






INDOOR UNIT (ADMINISTRATION BUILDING):

INDOOR UNIT UNIT DESIGNATION	QTY.	OUTDOOR UNIT UNIT DESIGNATION	EQUIPMENT	EQUIPMENT LOCATION & ROOM NO.		LEVEL	ELECTRICAL CHARACTERISTICS				CONNECTION PIPE SIZE			EXTERNAL STATIC PRESSURE (Pa)	TYPE	REMARKS	ROOM TEMP				
				TOTAL COOLING CAPACITY (kW)	AIR FLOW (l/s)		TYPE OF REFRIGERANT	POWER INPUT (kW)	VOLTS	PHASE	HERTZ	LEQUID	GAS					DRAIN			
FCU-01A TO 01D	4	VRF-1	FAN COIL UNIT	FOBS	1-12	GROUND FLOOR	2.80	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY	24 C±/DB (17.2)WB		
FCU-02	1		FAN COIL UNIT	FSS RADIO	1-13	GROUND FLOOR	2.30	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-03	1		FAN COIL UNIT	FSS FIC	1-14	GROUND FLOOR	1.50	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-04A & 04B	2		FAN COIL UNIT	DINING	1-08	GROUND FLOOR	6.20	275	R410A	0.056	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-05	1		FAN COIL UNIT	KITCHEN	1-07	GROUND FLOOR	3.00	166	R410A	0.062	230	1	60	6.4	12.7	25	CEILING SUSPENDED	EMERGENCY POWER, DUTY			
FCU-06	1		FAN COIL UNIT	LOCKER (M)	1-06	GROUND FLOOR	1.50	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-07	1		FAN COIL UNIT	LOCKER (F)	1-03	GROUND FLOOR	1.70	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-08	1		FAN COIL UNIT	HALLWAY-1	1-09	GROUND FLOOR	0.80	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-09	1		FAN COIL UNIT	PRE-COOLING - 1	1-09	GROUND FLOOR	24.5	583	R410A	0.38	230	1	60	9.5	22.2	25	205	CEILING MOUNTED DUCT		EMERGENCY POWER, DUTY	
FCU-10A & 10B	2	VRF-2	FAN COIL UNIT	LOBBY	1-16	GROUND FLOOR	1.80	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY	24 C±/DB (17.2)WB		
FCU-11A & 11B	2		FAN COIL UNIT	RECORDS AND SUPPLY	1-18	GROUND FLOOR	1.55	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-12	1		FAN COIL UNIT	SECURITY ROOM	1-28	GROUND FLOOR	1.00	75	R410A	0.040	230	1	60	6.4	12.7	13	WALL MOUNTED	EMERGENCY POWER, DUTY			
FCU-13A & 13B	2		FAN COIL UNIT	SECURITY OFFICE	1-15	GROUND FLOOR	3.95	216	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-14A TO 14C	3		FAN COIL UNIT	HUMAN RESOURCES	1-19	GROUND FLOOR	4.07	216	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-15A TO 15B	2		FAN COIL UNIT	CLINIC (FIRST AID)	1-27	GROUND FLOOR	1.80	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-16A TO 16B	2		FAN COIL UNIT	FINANCIAL SECTION	1-24	GROUND FLOOR	2.80	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-17	1		FAN COIL UNIT	HALLWAY-2	1-23	GROUND FLOOR	0.10	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-18	1		FAN COIL UNIT	PRE-COOLING - 2	1-23	GROUND FLOOR	19.5	466	R410A	0.38	230	1	60	9.5	19.1	25	205	CEILING MOUNTED DUCT		EMERGENCY POWER, DUTY	
FCU-19A TO 19C	3	VRF-3	FAN COIL UNIT	EQUIPMENT ROOM	2-10	SECOND FLOOR	6.83	300	R410A	0.13	230	1	60	9.5	15.9	25	CEILING SUSPENDED	EMERGENCY POWER, DUTY	24 C±/DB (17.2)WB		
FCU-20A TO 20C	3		FAN COIL UNIT	ANS & FIC OFFICE	2-08	SECOND FLOOR	3.00	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-21A & 21B	2		FAN COIL UNIT	ATC/FIC OFFICE	2-06	SECOND FLOOR	3.20	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-22A & 22B	2		FAN COIL UNIT	ATC OFFICE	2-03	SECOND FLOOR	2.70	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-23A & 23B	2		FAN COIL UNIT	WORK SHOP	2-11	SECOND FLOOR	2.90	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-24	1		FAN COIL UNIT	HALLWAY-1	2-07	SECOND FLOOR	2.90	191	R410A	0.056	230	1	60	9.5	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-25	1		FAN COIL UNIT	PRE-COOLING - 3	2-07	SECOND FLOOR	19.5	466	R410A	0.038	230	1	60	9.5	19.1	25	205	CEILING MOUNTED DUCT		EMERGENCY POWER, DUTY	
