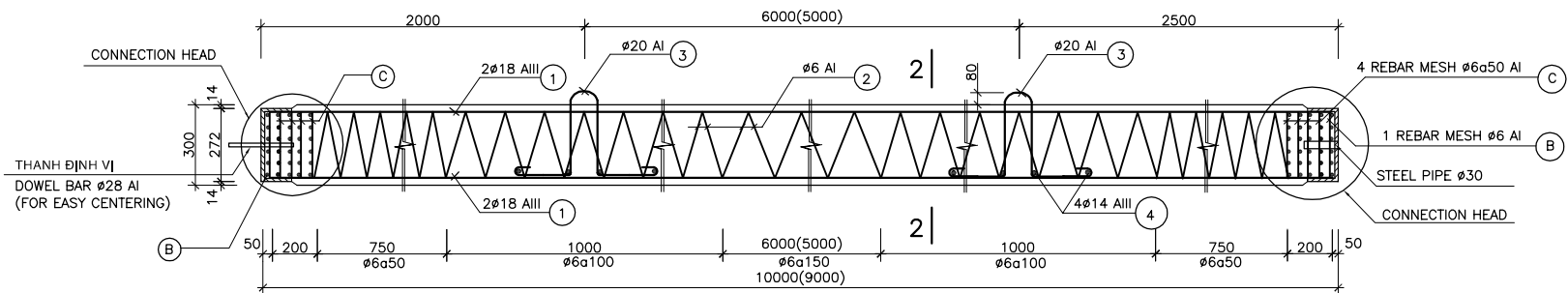
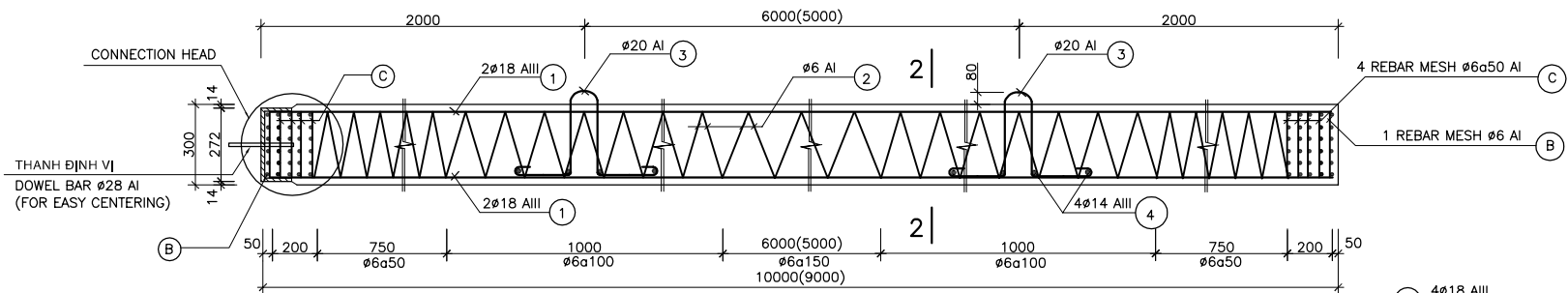


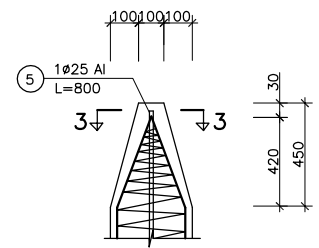
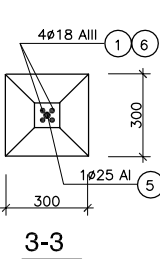
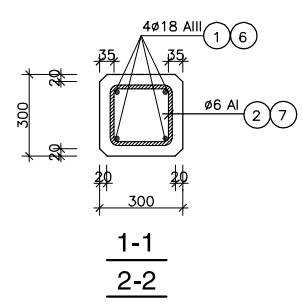
**CHI TIẾT CỌC BTCT (ĐOẠN MŨI)**  
**TOP SEGMENT OF PILE, LENGTH 9.0m**



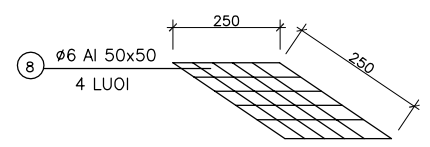
**CHI TIẾT CỌC BTCT ĐOẠN GIỮA 10.0m, 9.0m**  
**MIDDLE SEGMENT OF PILE, LENGTH 10.0m, 9.0m**



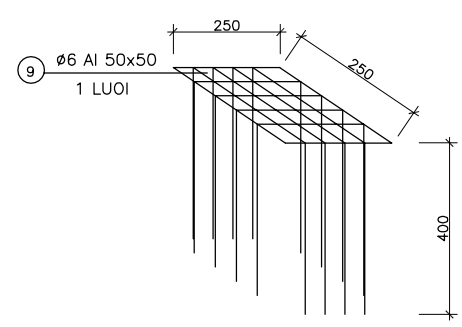
**CHI TIẾT CỌC BTCT ĐOẠN 3 10.0m, 9.0m**  
**FINAL SEGMENT OF PILE, LENGTH 10.0m, 9.0m**



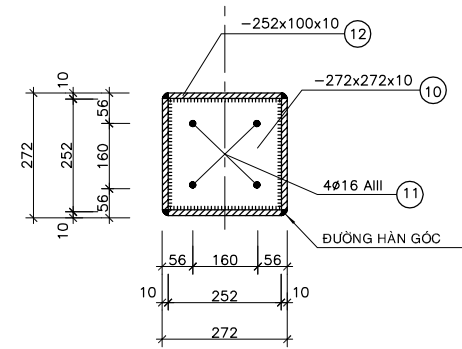
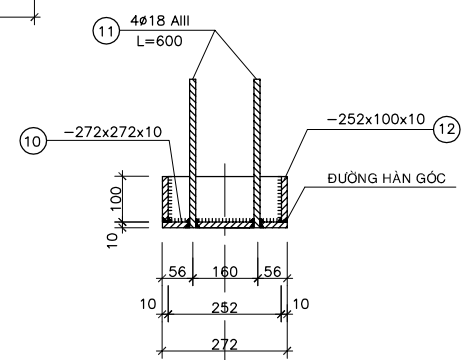
**CHI TIẾT MŨI CỌC**  
**DETAIL OF PILE SHOE**



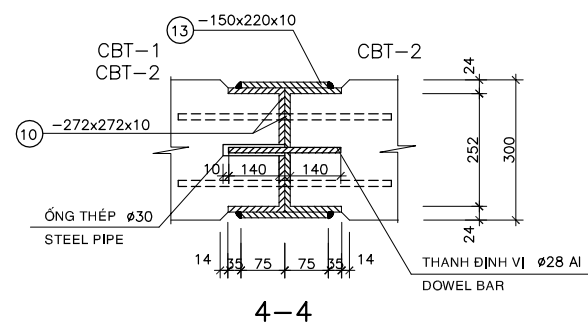
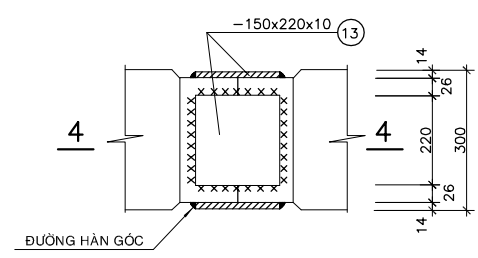
**CHI TIẾT LƯỚI THÉP**  
**DETAIL OF RE-BAR MESH**



**CHI TIẾT LƯỚI THÉP**  
**DETAIL OF RE-BAR MESH**



**CHI TIẾT BẢNG THÉP ĐẦU CỌC**  
**DETAIL OF STEEL PLATE AT PILE HEAD**



**CHI TIẾT NỐI CỌC**  
**DETAIL OF PILE CONNECTION**

**PILE CONECTING LAYOUT**

PILE LENGTH (m)	ARRANGEMENT
36m	9m 9m 9m 9m
38m	10m 10m 9m 9m

**NOTES**

- \* DESIGN BEARING CAPACITY OF A SINGLE PILE (L=35m) IS 40 TON
- \* WELD THICKNESS = 6 mm , EXCEPT AS-SHOWN LOCATIONS
- \* CONCRETE GRADE 300 , STONE 10x20 , Rn=130 kg/cm2
- \* REINFORCEMENT :  
 AI : Ra = Ra' = 2100 KG/cm2 (PLAIN BAR)  
 AIII: Ra = Ra' = 3400 KG/cm2 (DEFORMED BAR)

**GHI CHÚ:**

- \* SỨC CHỊU TẢI TÍNH TOÁN CỦA CỌC (L=35m) LÀ 40 Tấn
- \* CHIỀU CAO ĐƯỜNG HÀN LÀ 6mm
- TRỪ NHỮNG VỊ TRÍ ĐÃ CHỈ RÕ
- \* BÊ TÔNG MÁC 300, ĐÁ 10X20, Rn=130 Kg/cm2
- \* CỐT THÉP:  
 AI : Ra = Ra' = 2100 KG/cm2  
 AIII: Ra = Ra' = 3400 KG/cm2

NO.	DATE	DESCRIPTIONS	BY	APRO.

