20	1.42
No 4.	Type B	Ø300	1.35
No 5.	Type A	Ø300 Ø225	1.11
No 6.	Type D	Ø300 Ø20	1.24
No 7.	Type C	Ø300 Ø20	1.29
No 8.	Type B	Ø225 Ø20	1.37
No 9.	Type C	Ø300 Ø20	1.51
No 10.	Type C	Ø300 Ø20	1.62
No 11.	Type C	Ø300 Ø20	1.75

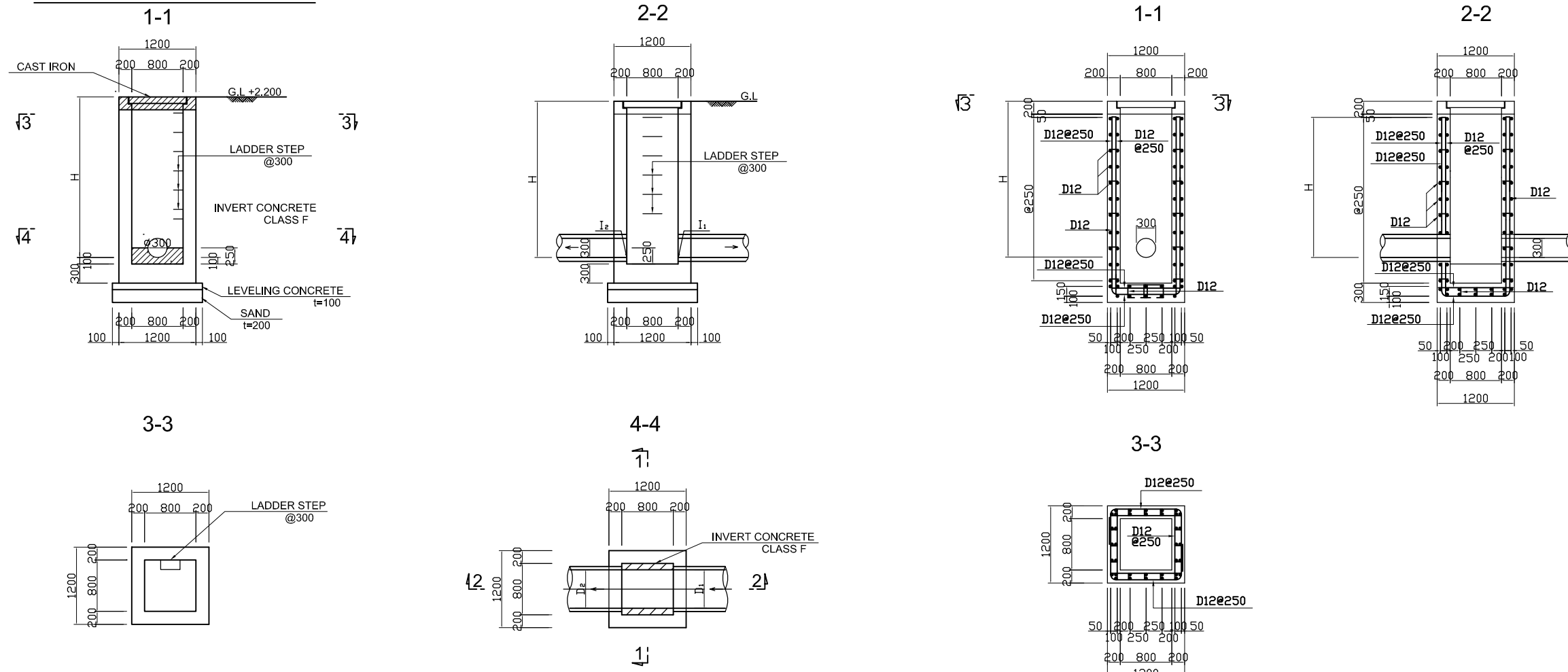
BILL QUANTITY		
NAME OF STATION	Ø300	Ø225
No 11 ~ No 10	34m	Ø225
No 10 ~ No 9	41m	
No 9 ~ No 7	23m	
No 8 ~ No 7		35m
No 7 ~ No 6	13m	
No 6 ~ No 5	40m	
No 5 ~ Lift Pumping Station ①	35m	
No 1 ~ No 2		35m
No 2 ~ No 3	62m	
No 3 ~ No 4	20m	
No 4 ~ Lift Pumping Station ②	22m	
	290m	70m
1.15	333m	80.5m

