

**MECHANICAL**

NO.	TITLE	DRAWING NO.	SCALE
	<b>GENERAL</b>	<b>AM - 00</b>	
1	ABBREVIATIONS	AM - 00 - 001	NTS
2	LEGEND AND SYMBOL (1)	AM - 00 - 002	NTS
3	LEGEND AND SYMBOL (2)	AM - 00 - 003	NTS
4	STANDARD DETAIL (1)	AM - 00 - 004	NTS
5	STANDARD DETAIL (2)	AM - 00 - 005	NTS
6	STANDARD DETAIL (3)	AM - 00 - 006	NTS
7	STANDARD DETAIL (4)	AM - 00 - 007	NTS
8	STANDARD DETAIL (5)	AM - 00 - 008	NTS
9	STANDARD DETAIL (6)	AM - 00 - 009	NTS
10	STANDARD DETAIL (7)	AM - 00 - 010	NTS
11	STANDARD DETAIL (8)	AM - 00 - 011	NTS
12	STANDARD DETAIL (9)	AM - 00 - 012	NTS
13	EQUIPMENT SCHEDULE (1)	AM - 00 - 013	NTS
14	EQUIPMENT SCHEDULE (2)	AM - 00 - 014	NTS
15	EQUIPMENT SCHEDULE (3)	AM - 00 - 015	NTS
16	EQUIPMENT SCHEDULE (4)	AM - 00 - 016	NTS
17	EQUIPMENT SCHEDULE (5)	AM - 00 - 017	NTS
18	EQUIPMENT SCHEDULE (6)	AM - 00 - 018	NTS
19	EQUIPMENT SCHEDULE (7)	AM - 00 - 019	NTS
20	EQUIPMENT SCHEDULE (8)	AM - 00 - 020	NTS
21	EQUIPMENT SCHEDULE (9)	AM - 00 - 021	NTS
22	EQUIPMENT SCHEDULE (10)	AM - 00 - 022	NTS
23	EQUIPMENT SCHEDULE (11)	AM - 00 - 023	NTS
24	EQUIPMENT SCHEDULE (12)	AM - 00 - 024	NTS

NO.	TITLE	DRAWING NO.
	<b>MANGGARAI</b>	<b>AM - 01</b>
	<b>MATRAMAN</b>	<b>AM - 02</b>
	<b>JATINEGARA</b>	<b>AM - 03</b>
	<b>KLENDER</b>	<b>AM - 04</b>
	<b>BUARAN</b>	<b>AM - 05</b>
	<b>KLENDER BARU</b>	<b>AM - 06</b>
	<b>CAKUNG</b>	<b>AM - 07</b>
	<b>KRANJI</b>	<b>AM - 08</b>
	<b>BEKASI STATION ( SOUTH BUILDING )</b>	<b>AM - 09S</b>
<del>25</del>	<del>FCU PIPING</del>	<del>AM - 09S - 001</del>
<del>26</del>	<del>VENTILATION</del>	<del>AM - 09S - 002</del>
<del>27</del>	<del>VENTILATION</del>	<del>AM - 09S - 003</del>
<del>28</del>	<del>VENTILATION</del>	<del>AM - 09S - 004</del>
<del>29</del>	<del>INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE</del>	<del>AM - 09S - 005</del>
<del>30</del>	<del>PLUMBING PIPING</del>	<del>AM - 09S - 006</del>
	<b>BEKASI STATION ( NORTH BUILDING )</b>	<b>AM - 09N</b>
<del>31</del>	<del>VENTILATION</del>	<del>AM - 09N - 001</del>
<del>32</del>	<del>INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE</del>	<del>AM - 09N - 002</del>
<del>33</del>	<del>M/E ROOM LOCATION</del>	<del>AM - 09N - 003</del>

The Railway Electrification and Double – double Tracking of Java Main Line Project



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MECHANICAL  
GENERAL  
DATE 10/MARCH/2003

Drawing Title :  
DRAWING LIST  
(1)

Scale: Drawing No.: AM-00

NO.	TITLE	DRAWING NO.	SCALE
	<b>BEKASI TIMUR STATION</b>	<b>AM - 10</b>	
34	VENTILATION	AM - 10 - 001	1 : 100
35	FCU PIPING	AM - 10 - 002	1 : 100
36	INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE	AM - 10 - 003	1 : 100
37	M/E ROOM LOCATION	AM - 10 - 004	1 : 100
	<b>TAMBUN STATION</b>	<b>AM - 11</b>	
38	VENTILATION	AM - 11 - 001	1 : 100
39	FCU PIPING	AM - 11 - 002	1 : 100
40	INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE	AM - 11 - 003	1 : 100
41	M/E ROOM LOCATION	AM - 11 - 004	1 : 100
	<b>CIBITUNG STATION</b>	<b>AM - 12</b>	
42	VENTILATION	AM - 12 - 001	1 : 100
43	FCU PIPING	AM - 12 - 002	1 : 100
44	INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE	AM - 12 - 003	1 : 100
45	M/E ROOM LOCATION	AM - 12 - 004	1 : 100
	<b>CIKARANG STATION</b>	<b>AM - 13</b>	
46	VENTILATION	AM - 13 - 001	1 : 100
47	FCU PIPING	AM - 13 - 002	1 : 100
48	FCU PIPING	AM - 13 - 003	1 : 100
49	INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE	AM - 13 - 004	1 : 100
50	M/E ROOM LOCATION	AM - 13 - 005	1 : 100

NO.	TITLE	DRAWING NO.
	<b>CIKARANG SUBSTATION</b>	<b>AM - 14</b>
51	INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE	AM - 14 - 001
	<b>CIBITUNG SUBSTATION</b>	<b>AM - 15</b>
52	INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE	AM - 15 - 001
	<b>BEKASI SIGNAL CABIN</b>	<b>AM - 16</b>
53	INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE	AM - 16 - 001
	<b>TAMBUN SIGNAL HUT</b>	<b>AM - 17</b>
	<b>CIKARANG SIGNAL HUT</b>	<b>AM - 18</b>
	<b>WATCHMAN SHED</b>	<b>AM - 19</b>
54	INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE	AM - 19 - 001
	<b>PLATFORM OPERATION OFFICE</b>	<b>AM - 20</b>

The Railway Electrification and Double – double Tracking of Java Main Line Project



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G E N E R A L

DATE 10/MARCH/2003

Drawing Title :

DRWAWING LIST  
(2)

Scale: Drawing No: AM-00

# ABBREVIATION

OUT LINE	OFFICIAL	OUT LINE	OFFICIAL	OUT LINE	OFFICIAL	OUT LINE	OFFICIAL	OUT LINE	OFFICIAL
<b>GENERAL</b>				<b>MECHANICAL WORKS</b>					
A	Ampere	MECH	Mechanical	AAB	Airlation Air Brow er	F.C.C	Ceiling Mounted Fan Coil Unit	S.A	Supply Air
AG	Aluminium Grille	MFR	Manufacture	AC	Absorption Chiller	F.C.F	Floor Mounted Fan Coil Unit	S.A.D	Supply Air Duct
APX	Approximately	MH	Man Hole	ACC	Ceilingmounted Separated	F.D	Floor Dry	SC	Siamese Connection
B.M	Bench Mark	Mn	Minimum		Air Conditioner	F.D.M	Fire Damper	SD	Soil Drain Pipe
B.O.P	Bottom of Pipe	MIR	Mirror	ACCO	Outdoor Unit For ACC Unit	F.E.P	Fire Extingushed Pump	SF	Supply Air Fan
C.H	Ceiling Hight	MM (mm)	Mili Meter	ACM	Wallmounted Separate Air	F.J	Flexible Joint	SMP	Submersible Pump
C.M	Centi Meter	MT	Male Toilet		Conditioner	F.P	Fire Pillar	SP	Static Pressure
C.O.P	Center of Pipe	N	North	ACWO	Outdoor Unit For ACM Unit	F.V.D	Fire Volume Controled Damper	ST	Septic Tank
D	Depth	No	Number	ARP	Liquid And Gas Refrigerate	G.T	Grease Trap	STS	Y - Type Strainer
DM	Dimension	O.D	Out Side Diameter		Pipe for Air Conditioner	G.V	Gate Valve	STV	Stop Vaive
DS	Duct shaft	P.S	Pipe Shaft	ARV	Air Released Valve	GLV	Glove Valve	SV	Solenoid Valve
DWG	Draw ing	PUB	Public	B.T	Ball Float Valve	H.B.E	External Hydrant Box	SWP	Spring Well Pump
E	East	R	Room	BCV	Ball Float Check Valve	H.B.I	Indoor Hydrant Box	T.G	Thermo Gauge
EL	Elevation	R.D	Roof Drain	C.C	Concrete Cover for Pit	H.C	Hood Cover	V	Vent Pipe For Soil/Waste Pipe
ELEV	Elevator	REF	Reference	C.C.P	Chilled Water Circulation Pump	H.C.P	Hot Water Circulation Pump	V.D	Volume Control Damper
EMER	Emergency	REQ	Required	C.D	Check Damper	H.D	Hood	W	Waste Drain Pipe
EPS	Electrical Pipe Shaft	RF	Roof	CFV	Constant Flow Valve	H.W.R	Domestic Hot Water Return	W.B	Wet Bulb
EQ (eq)	Equal	RND	Round	C.I.D	Ductile Iron Cover for Pit	H.W.S	Domestic Hot Water Supply	W.L	Water Level
ESC	Escalator	S	South	C.G	Compound Gauge	I.P	Incinerator Plant	W.L.C	Water Level Control Sensor
F.D	Floor Drain	S. Sk	Service Sink	C.H	Heavy Duty Ductile Iron Cover	I.W	Incoming Water Pipe from	W.L.V	Water Level Control Valve
F.E	Fire Extinguisher	S/STA	Sub. Station		for Pit		Outside Border Line		For Water Receiver Tank
F.E.C	Fire Extinguisher Cab	SG	Steel Grille	C.I	Iron Cover for Pit	J.P	Jockey Pump	W.M	Water Meter
F.F.L	Standard Floor Level	SHT	Sheet	CP (I)	Control Pit of Soil and Waste	K	Kitchen Drain Pipe	W.T	Water Receiver Tank
F.L	Floor Line	SK	Sink	CP (R)	Control Pit of Rain	K.Ex	Kitchen Exhaust Air	X.I	Fire Hydrant Pipe In Home
F.O.C	Face of Concrete	SPEC	Specification	CPH	(m <sup>3</sup> /hr) (Cubic Meter per Hour)	K.P.H	Kilocalorie per hours (Kcal/hr)	X.O	Fire Hydrant Pipe At External
F.O.F	Face of Finishing	SST	Stainless Steel	CTP	Combination Treatment Plant	L	Louver	° C	Celcius
F.T	Female Toilet	STD	Standard	CV	Check Vaive	LG	Liquid Gas Line		
GALV	Galvanized	STL	Steel	CWR	Chiled Water Refrigerator	LL	Large 90 degree Angle Type		
GASK	Gasket	SW	Sw itch	CD	Condensing Drain		Fitting		
GEN	General	T	Ton	COA	Clean - Out on Dry Floor	LPM	Litter per Minutes (l/min)		
GL	Glass	TEL	Telephone	COB	Clean - Out on Wet Floor	NC	Normally Closed		
GLL	Ground Level Line	Tk	Thickness	COC	Clean - Out in The Ceiling	NG	Natural Gas Line		
GRL	Grille	TRD	Thread	CR	Return Chilled Water Pipe	NO	Normally Open		
HOR	Horizontal	TV	Television	CS	Supply Chilled Water Pipe	O.A	Outdoor Air		
HR (hr)	Hour	TYP	Typical	DB	Dry Bulb	O.A.D	Outdoor Air Duct		
HT (h)	Height	UG	Under Ground	DP	Distribution Pump For	O.A.F	Outdoor Intake Fan		
I.D	Inside Diameter	UR	Urinal		Potable Water	O.T	Oil Gasoline Trap		
IND	Industrial	V	Volt	DWP	Deep Well Pump	P.D	Pump - Up Drain Pipe		
INFO	Information	W	West	EA	Exhaust Air	P.G	Pressure Gauge		
INSP	Inspection	W x L x H	Widht(mm) x Heigh(mm)	ED	Exhaust Duct	P.R.V	Pressure Released Valve		
INSU	Insulation		x Length (mm)	EF	Exhaust Air Fan	P.T	Pit		
Kg	Kilo gram	W.C	Water Closet	E.H	Electrical Heater	R	Rain Drain Pipe		
KW	Kilo Watt	WT	Weight	E.H.S	Stored Electrical Heater	RH	Relative Humidity		
M	Meter	∅	Mili Meter Dia or Phase of	EP	Engine Pump	RPM(rpm)	Revolutions per minute		
Max	Maximum		Electrical	Ex. T	Expansion Tank	RV	Reducing Valve		

Note : 1 All dimensions shall be used mm (mili meter) Unit.

The Railway Electrification and Double - double Tracking of Java Main Line Project



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M E C H A N I C A L

G E N E R A L

DATE 10/MARCH/2003

Drawing Title :  
ABBREVIATION

Scale: NTS Drawing No.: AM-00-001

# LEGEND

SYMBOL	N A M E	FROME CODE	SPECIFICATION	REMARKS
▶1				
	Potable Water	ISO 4065	Polyethylene Pipe (PE100, S5-10Bar)	Except inside wall
	Potable Water	JIS G 3452	Galvanized Steel Pipe (Seamless)	Embedded in the wall
	Pressure rizeded Water	ISO 4065	Polyethylene Pipe (PE100, S5-10Bar)	
	Water Pipe from Deep Well	ISO 4065	Polyethylene Pipe (PE100, S5-10Bar)	
	Water Meter	ISO 4064B	Dry-Dial type Min. Reading 0,0001m3	
	Ball Float Valve		F.R.P. Ball	
	Water Level Control Valve		w/Ball Float Valve	
	Water Level Control		SST Bar or Mercury Float	
	Gate Valve		Out body steam (10 Bar, 16 Bar)	
	Glove Valve		Out body steam (10 Bar, 16 Bar)	
	Stop Valve		(10 Bar, 16 Bar)	
	Y - Type Strainer		(10 Bar, 16 Bar)	
	Ball Float Check Valve		For discharged pipe for SMP.	
	Flexible Joint		Stainless Steel Type	
	Expansion Joint (Single)		Flanged connection	
	Expansion Joint (Double)		Flanged connection	
	Flexible Joint		2 Rubber Mountains Flanged Type	
	Swing Check Valve			
	Flanged Joint		(10 Bar, 16 Bar)	
	Isolation Flanged Connection			
	Constant Flow Valve		Rubber or Spring type	
	Wall Mounted Faucet			
	Wall Mounted Faucet (Long Nozzle)			
	Counter Mounted Faucet			
	Water Faucet for External Spray			
	Hot Water Faucet			
	Single Lever Mixing Faucet			
	2 Handles Mixing Faucet			
	Flash Valve			
	Shower & Faucet			
	No Branched Down Pipe			
	90° LL Elbow Flow			
▶2				
	Pump			
	Supply Domestic Hot Water	JIS G3452 GSP		
	Return Domestic Hot Water	JIS G3452 GSP		
	Electrical Water Heater			
	Stored Gas Water Heater			
	Hood Cover			

# LEGEND

SYMBOL	N A M E	FROME CODE	SPECIFICATION	REMARKS
	50 mm dia of C.O.A			
	50 mm dia of C.O.B			
	50 mm dia of C.O.C			
	50 mm dia Dry Floor Drain			
	50 mm dia Wet Floor Drain			
	Sink Drain			
	Soil Pipe	JIS K6741	(VP)	
	Waste Pipe	JIS K6741	(VP)	
	Kitchen Drain Pipe	JIS K6741	(VP)	
	Concrete Pipe			
	Y type Fitting			
	45° Fitting			
	90° LL Fitting			
	Clean Out on the Floor for Every Floor			
	Rain Control Pit Made Concrete With Concrete Cover			
	Rain Control Pit Made Concrete With Iron Cover			
	Inverted Control Pit Made (W/Frame, Chain and Key Lock)			
	Inverted Control Pit Made Concrete With Iron Cover			
	Rain Control Pit Made Concrete With Ductile Iron Cover			
	Inverted Control Pit Made Concrete With Ductile Iron Cover			
	Grease Trap Made Concrete			
	Grease Trap Made Manufacture			
	Gasoline / grease Trap			
▶3				
	Vent Pipe	JIS K6741	(VP)	
	Vent Cap		Aluminum with powder baked colour w/SST mesh	

The Railway Electrification and Double - double Tracking of Java Main Line Project



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M E C H A N I C A L

GENERAL

DATE | 10/MARCH/2003

Drawing Title :  
LEGEND AND SYMBOL  
(1)

Scale: NTS | Drawing No.: AM-00-002

# LEGEND

SYMBOL	N A M E	FROME CODE	SPECIFICATION	REMARKS
	Pump - Up Pipe	JIS G3452	Galvanized Steel seamless pipe in the sump pit VP for out tank.	
	Fire Hydrant Pipe		SCH 40 (Seamless)	
	Fire Hydrant Pipe		SCH 40 (Seamless)	
	Hydrant Box inside Building		SST Hairline finishing	
	Hydrant Box at External		SST Hairline finishing	
	Siamese Connection		100x(65x2) with flame sst panel	
	Natural Gas Line		Seamless Galvanized Steel pipe	
	Liquid Gas Line		Seamless Galvanized Steel pipe	
	Out Door Air Duct		Galvanized Sheet	
	Supply Air Duct		Galvanized Sheet	
	Return Air Duct		Galvanized Sheet	
	Exhaust Air Duct		Galvanized Sheet	
	Kitchen Exhaust Air Duct		Galvanized Sheet	
	Refrigerant Pipes		Cooper Pipes	
	Supply Chilled Water		Seamless Galvanized Steel pipe	
	Return Chilled Water		Seamless Galvanized Steel pipe	
	Fan Coil Unit (Floor Mounted)			
	Fan Coil Unit (Ceiling Mounted)			
	FCU's Remote Controller Switch			
	Chiller's Remote Controller Switch			
	Square Type Air Outlet Deffuser		Alminum with power booked colour with chamber box	
	Round Type Air Outlet Deffuser		Alminum with power booked colour with chamber box	
	Breeze Line Type Deffuser		Alminum with power booked colour with chamber box	
	Slot Type Deffuser		Alminum with power booked colour with chamber box	
	Nuzzle Type Deffuser		Alminum with power booked colour with chamber box	
	Vertical, Horizontal Slit type Deffuser		Alminum with power booked colour with chamber box	
	Horizontal Slit Type Air In take Deffuser		Alminum with power booked colour with chamber box	
	Louver on External Wall		w/SST Mesh	
	Louver on External Wall		w/SST Mesh	

# LEGEND

SYMBOL	N A M E	FROME CODE	SPECIFICATION	REMARKS
	Pressure Gouge w/cock			
	Coumpound Gauge w/cock			
	Thermo Gauge			
	2 Way Valve Unit			From CV valve
	3 Way Valve Unit			From CV valve

The Railway Electrification and Double - double Tracking of Java Main Line Project



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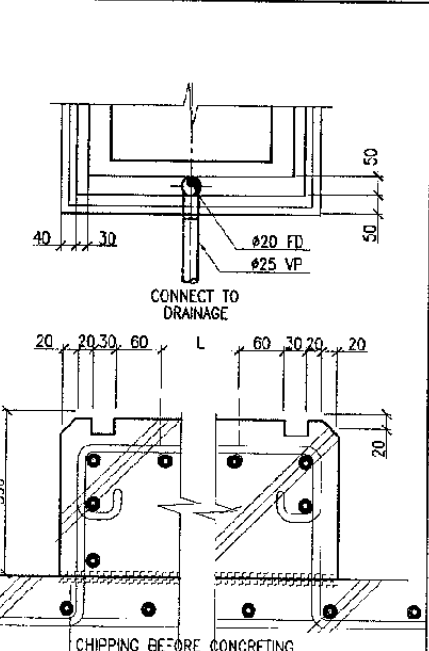
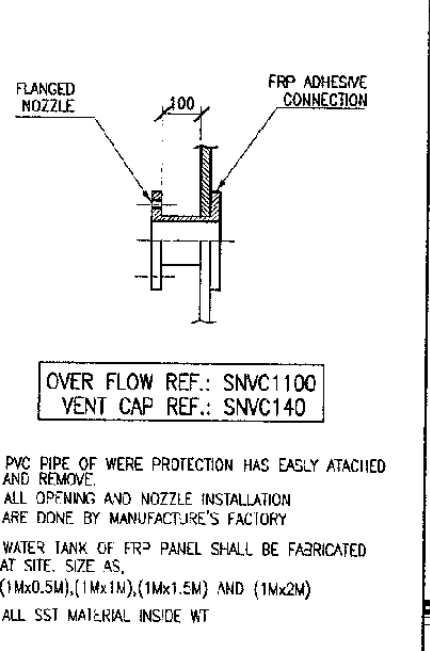
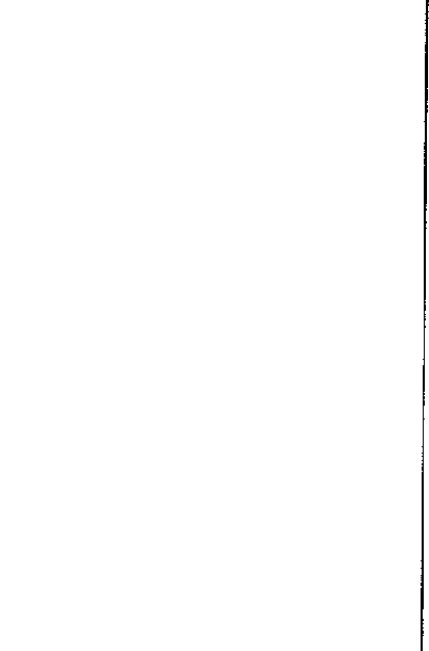
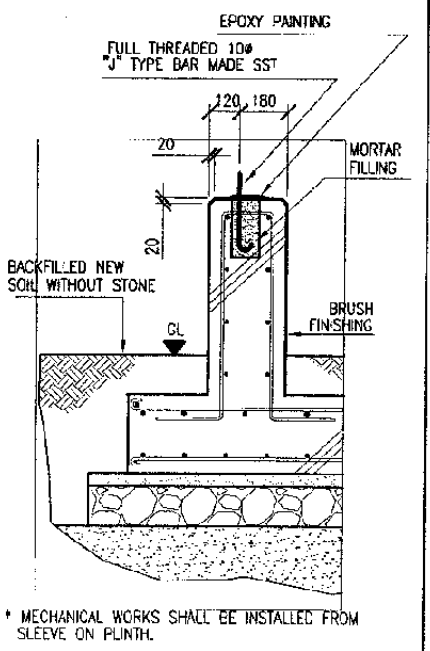
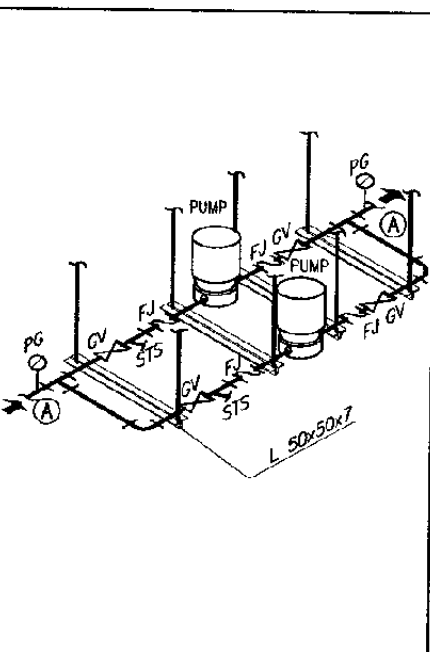
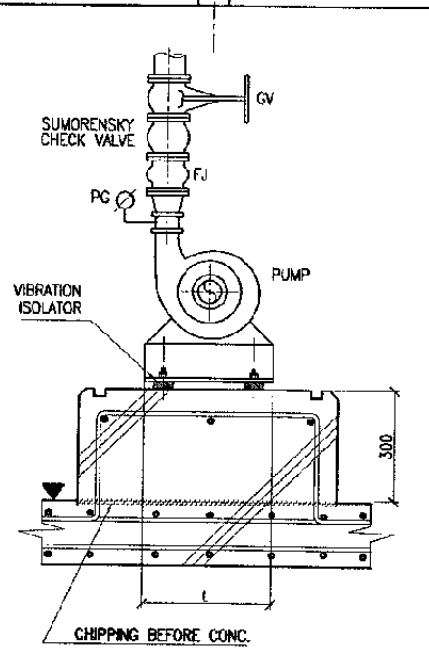
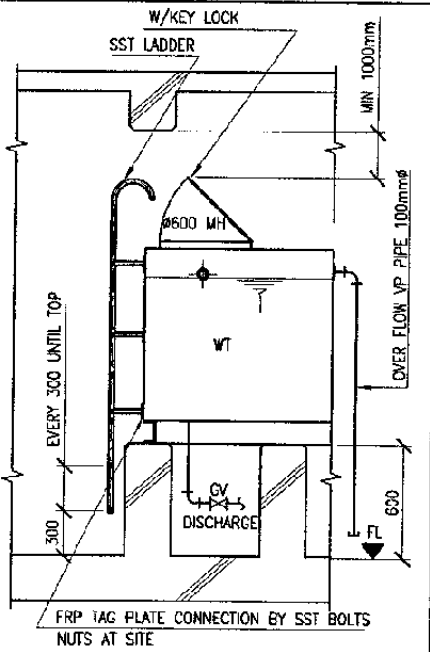
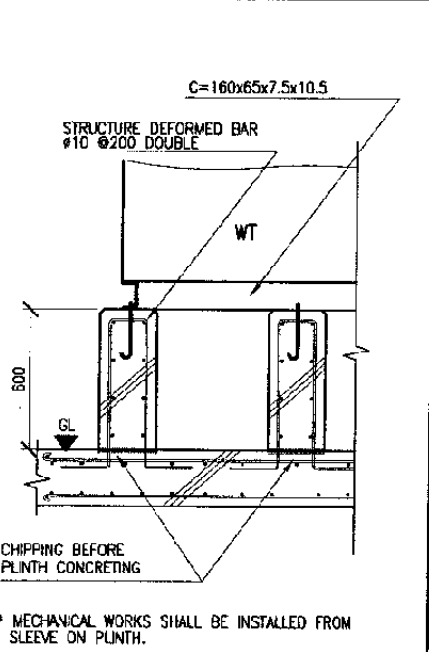
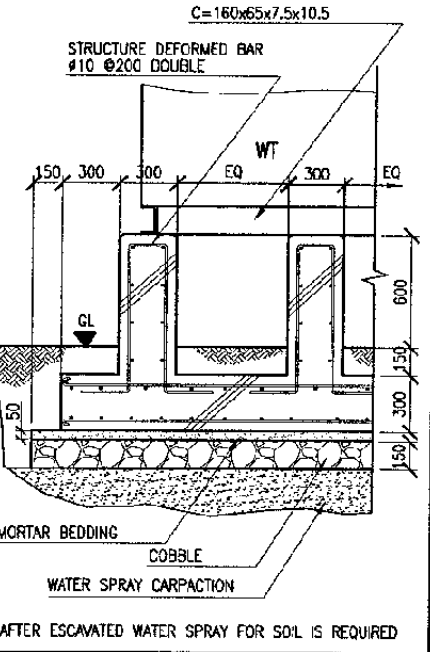
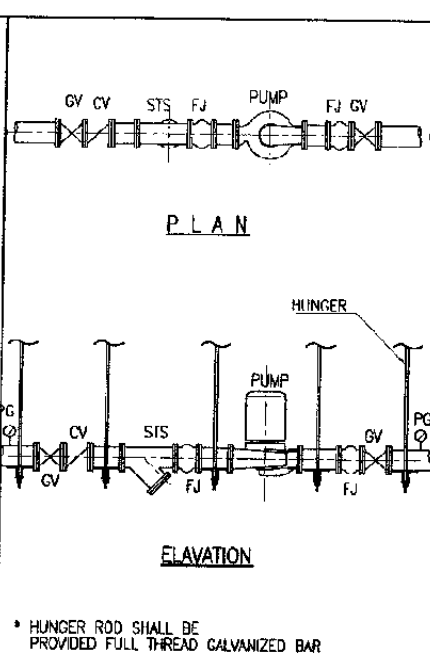
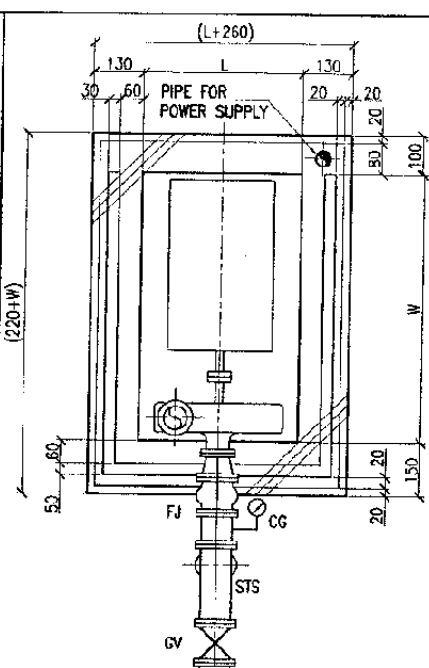
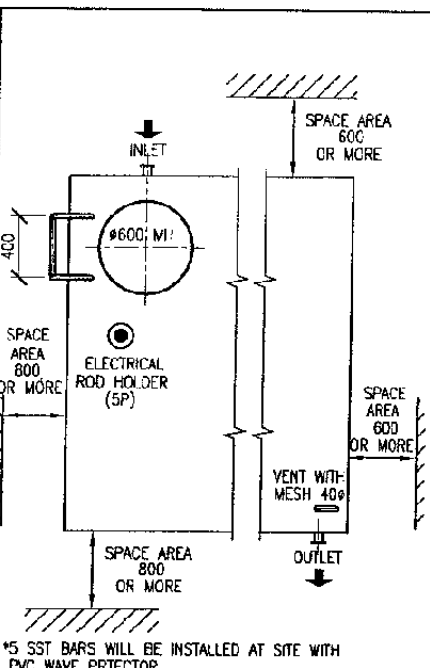
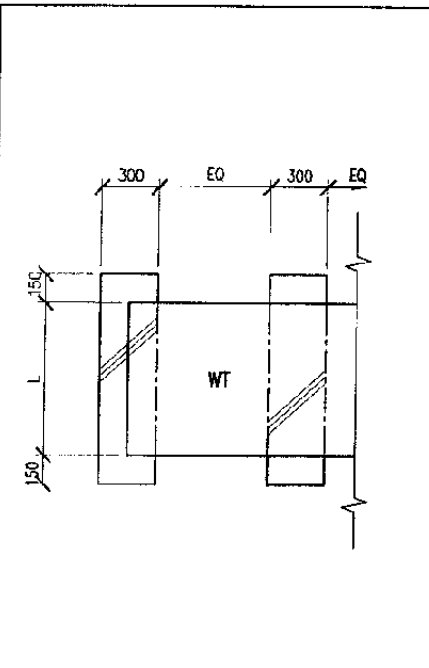
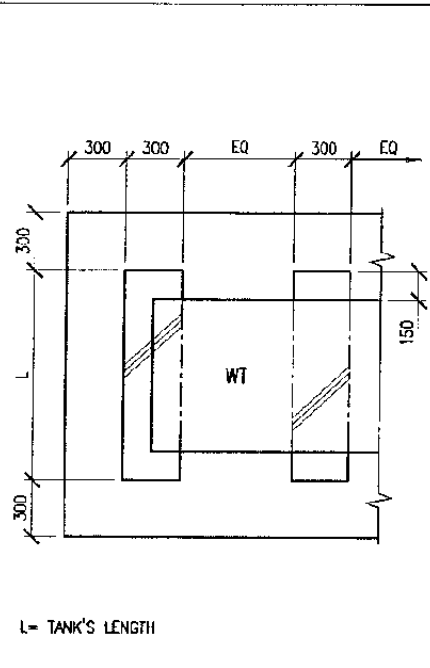
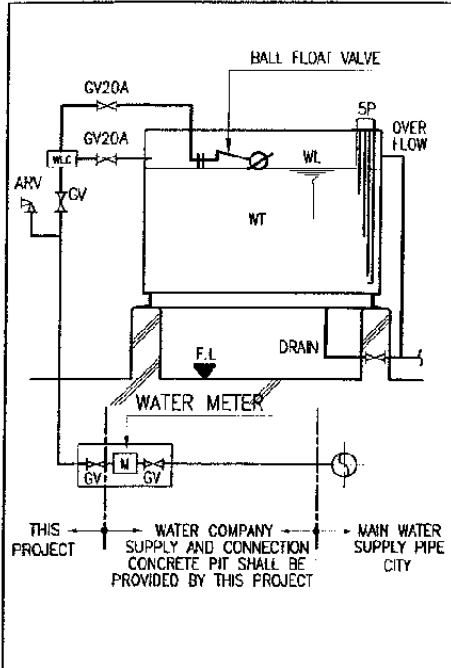
M E C H A N I C A L

GENERAL

DATE | 10/MARCH/2003

Drawing Title :  
LEGEND AND SYMBOL  
(2)

Scale: NTS | Drawing No.: AM-00-003



- INCOMING WATER PIPE SIZE :
- \* BEKASI STATION 40mmφ
  - \* BEKASI TIMUR STATION 20mmφ
  - \* TAMBUN STATION 20mmφ
  - \* CIBUNG STATION 20mmφ
  - \* CIKARANG STATION 20mmφ

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MECHANICAL  
 GENERAL

DATE 10/MARCH/2003

Drawing Title :  
 STANDARD DETAIL (1)

1 WATER SUPPLY SYSTEM  
 DETAIL SCALE:

2 WATER TANK INSTALATION ON THE GROUND  
 DETAIL SCALE:

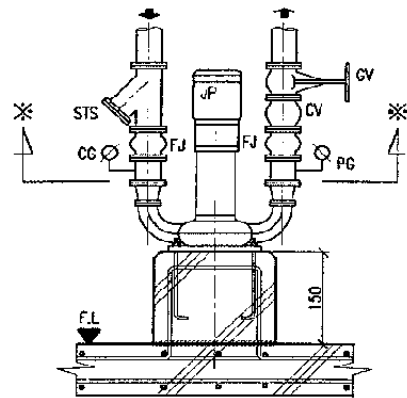
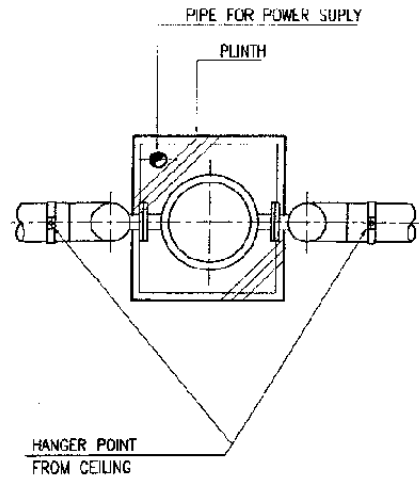
3 WATER TANK INSTALATION ON THE CONCRETE FLOOR  
 DETAIL SCALE:

4 THE ACCESSARY FOR THE WATER TANK  
 DETAIL SCALE:

5 PUMP INSTALATION  
 DETAIL SCALE:

6 INSTALATION AROUND IN-LINE PUMP  
 DETAIL SCALE:

Scale: NTS Drawing No.: AM-00-004



- \* ANCHOR BOLTS MADE SST W/WASHER AND DOUBLE NUTS
- \* PIPES WEIGHT SHALL BE SUPPORT FROM CEILING BY HUNGER
- \* ALL PIPE FITTINGS SHALL BE USED 16 BAR - AND SCH 40, SEAMLESS GALVANIZED STEEL PIPE.
- \* ※ IS SAME PIPE SIZE INDICATED ON PLAN DWG.