FCU-26A & 26B	2		FAN COIL UNIT	OFFICE LOBBY	2-13	SECOND FLOOR	2.60	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-27A & 27B	2		FAN COIL UNIT	NAP ROOM (M)	2-01	SECOND FLOOR	2.70	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-28A & 28B	2	VRF-4	FAN COIL UNIT	NAP ROOM (F)	2-22	SECOND FLOOR	2.35	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY	24 C±/DB (17.2)WB		
FCU-29A & 29B	2		FAN COIL UNIT	MEETING ROOM	2-15	SECOND FLOOR	6.15	275	R410A	0.056	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-30A & 30B	2		FAN COIL UNIT	AIRPORT DEPT. MANAGER	2-16	SECOND FLOOR	4.40	225	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-31A & 31B	2		FAN COIL UNIT	AIRPORT MANAGER	2-17	SECOND FLOOR	5.10	225	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-32A & 32B	2		FAN COIL UNIT	OFFICE	2-19	SECOND FLOOR	3.10	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-33	1		FAN COIL UNIT	HALLWAY-2	2-18	SECOND FLOOR	2.10	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, DUTY			
FCU-34	1		FAN COIL UNIT	PRE-COOLING - 4	2-18	SECOND FLOOR	24.5	583	R410A	0.038	230	1	60	9.5	22.2	25	205	CEILING MOUNTED DUCT		EMERGENCY POWER, DUTY	
FCU-35A & 35B	2		VRF-5	FAN COIL UNIT	FOBS	1-12	GROUND FLOOR	8.4	433	R410A	0.12	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY		EMERGENCY POWER, STAND-BY	24 C±/DB (17.2)WB
FCU-36A & 36B	2			FAN COIL UNIT	FSS RADIO	1-13	GROUND FLOOR	1.6	191	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY		EMERGENCY POWER, STAND-BY	
FCU-37A & 37B	2	FAN COIL UNIT		SECURITY OFFICE	1-15	GROUND FLOOR	5.9	275	R410A	0.056	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY			
FCU-38	1	FAN COIL UNIT		RECORDS AND SUPPLY	1-18	GROUND FLOOR	5.0	225	R410A	0.056	230	1	60	6.4	12.7	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY			
FCU-39A & 39B	2	FAN COIL UNIT		HUMAN RESOURCES	1-19	GROUND FLOOR	9.0	433	R410A	0.12	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY			
FCU-40	1	FAN COIL UNIT		CLINIC (FIRST AID)	1-27	GROUND FLOOR	5.3	275	R410A	0.056	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY			
FCU-41	1	FAN COIL UNIT		FINANCIAL SECTION	1-24	GROUND FLOOR	8.0	433	R410A	0.12	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY			
FCU-42A-42C	3	FAN COIL UNIT		EQUIPMENT ROOM	2-10	SECOND FLOOR	8.4	433	R410A	0.12	230	1	60	9.5	15.9	25	CEILING SUSPENDED	EMERGENCY POWER, STAND-BY			
FCU-43A & 43B	2	VRF-6		FAN COIL UNIT	ANS & FIC OFFICE	2-08	SECOND FLOOR	6.2	275	R410A	0.056	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY	24 C±/DB (17.2)WB	
FCU-44	1		FAN COIL UNIT	ATC/FIC OFFICE	2-06	SECOND FLOOR	8.9	433	R410A	0.12	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY			
FCU-45	1		FAN COIL UNIT	ATC OFFICE	2-03	SECOND FLOOR	7.8	300	R410A	0.056	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY			
FCU-46A,46B	2	VRF-7	FAN COIL UNIT	MEETING ROOM	2-15	SECOND FLOOR	5.7	275	R410A	0.056	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY	24 C±/DB (17.2)WB		
FCU-47A,47B	2		FAN COIL UNIT	AIRPORT DEPT. MANAGER	2-16	SECOND FLOOR	6.3	275	R410A	0.056	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY			
FCU-48A,48B	2		FAN COIL UNIT	AIRPORT MANAGER	2-17	SECOND FLOOR	7.5	300	R410A	0.056	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY			
FCU-49	1		FAN COIL UNIT	OFFICE	2-19	SECOND FLOOR	8.6	433	R410A	0.12	230	1	60	9.5	15.9	25	CEILING CASSETTE 4-WAY	EMERGENCY POWER, STAND-BY			