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  
 WASTE WATER TREATMENT PLANT

DETAIL OF R.C PILE 300X300

SCALE : N.T.S

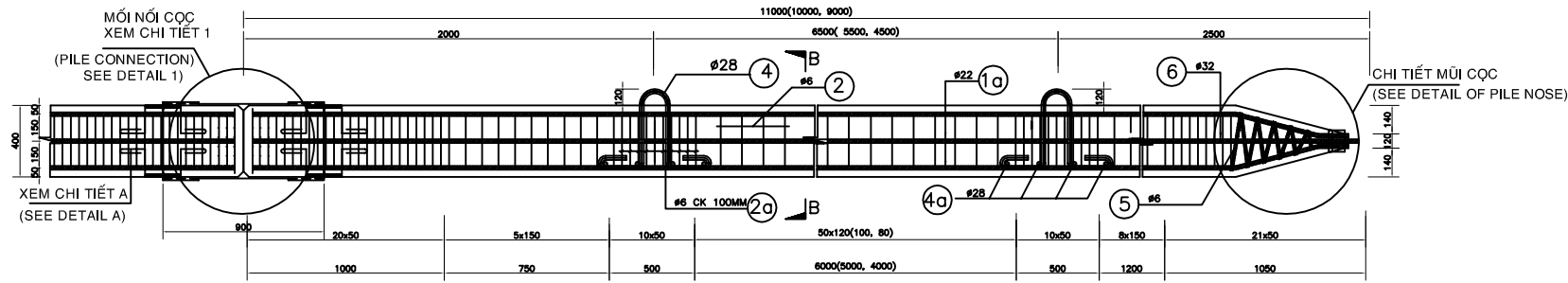
JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

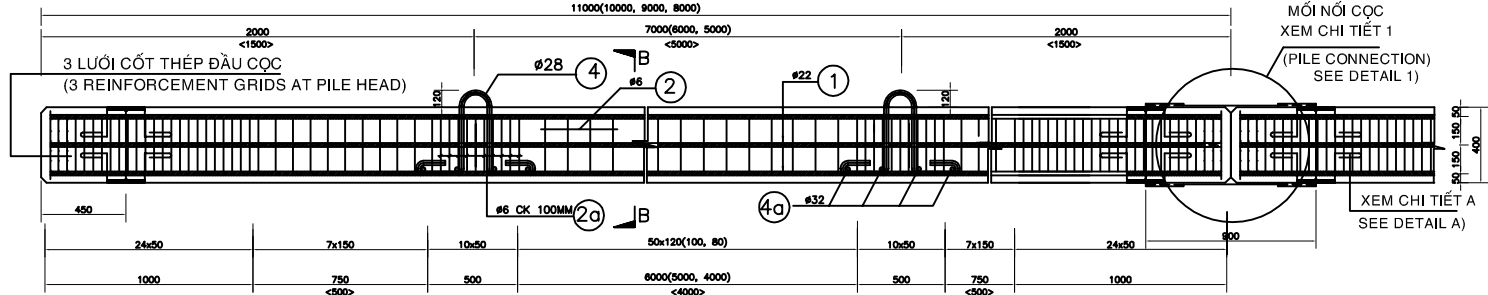
DESIGNED: KIMURA TORU  
 CHECKED: KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE-WWTP-265-01

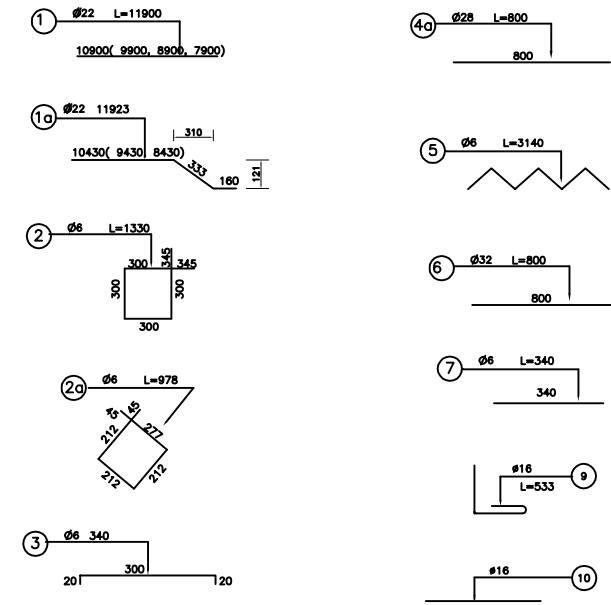
**CỌC ĐOẠN I (MŨI) 11m, 10m, 9m**  
SEGMENT 1 OF PILE, LENGTH 11m, 10m, 9m (PILE NOSE)



**CỌC ĐOẠN II 11m, 10m, 9m, 8m**  
SEGMENT 2 OF PILE, LENGTH 11m, 10m, 9m, 8m



**QUY CÁCH THÉP**  
DETAIL OF REINFORCEMENT BAR



NOTES:  
NUMBER IN BRACKET <-> USE FOR PILE LENGTH 8,0m

**GHI CHÚ**

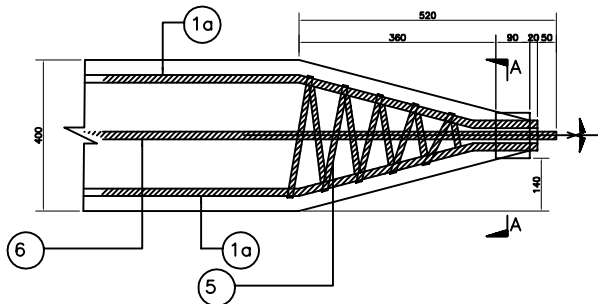
- CỐT THÉP  $\phi > 10$ LY DÙNG LOẠI THÉP GÂN CT5
- CỐT THÉP  $\phi < 10$ LY DÙNG LOẠI THÉP TRON CT3
- CỌC BÊ TÔNG 40 x 40 ĐƯỢC CẮT BỎ 0.5M PHÍA TRÊN ĐỂ NEO CỐT THÉP DỌC VÀO BÊ TÔNG BỆ TRỤ
- ĐƠN VỊ GHI TRÊN BẢN VẼ LÀ MM

**FOOTNOTE :**

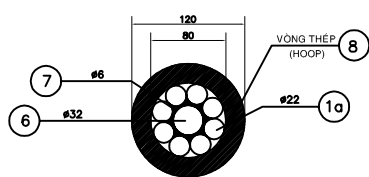
- TYPE OF REINFORCEMENT  $\phi > 10$ mm : USE DEFORMED REINFORCEMENT SYMBOLLED CT5
- TYPE OF REINFORCEMENT  $\phi < 10$ mm : USE PLAIN ROUND BAR SYMBOLIZED CT3
- CUTTING 0.5 METRE LONG PILE HEAD (CONCRETE PART ONLY, REINFORCEMENT REMAINED AS VERTICAL-TIE SO AS TO ANCHOR PILE'S LONGITUDINAL REINFORCEMENT TO THE ABUTMENT PLATFORMS CONCRETE.
- THE UNIT USED IN THIS DRAWING IS MILLIMETRE