The Railway Electrification and Double - double Tracking of Java Main Line Project



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 DIRECTORATE GENERAL OF LAND COMMUNICATION  
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MECHANICAL

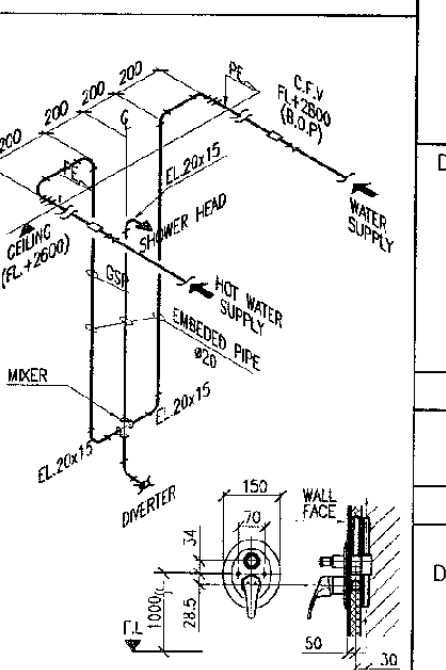
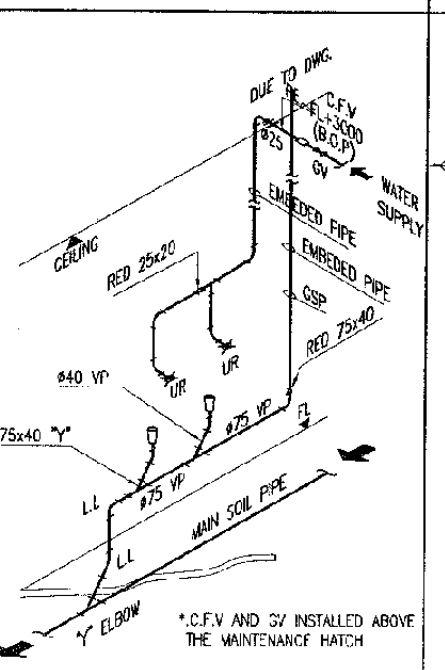
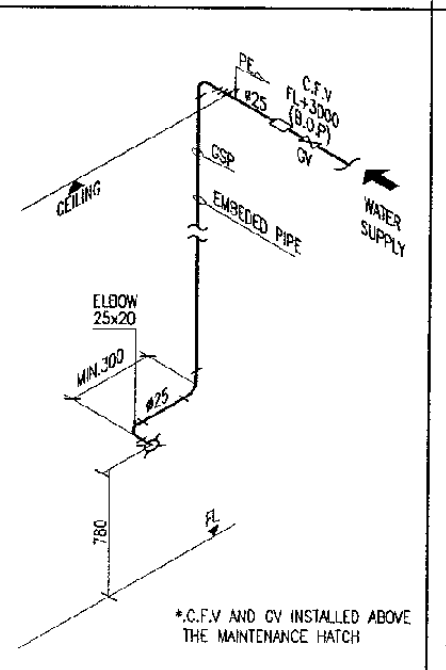
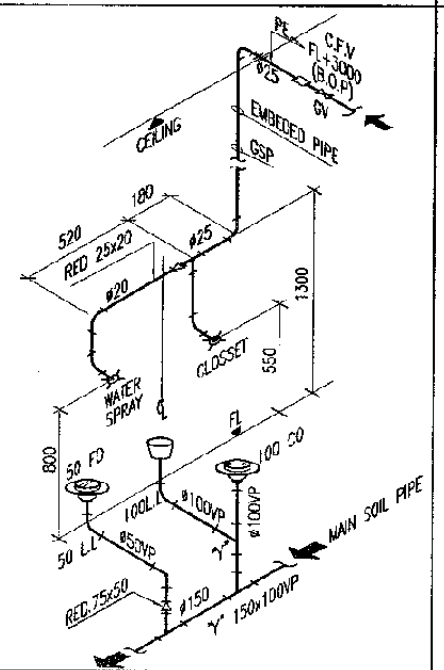
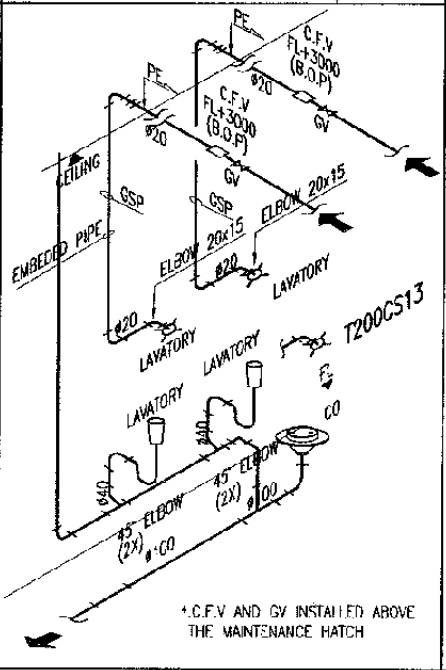
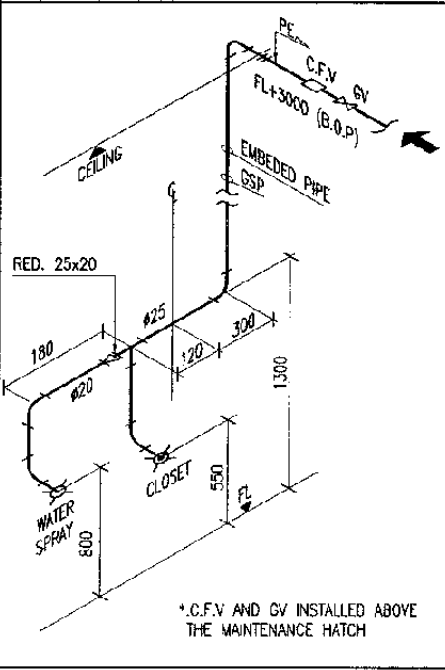
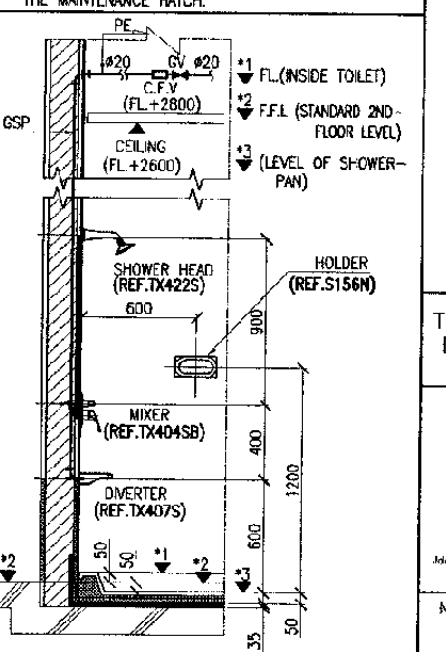
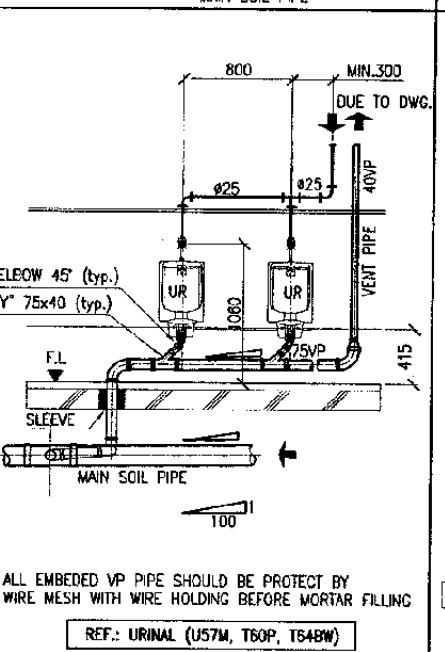
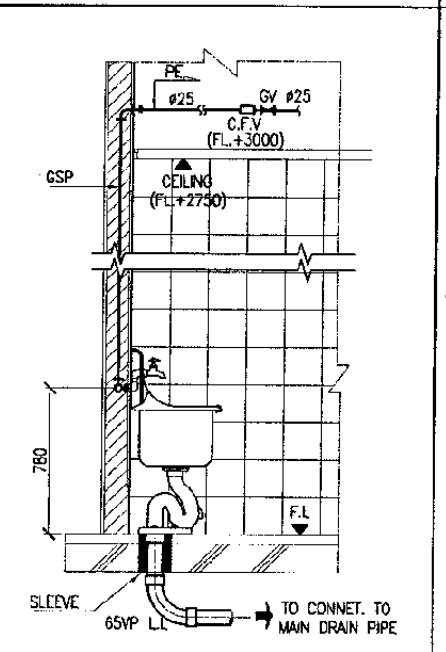
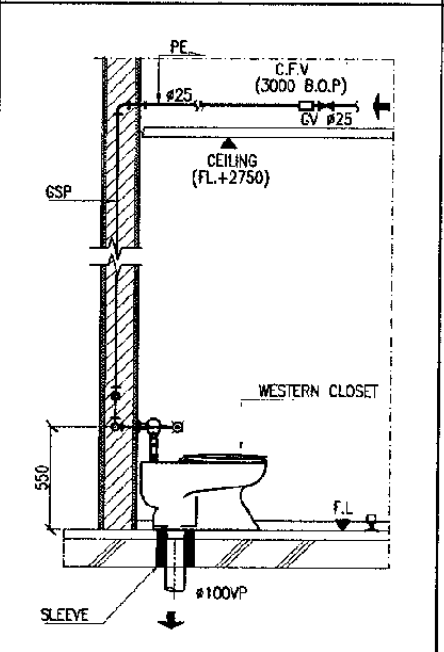
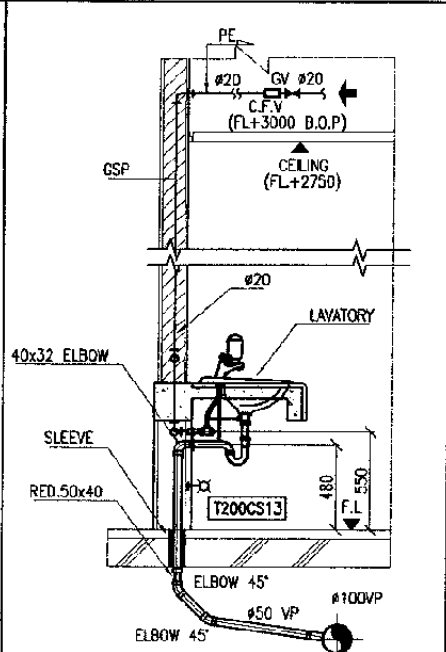
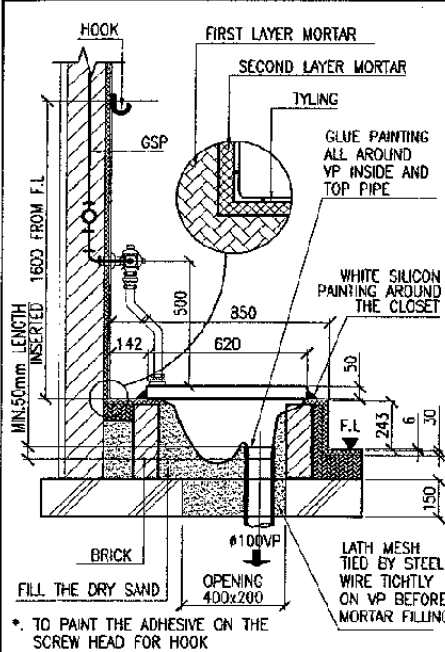
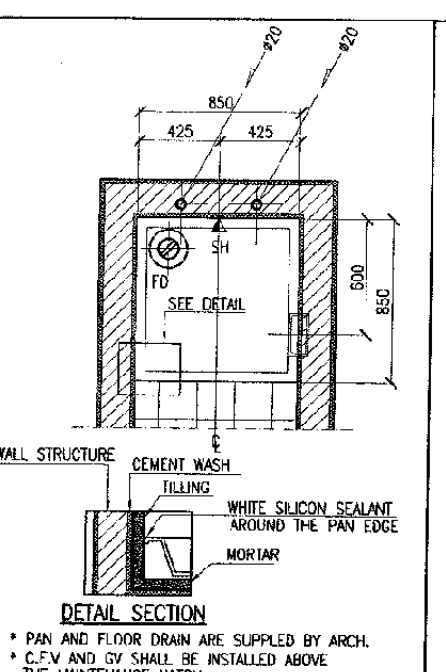
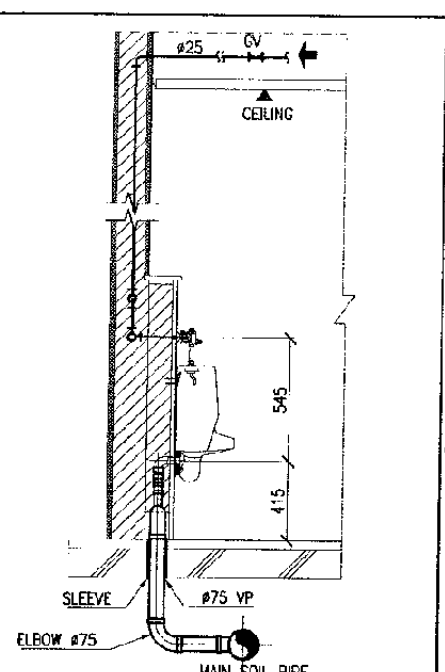
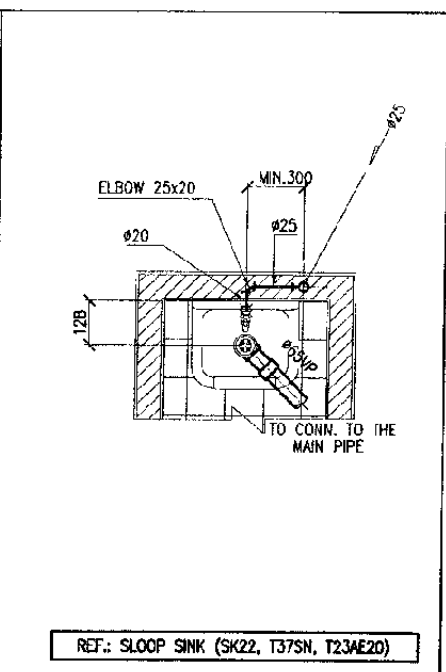
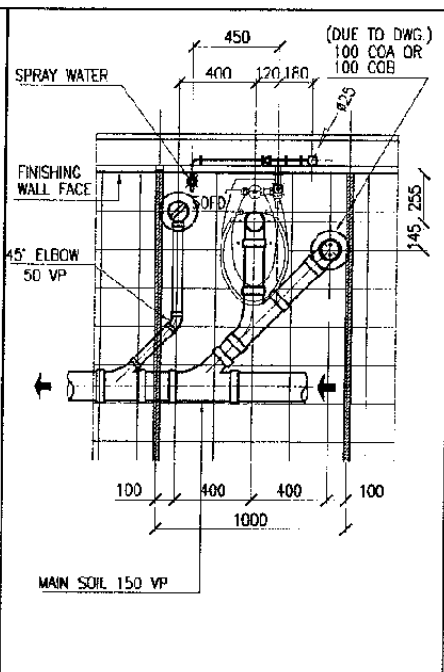
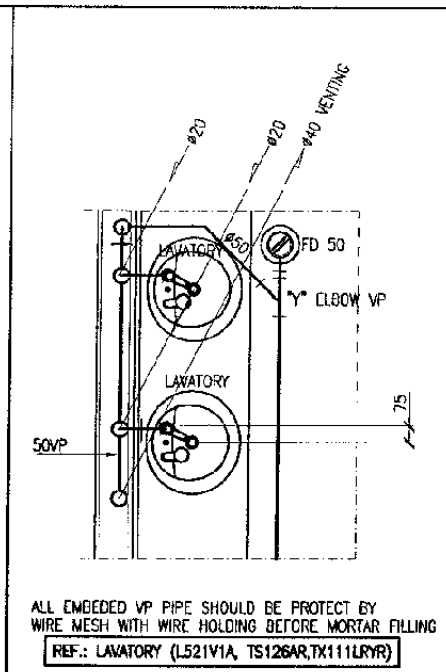
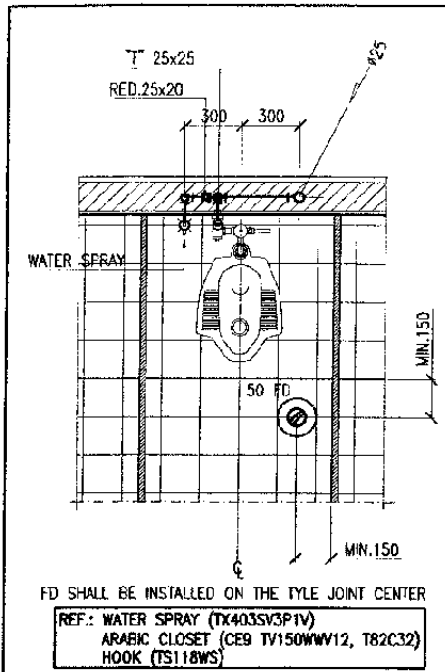
GENERAL

DATE 10/MARCH/2003

Drawing Title :  
 STANDARD DETAIL  
 (2)

Scale: NTS Drawing No.: AM-00-005





The Railway Electrification and Double - double Tracking of Java Main Line Project



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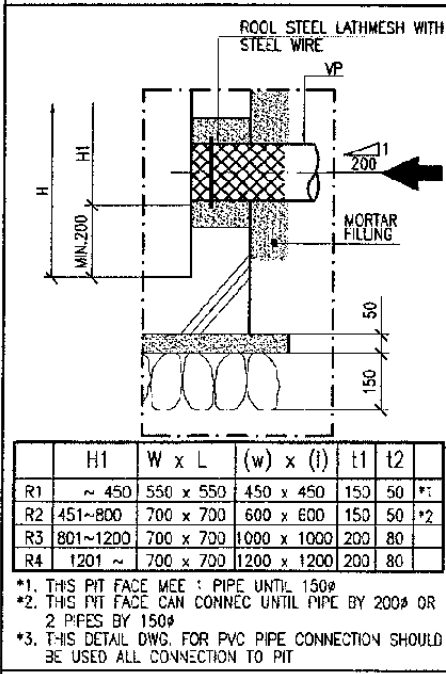
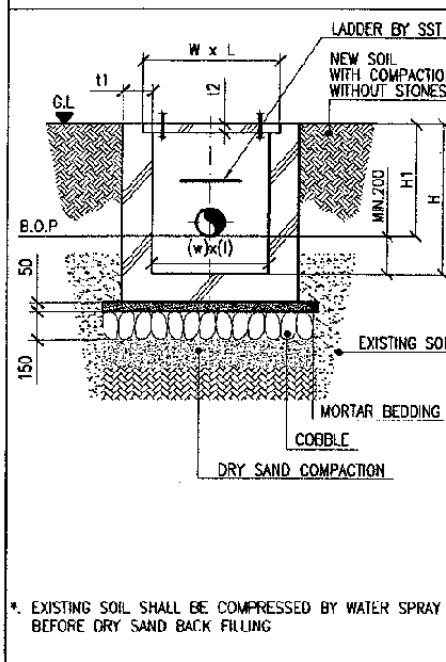
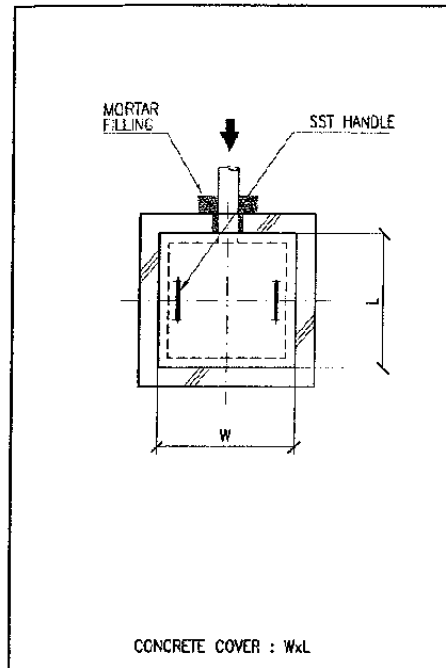
MECHANICAL

GENERAL

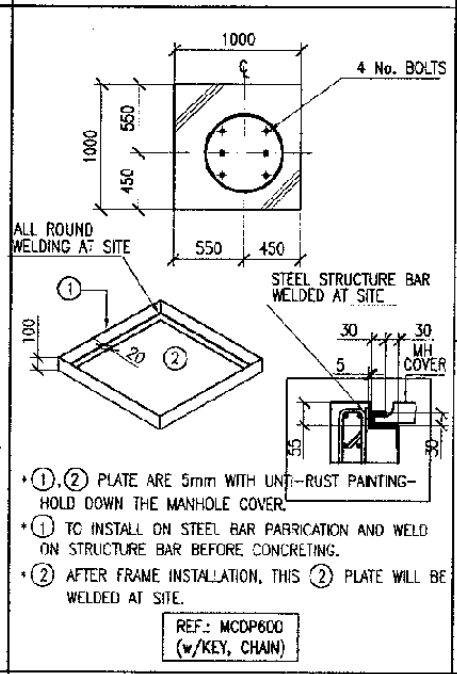
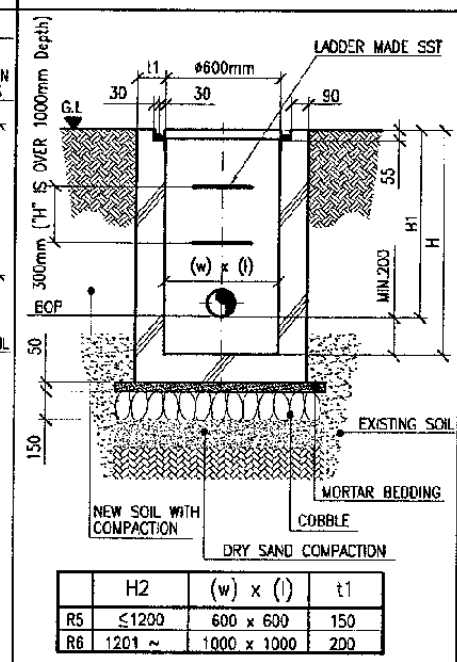
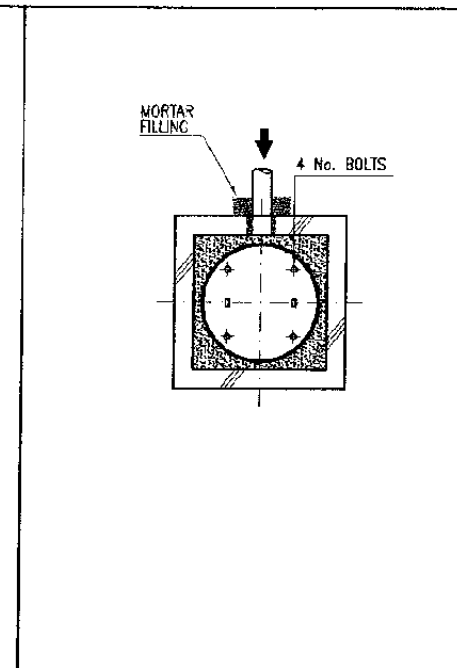
DATE 10/MARCH/2003

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 (3)

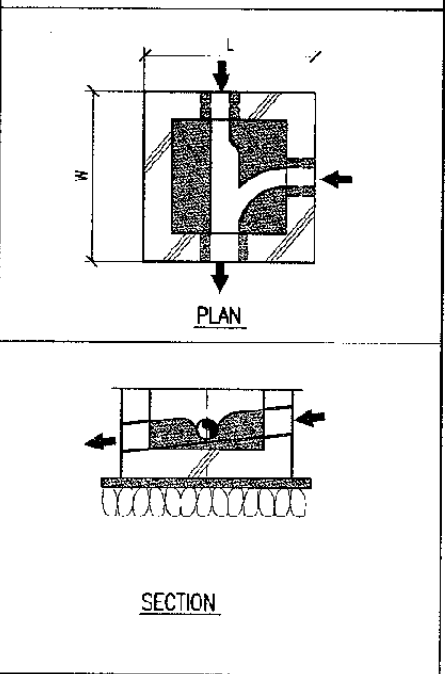
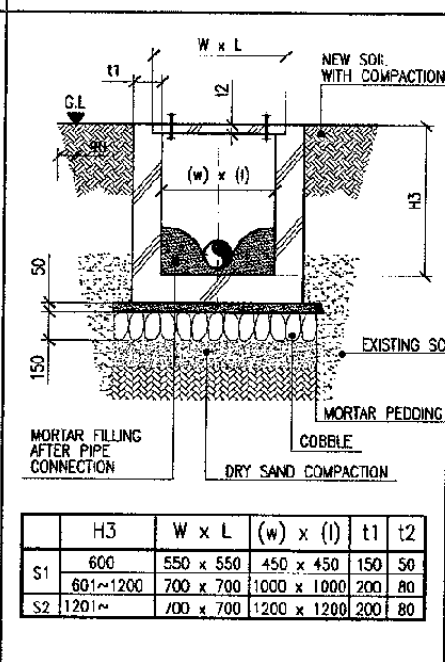
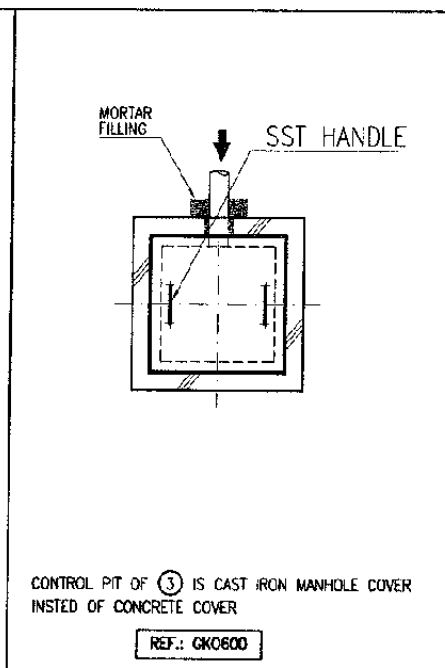
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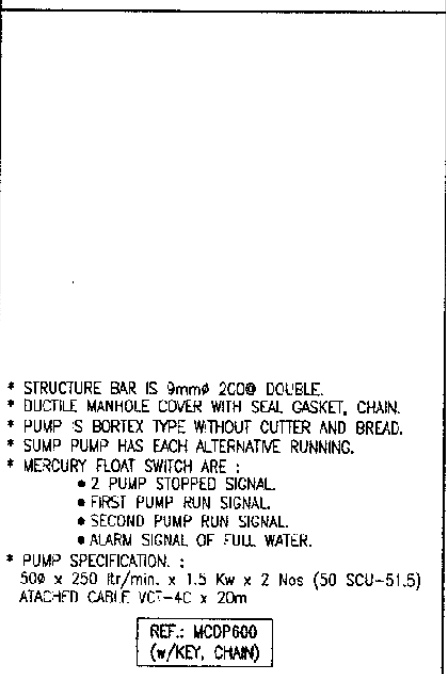
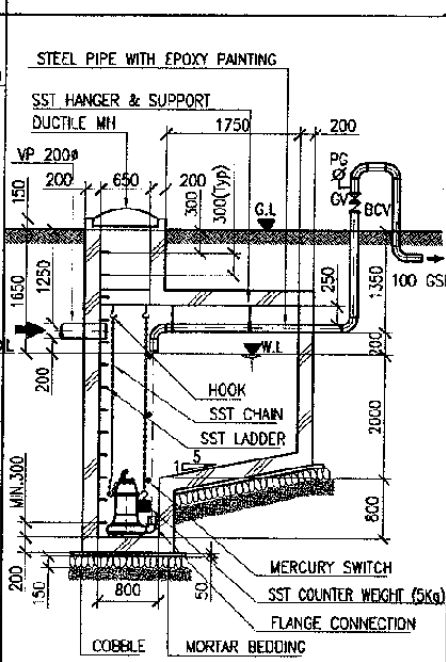
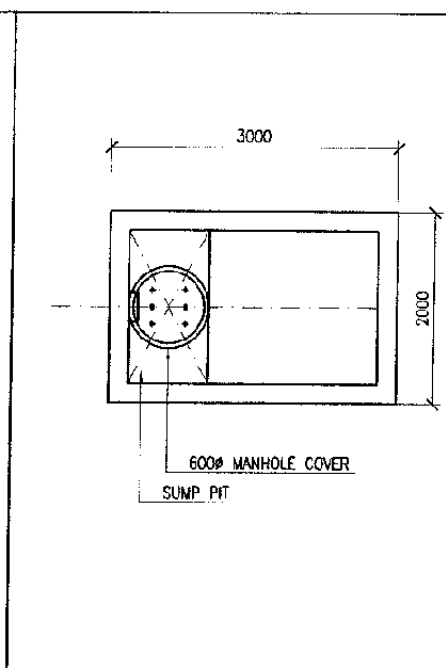
14 CONTROL PIT FOR RAIN WATER  
SCALE: DETAIL



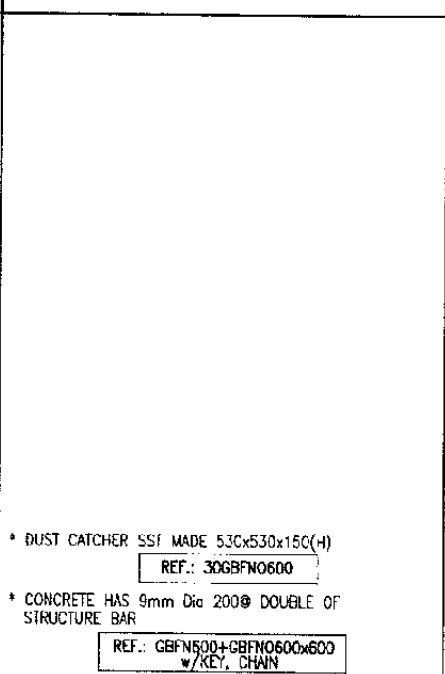
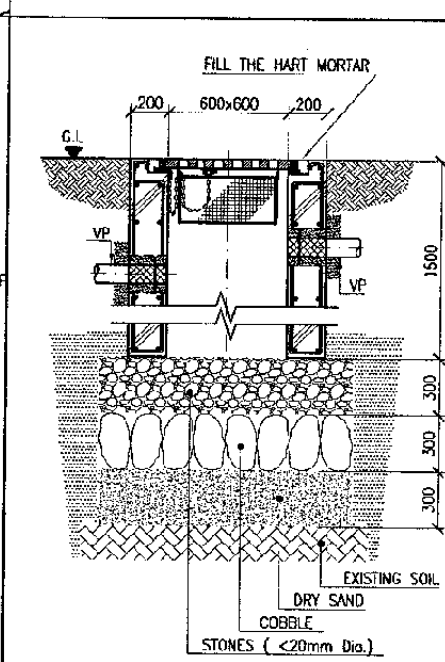
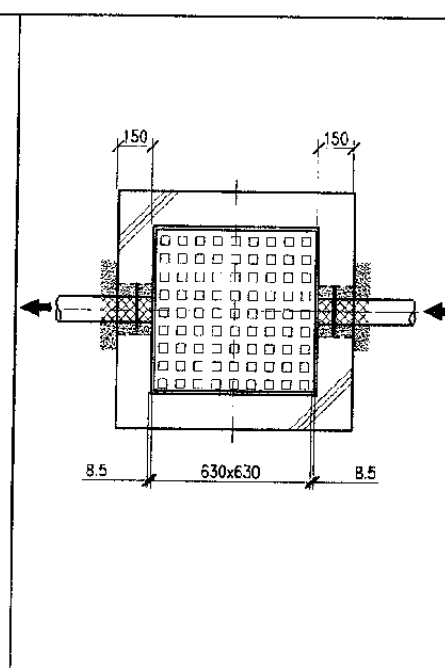
15 CONTROL PIT FOR RAIN WATER  
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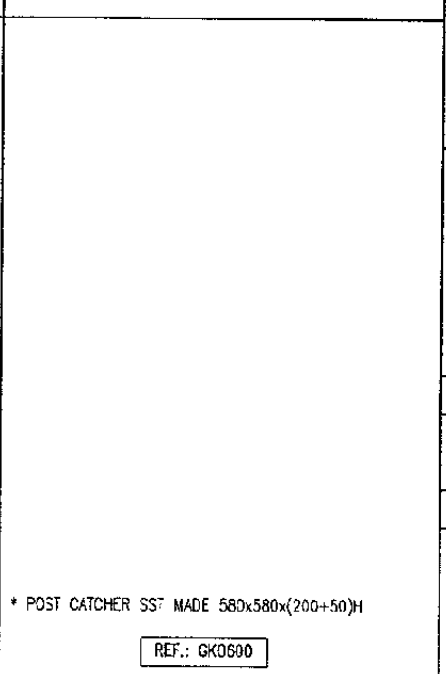
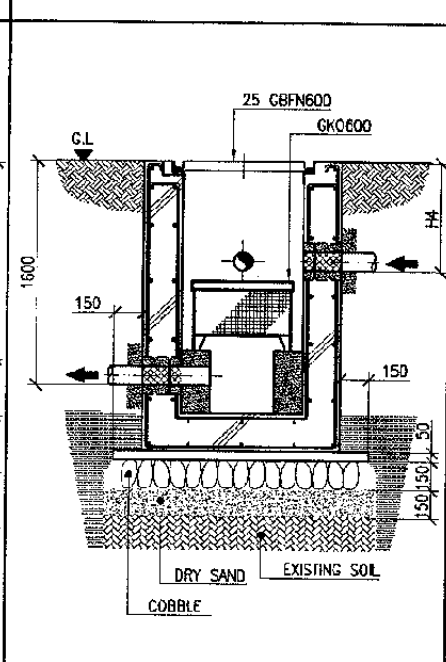
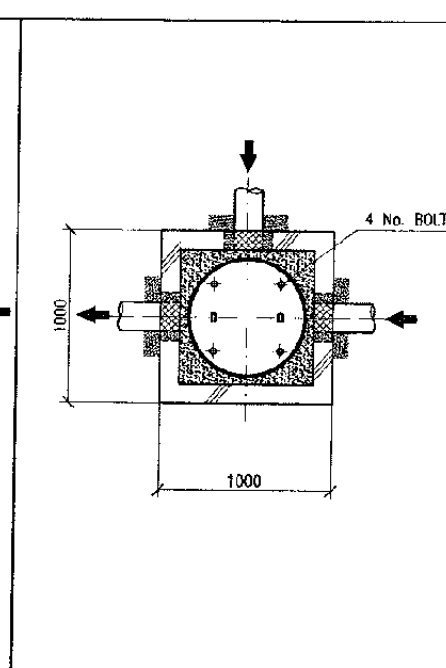
16 CONTROL PIT FOR SOIL WATER  
SCALE: DETAIL



17 SUMP PIT  
SCALE: DETAIL



18 PENETRATION PIT  
SCALE: DETAIL



19 CONTROL PIT FOR WASTE ④  
SCALE: DETAIL

The Railway Electrification and Double - double Tracking of Java Main Line Project



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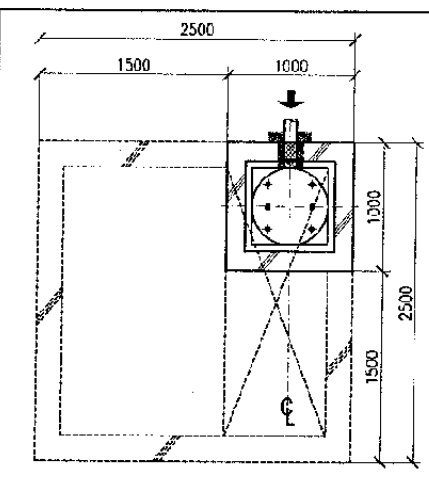
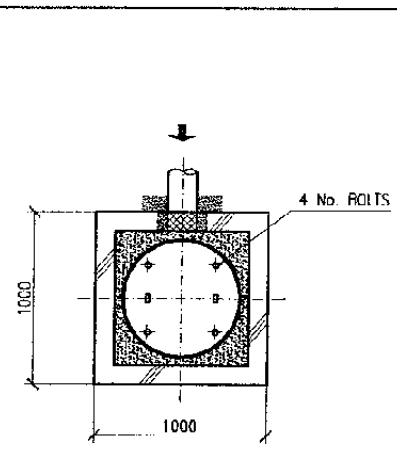
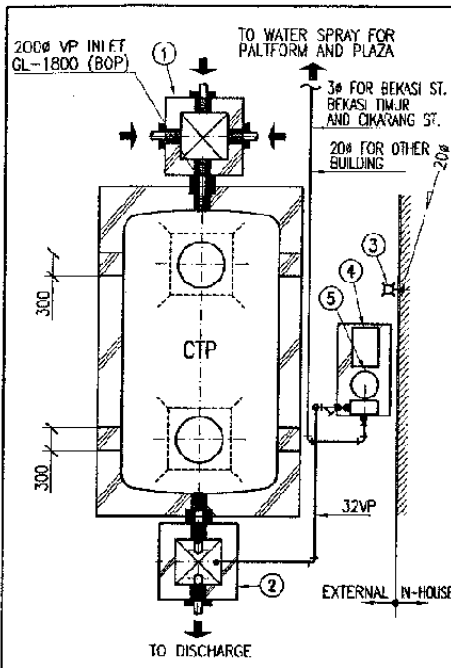
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GENERAL

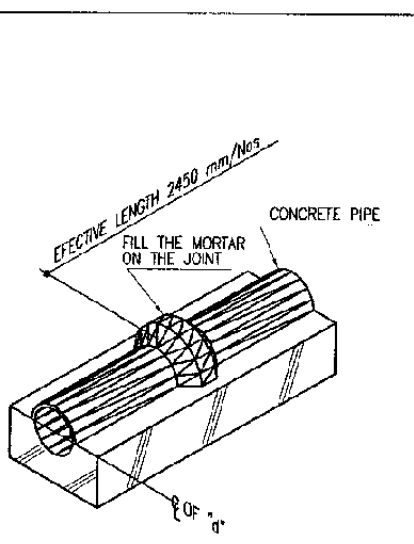
DATE 10/MARCH/2003

Drawing Title :  
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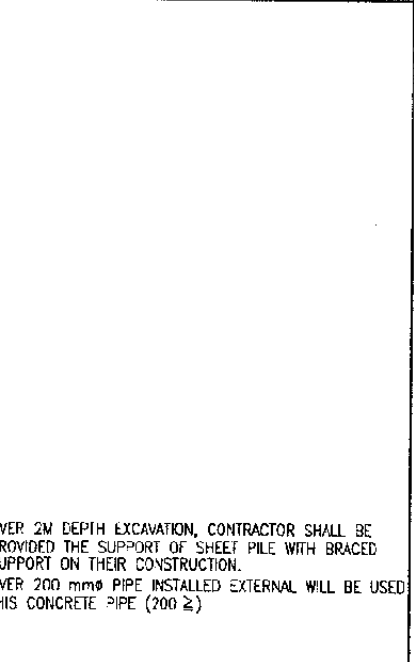
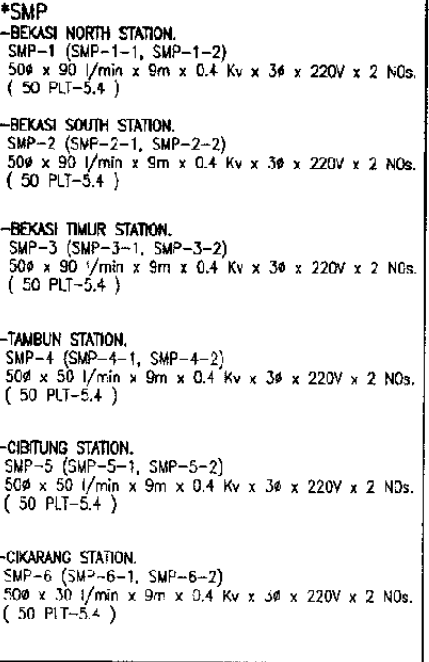
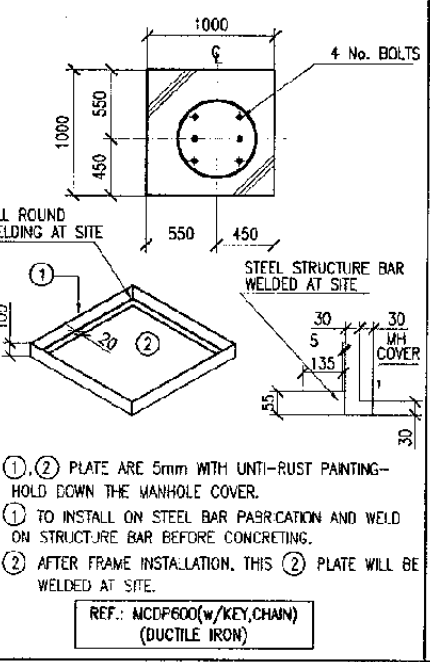
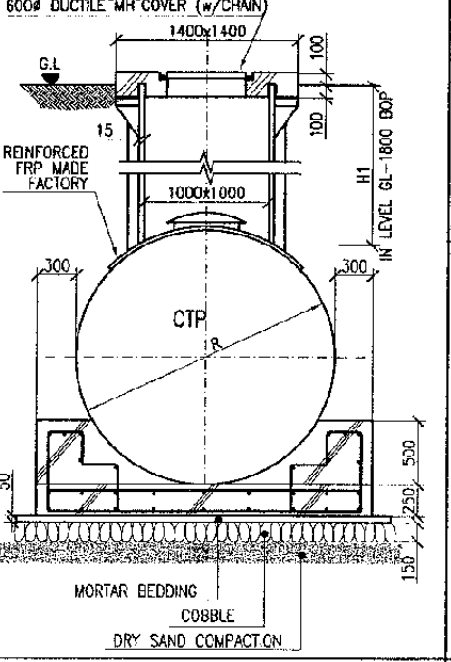
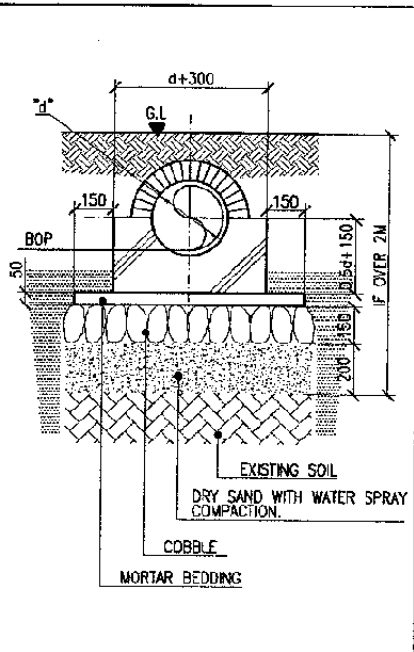
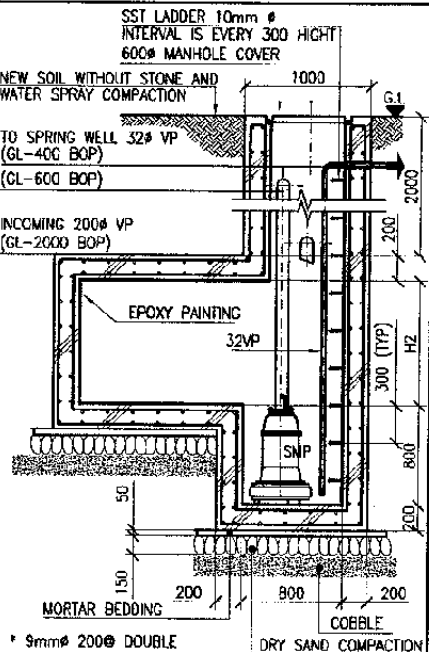
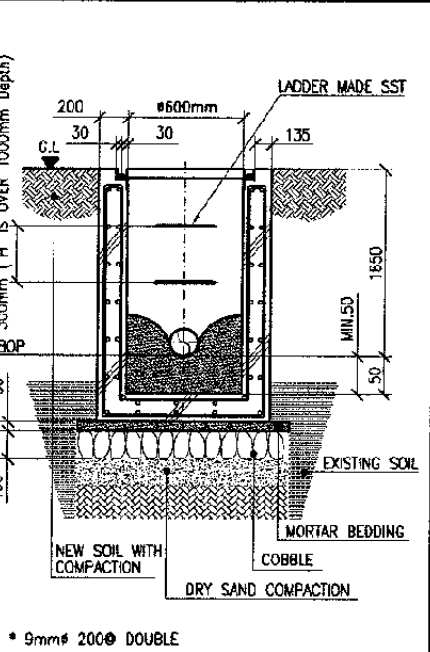
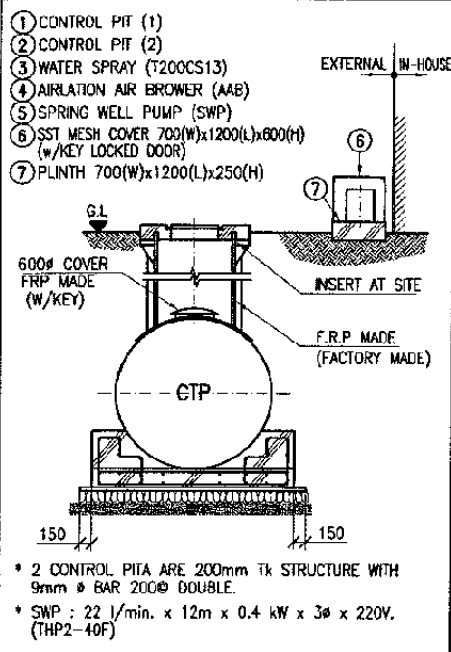
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Drawing No.: AM-00-007



