

VENTILATION AND AIR CONDITIONING

Floor	Duct Size (mm)	Length (m)	Ductworks		Reinforcement (mm) (HxBxT) Every 3 meters
			Material	Gage	
1st	508 x 457.2	12	Galvanized steel	24	Channel (19 x 76.2 x 18ga.)
	508 x 355.6	9	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	355.6 x 304	15	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	330.2 x 254	3	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	279.4 x 203.2	21	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	228.6 x 152.4	37	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	165.1 x 127	45	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
2nd	635 x 406.4	12	Galvanized steel	24	Channel (19 x 76.2 x 18ga.)
	508 x 457.2	10	Galvanized steel	24	Channel (19 x 76.2 x 18ga.)
	482.6 x 381	10	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	381 x 381	6	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	381 x 254	6	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 254	30	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	228.6 x 203.2	8	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	165.1 x 165.1	46	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	165.1 x 127	8	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
3rd	685.8 x 508	12	Galvanized steel	24	Channel (19 x 76.2 x 18ga.)
	508 x 508	12	Galvanized steel	24	Channel (19 x 76.2 x 18ga.)
	431.8 x 381	6	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	381 x 355.6	6	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	381 x 254	18	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 254	24	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 190.5	42	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	165.1 x 165.1	5	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
4th	381 x 355.6	8	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 190.5	11	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
5th	355.6 x 304.8	11	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 190.5	14	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
6th	355.6 x 304.8	7	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 190.5	20	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)

QUANTITY CALCULATION COVER SHEET			
Project	Detailed Design on Port Reactivation Project in La Union Province	Project Code	JC1N004/2N001
Work Section Title	Utility Works	Pay Item No. (BOQ)	Coverd all items
Quantity Item	Coverd for Items of 4D	Unit	m ² /m ³ /ton

Calculation Procedure Applied

- 1) All items are taken off from VAC drawings, and put into BOQ.
- 2) Units are based on L.S and Unit including all required material and accessories.

References, Calculation Base and Revisions

Rev	Prepared		No. of Pages	Checked		Reviewed		Superseded by Calc No.
	by	Date		by	Date	by	Date	
0	M. Gracia	18 July 2002	19	H. Mori	18 July, 02	W. FF	20 July 02	
1								
2								
3								

File in Calc. File



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GRILLES AND DIFFUSERS SCHEDULE													
ROOM NAME	LEVEL 1	SUPPLY				RETURN				EXHAUST			
		ROOM No.	FLOW RATE	TYPE	SIZE(MM)	QTY.	FLOW RATE L/S	TYPE	SIZE(MM)	QTY.	FLOW RATE L/S	TYPE	SIZE(MM)
CAFETERIA	1	60	4W	203 x 203	3	50		457.2 x 304.8	4				
		60	4W	300 x 300	3								
KITCHEN	2									100	Sidewall	203 x 203	1
IMMIGRATION	3	60	4W	203 x 203	2	50		457.2 x 304.8	4				
		60	4W	300 x 300	2								
CUSTOM	4	30	4W	203 x 203	2	50		457.2 x 304.8	4				
		60	4W	300 x 300	3								
WAITING AREA	5	30	4W	203 x 203	4			457.2 x 304.8					
		60	4W	300 x 300	2								
BANKS	6	30	4W	203 x 203	3			457.2 x 304.8					
QUARANTINE / OIRSA	7	30	4W	203 x 203	2	50		457.2 x 304.8	4				
		60	4W	300 x 300	4								
FIRST AID	8												
POLICE	9	30	4W	203 x 203	1	50		457.2 x 304.8	2				
		60	4W	300 x 300	1								
INFORMATION	10	60	4W	300 x 300	1								
GUARD ROOM	11	60	4W	300 x 300	1								
STORAGE	12	60	4W	300 x 300	1	50		457.2 x 304.8	2				
TOILETS WOMEN	13a									80	Ceiling	400 x 480	1
TOILETS MEN	13b									80	Ceiling	400 x 480	1
KITCHEN	14									40	Hood	NA	1
JANITOR ROOM	15												
MACHINE ROOM	16												

LEVEL 2													
ROOM NAME	ROOM No.	SUPPLY				RETURN				EXHAUST			
		FLOW RATE	TYPE	SIZE(MM)	QTY.	FLOW RATE L/S	TYPE	SIZE(MM)	QTY.	FLOW RATE L/S	TYPE	SIZE(MM)	QTY.
CONCESSIONARIES OFFICES	1	60	4W	300 x 300	6	50		457.2 x 304.8	12				
		60	4W	254 x 254	6								
		30	4W	203 x 203	6								
CORRIDOR	2												
SECURITY DIVISION	3	60	4W	300 x 300	1	50		457.2 x 304.8	4				
		30	4W	203 x 203	2								
STORAGE	4	60	4W	300 x 300	1	50		457.2 x 304.8	2				
		30	4W	203 x 203	1								
METEREOLOGY	5	60	4W	300 x 300	1	50		457.2 x 304.8	2				
		30	4W	203 x 203	1								
TOILETS WOMEN	6a									80	Ceiling	400 x 480	1
TOILETS MEN	6b									80	Ceiling	400 x 480	1
KITCHEN	7									40	Hood	NA	1
JANITOR ROOM	8												
MACHINE ROOM	9												

LEVEL 3													
ROOM NAME	ROOM No.	SUPPLY				RETURN				EXHAUST			
		FLOW RATE	TYPE	SIZE(MM)	QTY.	FLOW RATE L/S	TYPE	SIZE(MM)	QTY.	FLOW RATE L/S	TYPE	SIZE(MM)	QTY.
AUDITORIUM	1	60	4W	300 x 300	6	50		457.2 x 304.8	6				
		60	4W	254 x 254	12								
MANAGER'S ROOM	2	60	4W	300 x 300	1	50		457.2 x 304.8	2				
		30	4W	254 x 254	1								
SECRETARY	3	30	4W	203 x 203	1								
TOILETS	4									40	Ceiling	400 x 480	1
TOILETS WOMEN	4a									80	Ceiling	400 x 480	1
TOILETS MEN	4b									80	Ceiling	400 x 480	1
ADMINISTRATION OFFICES	5	60	4W	300 x 300	4	50		457.2 x 304.8	4				
		50	4W	254 x 254	4								
MAINTENANCE DEPT.	6	60	4W	300 x 300	6	50		457.2 x 304.8	6				
STORAGE	7												
KITCHEN	8									40	Hood	NA	1
JANITOR ROOM	9												
MACHINE ROOM	10												
STORAGE	11	30	4W	203 x 203	1								

LEVEL 4													
ROOM NAME	ROOM No.	SUPPLY				RETURN				EXHAUST			
		FLOW RATE	TYPE	SIZE(MM)	QTY.	FLOW RATE L/S	TYPE	SIZE(MM)	QTY.	FLOW RATE L/S	TYPE	SIZE(MM)	QTY.
YARD CONTROLER ROOM	1	60	4W	254 x 254	3	50		457.2 x 304.8	2				
		60	4W	300 x 300	4								
STACK ROOM	2												
HALL	3	60	4W	254 x 254	1								
TOILETS WOMEN	4a									80	Ceiling	400 x 480	1
TOILETS MEN	4b									80	Ceiling	400 x 480	1
MULTIPURPOSE ROOM	5												

LEVEL 5 & 6													
ROOM NAME	ROOM No.	SUPPLY				RETURN				EXHAUST			
		FLOW RATE	TYPE	SIZE(MM)	QTY.	FLOW RATE L/S	TYPE	SIZE(MM)	QTY.	FLOW RATE L/S	TYPE	SIZE(MM)	QTY.
MEETING ROOM	1	60	4W	254 x 254	3	50		457.2 x 304.8	2				
		60	4W	300 x 300	4								
HALL	2												
TOILETS	3									80	Ceiling	400 x 480	2
STORAGE	4												
PORT NAVIGATION	5	60	4W	254 x 254	3	50		457.2 x 304.8	2				
		60	4W	300 x 300	4								
HARBOR MASTER ROOM	7	30	4W	254 x 254	1	50		457.2 x 304.8	2				
BEDROOM	8	30	4W	254 x 254	1	50		457.2 x 304.8	2				
CORRIDOR	9												