**CHI TIẾT MŨI CỌC**

DETAIL OF PILE NOSE (SCALE 1/10)

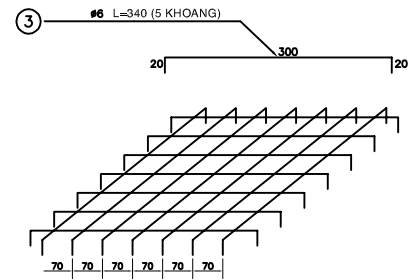


**MẶT CẮT A - A**  
CROSS SECTION A-A

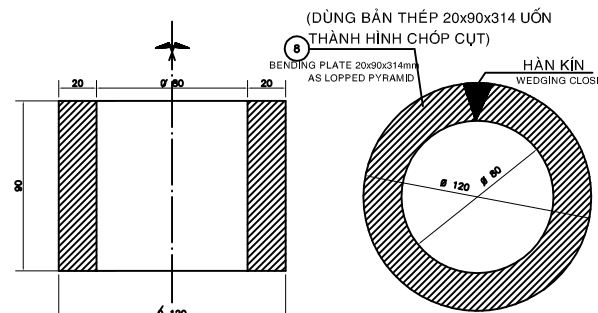


**CHI TIẾT A**  
DETAIL A (SCALE 1/10)

**LƯỚI THÉP ĐẦU CỌC**  
REINFORCEMENT GRID AT THE PILE HEAD



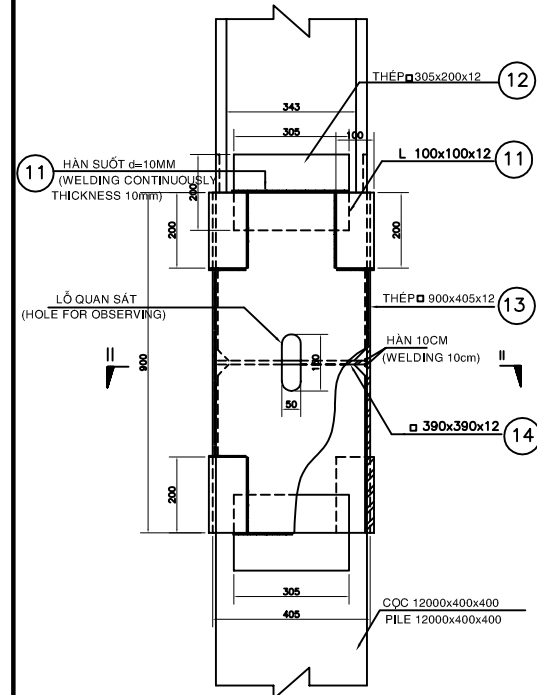
**VÒNG THÉP 8**  
HOOP 8 (SCALE 1/2)



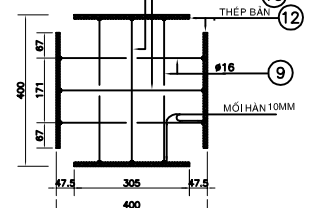
**GHI CHÚ**

- KÍCH THƯỚC TRONG BẢN VẼ DÙNG MILIMET, QUY CÁCH THÉP VÀ KHAI TRIỂN CHI TIẾT DÙNG ĐƠN VỊ MILIMET
- ĐẶC TRƯNG KỸ THUẬT CỦA CỌC:
  - \_ CỐT THÉP TRON A1:  $R_b = 1900$ KG/CM<sup>2</sup>
  - \_ CỐT THÉP CÓ GỖ AII:  $R_b = 2400$ KG/CM<sup>2</sup>
  - \_ BÊ TÔNG M300
- ĐOẠN CỌC ĐẦU TIÊN CÓ CẤU TẠO GIỐNG ĐOẠN CỌC SAU NHUNG PHẦN THÉP CHI TIẾT A CHỈ GIA CÔNG Ở 1 ĐẦU

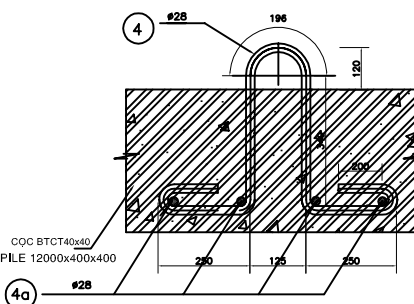
**MỐI NỐI CỌC (CHI TIẾT 1)**  
PILE CONNECTION (DETAIL 1) - (SCALE 1/10)



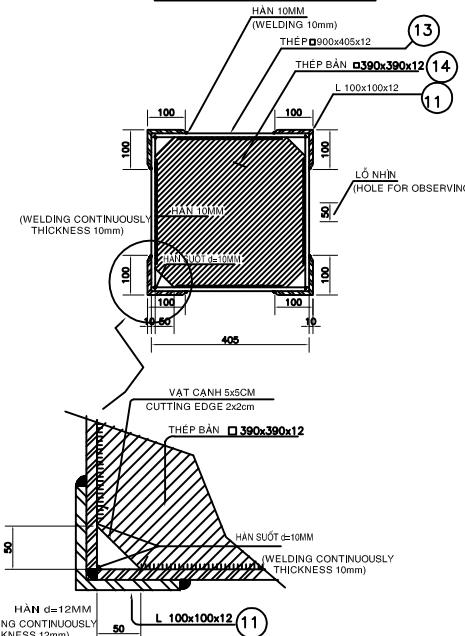
**HƯỚNG E**  
DIRECTION E



**MÓC CỬ CỌC**  
THE HOOK



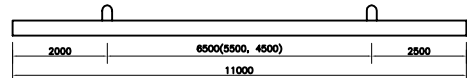
**MẶT CẮT II - II**  
CROSS SECTION II-II



**PILE CONECTING LAYOUT**

PILE LENGTH (m)	ARRANGEMENT			
31.0m	10m	10m	11m	
32.0m	11m	11m	10m	
33.0m	11m	11m	11m	
34.0m	8m	8m	9m	9m
35.0m	8m	9m	9m	9m
36.0m	9m	9m	9m	9m
37.0m	10	9	9	9
38.0m	10	10	9	9
40.0m	10	10	10	10

**SƠ ĐỒ BỐ DỮ CỌC**  
OUTLINE OF CRANING PILE (SCALE 1/100)



NO.	DATE	DESCRIPTONS	BY	APRO.

**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 PLAN  
**CỌC BTCT 40x40cm**  
**REINFORCED CONCRETE PILE**  
**40 x 40 cm**