	BEKASI NORTH	BEKASI SOUTH	BEKASI TIMUR	TAMBUN	CIBITUNG	CIKARANG
M3	12.5	12.5	6.25	6.25	6.25	6.25 x 2
H1						
H2	2000	2000	1000	1000	1000	1000 x 2



\* THE SLOPE IS 1/200



20 COMBINE TREATMENT PLANT  
SCALE: DETAIL

21 CONTROL PIT (1) FOR SOIL  
SCALE: DETAIL

22 CONTROL PIT (2) FOR SOIL  
SCALE: DETAIL

23 CONCRETE PIPE CONNECTION  
SCALE: DETAIL

The Railway Electrification and Double - double Tracking of Java Main Line Project



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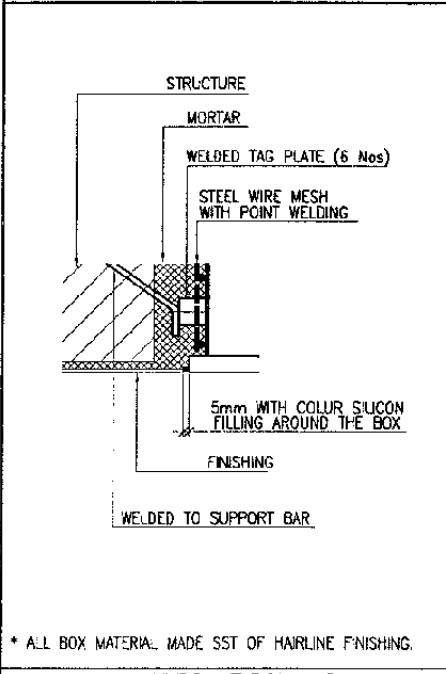
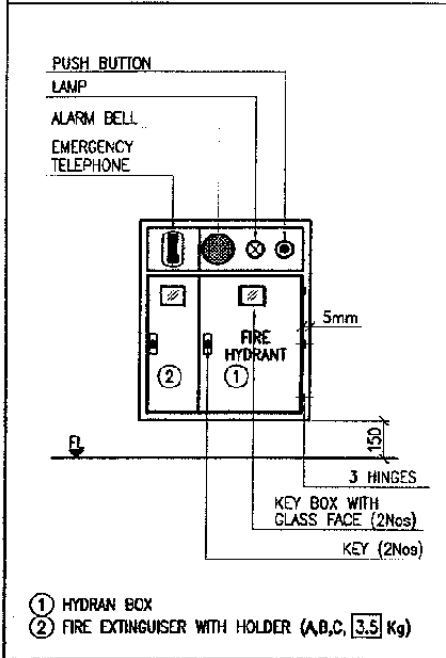
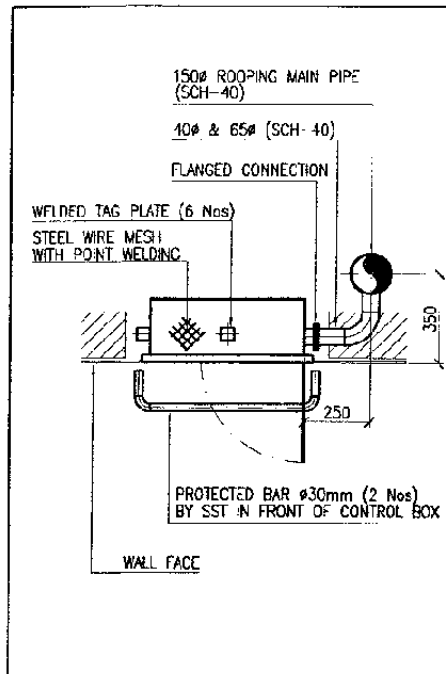
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JICA Study Team:  
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MECHANICAL  
GENERAL

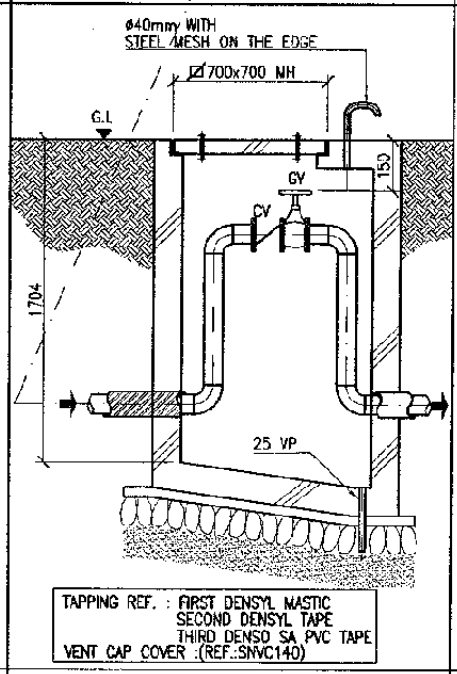
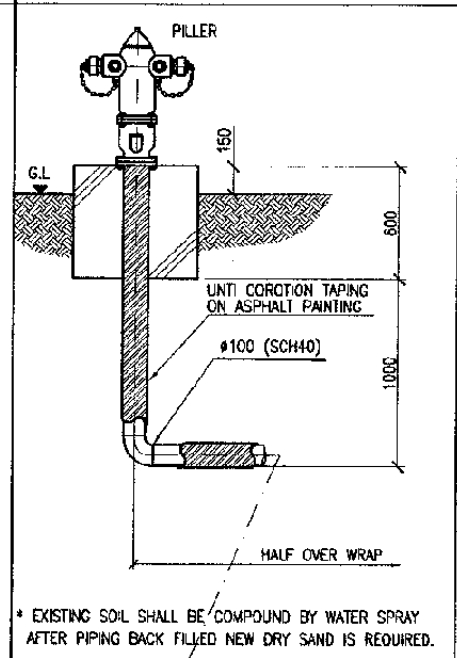
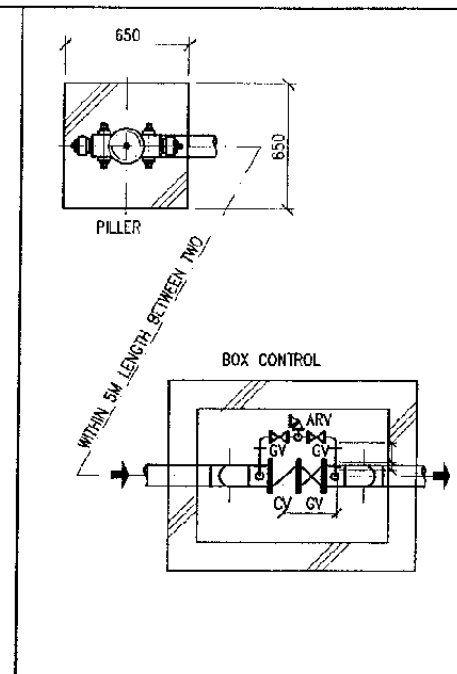
DATE 10/MARCH/2003

Drawing Title :  
STANDARD DETAIL  
(5)

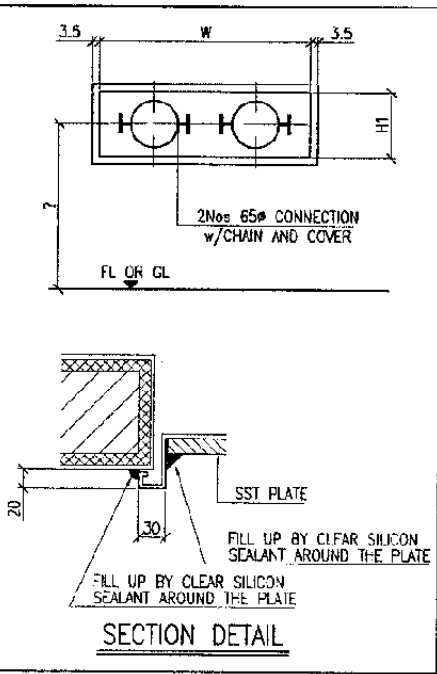
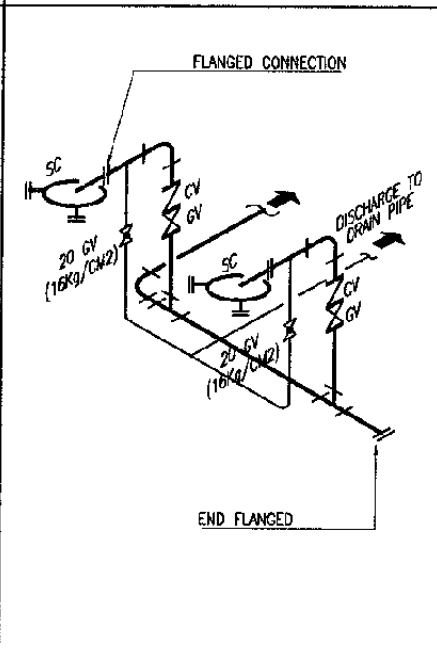
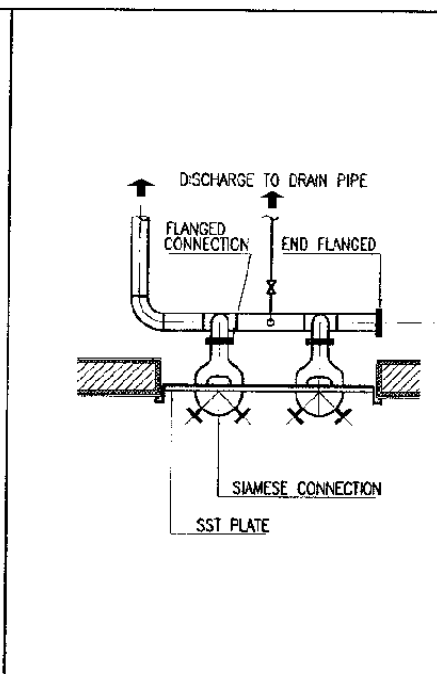
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Drawing No.: AM-00-008



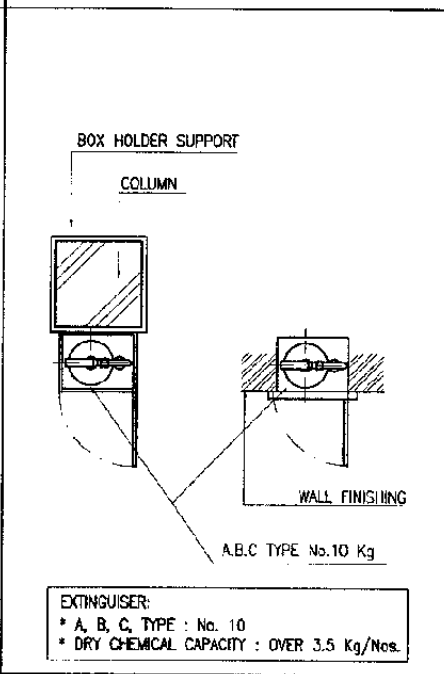
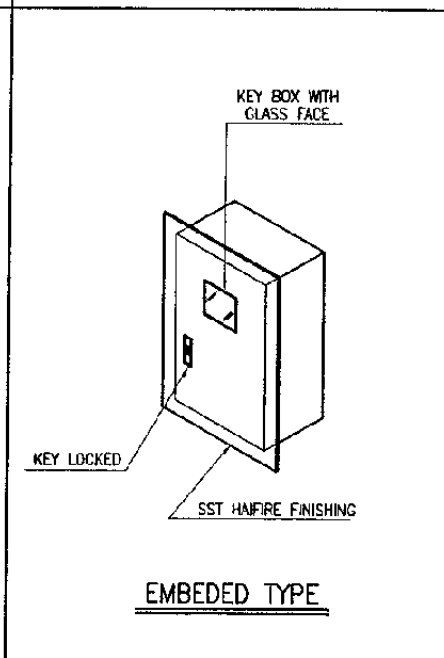
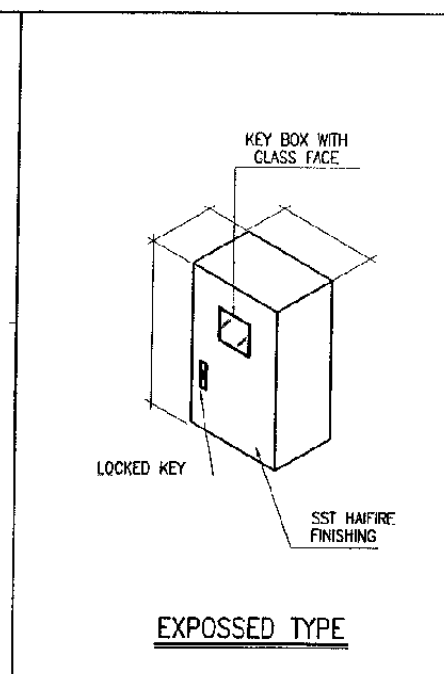
24 HYDRANT BOX AND FIRE EXTINGUISHER  
DETAIL SCALE



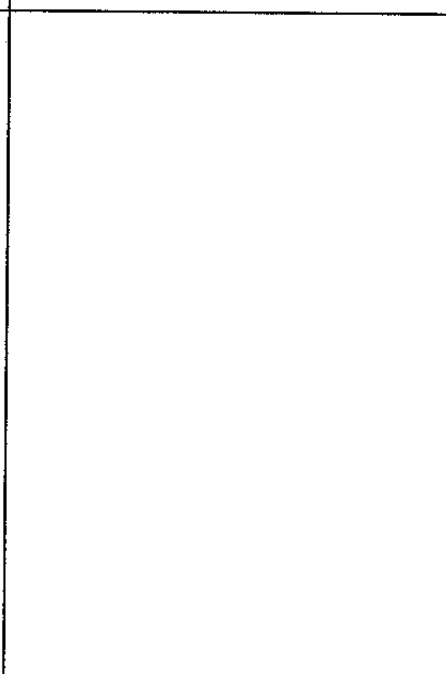
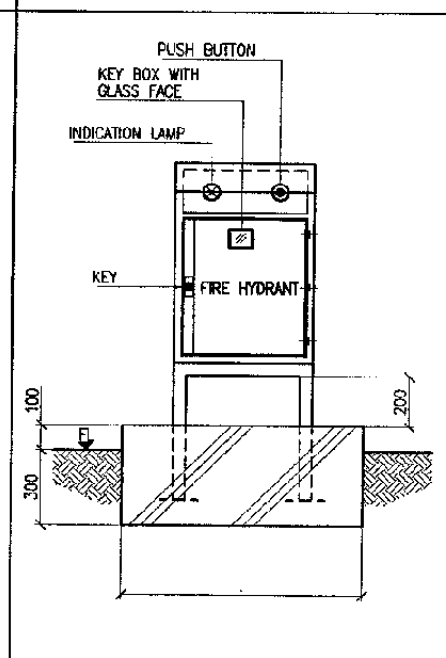
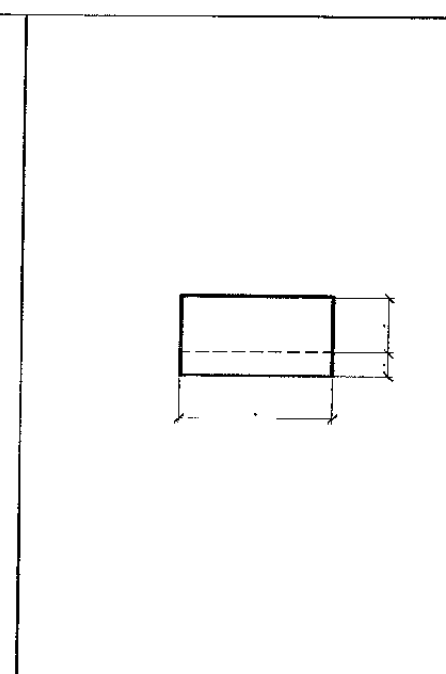
25 PILLER  
DETAIL SCALE



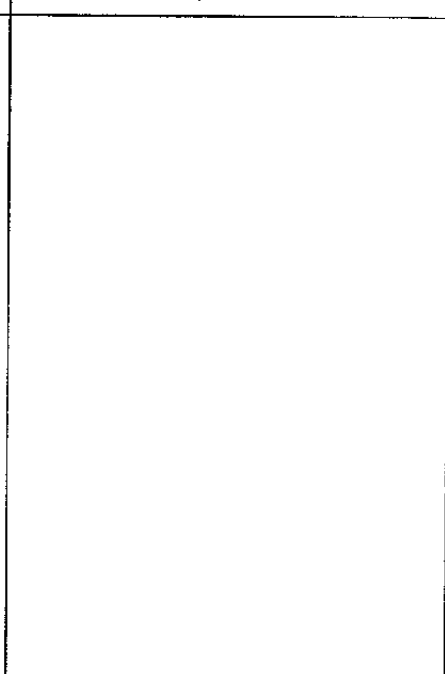
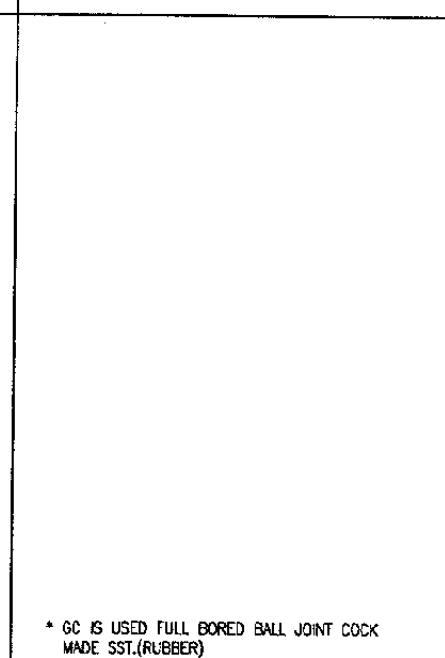
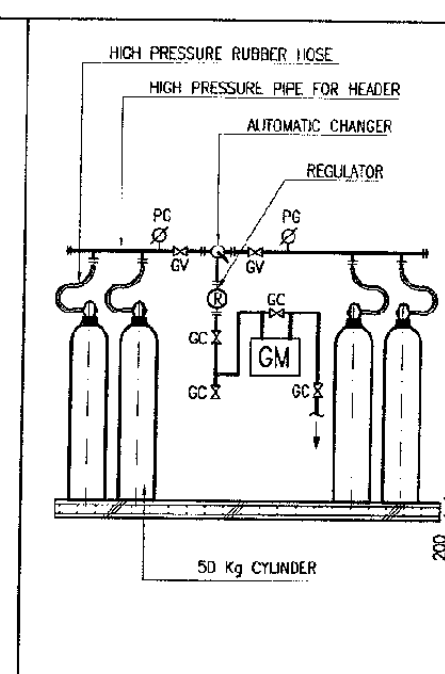
26 SIAMESE CONNECTION  
DETAIL SCALE



27 FIRE EXTINGUISHER & CABINET  
DETAIL SCALE



28 OUTDOOR HYDRANT BOX  
DETAIL SCALE



29 LPG CYLINDER UNIT (PIPING)  
DETAIL SCALE

The Railway Electrification and Double - double Tracking of Java Main Line Project

DEPARTMENT OF COMMUNICATION  
MINISTRY OF COMMUNICATION  
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DIRECTORATE GENERAL OF LAND COMMUNICATION  
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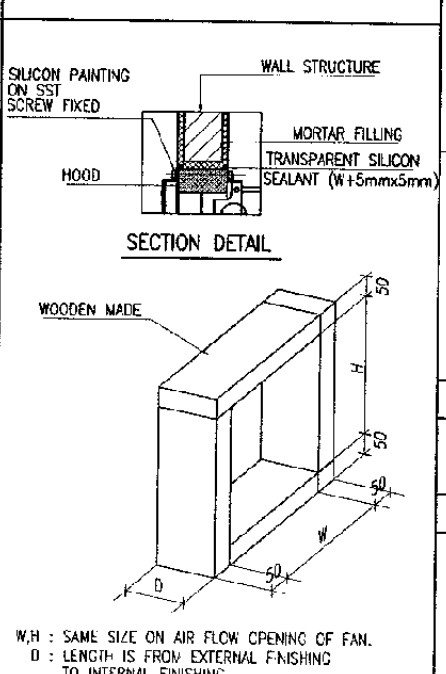
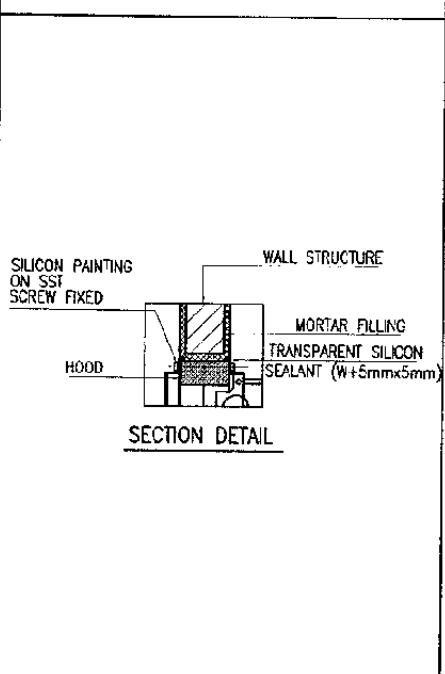
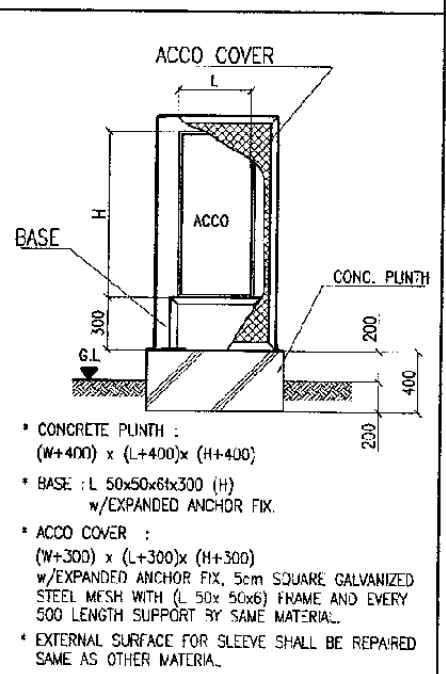
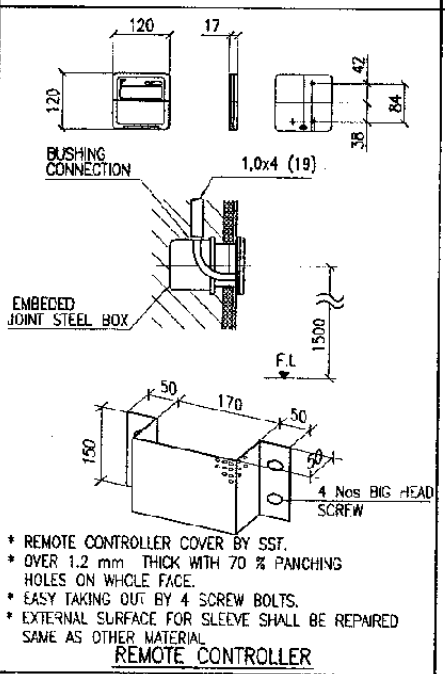
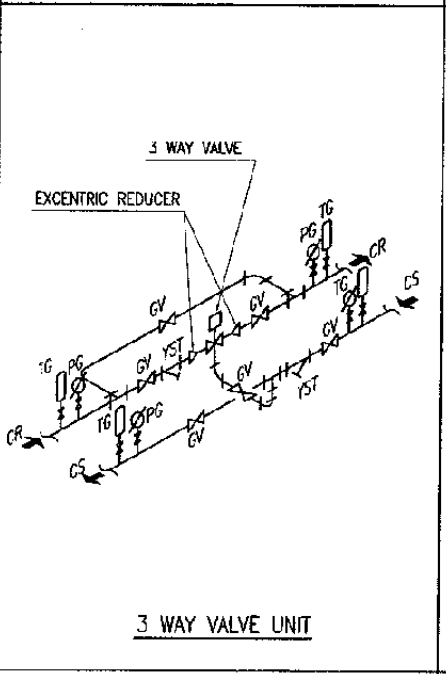
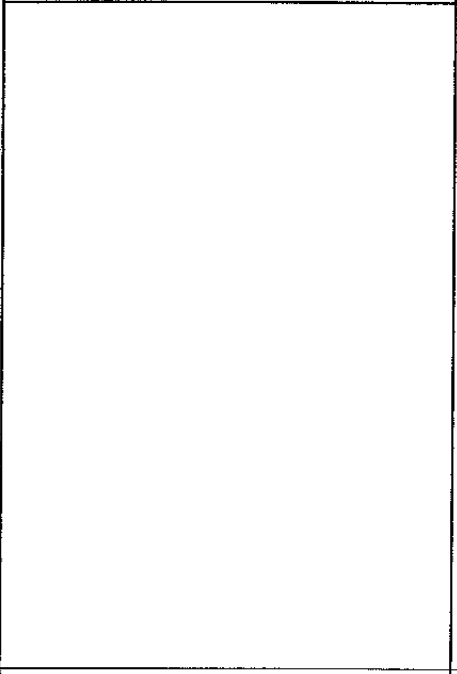
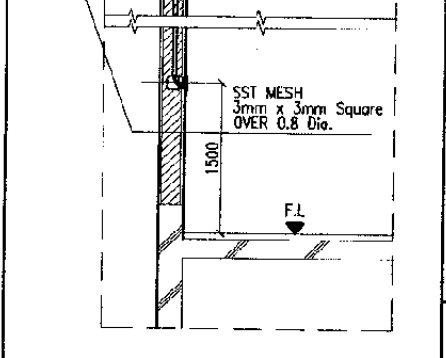
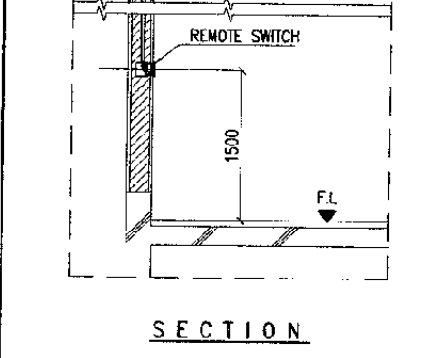
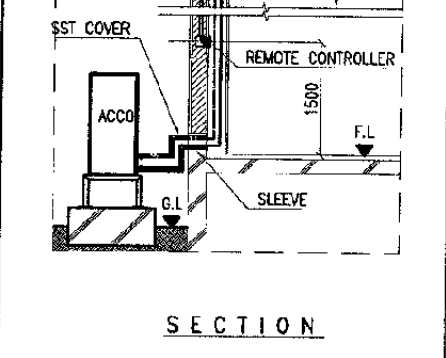
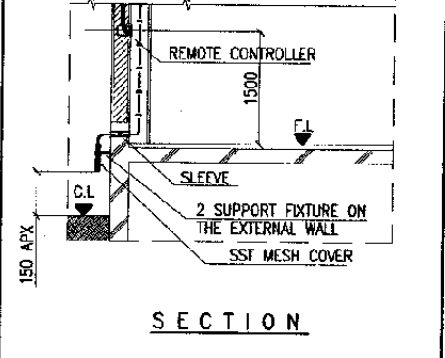
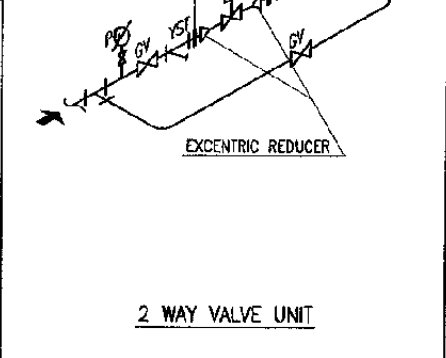
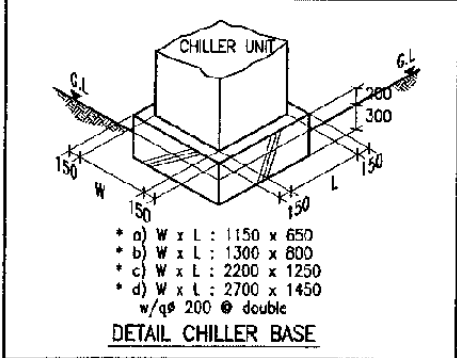
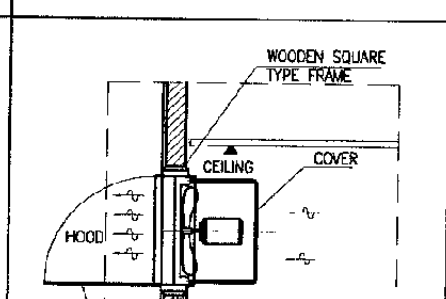
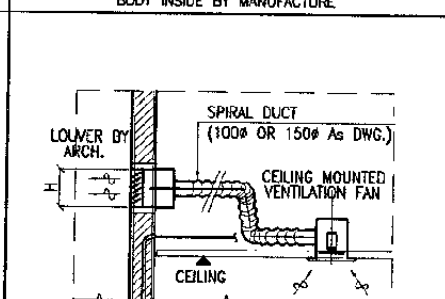
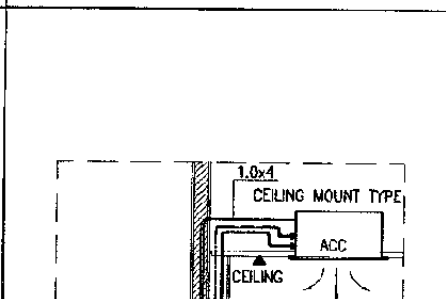
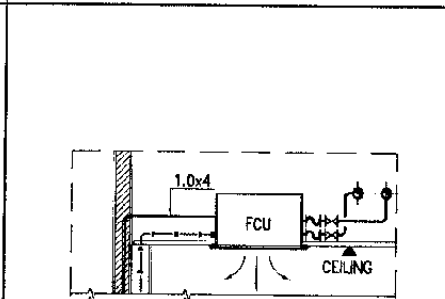
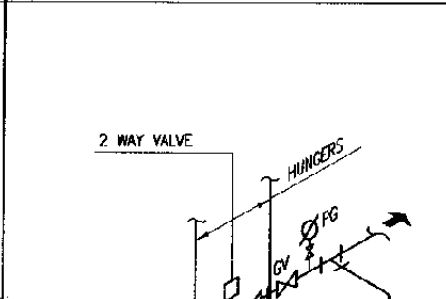
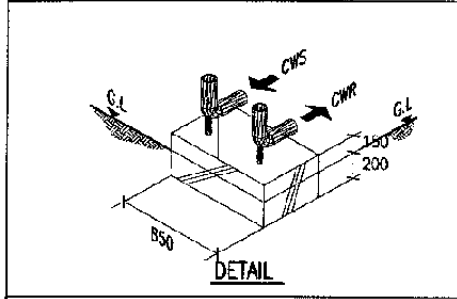
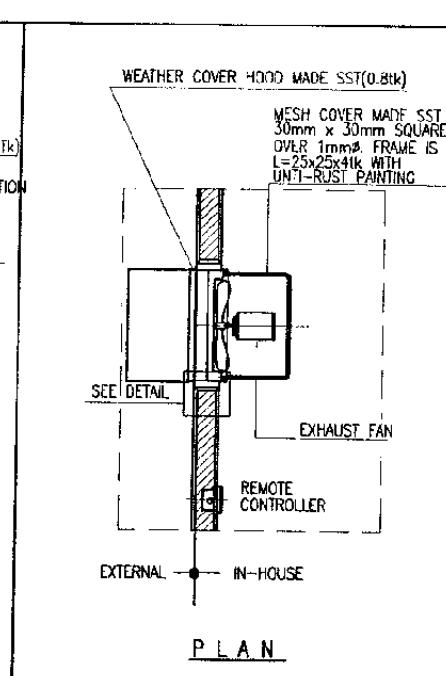
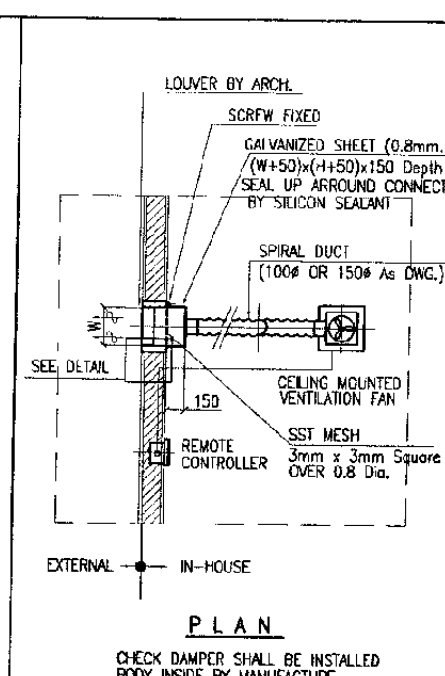
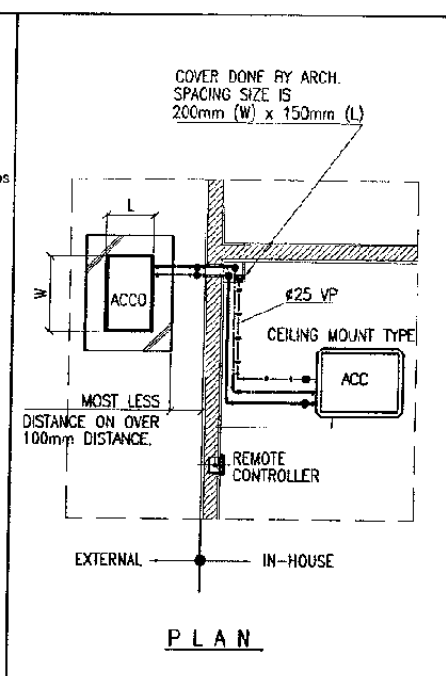
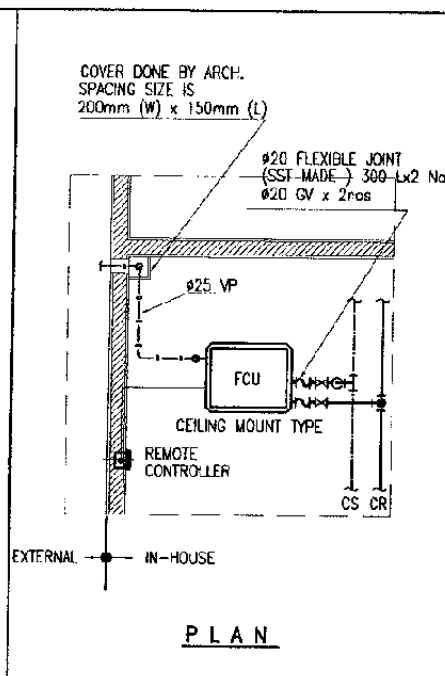
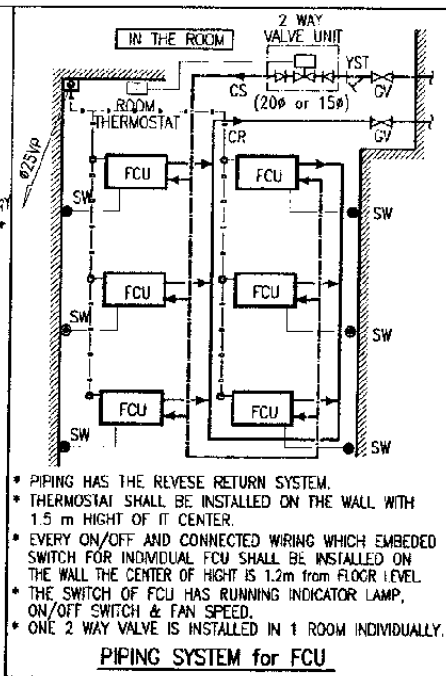
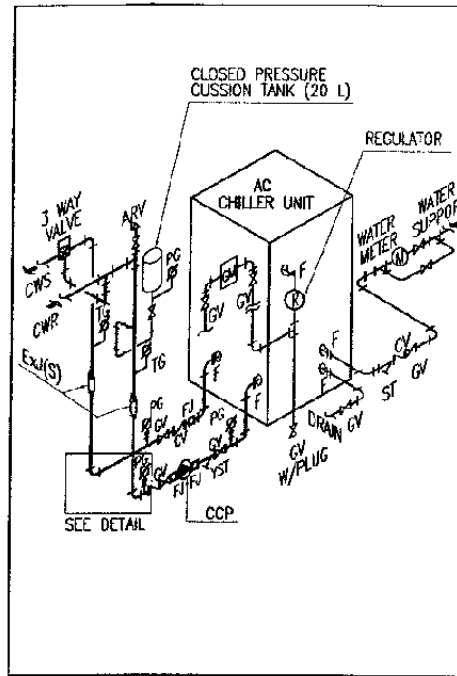
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(6)

Scale: | Drawing No.:  
NTS | AM-00-009



The Railway Electrification and Double - double Tracking of Java Main Line Project

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DATE 10/MARCH/2003

Drawing Title :  
STANDARD DETAIL  
(7)

Scale: NTS Drawing No.: AM-00-010

30 AROUND CHILLER SCALE

31 PIPING SYSTEM for FCU AND 2 & 3 WAY VALVE UNIT SCALE

32 INSTALLATION OF FCU SCALE

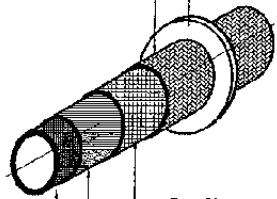
33 INSTALLATION OF A/C UNIT SCALE

34 INSTALLATION OF CEILING MOUNTED EXHAUST FAN SCALE

35 INSTALLATION OF WALL MOUNTED EXHAUST FAN (1) SCALE

"DENSYL MASTIC" SHALL BE PUT ON FLANGE AND VALVE

("DENSO SA PVC TAPE")



HALF OVER WRAP UNTI CORROSION TAPE ("DENSYL TAPE")