1 CTO ADMINISTRATION BUILDING EQUIPMENT SCHEDULE

B3-5200-01

NTS

		PREPARED BY:	RECOMMENDING APPROVAL:	APPROVED:	PROJECT TITLE:										SHEET CONTENTS:	SHEET NO:
		RENATO A. ARRIOLA Filipino Registered Engineer REG. NO.: 2379 PIR. 1725187 DATE: JANUARY 01, 2013 T.JAN. 150-963-379 PLACE: TAGAYtay CITY	ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	-- -- -- -- -- --	-- -- -- -- -- --	-- -- -- -- -- --	-- -- -- -- -- --	-- -- -- -- -- --	-- -- -- -- -- --	-- -- -- -- -- --	-- -- -- -- -- --	-- -- -- -- -- --	SHEET NO: B3-5200-01 DRAWING SCALE: NTS	COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING EQUIPMENT SCHEDULE
JICA DESIGN CONSULTANT JOINT VENTURE   		TADASHI AOI Team Leader				JUNE 2013 DATE INDEX AMENDMENTS							Prepared by WIM Checked by HC Validated by			

OUTDOOR UNIT (ADMINISTRATION BUILDING):

UNIT DESIGNATION	EQUIPMENT	AREA SERVED	EQUIPMENT LOCATION	QTY.	TOTAL COOLING CAPACITY (kW)	REFRIGERANT	CONNECTION PIPE SIZE		ELECTRICAL CHARACTERISTICS				REMARKS
							LEQUID	GASS	POWER INPUT	VOLTS	PHASE	HERTZ	
VRF-01	CONDENSING UNIT	GROUND FLOOR	ROOF DECK	1	68.1	R410A	19.1	34.9	18.2	230	3	60	OUTDOOR TEMP: 35.0°C DB, INDOOR TEMP: 24.0°C DB, 17.2°C WB EMERGENCY POWER, DUTY
VRF-02	CONDENSING UNIT	GROUND FLOOR	ROOF DECK	1	68.1	R410A	19.1	34.9	18.2	230	3	60	
VRF-03	CONDENSING UNIT	SECOND FLOOR	ROOF DECK	1	82.6	R410A	19.1	34.9	22.05	230	3	60	
VRF-04	CONDENSING UNIT	GROUND FLOOR	ROOF DECK	1	77.8	R410A	19.1	34.9	20.65	230	3	60	
VRF-05	CONDENSING UNIT	GROUND FLOOR	ROOF DECK	1	77.8	R410A	19.1	34.9	20.65	230	3	60	
VRF-06	CONDENSING UNIT	GROUND FLOOR	ROOF DECK	1	63.3	R410A	19.1	34.9	17.15	230	3	60	
VRF-07	CONDENSING UNIT	GROUND FLOOR	ROOF DECK	1	58.45	R410A	15.9	34.9	15.75	230	3	60	






FRESH AIR FILTER UNIT

UNIT DESIGNATION	EQUIPMENT	AREA SERVED	EQUIPMENT LOCATION	QTY.	AIR FLOE (l/s)	EXTERNAL STATIC PRESSURE (Pa)	ELECTRICAL CHARACTERISTICS				REMARKS	
							POWER INPUT (kW)	VOLTS	PHASE	HERTZ		
FFU-01	FRESH AIR FILTER UNIT	MECHANICAL ROOM	GROUND FLOOR & SECOND FLOOR	1	1910	200	2.2	230	3	60	PRE FILTER ARI 80% ABOVE; MEDIUM FILTER NBS 80% ABOVE	EMERGENCY POWER, DUTY

EXHAUST FANS:

UNIT DESIGNATION	EQUIPMENT	LEVEL	AREA SERVED	QUANTITY	AIR VOLUME (m3/hr)	STATIC PRESSURE (Pa)	ELECTRICAL CHARACTERISTICS				TYPE	REMARKS
							POWER INPUT (kW)	VOLTS	PHASE	HERTZ		
EF-1 GF	EXHAUST FAN	GROUND FLOOR	MECHANICAL ROOM	2	624	150	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-2 GF	EXHAUST FAN	GROUND FLOOR	ELECTRICAL ROOM	1	3871	150	0.70	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-3 GF	EXHAUST FAN	GROUND FLOOR	STORAGE	1	201	100	0.045	230	1	60	CEILING CASSETTE FAN	LOW NOISE TYPE
EF-4 GF	EXHAUST FAN	GROUND FLOOR	KITCHEN	1	718	200	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-5 GF	EXHAUST FAN	GROUND FLOOR	TOILET 1 (M)	1	408	130	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-6 GF	EXHAUST FAN	GROUND FLOOR	TOILET 1 (F)	1	447	130	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-7 GF	EXHAUST FAN	GROUND FLOOR	TOILET 2 (F)	1	393	130	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-8 GF	EXHAUST FAN	GROUND FLOOR	TOILET 2 (M)	1	393	130	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-9 GF	EXHAUST FAN	GROUND FLOOR	HANDICAP/JANITOR'S ROOM	1	374	130	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-10 GF	EXHAUST FAN	GROUND FLOOR	CLINIC	1	133	80	0.045	230	1	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-11 2F	EXHAUST FAN	SECOND FLOOR	STORE	1	407	130	0.15	230	3	60	CEILING CASSETTE FAN	LOW NOISE TYPE
EF-12 2F	EXHAUST FAN	SECOND FLOOR	STORE 1&2	1	318	130	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-13 2F	EXHAUST FAN	SECOND FLOOR	TOILET 1(M)	1	452	130	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-14 2F	EXHAUST FAN	SECOND FLOOR	TOILET 2(F)	1	380	130	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-15 2F	EXHAUST FAN	SECOND FLOOR	TOILET 2 (M)	1	380	130	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
EF-16 2F	EXHAUST FAN	SECOND FLOOR	NAP ROOM (M)	1	288	80	0.045	230	1	60	CEILING CASSETTE FAN	LOW NOISE TYPE
EF-17 2F	EXHAUST FAN	SECOND FLOOR	NAP ROOM (F)	1	267	80	0.045	230	1	60	CEILING CASSETTE FAN	LOW NOISE TYPE
EF-18 2F	EXHAUST FAN	SECOND FLOOR	EPS	1	133	80	0.045	230	1	60	CEILING CASSETTE FAN	LOW NOISE TYPE
SF-1 GF	EXHAUST FAN	GROUND FLOOR	MECHANICAL ROOM	1	624	150	0.15	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE
SF-2 GF	EXHAUST FAN	GROUND FLOOR	ELECTRICAL ROOM	1	3871	150	0.7	230	3	60	IN-LINE AXIAL FAN	LOW NOISE TYPE