SCALE : AS SHOWN

JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED  
KIMURA TORU

CHECKED  
KONDO MASAMI

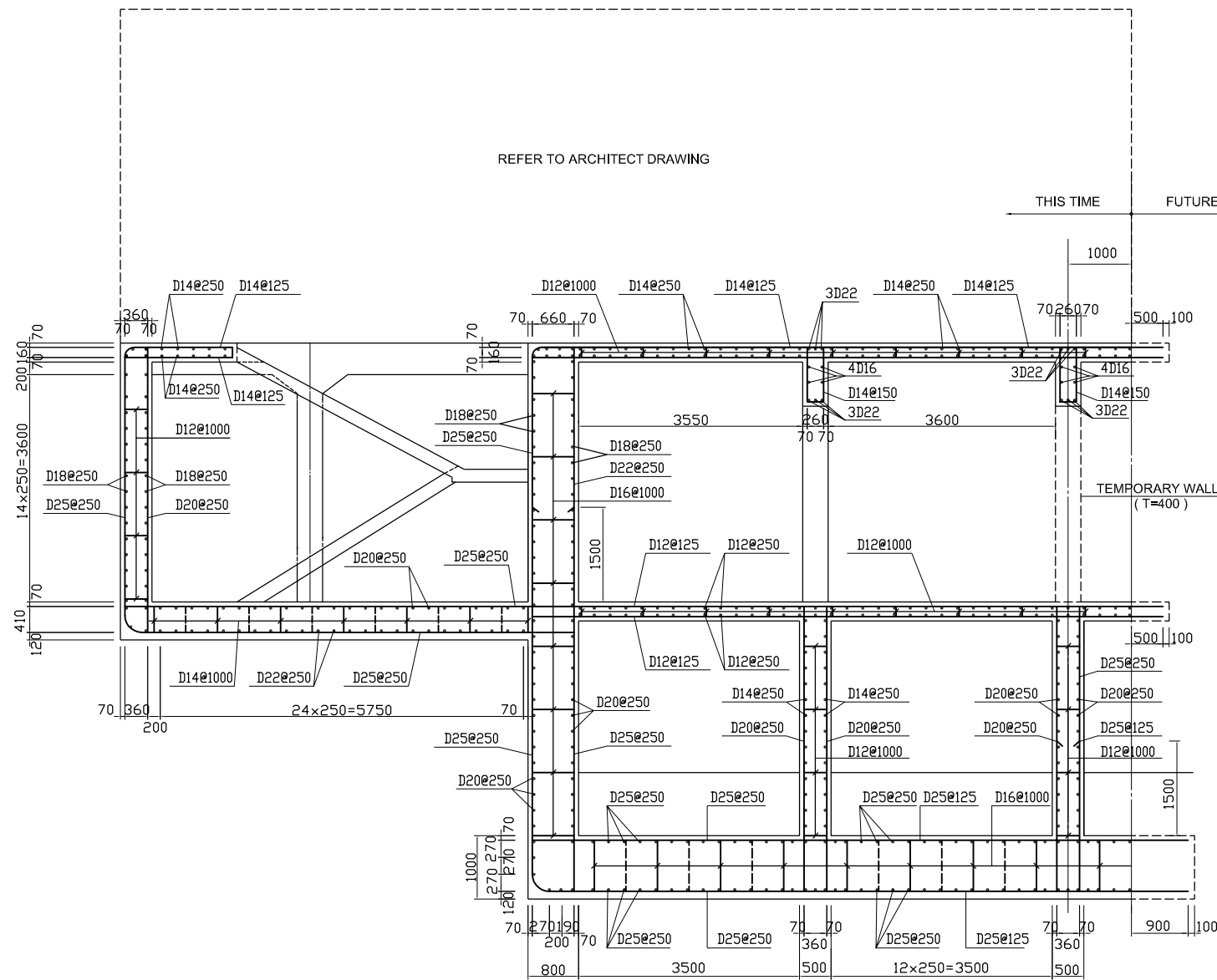
DATE : JUNE 2001      DWG.No.PE-WWTP-265-02

# BAR ARRANGEMENT

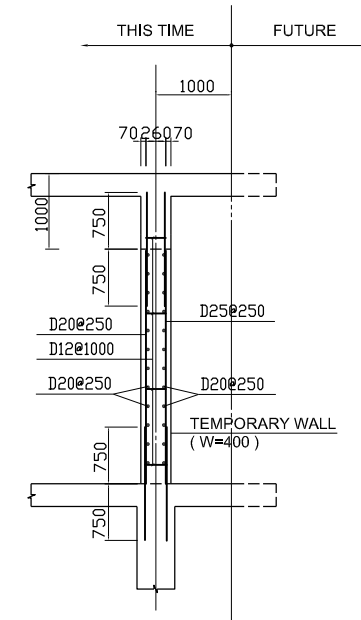


# LIFT PUMPING STATION BAR ARRANGEMENT DRAWING (2)

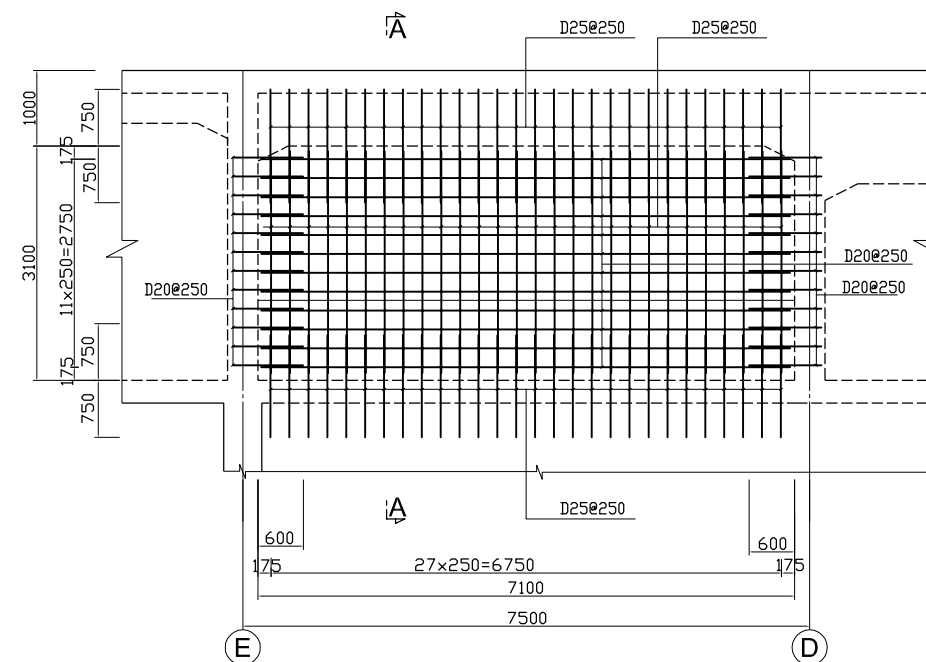
SECTION 2-2 Scale: 1/50



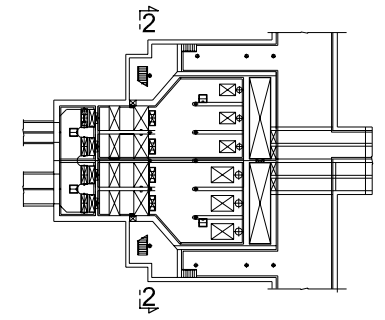
SECTION A-A Scale: 1/50



TEMPORARY WALL (1) Scale: 1/50





KEY PLAN



**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

DATE	DESCRIPTIONS	BY	APRO.
REVISIONS			
PROJECT MANAGEMENT UNIT FOR WATER ENVIRONMENT IMPROVEMENT FOR HO CHI MINH CITY			
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM			
PACKAGE E WASTEWATER TREATMENT PLANT LIFT PUMPING STATION STRUCTURE BAR ARRANGEMENT DRAWING (No.2)			
SCALE: 1/50			
 JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )			
 PACIFIC CONSULTANTS INTERNATIONAL			
DESIGNED KIMURA TORU	CHECKED KONDO MASAMI		
DATE : JUNE 2001	DWG. No. PE - WWTP -266 - 02		