Lift Pumping Station ① : +1.00
 Lift Pumping Station ② : +1.28

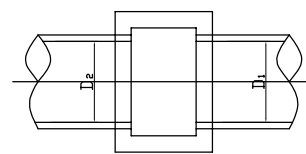
NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
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THE DETAILED DESIGN STUDY ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE E WASTEWATER TREATMENT PLANT				
SANITARY SEWER PLAN				
SCALE: 1/ 1000				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KIMURA TORU		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 226 - 01		

MANHOLE DETAIL

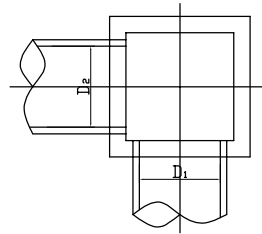
Manhole Detail Scale: 1/40



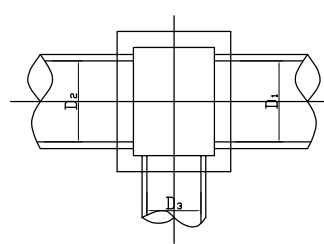
CONNECTION TYPE



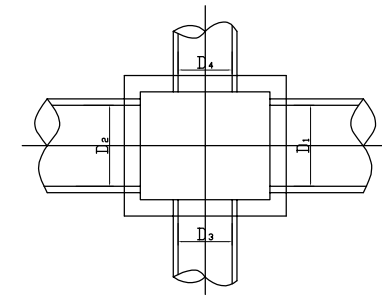
TYPE A



TYPE B



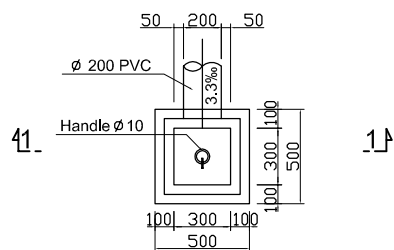
TYPE C



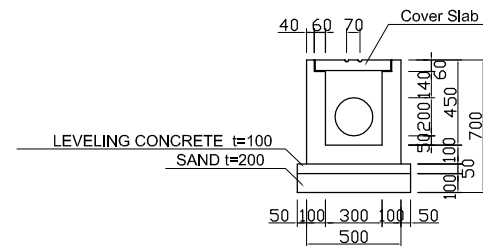
TYPE D

HOUSE INLET

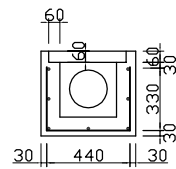
BAR ARRANGEMENT Scale: 1/20



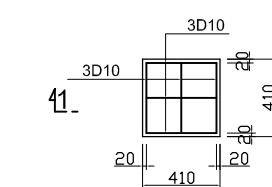
PLAN OF INLET CHAMBER Scale: 1/20



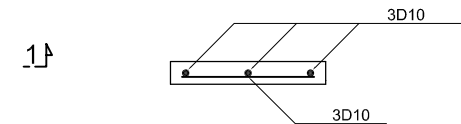
SECTION 1-1 Scale: 1/20



CHAMBER Scale: 1/20



COVER SLAP Scale: 1/20



SECTION 1-1 Scale: 1/10

NOTES :

- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- CONCRETE E21
- LEVELLING CONCRETE G10
- ALL REINFORCEMENT BARS ARE DEFORMED TYPE (CT5 OR EQUIVALENT AS INDICATED IN SPECIFICATION OF PACKAGE E)
- THE SPECIFICATION TO BE REFERRED FOR MORE INFORMATION OF MATERIAL GRADES

NO.	DATE	DESCRIPTIONS	BY	APPRO.
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REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN ON HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT PROJECT
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE E
WASTEWATER TREATMENT PLANT

SANITARY SEWER DETAILS

SCALE: 1/20, 1/40

JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

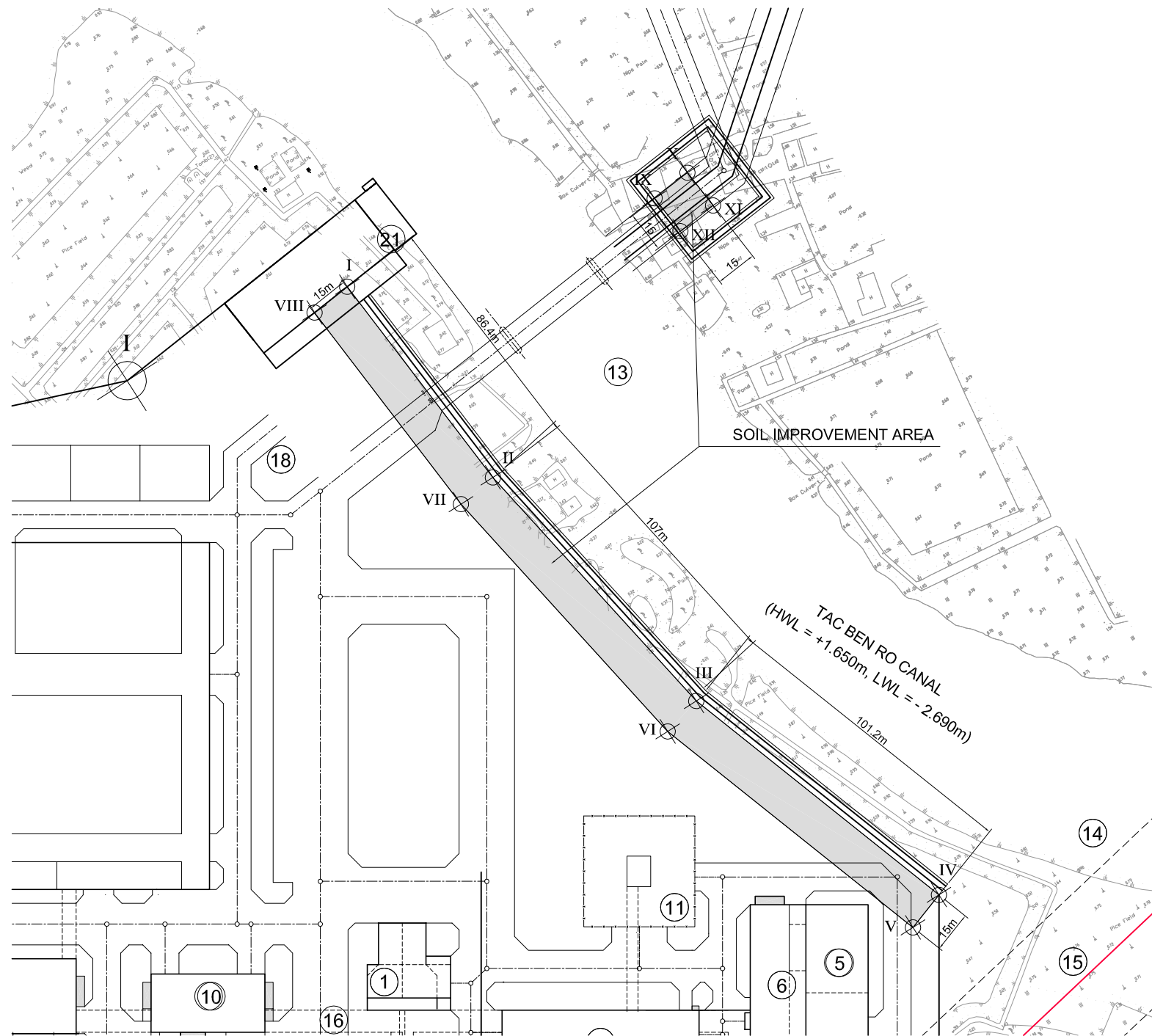
DESIGNED
KIMURA TORU

CHECKED
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE -WWTP - 226 - 02

SITE PREPARATION SOIL IMPROVEMENT PLAN

Scale : 1/1000



POINT	X COORD	Y COORD
I	185376	574277
II	185290	574285