Prepared by M. Garcia Checked by PH Mor



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EQP. No.	DESCRIPTION	QTY	CAPACITY	ELECTRICAL DATA			AIR DATA		
				VOLTAGE	PHASE	KW	RETURN AIR	FRESH AIR	AIR MIXTURE
CHILLER	Air Cooled water chiller	2	Total Cooling capacity: 62 KW Compressors: 4 LRA / RLA: 220 A / 44 A Step Modulation: 25.50/75.100 % Refrigerant: R - 22 No. of fans: 6 Water connections: 4" FLG Supply Air Flow Rate (L/s): 350.4 Total Cooling Capacity: 37.3 KW Sensible Cooling Capacity: 19.3 KW Inlet (DB/WB): 26.6°C / 19.4°C Outlet (DB/WB): 12.5°C / 12.4°C Face Velocity: 0.04 m/s Static Pressure: 135 Pa	460	3		Air Flow: 230 l/s Air Temp: 21.1°C	Air Flow: 120 l/s Air Temp: 35°C	Air Flow: 350 l/s Air Temp: 26.6°C
AHU-01	Air Handling Unit (First Floor)	1	Supply Air Flow Rate (L/s): 613.2 Total Cooling Capacity: 50.1 KW Sensible Cooling Capacity: 34.1 KW Inlet (DB/WB): 26.6°C / 19.4°C Outlet (DB/WB): 12.5°C / 12.1°C Face Velocity: 0.04 m/s Static Pressure: 115 Pa	208 / 230	3		Air Flow: 400 l/s Air Temp: 21.1°C	Air Flow: 210 l/s Air Temp: 35°C	Air Flow: 610 l/s Air Temp: 26.6°C
AHU-02	Air Handling Unit (Second Floor)	1	Supply Air Flow Rate (L/s): 613.2 Total Cooling Capacity: 50.1 KW Sensible Cooling Capacity: 34.1 KW Inlet (DB/WB): 26.6°C / 19.4°C Outlet (DB/WB): 12.5°C / 12.1°C Face Velocity: 0.04 m/s Static Pressure: 115 Pa	208 / 230	3		Air Flow: 400 l/s Air Temp: 21.1°C	Air Flow: 210 l/s Air Temp: 35°C	Air Flow: 610 l/s Air Temp: 26.6°C
AHU-03	Air Handling Unit (Third Floor)	1	Supply Air Flow Rate (L/s): 613.2 Total Cooling Capacity: 50.1 KW Sensible Cooling Capacity: 34.1 KW Inlet (DB/WB): 26.6°C / 19.4°C Outlet (DB/WB): 12.5°C / 12.1°C Face Velocity: 0.04 m/s Static Pressure: 115 Pa	208 / 230	3		Air Flow: 400 l/s Air Temp: 21.1°C	Air Flow: 210 l/s Air Temp: 35°C	Air Flow: 610 l/s Air Temp: 26.6°C
AHU-04	Air Handling Unit (Fourth Floor)	1	Supply Air Flow Rate (L/s): 525.6 Total Cooling Capacity: 43.6 KW Sensible Cooling Capacity: 29.8 KW Inlet (DB/WB): 26.6°C / 19.4°C Outlet (DB/WB): 12.2°C / 12.1°C Face Velocity: 0.04 m/s Static Pressure: 140 Pa	208 / 230	3		Air Flow: 340 l/s Air Temp: 21.1°C	Air Flow: 185 l/s Air Temp: 35°C	Air Flow: 525 l/s Air Temp: 26.6°C
FCU	Fan Coil Unit	57	Supply Air Flow Rate (L/s): 51.6 Total Cooling Capacity: 3.52 KW Sensible Cooling Capacity: 2.85 KW Inlet (DB/WB): 26.6°C / 19.4°C Outlet (DB): 15.1°C Static Pressure: 125 Pa	115	1		NA	NA	NA
E-1	Ceiling Exhaust Fan	10	Exhaust Capacity: 75 L/s Static Pressure: 60 Pa Fan RPM: 1,080 Grille Size: 400 x 480	115	1		NA	NA	NA
E-2	Belt Drive Upblast Centrifugal Roof Exhaust Fan	2	Exhaust Capacity: 120 L/s Static Pressure: 180 Pa Fan RPM: 1,685 Roof Opening: 300 x 300	115	1		NA	NA	NA
E-3	Direct Drive Centrifugal Sidewall Exhaust Fan	1	Exhaust Capacity: 24 L/s Static Pressure: 25 Pa Fan RPM: 1,550 Grille Size: 200 x 200	115	1		NA	NA	NA
E-4	Direct Drive Centrifugal Sidewall Exhaust Fan	1	Exhaust Capacity: 120 L/s Static Pressure: 180 Pa Fan RPM: 1,685 Grille Size: 300 x 300	115	1		NA	NA	NA

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Checked by *H. Mar*



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FLOOR	DUCT SIZE (MM)	LENGTH (M)	DUCTWORKS		REINFORCEMENT (MM) (HxBxT)
			MATERIAL	GAGE	
1st	508 x 457.2	12	Galvanized steel	24	Channel (19 x 76.2 x 18ga.)
	508 x 355.6	9	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	355.6 x 304	15	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	330.2 x 254	3	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	228.6 x 203.2	21	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	228.6 x 152.4	37	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
2nd	165.1 x 127	45	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	535 x 406.4	12	Galvanized steel	24	Channel (19 x 76.2 x 18ga.)
	508 x 457.2	10	Galvanized steel	24	Channel (19 x 76.2 x 18ga.)
	482.6 x 381	10	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	381 x 381	6	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	381 x 254	6	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
3rd	254 x 254	30	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	228.6 x 203.2	8	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	165.1 x 165.1	46	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	165.1 x 127	8	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	585.8 x 508	12	Galvanized steel	24	Channel (19 x 76.2 x 18ga.)
	508 x 508	12	Galvanized steel	24	Channel (19 x 76.2 x 18ga.)
4th	431.8 x 381	6	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	381 x 355.6	6	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	381 x 254	18	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 254	24	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 190.5	42	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	165.1 x 165.1	5	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
5th	381 x 355.6	8	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 190.5	11	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
6th	355.6 x 304.8	11	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 190.5	14	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
7th	355.6 x 304.8	7	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)
	254 x 190.5	20	Galvanized steel	26	Channel (19 x 76.2 x 18ga.)

FLOOR	PIPING				INSULATION (MM)	
	DIAMETER (MM)	LENGTH (M)	SCHD	SUPPORTS		
1st	DN 125	12	40	every 5 m	12.5	
	DN 50	24	40	every 3 m	12.5	
	DN 40	8	40	every 3 m	12.5	
	DN 25	10	40	every 2.5 m	12.5	
	DN 20	70	40	every 2 m	12.5	
	2nd	DN 75	4	40	every 5 m	12.5
DN 50		12	40	every 3 m	12.5	
DN 40		12	40	every 3 m	12.5	
DN 25		10	40	every 2.5 m	12.5	
DN 20		60	40	every 2 m	12.5	
3rd		DN 75	18	40	every 5 m	12.5
	DN 40	18	40	every 3 m	12.5	
	DN 25	18	40	every 2.5 m	12.5	
	DN 20	30	40	every 2 m	12.5	
	4th	DN 40	10	40	every 3 m	12.5
		DN 25	6	40	every 2.5 m	12.5
DN 20		10	40	every 2 m	12.5	
5th		DN 40	6	40	every 3 m	12.5
		DN 25	6	40	every 2.5 m	12.5
		DN 20	10	40	every 2 m	12.5
	6th	DN 40	6	40	every 3 m	12.5
DN 25		6	40	every 2.5 m	12.5	
DN 20		10	40	every 2 m	12.5	

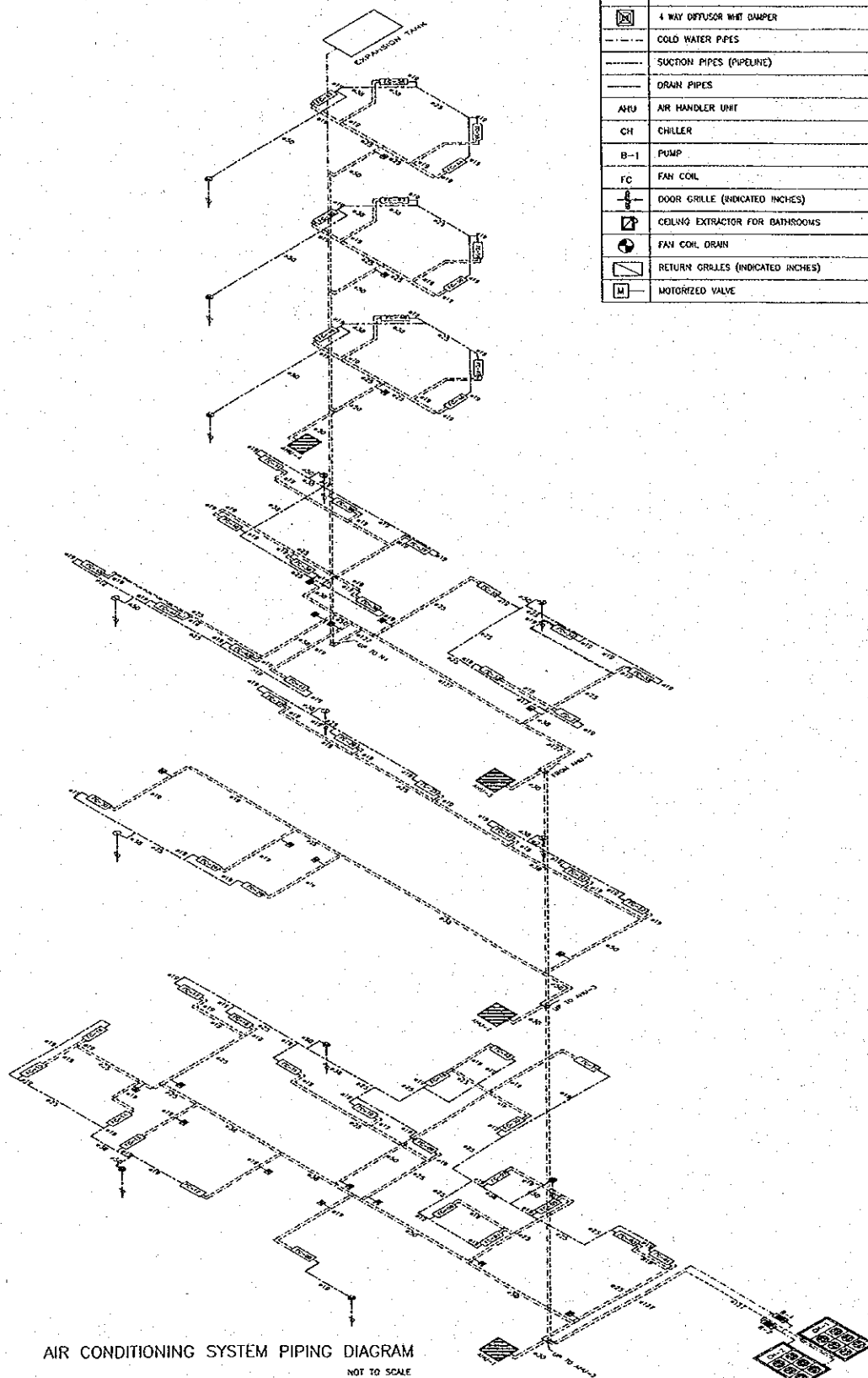
Prepared by *M. Garcia*

Checked by *H. mori*



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SIMBOLOGY CHART	
SIMBOLOGY	DESCRIPTION
	4 WAY DIFFUSOR WITH DAMPER
	COLD WATER PIPES
	SUCTION PIPES (PIPELINE)
	DRAIN PIPES
	AIR HANDLER UNIT
	CHILLER
	PUMP
	FAN COIL
	DOOR GRILLE (INDICATED INCHES)
	CEILING EXTRACTOR FOR BATHROOMS
	FAN COIL DRAIN
	RETURN GRILLES (INDICATED INCHES)
	MOTORIZED VALVE