# LIFT PUMPING STATION BAR ARRANGEMENT DRAWING (3)

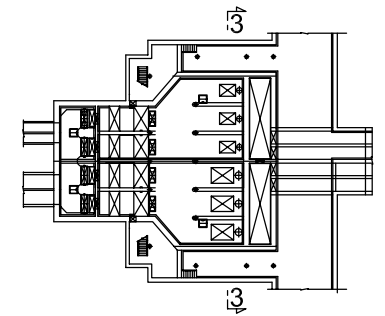
SECTION 3-3 Scale: 1/50

THIS TIME FUTURE

SECTION B-B Scale: 1/50

THIS TIME FUTURE

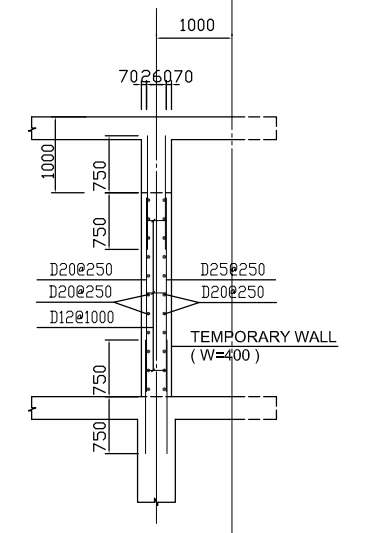
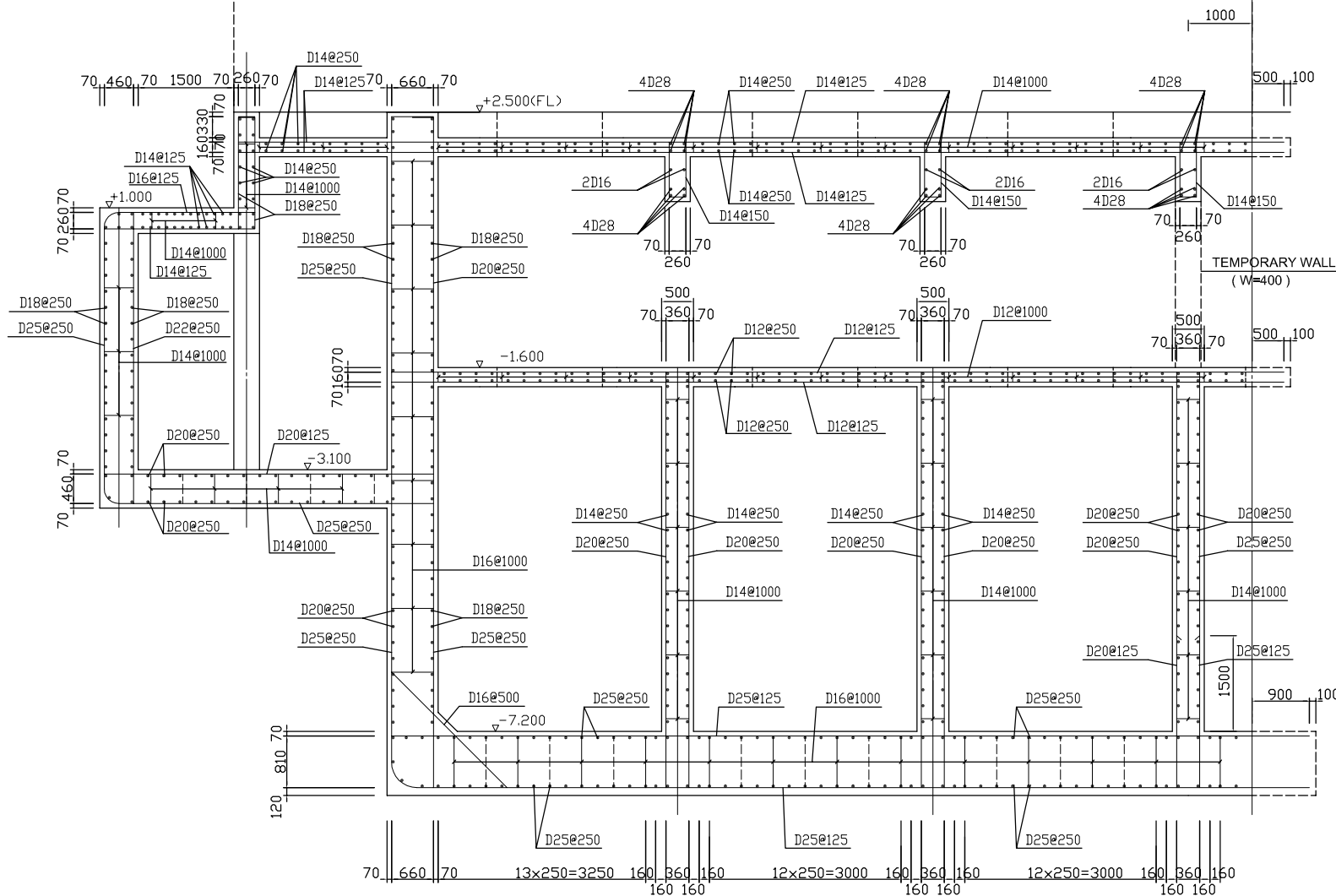
KEY PLAN



