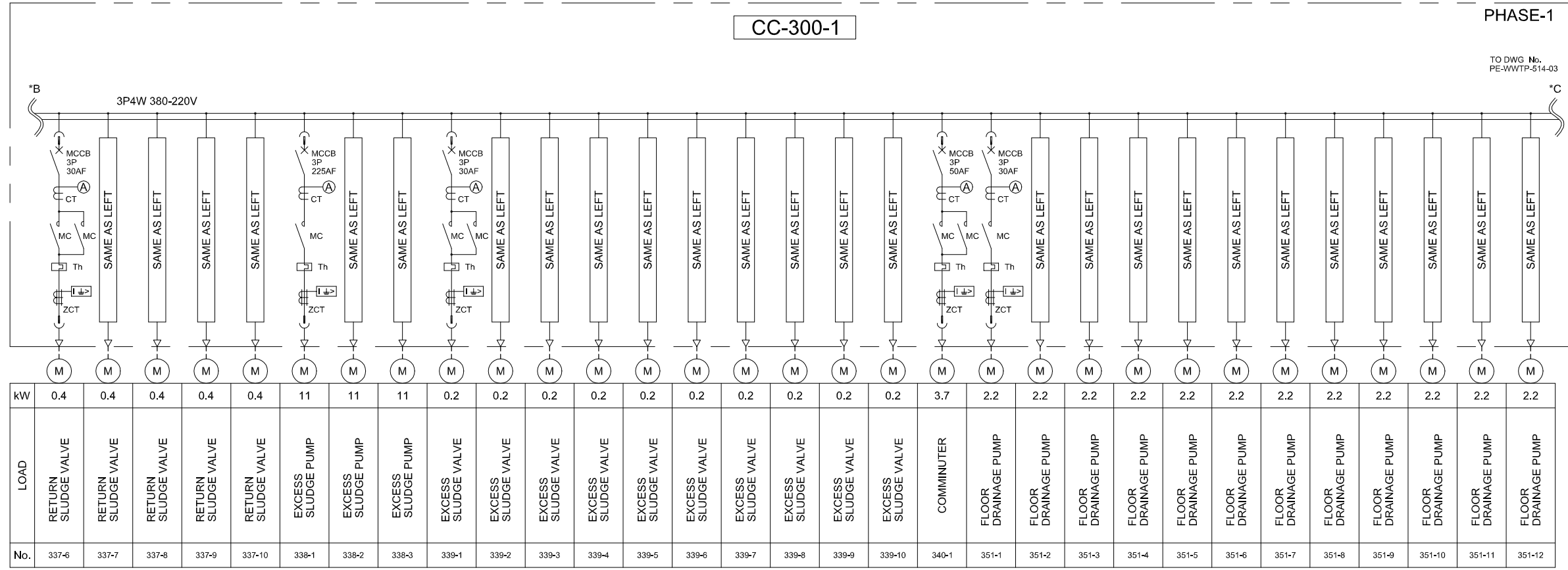
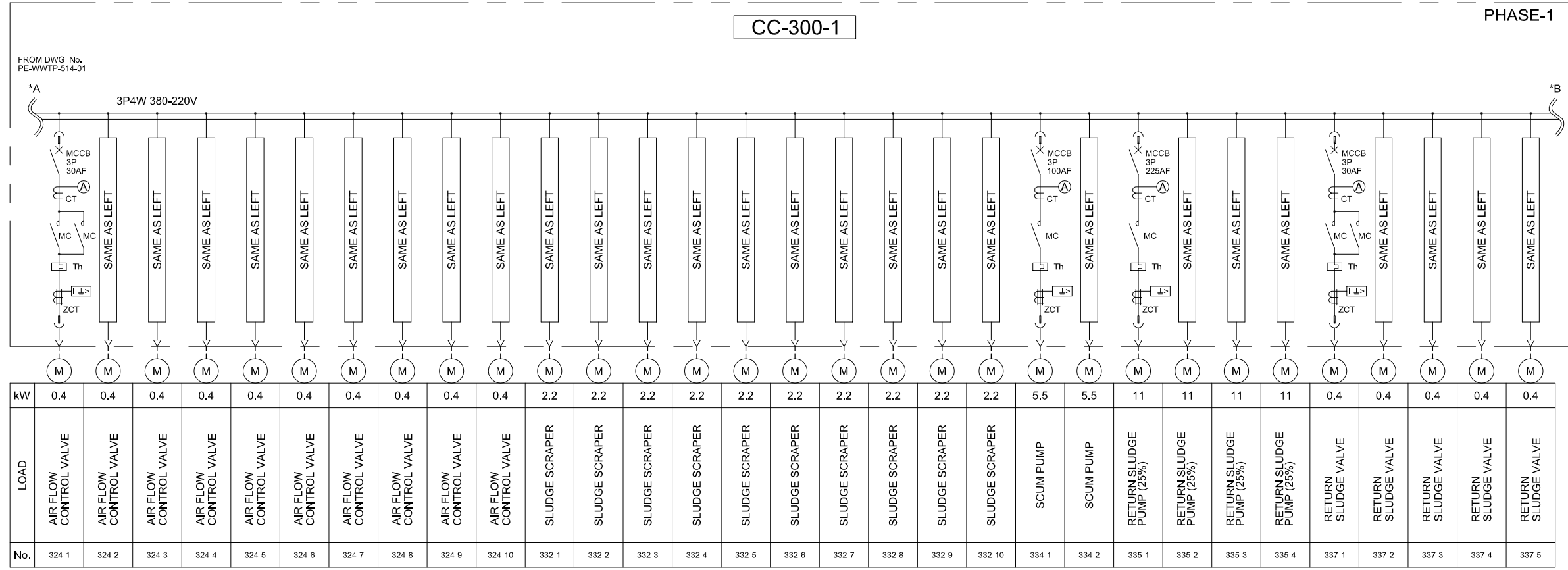


NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE E WASTEWATER TREATMENT PLANT SINGLE LINE DIAGRAM FOR WASTEWATER TREATMENT ELECTRIC ROOM (1/4)				
SCALE : N.T.S				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KOMIYA NOBUO		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 514-01		

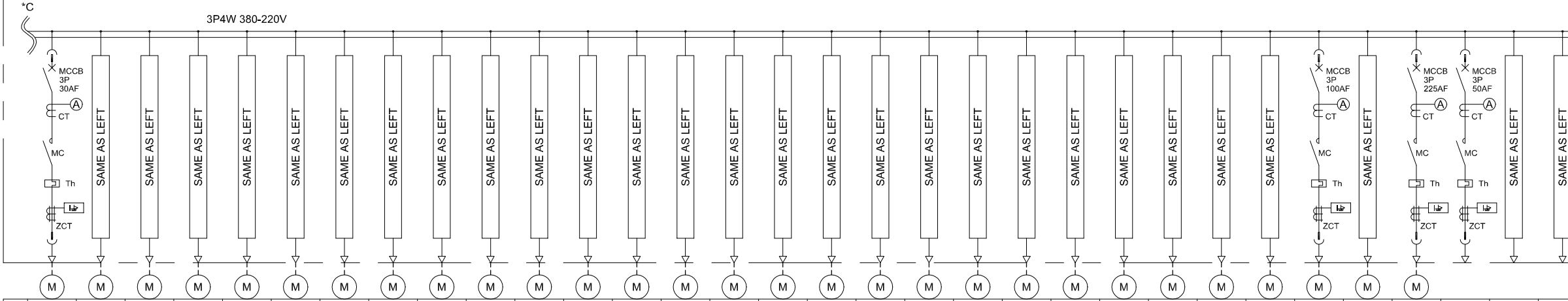


NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE E WASTEWATER TREATMENT PLANT SINGLE LINE DIAGRAM FOR WASTEWATER TREATMENT ELECTRIC ROOM (2/4)				
SCALE : N.T.S				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KOMIYA NOBUO		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 514-02		

CC-300-1

PHASE-1

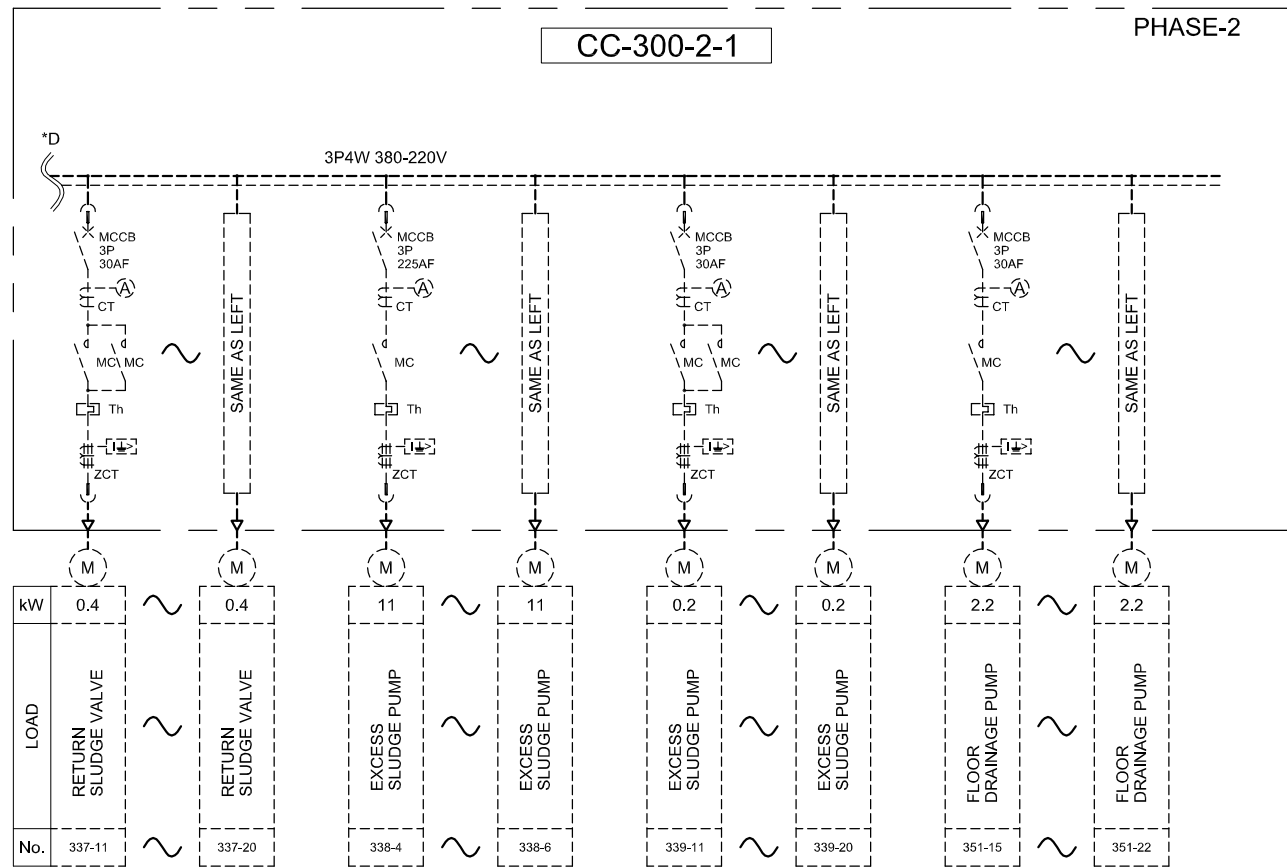
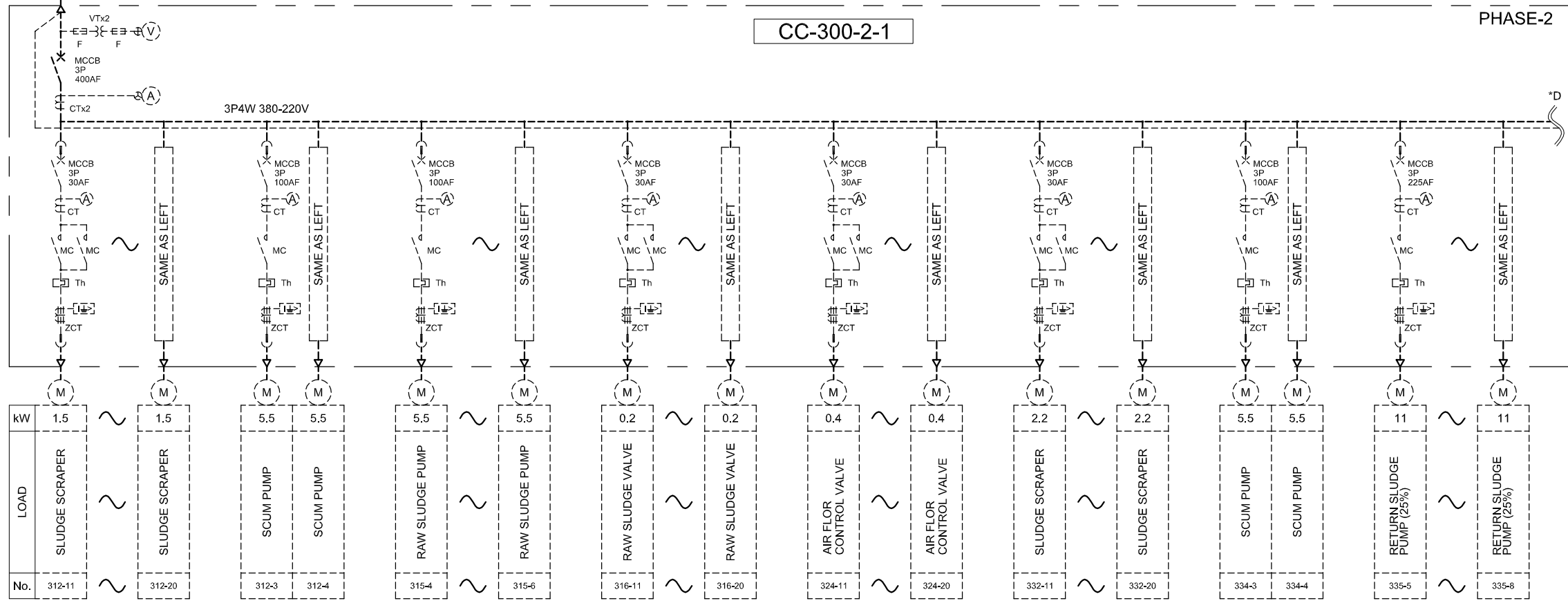
FROM DWG No.
PE-WWTP-514-02



