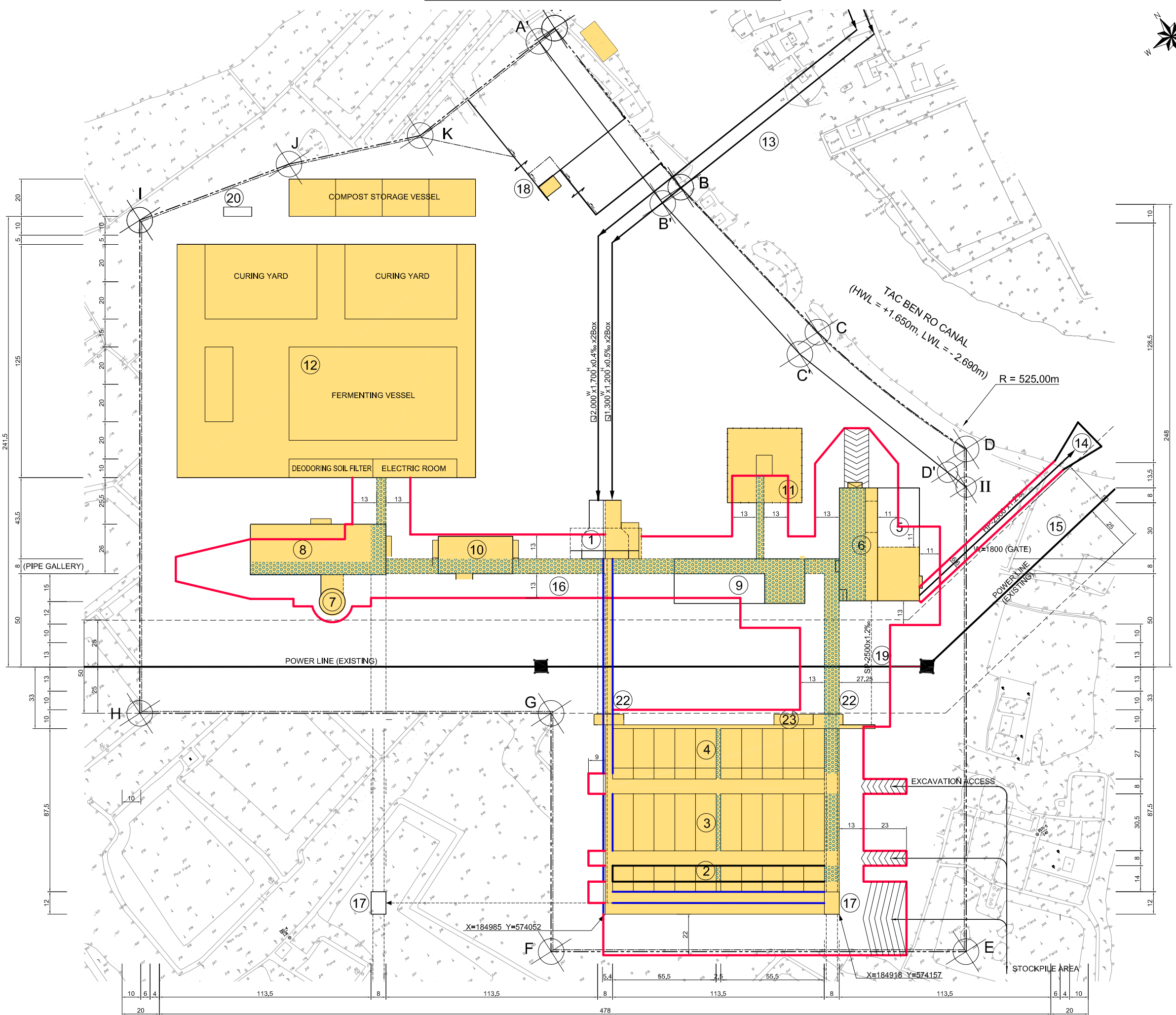


EXCAVATION PROFILE LAYOUT Scale: 1/ 1000



- NOTES:**
- STEEL SHEET PILE -32.00m
 - STEEL SHEET PILE -17.00m
 - STEEL SHEET PILE -10.00m
 - EXCAVATION LIMITATION
 - ▨ TIMBER PILE L=3.0m, Ø 80-100
16 Piles/m² (Soil Improvement)
- 3.50 (PILING LEVEL): THE FIRST EXCAVATION TO BE STOPPED AT THIS LEVEL.
TIMBER PILE IS DRIVEN TO CORREC LEVEL BY USING EXTENSION LEADER AND CONTINUE THE EXCAVATION TO REQUIRED DEPTH

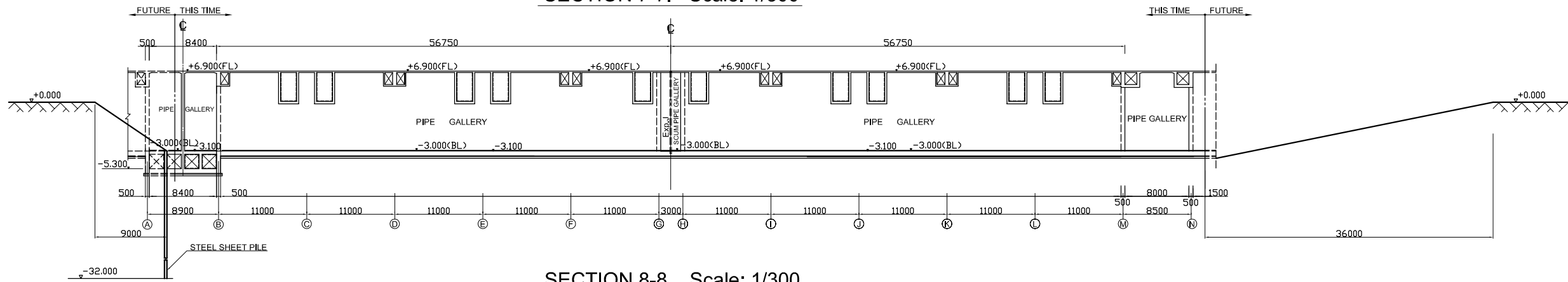
- LEGEND**
- ① LIFT PUMPING STATION
 - ② PRIMARY SEDIMENTATION TANK (5.0m² x13.0m² x3.0m² x160 waterway 80 tank)
 - ③ AERATION TANK (10.5m² x28.0m² x5.5m² x80 tank)
 - ④ FINAL SEDIMENTATION TANK (5.0m² x26.0m² x3.5m² x160 waterway 80 tank)
 - ⑤ DISINFECTION TANK (5.0m² x54.0m² x5.0m² x3 bend 4 waterway 1 tank)
 - ⑥ CHLORINE STORAGE BUILDING
 - ⑦ SAND FILTRATION EFFLUENT TANK, SECONDARY TREATMENT TANK
 - ⑧ GRAVITY THICKENER (14.0m² x3.5m² x4 tank)
 - ⑨ DEWATERING & CENTRIFUGAL THICKENER BUILDING
 - ⑩ BLOWER BUILDING
 - ⑪ MAIN BUILDING (Control Room, Electrical Room, etc.)
 - ⑫ MAIN SUBSTATION
 - ⑬ COMPOST PLANT FACILITY
 - ⑭ INLET PIPE (Ø1,300 x1,200 x0.5% x2Box, Ø2,000 x1,700 x 0.4% x2Box)
 - ⑮ EFFLUENT PIPE (Ø2,500mmx1.2%, HP)
 - ⑯ POWER LINE (EXISTING)
 - ⑰ PIPE GALLERY
 - ⑱ DISTRIBUTION TANK
 - ⑲ GUARD ROOM
 - ⑳ CONNECTION PIPE (Ø2,500mm x1.2%, SP)
 - ㉑ TRUCK SCALE
 - ㉒ JETTY
 - ㉓ STAIRCASE
 - ㉔ WWTP ELECTRICAL ROOM
 - AS : ASPHALT CONCRETE



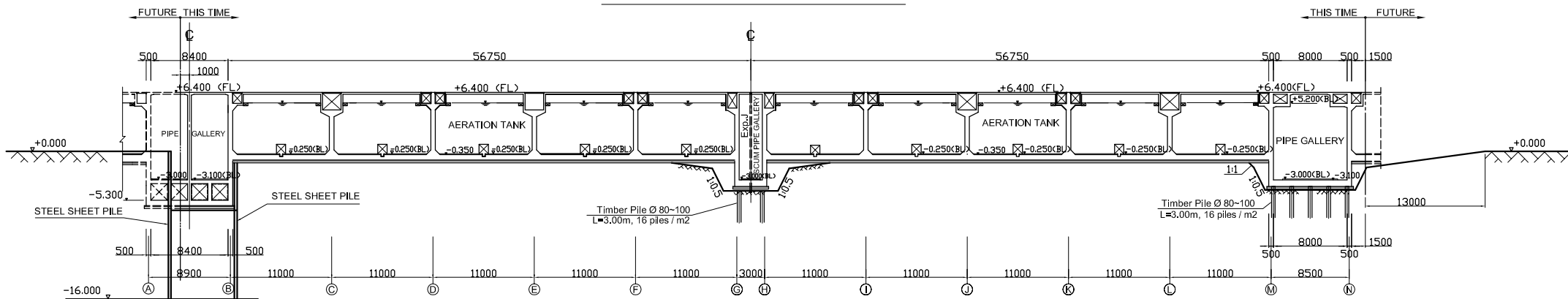
NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN STUDY ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE E WASTEWATER TREATMENT PLANT EXCAVATION PROFILE LAYOUT				
SCALE : 1 / 1000				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KIMURA TORU		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 280 - 01		