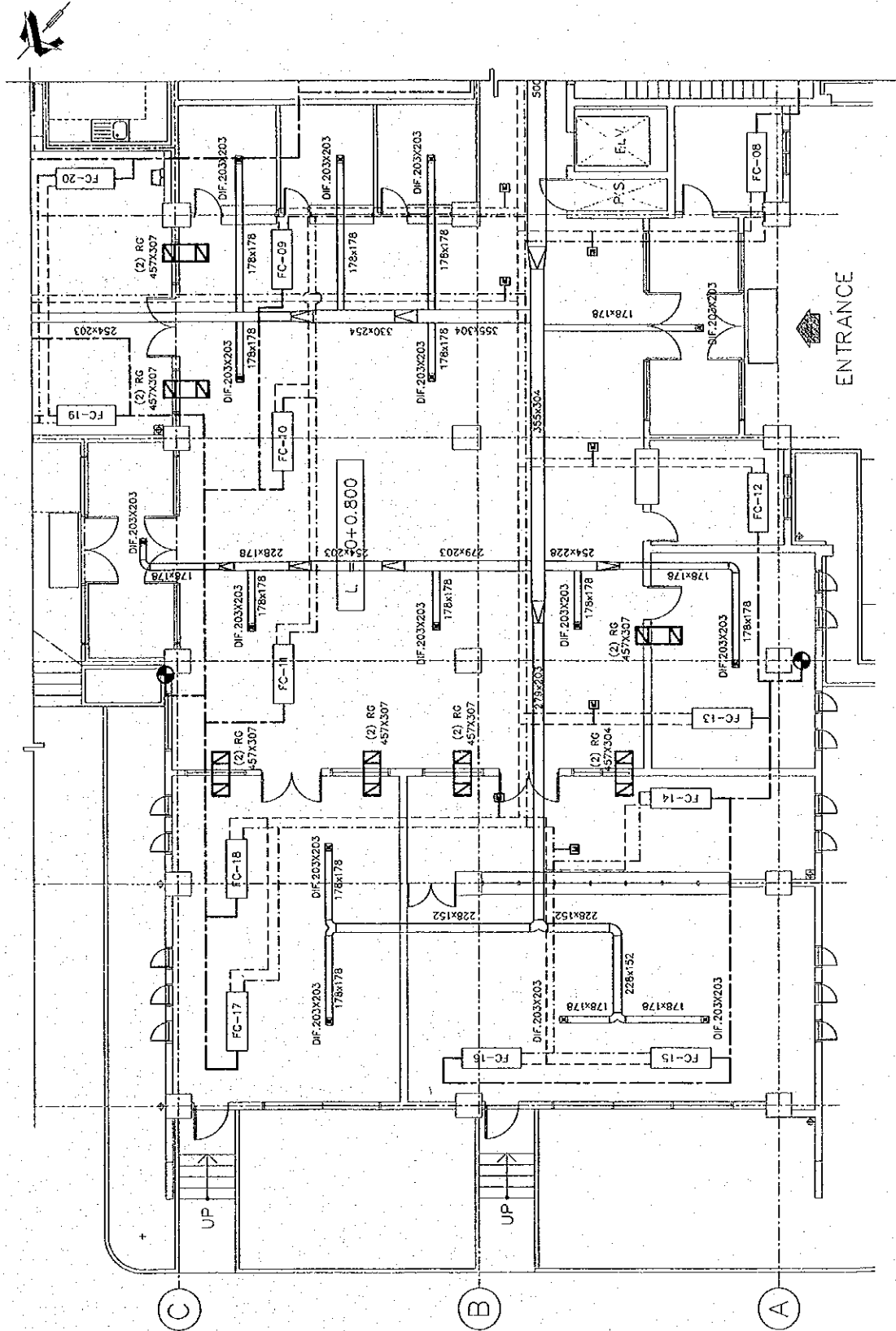


AIR CONDITIONING SYSTEM PIPING DIAGRAM
NOT TO SCALE

Prepared by	<i>M Garcia</i>	Checked by	<i>H. Mori</i>
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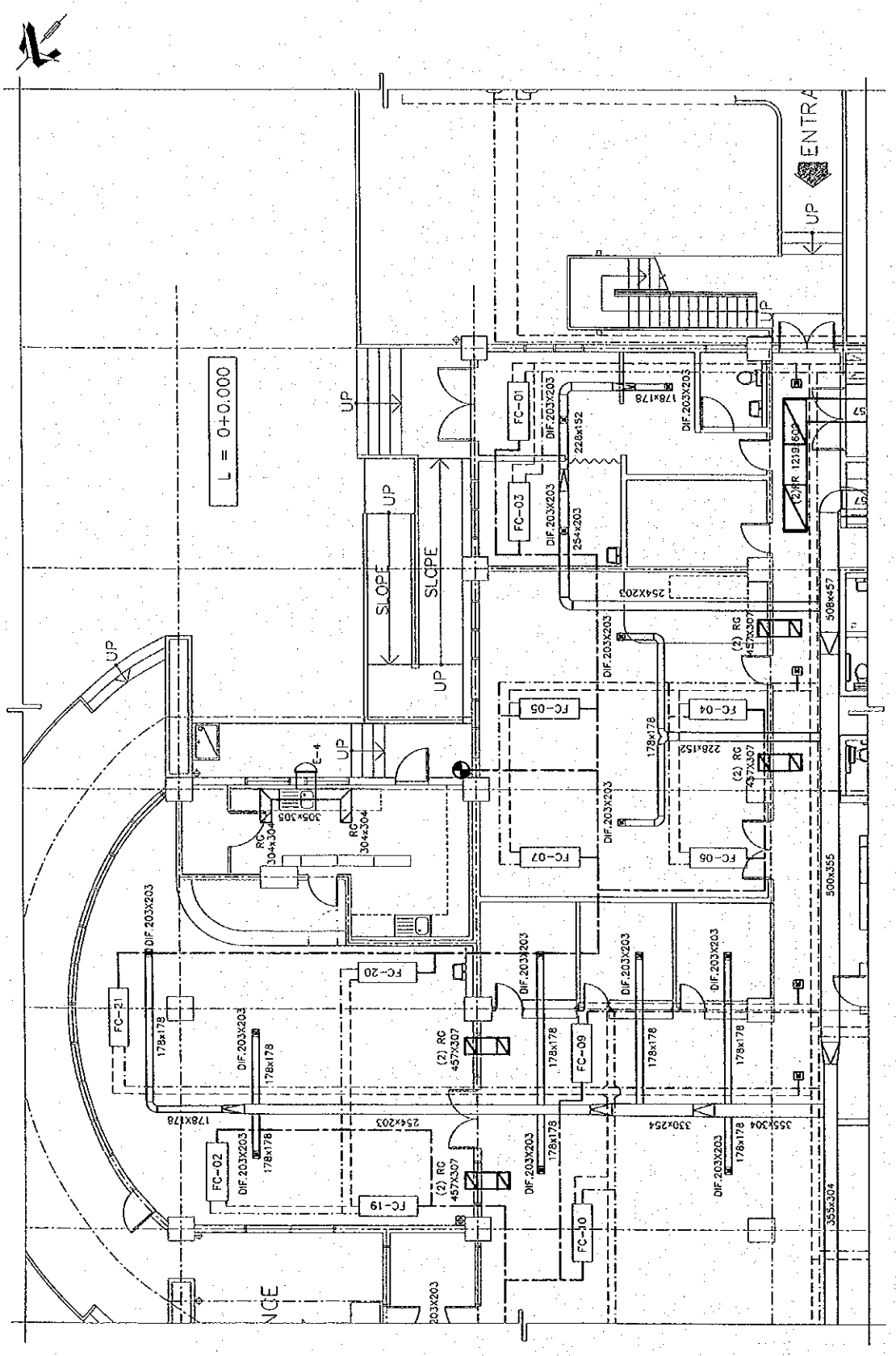