2 CTO ADMINISTRATION BUILDING EQUIPMENT SCHEDULE  
B3-5200-02 NTS

 Republic of the Philippines DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS	 JAPAN INTERNATIONAL COOPERATION AGENCY	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>PE Registered Engineer</small> PROF: MECHANICAL ENGINEER PIR. 1725187 REG. NO.: 2379 DATE: JANUARY 01, 2013 TALK. 150-563-379 PLACE: TAGBILAR CITY	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING OUTDOOR AND EXHAUST EQUIPMENT SCHEDULE	SHEET NO: <b>B3-5200-02</b> DRAWING SCALE: <b>NTS</b>
JICA DESIGN CONSULTANT JOINT VENTURE  JAPAN AIRPORT CONSULTANTS, INC.		 NIPPON KOEI CO., LTD.		 NIS CONSULTANTS CO., LTD.		DATE INDEX AMENDMENTS Prepared by: WIM Checked by: HC Validated by:	

**AIR TERMINAL DEVICE SCHEDULE: GROUND FLOOR EXHAUST**

UNIT DESIGNATIONS	QUANTITY	LEVEL	ROOM DESIGNATION	DIMENSION	AIR VOLUME (l/s)	NOISE LEVEL	TYPE	REMARKS
EAG-01	2	GROUND FLOOR	ELECTRICAL ROOM	600X600	537	1	EXHAUST FAN GRILLE	-
EAG-02	1	GROUND FLOOR	KITCHEN	400X400	50	1	EXHAUST FAN GRILLE	-
EAG-03	3	GROUND FLOOR	MALE TOILET (1)	200X200	38	1	EXHAUST FAN GRILLE	-
EAG-04	1	GROUND FLOOR	FEMALE TOILET (1)	300X300	124	1	EXHAUST FAN GRILLE	-
EAG-05	1	GROUND FLOOR	FEMALE TOILET (2)	300X200	109	1	EXHAUST FAN GRILLE	-
EAG-06	3	GROUND FLOOR	MALE TOILET (2)	300X200	37	1	EXHAUST FAN GRILLE	-
EAG-07	1	GROUND FLOOR	HANDICAP TOILET	250X250	55	1	EXHAUST FAN GRILLE	-
EAG-08	1	GROUND FLOOR	JANITOR'S CLOSET	250X250	48.4	1	EXHAUST FAN GRILLE	-
EAG-08	1	GROUND FLOOR	MECHANICAL ROOM	250X250	173.0	1	EXHAUST FAN GRILLE	-

**AIR TERMINAL DEVICE SCHEDULE: SECOND FLOOR EXHAUST**

UNIT DESIGNATIONS	QUANTITY	LEVEL	ROOM DESIGNATION	DIMENSION	AIR VOLUME (l/s)	NOISE LEVEL	TYPE	REMARKS
EAG-01	1	SECOND FLOOR	STORAGE 1	300X300	47	1	EXHAUST FAN GRILLE	-
EAG-02	1	SECOND FLOOR	STORAGE 2	250X250	42	1	EXHAUST FAN GRILLE	-
EAG-03	3	SECOND FLOOR	MALE TOILET (1)	250X250	42	1	EXHAUST FAN GRILLE	-
EAG-04	1	SECOND FLOOR	STORE	250X250	113	1	EXHAUST FAN GRILLE	-
EAG-05	1	SECOND FLOOR	FEMALE TOILET	250X250	106	1	EXHAUST FAN GRILLE	-
EAG-06	1	SECOND FLOOR	JANITOR CLOSET	250X250	8	1	EXHAUST FAN GRILLE	-
EAG-07	2	SECOND FLOOR	MALE TOILET (2)	300X300	53	1	EXHAUST FAN GRILLE	-