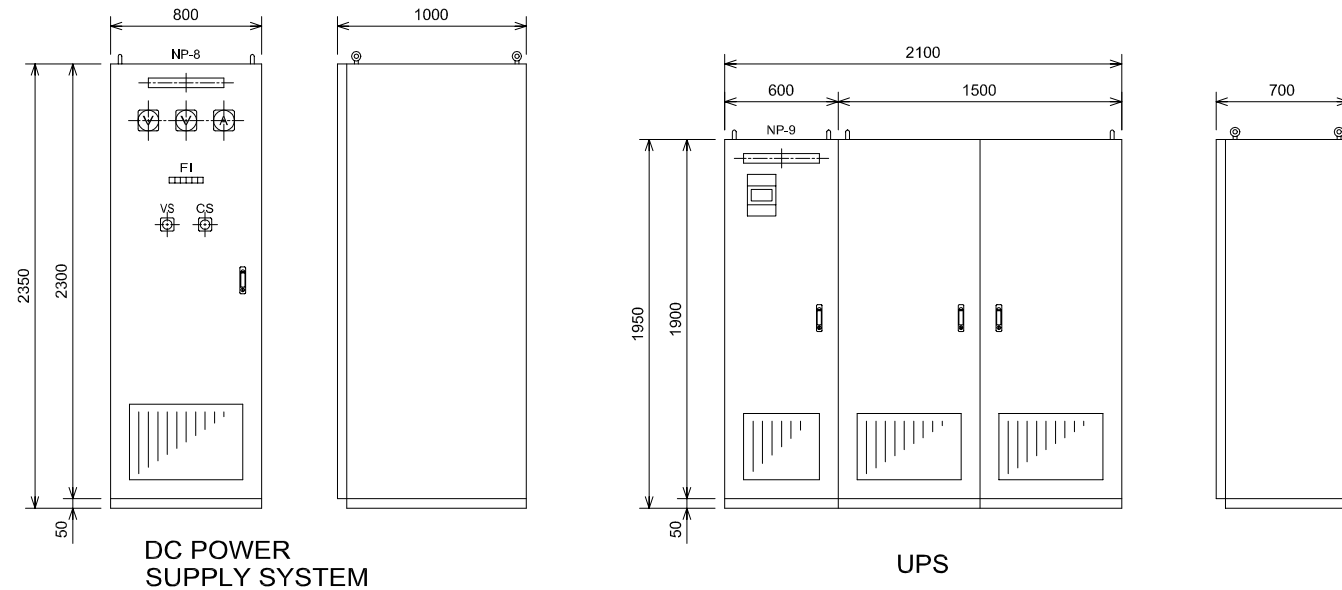
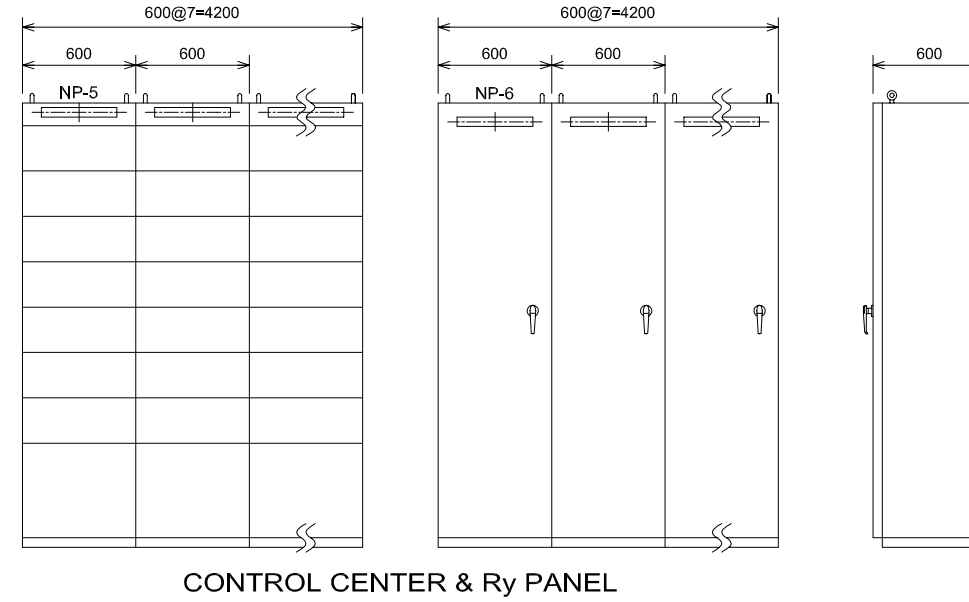
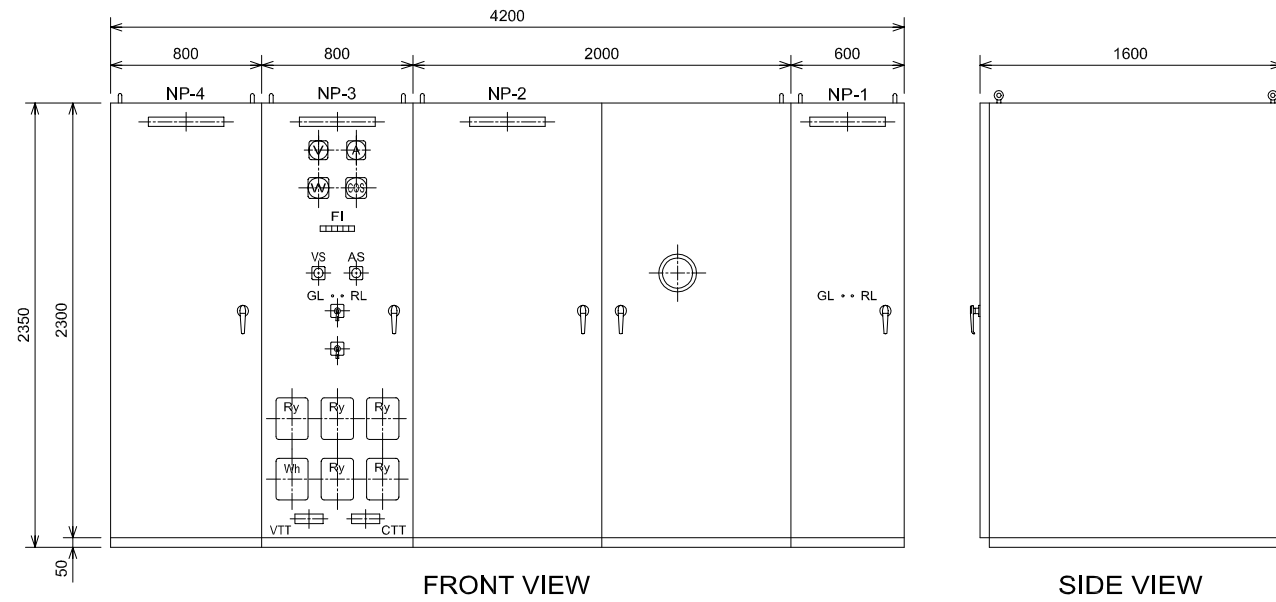
No.	LOAD	kW
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351-14	FLOOR DRAINAGE PUMP	2.2
801-1	VENTILATION FAN	0.4
801-2	VENTILATION FAN	0.4
801-3	VENTILATION FAN	0.4
801-4	VENTILATION FAN	0.4
802-1	VENTILATION FAN	0.4
802-2	VENTILATION FAN	0.4
802-3	VENTILATION FAN	0.4
802-4	VENTILATION FAN	0.4
803-1	VENTILATION FAN	0.4
803-2	VENTILATION FAN	0.4
803-3	VENTILATION FAN	0.4
804-1	VENTILATION FAN	0.4
804-2	VENTILATION FAN	0.4
804-3	VENTILATION FAN	0.4
805-1	VENTILATION FAN	0.3
805-2	VENTILATION FAN	0.3
805-3	VENTILATION FAN	0.3
805-4	VENTILATION FAN	0.3
806-1	VENTILATION FAN	0.3
806-2	VENTILATION FAN	0.3
806-3	VENTILATION FAN	0.3
806-4	VENTILATION FAN	0.3
807-1	VENTILATION FAN	0.3
808-1	VENTILATION FAN	0.3
809-1	VENTILATION FAN	7.5
809-2	VENTILATION FAN	7.5
810-1	VENTILATION FAN	15
	SPARE	
	SPARE	
	SPARE	