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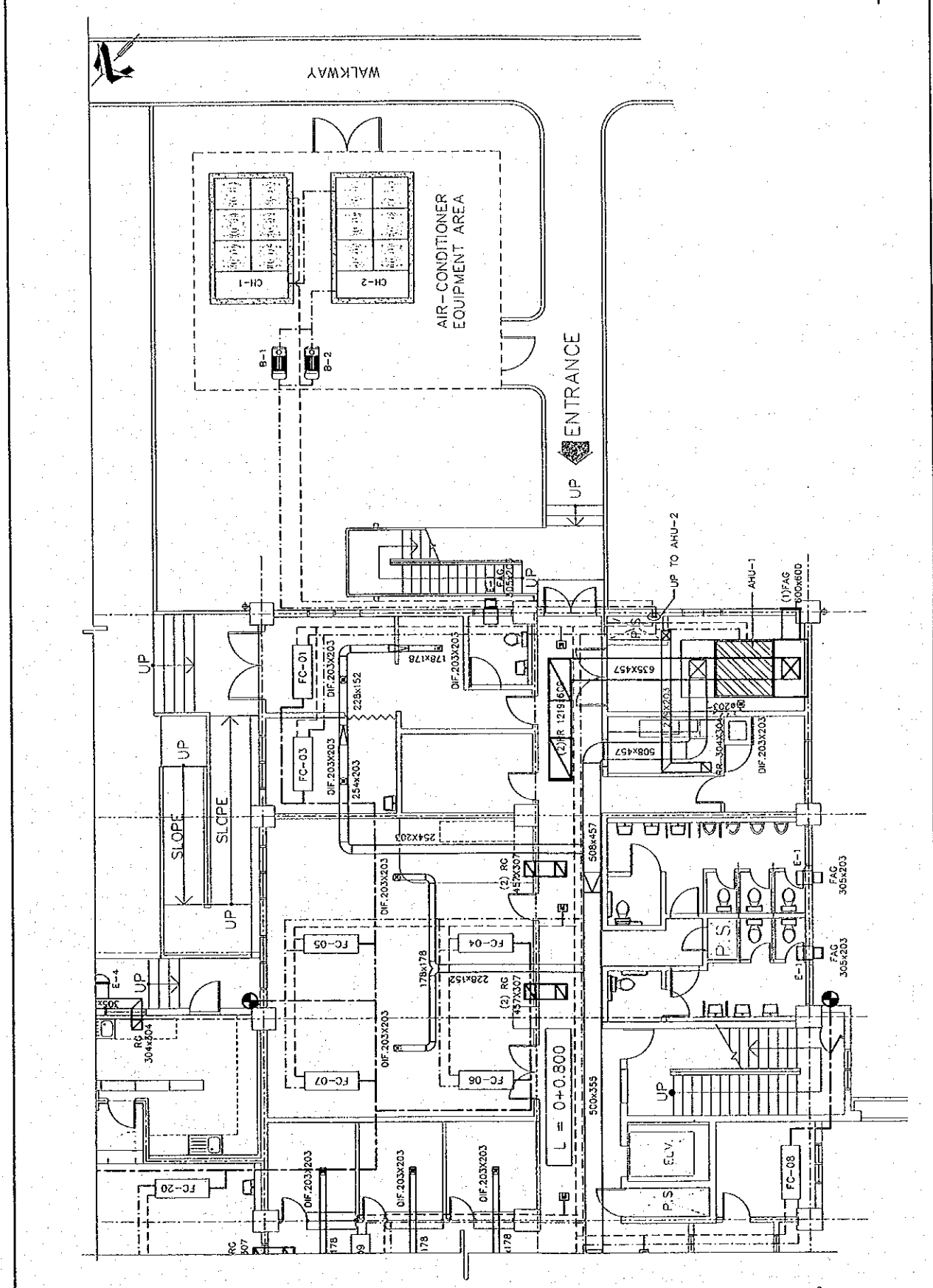
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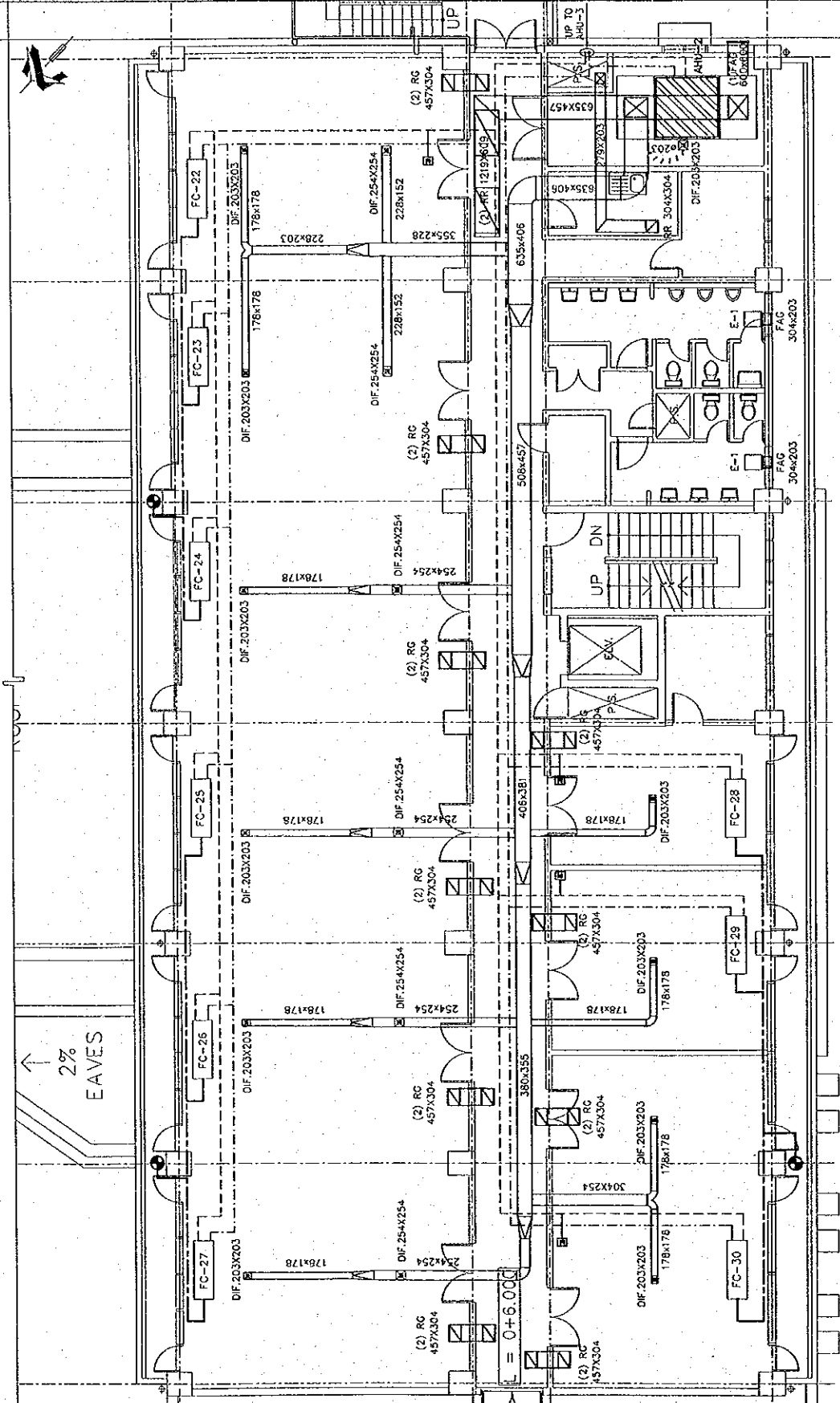
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AIR CONDITIONING SYSTEM

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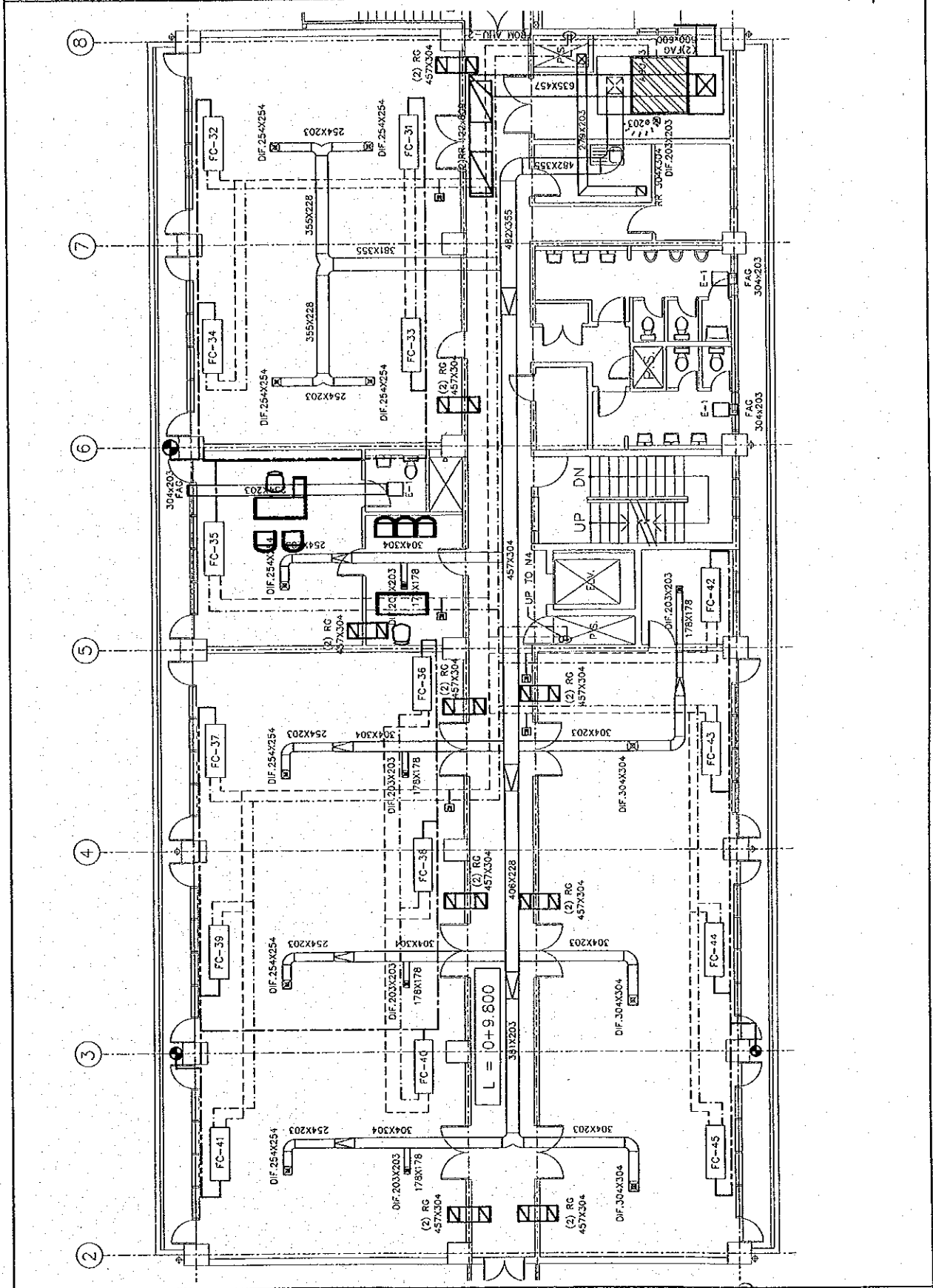
M Garcia