EXCAVATION SECTION Scale: 1/300

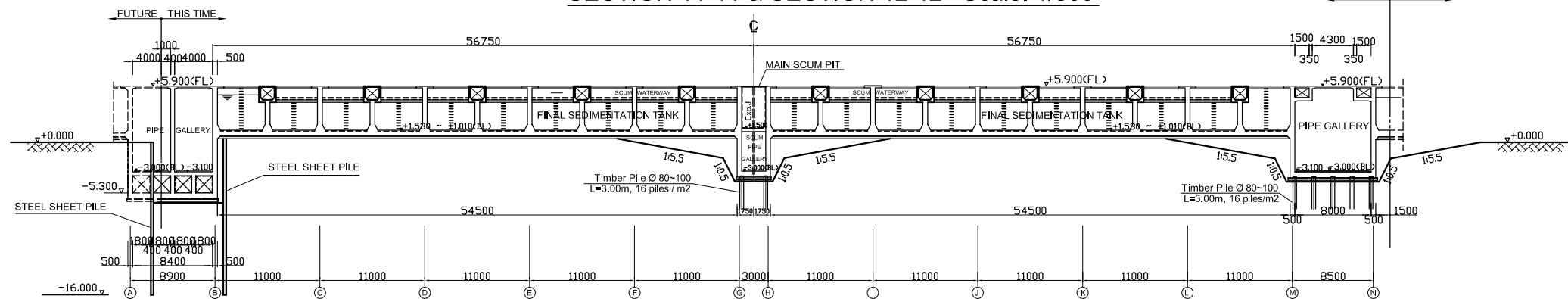
SECTION 7-7. Scale: 1/300



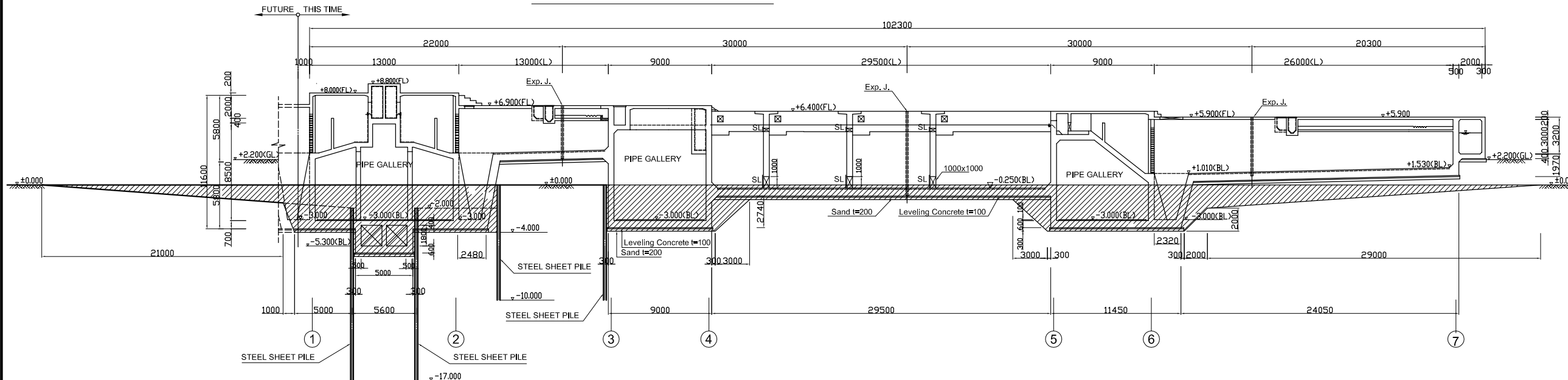
SECTION 8-8. Scale: 1/300



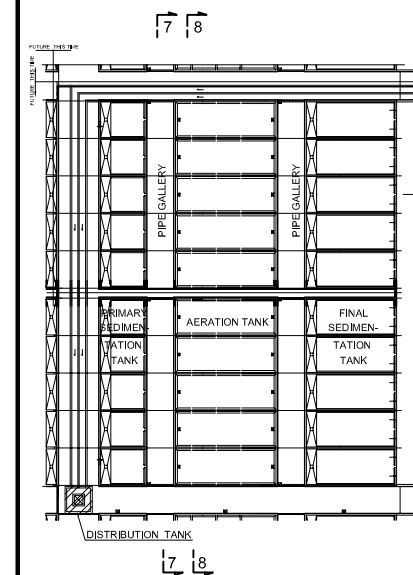
SECTION 11-11 & SECTION 12-12 Scale: 1/300



SECTION 1-1 Scale: 1/200



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
- PILE LOCATION SHOWN ON PILE ARRANGEMENT DWG. No. PE - WWTP - 252 - 01, 02
- DETAILS OF R.C PILE SHOWN ON DWG. No. PE - WWTP - 265 - 01

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

EXCAVATION SECTION OF
WASTEWATER TREATMENT PLANT
SECTION 7-7, 8-8, 11-11, and 12-12.

SCALE: 1/200, 1/300

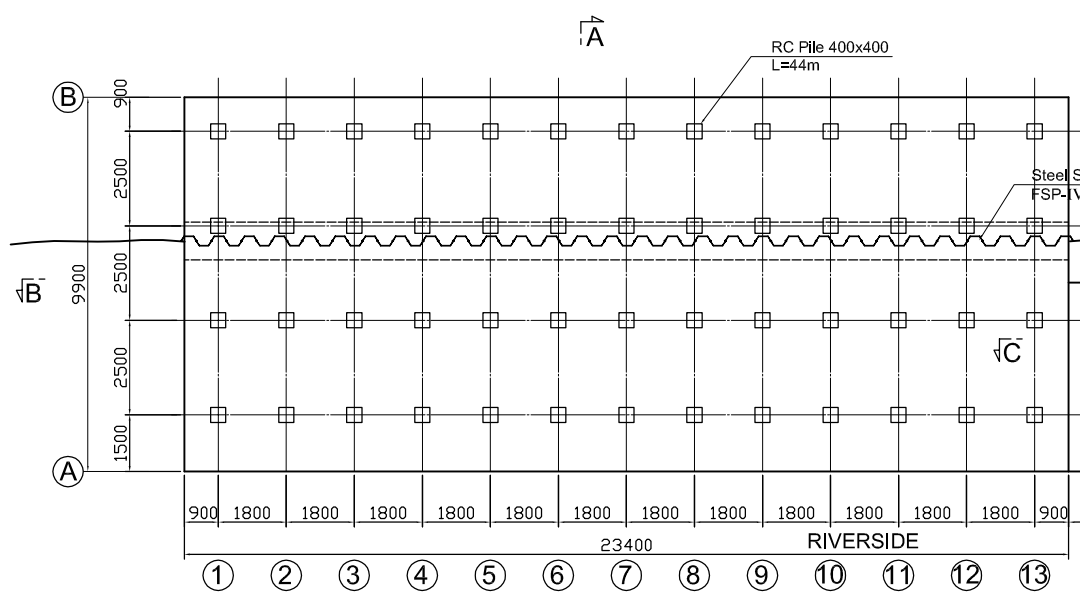
JICA JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