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 SINGLE LINE DIAGRAM FOR WASTEWATER TREATMENT ELECTRIC ROOM (3/4)				
SCALE : N.T.S				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KOMIYA NOBUO		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 514-03		

FROM
A.C. DISTRIBUTION PANEL
CC-300-2-1
3P4W 380-220V 50Hz



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 SINGLE LINE DIAGRAM FOR WASTEWATER TREATMENT ELECTRIC ROOM (4/4)				
SCALE : N.T.S				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KOMIYA NOBUO		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 514-04		



NAME PLATE(NP)

No.	DESCRIPTION
NP-1	3.3kV INCOMING PANEL
NP-2	750kVA TR PANEL
NP-3	LOW VOLTAGE SWG
NP-4	AC DISTRIBUTION PANEL
NP-5	CC-300-1
NP-6	Ry PANEL-1
NP-7	DC POWER SUPPLY SYSTEM
NP-8	UPS

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

**OUTLINE DIMENSION OF SWITCHGEARS
FOR WASTEWATER TREATMENT
ELECTRIC ROOM**

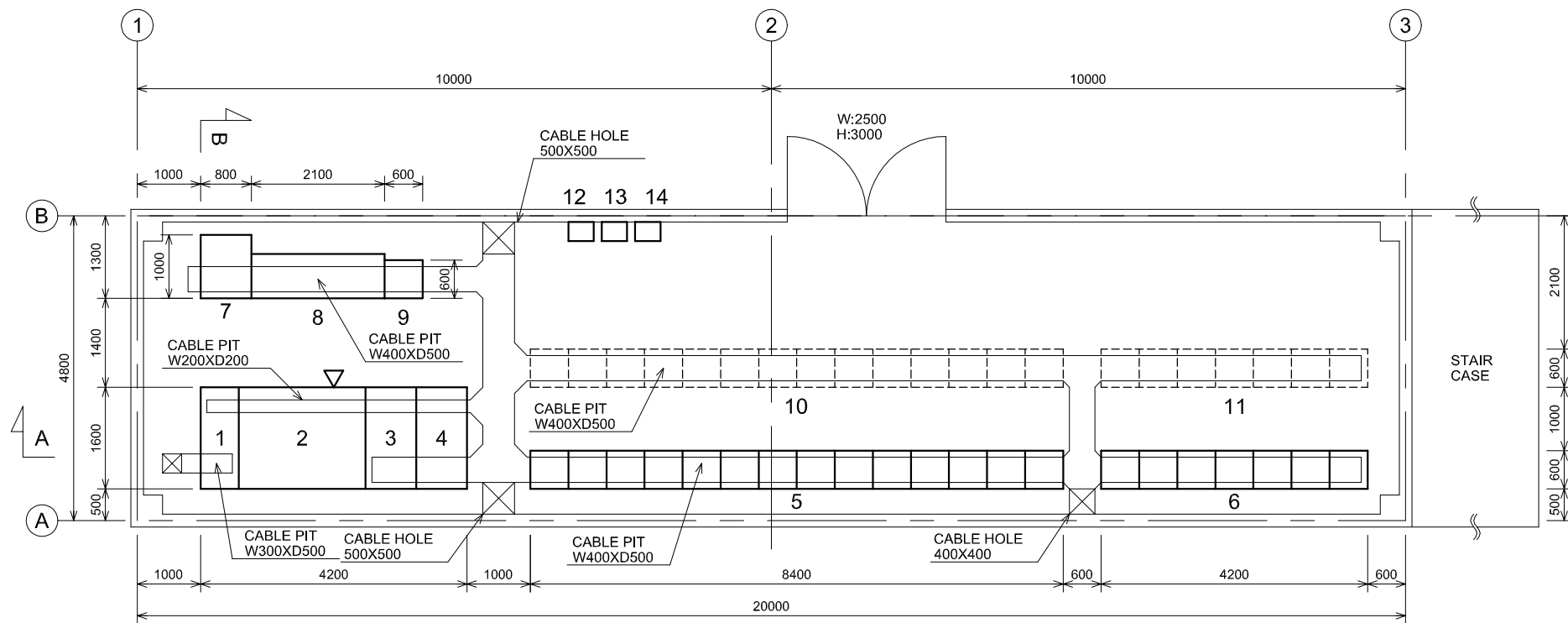
SCALE : 1/20

JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

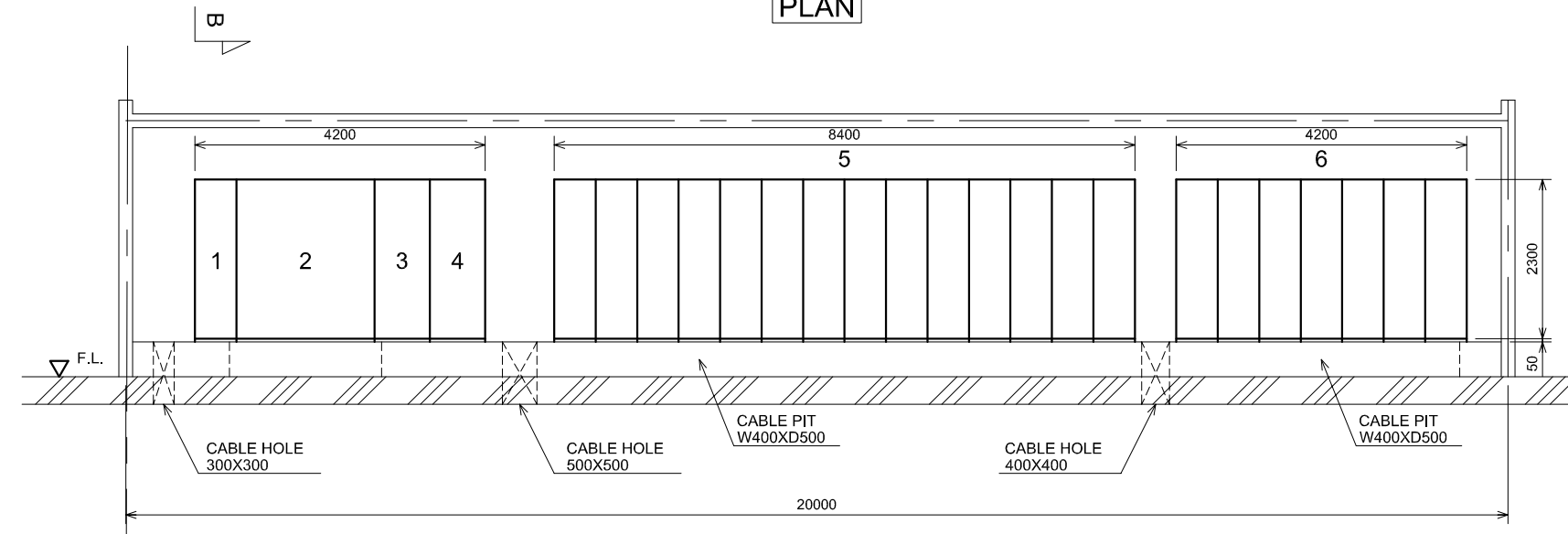
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED KOMIYA NOBUO	CHECKED KONDO MASAMI
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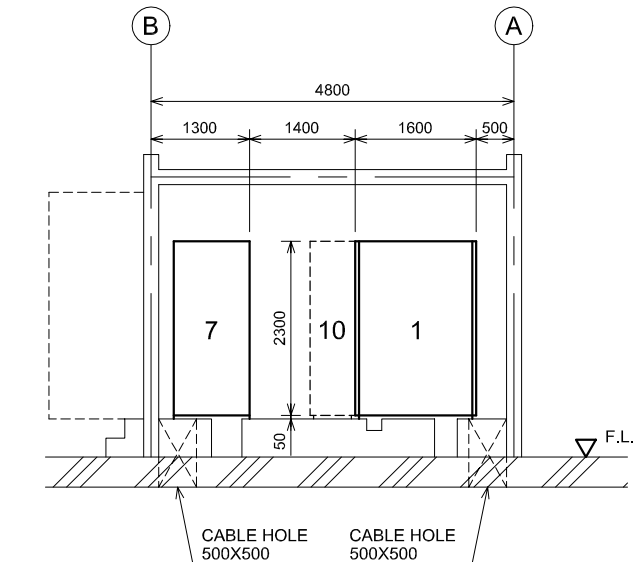
DATE : JUNE 2001 DWG. No. PE - WWTP - 515