Checked by

H Mori



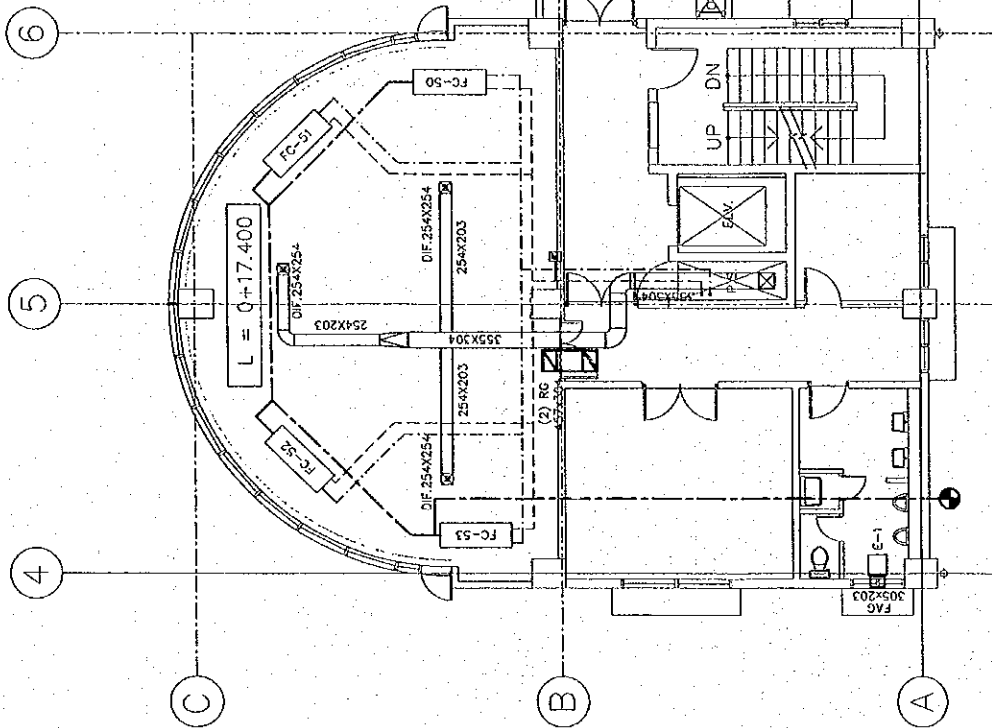
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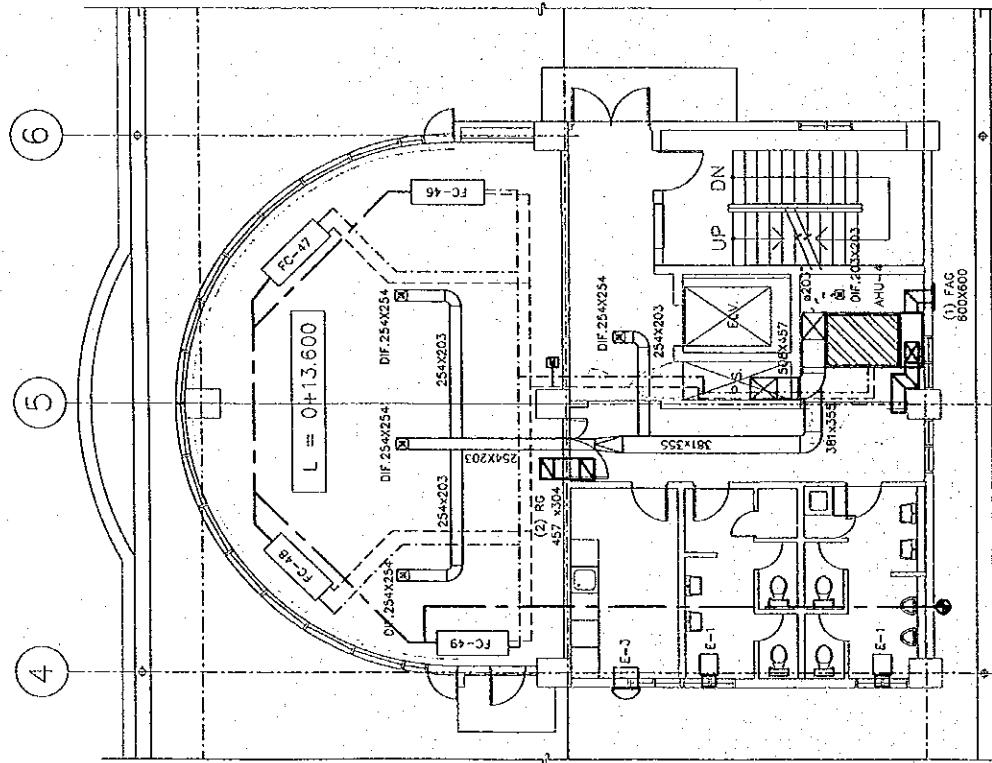
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5TH FLOOR PLAN
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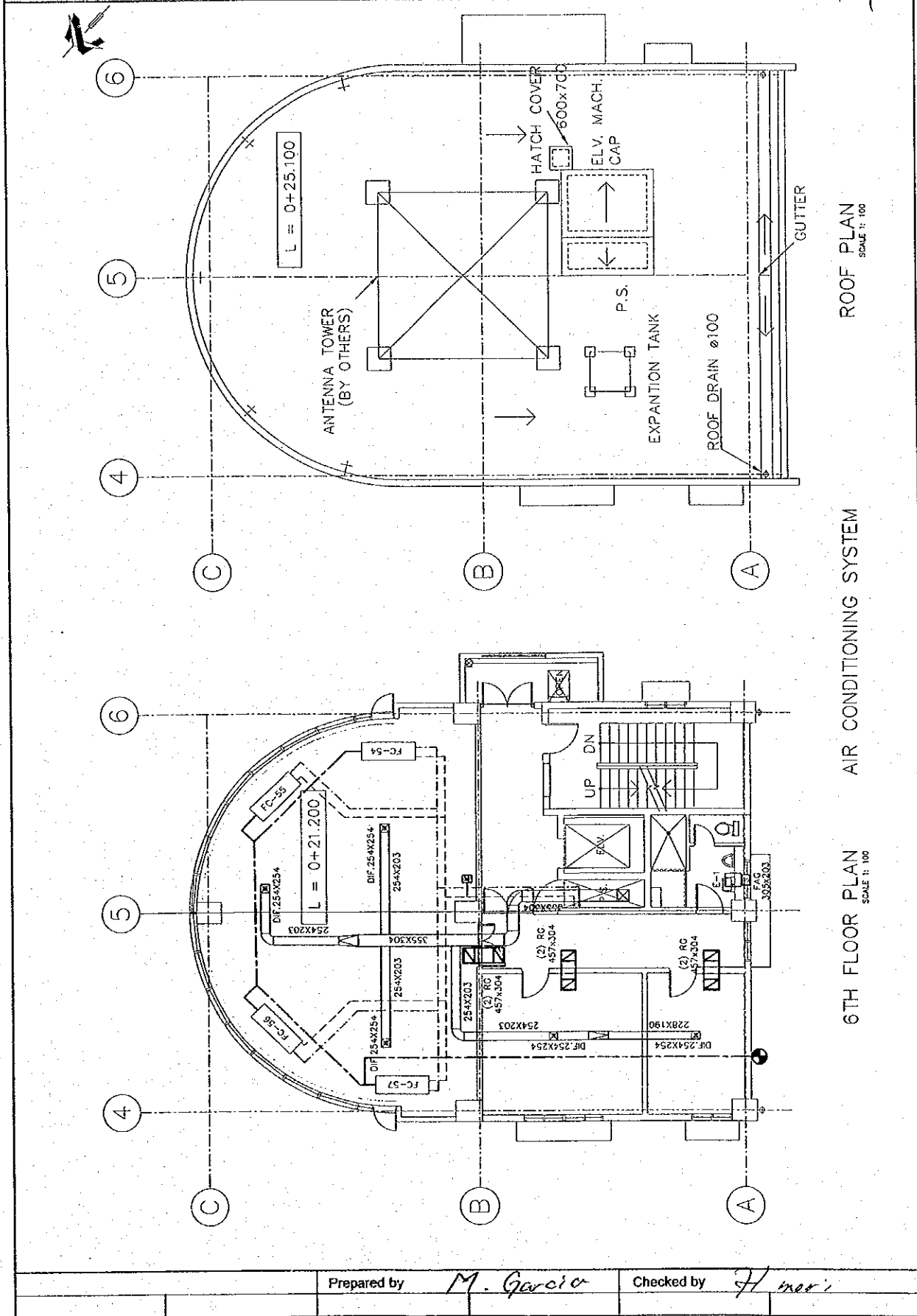
AIR CONDITIONING SYSTEM
4TH FLOOR PLAN
SCALE 1:100