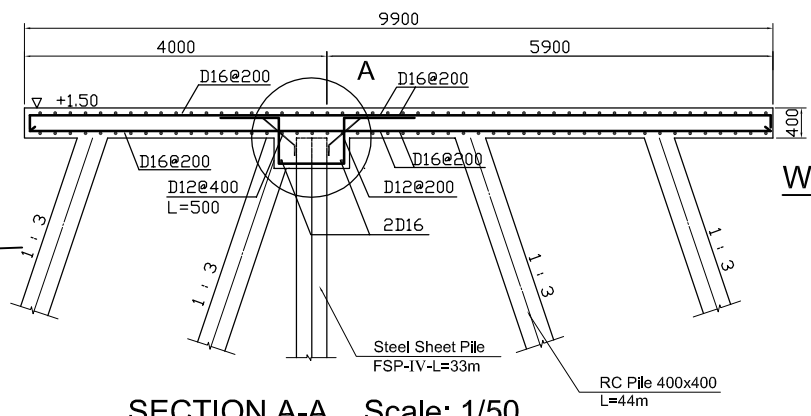
DESIGNED
KIMURA TORU

CHECKED
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE-WWTP - 280 - 02

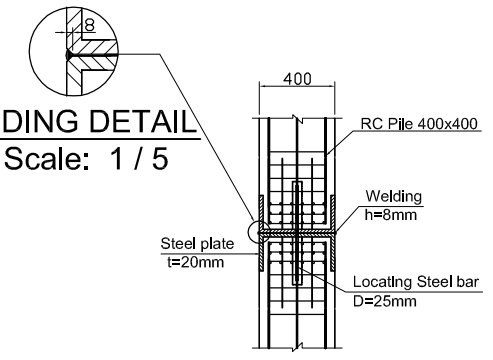


PLAN. Scale: 1/100

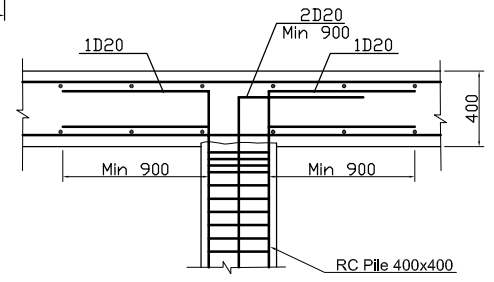


SECTION A-A Scale: 1/50

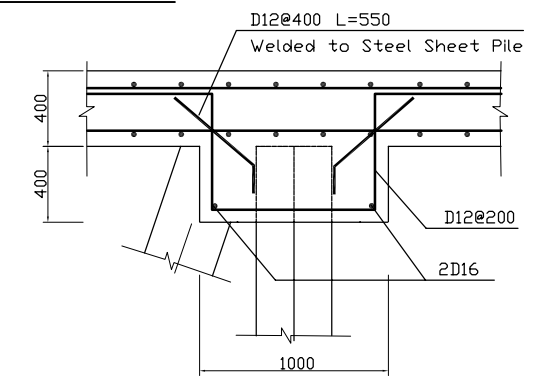
WEIDING DETAIL Scale: 1/5



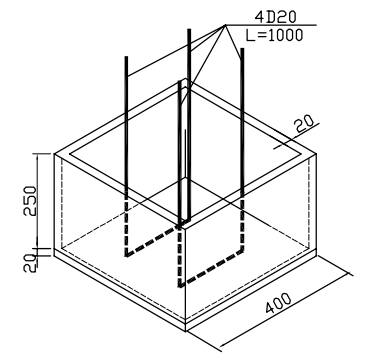
CONNECTION DETAIL Scale: 1/20



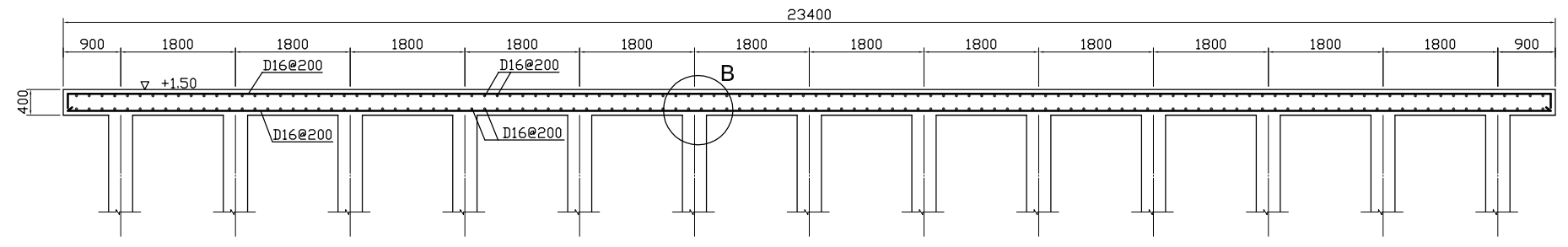
DETAIL B Scale: 1/20



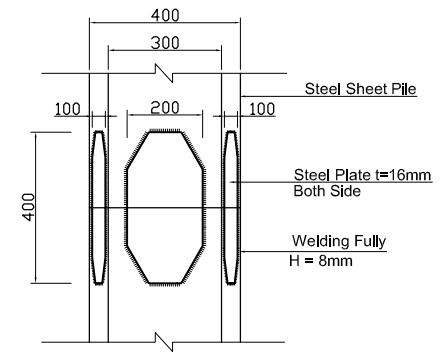
DETAIL A. Scale: 1/20



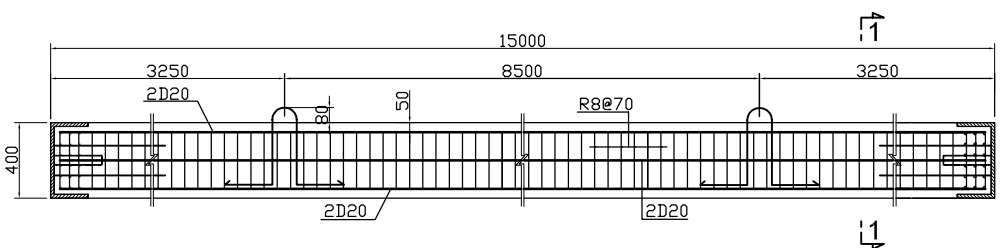
CONNECTION BOX



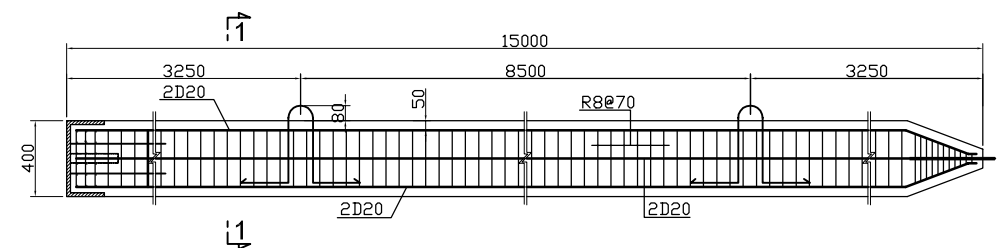
SECTION B-B. Scale: 1/50



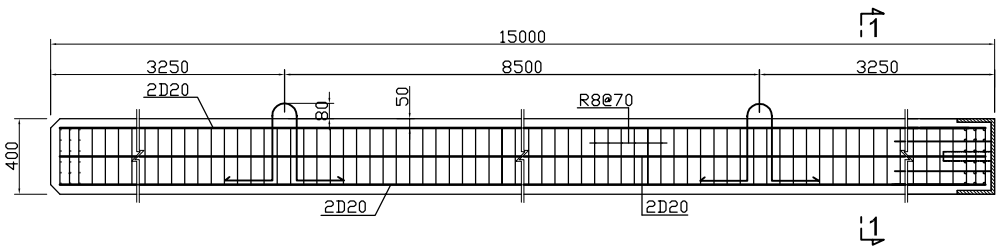
SHEET PILE CONNECTION Scale: 1/10



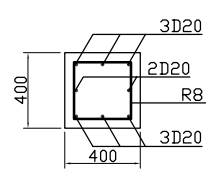
RC PILE - SECTION 2. Scale: 1/20



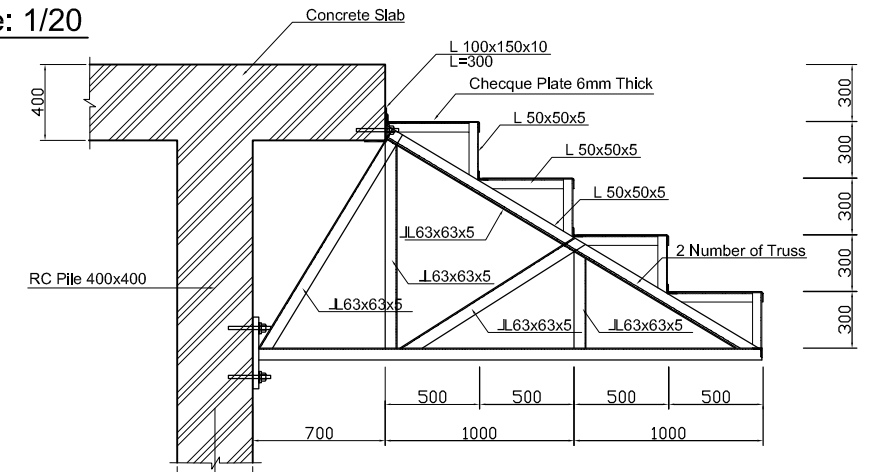
RC PILE - SECTION 1. Scale: 1/20



RC PILE - SECTION 3. Scale: 1/20



SECTION 1-1. Scale: 1/20



SECTION C-C. Scale: 1/20

- NOTES :**
- Concrete Type E
 - Reinforcement Grade 2700kg/cm²
 - RC Pile Bearing Capacity :
 - Pressing : 40T
 - Lifting : 23T
 - Steel Sheet Pile Type FSP-IV-L =33m
 - Concrete Cover 50mm
 - Sheet pile connections to be arranged at different level the distance between two connection of 2 adjacent piles shall not be less than 2m