**AIR TERMINAL DEVICE SCHEDULE: GROUND FLOOR FRESH AIR**

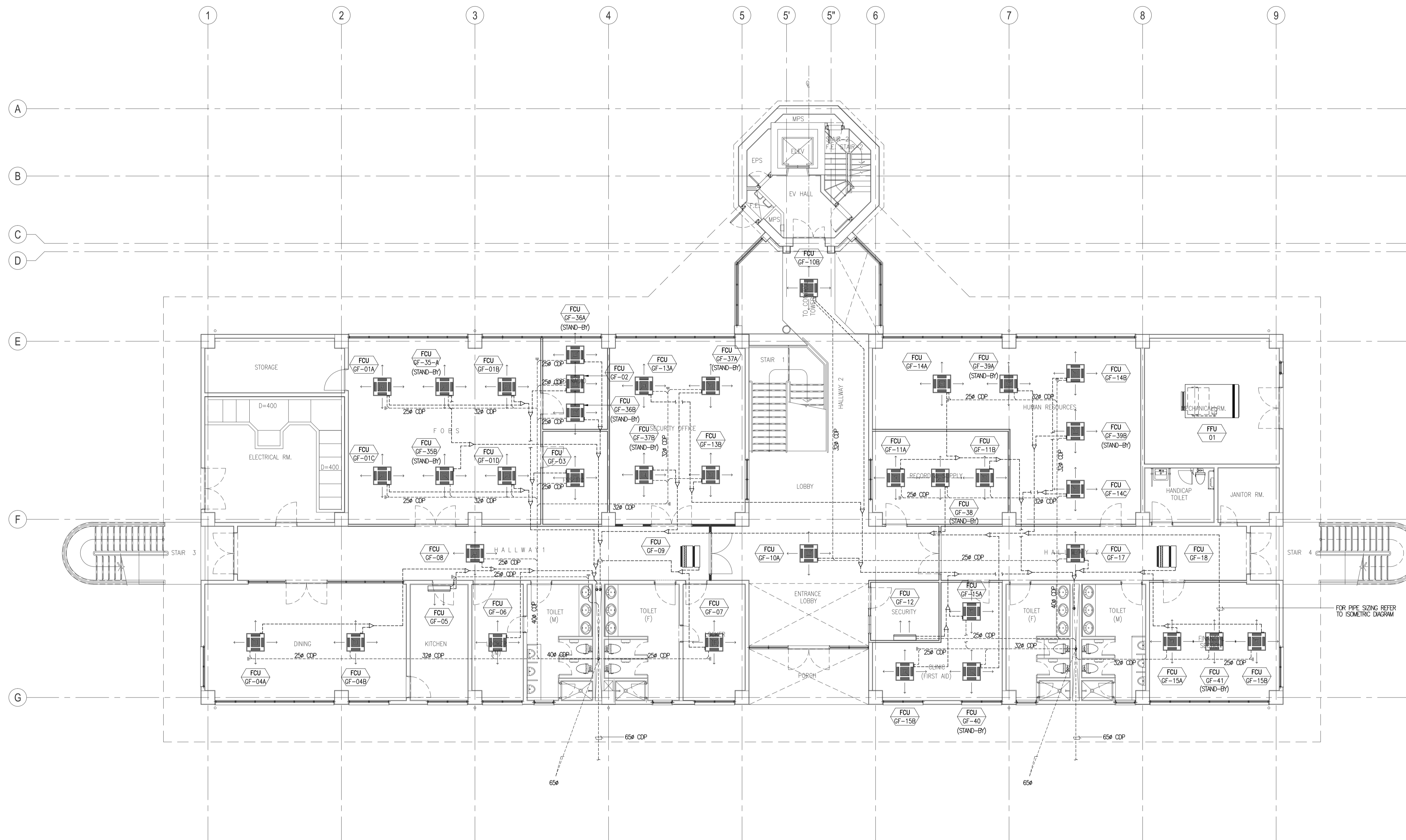
UNIT DESIGNATION	QUANTITY	LEVEL	ROOM DESIGNATION	DIMENSION	AIR VOLUME (l/s)	NOISE LEVEL	TYPE	REMARKS
FAG-01	2	GROUND FLOOR	DINING	200X200	34	1	FRESH AIR GRILLE	-
FAG-02	1	GROUND FLOOR	KITCHEN	200X200	22	1	FRESH AIR GRILLE	-
FAG-03	1	GROUND FLOOR	HALLWAY-1	200X200	65	1	FRESH AIR GRILLE	-
FAG-04	1	GROUND FLOOR	LOCKER (M)	150X150	37	1	FRESH AIR GRILLE	-
FAG-05	1	GROUND FLOOR	FOBS	200X200	119	1	FRESH AIR GRILLE	-
FAG-06	1	GROUND FLOOR	FSS FIC	150X150	20	1	FRESH AIR GRILLE	-
FAG-07	1	GROUND FLOOR	FSS RADIO	150X150	19	1	FRESH AIR GRILLE	-
FAG-08	1	GROUND FLOOR	SECURITY OFFICE	200X200	83	1	FRESH AIR GRILLE	-
FAG-09	1	GROUND FLOOR	LOCKER ROOM (F)	150X150	24	1	FRESH AIR GRILLE	-
FAG-10	1	GROUND FLOOR	LOBBY	200X200	101	1	FRESH AIR GRILLE	-
FAG-11	1	GROUND FLOOR	SECURITY	150X150	13	1	FRESH AIR GRILLE	-
FAG-12	1	GROUND FLOOR	CLINIC	150X150	37	1	FRESH AIR GRILLE	-
FAG-13	1	GROUND FLOOR	RECORDS & SUPPLIES	150X150	41	1	FRESH AIR GRILLE	-
FAG-14	1	GROUND FLOOR	HUMAN RESOURCES	150X150	121	1	FRESH AIR GRILLE	-
FAG-15	1	GROUND FLOOR	HALLWAY- 3	200X200	42	1	FRESH AIR GRILLE	-
FAG-16	1	GROUND FLOOR	FINANCIAL SECTION	150X150	50	1	FRESH AIR GRILLE	-