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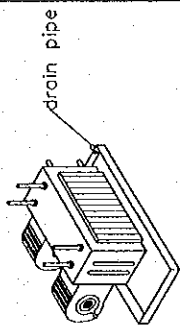


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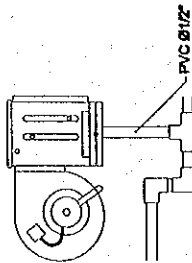




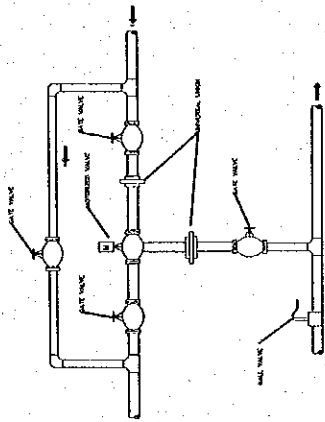
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CONCEALED TYPE FAN COIL UNIT
NO SCALE



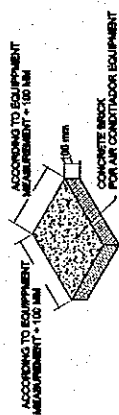
DETAIL OF DRAIN PIPE
NO SCALE



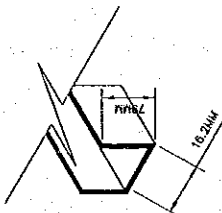
TYPICAL CONNECTIONS OF WATER SUPPLY
NO SCALE

SIMBOLLOGY CHART

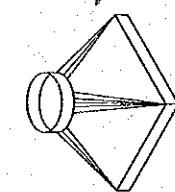
SIMBOL	DESCRIPTION
	4 WAY DIFFUSOR WITH DAMPER
	COLD WATER PIPES
	SUCTION PIPES (PIPELINE)
	DRAIN PIPES
	AIR HANDLING UNIT
	CHILLER
	PUMP
	FAN COIL
	DOOR GRILLE (INDICATE INCHES)
	CEILING EXTRACTOR FOR BATHROOMS
	FAN COIL DRAIN
	RETURN GRILLES (INDICATED INCHES)



DETAIL OF CONCRETE BASE
AIR CONDITIONER EQUIPMENT
NO SCALE

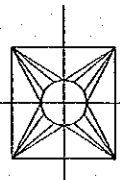


DETAIL OF RECTANGULAR DUCT TERMINATION
NO SCALE

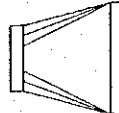


ISOMETRIC
NO SCALE

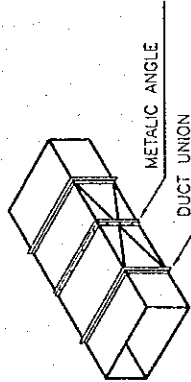
TAPERED DUCT DETAIL
NO SCALE



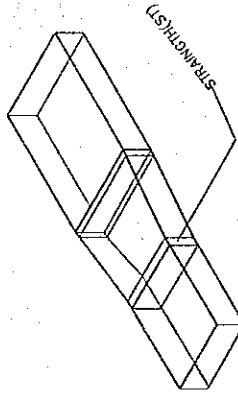
TOP VIEW
NO SCALE



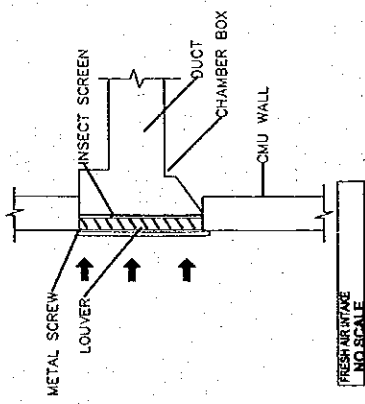
FRONT VIEW
NO SCALE



DETAIL OF DUCT SUPPORTER
AIR CONDITIONER EQUIPMENT
NO SCALE



TAPERED DUCT DETAIL
NO SCALE



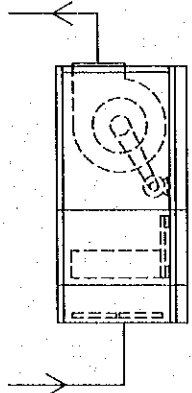
FRESH AIR INTAKE
NO SCALE

Prepared by *M. Garcia*

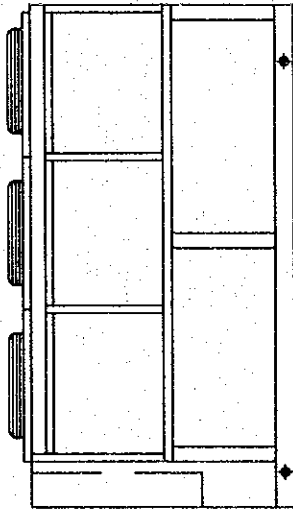
Checked by *H. Maki*



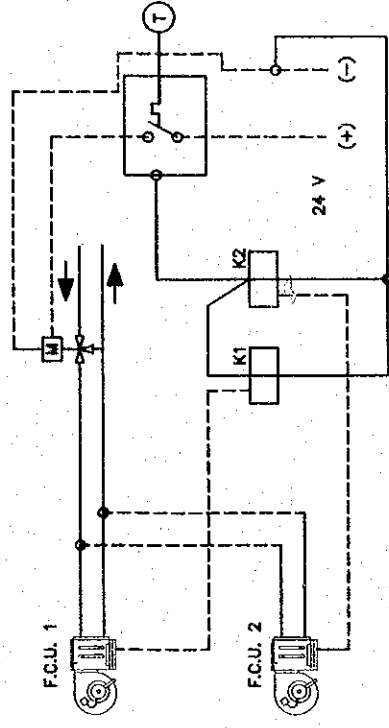
Project	Detailed Design on Port Reactivation Project In La Union Province of the Republic of El Salvador	Calc. File N°.	
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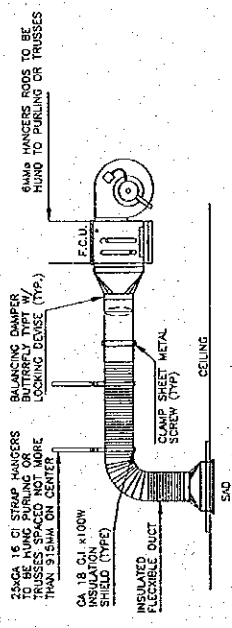
AIR HANDLING UNIT
NO SCALE



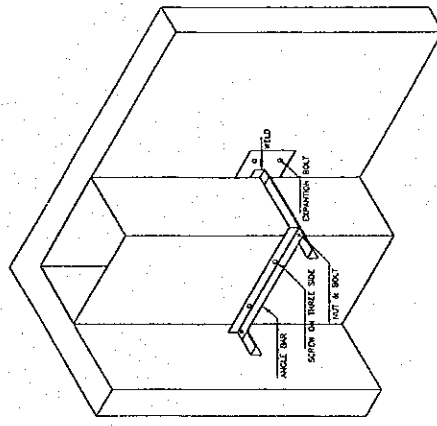
AIR COOLED WATER CHILLER
NO SCALE



CONTROL DIAGRAM
NO SCALE



FAN COIL UNIT INSTALLATION DETAIL
NO SCALE



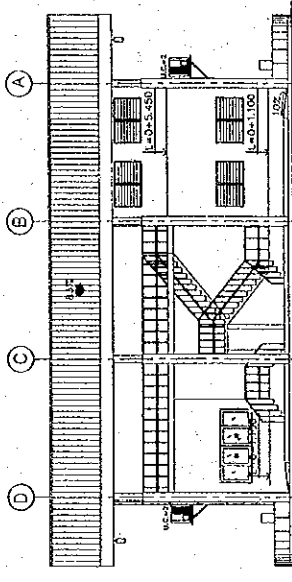
RISER SUPPORT - FROM WALL DETAIL
NO SCALE

Prepared by *M. Garcia* Checked by *7/ mei*

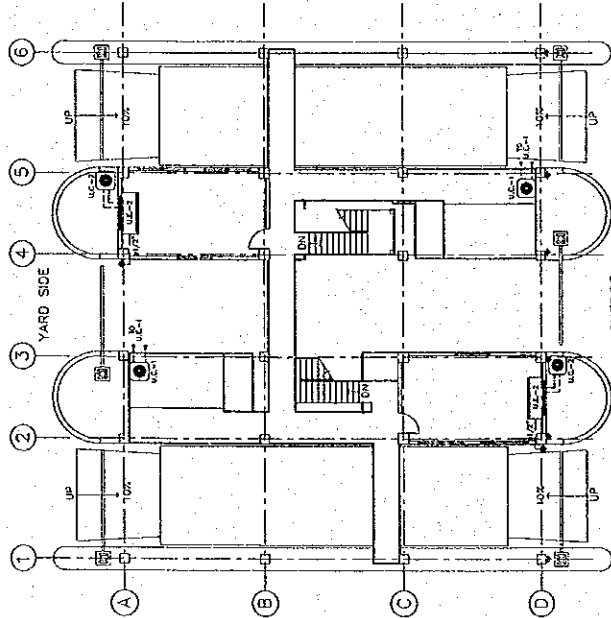


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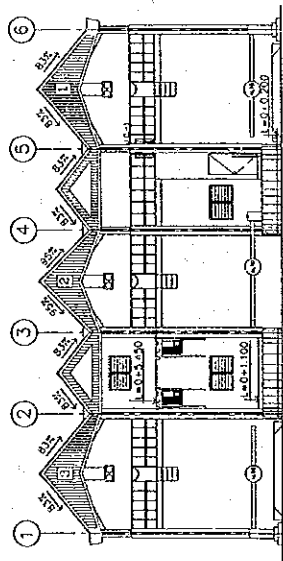
SYMBOL	DESCRIPTION
—	COLD WATER PIPES
—	SUCTION PIPES (PEELING)
—	CRANK PIPES
—	EXPANSOR UNIT
—	CONDENSATOR UNIT
—	CONDENSATOR UNIT
—	CEILING EXTRACTOR FOR BATHROOMS
—	WALL MOUNTED EXTRACTOR
—	GRILLE