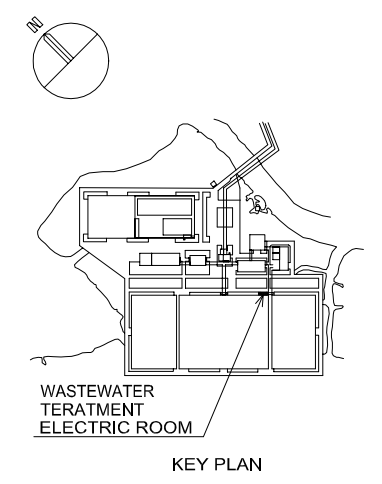
PLAN



A-A SECTION



B-B SECTION

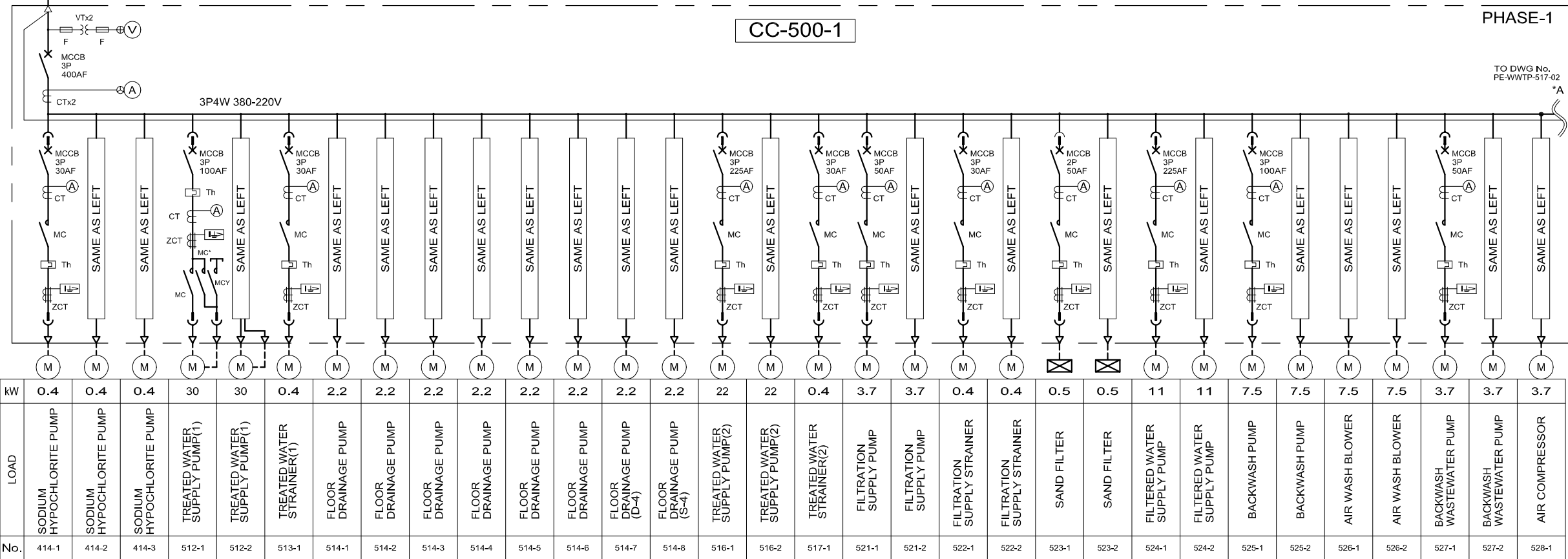
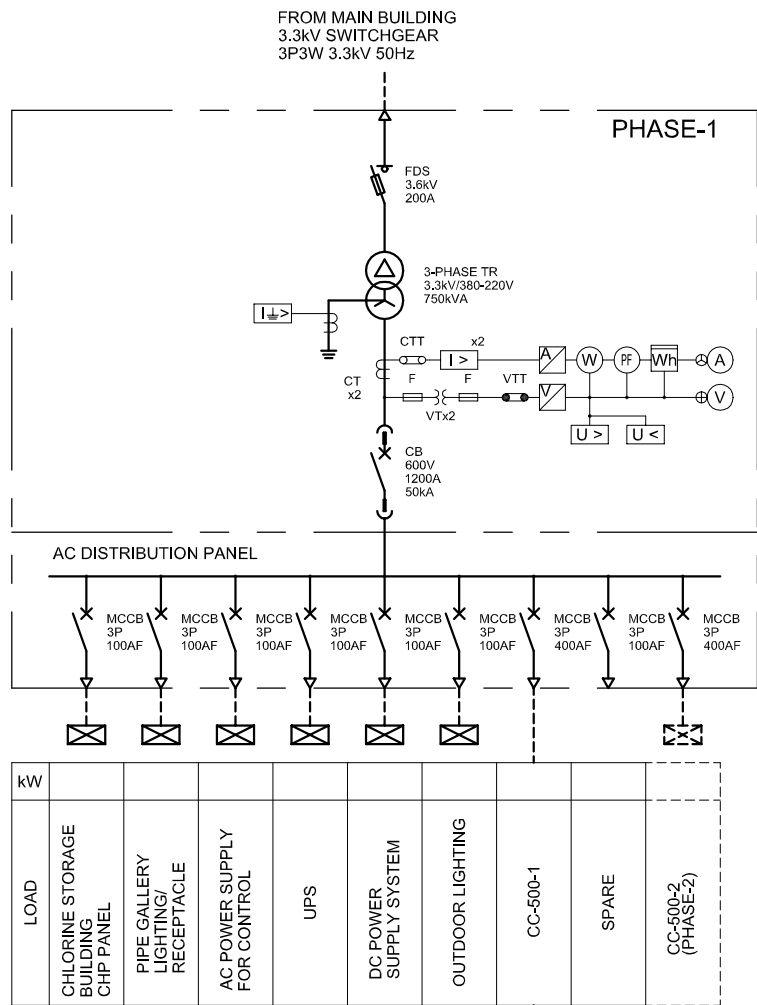


WASTEWATER TREATMENT ELECTRIC ROOM KEY PLAN

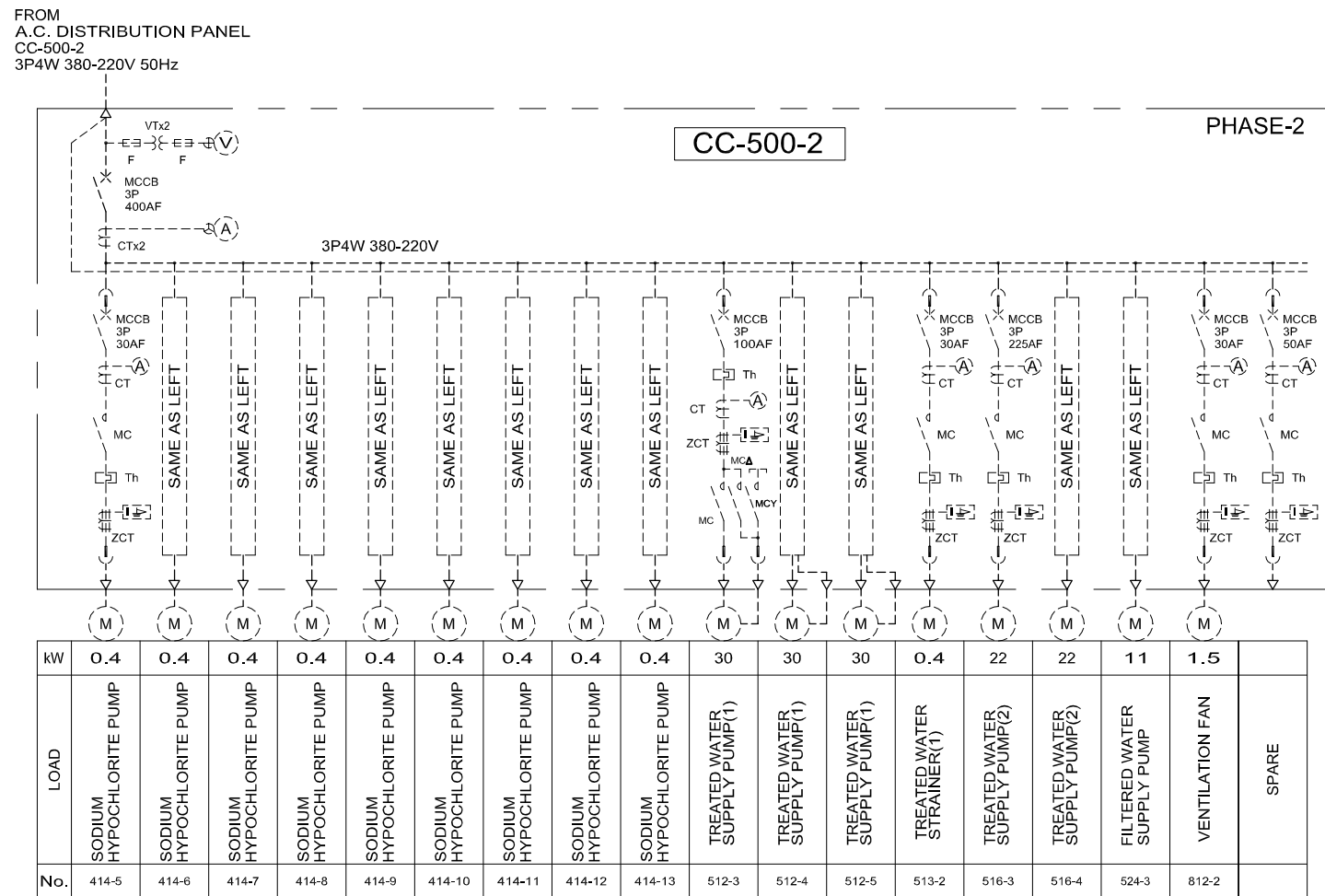
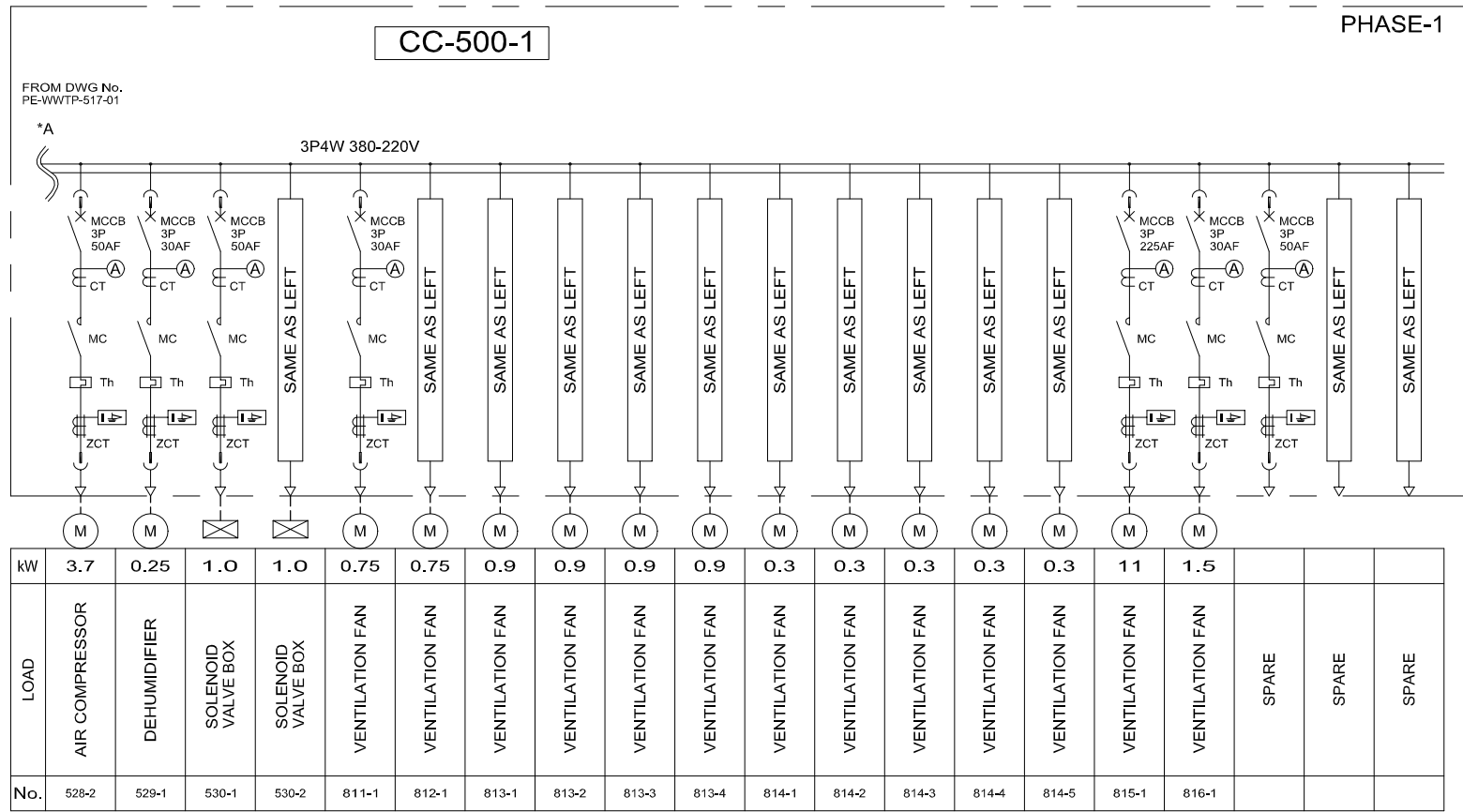
No.	PANEL TYPE	SIZE	WEIGHT(Kg)
1	3.3KV INCOMING PANEL	W600 x D1600 x H2300	400
2	750KVA TR PANEL	W2000 x D1600 x H2300	3000
3	LOW VOLTAGE SWG	W800 x D1600 x H2300	1000
4	AC DISTRIBUTION PANEL	W800 x D1600 x H2300	1000
5	CC-300-1	W600 x D600 x H2300 x 14UNITS	2800
6	Ry PANEL-1	W600 x D600 x H2300 x 7UNITS	1050
7	DC POWER SUPPLY SYSTEM	W800 x D1000 x H2300	800
8	UPS	W2100 x D700 x H1900	1500
9	INTERFACE PANEL	W600 x D600 x H2300	200
10	CC-300-2(PHASE-2)	W600 x D600 x H2300 x 14UNITS	2800
11	Ry PANEL-2(PHASE-2)	W600 x D600 x H2300 x 7UNITS	1050
12	OUTDOOR LIGHTING DISTRIBUTION BOARD		
13	PIPE GALLERY LIGHTING DISTRIBUTION BOARD		
14	WDB-1 PANEL (ARCHITECTURE WORK)		