NO.	DATE	DESCRIPTIONS	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 PLANT
TEMPORARY JETTY
PLAN AND SECTION

SCALE : AS SHOWN

JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED
KIMURA TORU

CHECKED
KONDO MASAMI

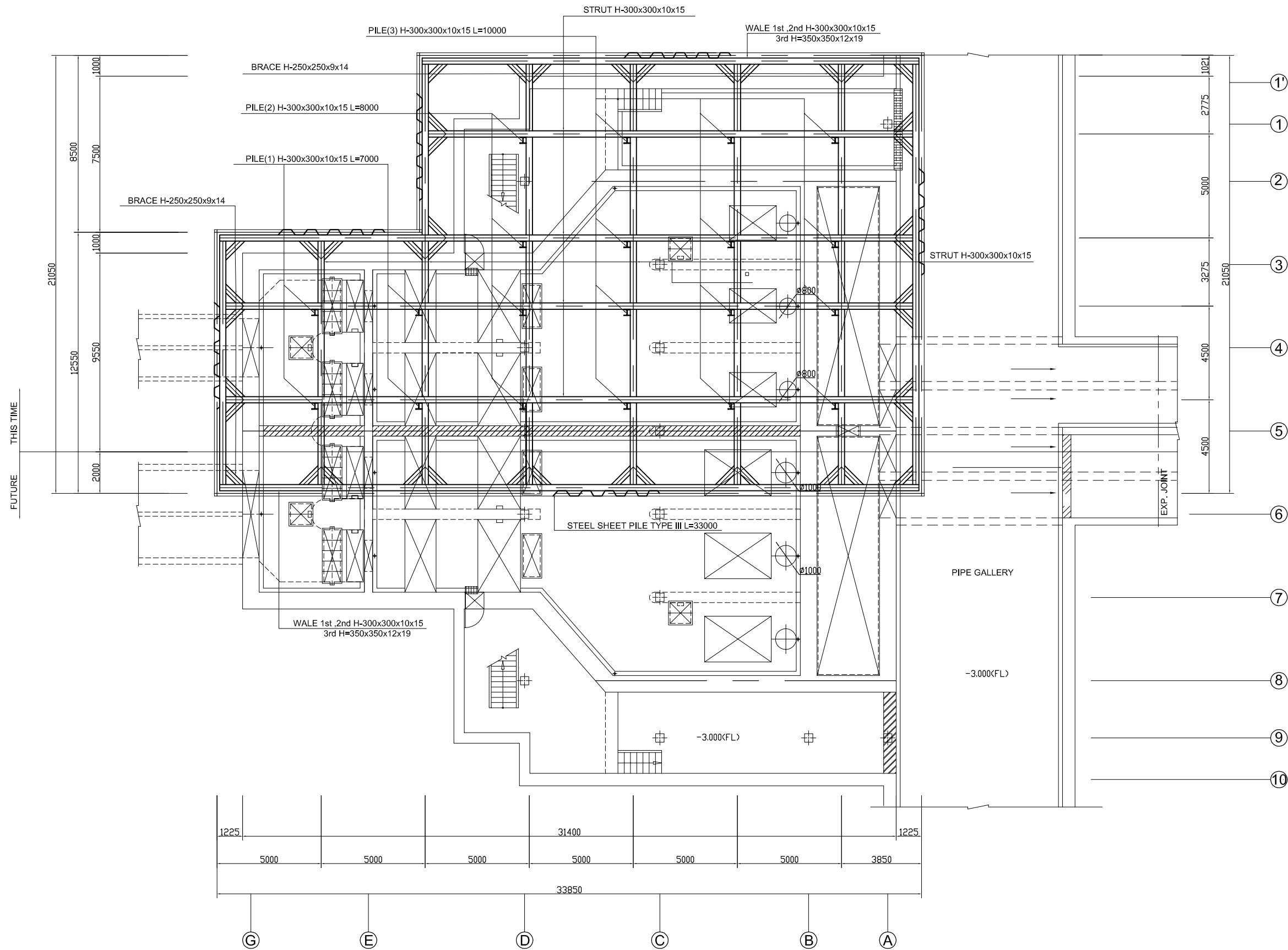
DATE : JUNE 2001

DWG. No. PE-WWTP - 281-01

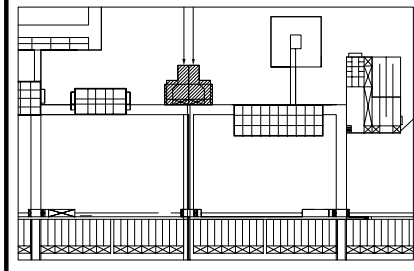
LIFT PUMPING STATION

TEMPORARY EARTH - RETAINING STRUCTURE

PLAN. Scale: 1/100



KEY PLAN



NOTES :

- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- 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
TEMPORARY EARTH - RETAINING STRUCTURE
PLAN

SCALE : 1/100

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

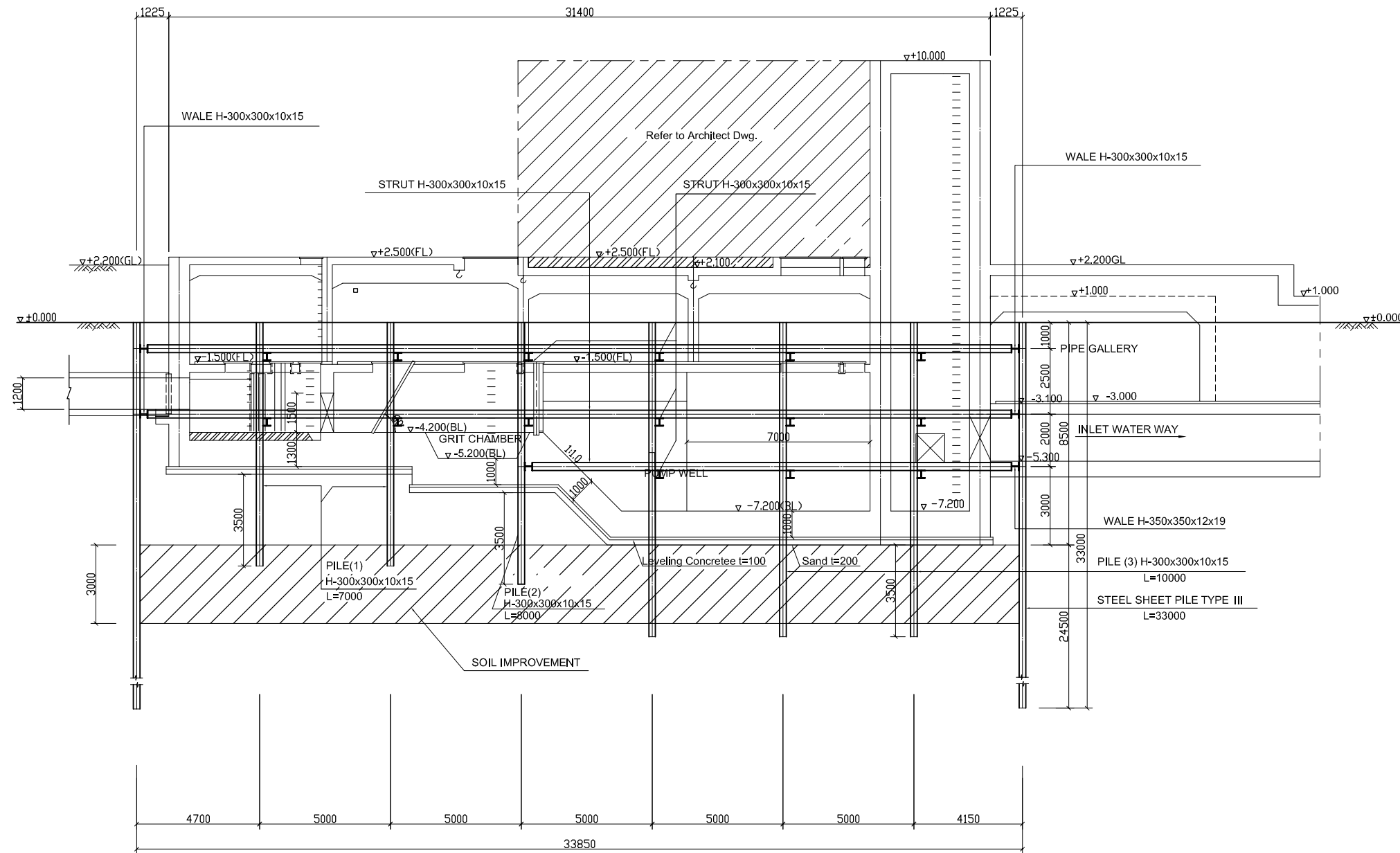
DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
-------------------------	-------------------------

DATE : JUNE 2001 DWG. No. PE - WWTP - 281-02

LIFT PUMPING STATION

TEMPORARY EARTH - RETAINING STRUCTURE (2)

SECTION. Scale: 1/100



NOTES :

- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- THE SPECIFICATION TO BE REFERRED FOR MORE INFORMATION OF MATERIAL GRADES

DATE	DESCRIPTIONS	BY	APRO.