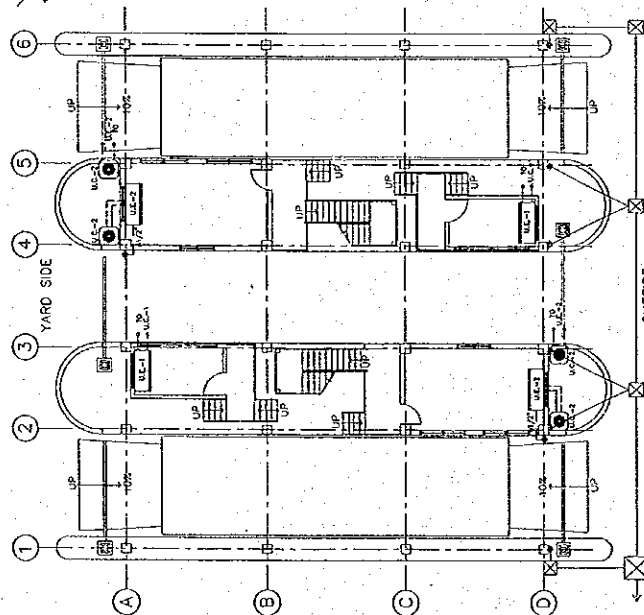
AIR CONDITIONING SYSTEM
SOUTHEAST ELEVATION
SCALE 1:200



AIR CONDITIONING SYSTEM
SECOND FLOOR PLAN
SCALE 1:200



AIR CONDITIONING SYSTEM
SOUTHWEST ELEVATION
SCALE 1:200



AIR CONDITIONING SYSTEM
FIRST FLOOR PLAN
SCALE 1:200

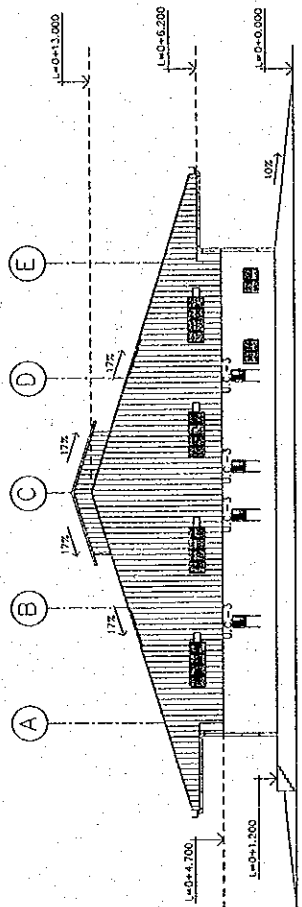
Prepared by *M. Garcia*

Checked by *H. Mori*

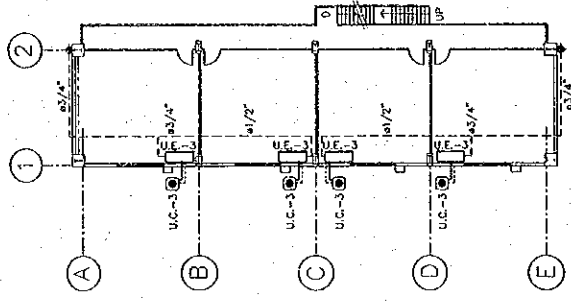


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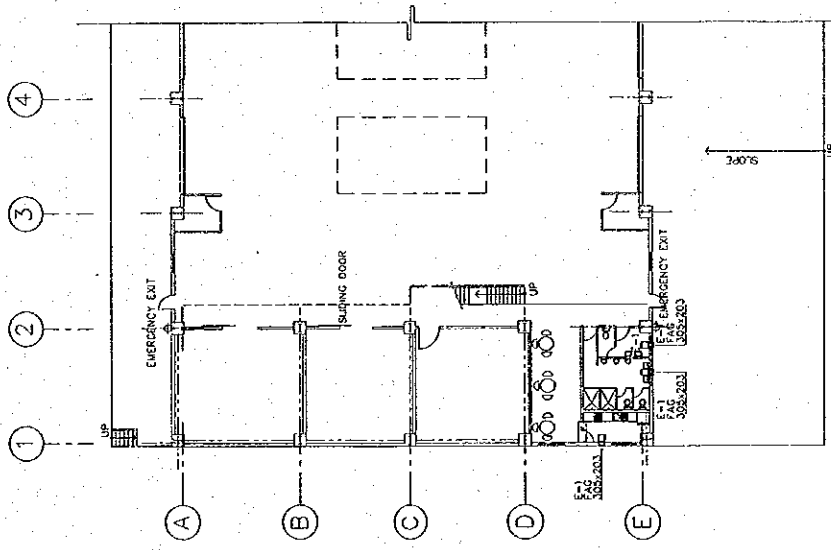
SYMBOL	DESCRIPTION
---	COLD WATER PIPES
---	SUCTOR PIPES (PIPELINE)
---	DRAIN PIPES
U.C.-1	EVAPORATOR UNIT
U.C.-2	CONDENSATOR UNIT
U.C.-3	CONDENSATOR UNIT
U.C.-4	CONDENSATOR UNIT
U.C.-5	CONDENSATOR UNIT
U.C.-6	CEILING EXTRACTOR FOR BATHROOMS
U.C.-7	WALL MOUNTED EXTRACTOR
U.C.-8	GRILLE



NORTHWEST ELEVATION
SCALE 1:300



MEZZANINE FLOOR PLAN
SCALE 1:300



FIRST FLOOR PLAN
SCALE 1:300

AIR CONDITIONING SYSTEM

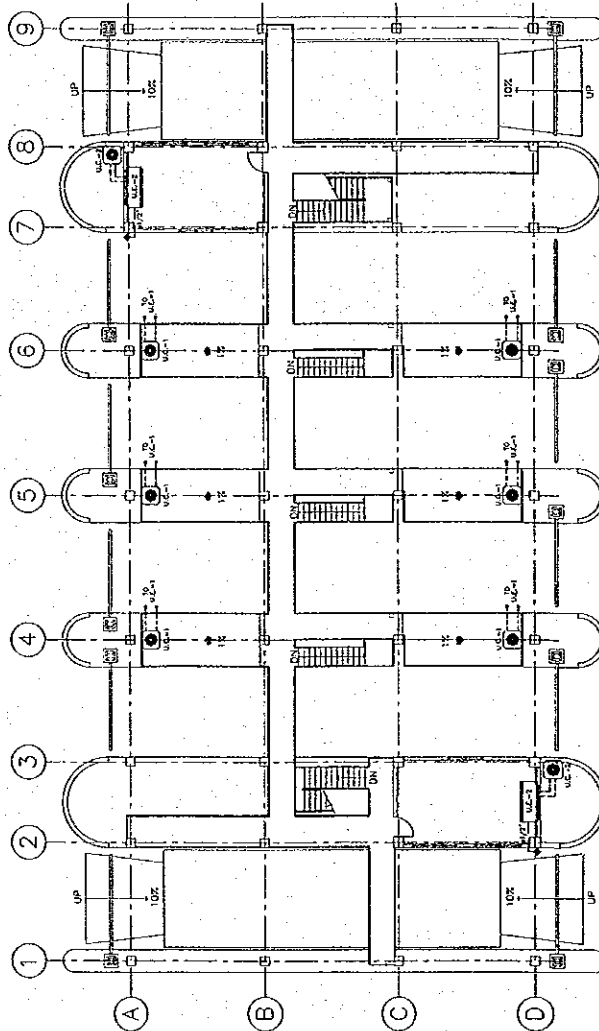
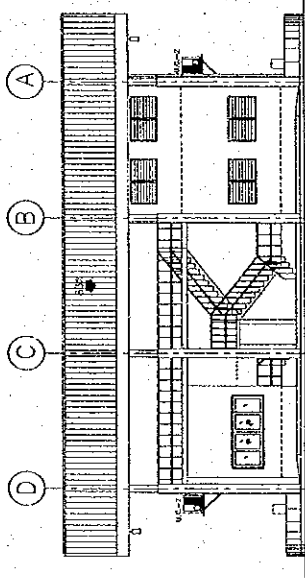
Prepared by *M. Garcia*

Checked by *J. Melis*



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SYMBOL	DESCRIPTION
	COLD WATER PIPES
	SUCTION PIPES (PIPELINE)
	DRAIN PIPES
	EVAPORATOR UNIT
	CONDENSATOR UNIT
	CEILING EXTRACTOR FOR BATHROOMS
	WALL MOUNTED EXTRACTOR
	GRILLE