III	185183	574303
IV	185086	574337
V	185082	574322
VI	185179	574289
VII	185288	574270
VIII	185375	574262
IX	185351	574387
X	185352	574402
XI	185322	574405
XII	185321	574390

NO.	DATE	DESCRIPTIONS	BY	APRO.
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REVISIONS

PROJECT MANAGEMENT UNIT FOR
HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

THE DETAILED DESIGN STUDY ON HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT PROJECT
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE E
WASTEWATER TREATMENT PLANT
SITE PREPARATION
SOIL IMPROVEMENT PLAN

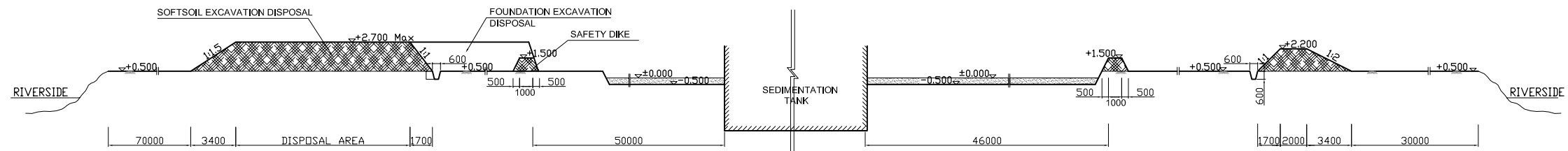
SCALE = 1 : 1000

JICA JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

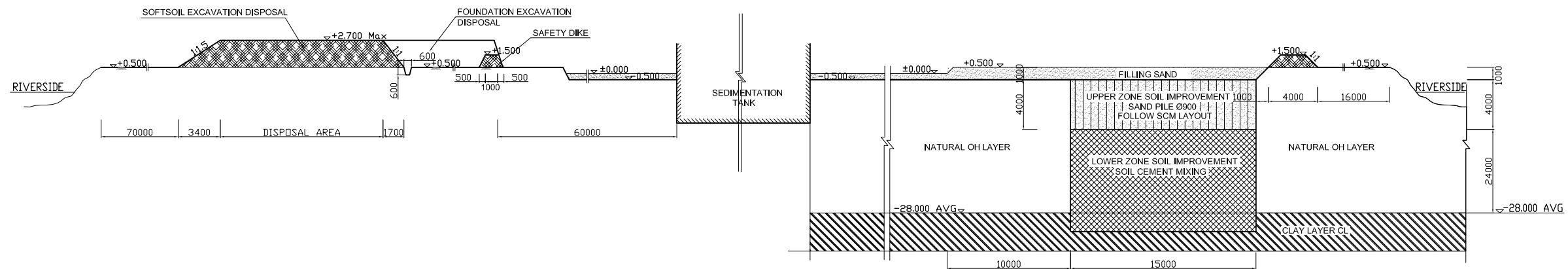
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
-------------------------	-------------------------

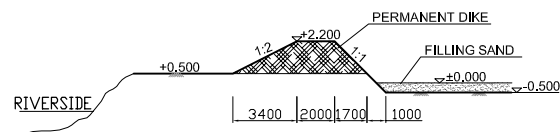
DATE : JUNE 2001 DWG. No. PE - WWTP - 227 - 01