ASPHALT PAINTING

STEEL PIPE

"DENSYL TAPE" AS UNTI-CORROSION



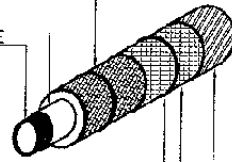
ø20mm or ø25mm STEEL PIPE

EMBEDDED PIPE IN THE WALL

PIPE TYPE GLASS WOOL INSULATION WITH REINFORCED ALUMINUM SHEET

ADHESIVE PAINTING

STEEL PIPE



STEEL WIRE TIE  
VINYL SHEET AROUND HALF OVER WRAPPING

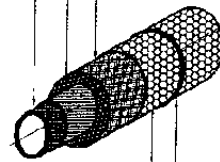
SST (0.4mmtk)

EXTERNAL EXPOSED TYPE

STEEL PIPE

ADHESIVE PAINTING

PIPE TYPE GLASSWOOL ISULATION WITH REINFORCED ALUMINUM SHEET

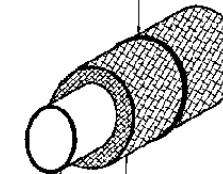


HEXAGONAL PATTERN WIRE NETTING

STEEL WIRE TIE

INSIDE CEILING & PIPE SHAFT

STEEL WIRE TIE

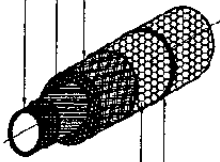


20mm PIPE TYPE INSULATION (24kg/cm<sup>2</sup>) WITH REINFORCED ALUMINUM SHEET

VP PIPE FOR AIR CONDENSING DRAIN PIPE

INSIDE CEILING ONLY

STEEL PIPE  
ADHESIVE PAINTING  
PIPE TYPE GLASSWOOL ISULATION WITH REINFORCED ALUMINUM SHEET



HEXAGONAL PATTERN WIRE NETTING

STEEL WIRE TIE

INSIDE CEILING & PIPE SHAFT

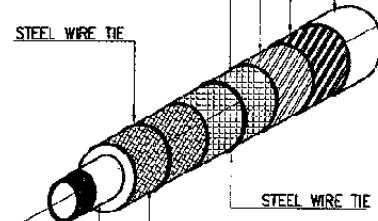
REQUIRED COLOUR OF PAINTING

FILLERIN PAINTING

HALF OVER WRAPPED COTTON CLOTH

UN-FLAMABLE HARDER PAPER

STEEL WIRE TIE



STEEL WIRE TIE

PIPE TYPE GLASS WOOL INSULATION WITH REINFORCED ALUMINUM SHEET

ADHESIVE PAINTING

STEEL PIPE

EXPOSED IN THE ROOM

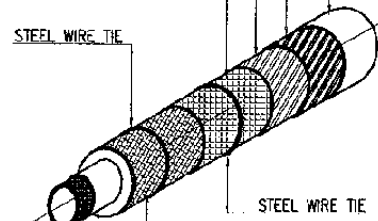
REQUIRED COLOUR OF PAINTING

FILLERIN PAINTING

HALF OVER WRAPPED COTTON CLOTH

UN-FLAMABLE HARDER PAPER

STEEL WIRE TIE



STEEL WIRE TIE

PIPE TYPE GLASS WOOL INSULATION WITH REINFORCED ALUMINUM SHEET

ADHESIVE PAINTING

STEEL PIPE

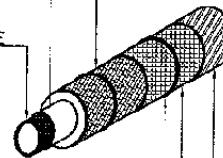
EXPOSED INSIDE THE ROOM

THE THICKNESS & DENSITY OF PIPE INSULATION

PIPE SIZE (ø)	20	25	32	40	50	65	80	100
INSULATIONS mm.tk	20	20	25	25	30	30	30	30
INSULATIONS kg/m <sup>3</sup>	32	32	32	32	32	32	32	32

ADHESIVE PAINTING

STEEL PIPE



STEEL WIRE TIE

VINYL SHEET AROUND HALF OVER WRAPPING

SST (0.4mmtk)

EXTERNAL EXPOSED TYPE

THE THICKNESS & DENSITY OF PIPE INSULATION

PIPE SIZE (ø)	20	25	32	40	50	65	80	100	150
INSULATIONS mm.tk	20	20	40	40	50	50	50	50	50
INSULATIONS kg/m <sup>3</sup>	32	32	32	32	32	32	40	40	40

INSULATION OF CONDENSING DRAIN PIPE

The Railway Electrification and Double - double Tracking of Java Main Line Project



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MECHANICAL

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DATE 10/MARCH/2003

Drawing Title :  
STANDARD DETAIL (8)

Scale: NTS Drawing No.: AM-00-011

36

UNDERGROUND PROTECTION

SCALE:

37

INSULATION OF WATER PIPE AND DOMESTIC HOT WATER (GSP)

SCALE:

38

INSULATION OF CHILLED WATER PIPE

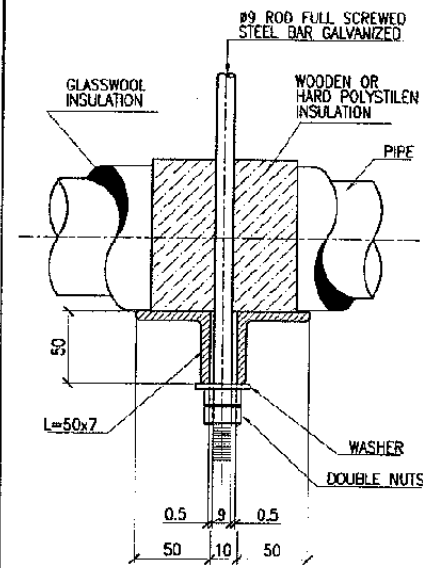
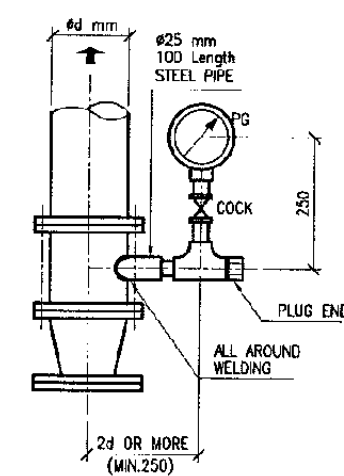
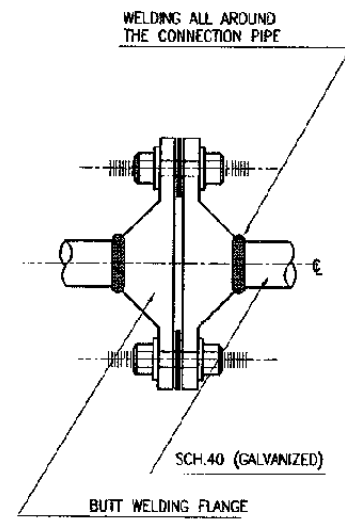
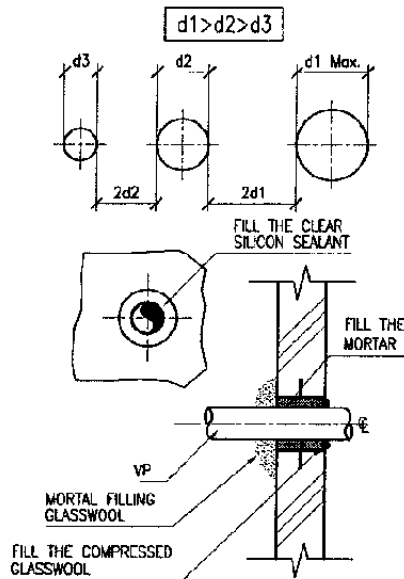
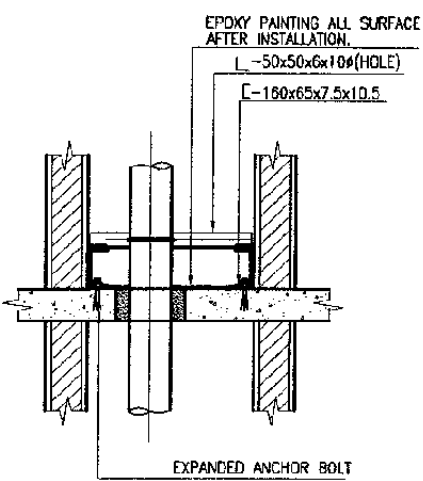
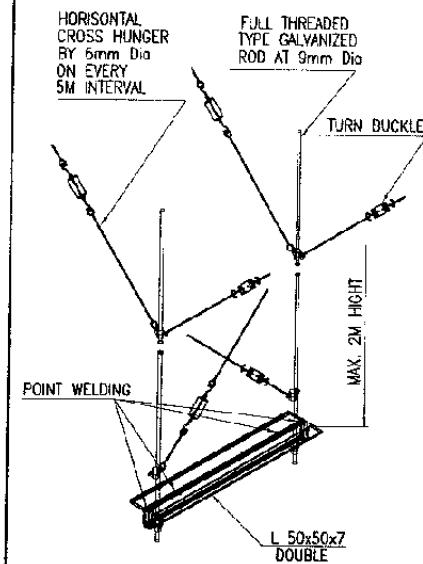
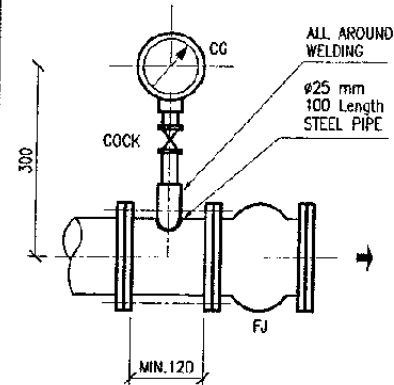
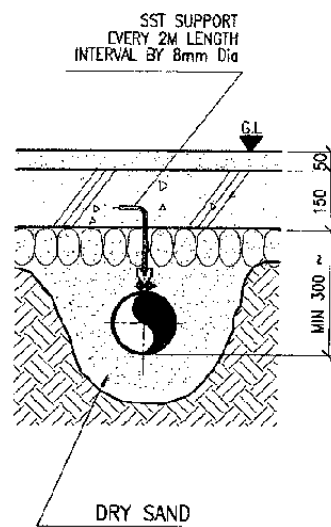
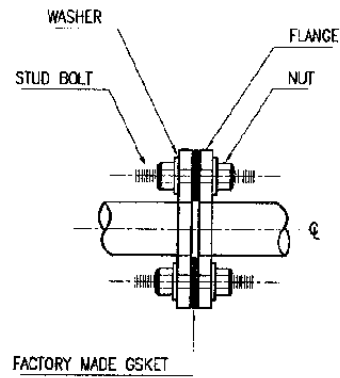
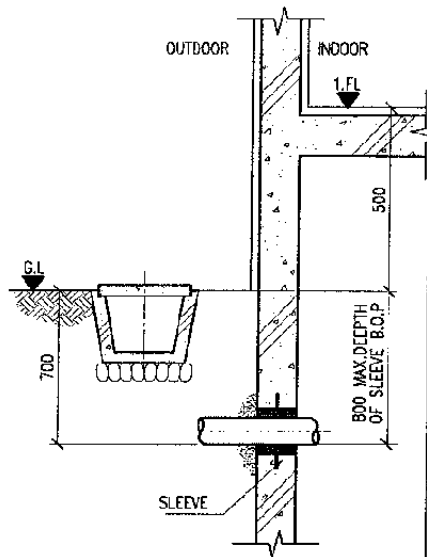
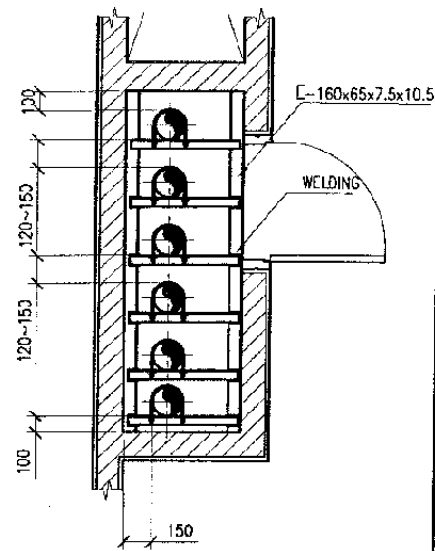
SCALE:

39

INSULATION OF CONDENSING DRAIN PIPE

SCALE:





- \* C MATERIAL LENGTH IS FULL SAME LENGTH IS SHAFT.
- \* L&C SHALL BE UNI-RUST PAINT AFTER HOLES WORK-BY DRILL.
- \* PIPE FIXTURE SHALL BE STEEL FLAT BAR BOLT, (OVER 6mm)
- \* AFTER FILLED MORTAR IN SLEEVE, ALL FLOOR SHALL BE PAINTED BY EPOXY WITHOUT WATER LEAK.

- 50 Dia VP.....d=100 mm Dia
- 65 Dia VP.....d=100 mm Dia
- 75 Dia VP.....d=125 mm Dia
- 100 Dia VP.....d=150 mm Dia

- \* ISOLATION FLANGE UNIT SHALL BE INSTALLED BUILDING INCOMING PIPE FROM EXTERNAL UNDERGROUND.
- \* ISOLATION FLANGES, BOLTS, NUTS AND GASKET.

- \* 2 TIMES UNI-RUST PAINT ON L 50 x 7 AFTER WELDING

The Railway Electrification and Double - double Tracking of Java Main Line Project

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MECHANICAL

GENERAL

DATE 10/MARCH/2003

Drawing Title :  
 STANDARD DETAIL  
 (9)

Scale: NTS Drawing No.: AM-00-012

40 TYPICAL SHAFT INSIDE INSTALLATION  
 DETAIL SCALE:

41 WALL SLEEVE ON UNDER GROUND  
 DETAIL SCALE:

42 FLANGE CONNECTION  
 DETAIL SCALE:

43 UNDERGROUND PIPE  
 DETAIL SCALE:

44 COMPOUND GAUGE PRESSURE GAUGE  
 DETAIL SCALE:

45 HUNGER SUPPORT  
 DETAIL SCALE:

# EQUIPMENT SCHEDULE LIST (1)

NO.	NAME	QTY	SPECIFICATION	REMARKS
AC-1	Absorption Chiller (Cooling Only) (BEKASI STATION)	1	Cooling Caps.: 99,700 kcal/hr Chiller Water : (Inlet) 12 °C (Outlet) 7 °C Water Flow : 75ø x 332 ltr/min x 12mAg Burner : 2 Sources of LPG gas and diesel LPG Gas : (12,000 kal/hr-kg) : 8.3 kg/hr Water Comp. : 7.5 ltr/min Elect. Comp. : 3ø x 220 V x 5 kW Accessories : The wiring between Remote- Controller and inverter for energy Compsumption Interlocked wiring with CCP and 3 way valve. Silent Fan for Condenser. Unti Vibration rubber pad on - whole plan area. L-Angle support with "J" type - anchor Volt. Concrete plinth: 3,000 (W) x 1,700 (L) x 200 (H) ( Arch. work)	Ref. (BCT116)
AC-2	Absorption Chiller (Cooling Only) (BEKASI TIMUR STATION)	2	Cooling Caps.: 13,600 kcal/hr Chiller Water : (Inlet) 12 °C (Outlet) 7 °C Water Flow : 32ø x 45.3 ltr/min x 6mAg Burner : 2 Sources of LPG gas and diesel LPG Gas : (12,000 kal/hr-kg) : 1.13 kg/hr Water Comp. : 1 ltr/min Elect. Comp. : 3ø x 220 V x 0.8 kW Accessories : The wiring between Remote- Controller and inverter for energy Compsumption Interlocked wiring with CCP and 3 way valve. Silent Fan for Condenser. Unti Vibration rubber pad on- whole plan area. L-Angle support with "J" type - anchor Volt. Concrete plinth: 3,000 (W) x 1,000 (L) x 200 (H) ( Arch. work)	Ref. (BCT16)
AC-3	Absorption Chiller (Cooling Only) (TAMBUN STATION)	1	Cooling Caps.: 13,600 kcal/hr Chiller Water : (Inlet) 12 °C (Outlet) 7 °C Water Flow : 32ø x 45.3 ltr/min x 6mAg Burner : 2 Sources of LPG gas and diesel LPG Gas : (12,000 kal/hr-kg) : 1.13 kg/hr Water Comp. : 1 ltr/min Elect. Comp. : 3ø x 220 V x 0.8 kW Accessories : The wiring between Remote- Controller and inverter for energy	Ref. (BCT16)

NO.	NAME	QTY	SPECIFICATION	REMARKS
AC-4	Absorption Chiller (Cooling Only) (CIBITUNG STATION)	1	Cooling Caps.: 13,600 kcal/hr Chiller Water : (inlet) 12 °C (Outlet) 7 °C Water Flow : 32ø x 45.3 ltr/min x 6mAg Burner : 2 Sources of LPG gas and diesel LPG Gas : (12,000 kal/hr-kg) : 1.13 kg/hr Water Comp. : 1 ltr/min Elect. Comp. : 3ø x 220 V x 0.8 kW Accessories : The wiring between Remote- Controller and inverter for energy Compsumption Interlocked wiring with CCP and 3 way valve. Silent Fan for Condenser. Unti Vibration rubber pad on - whole plan area. L-Angle support with "J" type - anchor Volt. Concrete plinth: 3,000 (W) x 1,000 (L) x 200 (H) ( Arch. work)	Ref. (BCT16)
AC-5	Absorption Chiller (Cooling Only) (CIKARANG STATION)	1	Cooling Caps.: 60,400 kcal/hr Chiller Water : (Inlet) 12 °C (Outlet) 7 °C Water Flow : 65ø x 201.3 ltr/min x 10mAg Burner : 2 Sources of LPG gas and diesel LPG Gas : (12,000 kal/hr-kg) : 5 kg/hr Water Comp. : 4.5 ltr/min Elect. Comp. : 3ø x 220 V x 3.6 kW Accessories : The wiring between Remote- Controller and inverter for energy Compsumption Interlocked wiring with CCP and 3 way valve. Silent Fan for Condenser. Unti Vibration rubber pad on - whole plan area. L-Angle support with "J" type - anchor Volt. Concrete plinth: 2,500 (W) x 1,500 (L) x 200 (H) ( Arch. work)	Ref. (BCT70)

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DATE | 10/MARCH/2003

Drawing Title :  
EQUIPMENT SCHEDULE  
(1)

Scale: NTS | Drawing No: AM-00-013



EQUIPMENT SCHEDULE LIST (2)

NO.	NAME	QTY	SPECIFICATION	REMARKS
CCP-1	Chilled Water Circulation Pump (BEKASI STATION)	2	Volute type, SST body 50ø x 40ø x 332 ltr/min x 30m x 3.7kW x 3ø x220V (1 Pump is stand by) Accessories : Unti Vibration Basement Concrete plinth: - (W) x - (L) x 200 (H) ( Arch. work)	Ref.(LS2-50X40A) Ref. (PX)
CCP-2	Chilled Water Circulation Pump (BEKASI TIMUR STATION)	1	IN-LINE Pump 32ø x 90.6 ltr/min x 17m x 0.75kW x 3ø x 220V (1 Pump is stand by)	Ref.(LP32A5.75)
CCP-3	Chilled Water Circulation Pump (TAMBUN STATION)	1	IN-LINE Pump 32ø x 45.3 ltr/min x 16m x 0.75kW x 3ø x 220V (1 Pump is stand by)	Ref.(LP32A5.75)
CCP-4	Chilled Water Circulation Pump (TAMBUN STATION)	1	IN-LINE Pump 32ø x 45.3 ltr/min x 16m x 0.75kW x 3ø x 220V (1 Pump is stand by)	Ref.(LP32A5.75)
CCP-5	Chilled Water Circulation Pump (CIKARANG STATION)	1	Volute type, SST body 50ø x 40ø x 201.3 ltr/min x 19m x 1.5kW x 3ø x220V (1 Pump is stand by) Accessories : Unti Vibration Basement Concrete plinth: - (W) x - (L) x 200 (H) ( Arch. work)	Ref.(LS50X40B) Ref. (PX)
FCU-1	Fan Coil Unit (#200)		Type : Ceiling Mounted Cassette Total Cooling Cap. : 1,980 kcal/hr Sensitive Cooling Cap. : 1,400 kcal/hr Chilled Water Flow : 7~12°C, 1.5 mAg, 8.7 ltr/min Accessories : *The wiring between remote controller and FCU. *Interlock wiring between 2 way valve and FCU, w/CFV. *20 Flexible hose (1m length) *20ø GV (JIS 10kg/cm2)x2Nos *Air Release Valve on the Header top *20ø Transparent vinyle hose (400mm Length) with steel band on drain pipe. *200% spare part of filter *Drain pan insulation. *Body inside insulation after coil with insulation.	Ref.(FACOLEX-20mmø)

NO.	NAME	QTY	SPECIFICATION	REMARKS
FCU-2	Fan Coil Unit (#300)		Type : Ceiling Mounted Cassette Total Cooling Cap. : 2,180 kcal/hr Sensitive Cooling Cap. : 1,830 kcal/hr Chilled Water Flow : 7~12°C, 1.5 mAg, 8.0 ltr/min Accessories : *The wiring between remote controller and FCU. *Interlock wiring between 2 way valve and FCU, w/FCU. *20 Flexible hose (1m length) *20ø GV (JIS 10kg/cm2)x2Nos *Air Release Valve on the Header top *20ø Transparent vinyle hose (400mm Length) with steel band on drain pipe. *200% spare part of filter *Drain pan insulation. *Body inside insulation after coil with insulation.	Ref.(FACOLEX-20mmø)
FCU-3	Fan Coil Unit (#400)		Type : Ceiling Mounted Cassette Total Cooling Cap. : 4,150 kcal/hr Sensitive Cooling Cap. : 2,440 kcal/hr Chilled Water Flow : 7~12°C, 1.5 mAg, 12.6 ltr/min Accessories : *The wiring between remote controller and FCU. *Interlock wiring between 2 way valve and FCU,w/CFV. *20 Flexible hose (1m length) *20ø GV (JIS 10kg/cm2)x2Nos *Air Release Valve on the Header top *20ø Transparent vinyle hose (400mm Length) with steel band on drain pipe. *200% spare part of filter *Drain pan insulation. *Body inside insulation after coil with insulation.	Ref.(FACOLEX-20mmø)

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DATE 10/MARCH/2003

Drawing Title :  
EQUIPMENT SCHEDULE  
(2)

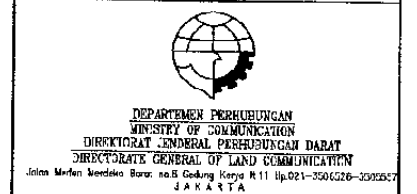
Scale: NTS Drawing No.: AM-00-014

EQUIPMENT SCHEDULE LIST (3)

NO.	NAME	QTY	SPECIFICATION	REMARKS	
FCU-4	Fan Coil Unit (#600)		Type : Ceiling Mounted Cassette		
			Total Cooling Cap. : 4,740 kcal/hr		
			Sensitive Cooling Cap. : 3,670 kcal/hr		
			Chilled Water Flow : 7~12°C, 1.5 mAg, 18.5 ltr/min		
			Accessories : *The wiring between remote controller and FCU.		
			*Interlock wiring between 2 way valve and FCU, w/FCU.		
			*20 Flexible hose (1m length)		Ref.(FACOLEX-
			*20ø GV (JIS 10kg/cm <sup>2</sup> )x2Nos.		-20mmø)
			*Air Release Valve on the Header top		
			*20ø Transparent vinyle hose (400mm Length) with steel band on drain pipe.		
*200% spare part of filter					
*Drain pan insulation.					
*Body inside insulation after coil with insulation.					
FCU-5	Fan Coil Unit (#800)		Type : Ceiling Mounted Cassette		
			Total Cooling Cap. : 5,980 kcal/hr		
			Sensitive Cooling Cap. : 4,800 kcal/hr		
			Chilled Water Flow : 7~12°C, 1.5 mAg, 20.7 ltr/min		
			Accessories : *The wiring between remote controller and FCU.		
			*Interlock wiring between 2 way valve and FCU w/CFV.		
			*20 Flexible hose (1m length)		Ref.(FACOLEX-
			*20ø GV (JIS 10kg/cm <sup>2</sup> )x2Nos.		-20mmø)
			*Air Release Valve on the Header top		
			*20ø Transparent vinyle hose (400mm Length) with steel band on drain pipe.		
*200% spare part of filter					
*Drain pan insulation.					
*Body inside insulation after coil with insulation.					

NO.	NAME	QTY	SPECIFICATION	REMARKS	
FCU-6	Fan Coil Unit (#1200)		Type : Ceiling Mounted Cassette		
			Total Cooling Cap. : 7,290 kcal/hr		
			Sensitive Cooling Cap. : 6,150 kcal/hr		
			Chilled Water Flow : 7~12°C, 1.5 mAg, 23.0 ltr/min		
			Accessories : *The wiring between remote - controller and FCU.		
			*Interlock wiring between 2 way valve and FCU, w/CFV		
			*20 Flexible hose (1m length)		Ref.(FACOLEX-
			*20ø GV (JIS 10kg/cm <sup>2</sup> )x2Nos.		-20mmø)
			*Air Release Valve on the Header top		
			*20ø Transparent vinyle hose (400mm Length) with steel band on drain pipe.		
*200% spare part of filter					
*Drain pan insulation.					
*Body inside insulation after coil with insulation.					
ACWI-1	Air Conditioner (WATCHMAN SHED)	5	Type : Wall Mounted Type	Ref. (CS-C96KJ)	
			Cooling Cap. : 2,230 kcal/hr : 1ø x 220V x 0.84 kW x 7.3 m <sup>3</sup> /min		
			ACWO Basement: 1200 x 700 x 200 (H) and SST Mesh cover w/keylock		
			Remote controller 200% Filter Spare part.		
ACWI-2	Air Conditioner (PLATFORM OPERATION- OFFICE)	10	Type : Wall Mounted Type	Ref.(CS-C18BKN)	
			Cooling Cap. : 4,640 kcal/hr : 1ø x 220V x 1.68 kW x 14.9 m <sup>3</sup> /min		
			ACWO Basement: L-50x50x6 Installed on the Roof. Remote controller		
			200% Filter Spare part.		
ACC-1	Air Conditioner (Control room of- SIGNAL CABIN)	2	Type : 4 Way Ceiling Munted Cassette	Ref. : (CS-100UCJNB)	
			Cooling Cap. : 9,100 kcal/hr : 1ø x 220V x 3.68 kW x 28 m <sup>3</sup> /min		
			Compressor : 3.0 kW		
			Remote controller		
			200% Filter Spare part.		
			ACWO : Liquid line 9.5 mmø : Gas line 19.1 mmø : Drain 32 mmø : L-50x50x6 Installed on the Roof.		(CU-100CTHNB)

The Railway Electrification and Double - double Tracking of Java Main Line Project



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DATE 10/MARCH/2003

Drawing Title :  
EQUIPMENT SCHEDULE  
(3)

Scale: NTS Drawing No.: AM-00-015

# EQUIPMENT SCHEDULE LIST (4)

NO.	NAME	QTY	SPECIFICATION	REMARKS
ACC-2	Air Conditioner (Signal Device room of- SIGNAL CABIN)	2	Type : 4 Way Ceiling Munted Cassette Cooling Cap. : 11,200 kcal/hr : 3ø x 220V x 4.37 kW Compressor : 3.75 kW Remote controller 200% Filter Spare part. ACWO : Liquid line 9.5 mmø : Gas line 19.1 mmø : Drain 32 mmø : L-50x50x6 Installed on the Roof.	Ref. : (CS-125UCJNB)          (CU-125CTXNB)
ACC-3	Air Conditioner (Signal Device room of TAMBUN & CIKARANG)  (Bekasi North, TAMBUN, and CIKARANG tempo- rary station) each 2 Nos.	10	Type : 4 Way Ceiling Munted Cassette Cooling Cap. : 6,700 kcal/hr : 1ø x 220V x 2.59 kW Compressor : 2.2 kW Remote controller 200% Filter Spare part. ACWO : Liquid line 9.5 mmø : Gas line 15.1 mmø : Drain 32 mmø : L-50x50x6 Installed on the Roof.	Ref. : (CS-71UCJNB)          (CU-71CTXNB)
DP-1	Distribution Pump (BEKASI STATION)	1 SET	Type : Constant pressure supply system. 32ø x 90 ltr/min x 26m x 0.75 kW x 3ø x 220V Automatical Alternative run and 2 pumps run on Emergency. Accessories : Including Control Panel, Cover and sound protection for outdoor use. Anti-Vibration basement with anchor volts. Concrete plinth : 1,000 x 900 x 200 (H) (Architecture Work)	Ref. : (SX-50LA-324- 5.75W)
DP-2	Distribution Pump (BEKASI TIMUR STATION)	1 SET	Type : Constant pressure supply system. 25ø x 40 ltr/min x 16m x 0.4 kW x 3ø x 220V Automatical Alternative run and 2 pumps run on Emergency. Accessories : Including Control Panel, Cover and sound protection for outdoor use. Anti-Vibration basement with anchor volts. Concrete plinth : 1,000 x 900 x 200 (H) (Architecture Work)	Ref. : (SX-50LA-T25J 5.4W)

NO.	NAME	QTY	SPECIFICATION	REMARKS
DP-3	Distribution Pump (TAMBUN STATION)	1 SET	Type : Constant pressure supply system. 25ø x 40 ltr/min x 16m x 0.4 kW x 3ø x 220V Automatical Alternative run and 2 pumps run on Emergency. Accessories : Including Control Panel, Cover and sound protection for outdoor use. Anti-Vibration basement with anchor volts. Concrete plinth : 1,000 x 900 x 200 (H) (Architecture Work)	Ref. : (SX-50LA-T25J 5.4W)
DP-4	Distribution Pump (CIBITUNG STATION)	1 SET	Type : Constant pressure supply system. 25ø x 25 ltr/min x 16m x 0.4 kW x 3ø x 220V Automatical Alternative run and 2 pumps run on Emergency. Accessories : Including Control Panel, Cover and sound protection for outdoor use. Anti-Vibration basement with anchor volts. Concrete plinth : 700 x 700 x 200 (H) (Architecture Work)	Ref. : (THP2-405)
DP-5	Distribution Pump (CIKARANG STATION)	1 SET	Type : Constant pressure supply system. 32ø x 90 ltr/min x 26m x 0.75 kW x 3ø x 220V Automatical Alternative run and 2 pumps run on Emergency. Accessories : Including Control Panel, Cover and sound protection for outdoor use. Anti-Vibration basement with anchor volts. Concrete plinth : 1,000 x 900 x 200 (H) (Architecture Work)	Ref. : (SX-50LA-324- 5.75W)
SWP-1	Water Spray Pump	6	Type : (Spring Well Pump) Self Contyrol Switch system. 22 ltr/min x 12m x 0.4 kW x 3ø x 220V. Concrete plinth : 700 x 1200 x 250 (H) (Architecture Work)	Ref. : (SX-50LA-324-)

The Railway Electrification and  
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DATE | 10/MARCH/2003

Drawing Title :  
EQUIPMENT SCHEDULE  
(4)

Scale: NTS | Drawing No.: AM-CO-016

EQUIPMENT SCHEDULE LIST (5)

NO.	NAME	QTY	SPECIFICATION	REMARKS
SMP-1	Submersible Pump (In CONTROL PIT ② ) (BEKASI NORTH STATION)	2	: (For waste drain) 50ø x 90 ltr/min x 9m x 0.4 kW x 3ø x 220V Automatic Alternative run and 2 pumps run on Emergency. Accessories : 20m wiring 4 float switch and wirings by 2 pumps. Control and Power supply and Interlocking shall be supplied from CTP panel. This system including piping shall be covered by CTP works.	Ref. : (50PLT-5.4)
SMP-2	Submersible Pump (In CONTROL PIT ② ) (BEKASI SOUTH STATION)	2	: (For waste drain) 50ø x 90 ltr/min x 9m x 0.4 kW x 3ø x 220V Automatic Alternative run and 2 pumps run on Emergency. Accessories : 20m wiring 4 float switch and wirings by 2 pumps. Control and Power supply and Interlocking shall be supplied from CTP panel. This system including piping shall be covered by CTP works.	Ref. : (50PLT-5.4)
SMP-3	Submersible Pump (In CONTROL PIT ② ) (BEKASI TIMUR STATION)	2	: (For waste drain) 50ø x 90 ltr/min x 9m x 0.4 kW x 3ø x 220V Automatic Alternative run and 2 pumps run on Emergency. Accessories : 20m wiring 4 float switch and wirings by 2 pumps. Control and Power supply and Interlocking shall be supplied from CTP panel. This system including piping shall be covered by CTP works.	Ref. : (50PLT-5.4)

NO.	NAME	QTY	SPECIFICATION	REMARKS
SMP-4	Submersible Pump (In CONTROL PIT ② ) (TAMBUN STATION)	2	: (For waste drain) 50ø x 90 ltr/min x 9m x 0.4 kW x 3ø x 220V Automatic Alternative run and 2 pumps run on Emergency. Accessories : 20m wiring 4 float switch and wirings by 2 pumps. Control and Power supply and Interlocking shall be supplied from CTP panel. This system including piping shall be covered by CTP works.	Ref. : (50PLT-5.4)
SMP-5	Submersible Pump (In CONTROL PIT ② ) (CIBITUNG STATION)	2	: (For waste drain) 50ø x 90 ltr/min x 9m x 0.4 kW x 3ø x 220V Automatic Alternative run and 2 pumps run on Emergency. Accessories : 20m wiring 4 float switch and wirings by 2 pumps. Control and Power supply and Interlocking shall be supplied from CTP panel. This system including piping shall be covered by CTP works.	Ref. : (50PLT-5.4)
SMP-6	Submersible Pump (In CONTROL PIT ② ) (CIKARANG STATION)	2	: (For waste drain) 50ø x 90 ltr/min x 9m x 0.4 kW x 3ø x 220V Automatic Alternative run and 2 pumps run on Emergency. Accessories : 20m wiring 4 float switch and wirings by 2 pumps. Control and Power supply and Interlocking shall be supplied from CTP panel. This system including piping shall be covered by CTP works.	Ref. : (50PLT-5.4)

The Railway Electrification and  
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DATE | 10/MARCH/2003

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EQUIPMENT SCHEDULE  
(5)

Scale: | Drawing No.:  
NTS | AM-00-017

EQUIPMENT SCHEDULE LIST (6)

NO.	NAME	QTY	SPECIFICATION	REMARKS
CTP-1	Combine Treatment Plant (BEKASI NORTH STATION)	1	Location : External Underground Installation. In Flow : Soil Waste 19m <sup>3</sup> /day BOD 260 PPM (100VP) : Waste Water 6.5m <sup>3</sup> /day BOD 180 PPM : Kitchen Waste 6.5m <sup>3</sup> /day BOD 450 PPM Out Flow : BOD 20 PPM (150VP) Equalization Blower : 59 ltr/min x 61W x 3φ x 220V. Aeration Blower : 159 ltr/min x 200W x 3φ x 220V. Backwash Blower : 37ltr/min x 39W x 3φ x 220V. Accessories * ② Control Pit with pump and piping * Total Control Panel. * Powder Baked colour required engineer on the panel * Over 2.3mm tk steel plate for Box. * Checking Window by thick plastic made for V.A meter. * Key Lock. * Rainy and dust proof type. * All pipe in the tank shall be used by VP and other materials is SST. * Electrical Wiring between blower and control panel with grounding . * Joint Box is the protection acid, dust & waterproop * Concrete works is same as Architecture - Specification. Spare parts : * Equalization Blower (HP-60) x 1 Nos. * Aeration Blower (HP-200) x 1 Nos. * Backwash Blower (LP-40A) x 1 Nos.	Ref. (BMM-133)
CTP-2	Combine Treatment Plant (BEKASI SOUTH STATION)	1	Location : External Underground Installation. In Flow : Soil Waste 19m <sup>3</sup> /day BOD 260 PPM (100VP) : Waste Water 6.5m <sup>3</sup> /day BOD 180 PPM : Kitchen Waste 6.5m <sup>3</sup> /day BOD 450 PPM Out Flow : BOD 20 PPM (150VP) Equalization Blower : 59 ltr/min x 61W x 3φ x 220V. Aeration Blower : 159 ltr/min x 200W x 3φ x 220V. Backwash Blower : 37ltr/min x 39W x 3φ x 220V. Accessories * ② Control Pit with pump and piping * Total Control Panel. * Powder Baked colour required engineer on the panel. * Over 2.3mm tk steel plate for Box.	Ref. (BMM-133)

NO.	NAME	QTY	SPECIFICATION	REMARKS
			* Checking Window by thick plastic made for V.A meter. * Key Lock. * Rainy and dust proof type. * All pipe in the tank shall be used by VP and other materials is SST. * Electrical Wiring between blower and control panel with grounding . * Joint Box is the protection acid, dust & waterproof * Concrete works is some as Architecture - Specification. Spare parts : * Equalization Blower (HP-60) x 1 Nos. * Aeration Blower (HP-200) x 1 Nos. * Backwash Blower (LP-40A) x 1 Nos.	
CTP-3	Combine Treatment Plant (BEKASI TIMUR STATION)	1	Location : External Underground Installation. In Flow : Soil Waste 13.5m <sup>3</sup> /day BOD 260 PPM (150VP) : Waste Water 7.5m <sup>3</sup> /day BOD 180 PPM Out Flow : BOD 20 PPM (100VP) Equalization Blower : 42 ltr/min x 39W x 3φ x 220V. Aeration Blower : 118 ltr/min x 125W x 3φ x 220V. Backwash Blower : 28 ltr/min x 29W x 3φ x 220V. Accessories * ② Control Pit with pump and piping . * Total Control Panel. * Powder Baked colour required engineer on the panel. * Over 2.3mm tk steel plate for Box. * Checking Window by thick plastic made for V.A meter. * Key Lock. * Rainy and dust proof type. * All pipe in the tank shall be used by VP and other materials is SST. * Electrical Wiring between blower and control panel with grounding . * Joint box is the protection acid, dust & waterproof * Concrete works is same as Architecture - Specification. Spare parts : * Equalization Blower (LP-40A) x 1 Nos. * Aeration Blower (HP-120) x 1 Nos. * Backwash Blower (LP-30A) x 1 Nos.	Ref. (BMM-105)

The Railway Electrification and Double - double Tracking of Java Main Line Project



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EQUIPMENT SCHEDULE (6)

Scale: NTS Drawing No.: AM-00-018

EQUIPMENT SCHEDULE LIST (7)

NO.	NAME	QTY	SPECIFICATION	REMARKS
CIP-4	Combine Treatment Plant (TAMBUN STATION)	1	Location : External Underground Installation. In Flow : Soil Waste 11.5m <sup>3</sup> /day BOD 260 PPM (150VP) : Waste Water 4.5m <sup>3</sup> /day BOD 180 PPM  Out Flow : BOD 20 PPM (100VP) Equalization Blower : 26 ltr/min x 61W x 3φ x 220V. Aeration Blower : 92ltr/min x 100W x 3φ x 220V. Backwash Blower : 22ltr/min x 29W x 3φ x 220V. Accessories * ② Control Pit with pump and piping . * Total Control Panel. * Powder Baked colour required engineer on the panel * Over 2.3mm tk steel plate for Box. * Checking Window by thick plastic made for V.A meter. * Key Lock. * Rainy and dust proof type. * All pipe in the tank shall be used by VP and other materials is SST. * Electrical Wiring between blower and control panel with grounding . * Joint Box is the protection acid, dust & waterproop * Concrete works is same as Architecture - Specification. Spare parts : * Equalization Blower (LP-40A) x 1 Nos. * Aeration Blower (HP-100) x 1 Nos. * Backwash Blower (LP-30A) x 1 Nos.	Ref. (BMM-105)
CIP-5	Combine Treatment Plant (CIBITUNG STATION)	1	Location : External Underground Installation. In Flow : Soil Waste 10.5m <sup>3</sup> /day BOD 260 PPM (100VP) : Waste Water 4.5m <sup>3</sup> /day BOD 180 PPM : Kitchen Waste 6.5m <sup>3</sup> /day BOD 450 PPM  Out Flow : BOD 20 PPM (150VP) Equalization Blower : 33 ltr/min x 39W x 3φ x 220V. Aeration Blower : 86 ltr/min x 100W x 3φ x 220V. Backwash Blower : 20 ltr/min x 29W x 3φ x 220V. Accessories * ② Control Pit with pump and piping * Total Control Panel. * Powder Baked colour required engineer on the panel * Over 2.3mm tk steel plate for Box.	Ref. (BMM-105)

NO.	NAME	QTY	SPECIFICATION	REMARKS
			* Checking Window by thick plastic made for V.A meter. * Key Lock. * Rainy and dust proof type. * All pipe in the tank shall be used by VP and other materials is SST. * Electrical Wiring between blower and control panel with grounding . * Joint Box is the protection acid, dust & waterproop * Concrete works is same as Architecture - Specification. Spare parts : * Equalization Blower (LP-40A) x 1 Nos. * Aeration Blower (HP-100) x 1 Nos. * Backwash Blower (LP-30A) x 1 Nos.	
CIP-6	Combine Treatment Plant (CIKARANG STATION)	1	Type : External Underground Installation. In Flow : Soil Waste 15.5m <sup>3</sup> /day BOD 260 PPM (150VP) : Waste Water 11m <sup>3</sup> /day BOD 180 PPM  Out Flow : BOD 20 PPM (100VP) Equalization Blower : 48 ltr/min x 61W x 3φ x 220V. Aeration Blower : 162 ltr/min x 250W x 3φ x 220V. Backwash Blower : 38 ltr/min x 39W x 3φ x 220V. Accessories * ② Control Pit with pump and piping * Total Control Panel. * Powder Baked colour required engineer on the panel * Over 2.3mm tk steel plate for Box. * Checking Window by thick plastic made for V.A meter. * Key Lock. * Rainy and dust proof type. * All pipe in the tank shall be used by VP and other materials is SST. * Electrical Wiring between blower and control panel with grounding . * Joint Box is the protection acid, dust & waterproop * Concrete works is same as Architecture - Specification. Spare parts : * Equalization Blower (HP-60) x 1 Nos. * Aeration Blower (HP-200) x 1 Nos. * Backwash Blower (LP-40A) x 1 Nos.	Ref. (BMM-105)

The Railway Electrification and Double - double Tracking of Java Main Line Project



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Drawing Title :  
EQUIPMENT SCHEDULE  
(7)

Scale: NTS Drawing No.: AM-00-019

EQUIPMENT SCHEDULE LIST (8)

NO.	NAME	QTY	SPECIFICATION	REMARKS
CTP-7	Combine Treatment Plant (SIGNAL CABIN of BEKASI STATION)	1	Location : External Underground Installation. In Flow : Soil Waste 0.35 m3/day BOD 260 PPM (150VP) : Waste Water 1.05 m3/day BOD 180 PPM Out Flow : BOD 20 PPM (100VP) Equalization Blower 32 ltr/min x 29 W x 3φ x 220V. Aeration Blower 100 ltr/min x 91 W x 3φ x 220V. Submersible Pump 100 ltr/min x 400 W x 3φ x 220V. Accessories * (2) Control Pit with pump and piping * Total Control Panel. * Powder Baked colour required engineer on the panel * Over 2.3mm tk steel plate for Box. * Checking Window by thick plastic made for V.A meter. * Key Lock. * Rainy and dust proof type. * All pipe in the tank shall be used by VP and other materials is SST. * Electrical Wiring between blower and control panel with grounding . * Joint Box is the protection acid, dust & waterproof * Concrete works is same as Architecture - Specification. Spare parts : * Equalization Blower (LP-304) x 1 Nos. * Aeration Blower (HP-80) x 1 Nos. * Submersible Pump (HS2.4S) x 1 Nos.	Ref. : (BMM-7+ZP)
CTP-8	Combine Treatment Plant (TAMBUN and CIKARANG SIGNAL HUT, 5 WATCHMAN- SHED)	1	Location : External Underground Installation. In Flow : Soil Waste 0.35 m3/day BOD 260 PPM (150VP) : Waste Water 1.05 m3/day BOD 180 PPM Out Flow : BOD 20 PPM (100VP) Equalization Blower 32 ltr/min x 29 W x 3φ x 220V. Aeration Blower 100 ltr/min x 91 W x 3φ x 220V. Submersible Pump 100 ltr/min x 400 W x 3φ x 220V. Accessories * (2) Control Pit with pump and piping * Total Control Panel. * Powder Baked colour required engineer on the panel * Over 2.3mm tk steel plate for Box.	Ref. : (BMM-7+ZP)

NO.	NAME	QTY	SPECIFICATION	REMARKS
			* Checking Window by thick plastic made for V.A meter. * Key Lock. * Rainy and dust proof type. * All pipe in the tank shall be used by VP and other materials is SST. * Electrical Wiring between blower and control panel with grounding . * Joint Box is the protection acid, dust & waterproof * Concrete works is same as Architecture - Specification. Spare parts : * Equalization Blower (LP-304) x 1 Nos. * Aeration Blower (HP-80) x 1 Nos. * Submersible Pump (HS2.4S) x 1 Nos.	