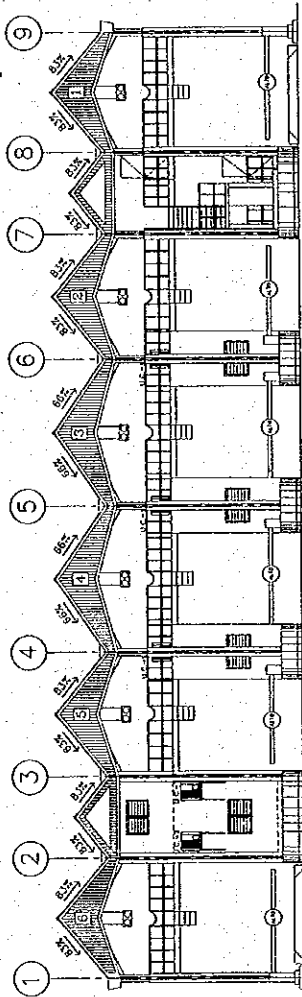
Prepared by *M. Garcia*

Checked by *H. mori*

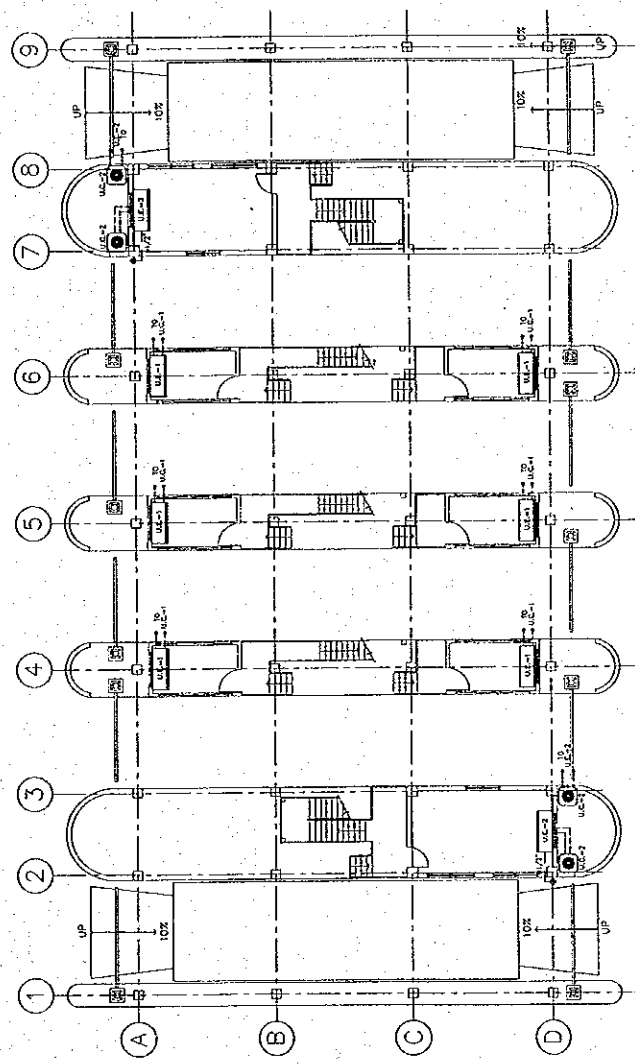


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SYMBOL	DESCRIPTION
—	COLD WATER PIPES
---	SUCTION PIPES (PIPELINE)
---	DEAN PIPES
U.C.1	EVAPORATOR UNIT
U.C.	CONDENSATOR UNIT
U.C.2	CONDENSATOR UNIT
U.C.3	CEILING EXTRACTOR FOR BATHROOMS
U.C.4	WALL MOUNTED EXTRACTOR
■	GRILLE



AIR CONDITIONING SYSTEM SOUTHWEST ELEVATION
SCALE 1:200



AIR CONDITIONING SYSTEM FIRST FLOOR PLAN
SCALE 1:200

Prepared by

M. Garcia

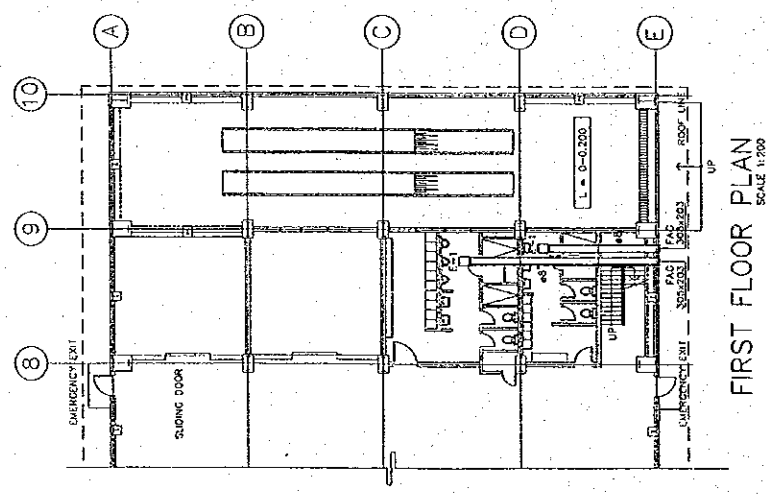
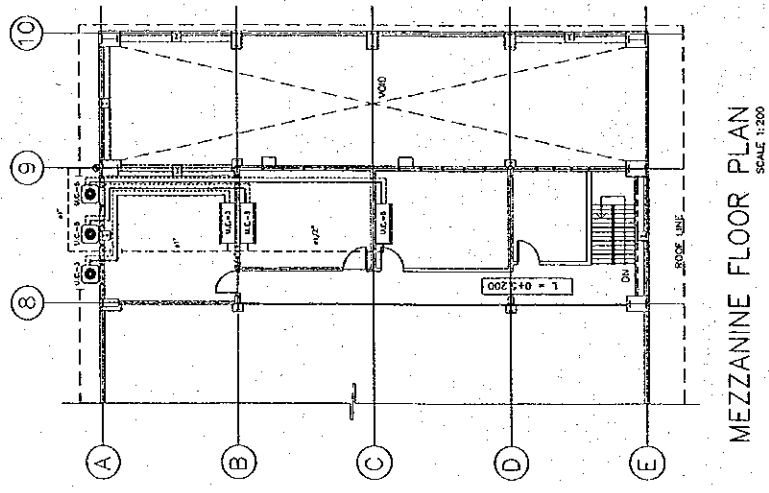
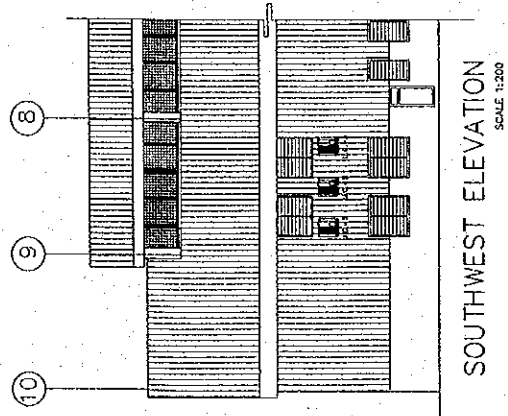
Checked by

H. Mor



Project	Detailed Design on Port Reactivation Project in La Union Province of the Republic of El Salvador	Calc. File N°.	
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SYMBOL	DESCRIPTION
—	COLD WATER PIPES
—	SUCTION PIPES (PIPELINE)
—	DRAIN PIPES
—	EVAPORATOR UNIT
—	CONDENSATOR UNIT
—	CEILING EXTRACTOR FOR BATHROOMS
—	WALL MOUNTED EXTRACTOR
—	GRILLE



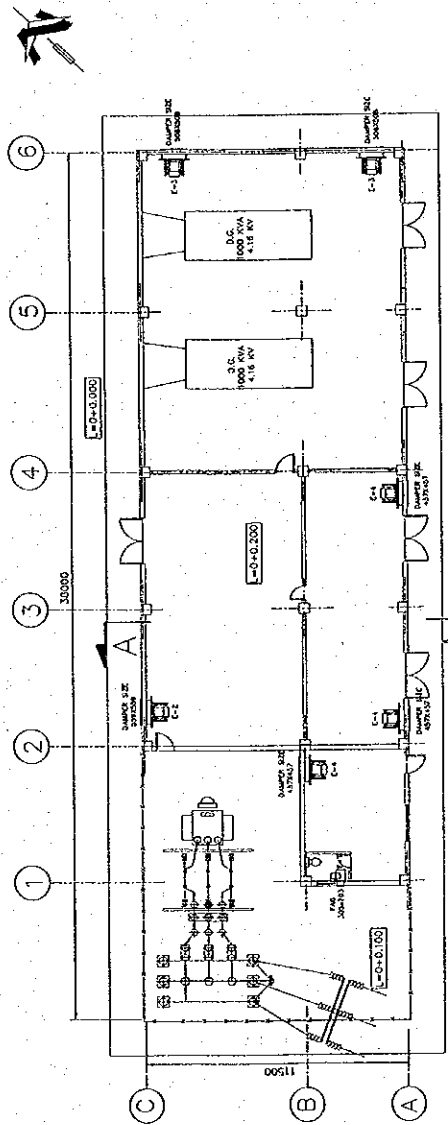
AIR CONDITIONING SYSTEM

Prepared by	<i>M. Garcia</i>	Checked by	<i>H. Mendi</i>
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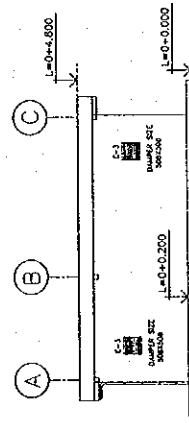


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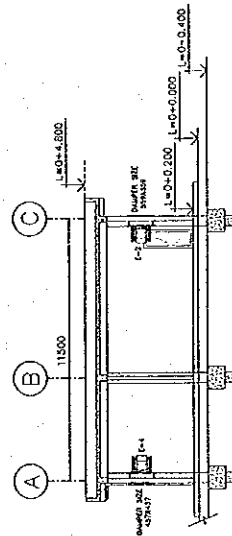
SYMBOL	DESCRIPTION
	CEILING EXTRACTOR FOR BATHROOMS
	WALL MOUNTED EXTRACTOR
	GRILLE



FIRST LEVEL
SCALE 1:200



NORTHEAST ELEVATION
SCALE 1:200



SECTION A-A
SCALE 1:200

Prepared by *M. Garcia* Checked by *P. ...*