REVISIONS

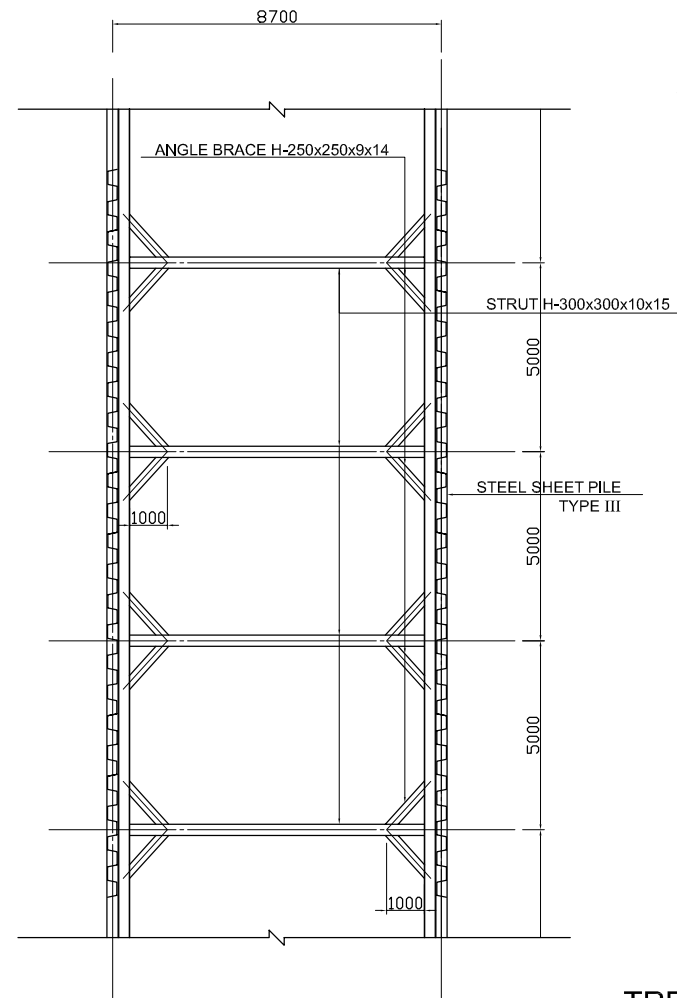
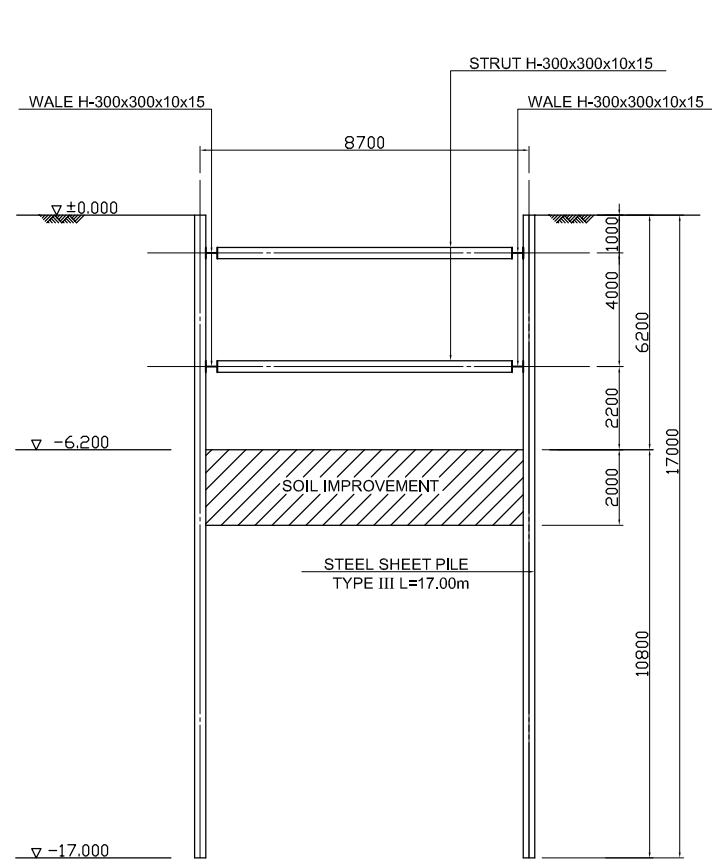
PROJECT MANAGEMENT UNIT FOR
WATER ENVIRONMENT IMPROVEMENT FOR
HO CHI MINH CITY

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

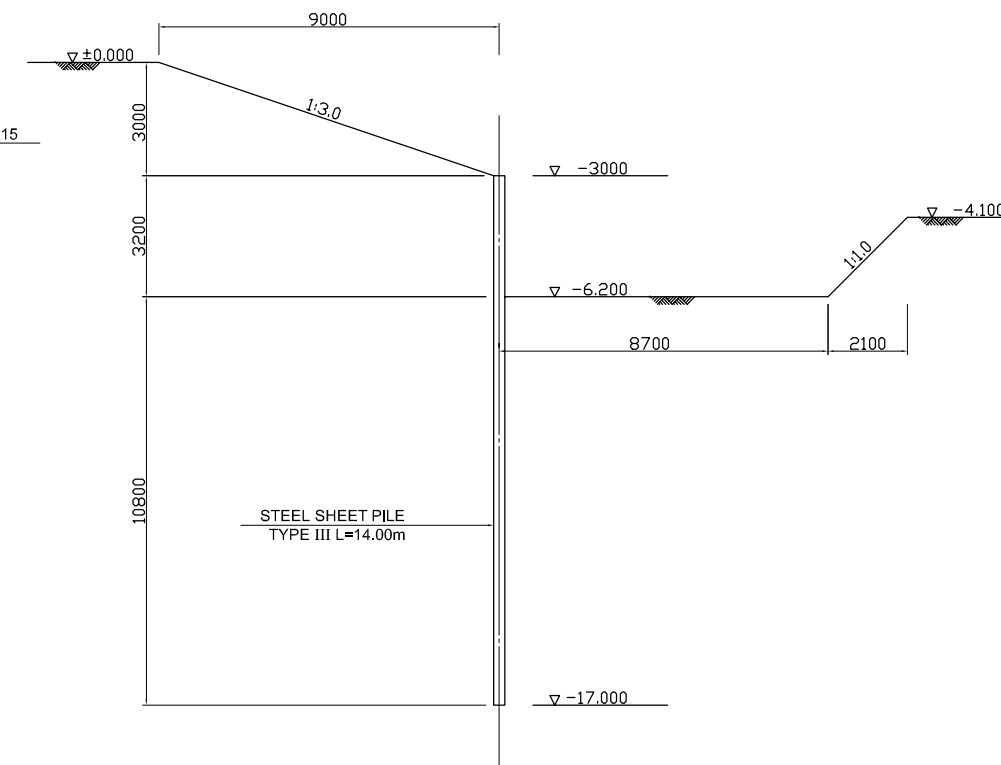
PACKAGE E
WASTEWATER TREATMENT PLANT
LIFT PUMPING STATION
TEPORARY EARTH - RETAINING STRUCTURE
(SECTION)

SCALE : 1/100	
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)	
PACIFIC CONSULTANTS INTERNATIONAL	
DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
DATE : JUNE 2001	DWG. No. PE - WWTP -281-03

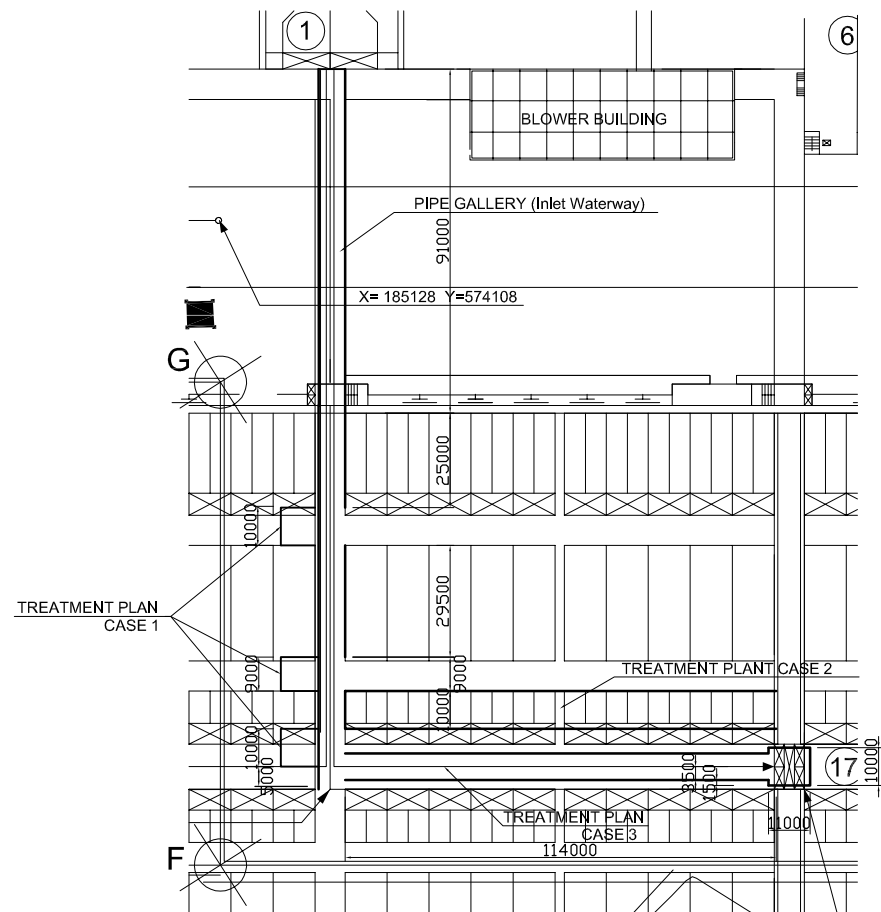
PIPE GALLERY (INLET WATERWAY) TEMPORARY WORK. Scale: 1/100