The Railway Electrification and  
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EQUIPMENT SCHEDULE  
(8)

Scale: NTS Drawing No.: AM-00-020

EQUIPMENT SCHEDULE LIST (9)

NO.	NAME	QTY	SPECIFICATION	REMARKS
OA-SC-1	OA FAN (Signal Device Room of SIGNAL CABIN)	2	Type : Low Noise AXIAL FAN : 394φ x 2500 m3/hr x 30 mmAg x 464 W x 1φ x 220V. Accessories * Support Hunger * Connection Flange * Cambus joint made double skin and 400 mm Length on - discharged side. * 2 fans comon basement in fan chamber by (L-150 x 100 x 6 x 9) * Volume damper and check damper on delivery side.	Ref. : (FY-45USL) Ref.(FYTAU45) Ref.(FY-MFL45)
OA-SC-2	OA FAN (Genset room of SIGNAL CABIN)	1	Type : Low Noise AXIAL FAN (Hunger from Ceiling slab in the room) : 1800 m3/hr x 15 mmAg x 212 W x 1φ x 220V. Accessories * Support Hunger * Connection Flange * Cambus joint made double skin and 400 mm Length on - discharged side. * 2 fans comon basement in fan chamber by (L-150 x 100 x 6 x 9) * Volume damper and check damper on delivery side.	Ref. : (FY-40USL) Ref.(FYTAU45) Ref.(FY-MFL45)
EF-SC-1	Exhaust Fan (Genset room of SIGNAL CABIN)	1	Type : Low Noise AXIAL FAN (Hunger from Ceiling slab in the room) : 1347φ x 15 mmAg x 212 W x 1φ x 220V. Accessories * Support Hunger * Connection Flange * Cambus joint made double skin and 400 mm Length on - discharged side. * 2 fans comon basement in fan chamber by (L-150 x 100 x 6 x 9) * Volume damper and check damper on delivery side.	Ref. : (FY-40USL) Ref.(FYTAU45) Ref.(FY-MFL45)
EF-SC-2	Exhaust Fan (Batory room of SIGNAL CABIN)	1	Type : Low Noise AXIAL FAN (Installation with rain cover) : 1347φ x 15 mmAg x 212 W x 1φ x 220V. Accessories * Support Hunger * Connection Flange	Ref. : (FY-40USL) Ref.(FYTAU45) Ref.(FY-MFL45)

NO.	NAME	QTY	SPECIFICATION	REMARKS
EF-SC-3	Exhaust Fan (Signal Device room of SIGNAL CABIN)	1	Type : Low Noise AXIAL FAN (Installation with rain cover) : 384φ x 2500 m3/hr x 15 mmAg x 418 W x 1φ x 220V. Accessories * Support Hunger * Connection Flange * Cambus joint made double skin and 400 mm Length on - discharged side. * 2 fans comon basement in fan chamber by (L-150 x 100 x 6 x 9) * Volume damper and check damper on delivery side.	Ref. : (FY-45UST) Ref.(FYTAU45) Ref.(FY-MFL45)
CB-SC-1	Filter Chamber Box	1	: Roof Installation. Size : 3700(L) x 1100(W) x 1300 (H) (All 1.2mmTk galvanized sheet with silicon coating) Inlet : (550+550) x 1300(H) x 1.2 mmtk galvanized sheet with SST mesh by 1mmφ x 10mm square. Chamber : Preroom 800 depth with locked airtight door (450 x 1000 (H) ) : Filter Room, 450 depth with airtight door (600 x 1200 (H) ) : Fan Room, 2450 depth with airtight door (450 x 1000 (H) ) Chamber Filter Specification : :(Polyester Fiber) 500x500x50 mmtk (SST frame) x 12 sheets Begining Loss : 6 mmAg Final Loss : 30 mmAg Washable Chamber Common basement : I-150x100x6x9 with hot galvanized drip after hole opening on welding. Concrete Plin:h 500(W) x 1500(L) x 150(H) x 9Nos (Arch Work) Spare Part : 100% filter capacity.	

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Drawing Title :  
EQUIPMENT SCHEDULE (9)

Scale: NTS Drawing No.: AM-00-021



# EQUIPMENT SCHEDULE LIST (10)

NO.	NAME	QTY	SPECIFICATION	REMARKS
WT-09	Water Receiver Tank (BEKASI STATION)		Location : Outdoor Installation.	
			Tank Size : 2,500 x 4,000 x 2,500 (H)	
			Efective Caps. : 20 m <sup>3</sup>	
			Material : FRP panel with all SST bolts and nuts site Assembling .	
			Common Basement	
			: C-160 x 65 x 7.5 x 10.5 ( 2 times galvanized hot drip after making holes & welding)	
			: Anchor Volts ("J" type full screwed made SST)	
			Support Mat. : All SST in the tank	
			Ladder : 400 mm width SST in the tank. Steel made with galvanized hotdrip (support mat.wich in seried in FRP panel)	
			ManHole Cover : 600 mmØ with keylock.	
			Nozzel : All nozzle connected piping shall be provided at factory with 100mm length	
			Electrical Rod : 5 Rods made SST rod holders. * Rod holder which wire connect provided on the panel.	
			Vent : By 40 mmØ VP with cap. Ref.:(SNVC140)	
			The Clip of Overflow : Pipe with cap. Ref.:(CNVCJ100)	
Concrete Plinth : 300(W) x 600(H) x 4300(L) x3Nos (Arch. work)				
WT-10	Water Receiver Tank (BEKASI TIMUR STATION)		Location : Outdoor Installation.	
			Tank Size : 2,000 x 2,500 x 1,000 (H)	
			Efective Caps. : 20 m <sup>3</sup>	
			Material : FRP panel with all SST bolts and nuts site Assembling .	
			Common Basement	
			: C-160 x 65 x 7.5 x 10.5 ( 2 times galvanized hot drip after making holes & welding)	
			: Anchor Volts ("J" type full screwed made SST)	
			Support Mat. : All SST in the tank	
			Ladder : 400 mm width SST in the tank. Steel made with galvanized hotdrip (support mat.wich in seried in FRP panel)	
			ManHole Cover : 600 mmØ with keylock.	
			Nozzel : All nozzle connected piping shall be provided ct factory with 100mm length	
			Electrical Rod : 5 Rods made SST rod holders. * Rod holder which wire connect provided on the panel.	
			Vent : By 40 mmØ VP with cap. Ref.:(SNVC140)	
			The Clip of Overflow : Pipe with cap. Ref.:(CNVCJ100)	
Concrete Plinth : 300(W) x 600(H) x 2300(L) x2Nos (Arch. work)				

NO.	NAME	QTY	SPECIFICATION	REMARKS
WT-11	Water Receiver Tank (TAMBUN STATION)		Electrical Rod : 5 Rods made SST rod holders. * Rod holder which wire connect provided on the panel.	
			Vent : By 40 mmØ VP with cap. Ref.:(SNVC140)	
			The Clip of Overflow : Pipe with cap. Ref.:(CNVCJ100)	
			Concrete Plinth : 300(W) x 600(H) x 2800(L) x2Nos (Arch. work)	
			Location : Outdoor Installation.	
			Tank Size : 1,000 x 2,000 x 1,000 (H)	
			Efective Caps. : 1.5 m <sup>3</sup>	
			Material : FRP panel with all SST bolts and nuts site Assembling .	
			Common Basement	
			: C-160 x 65 x 7.5 x 10.5 ( 2 times galvanized hot drip after making holes & welding)	
			: Anchor Volts ("J" type full screwed made SST)	
			Support Mat. : All SST in the tank	
			Ladder : 400 mm width SST in the tank. Steel made with galvanized hotdrip (support mat.wich in seried in FRP panel)	
			ManHole Cover : 600 mmØ with keylock.	
Nozzel : All nozzle connected piping shall be provided at factory with 100mm length				
Electrical Rod : 5 Rods made SST rod holders. * Rod holder which wire connect provided on the panel.				
Vent : By 40 mmØ VP with cap. Ref.:(SNVC140)				
The Clip of Overflow : Pipe with cap. Ref.:(CNVCJ100)				
Concrete Plinth : 300(W) x 600(H) x 2300(L) x2Nos (Arch. work)				

The Railway Electrification and  
Double - double Tracking of  
Java Main Line Project



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M E C H A N I C A L

G E N E R A L

DATE | 10/MARCH/2003

Drawing Title :  
EQUIPMENT SCHEDULE  
(10)

Scale: | Drawing No.:  
NTS | AM-00-022

EQUIPMENT SCHEDULE LIST (11)

NO.	NAME	QTY	SPECIFICATION	REMARKS
WT-12	Water Receiver Tank (CIBITUNG STATION)		Location : Outdoor Installation.	
			Tank Size : 1,000 x 2,000 x 1,000 (H)	
			Efective Caps. : 1.5 m3	
			Material : FRP panel with all SST bolts and nuts site Assembling .	
			Common Basement	
			: C-160 x 65 x 7.5 x 10.5 ( 2 times galvanized hot drip after making holes & welding)	
			: Anchor Volts ("J" type full screwed made SST)	
			Support Mat. : All SST in the tank	
			Ladder : 400 mm width SST in the tank. Steel made with galvanized hotdrip (support mat.wich in seried in FRP panel)	
			ManHole Cover : 600 mmØ with keylock.	
			Nozzel : All nozzle connected piping shall be provided at factory with 100mm length	
			Electrical Rod : 5 Rods made SST rod holders. * Rod holder which wire connect provided on the panel.	
			Vent : By 40 mmØ VP with cap. Ref.:(SNVC140)	
			The Clip of Overflow : Pipe with cap. Ref.:(CNVCJ100)	
			Concrete Plinth : 300(W) x 600(H) x2300(L) x2Nos (Arch. work)	
WT-13	Water Receiver Tank (CIKARANG STATION)		Location : Outdoor Installation.	
			Tank Size : 2,000 x 2,500 x 1,000 (H)	
			Efective Caps. : 20 m3	
			Material : FRP panel with all SST bolts and nuts site Assembling .	
			Common Basement	
			: C-160 x 65 x 7.5 x 10.5 ( 2 times galvanized hot drip after making holes & welding)	
			: Anchor Volts ("J" type full screwed made SST)	
			Support Mat. : All SST in the tank	
			Ladder : 400 mm width SST in the tank. Steel made with galvanized hotdrip (support mat.wich in seried in FRP panel)	
			ManHole Cover : 600 mmØ with keylock.	
			Nozzel : All nozzle connected piping shall be provided at factory with 100mm length	
			Electrical Rod : 5 Rods made SST rod holders. * Rod holder which wire connect provided on the panel.	
			Vent : By 40 mmØ VP with cap. Ref.:(SNVC140)	
			The Clip of Overflow : Pipe with cap. Ref.:(CNVCJ100)	
			Concrete Plinth : 300(W) x 600(H) x2300(L) x2Nos (Arch. work)	

NO.	NAME	QTY	SPECIFICATION	REMARKS
			Electrical Rod : 5 Rods made SST rod holders. * Rod holder which wire connect provided on the panel.	
			Vent : By 40 mmØ VP with cap. Ref.:(SNVC140)	
			The Clip of Overflow : Pipe with cap. Ref.:(CNVCJ100)	
			Concrete Plinth : 300(W) x 600(H) x 2300(L) x3Nos (Arch. work)	

The Railway Electrification and Double - double Tracking of Java Main Line Project



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GENERAL

DATE 10/MARCH/2003

Drawing Title :  
EQUIPMENT SCHEDULE (11)

Scale: NIS Drawing No.: AM-00-023

# EQUIPMENT SCHEDULE LIST (11)

NO.	NAME	QTY	SPECIFICATION	REMARKS
IC-1	Incenerator (BEKASI STATION)		Location : Outdoor's Dust and Waterproof type Burner Caps. : 38.5 kg/5H/day Consumable : Vinyl, Food leftorer, Paper, Waste oil, etc. Burning Fuel : Diesel oil, 3øx220Vx0.25kWx2Sets. Primary : 100,000 Kcal/hr Secondary : 100,000 Kcal/hr Size : 1,515(W) x 1,870(L) x 1,845(H) Concrete Plinth : 200(H) Common Floor Comb.Chamber : 1.81 m <sup>3</sup> * Primary : 1.13 m <sup>3</sup> * Secondary : 0.68 m <sup>3</sup> Fire grade area : 0.56 m <sup>2</sup> Wall thickness : 150 mm Ceiling thickness : 245 mm Blower : 3øx220Vx0.4kW Stack : SST 5mmtk x 350ø with 3 wiring support. Control Box : Powder burned colour required engineer. Over 203 mmtk, w/keylock, thick vinyl made window for V.A meter.	Ref.(HOS-3000)
IC-2	Incenerator (CIKARANG STATION)		Location : Outdoor's Dust and Waterproof type Burner Caps. : 38.5 kg/5H/day Consumable : Vinyl, Food leftorer, Paper, Waste oil, etc. Burning Fuel : Diesel oil, 3øx220Vx0.20kWx2Sets. Primary : 50,000 Kcal/hr Secondary : 50,000 Kcal/hr Size : 1,200(W) x 1,485(L) x 1,355(H) Concrete Plinth : 200(H) Common Floor Comb.Chamber : 0.84 m <sup>3</sup> * Primary : 0.52 m <sup>3</sup> * Secondary : 0.44 m <sup>3</sup> Fire grade area : 0.44 m <sup>2</sup> Wall thickness : 120 mm Ceiling thickness : 205 mm Blower : 3øx220Vx0.25kW Stack : SST 5mmtk x 250ø with 3 wiring support. Control Box : Powder burned colour required engineer. Over 203 mmtk, w/keylock, thick vinyl made window for V.A meter.	Ref.(HOS-1000)

NO.	NAME	QTY	SPECIFICATION	REMARKS

## The Railway Electrification and Double - double Tracking of Java Main Line Project



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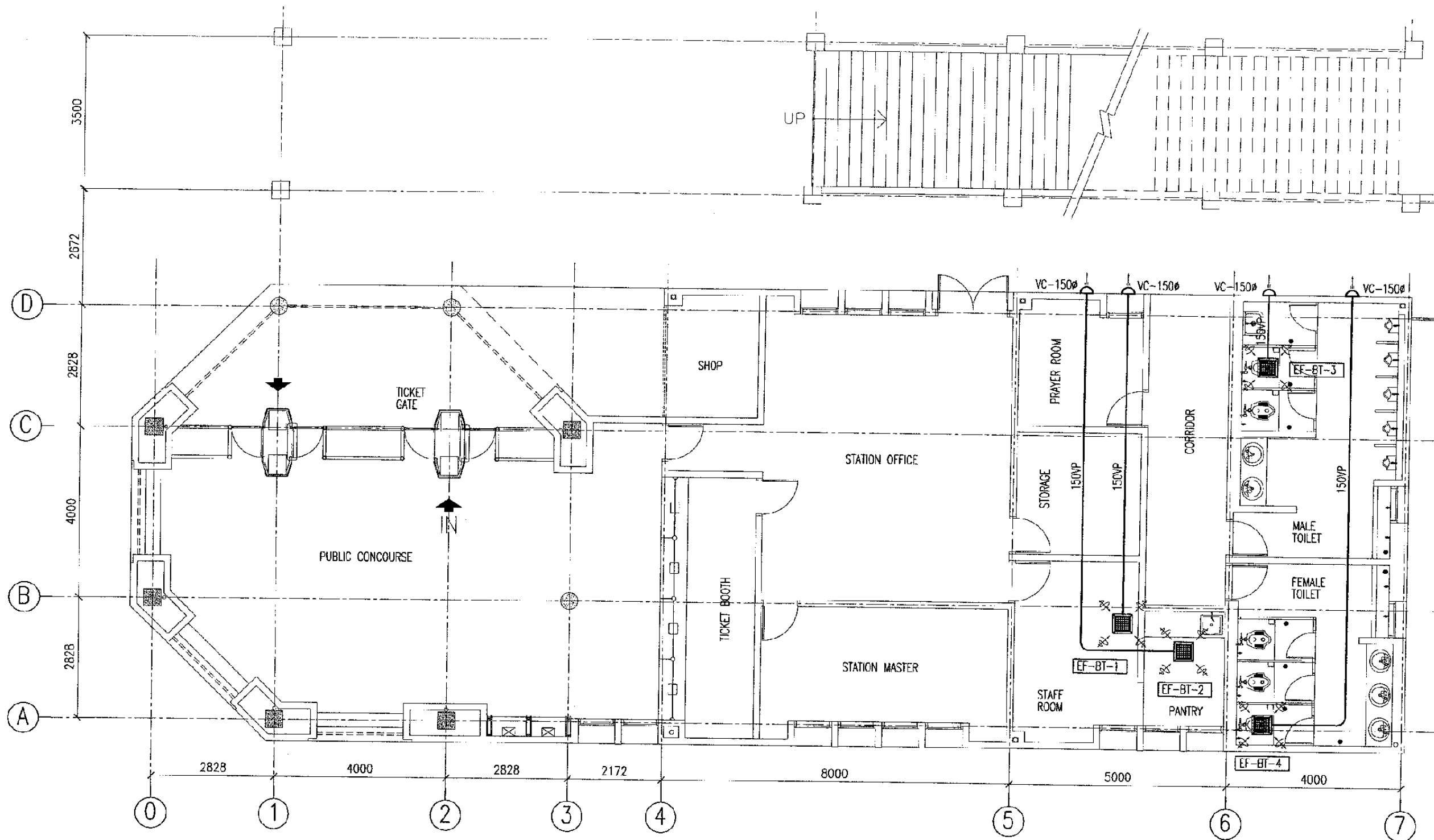
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MECHANICAL  
 GENERAL

DATE 10/MARCH/2003

Drawing Title :  
 EQUIPMENT SCHEDULE (12)

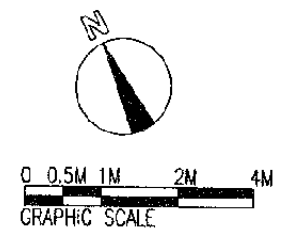
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GROUND FLOOR PLAN  
SCALE: 1:100

VENTILATION SCHEDULE

NO.	EQUIPMENT NO.	ROOM NAME	TYPE	CAPACITY (m <sup>3</sup> /Hr)	(mmAq)	POWER INPUT			QTY	MODEL
						φ	V	W		
1.	EF-BT-1	STAFF ROOM	CEILING MOUNTED	500	12	1	220	90	1	FV-38CD8 or EQV
2.	EF-BT-2	PANTRY	CEILING MOUNTED	360	15	1	220		1	FV-38CD8 or EQV
3.	EF-BT-3	MALE TOILET	CEILING MOUNTED	400	8	1	220	57	1	FV-32CH8 or EQV
4.	EF-BN-4	FEMALE TOILET	CEILING MOUNTED	500	15	1	220	122	1	FV-38C-H8 or EQV



The Railway Electrification and Double - double Tracking of Java Main Line Project

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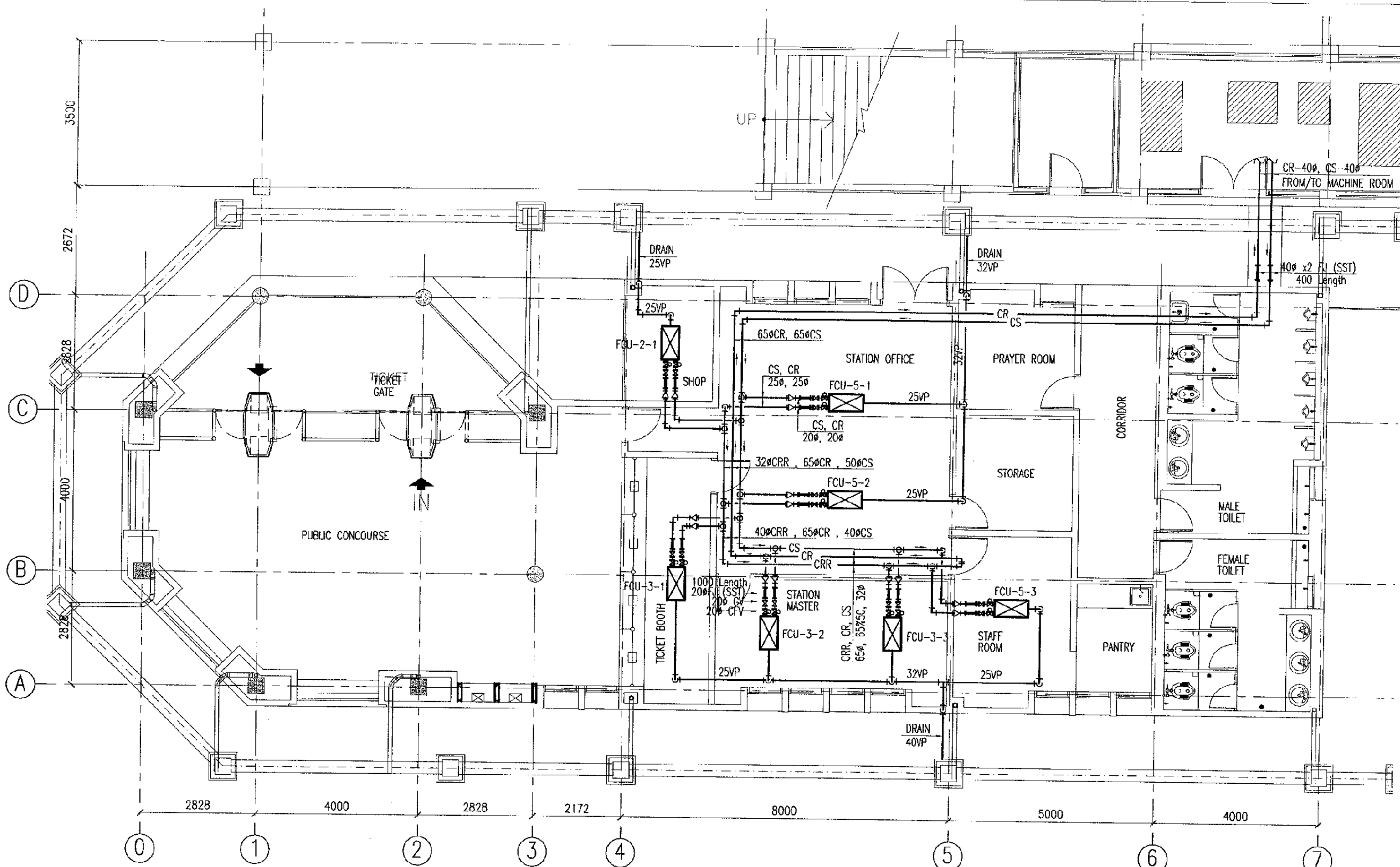
MECHANICAL

BEKASI TIMUR STATION

DATE 10/MARCH/2003

Drawing Title :  
VENTILATION

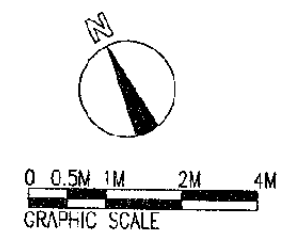
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GROUND FLOOR PLAN  
SCALE: 1:100

FAN COIL UNIT (FCU) SCHEDULE

NO.	EQUIPMENT NO.	ROOM NAME	TYPE	SENSIBLE HEAT CAPACITY (Kcal/Hr)	CHILLED / HOT FLOW RATE (l/min)	POWER INPUT			QTY	MODEL
						Ø	V	W		
1.	FCU-2-1	SHOP	CEILING MOUNTED	1,760	6.4 / 8.0	1	220	27	1	FWHC 3B or EQV
2.	FCU-3-1	TICKET BOOTH	CEILING MOUNTED	2,470	9.3 / 11.4	1	220	45	1	FWHC 4B or EQV
3.	FCU-3-2~3	STATION MASTER	CEILING MOUNTED	2,470	9.3 / 11.4	1	220	45	2	FWHC 4B or EQV
4.	FCU-5-1~2	STATION OFFICE	CEILING MOUNTED	4,830	18.1 / 20.0	1	220	105	2	FWHC 8B or EQV
5.	FCU-5-3	STATION OFFICE	CEILING MOUNTED	4,830	18.1 / 20.0	1	220	105	1	FWHC 8B or EQV



The Railway Electrification and Double - double Tracking of Java Main Line Project

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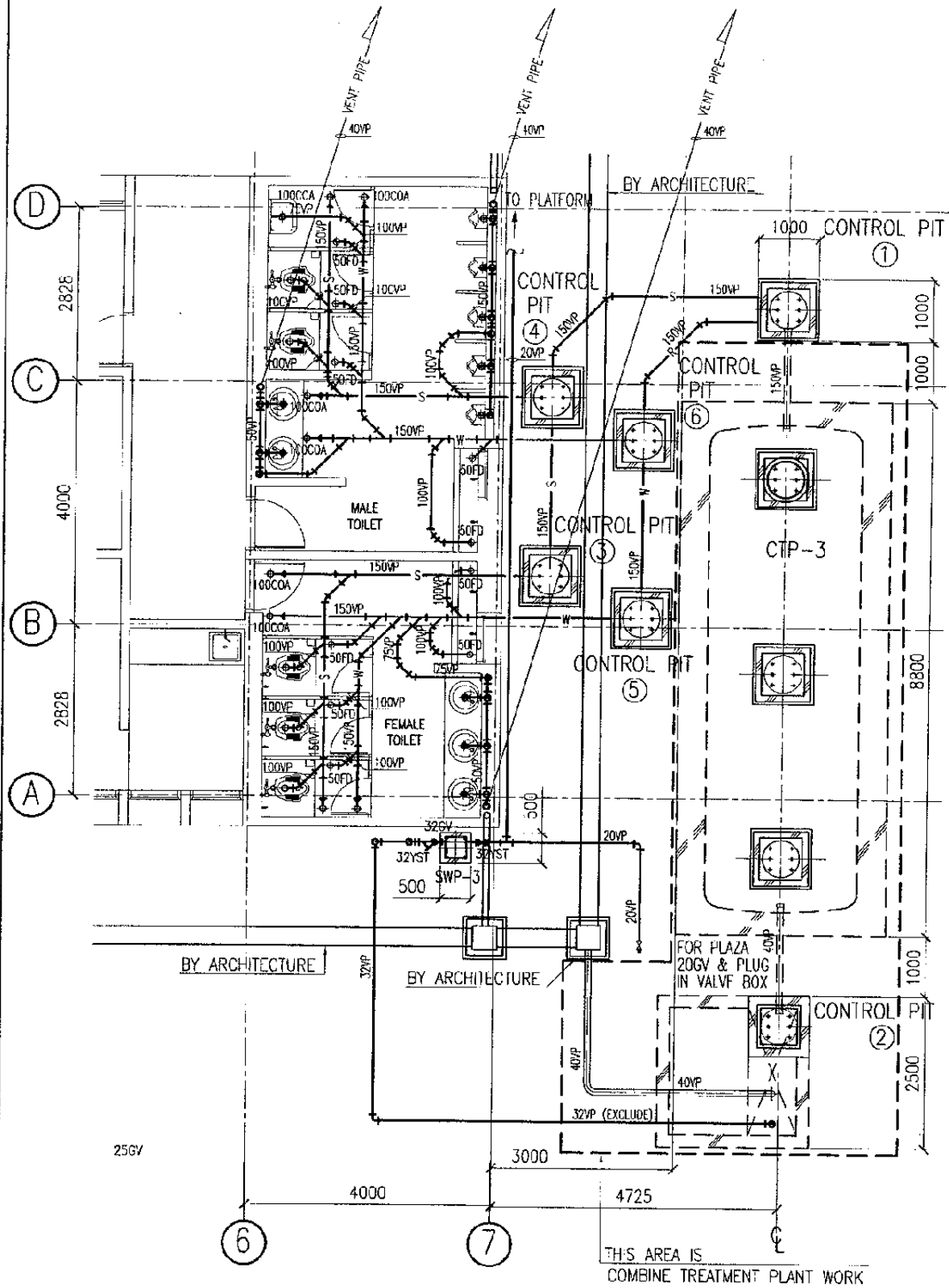
MECHANICAL

BEKASI TIMUR STATION

DATE 10/MARCH/2003

Drawing Title :  
FCU PIPING

Scale: 1:100 Drawing No.: AM-10-002



COMBINE TREATMENT PLANT AND DRAINAGE  
SCALE: 1:100

SANITARY FIXTURE LIST

ROOM NAME	SANITARY FIXTURE	UNITS	MANUFACTURE NUMBER	FITTINGS	REMARKS
FEMALE TOILET	COUNTER TOP LAVATORY	3	L521V1A	TX111CRTR THX3A-1W TIHX1A-5W TL511C1W TS126AR	
	ARABIC CLOSET	3	CE9	TV150NWW12 T82C32 TX403SVJP1V	
	WATER FAUCET	1	T200CS13		
ABLUTION	WATER FAUCET	2	T123B13		
	COUNTER TOP LAVATORY	2	L521V1A	TX111CRTR THX3A-1W IHX1A-5W TL511C1W	
MALE TOILET	ARABIC CLOSET	2	CE9	TS126AR TV150NWW12 T82C32	
	CERAMIC PARTITION	4	A100		
	URINAL	5	U57M	T60P,T62-16 T64BW, T9RA	
ABLUTION	WATER FAUCET	1	T200S13		
	WATER FAUCET	2	T123B13		
EXTERNAL (PLATFORM)	SLOP SINK	1	SKW322	TKP01SR, T9R T23AE20	
EXTERNAL (FOR CTP)	WATER FAUCET	3	T200CS13		
EXTERNAL (FOR CTP)	WATER FAUCET	1	T200CS13		

NO.	NAME	QTY	SPECIFICATION	LOCATION	REMARKS
SMP-3	SUBMERSIBLE PUMP	2	500x500 ltr/minx9mx0.4kWx30x220V AUTOMATIC ALTERNATIVE RUNNING AND PUMP RUN ON EMERGENCY	IN THE ② PIT	w/FLOATS SWITCH & 20M CABLE
SWP-3	SPRING WELL PUMP	1	320x250x50 ltr/minx10mx0.4kWx30x220V CONCRETE PLINTH, STAINLESS MESH COVER	EXTERNAL	
CTP-3	COMBINE TREATMENT PLANT	1	SOIL 19.5 M3/DAY BOD 260 PPM WASTE 4.5 M3/DAY BOD 180 PPM OUT FLOW BOD 20 PPM OUTDOOR WATER PROOFING CONTROL PANEL . CONTROL PANEL WITH CONNECTED WIRING . CONCRETE BASEMENT AND ANGLE BASEMENT (TOP LEVEL IS CL+1900) . COLOUR IS POWDER BAKED REQUIRED ONE BY ENGINEER		REF : (BMM-133)

The Railway Electrification and Double - double Tracking of Java Main Line Project



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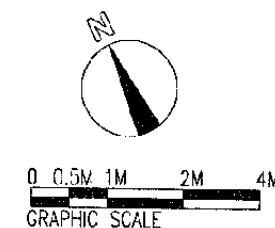
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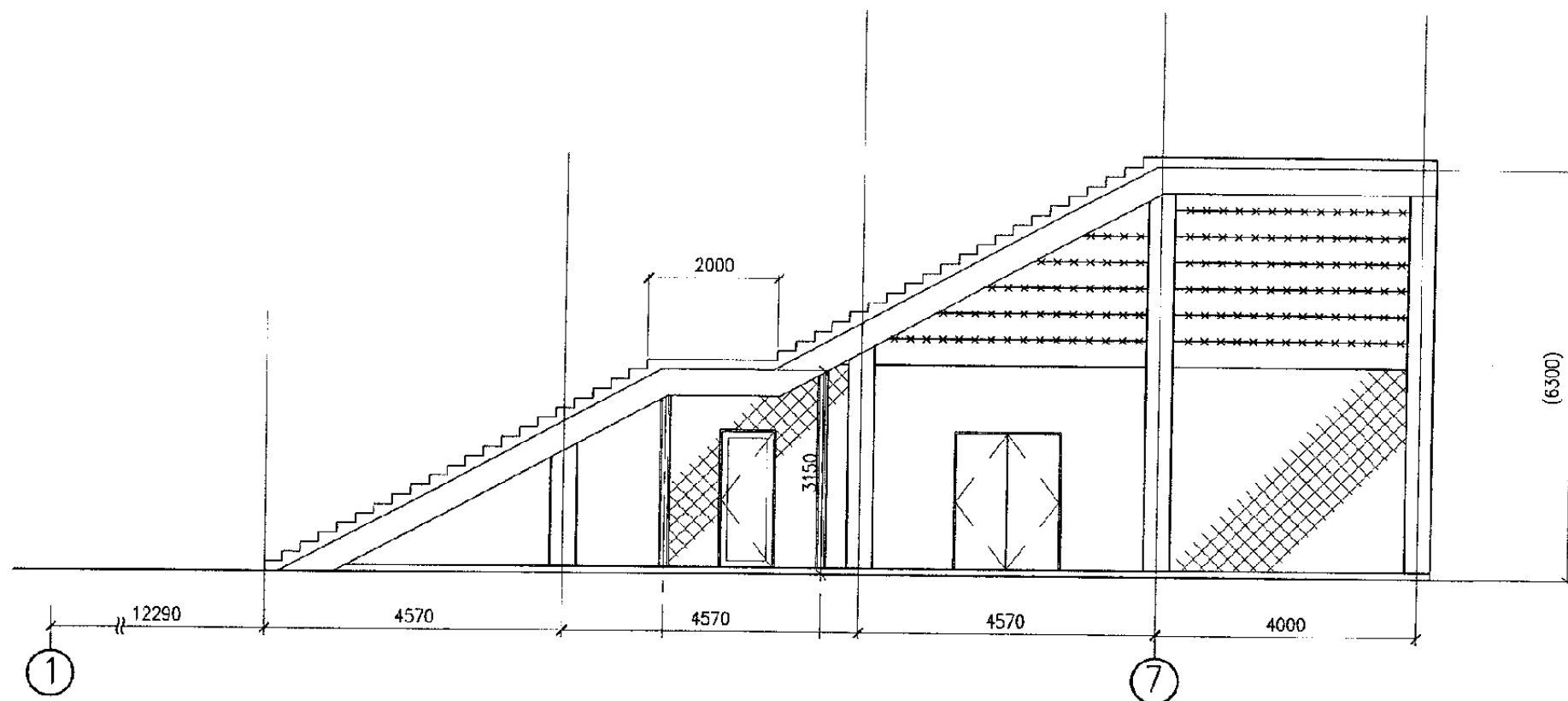
BEKASI TIMUR STATION