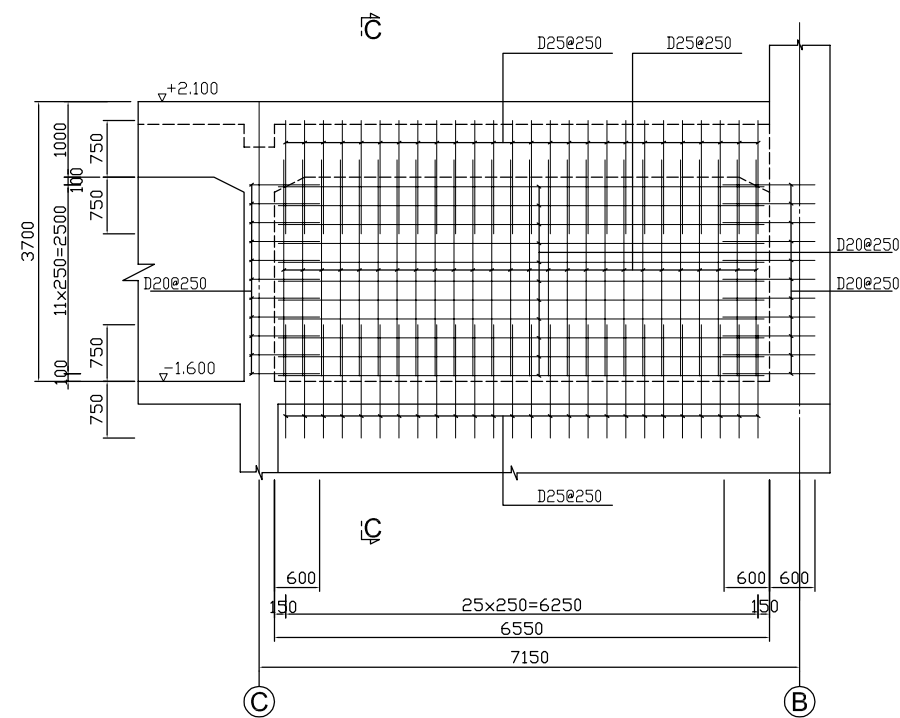
**NOTES :**

- 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

REFER TO ARCHITECT DRAWING



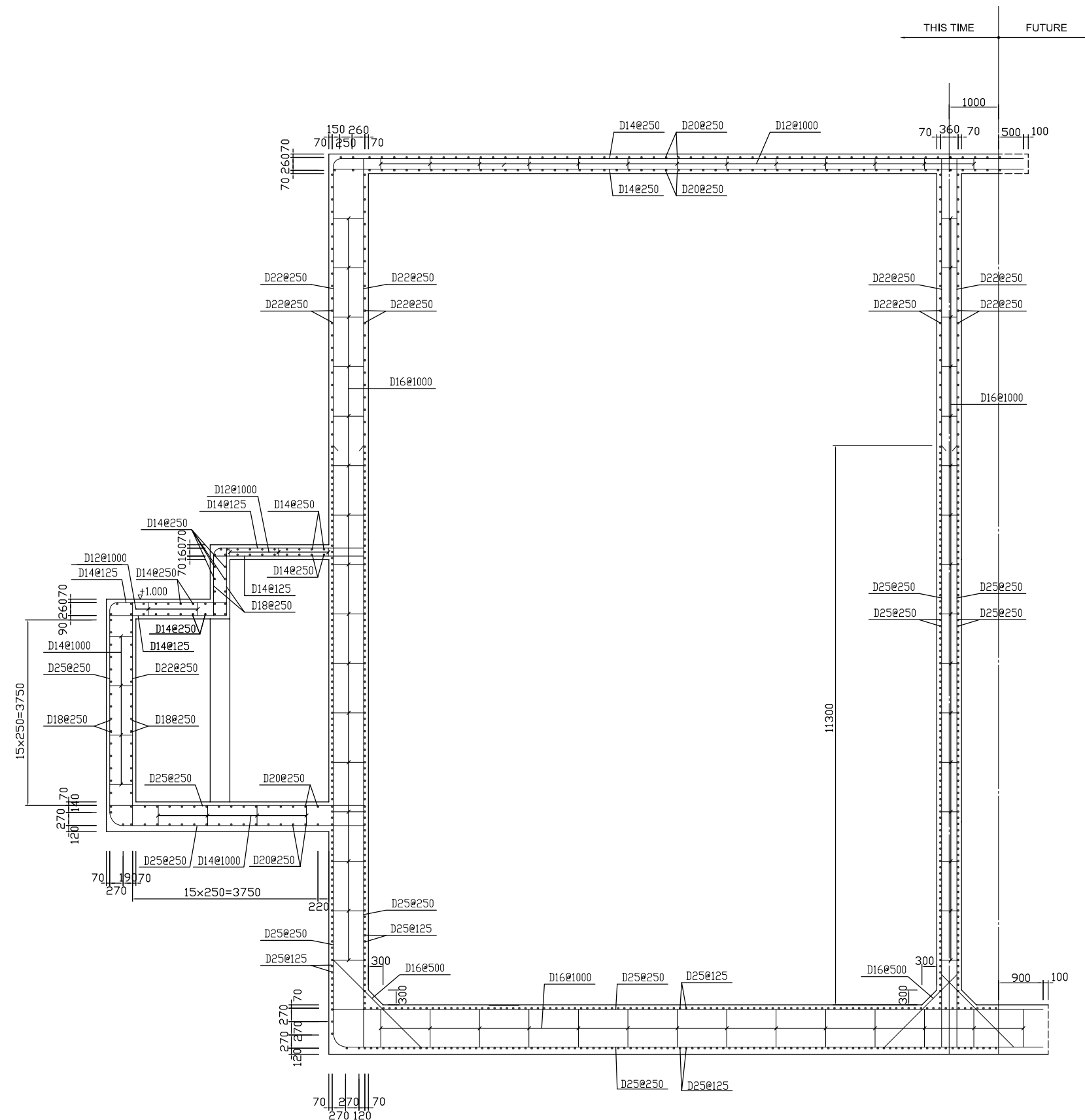
TEMPORARY WALL (1) Scale: 1/50



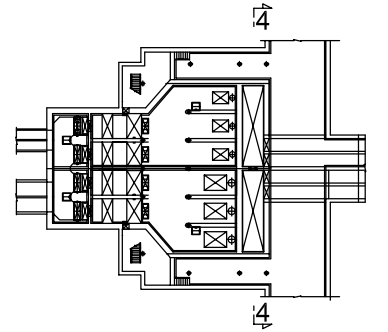
DATE	DESCRIPTIONS	BY	APRO.
REVISIONS			
PROJECT MANAGEMENT UNIT FOR WATER ENVIRONMENT IMPROVEMENT FOR HO CHI MINH CITY			
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM			
PACKAGE E WASTEWATER TREATMENT PLANT			
LIFT PUMPING STATION STRUCTURE BAR ARRANGEMENT DRAWING (No.3)			
SCALE: 1/50			
JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )		PACIFIC CONSULTANTS INTERNATIONAL	
DESIGNED KIMURA TORU	CHECKED KONDO MASAMI		
DATE : JUNE 2001	DWG.No. PE - WWTP -266 - 03		

# LIFT PUMPING STATION BAR ARRANGEMENT DRAWING (4)

SECTION 4-4 Scale: 1/50



## KEY PLAN



## 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

DATE	DESCRIPTIONS	BY	APRO.

## REVISIONS

PROJECT MANAGEMENT UNIT FOR  
WATER ENVIRONMENT IMPROVEMENT FOR  
HO CHI MINH CITY

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

PACKAGE E  
WASTEWATER TREATMENT PLANT  
LIFT PUMPING STATION STRUCTURE  
BAR ARRANGEMENT DRAWING  
(No.4)

SCALE: 1/50

 JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

 PACIFIC CONSULTANTS INTERNATIONAL

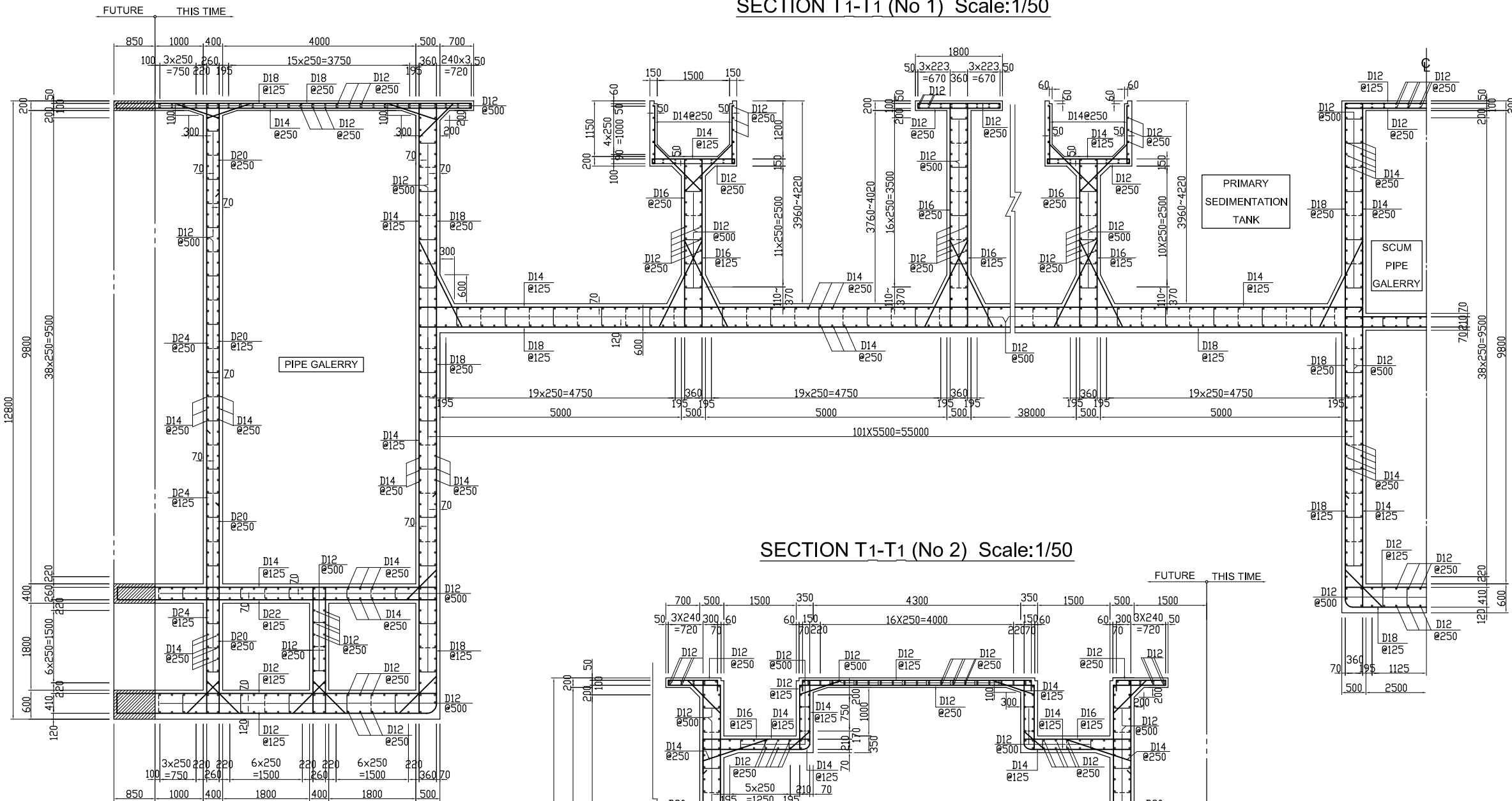
DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
-------------------------	-------------------------