NOTE
 [---] :PHASE-2

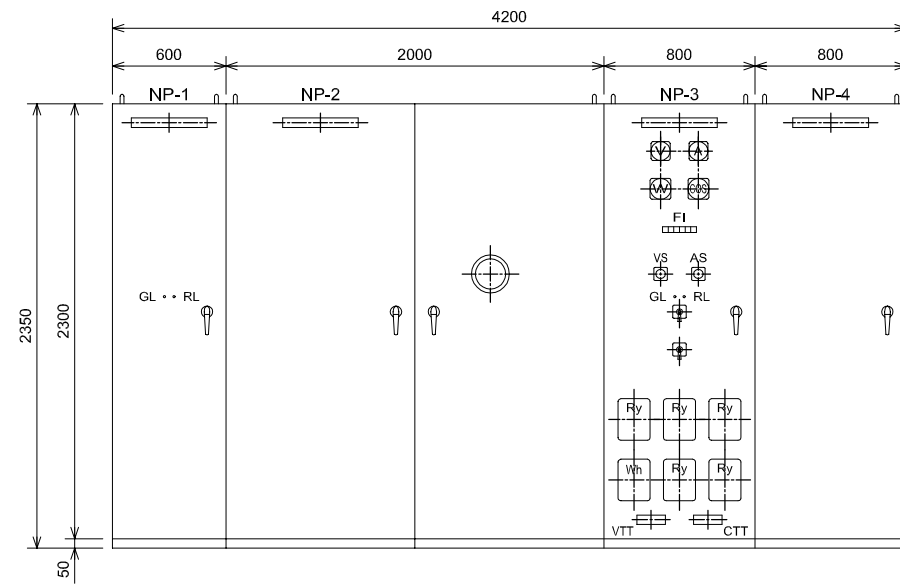
NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE E WASTEWATER TREATMENT PLANT GENERAL ARRANGEMENT FOR WASTEWATER TREATMENT ELECTRIC ROOM				
SCALE : 1/50				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KOMIYA NOBUO		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 516		



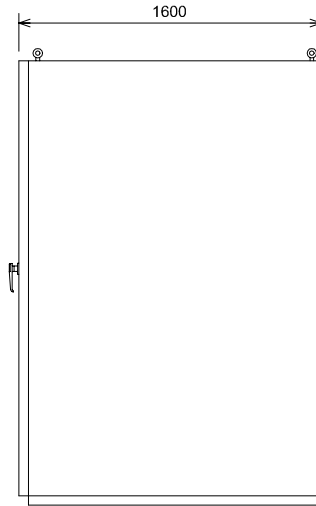
NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE E WASTEWATER TREATMENT PLANT SINGLE LINE DIAGRAM FOR CHLORINE STORAGE BUILDING ELECTRIC ROOM (1/2)				
SCALE : N.T.S				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED		CHECKED		
DATE :		DWG. No. PE - WWTP - 517-01		



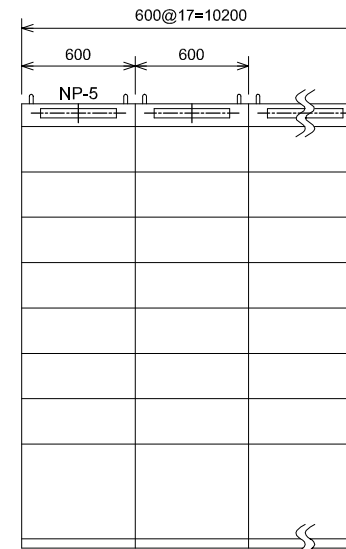
NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE E WASTEWATER TREATMENT PLANT SINGLE LINE DIAGRAM FOR CHLORINE STORAGE BUILDING ELECTRIC ROOM (2/2)				
SCALE : N.T.S				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				
PACIFIC CONSULTANTS INTERNATIONAL				
DESIGNED KOMIYA NOBUO		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 517-02		



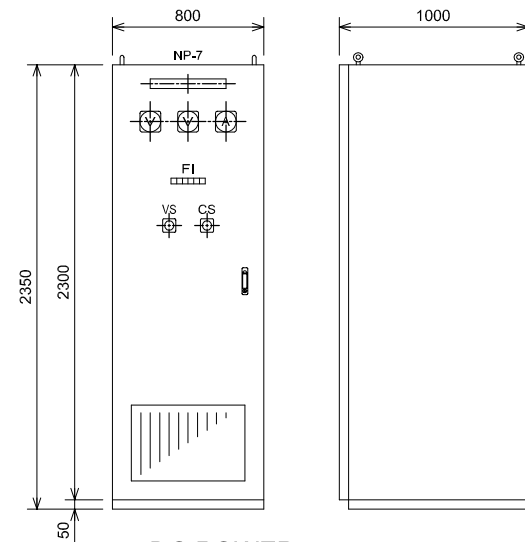
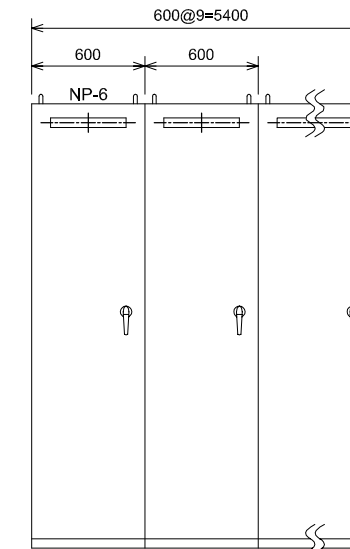
FRONT VIEW



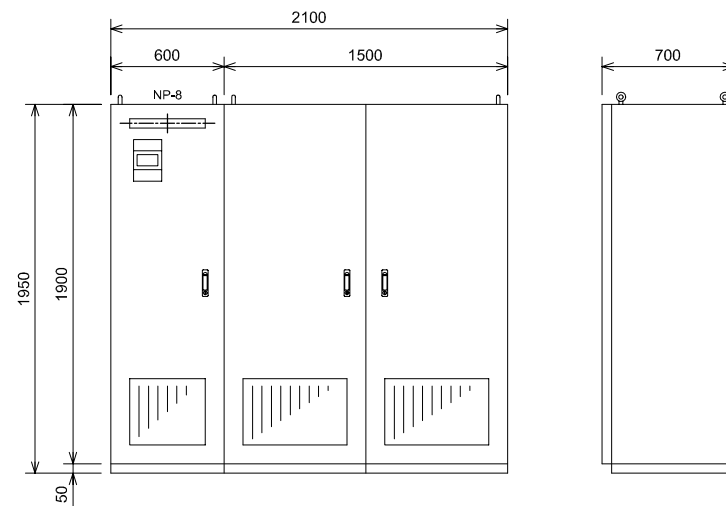
SIDE VIEW



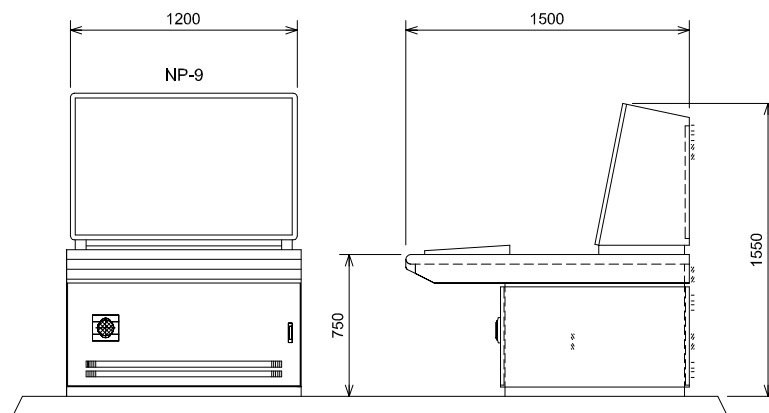
CONTROL CENTER & Ry PANEL



DC POWER SUPPLY SYSTEM



UPS



SUPERVISORY PANEL

NAME PLATE(NP)

No.	DESCRIPTION
NP-1	3.3kV INCOMING PANEL
NP-2	750kVA TR PANEL
NP-3	LOW VOLTAGE SWG
NP-4	AC DISTRIBUTION PANEL
NP-5	CC-500-1
NP-6	Ry PANEL-1
NP-7	DC POWER SUPPLY SYSTEM
NP-8	UPS
NP-9	SUPERVISORY PANEL

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

OUTLINE DIMENSION OF SWITCHGEARS
FOR CHLORINE STORAGE BUILDING
ELECTRIC ROOM

SCALE : 1/20

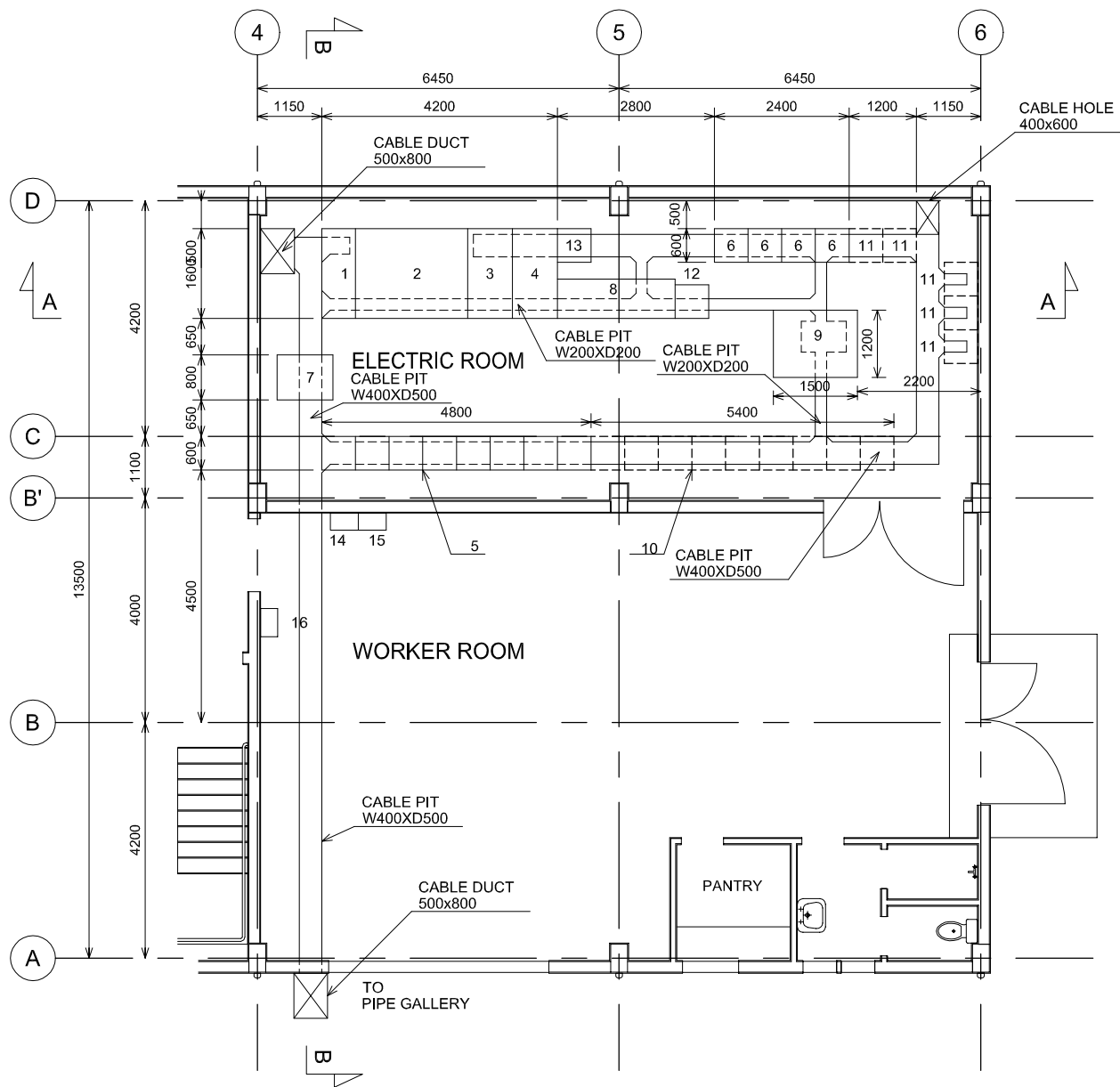
JICA JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