DATE 10/MARCH/2003

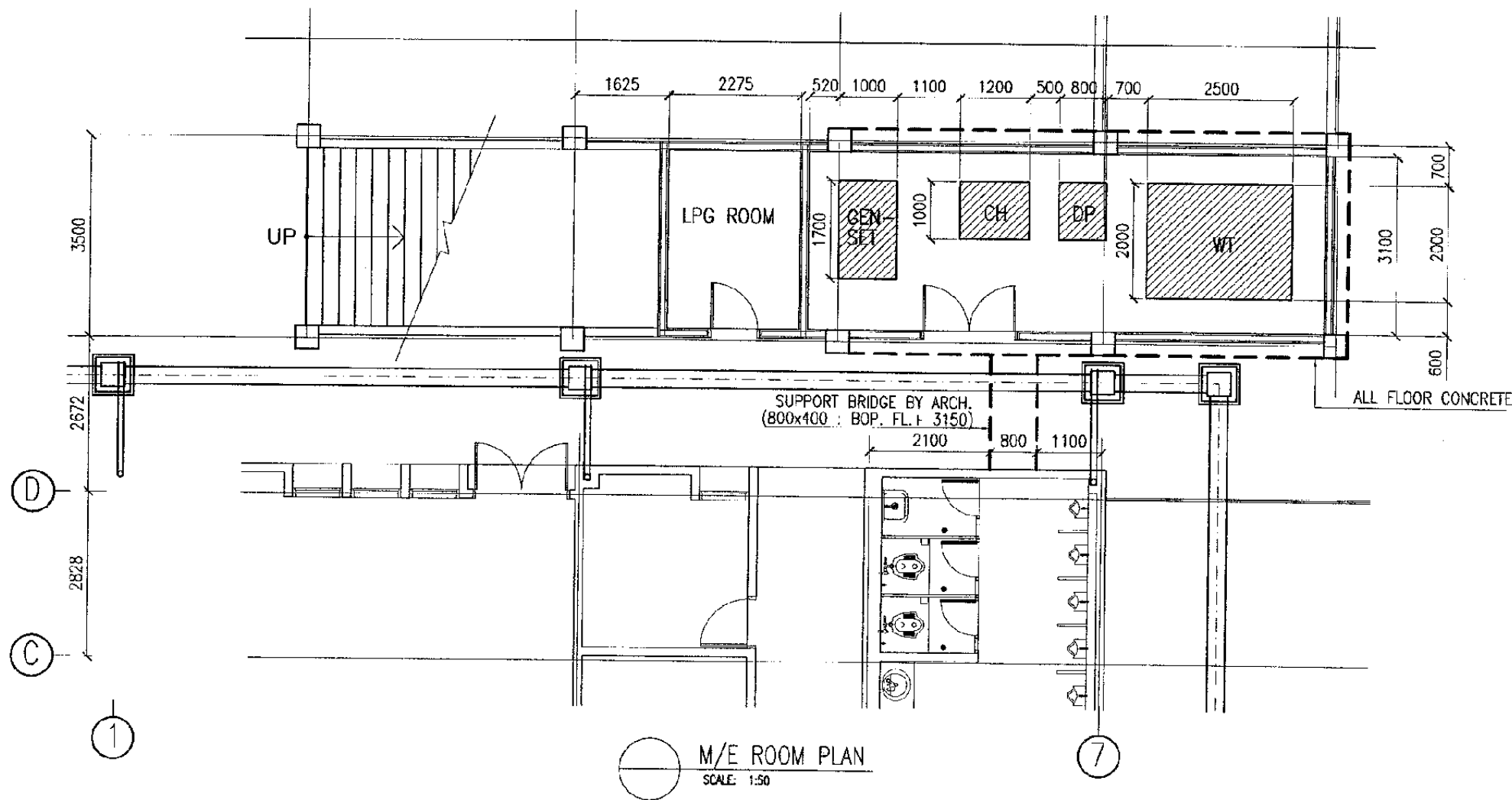
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INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE

Scale: 1:100 Drawing No.: AM-10 003

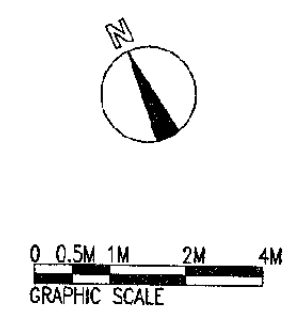




SECTION  
SCALE: 1:50



M/E ROOM PLAN  
SCALE: 1:50



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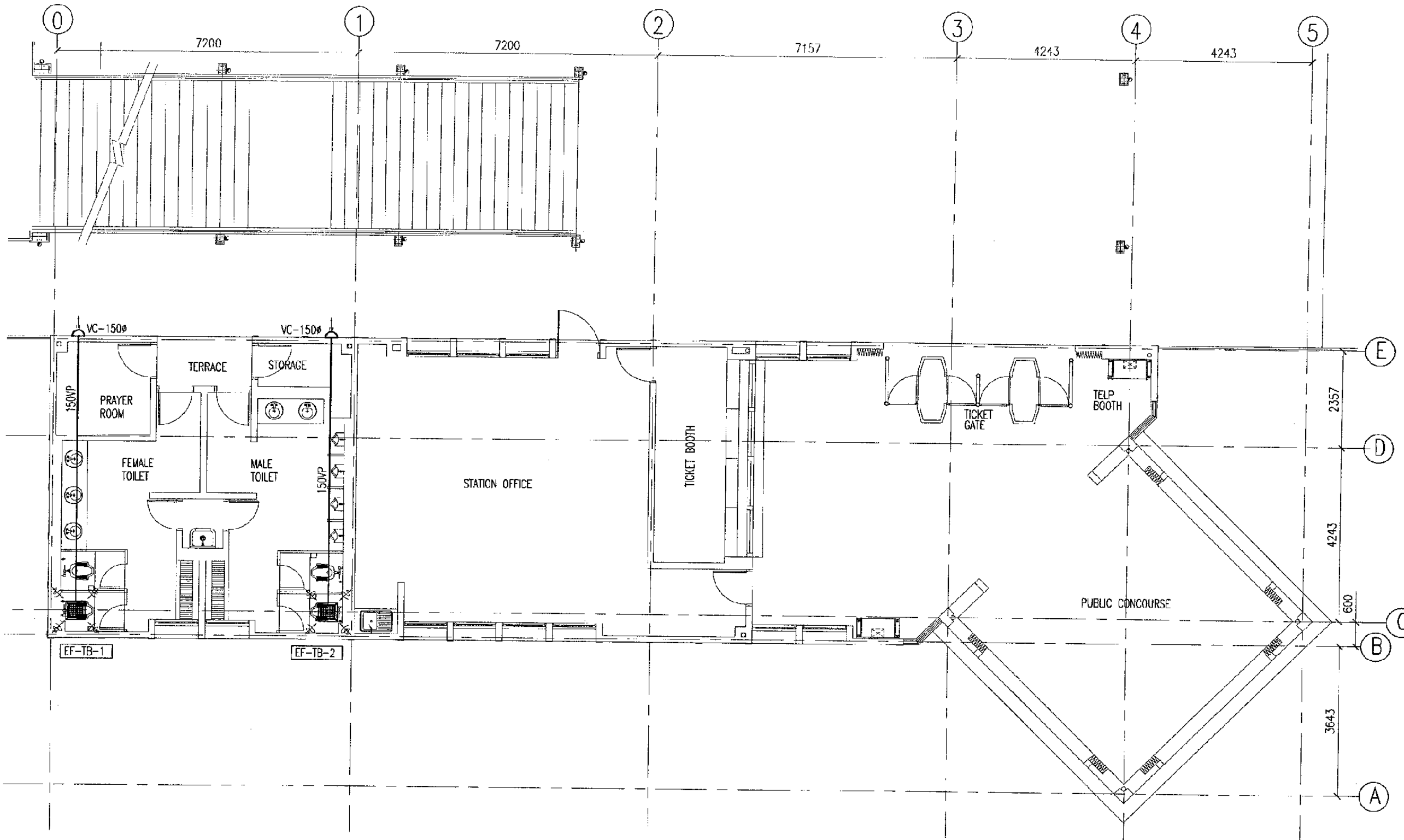
MECHANICAL

BEKASI TIMUR STATION

DATE 10/MARCH/2003

Drawing Title :  
M/E ROOM LOCATION

Scale: NIS Drawing No.: AM-10-004



GROUND FLOOR PLAN  
SCALE: 1:100

VENTILATION SCHEDULE

NO.	EQUIPMENT NO.	ROOM NAME	TYPE	CAPACITY (m <sup>3</sup> /Hr)	(mmAq)	POWER INPUT			QTY	MODEL
						φ	V	W		
1.	EF-BT-1	MALE TOILET	CEILING MOUNTED	500	12	1	220	90	1	FV-38CD8 or EQV
2.	EF-BT-2	FEMALE TOILET	CEILING MOUNTED	400	12	1	220	90	1	FV-38CD8 or EQV



The Railway Electrification and Double - double Tracking of Java Main Line Project

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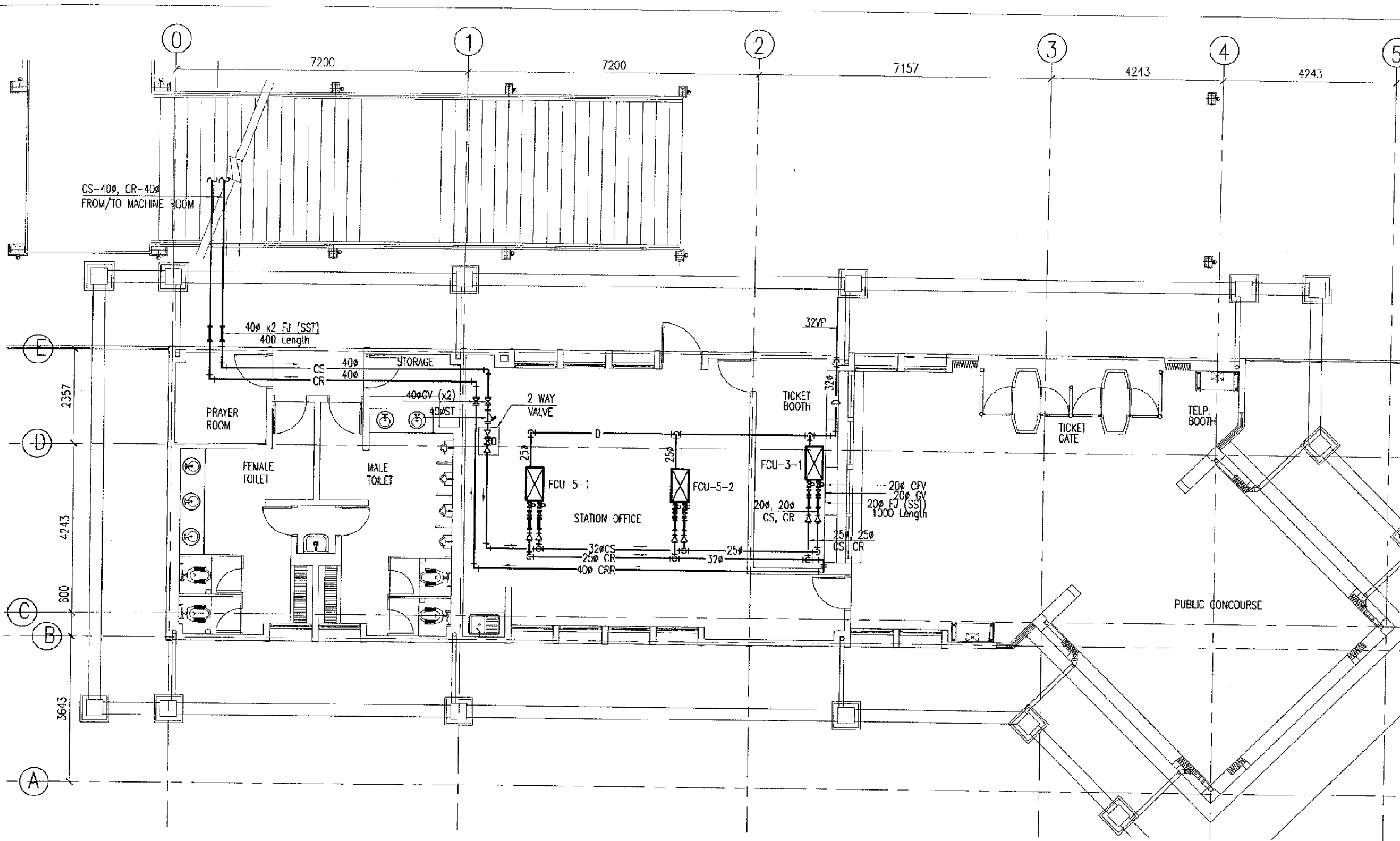
TAMBUN STATION

DATE 10/MARCH/2003

Drawing Title :  
VENTILATION

Scale: 1:100  
Drawing No.: AM-11-001

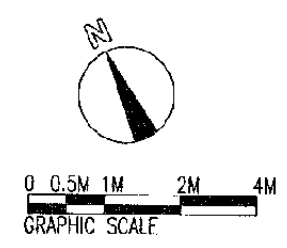




GROUND FLOOR PLAN  
SCALE: 1:100

FAN COIL UNIT (FCU) SCHEDULE

NO.	EQUIPMENT NO.	ROOM NAME	TYPE	SENSIBLE HEAT CAPACITY (Kcal/Hr)	CHILLED / HOT FLOW RATE (l/min)	POWER INPUT			QTY	MODEL
						φ	V	W		
1.	FCU-3-1	TICKET BOOTH	CEILING MOUNTED	2,470	9.3 / 11.4	1	220	45	1	FWHC 4B or EQV
2.	FCU-5-1	STATION OFFICE	CEILING MOUNTED	4,830	18.1 / 20.0	1	220	105	1	FWHC 8B or EQV
3.	FCU-5-2	STATION OFFICE	CEILING MOUNTED	4,830	9.3 / 11.4	1	220	105	1	FWHC 8B or EQV



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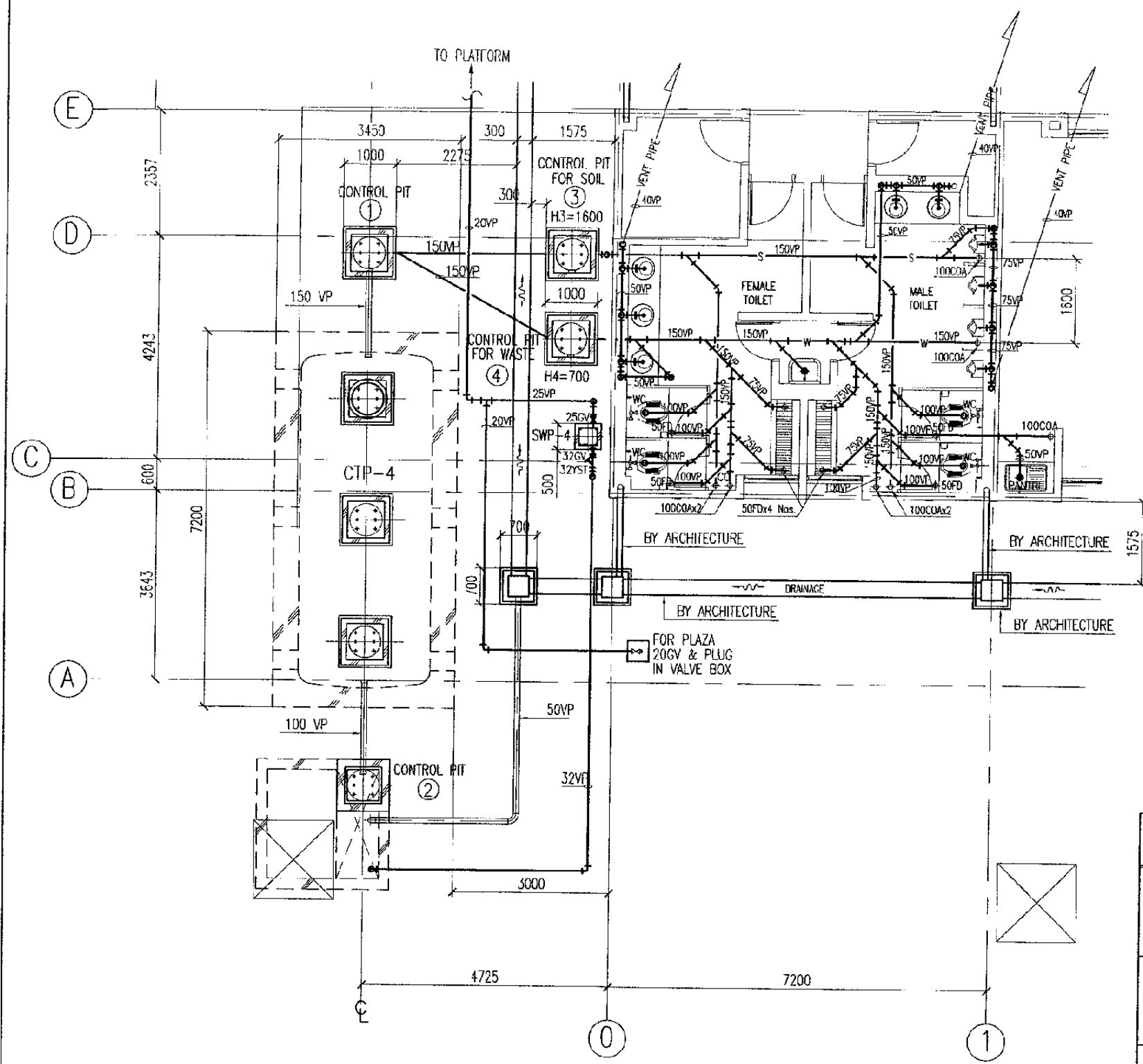
MECHANICAL

TAMBUN STATION

DATE 10/MARCH/2003

Drawing Title :  
FCU PIPING

Scale: 1:100  
Drawing No.: AM-11-002

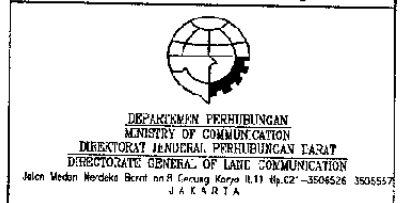


SANITARY FIXTURE LIST

ROOM NAME	SANITARY FIXTURE	UNITS	MANUFACTURE NUMBER	FITTINGS	REMARKS
FEMALE TOILET	COUNTER TOP LAVATORY	3	L521V1A	TX111CRTR THX3A-1W THX1A-5W TL511C1W TS126AR	
	ARABIC CLOSET	2	CE9	IV150NWV12 T82C32 TX403SV3P1V	
	WATER FAUCET	1	T200CS13		
ABLUTION	WATER FAUCET	2	T123B13		
	WATER FAUCET	1	T200CS13		
MALE TOILET	COUNTER TOP LAVATORY	3	L521V1A	TX111CRTR THX3A-1W THX1A-5W TL511C1W TS126AR	
	ARABIC CLOSET	2	CE9	TV150NWV12 T82C32	
	CERAMIC PARTITION	3	A100		
	URINAL	4	U57M	T60P.T62-16 T64BW, T9RA	
ABLUTION	WATER FAUCET	1	T200S13		
	WATER FAUCET	2	T123B13		
EXTERNAL (PLATFORM)	WATER FAUCET	3	T200CS13		
EXTERNAL (FOR CTP)	WATER FAUCET	1	T200CS13		

NO.	NAME	QTY	SPECIFICATION	LOCATION	REMARKS
SMP-4	SUBMERSIBLE PUMP	2	50øx50 ltr/minx9mx0.4kWx3øx220V AUTOMATIC ALTERNATIVE RUNNING AND PUMP RUN ON EMERGENCY.	IN THE ② PIT	w/FLOATS-SWITCH
SWP-4	SPRING WELL PUMP	1	32øx25øx50 ltr/minx10mx0.4kWx3øx220V CONCRETE PLINTH, STAINLESS MESH COVER	EXTERNAL	
CTP-4	COMBINE TREATMENT-PLANT	1	SOIL 11.5 M3/DAY BOD 260 PPM WASTE 4.5 M3/DAY BOD 180 PPM OUT FLOW BOD 20 PPM		

The Railway Electrification and Double - double Tracking of Java Main Line Project



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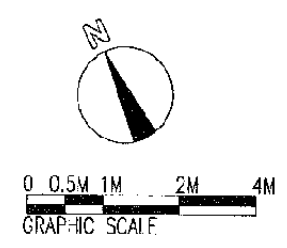
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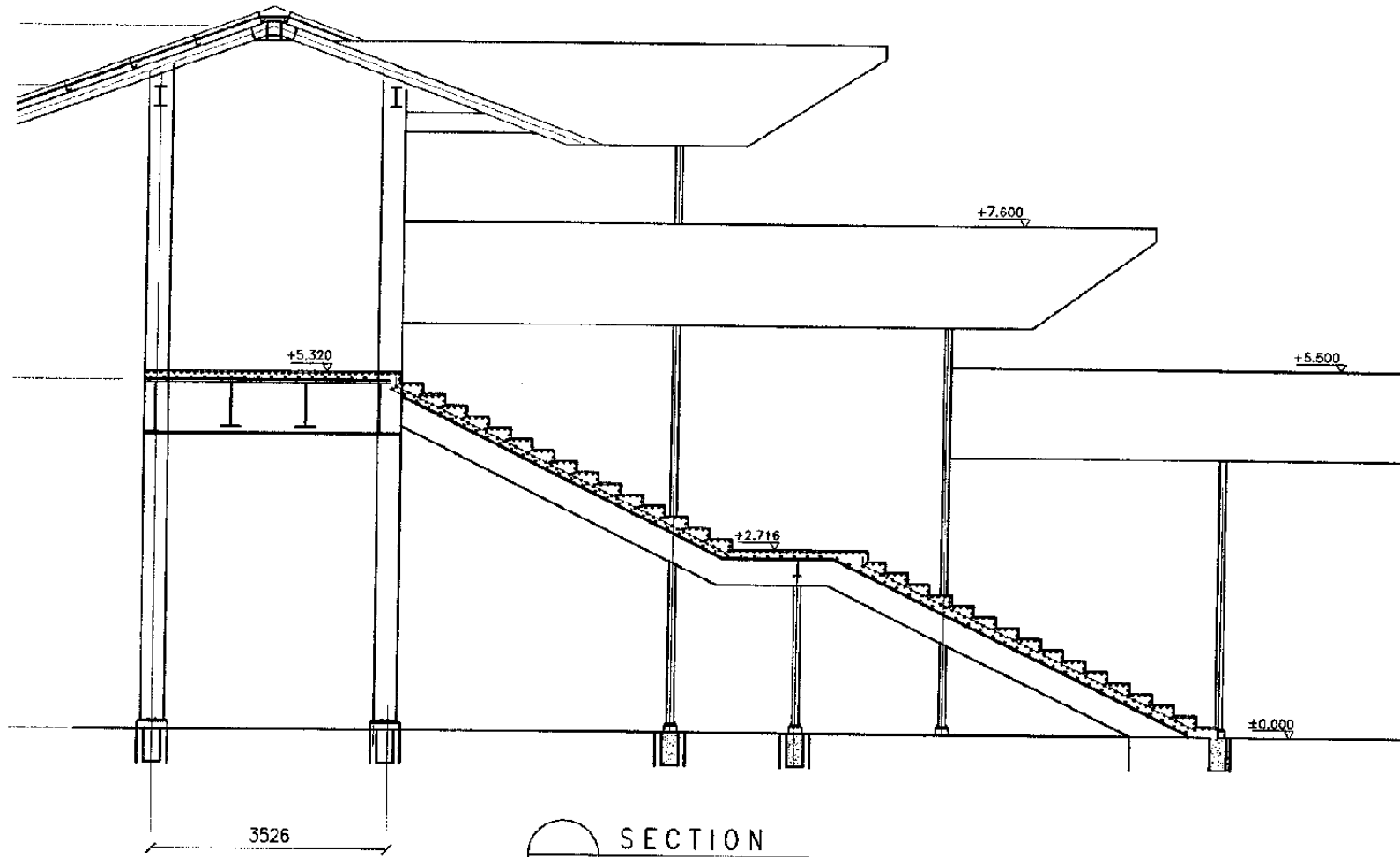
TAMBUN STATION

DATE 10/MARCH/2003

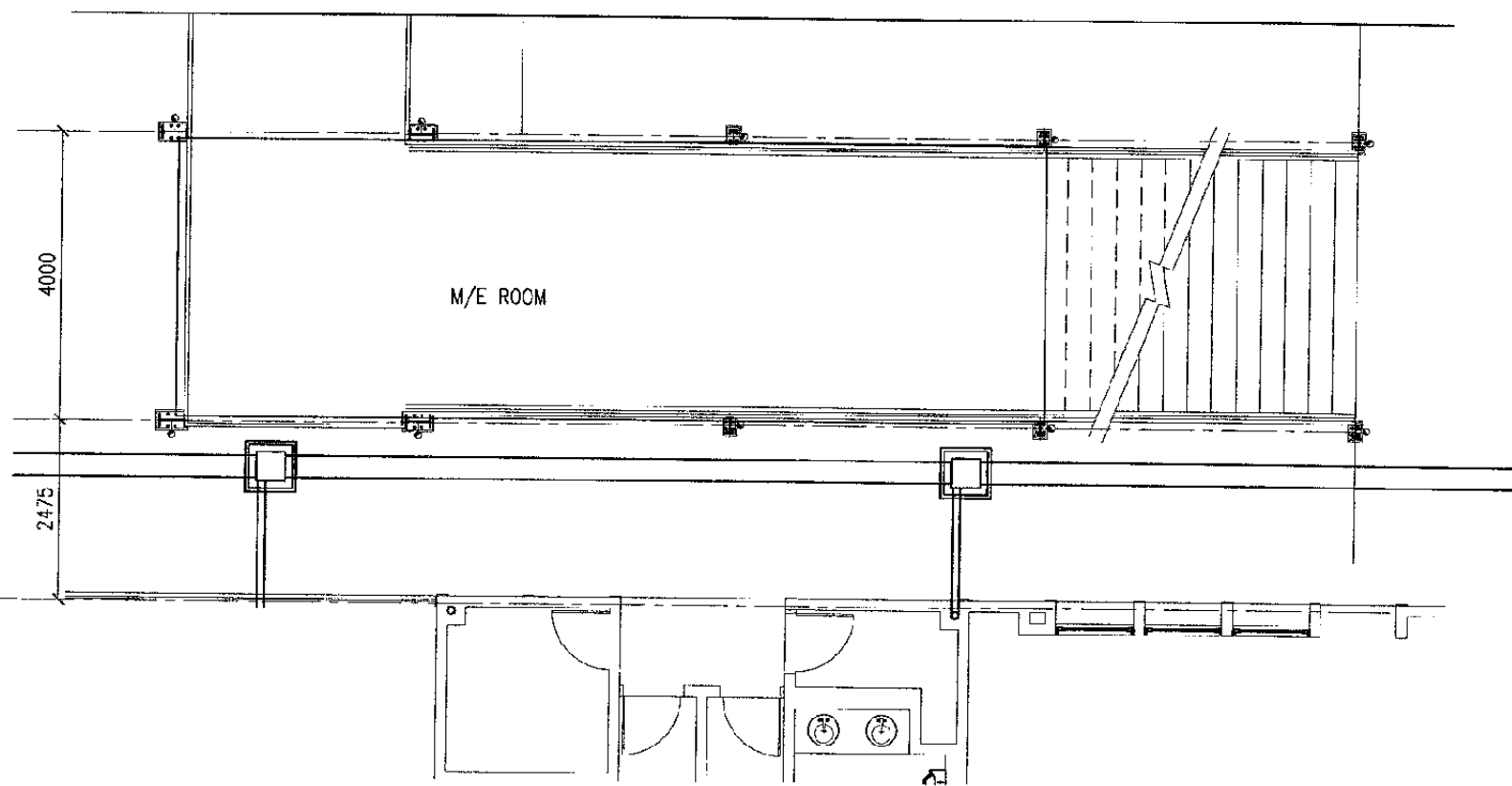
Drawing Title :  
INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE

Scale: 1:100 Drawing No.: AM-11-003





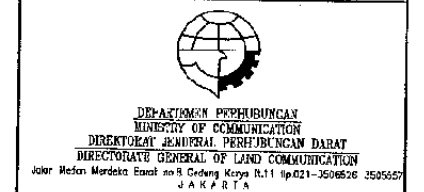
SECTION  
SCALE: 1:100



M/E ROOM PLAN  
SCALE: 1:100



The Railway Electrification and  
Double - double Tracking of  
Java Main Line Project



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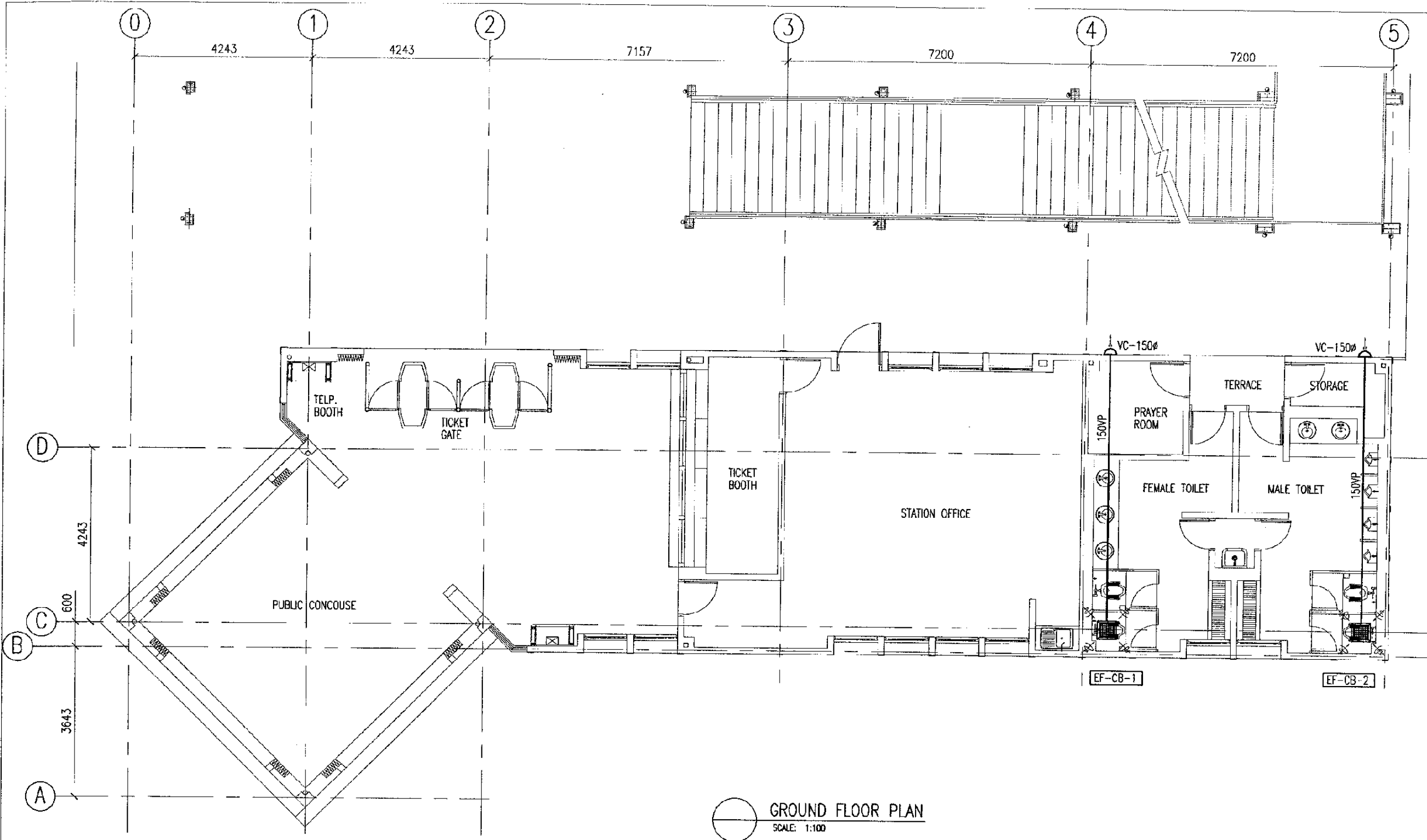
M E C H A N I C A L

TAMBUN STATION

DATE | 10/MARCH/2003

Drawing Title :  
M/E ROOM LOCATION

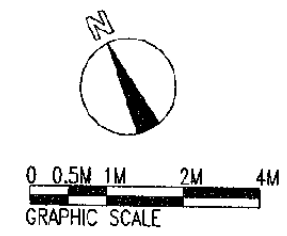
Scale: | Drawing No.:  
1:100 | AM-11-004



GROUND FLOOR PLAN  
SCALE: 1:100

VENTILATION SCHEDULE

NO.	EQUIPMENT NO.	ROOM NAME	TYPE	CAPACITY (m3/Hr)	(mmAq)	POWER INPUT			QTY	MODEL
						Ø	V	W		
1.	EF-CB-1	MALE TOILET	CEILING MOUNTED	500	12	1	220	90	1	FV-38CD8 or EQV
2.	EF-CB-2	FEMALE TOILET	CEILING MOUNTED	400	12	1	220	90	1	FV-38CD8 or EQV



The Railway Electrification and Double - double Tracking of Java Main Line Project



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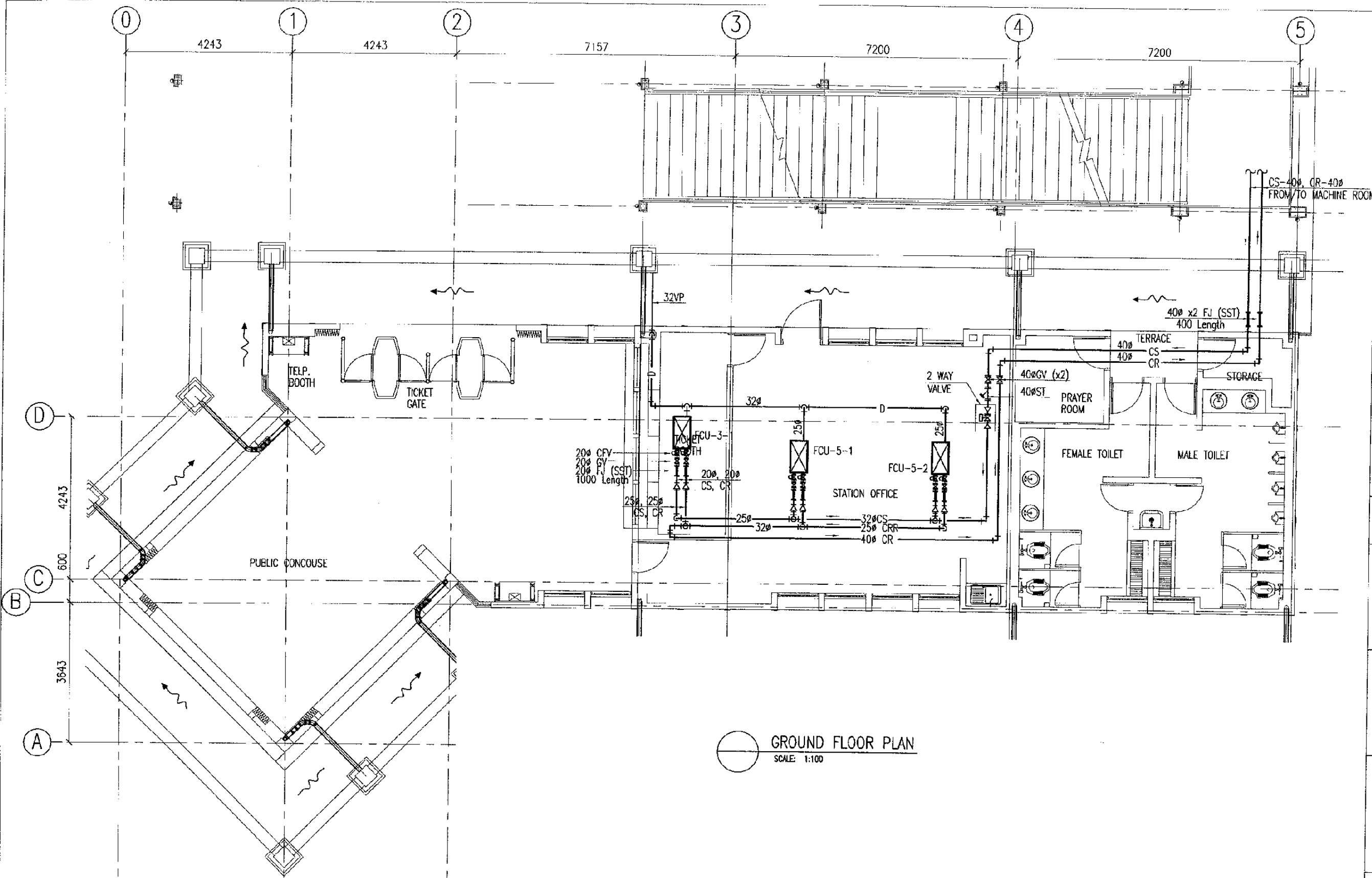
MECHANICAL

CIBITUNG STATION

DATE 10/MARCH/2003

Drawing title :  
VENTILATION

Scale: 1:100  
Drawing No.: AM-12-001



GROUND FLOOR PLAN  
SCALE: 1:100

FAN COIL UNIT (FCU) SCHEDULE

NO.	EQUIPMENT NO.	ROOM NAME	TYPE	SENSIBLE HEAT CAPACITY (Kcal/Hr)	CHILLED / HOT FLOW RATE (l/min)	POWER INPUT			QTY	MODEL
						ø	V	W		
1.	FCU-3-1	TICKET BOOTH	CEILING MOUNTED	2,470	9.3 / 11.4	1	220	45	1	FWHC 4B or EQV
2.	FCU-5-1	STATION OFFICE	CEILING MOUNTED	4,830	18.1 / 20.0	1	220	105	1	FWHC 8B or EQV
3.	FCU-5-2	STATION OFFICE	CEILING MOUNTED	4,830	9.3 / 11.4	1	220	105	1	FWHC 8B or EQV

The Railway Electrification and Double - double Tracking of Java Main Line Project