**AIR TERMINAL DEVICE SCHEDULE: SECOND FLOOR FRESH AIR**






UNIT DESIGNATION	QUANTITY	LEVEL	ROOM DESIGNATION	DIMENSION	AIR VOLUME (l/s)	NOISE LEVEL	TYPE	REMARKS
FAG-01	1	SECOND FLOOR	ANS & FIC OFFICE	150X150	104	1	FRESH AIR GRILLE	-
FAG-02	1	SECOND FLOOR	ATC/FIC OFFICE	200X200	77	1	FRESH AIR GRILLE	-
FAG-03	1	SECOND FLOOR	ATC OFFICE	150X150	73	1	FRESH AIR GRILLE	-
FAG-04	1	SECOND FLOOR	HALLWAY-4	200X200	106	1	FRESH AIR GRILLE	-
FAG-05	1	SECOND FLOOR	EQUIPMENT ROOM	200X200	231	1	FRESH AIR GRILLE	-
FAG-06	1	SECOND FLOOR	NAP ROOM(M)	200X200	80	1	FRESH AIR GRILLE	-
FAG-07	1	SECOND FLOOR	WORKSHOP	150X150	56	1	FRESH AIR GRILLE	-
FAG-08	1	SECOND FLOOR	LOBBY	150X150	215	1	FRESH AIR GRILLE	-
FAG-09	2	SECOND FLOOR	MEETING ROOM (CONFERENCE)	200X200	61	1	FRESH AIR GRILLE	-
FAG-10	1	SECOND FLOOR	NAP ROOM(F)	150X150	74	1	FRESH AIR GRILLE	-
FAG-11	1	SECOND FLOOR	HALLWAY (6)	200X200	75	1	FRESH AIR GRILLE	-
FAG-12	1	SECOND FLOOR	AIRPORT DEPARTMENT MANAGER	200X200	117	1	FRESH AIR GRILLE	-
FAG-13	1	SECOND FLOOR	AIRPORT MANAGER	200X200	121	1	FRESH AIR GRILLE	-
FAG-14	1	SECOND FLOOR	OFFICE 1	150X150	74	1	FRESH AIR GRILLE	-