DATE : JUNE 2001      DWG. No. PE - WWTP -266 - 04

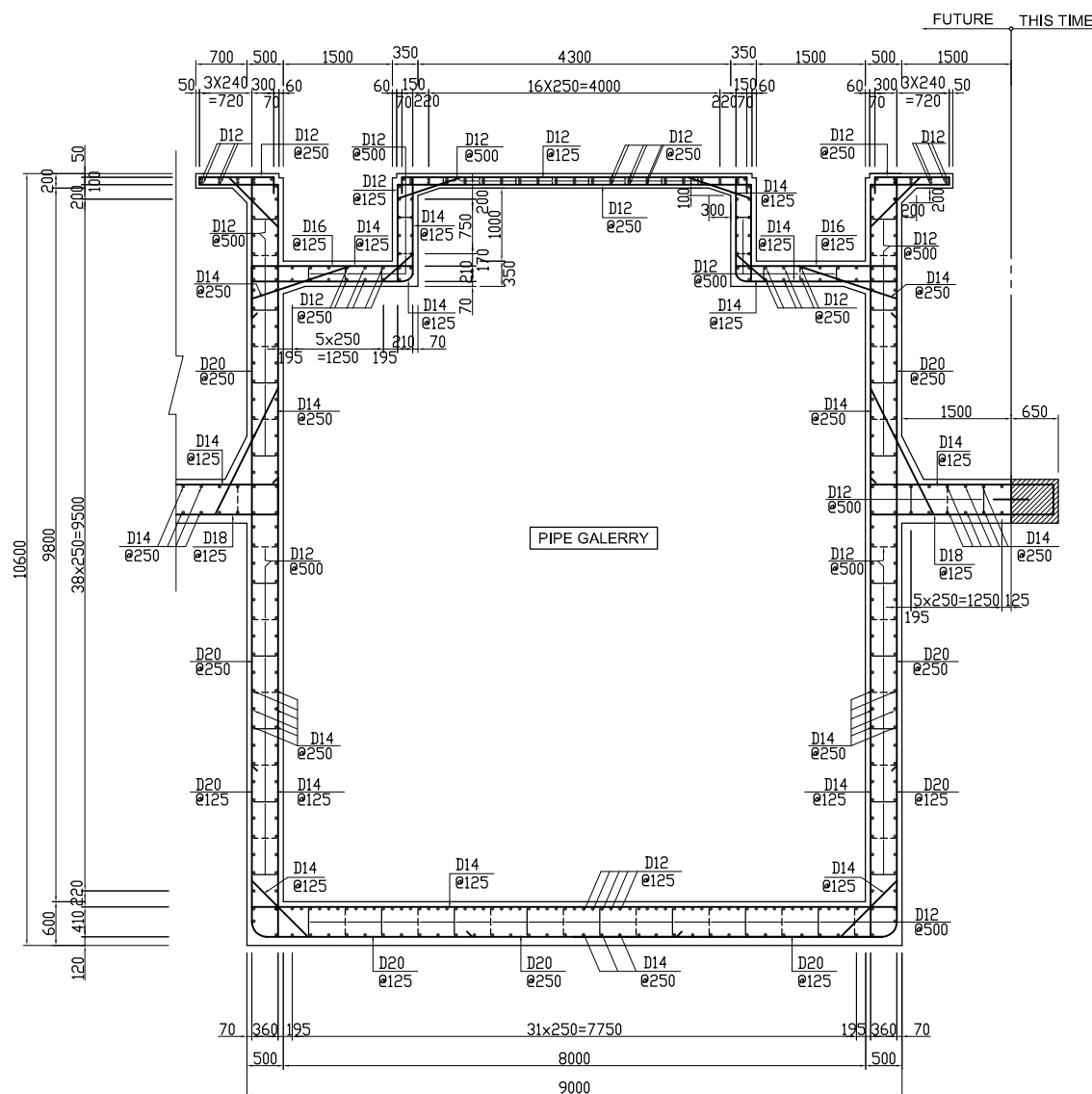


# WASTEWATER TREATMENT PLANT, BAR ARRANGEMENT (1)

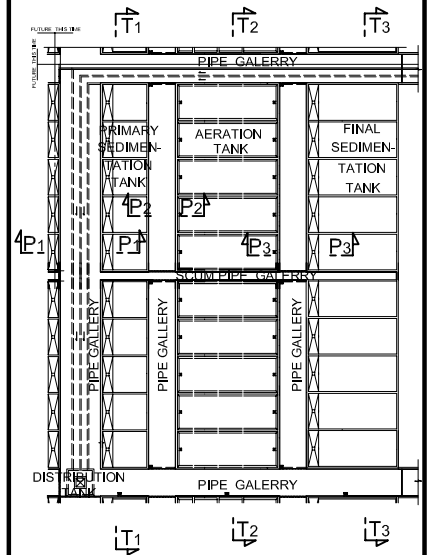
## SECTION T1-T1 (No 1) Scale:1/50



## SECTION T1-T1 (No 2) Scale:1/50



## KEY PLAN



## 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	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  
WASTE WATER TREATMENT PLANT  
BAR ARRANGEMENT  
(No. 1)

SCALE : 1/50

JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED  
KIMURA TORU

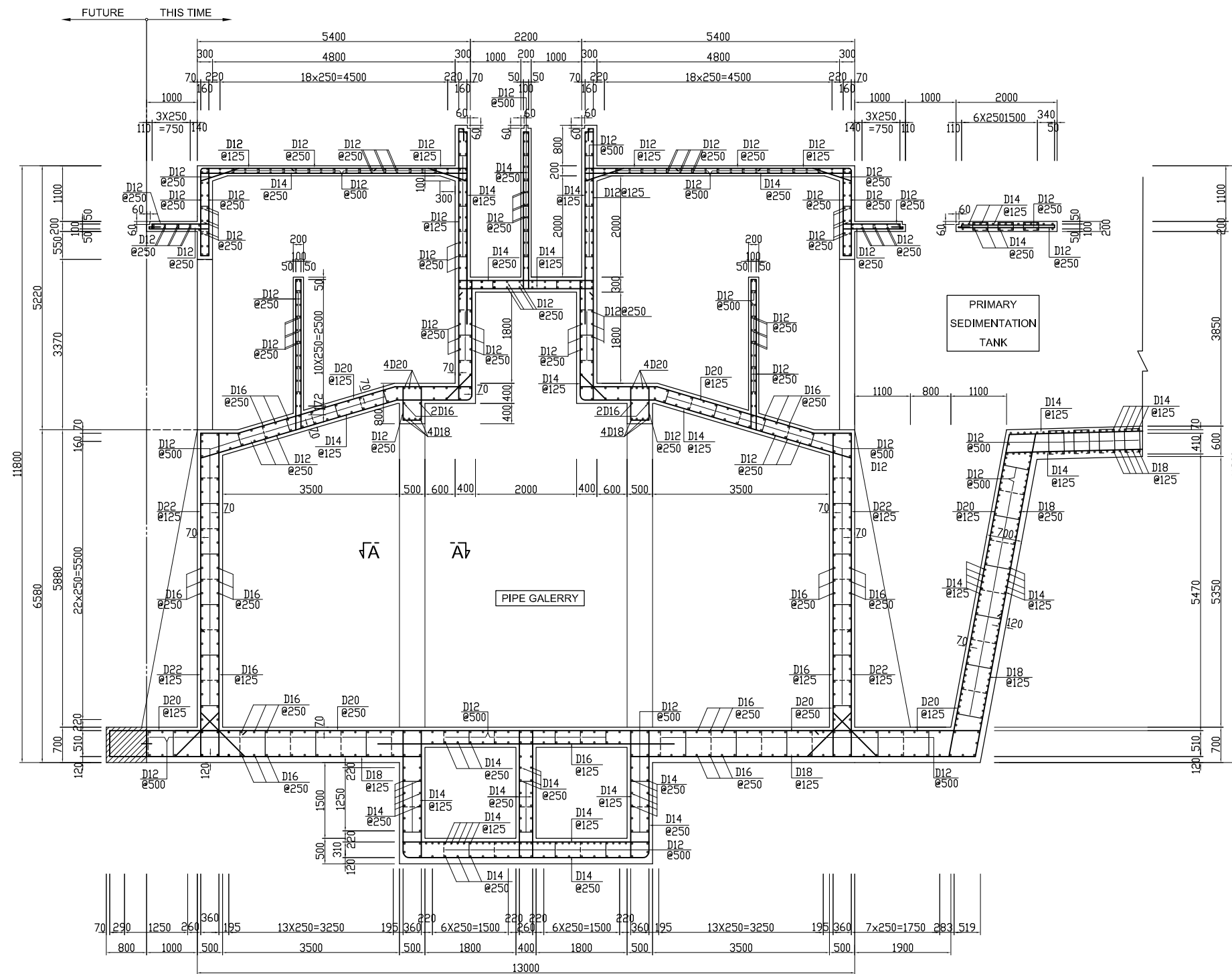
CHECKED  
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE-WWTP - 267-01