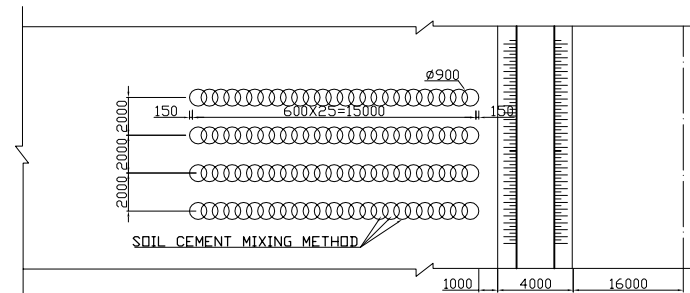
SECTION B-B Scale: 1/200
(TEMPORARY)



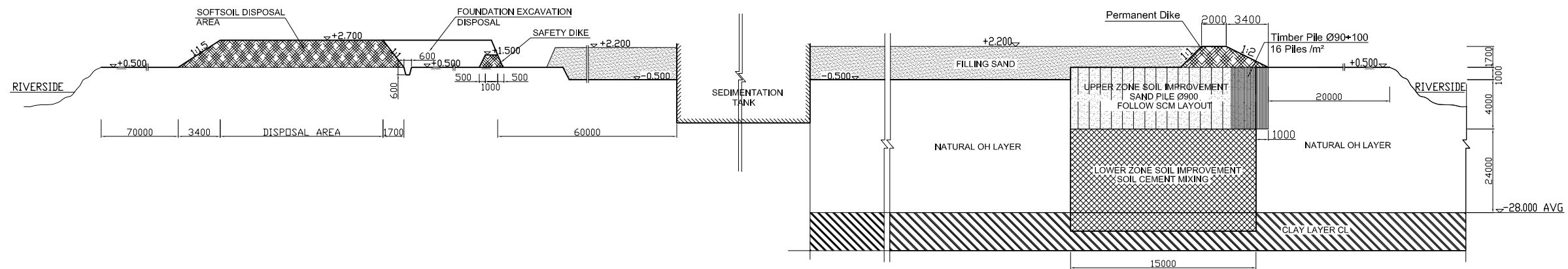
SECTION A-A Scale: 1/200
(TEMPORARY)



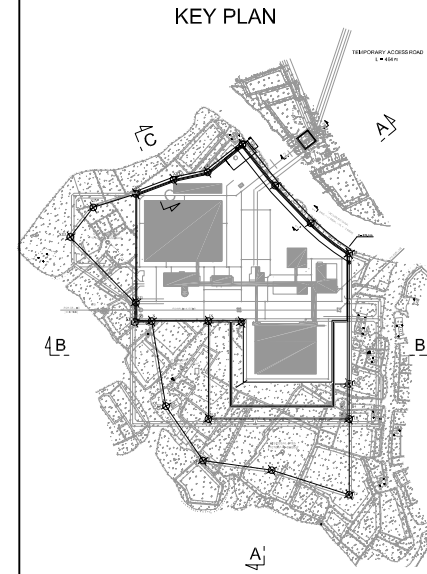
SECTION C-C Scale: 1/200



SCM COLUMNS LAYOUT Scale: 1/200



SECTION A-A Scale 1:200
(PERMANENT)



NO.	DATE	DESCRIPTIONS	BY	APRO.

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HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT

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WATER ENVIRONMENT IMPROVEMENT PROJECT
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE E
WASTEWATER TREATMENT PLANT
EMBANKMENT SECTION AND DETAIL

SCALE: 1/ 200

JICA JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED
KIMURA TORU

CHECKED
KONDO MASAMI

DATE : JUNE 2001

DWG. No. PE - WWTP - 228 - 01