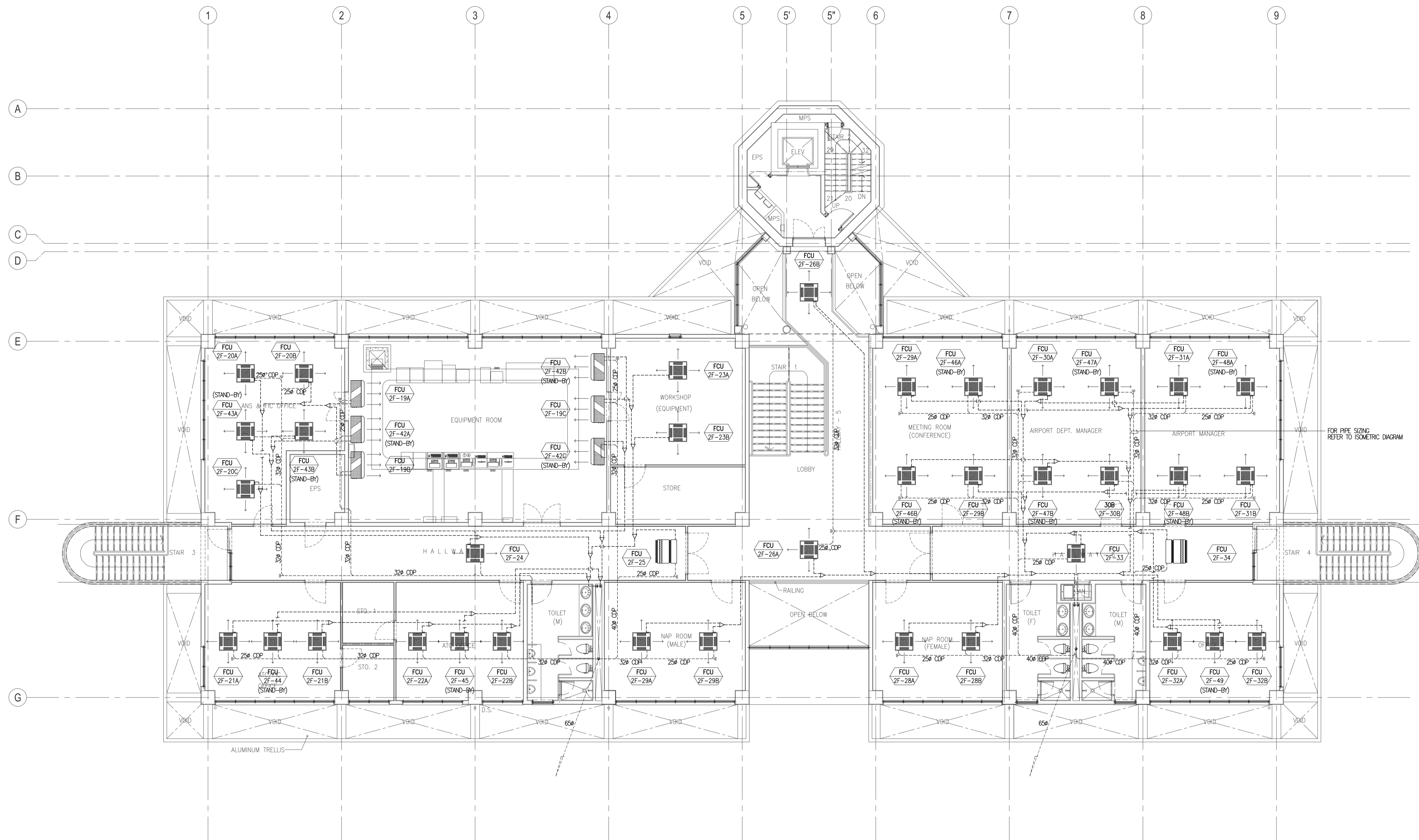
**1** CTO ADMINISTRATION AIR TERMINAL DEVICE SCHEDULE  
B3-5200-03 NTS

 Republic of the Philippines DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS	 JAPAN INTERNATIONAL COOPERATION AGENCY	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small> PROF: MECHANICAL ENGINEER PIR. 1725187 REG. NO.: 2379 DATE: JANUARY 01, 2013 T.I.N. 150-963-379 PLACE: TAGBILAR CITY	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING AIR TERMINAL DEVICE SCHEDULE	SHEET NO: <b>B3-5200-03</b> DRAWING SCALE: NTS	
JICA DESIGN CONSULTANT JOINT VENTURE  JAPAN AIRPORT CONSULTANTS, INC.		 NIPPON KOEI CO., LTD.		 NIS CONSULTANTS CO., LTD.		TADASHI AOI <small>Team Leader</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	WIM HC Prepared by Checked by Validated by
		DATE	INDEX	AMENDMENTS				



1
**CONTROL TOWER & ADMINISTRATION BUILDING**  
**GROUND FLOOR AIR-CONDITIONING, REFRIGERANT PIPING AND CONDENSATE DRAIN LAYOUT**  
 B3-5200-04 SCALE 1:100M

 Republic of the Philippines DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS	 JAPAN INTERNATIONAL COOPERATION AGENCY	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small> PROF: MECHANICAL ENGINEER PIR. 1725187 REG. NO: 2379 DATE: JANUARY 01, 2013 T.I.N. 150-563-379 PLACE: TAGBILAR CITY	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary          for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary          for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND          SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING GROUND FLOOR AIR-CONDITIONING, REFRIGERANT PIPING AND CONDENSATE DRAIN LAYOUT	SHEET NO: <b>B3-5200-04</b> DRAWING SCALE: <b>1:100M</b>		
JICA DESIGN CONSULTANT JOINT VENTURE  JAPAN AIRPORT CONSULTANTS, INC.		 NIPPON KOEI CO., LTD.		 NIS CONSULTANTS CO., LTD.		TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary          for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary          for Project Implementation, DOTC</small>	JUNE 2013 DATE INDEX AMENDMENTS Prepared by WIM Checked by HC Validated by