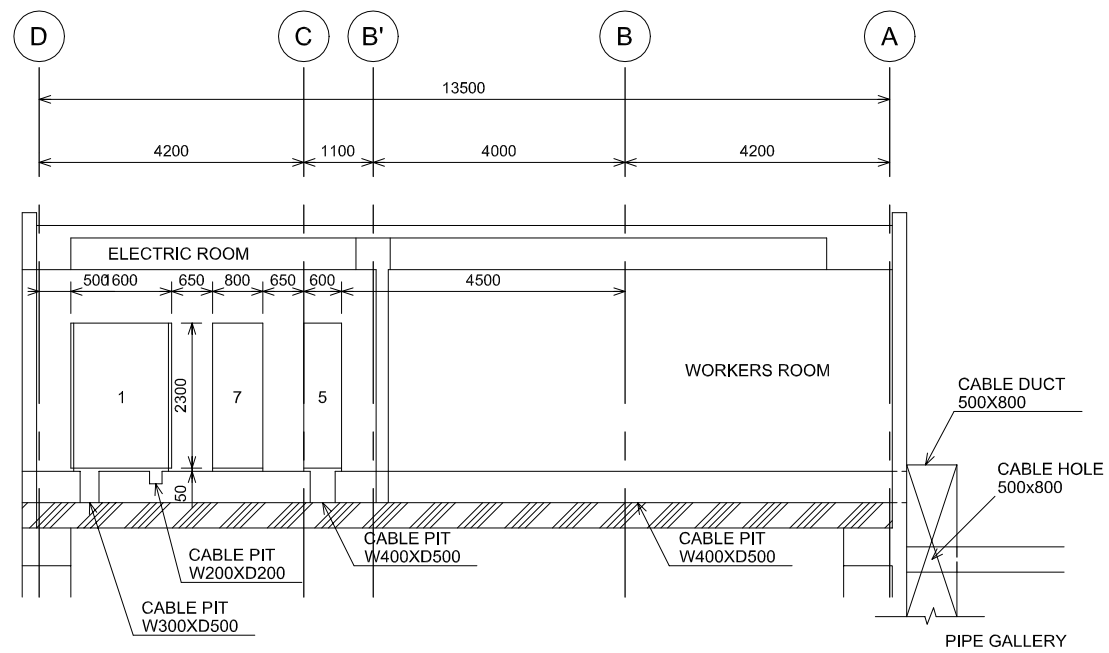
DESIGNED
KOMIYA NOBUO

CHECKED
KONDO MASAMI

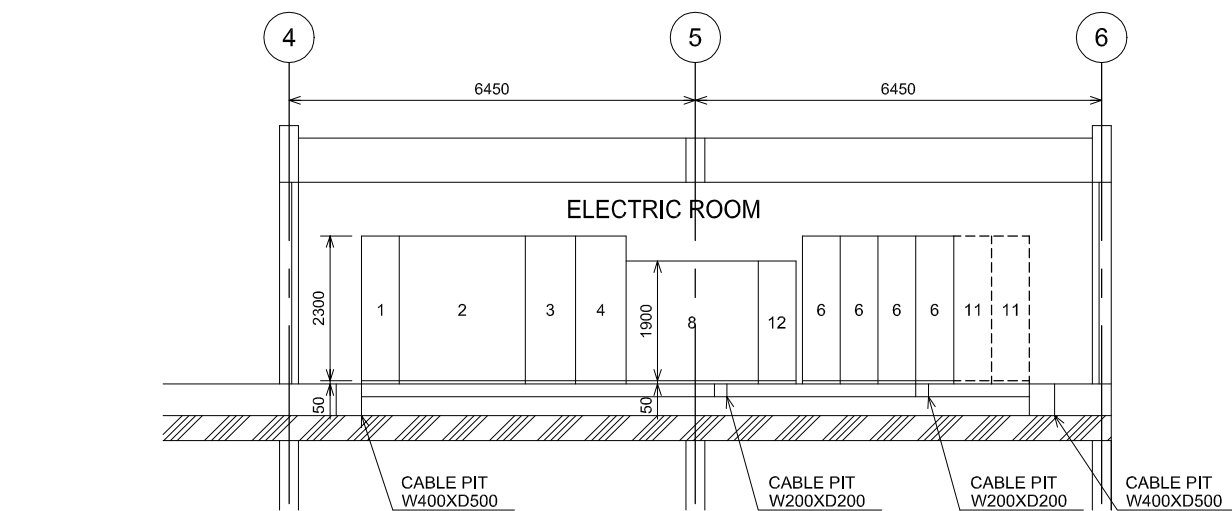
DATE : JUNE 2001 DWG. No. PE - WWTP - 518



PLAN



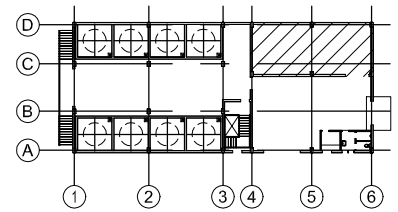
B-B SECTION



A-A SECTION

NOTE
 [] : PHASE-2

No.	PANEL TYPE	SIZE	WEIGHT(Kg)
1	3.3kV INCOMING PANEL	W600 x D1600 x H2300	400
2	750kVA TR PANEL	W2000 x D1600 x H2300	3000
3	LOW VOLTAGE SWG	W800 x D1600 x H2300	500
4	AC DISTRIBUTION PANEL	W800 x D1600 x H2300	500
5	CC-500-1	W600 x D600 x H2300 x 8UNITS	1600
6	Ry PANEL-1	W600 x D600 x H2300 x 4UNITS	600
7	DC POWER SUPPLY SYSTEM	W800 x D1000 x H2300	800
8	UPS	W2100 x D700 x H1900	1500
9	SUPERVISORY PANEL	W1200 x D1500 x H1500	450
10	CC-500-2(PHASE-2)	W600 x D600 x H2300 x 9UNITS	1800
11	Ry PANEL-2	W600 x D600 x H2300 x 5UNITS	750
12	INSTRUMENTATION PANEL	W600 x D600 x H1900	200
13	INTER FACE PANEL	W600 x D600 x H1900	200
14	OUT DOOR LIGHTING DISTRIBUTION BOARD		
15	PIPE GALLERY LIGHTING BOARD		
16	CHLORINATION BUILDING CHP PANEL (ARCHITECTURE WORK)		



KEY PLAN

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

GENERAL ARRANGEMENT FOR
 CHLORINE STORAGE BUILDING
 ELECTRIC ROOM

SCALE : 1/60

JICA JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

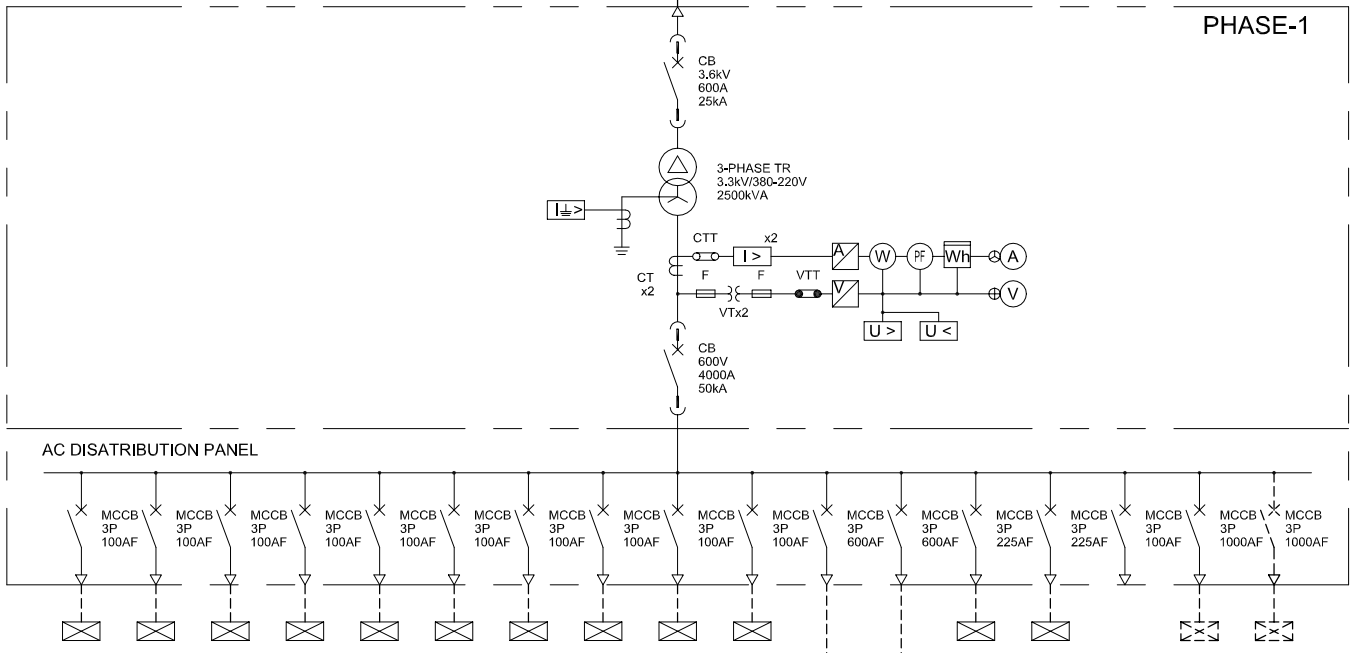
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED KOMIYA NOBUO CHECKED KONDO MASAMI