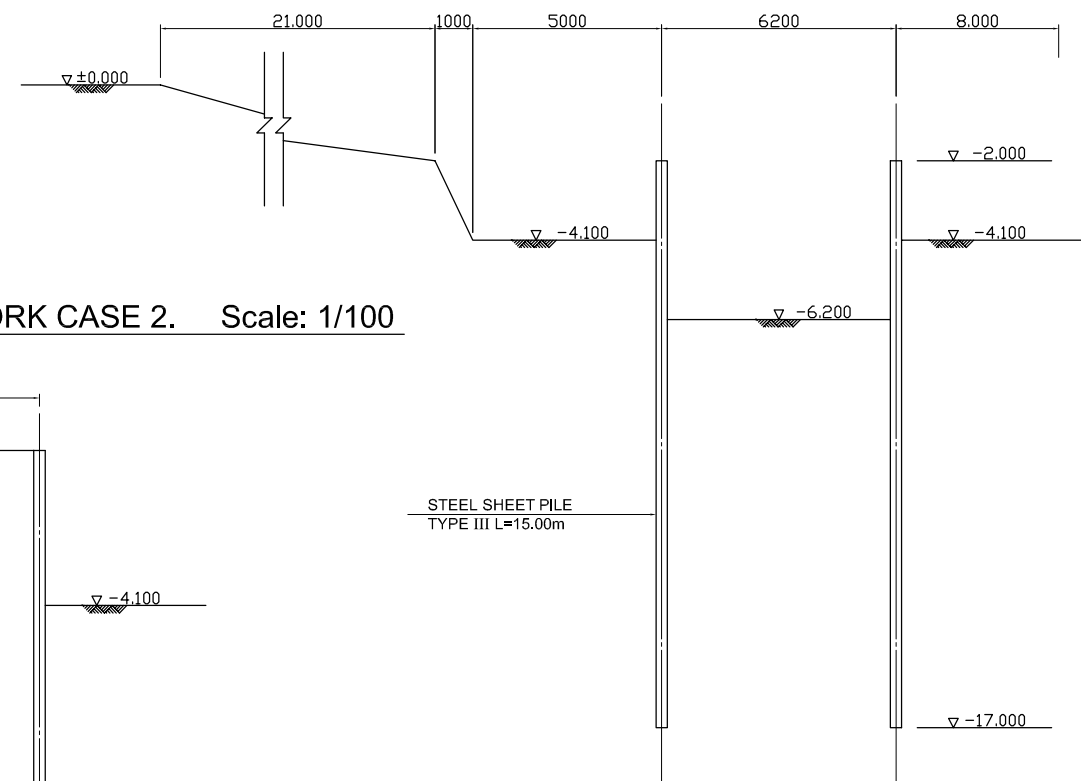
TREATMENT PLANT TEMPORARY WORK CASE 1. Scale: 1/100



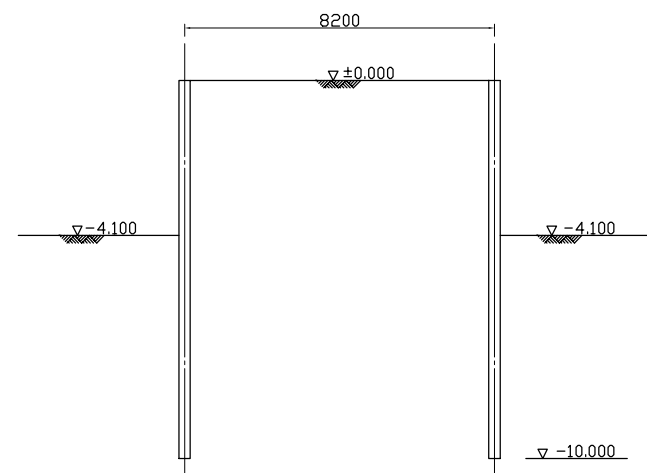
TEMPORARY EARTH-RETAINING STRUCTURE PLAN. Scale: 1/1000



TREATMENT PLANT TEMPORARY WORK CASE 3. Scale: 1/100



TREATMENT PLANT TEMPORARY WORK CASE 2. Scale: 1/100



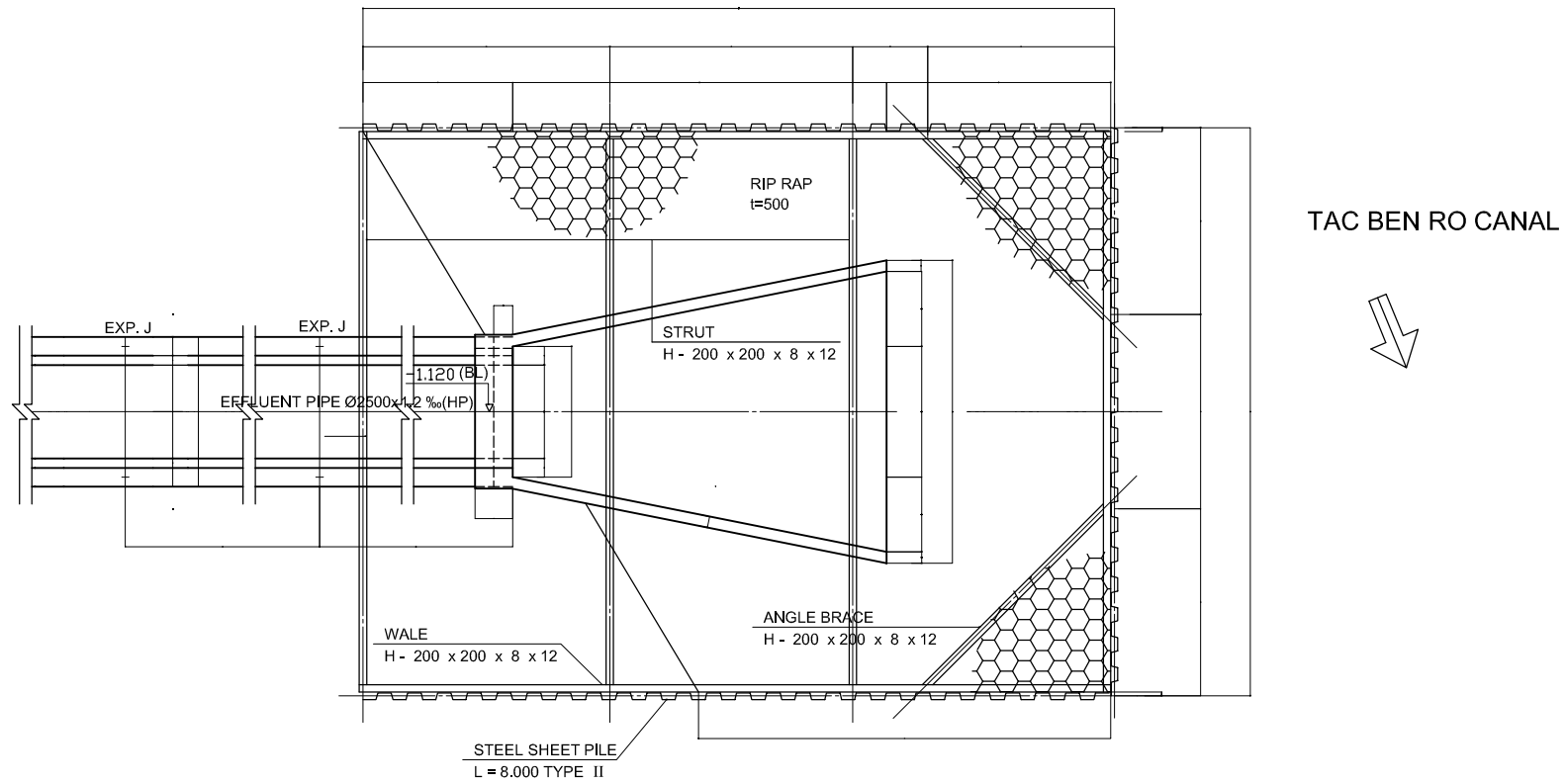
NOTES :

- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- THE SPECIFICATION TO BE REFERRED FOR MORE INFORMATION OF MATERIAL GRADES

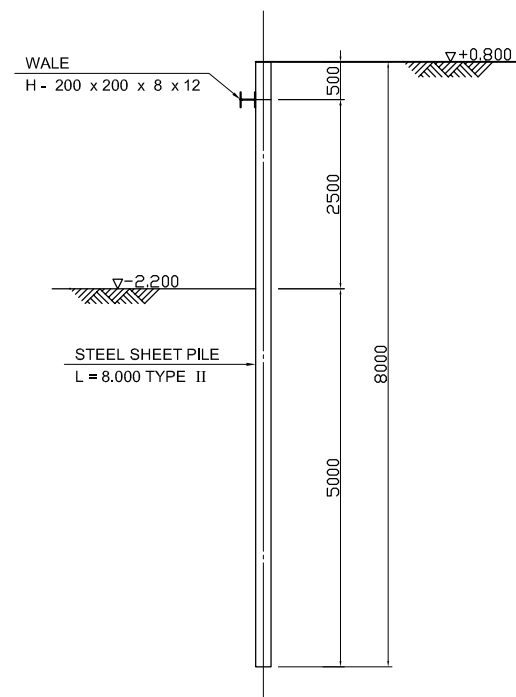
NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE E WASTEWATER TREATMENT PLANT TEMPORARY EARTH-RETAINING STRUCTURE PLAN and SECTIONS				
SCALE : 1/100, 1/1000				
JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KIMURA TORU		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 281 -04		