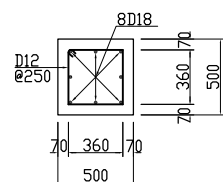


# WASTEWATER TREATMENT PLANT, BAR ARRANGEMENT (2)

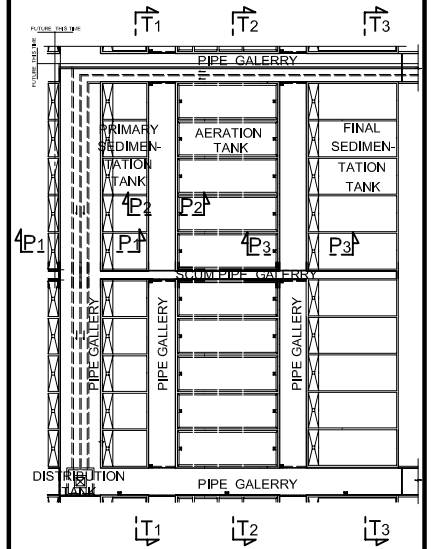
SECTION P1-P1 Scale:1/50



SECTION A - A Scale:1/25



## KEY PLAN



### 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	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  
WASTE WATER TREATMENT PLANT  
BAR ARRANGEMENT  
(No. 2)

SCALE : 1/50

JICA JAPAN INTERNATIONAL COOPERATION  
AGENCY ( JICA )

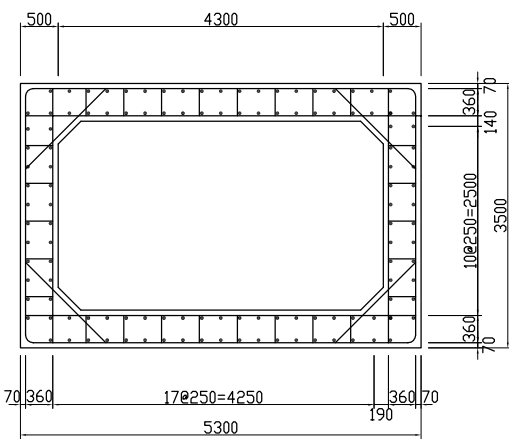
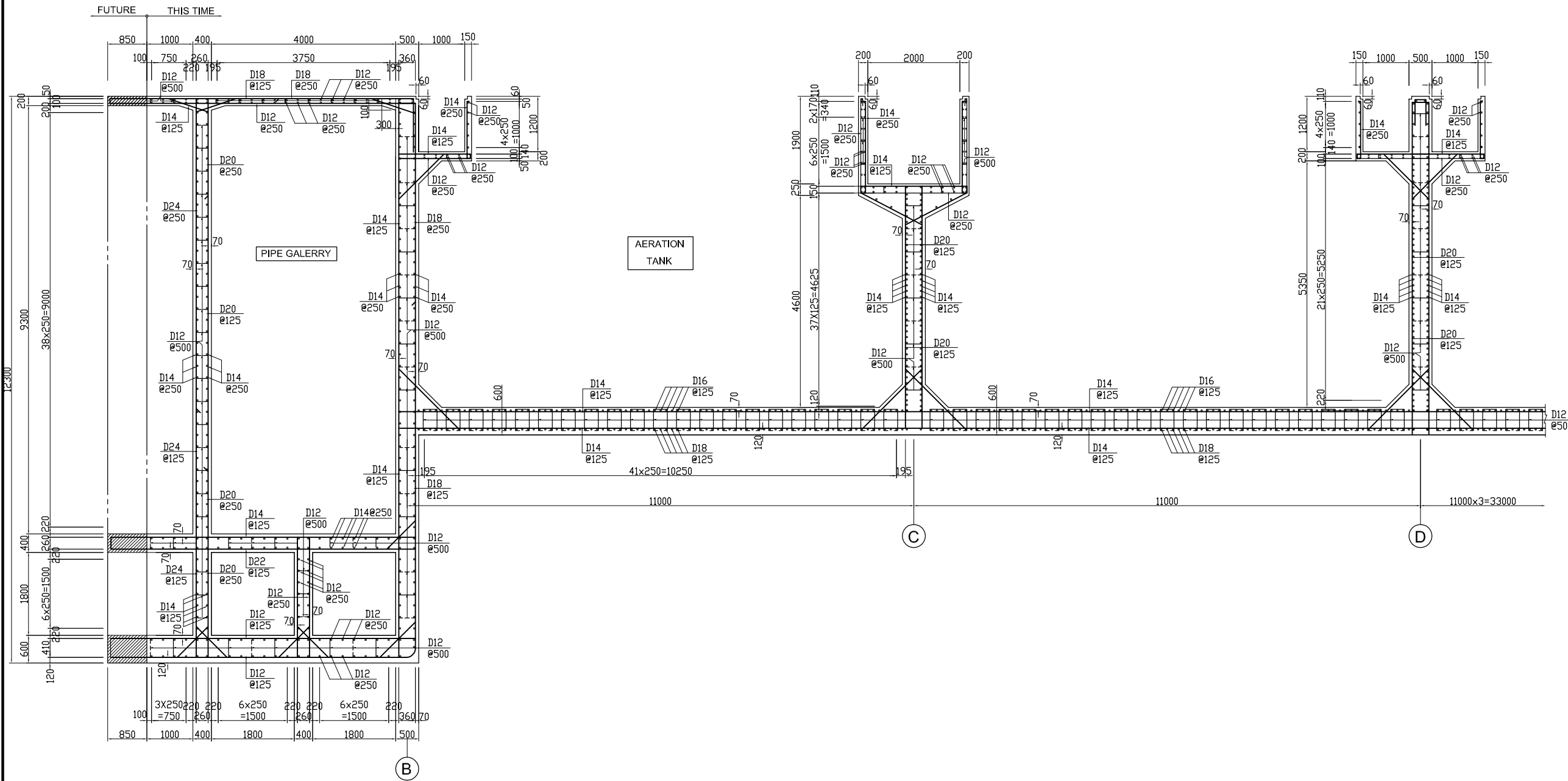
PACIFIC CONSULTANTS INTERNATIONAL

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

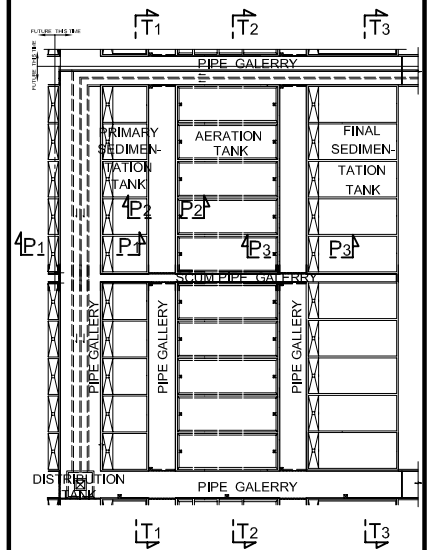
DATE : JUNE 2001 DWG. No. PE-WWTP - 267-02

# WASTEWATER TREATMENT PLANT, BAR ARRANGEMENT (3)

## SECTION T2-T2 (No 1) Scale:1/50



### KEY PLAN



### 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	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  
WASTE WATER TREATMENT PLANT  
BAR ARRANGEMENT  
(No 3)

SCALE : 1/50

JICA JAPAN INTERNATIONAL COOPERATION AGENCY ( JICA )

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED  
KIMURA TORU

CHECKED  
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE-WWTP - 267-03