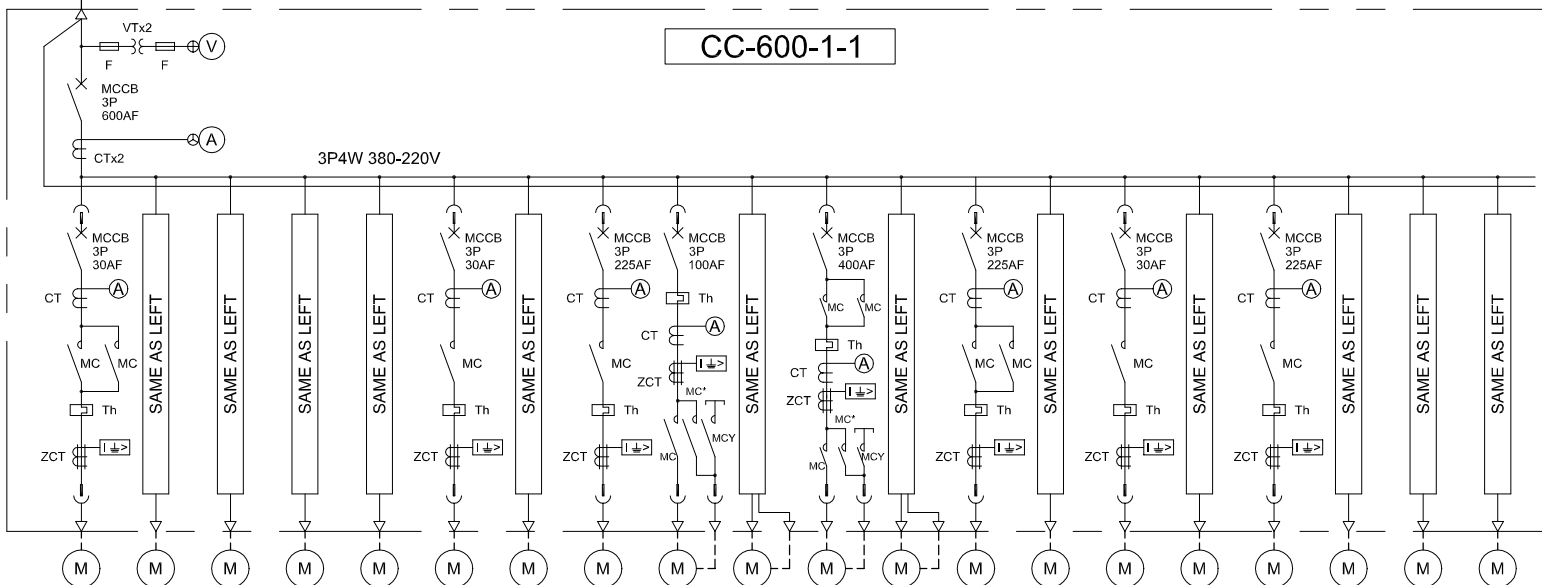
DATE : JUNE 2001 DWG. No. PE - WWTP - 519

FROM MAIN BUILDING
3.3kV SWITCHGEAR
3P3W 3.3kV 50Hz

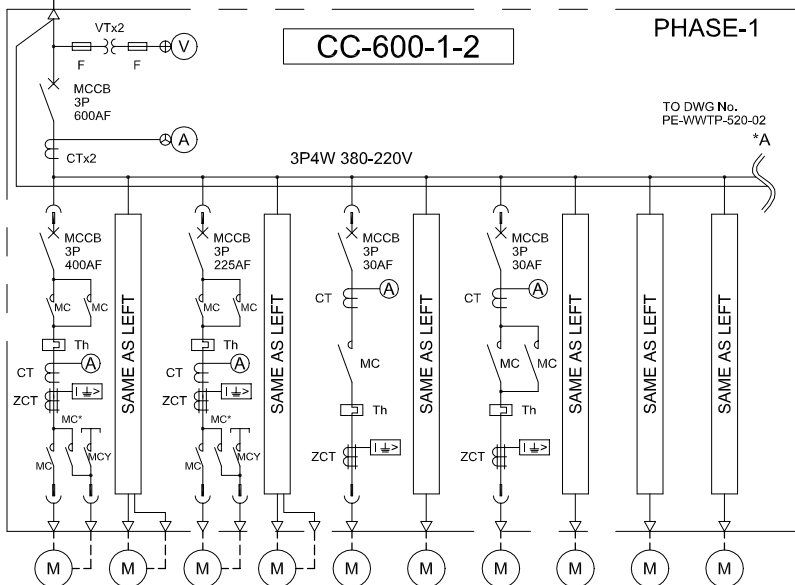
PHASE-1



LOAD	kw
DEWATERING BUILDING DB-1 PANEL	
DEWATERING BUILDING DB-2 PANEL	
DEWATERING BUILDING DB-3 PANEL	
DEWATERING BUILDING DB-4 PANEL	
DEWATERING BUILDING DB-5 PANEL	
PIPE GALLERY LIGHTING/RECEPTACLE	
AC POWER SUPPLY FOR CONTROL	
UPS	
DC POWER SUPPLY SYSTEM	
OUTDOOR LIGHTING	
CC-600-1-1	
CC-600-1-2	
CRANE (624)	15.25
CRANE (641)	15.25
SPARE	
CC-600-2-1 (PHASE-2)	
CC-600-2-2 (PHASE-2)	



No.	LOAD	kw
611-1	GRAVITY THICKENER	1.5
613-1	THICKENED SLUDGE PUMP	5.5
613-2	THICKENED SLUDGE PUMP	5.5
614-1	THICKENER EFFLUENT PUMP	5.5
614-2	THICKENER EFFLUENT PUMP	5.5
615-1	FLOOR DRAINAGE PUMP	2.2
615-2	FLOOR DRAINAGE PUMP	2.2
621-1	EXCESS SLUDGE MIXER	11
622-1	EXCESS SLUDGE FEED PUMP	30
622-2	EXCESS SLUDGE FEED PUMP	30
623A-1	CENTRIFUGAL THICKENER DRIVE MOTOR	90
623A-2	CENTRIFUGAL THICKENER DRIVE MOTOR	90
623B-1	CENTRIFUGAL THICKENER BACK DRIVE MOTOR	22
623B-2	CENTRIFUGAL THICKENER BACK DRIVE MOTOR	22
623C-1	CENTRIFUGAL THICKENER LUBRICATION PUMP	0.75
623C-2	CENTRIFUGAL THICKENER LUBRICATION PUMP	0.75
631-1	MIXED SLUDGE MIXER	11
631-2	MIXED SLUDGE MIXER	11
632-1	MIXED SLUDGE FEED PUMP	11
632-2	MIXED SLUDGE FEED PUMP	11



No.	LOAD	kw
633A-1	CENTRIFUGAL DEHYDRATOR DRIVE MOTOR	110
633A-2	CENTRIFUGAL DEHYDRATOR DRIVE MOTOR	110
633B-1	CENTRIFUGAL DEHYDRATOR BACK DRIVE MOTOR	37
633B-2	CENTRIFUGAL DEHYDRATOR BACK DRIVE MOTOR	37
633C-1	CENTRIFUGAL DEHYDRATOR LUBRICATION PUMP	0.4
633C-2	CENTRIFUGAL DEHYDRATOR LUBRICATION PUMP	0.4
634A-1	CAKE HOPPER	1.5
634A-2	CAKE HOPPER	1.5
634B-1	CAKE HOPPER	1.5
634B-2	CAKE HOPPER	1.5

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

SINGLE LINE DIAGRAM FOR
DEWATERING ELECTRIC ROOM
(1/4)

SCALE : N.T.S

JICA JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

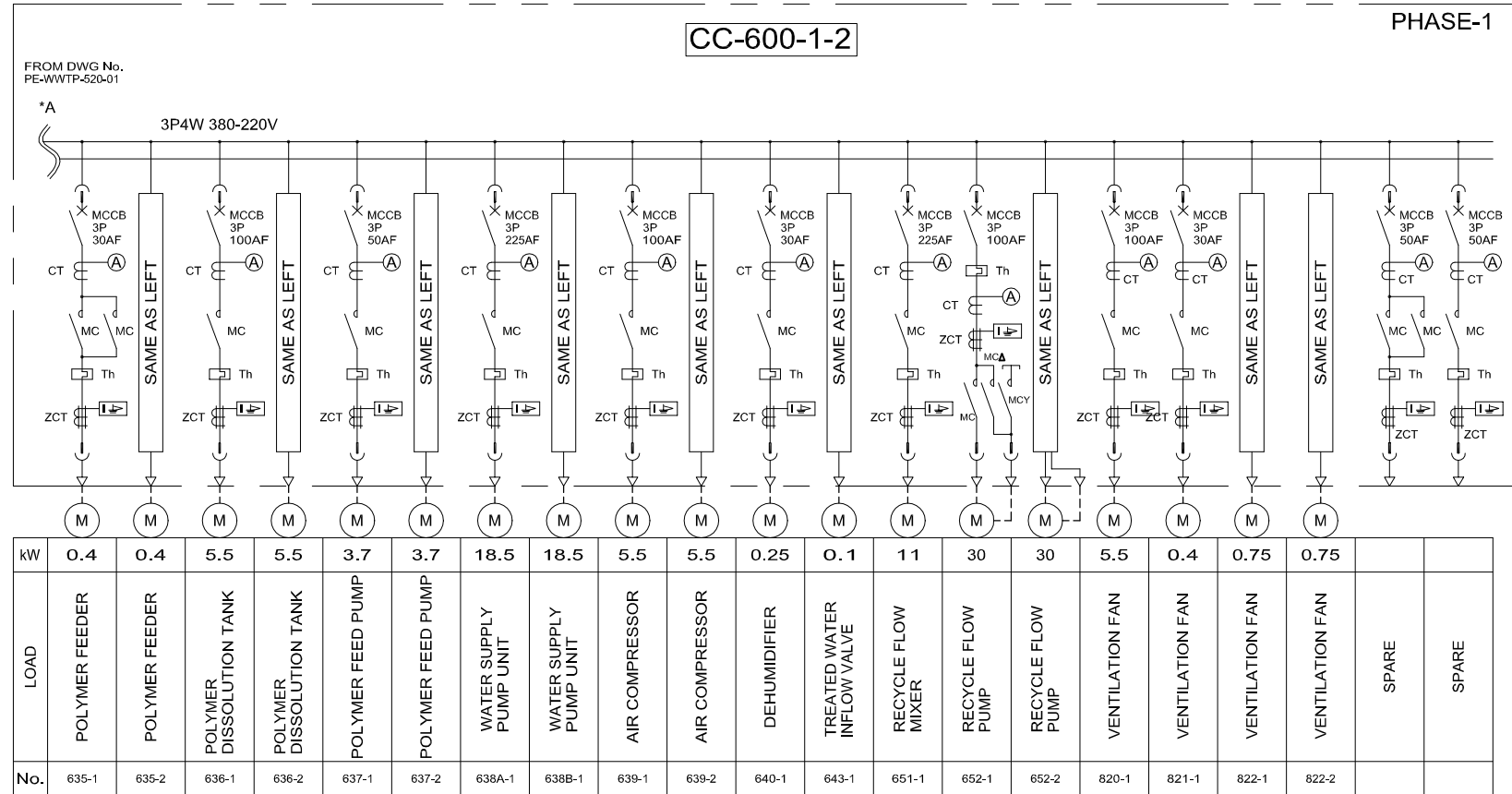
PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED
KOMIYA NOBUO