EFFLUENT PIPE

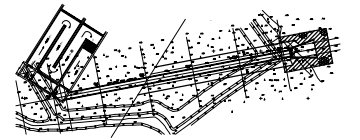
TEMPORARY EARTH - RETAINING STRUCTURE. Scale: 1/100



SECTION OF TEMPORARY WORK. Scale: 1/50



KEY PLAN



NOTES :

- ALL DIMENSIONS ARE MM UNLESS STATED OTHERWISE
- 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 ON HO CHI MINH CITY
WATER ENVIRONMENT IMPROVEMENT PROJECT
IN THE SOCIALIST REPUBLIC OF VIET NAM

PACKAGE E
WASTEWATER TREATMENT PLANT
EFFLUENT PIPE
TEMPORARY EARTH - RETAINING
STRUCTURE

SCALE : 1/50, 1/100

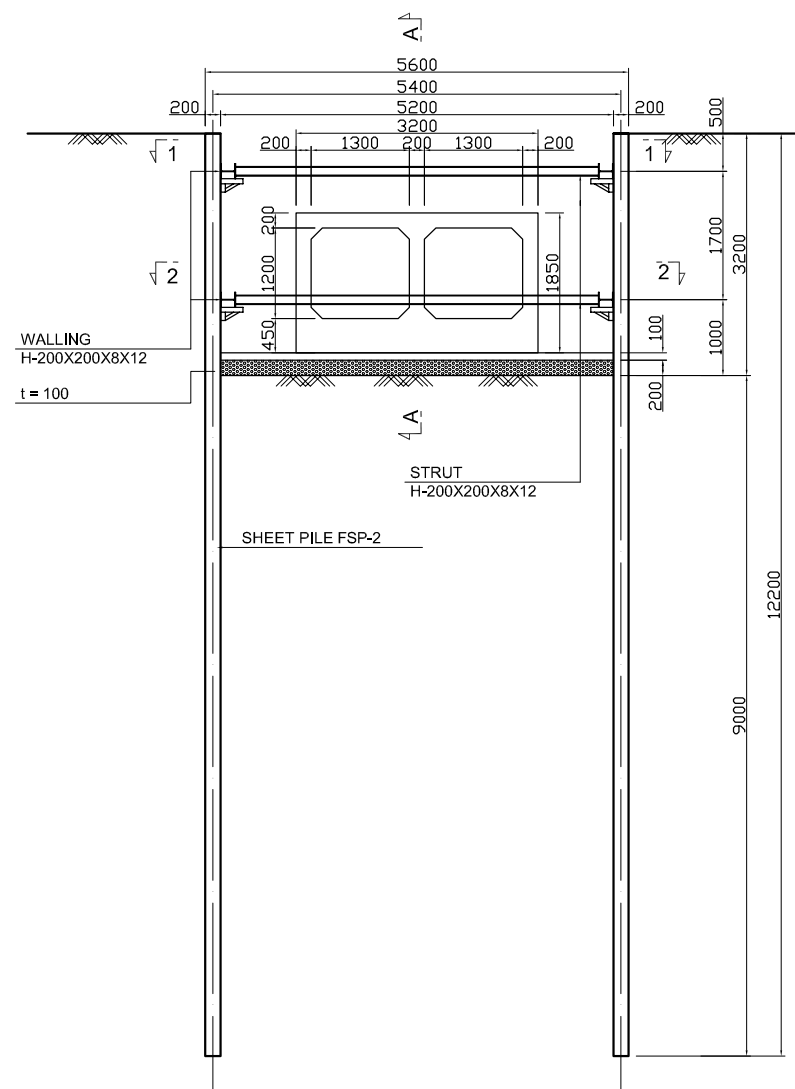
JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

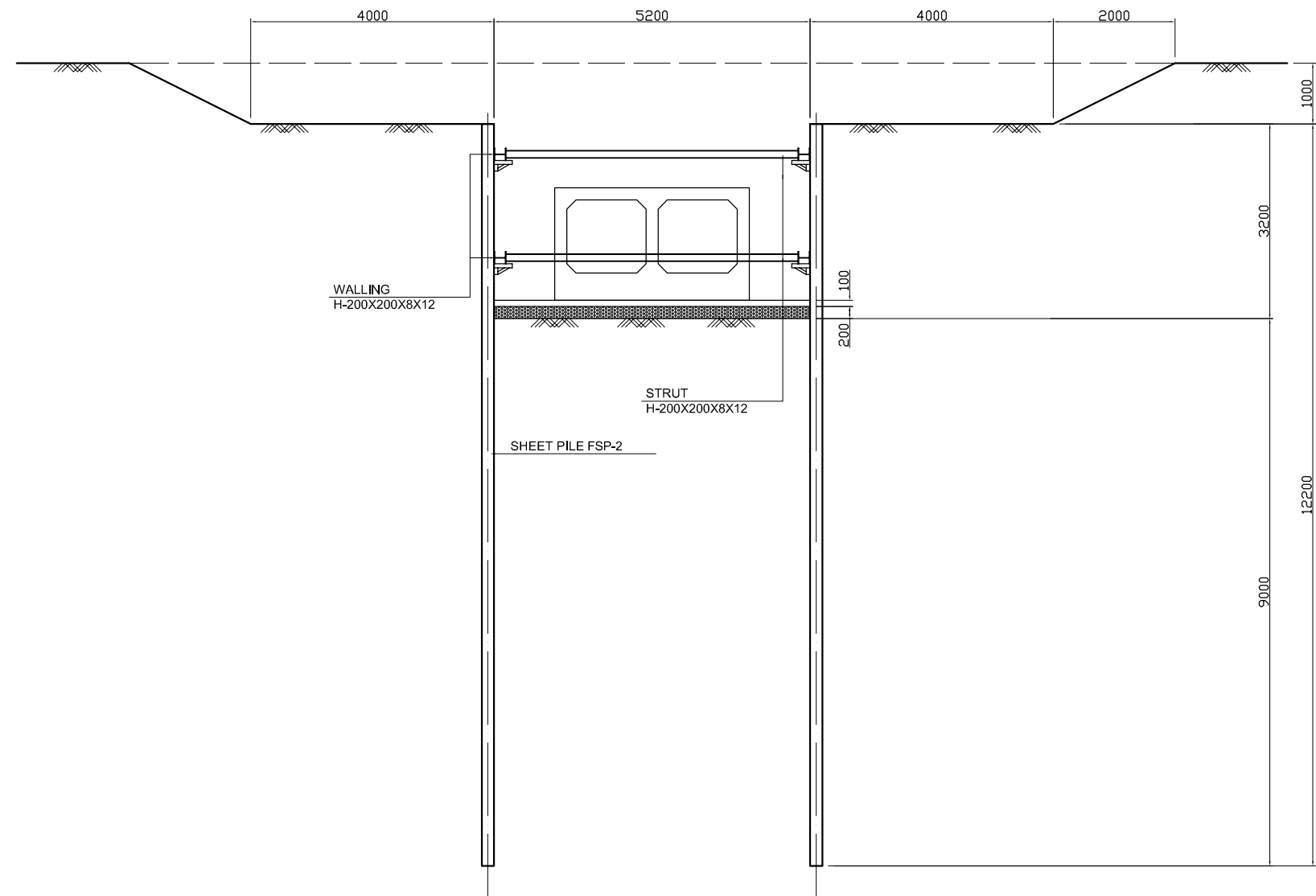
DESIGNED KIMURA TORU CHECKED KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE - WWTP - 281 - 05

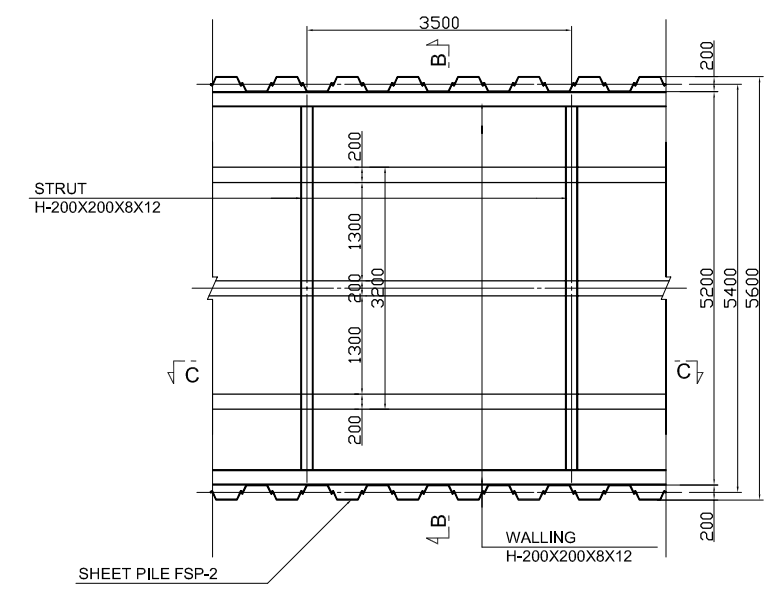
SHEET PILE SECTION. Scale: 1/50
LINE NUMBER CM17 ~ CM38, CM39 ~ CM42