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DIREKTORAT JENDERAL OF LAND COMMUNICATION  
Jalan Medan Merdeka Barat No. 2 Gedung Raya 2.11 10.021-350525-350526  
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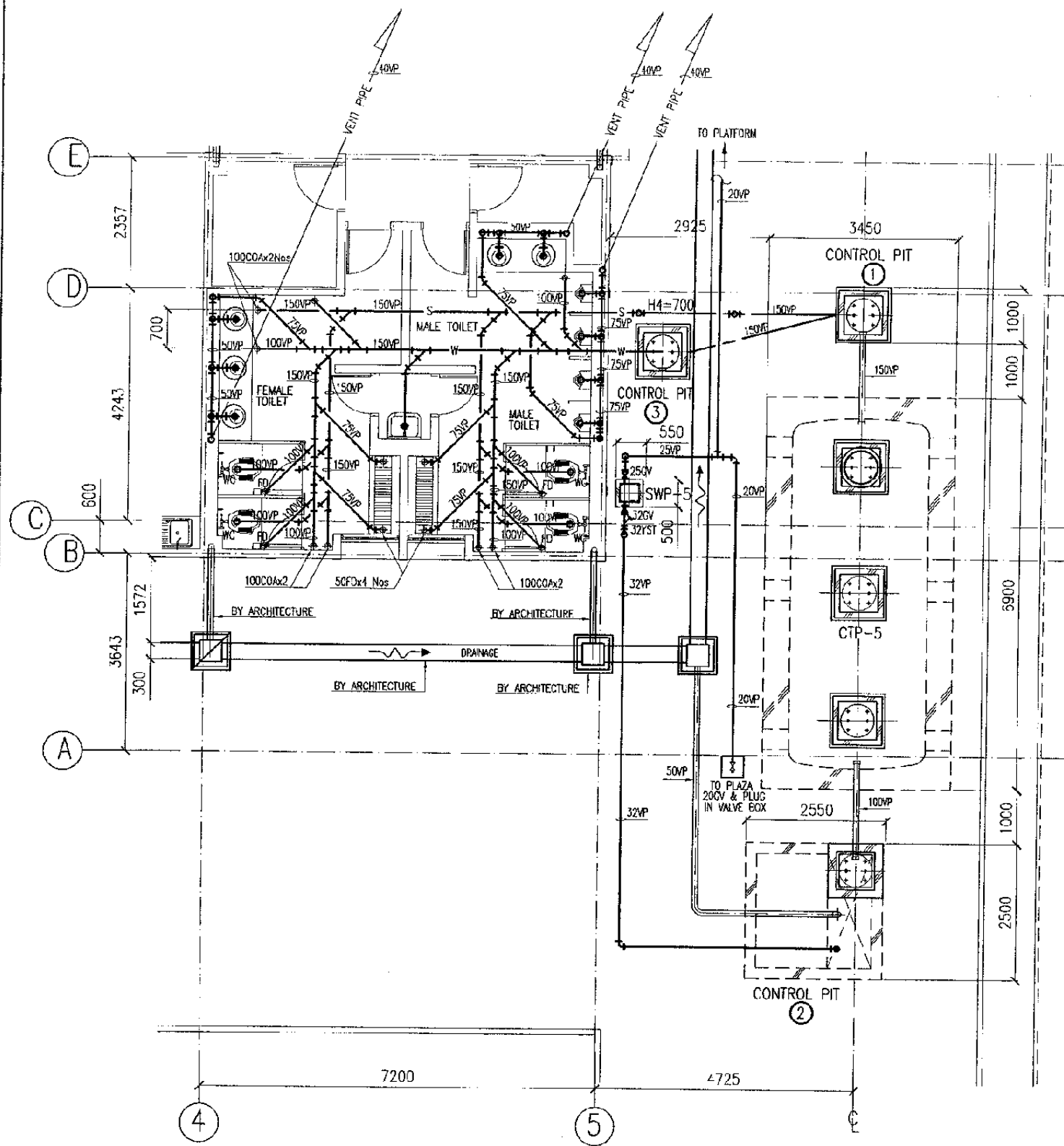
MECHANICAL

CIBITUNG STATION

DATE 10/MARCH/2003

Drawing Title :  
FCU PIPING

Scale: 1:100  
Drawing No.: AM-12-002



SANITARY FIXTURE LIST

ROOM NAME	SANITARY FIXTURE	UNITS	MANUFACTURE NUMBER	FITTINGS	REMARKS
FEMALE TOILET	COUNTER TOP LAVATORY	3	L521V1A	TX111CRTR THX3A-1W THX1A-5W TL511C1W TS126AR	
	ARABIC CLOSET	2	CE9	TV150NWW12 T82C32 TX403SV3P1V	
	WATER FAUCET	1	T200CS13		
ABLUTION	WATER FAUCET	2	T123B13		
MALE TOILET	COUNTER TOP LAVATORY	3	L521V1A	TX111CRTR THX3A-1W THX1A-5W TL511C1W TS126AR	
	ARABIC CLOSET	2	CE9	TV150NWW12 T82C32	
	CERAMIC PARTITION	3	A100		
	URINAL	4	U57M	T60P, T62-16 T64BW, T9RA	
	WATER FAUCET	1	T200CS13		
ABLUTION	WATER FAUCET	2	T123B13		
EXTERNAL (PLATFORM)	WATER FAUCET	3	T200CS13	TKP01SR, 19R T23AE20	
EXTERNAL (FOR CTP)	WATER FAUCET	1	T200CS13		

NO.	NAME	QTY	SPECIFICATION	LOCATION	REMARKS
SMP-5	SUBMERSIBLE PUMP	2	50øx50 ltr/minx9mx0.4kWx3øx220V AUTOMATIC ALTERNATIVE RUNNING AND PUMP RUN ON EMERGENCY.	IN THE ② PIT	w/FLOATS- SWITCH
SWP-5	SPRING WELL PUMP	1	32øx25øx50 ltr/minx10mx0.4kWx3øx220V CONCRETE PLINTH, STAINLESS MESH - COVER	EXTERNAL	
CTP-5	COMBINE TREATMENT- PLANT	1	SOIL 1:5 M3/DAY BOD 260 PPM WASTE 4.5 M3/DAY BOD 180 PPM OUT FLOW BOD 20 PPM		

The Railway Electrification and Double - double Tracking of Java Main Line Project



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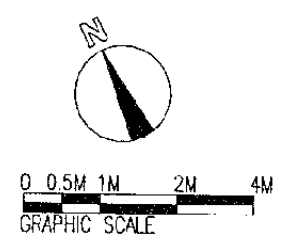
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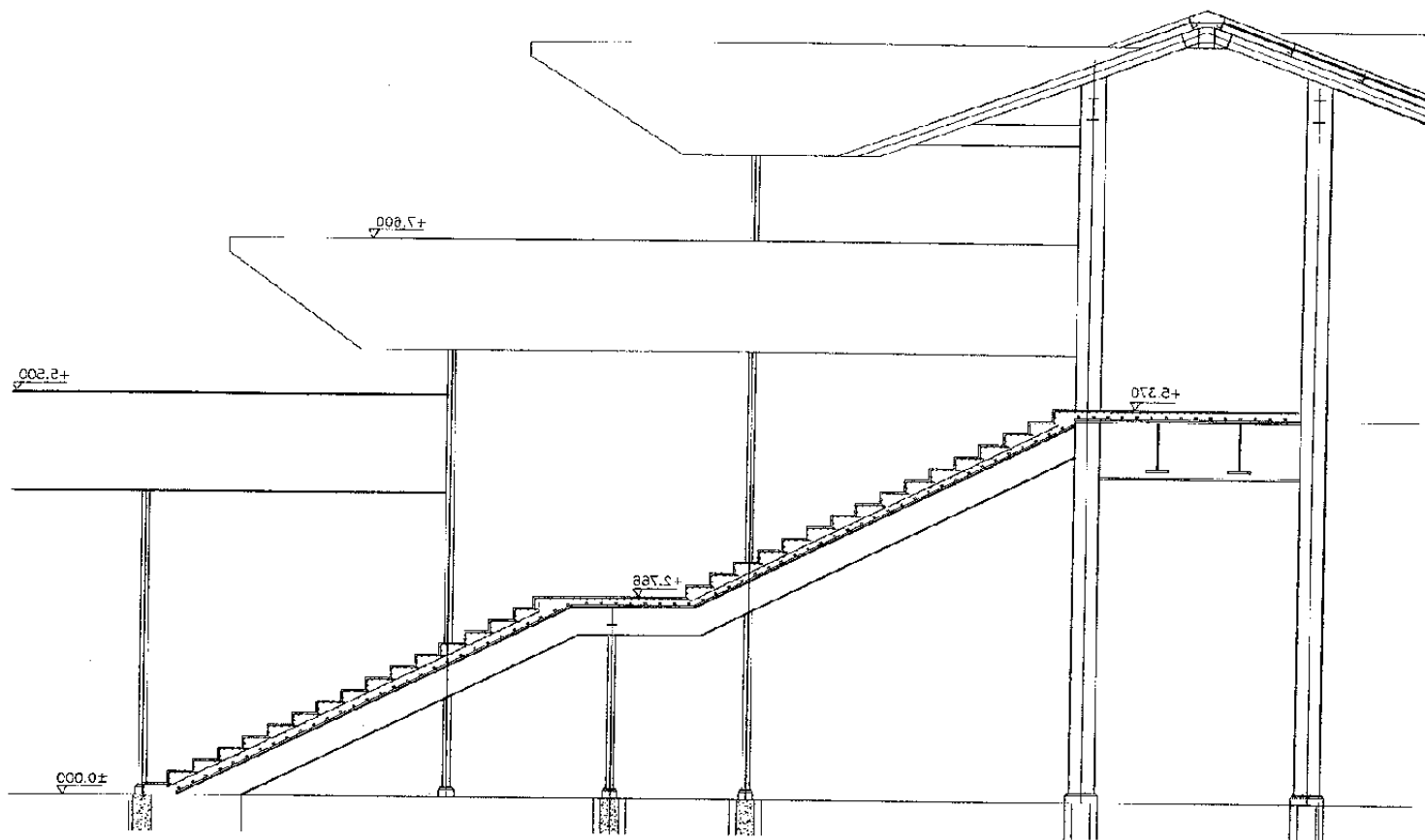
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DATE 10/MARCH/2003

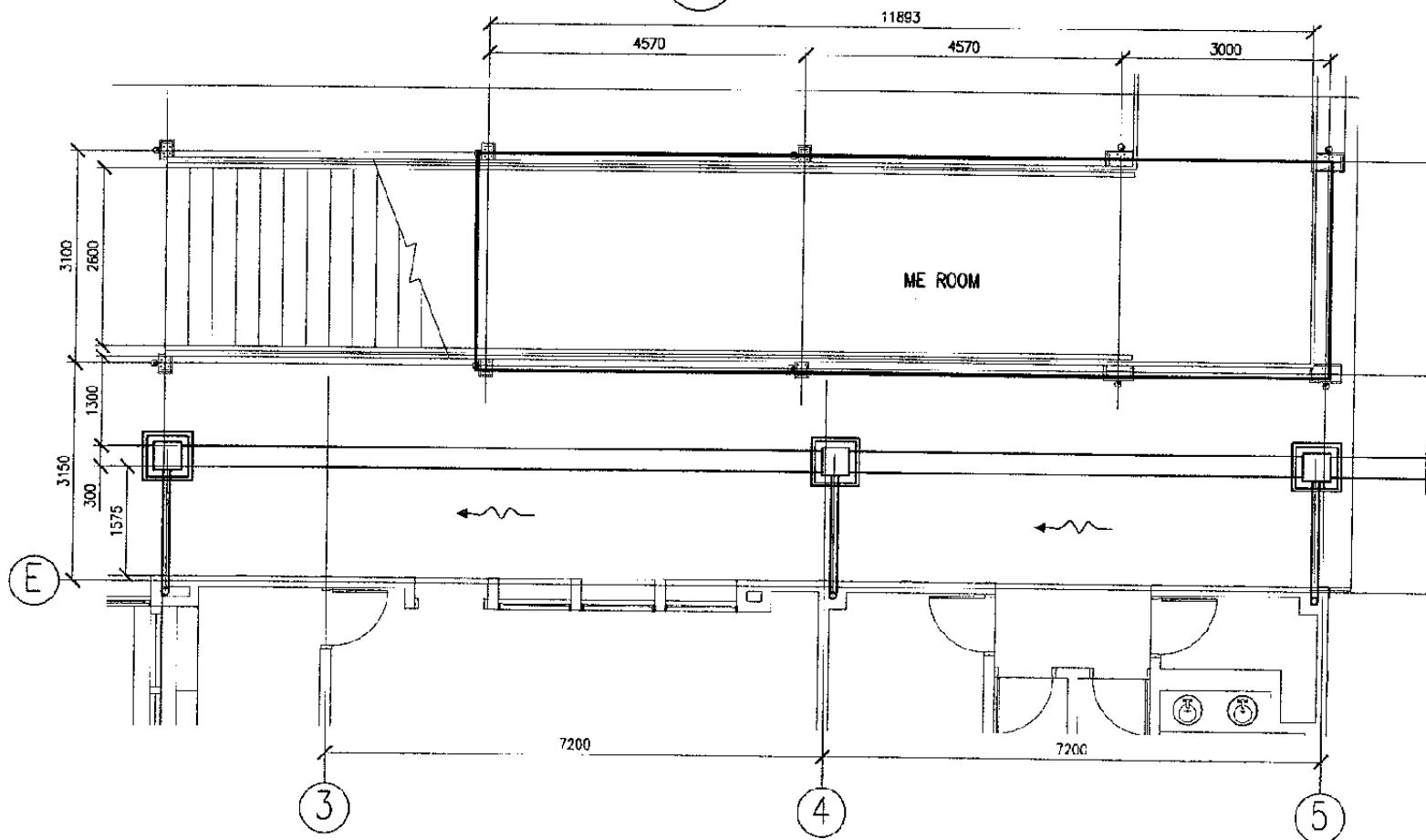
Drawing Title :  
INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE

Scale: 1:100 Drawing No.: AM-12-003

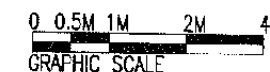




SECTION  
SCALE: 1:50



M/E ROOM PLAN  
SCALE: 1:50



The Railway Electrification and  
Double - double Tracking of  
Java Main Line Project

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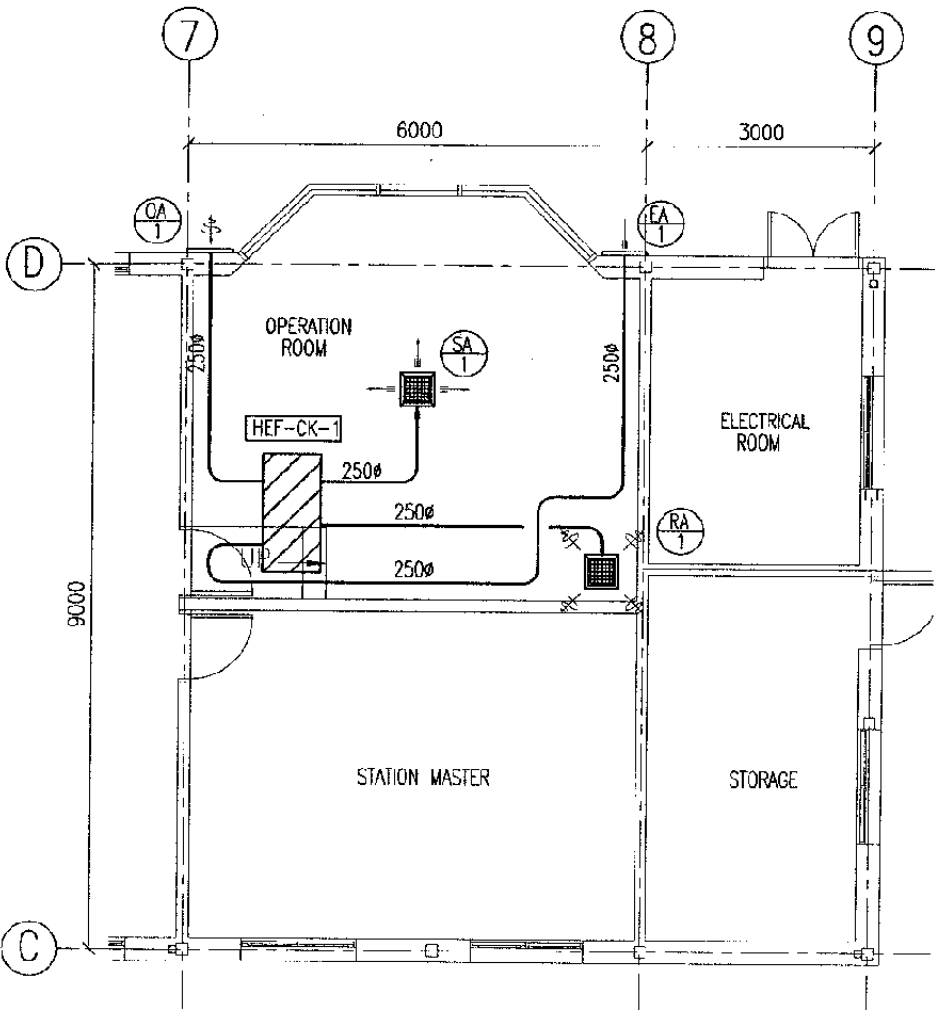
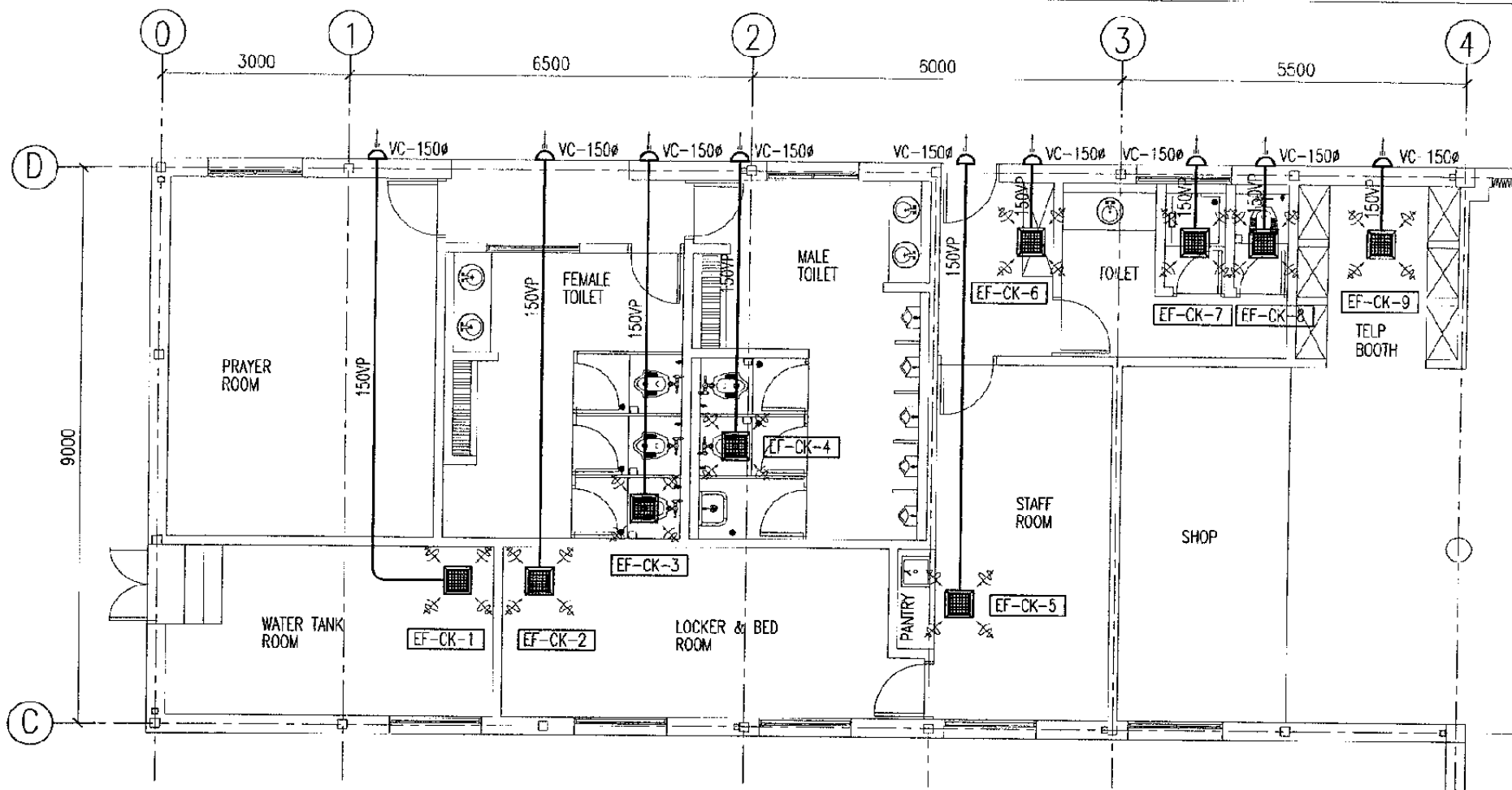
M E C H A N I C A L

CIBITUNG STATION

DATE 10/MARCH/2003

Drawing Title :  
M/E ROOM LOCATION

Scale: NTS Drawing No.: AM-12-004



GROUND FLOOR PLAN  
SCALE: 1:100

SA, EA, OA & RA SCHEDULE

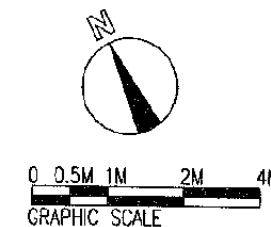
NO.	EQUIPMENT NO.	ROOM NAME	TYPE	AIR FLOW (m <sup>3</sup> /Hr)	SIZE	QTY
1.	SA-1	OPERATION ROOM	VHS	600	350x350	1
2.	EA-1	OPERATION ROOM	VHS	600	600x200	1
3.	OA-1	OPERATION ROOM	VHS	600	600x200	1
4.	RA-1	OPERATION ROOM	VHS	600	350x350	1

HEAT EXCHANGER FAN SCHEDULE

NO.	EQUIPMENT NO.	ROOM NAME	TYPE	CAPACITY (m <sup>3</sup> /Hr)	(mmAq)	POWER INPUT			QTY	MODEL
						Ø	V	W		
1.	HEF-CK-1	OPERATION ROOM	CEILING MOUNT	600	20	1	220	450	1	FY-800ZDY

VENTILATION SCHEDULE

NO.	EQUIPMENT NO.	ROOM NAME	TYPE	CAPACITY (m <sup>3</sup> /hr)	(mmAq)	POWER INPUT			QTY	MODEL
						Ø	V	W		
1.	EF-CK-1	WATER TANK ROOM	CEILING MOUNTED	500	13	1	220	107	1	FY-35USM or EQV
2.	EF-CK-2	LOCKER ROOM	CEILING MOUNTED	300	8	1	220	57	1	FV-32CH8 or EQV
3.	EF-CK-3	FEMALE TOILET	CEILING MOUNTED	660	10	1	220	122	1	FV-38CH8 or EQV
4.	EF-CK-4	MALE TOILET	CEILING MOUNTED	530	10	1	220	122	1	FV-38CH8 or EQV
5.	EF-CK-5	STAFF ROOM	CEILING MOUNTED	420	8	1	220	57	1	FV-32CH8 or EQV
6.	EF-CK-6	STAFF ROOM	CEILING MOUNTED	420	5	1	220	57	1	FV-32CH8 or EQV
7.	EF-CK-7	STAFF TOILET	CEILING MOUNTED	180	6	1	220	28	1	FV-27CH8 or EQV
8.	EF-CK-8	STAFF TOILET	CEILING MOUNTED	120	6	1	220	24	1	FV-24CM1 or EQV
9.	EF-CK-9	TELP. BOOTH	CEILING MOUNTED	420	6	1	220	57	1	FV-32CH8 or EQV



The Railway Electrification and Double - double Tracking of Java Main Line Project



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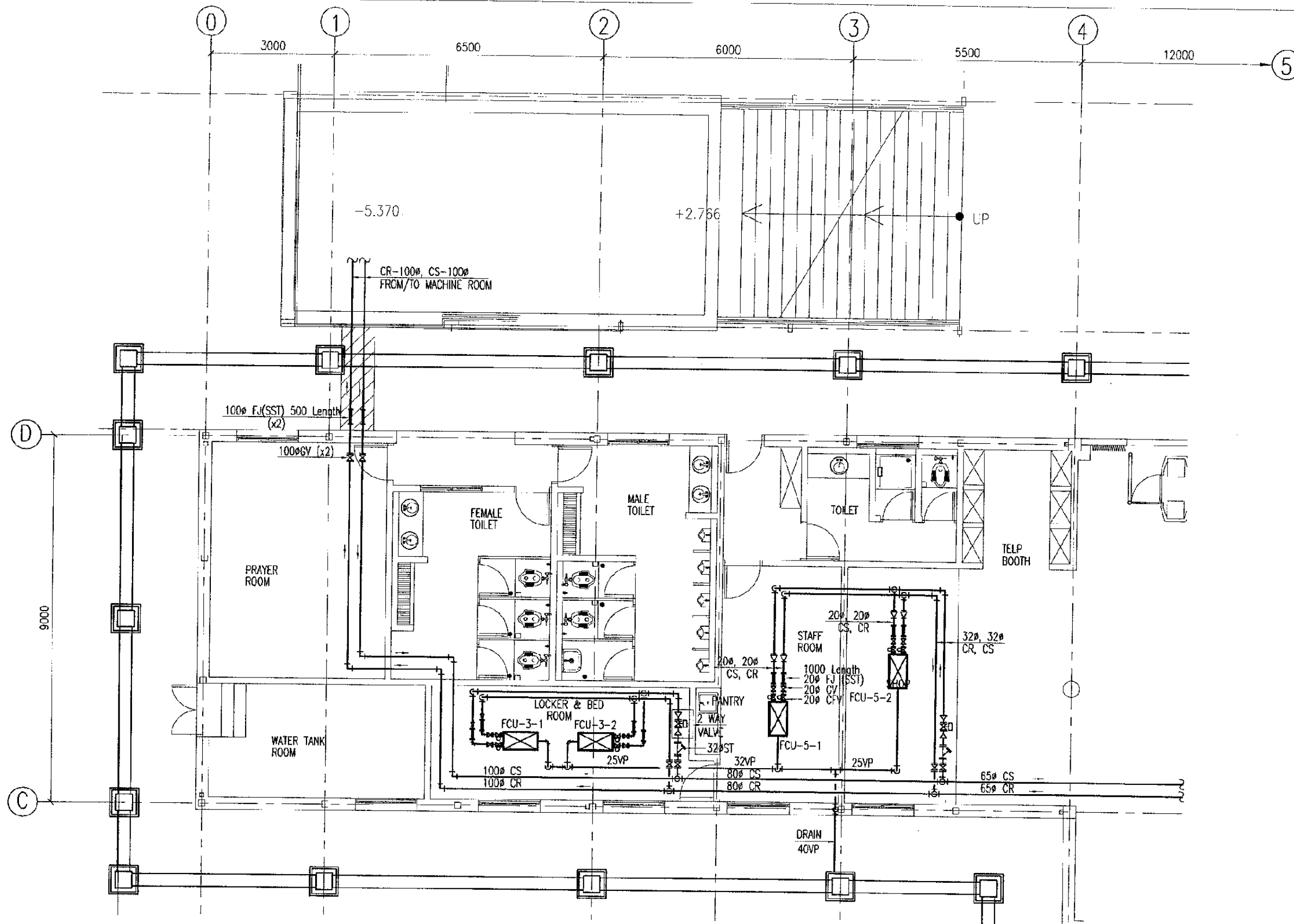
CIKARANG STATION

DATE 10/MARCH/2003

Drawing Title :  
VENTILATION

Scale: 1:100 Drawing No.: AM-13-001

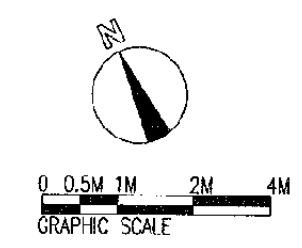




GROUND FLOOR PLAN  
SCALE: 1:100

FAN COIL UNIT (FCU) SCHEDULE

NO.	EQUIPMENT NO.	ROOM NAME	TYPE	SENSIBLE HEAT CAPACITY (Kcal/Hr)	CHILLED / HOT FLOW RATE (l/min)	POWER INPUT			QTY	MODEL
						ø	V	W		
1.	FCU-3-1~2	LOCKER & BED RM	CEILING MOUNTED	2,470	9.3 / 11.4	1	220	45	1	FWHC 4B or EQV
2.	FCU-5-1	STAFF ROOM	CEILING MOUNTED	4,830	18.1 / 20.0	1	220	105	1	FWHC 8B or EQV
3.	FCU-5-2	SHOP	CEILING MOUNTED	4,830	18.1 / 20.0	1	220	105	1	FWHC 8B or EQV



The Railway Electrification and Double - double Tracking of Java Main Line Project



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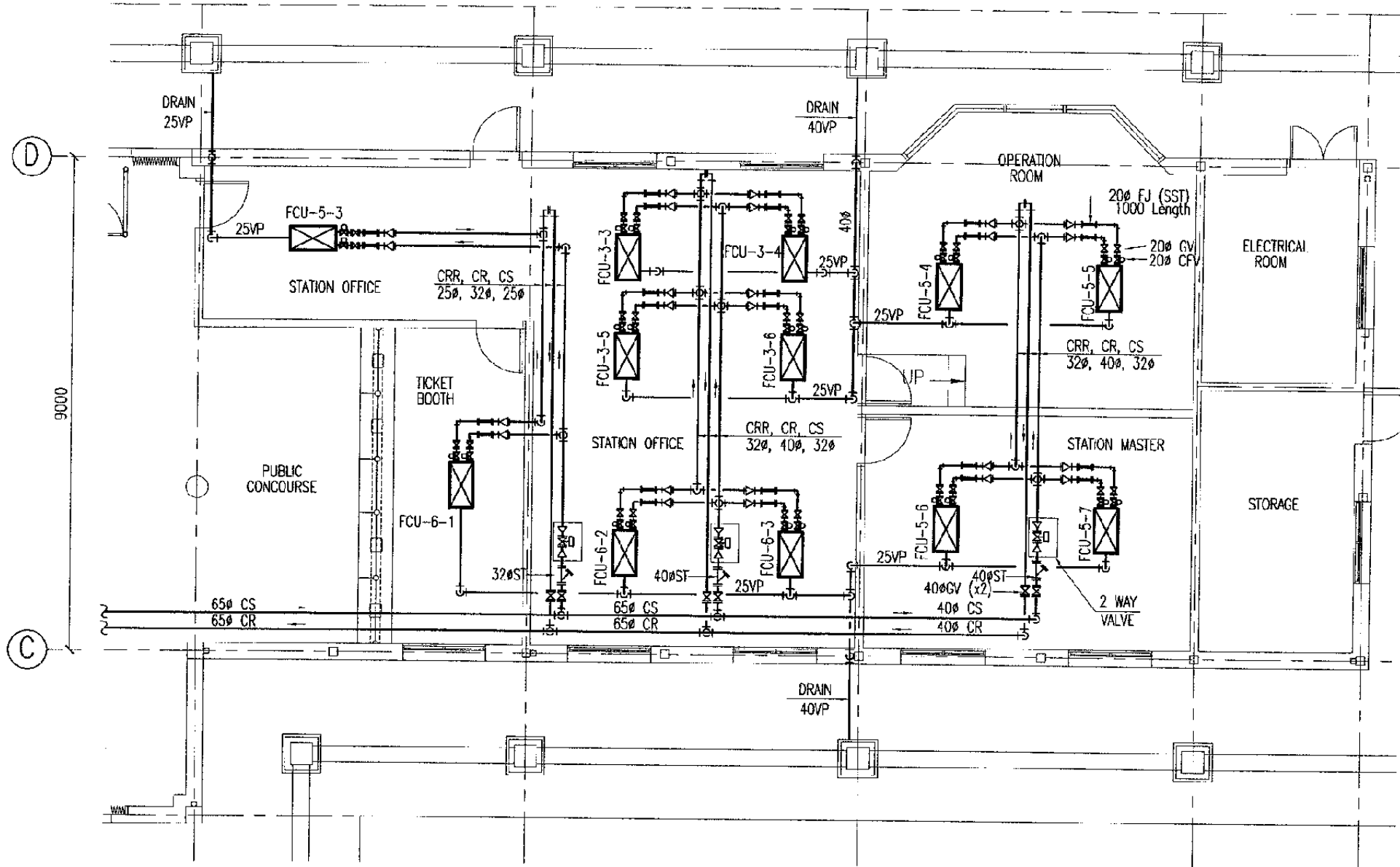
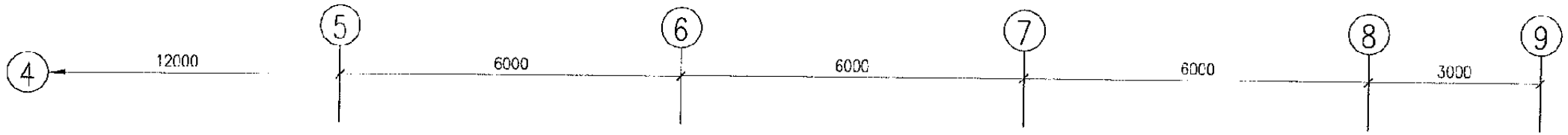
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CIKARANG STATION

DATE 10/MARCH/2003

Drawing Title :  
FCU PIPING

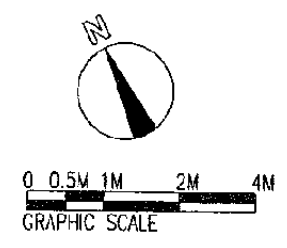
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Drawing No.: AM-13-002



GROUND FLOOR PLAN  
SCALE: 1:100

FAN COIL UNIT (FCU) SCHEDULE

NO.	EQUIPMENT NO.	ROOM NAME	TYPE	SENSIBLE HEAT CAPACITY (Kcal/Hr)	CHILLED / HOT FLOW RATE (l/min)	POWER INPUT			QTY	MODEL
						Ø	V	W		
1.	FCU-3-3~6	STATION OFFICE	CEILING MOUNTED	2,470	9.3 / 11.4	1	220	45	1	FWHC 4B or EQV
2.	FCU-5-3	STATION OFFICE	CEILING MOUNTED	4,830	18.1 / 20.0	1	220	105	1	FWHC 8B or EQV
3.	FCU-5-4~5	OPERATION ROOM	CEILING MOUNTED	4,830	18.1 / 20.0	1	220	105	1	FWHC 8B or EQV
4.	FCU-5-6~7	STATION MASTER	CEILING MOUNTED	4,830	18.1 / 20.0	1	220	105	1	FWHC 8B or EQV
5.	FCU-6-1	TICKET BOOTH	CEILING MOUNTED	6,280	23.7 / 28.6	1	220	63x2	1	FWHC 12B or EQV
6.	FCU-6-2~3	STATION OFFICE	CEILING MOUNTED	6,280	23.7 / 28.6	1	220	63x2	1	FWHC 12B or EQV



The Railway Electrification and Double - double Tracking of Java Main Line Project

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DATE 10/MARCH/2003

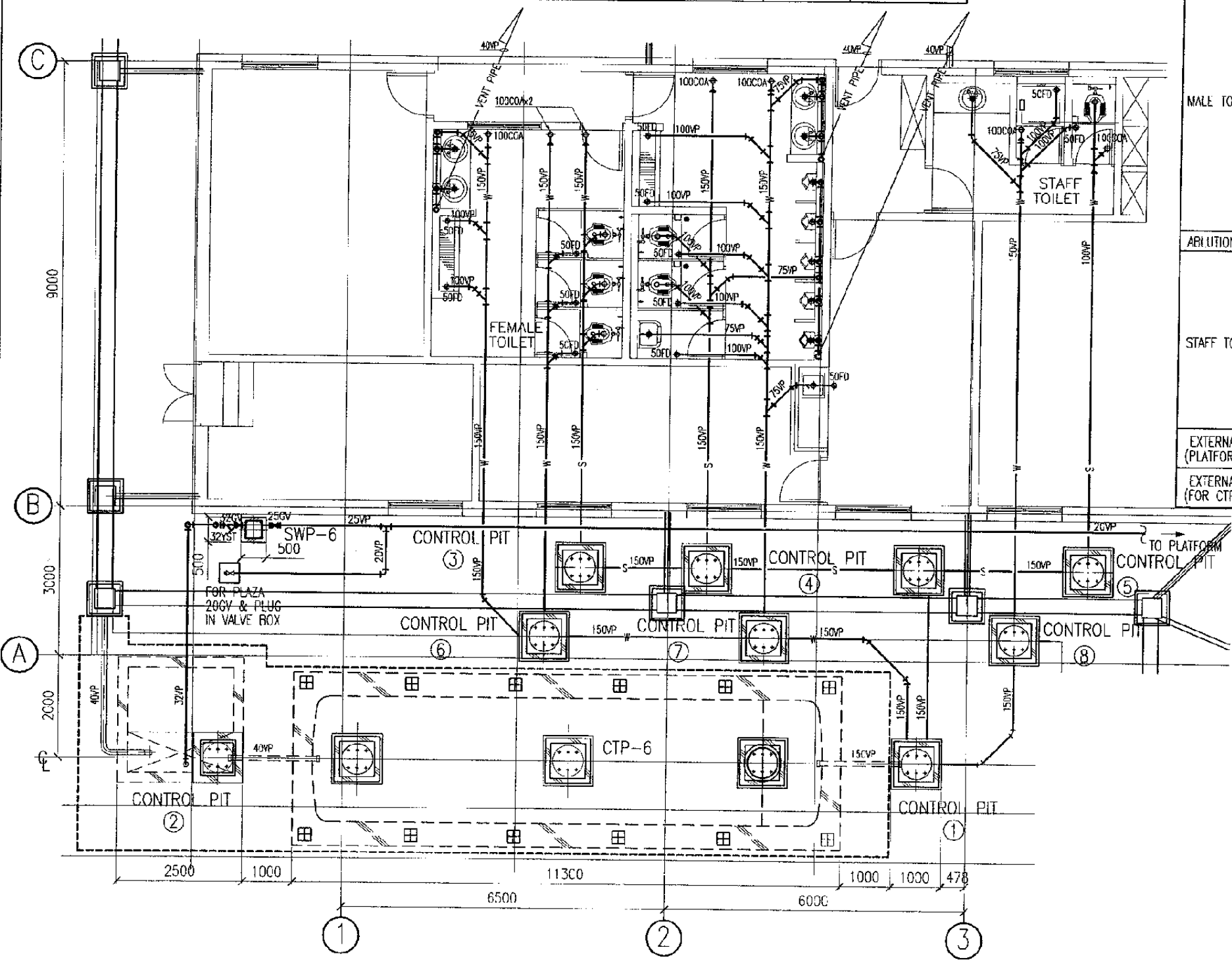
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FCU PIPING

Scale: 1:100 Drawing No.: AM-13-003

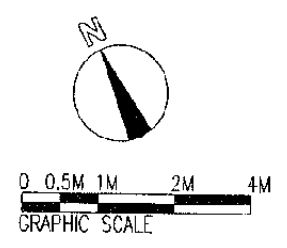
NO.	NAME	QTY	SPECIFICATION	LOCATION	REMARKS
SMP-6	SUBMERSIBLE PUMP	2	50øx50 ltr/minx9mx0.4KWx3øx220V AUTOMATIC ALTERNATIVE RUNNING AND PUMP RUN ON EMERGENCY	IN THE ② PH	w/FLOATS SWITCH & 20M CABLE
SWP-6	SPRING WELL PUMP	1	32øx25øx50 ltr/minx10mx0.4KWx3øx220V CONCRETE PLINTH, STAINLESS MESH COVER	EXTERNAL	
CTP-6	COMBINE TREATMENT PLANT	1	SOIL 19.5 M3/DAY BOD 260 PPM WASTE 4.5 M3/DAY BOD 180 PPM OUT FLOW BOD 20 PPM OUTDOOR WATER PROOFING CONTROL PANEL . CONTROL PANEL WITH CONNECTED WIRING . CONCRETE BASEMENT AND ANGLE BASEMENT (TOP LEVEL IS GL+1900) . COLOUR IS POWDER BAKED REQUIRED ONE BY ENGINEER		REF : (BMM-133)

### SANITARY FIXTURE LIST

ROOM NAME	SANITARY FIXTURE	UNITS	MANUFACTURE NUMBER	FITTINGS	REMARKS
FEMALE TOILET	COUNTER TOP LAVATORY	2	L521V1A	TX111CRTR THX3A-1W THX1A-5W TL511C1W TS126AR	
	ARABIC CLOSET	3	CE9	TV150NWW12 T82C32 TX403SV3P1V	
	WATER FAUCET	1	T200CS13		
ABLUATION	WATER FAUCET	2	T123B13		
	SLOP SINK	1	SKW322	TKP01SR, T9R T23AE20	
MALE TOILET	COUNTER TOP LAVATORY	2	L521V1A	TX111CRTR THX3A-1W THX1A-5W TL511C1W	
	ARABIC CLOSET	2	CE9	TS126AR TV150NWW12 T82C32	
	CERAMIC PARTITION	4	A100		
	URINAL	5	U57M	T60P,T62-16 T64BW, T9RA	
	WATER FAUCET	1	T200S13		
ABLUATION	WATER FAUCET	2	T123B13		
STAFF TOILET	COUNTER TOP LAVATORY	1	L521V1A	TX111CRTR THX3A-1W THX1A-5W TL511C1W TS126AR	
	ARABIC CLOSET	1	CE9	TV150NWW12 T82C32 TX403SV3P1V	
	WATER FAUCET	1	T200S13		
EXTERNAL (PLATFORM)	WATER FAUCET	3	T200CS13		
EXTERNAL (FOR CTP)	WATER FAUCET	1	T200CS13		