CHECKED
KONDO MASAMI

DATE : JUNE 2001

DWG. No. PE - WWTP - 520-01



NO.	DATE	DESCRIPTIONS	BY	APRO.
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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

SINGLE LINE DIAGRAM FOR
DEWATERING ELECTRIC ROOM
(2/4)

SCALE : N.T.S

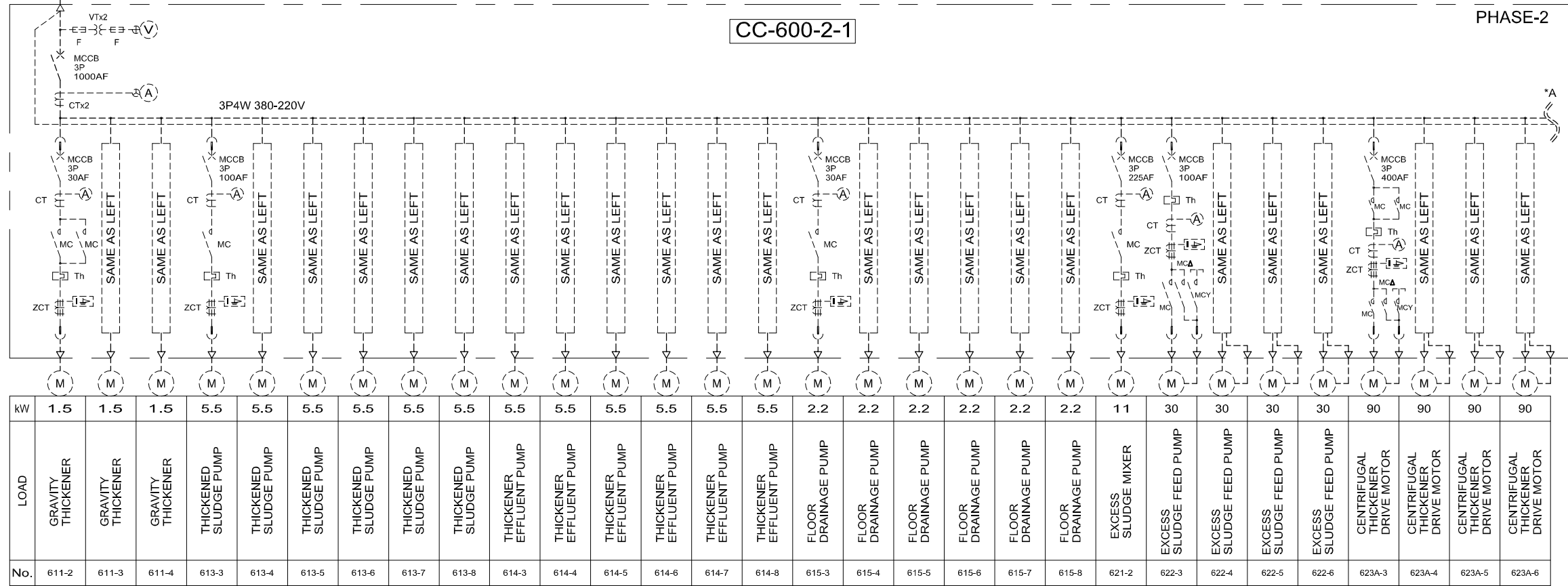
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

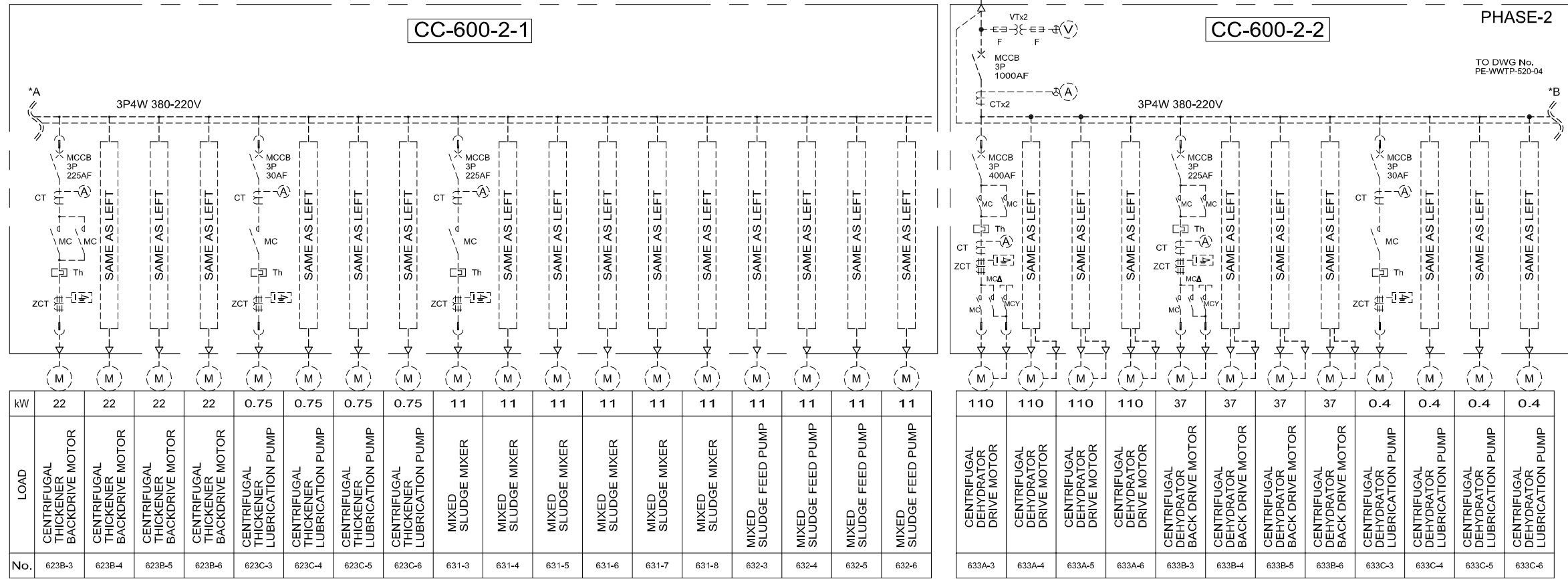
DESIGNED KOMIYA NOBUO	CHECKED KONDO MASAMI
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DATE : JUNE 2001 DWG. No. PE - WWTP - 520-02

FROM
A.C. DISTRIBUTION PANEL
CC-600-2-1
3P4W 380-220V 50Hz



FROM
A.C. DISTRIBUTION PANEL
CC-600-2-2
3P4W 380-220V 50Hz

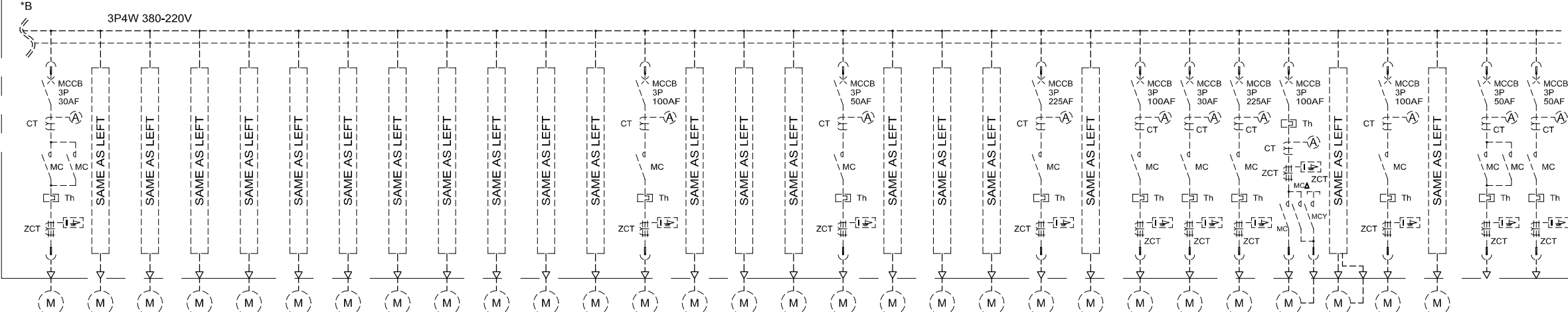


NO.	DATE	DESCRIPTIONS	BY	APRO.
REVISIONS				
PROJECT MANAGEMENT UNIT FOR HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT				
THE DETAILED DESIGN ON HO CHI MINH CITY WATER ENVIRONMENT IMPROVEMENT PROJECT IN THE SOCIALIST REPUBLIC OF VIET NAM				
PACKAGE E WASTEWATER TREATMENT PLANT				
SINGLE LINE DIAGRAM FOR DEWATERING ELECTRIC ROOM (3/4)				
SCALE : N.T.S				
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)		PACIFIC CONSULTANTS INTERNATIONAL		
DESIGNED KOMIYA NOBUO		CHECKED KONDO MASAMI		
DATE : JUNE 2001		DWG. No. PE - WWTP - 520-03		

CC-600-2-2

PHASE-2

FROM DWG No.
PE-WWTP-520-03



No.	LOAD	KW
634A-3	CAKE HOPPER	1.5
634A-4	CAKE HOPPER	1.5
634A-5	CAKE HOPPER	1.5
634A-6	CAKE HOPPER	1.5
634B-3	CAKE HOPPER	1.5
634B-4	CAKE HOPPER	1.5
634B-5	CAKE HOPPER	1.5
634B-6	CAKE HOPPER	1.5
635-3	POLYMER FEEDER	0.4
635-4	POLYMER FEEDER	0.4
635-5	POLYMER FEEDER	0.4
635-6	POLYMER FEEDER	0.4
636-3	POLYMER DISSOLUTION TANK	5.5
636-4	POLYMER DISSOLUTION TANK	5.5
636-5	POLYMER DISSOLUTION TANK	5.5
636-6	POLYMER DISSOLUTION TANK	5.5
637-3	POLYMER FEED PUMP	3.7
637-4	POLYMER FEED PUMP	3.7
637-5	POLYMER FEED PUMP	3.7
637-6	POLYMER FEED PUMP	3.7
638A-2	WATER SUPPLY PUMP UNIT	18.5
638B-2	WATER SUPPLY PUMP UNIT	18.5
639-3	AIR COMPRESSOR	5.5
640-2	DEHUMIDIFIER	0.25
651-2	RECYCLE FLOW MIXER	11
652-3	RECYCLE FLOW PUMP	30
652-4	RECYCLE FLOW PUMP	30
662-1	DEODORIZATION FAN	7.5
820-1	VENTILATION FAN	5.5
	SPARE	
	SPARE	

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

SINGLE LINE DIAGRAM FOR
DEWATERING ELECTRIC ROOM
(4/4)

SCALE : N.T.S

JICA JAPAN INTERNATIONAL COOPERATION
AGENCY (JICA)

PACIFIC CONSULTANTS INTERNATIONAL

DESIGNED
KOMIYA NOBUO
CHECKED
KONDO MASAMI

DATE : JUNE 2001 DWG. No. PE - WWTP - 520-04