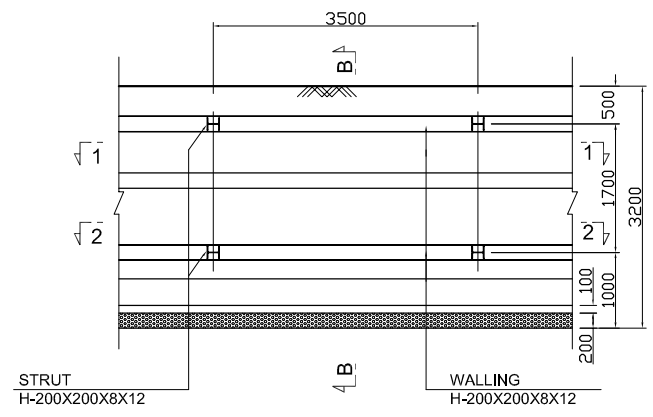
SECTION B-B. Scale: 1/50
LINE NUMBER CM17 ~ CM25
CM39 ~ CM42



SECTION B-B. Scale: 1/50
LINE NUMBER CM26 ~ CM38



SECTION 1-1, 2-2. Scale: 1/50



SECTION A-A. Scale: 1/50

NO.	DATE	DESCRIPTIONS	BY	APRO.
A	04/JAN	DETAIL CHANGED		

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
 CONVEYANCE SEWER CONSTRUCTION
 TEMPORARY STRUCTURE OF
 SHEET PILE
 (REFERENCE)

SCALE : 1/50

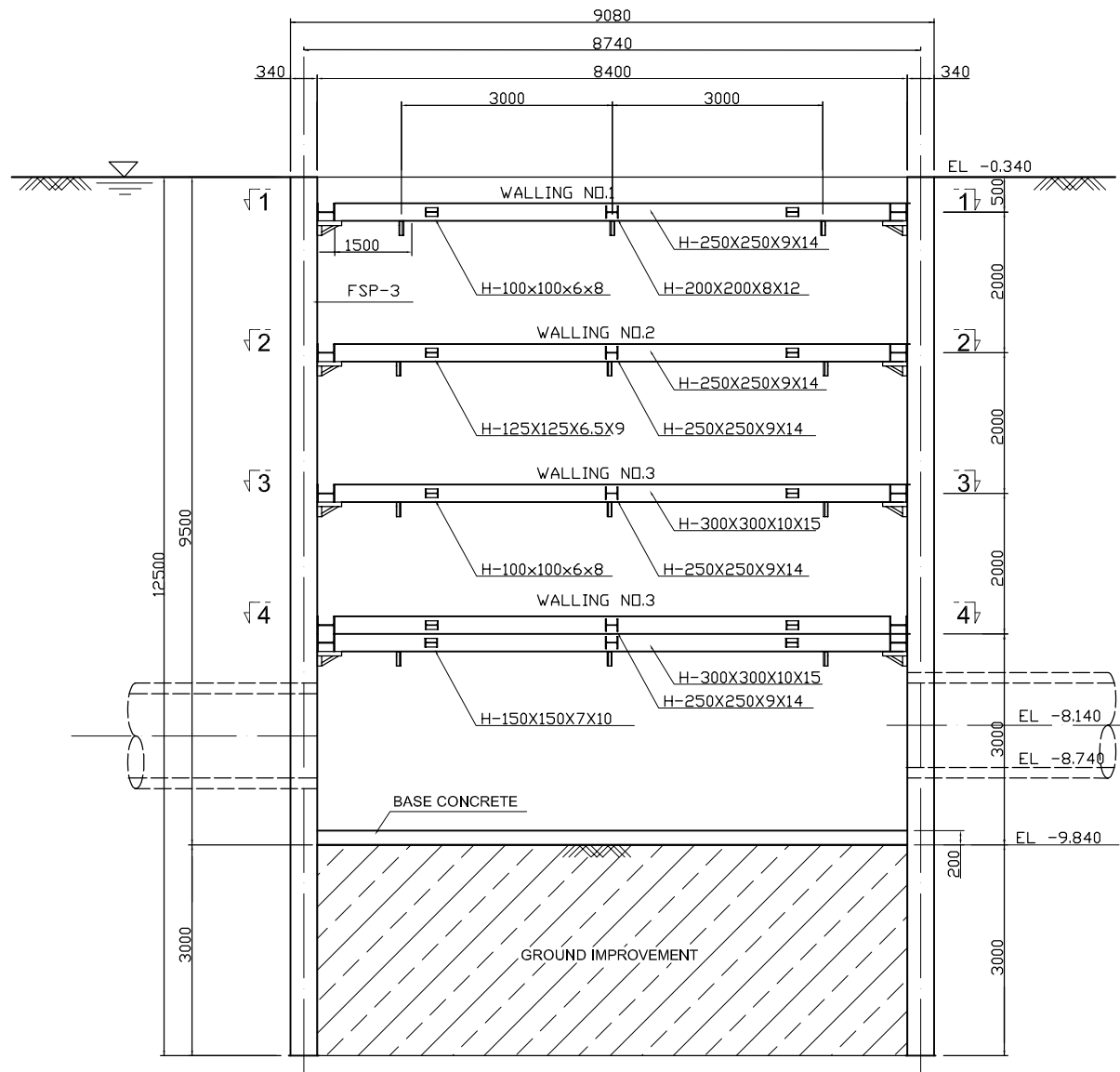
JICA JAPAN INTERNATIONAL COOPERATION
 AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

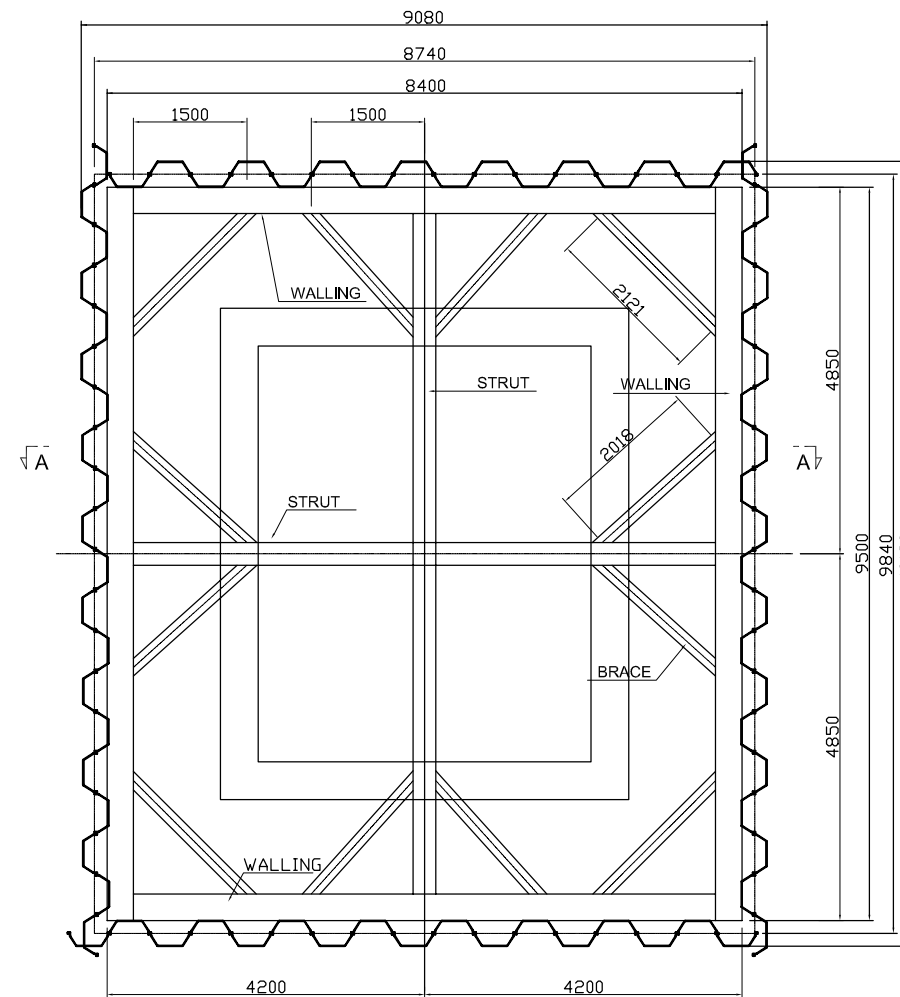
DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PE - WWTP - 282 -01

SHAFT FOR PIPE JACKING CONVEYANCE SEWER



SECTION A-A. Scale: 1/100



SECTION 1-1~4-4. Scale: 1/100

NO.	DATE	DESCRIPTIONS	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
CONVEYANCE SEWER CONSTRUCTION

TEMPORARY STRUCTURE OF
SHAFT FOR PIPE JACKING
(REFERENCE)

SCALE : 1/50

JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED KIMURA TORU	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PE - WWTP - 282 - 02