COMBINE TREATMENT PLANT AND DRAINAGE  
SCALE: 1:100



The Railway Electrification and Double - double Tracking of Java Main Line Project



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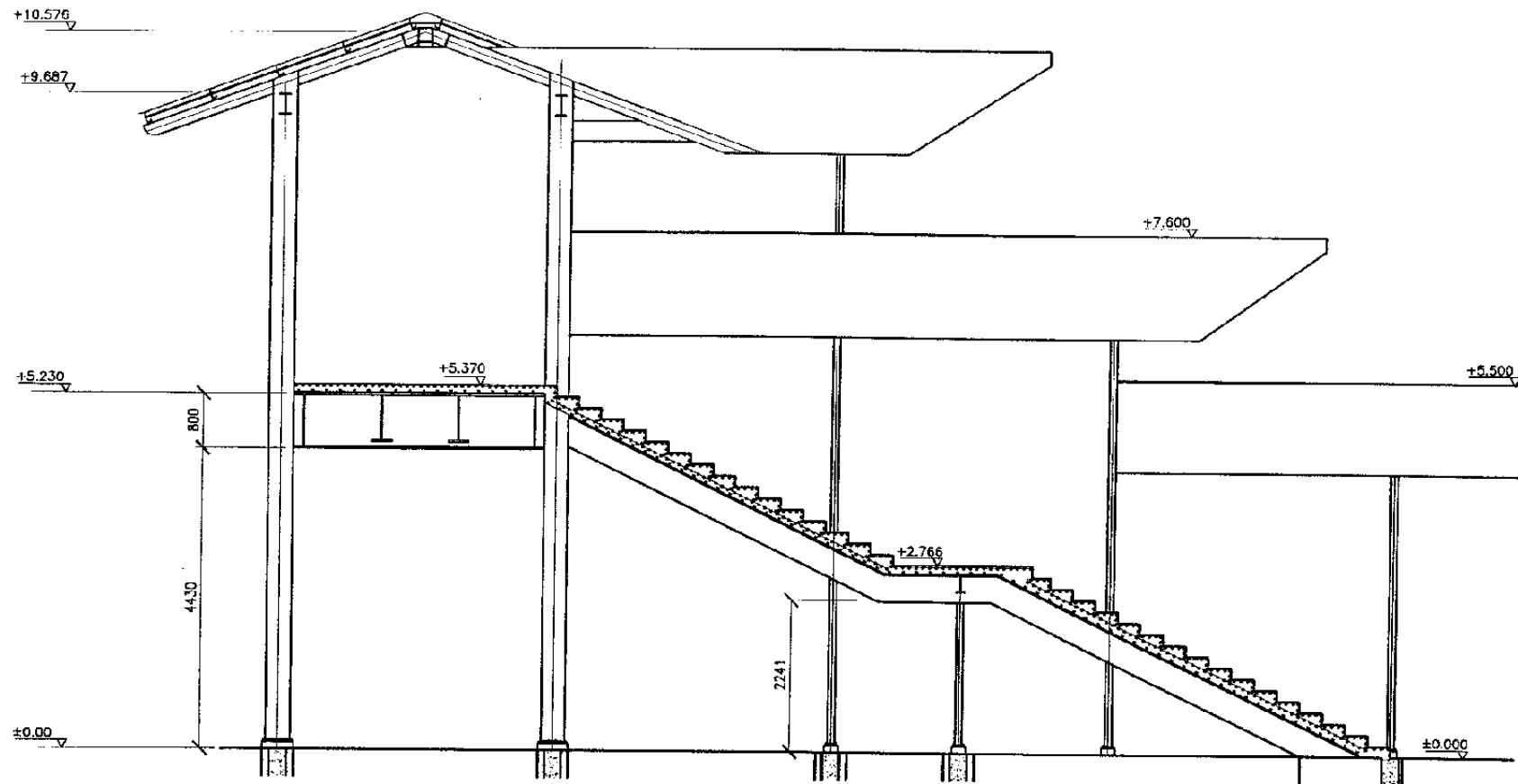
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CIKARANG STATION

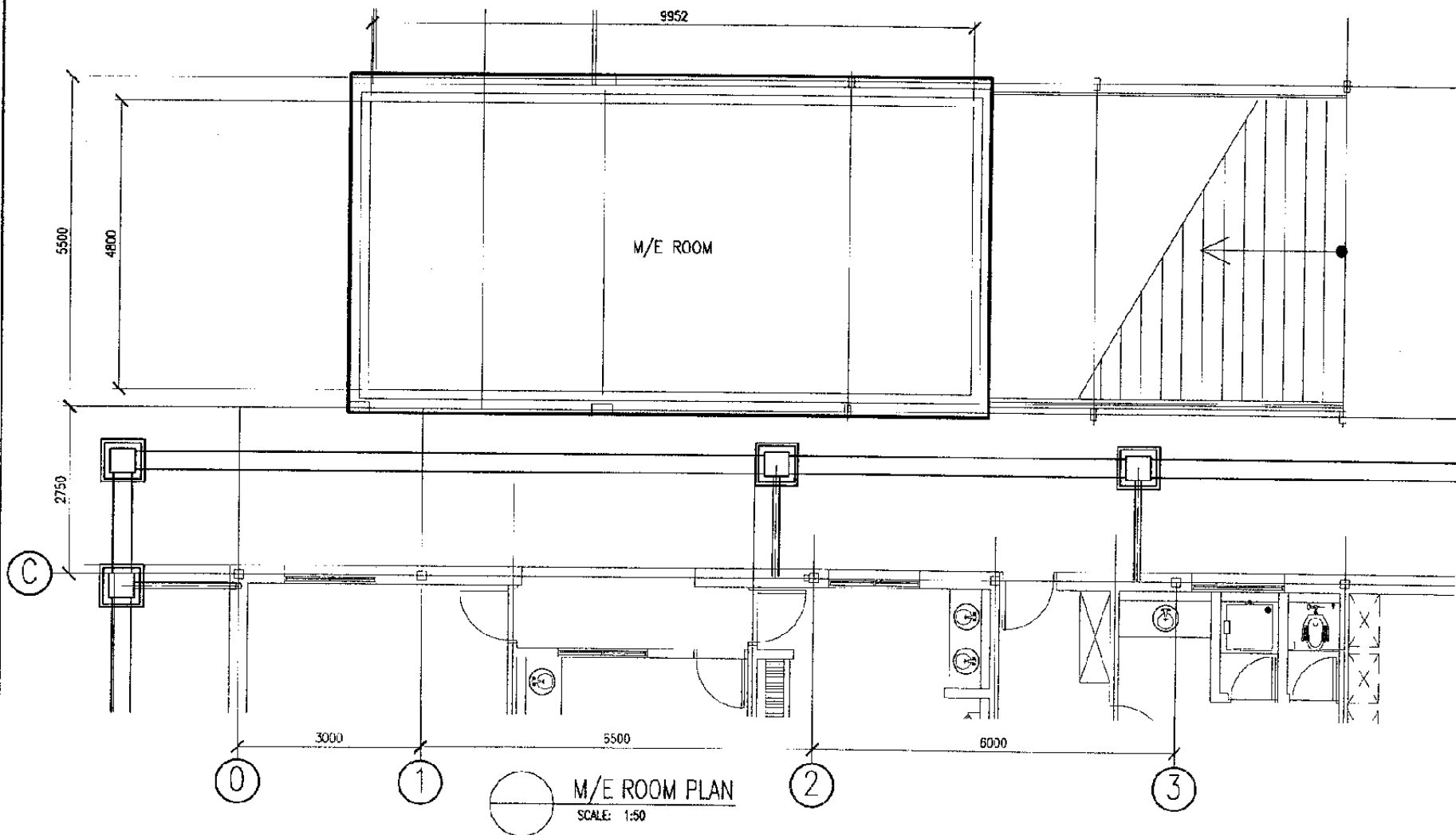
DATE 10/MARCH/2003

Drawing Title :  
INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE

Scale: 1:100  
Drawing No.: AM-13-004



SECTION  
SCALE: 1:50



M/E ROOM PLAN  
SCALE: 1:50



The Railway Electrification and  
Double - double Tracking of  
Java Main Line Project



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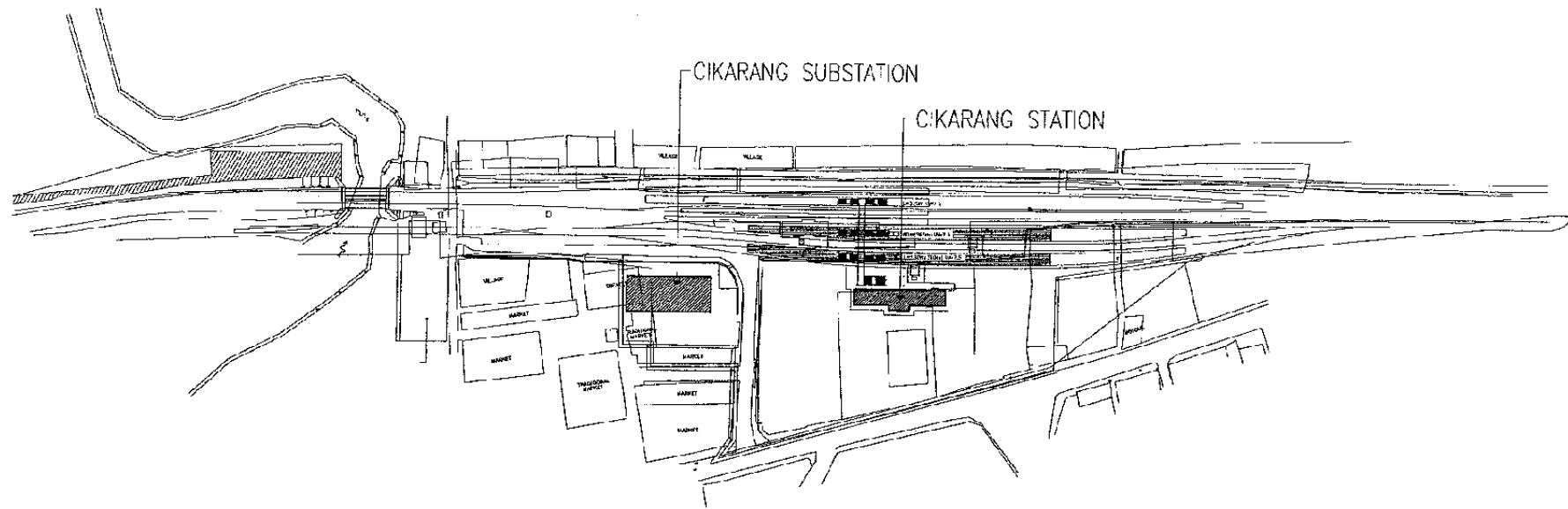
MECHANICAL

CIKARANG STATION

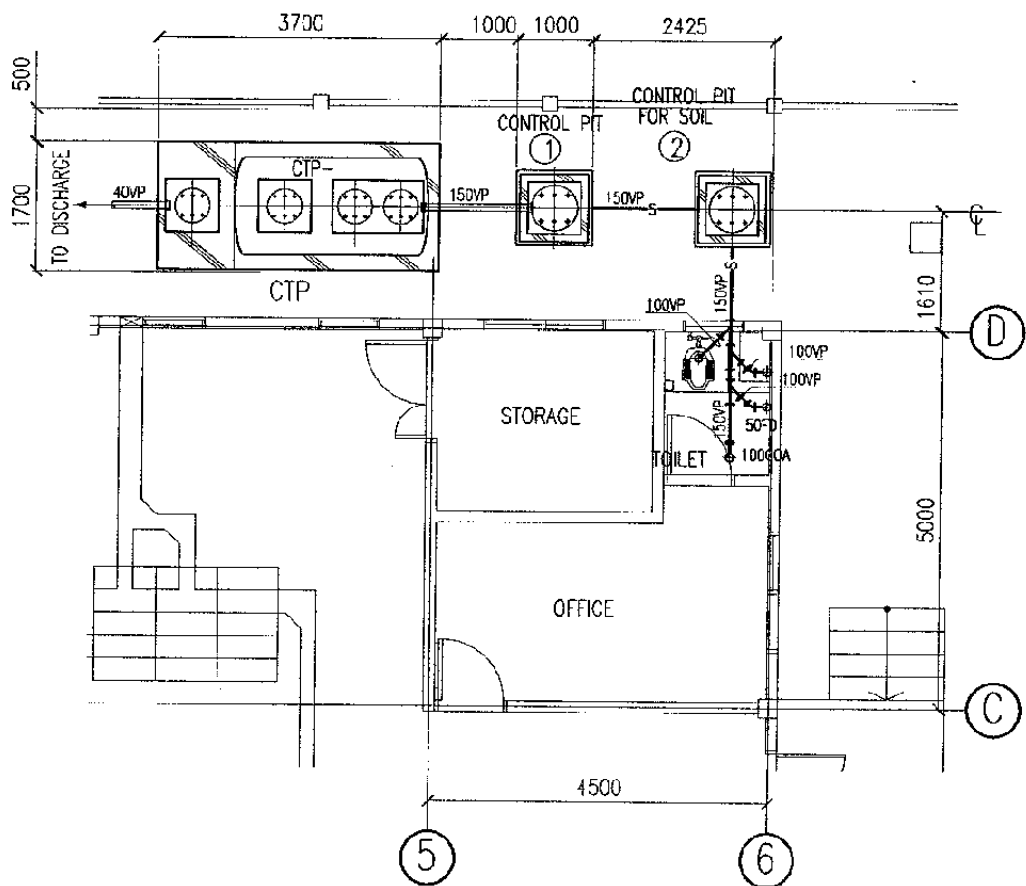
DATE 10/MARCH/2003

Drawing Title :  
M/E ROOM LOCATION

Scale: 1:100 Drawing No.: AM-13-005



LOCATION PLAN  
SCALE: 1:2000

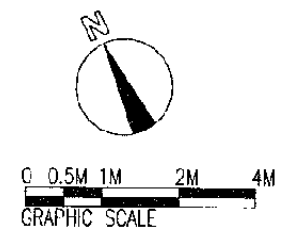


COMBINE TREATMENT PLANT AND DRAINAGE  
SCALE: 1:100

SANITARY FIXTURE LIST

ROOM NAME	SANITARY FIXTURE	UNITS	MANUFACTURE NUMBER	FITTINGS	REMARKS
TOILET	ARABIC CLOSET	1	CE9	TV150NWV12 T82C32 TX403SV3P1V	
	WATER FAUCET	1	T200CS13		

NO.	NAME	QTY	SPECIFICATION	LOCATION	REMARKS
CTP-	COMBINE TREATMENT-PLANT	1			



The Railway Electrification and Double - double Tracking of Java Main Line Project



Note:  
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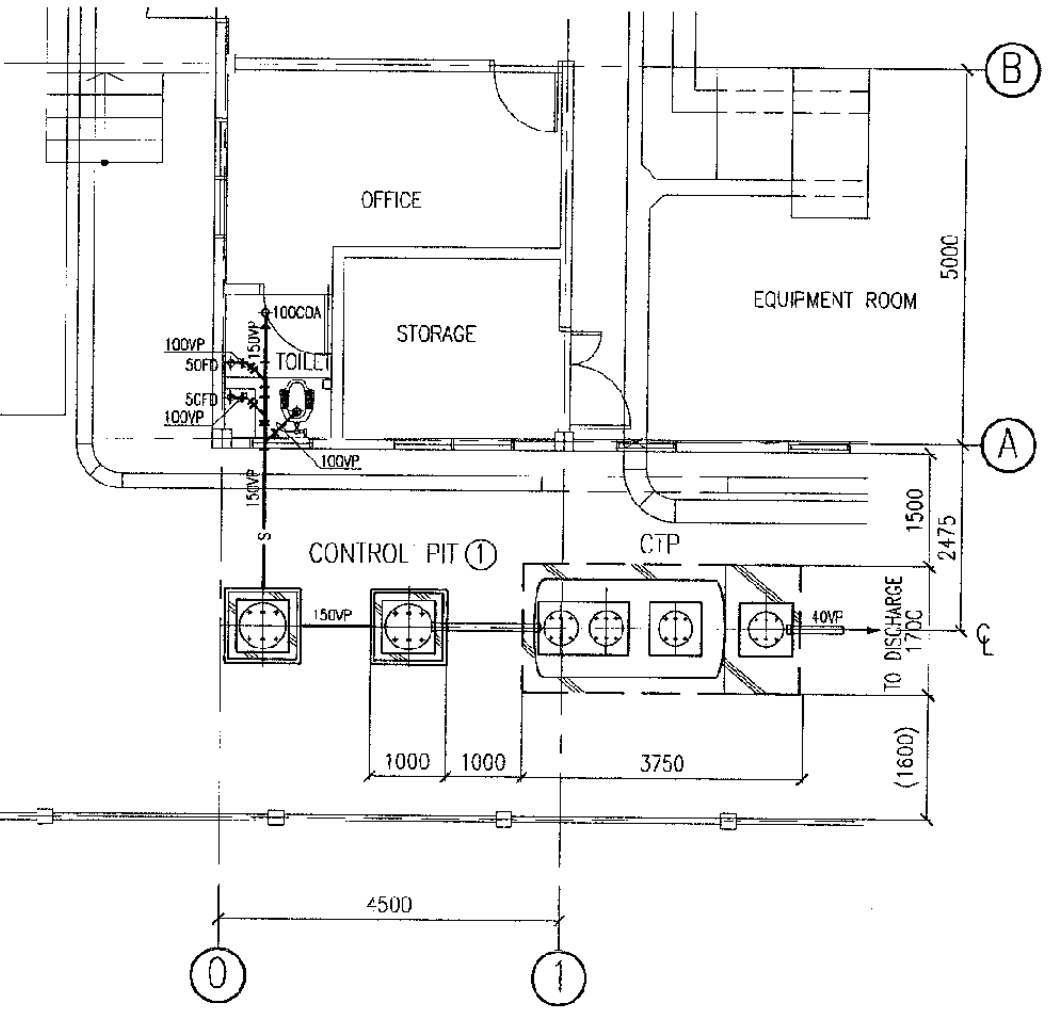
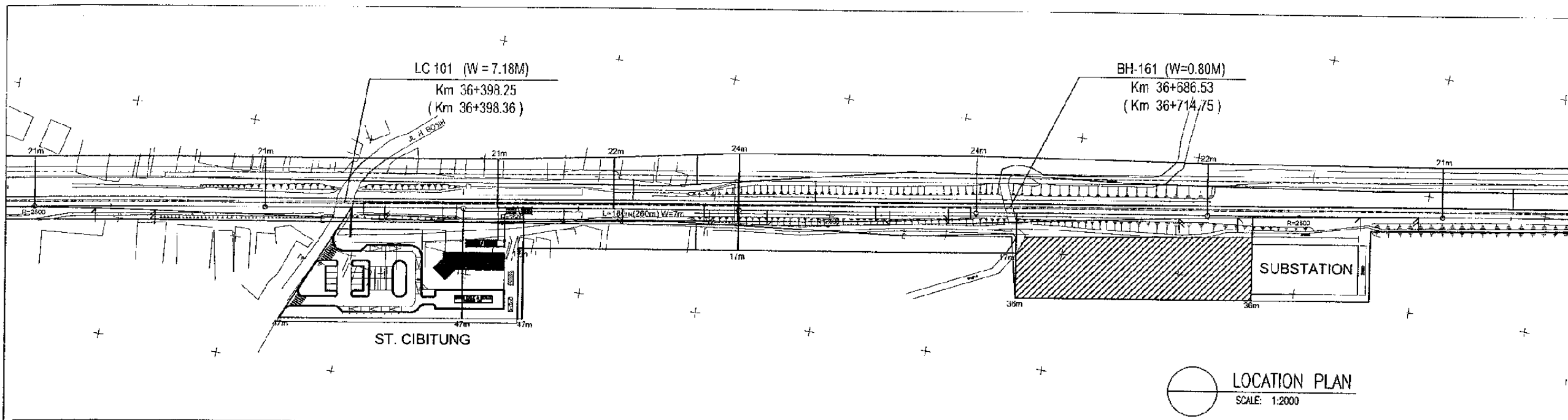
MECHANICAL

CIKARANG SUB STATION

DATE 10/MARCH/2003

Drawing Title :  
INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE

Scale: 1:100 Drawing No.: AM-14-001

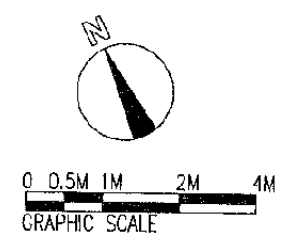


SANITARY FIXTURE LIST

ROOM NAME	SANITARY FIXTURE	UNITS	MANUFACTURE NUMBER	FITTINGS	REMARKS
TOILET	ARABIC CLOSET	1	CE9	TY150NW12 T82C32 TX403SV3P1V	
	WATER FAUCET	1	T200CS13		

NO.	NAME	QTY	SPECIFICATION	LOCATION	REMARKS
CTP-	COMBINE TREATMENT-PLANT	1	WASTE 1.05 M3/DAY OUT FOLW BOD 10 PPM		

COMBINE TREATMENT PLANT AND DRAINAGE  
SCALE: 1:100



The Railway Electrification and Double - double Tracking of Java Main Line Project



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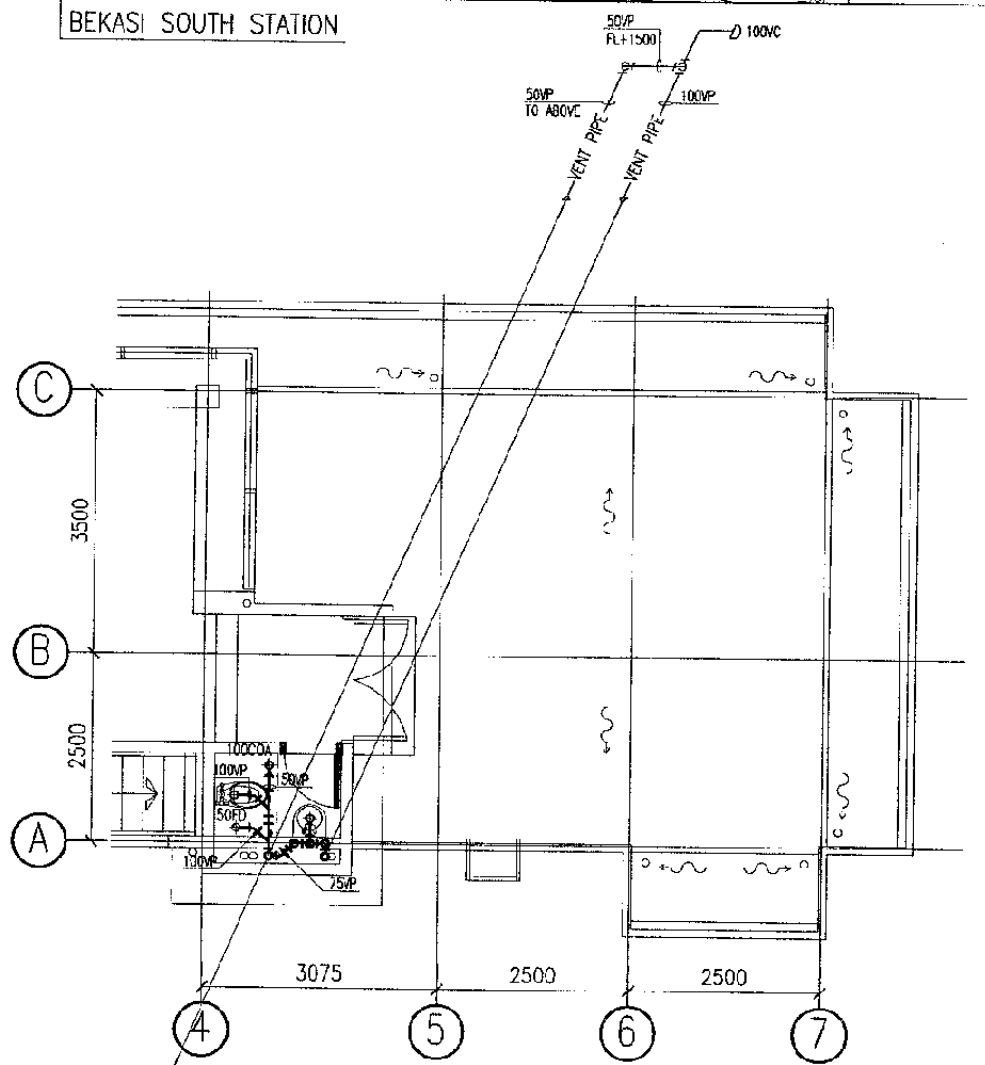
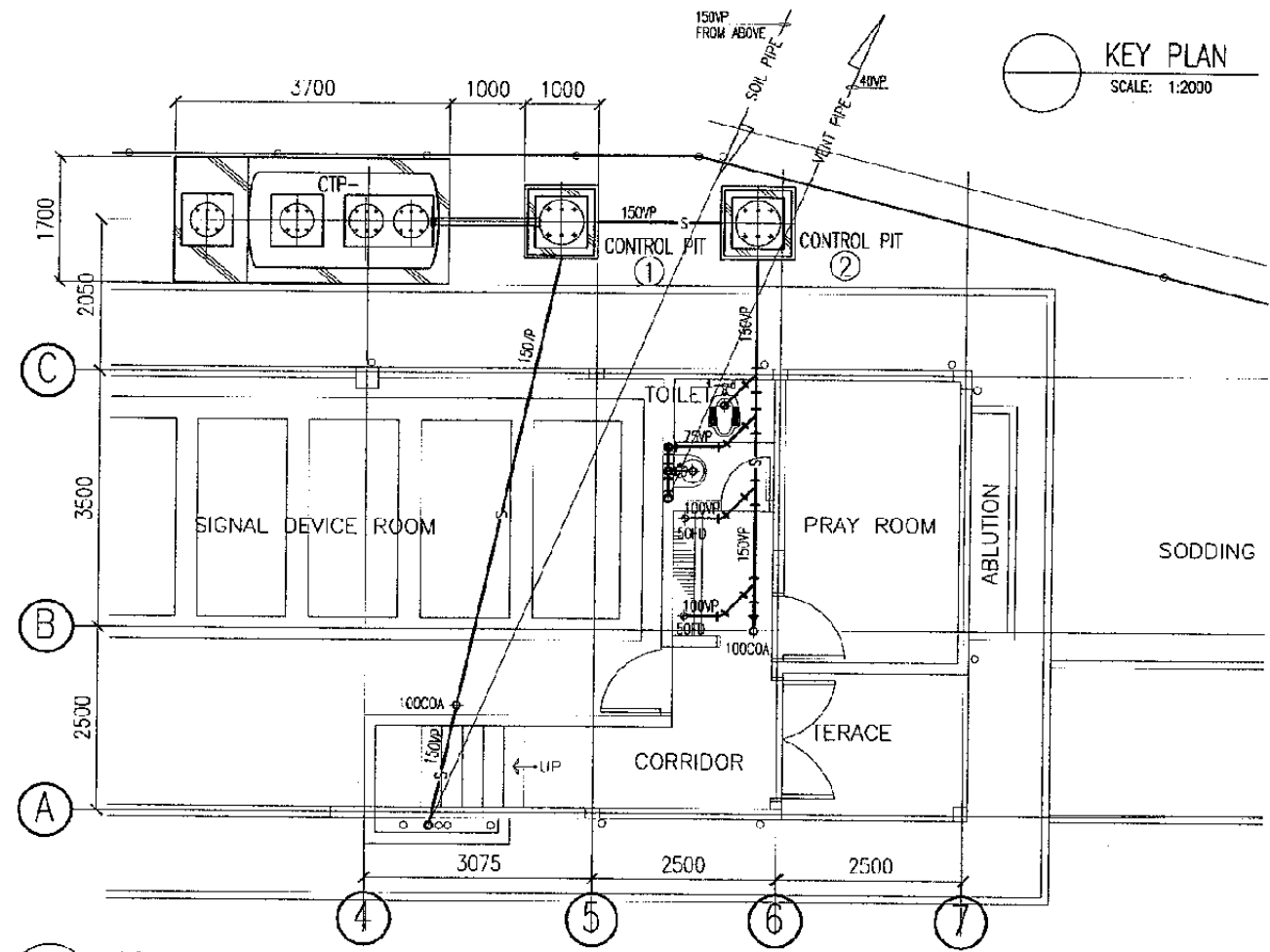
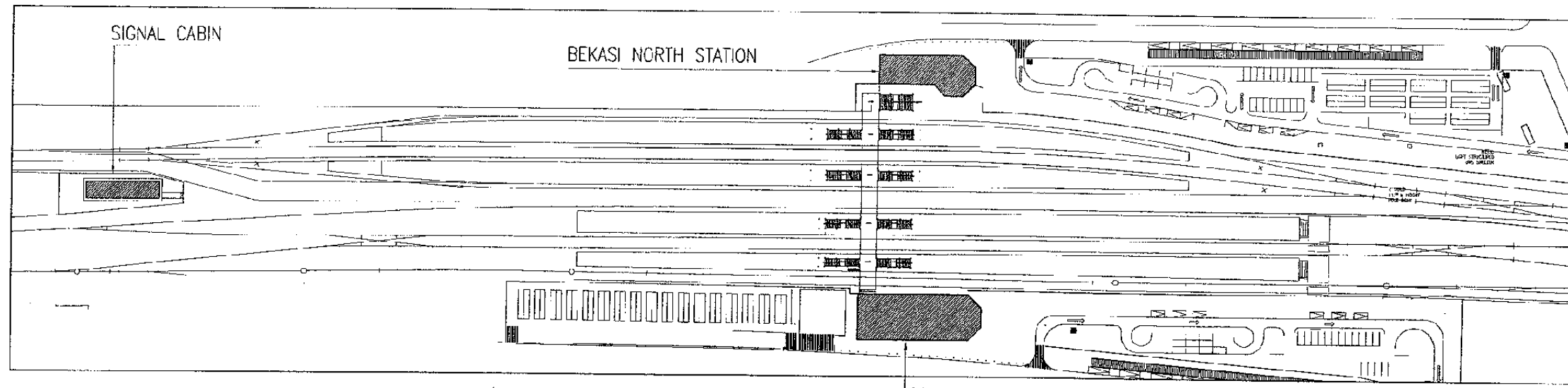
MECHANICAL

CIBITUNG SUB STATION

DATE 10/MARCH/2003

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Scale: 1:100 Drawing No.: AM-15-001



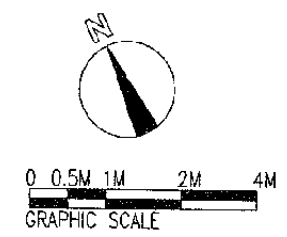
COMBINE TREATMENT PLANT AND DRAINAGE  
SCALE: 1:100

FIRST FLOOR DRAINAGE PLAN  
SCALE: 1:100

SANITARY FIXTURE LIST

ROOM NAME	SANITARY FIXTURE	UNITS	MANUFACTURE NUMBER	FITTINGS	REMARKS
GROUND FLOOR TOILET	WALL HUNG LAVATORY				
	ARABIC CLOSET	1	CE9	TV150NW12 T82C32 TX403SV3P1V	
	WATER FAUCET	1	T200CS13		
GROUND FLOOR TOILET	WALL HUNG LAVATORY				
	WESTERN CLOSET	1	CE9	TV150NW12 T82C32 TX403SV3P1V	
	WATER FALCET	1	T200CS13		

NO.	NAME	QTY	SPECIFICATION	LOCATION	REMARKS
CTP-	COMBINE TREATMENT-PLANT	1			



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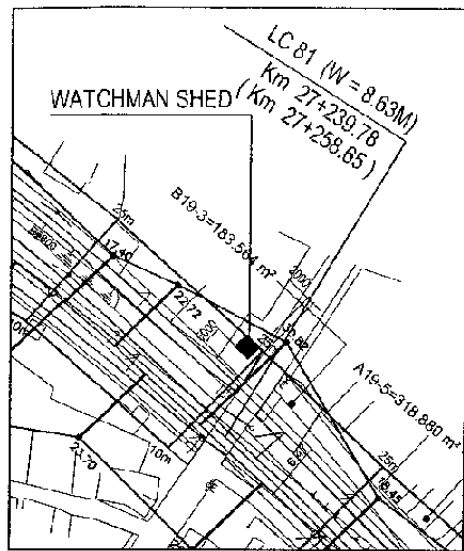
MECHANICAL

SIGNAL CABIN

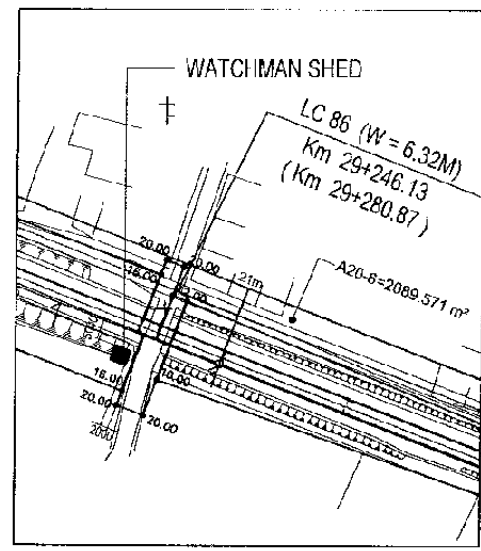
DATE 10/MARCH/2003

Drawing Title :  
INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE

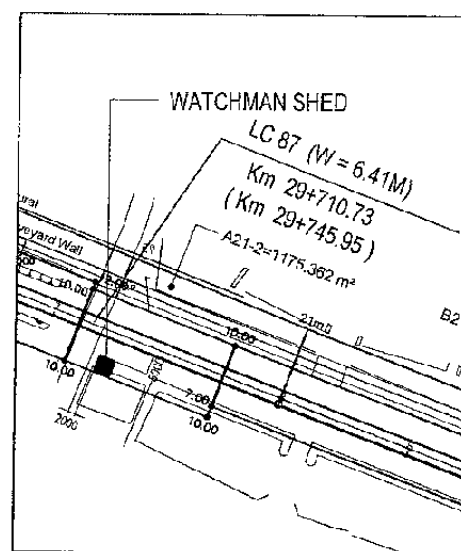
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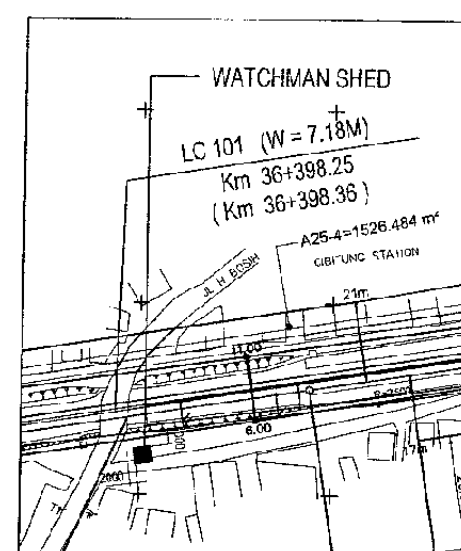
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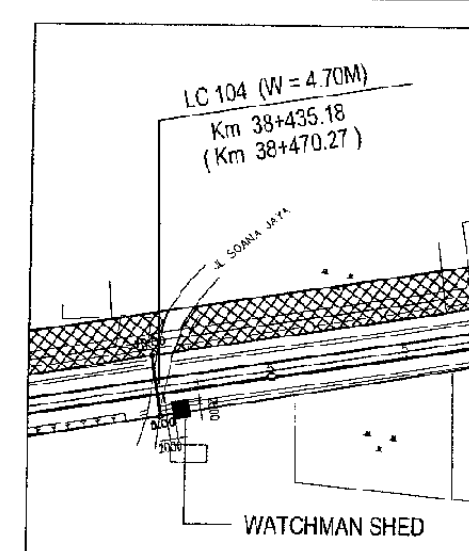
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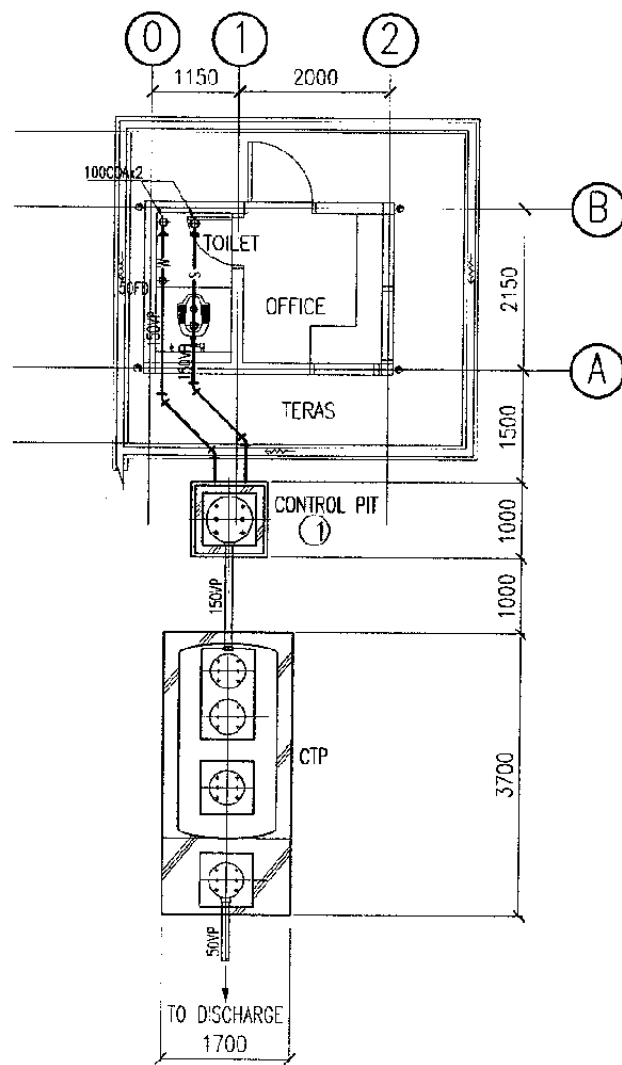
WATCHMAN SHED-3  
SCALE: 1:1000



WATCHMAN SHED-4  
SCALE: 1:1000



WATCHMAN SHED-5  
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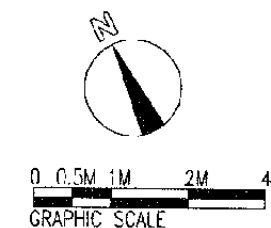


COMBINE TREATMENT PLANT AND DRAINAGE  
SCALE: 1:100

SANITARY FIXTURE LIST

ROOM NAME	SANITARY FIXTURE	UNITS	MANUFACTURE NUMBER	FITTINGS	REMARKS
TOILET	ARABIC CLOSET	1	CE9	TV150NWV12 T82C32	
	WATER FAUCET	1	T200CS13	TX403SV3P1V	

NO.	NAME	QTY	SPECIFICATION	LOCATION	REMARKS
CTP-	COMBINE TREATMENT-PLANT	1			



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MECHANICAL

WATCHMAN SHED

DATE 10/MARCH/2003

Drawing Title :  
INSTALLATION COMBINE TREATMENT PLANT AND DRAINAGE

Scale: 1:100 Drawing No.: AM-19-001