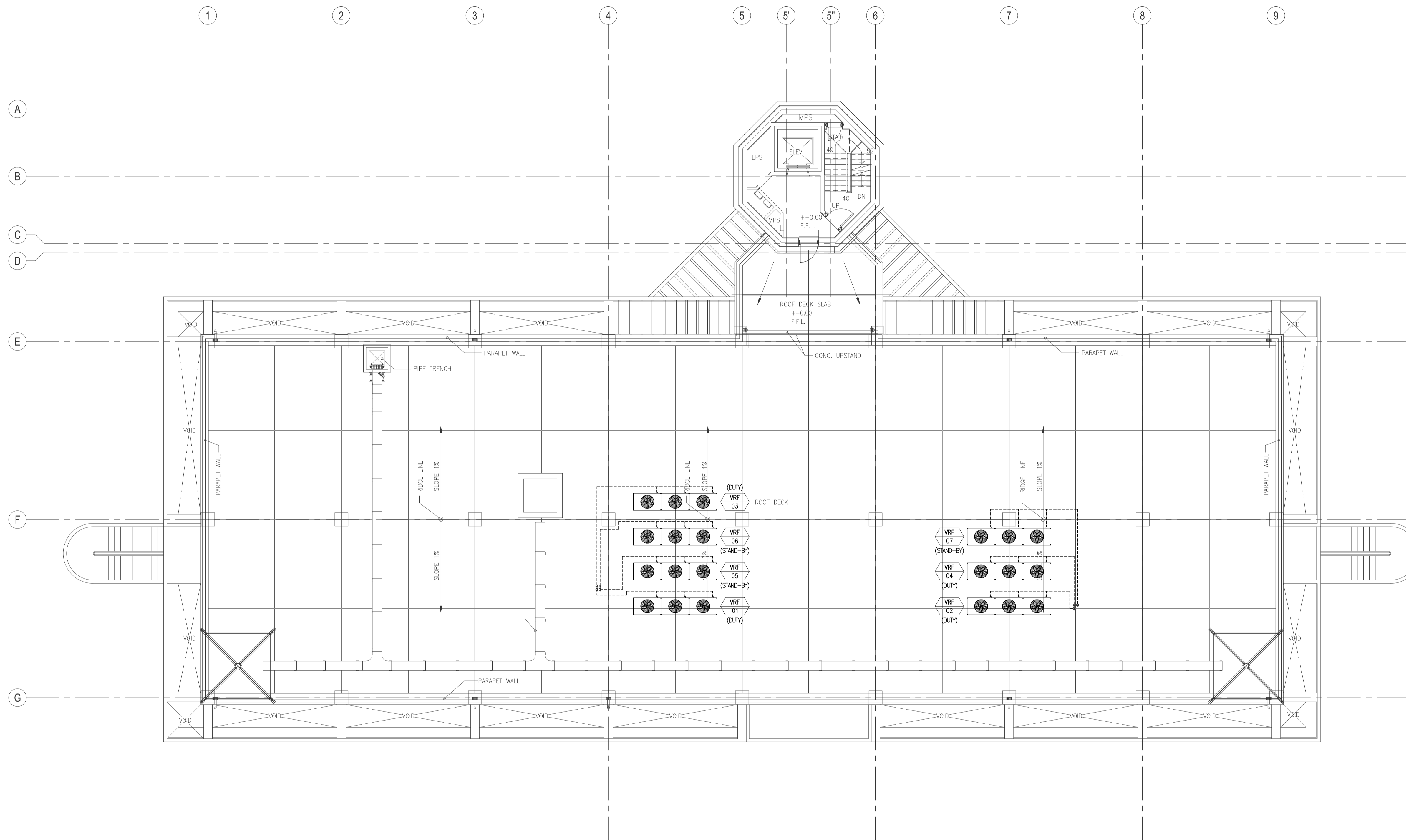
**CONTROL TOWER & ADMINISTRATION BUILDING  
SECOND FLOOR AIR-CONDITIONING, REFRIGERANT PIPING AND CONDENSATE DRAIN LAYOUT**

1  
B3-5200-05

SCALE

1:100M

	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small> <small>PROF. MECHANICAL ENGINEER PIR. 1725187</small> <small>REG. NO.: 2379 DATE: JANUARY 01, 2013</small> <small>TIN. 150-963-379 PLACE: TAGBILAR CITY</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING SECOND FLOOR AIR-CONDITIONING, REFRIGERANT PIPING AND CONDENSATE DRAIN LAYOUT	SHEET NO: <b>B3-5200-05</b> DRAWING SCALE: <b>1:100M</b>
	JICA DESIGN CONSULTANT JOINT VENTURE <b>JAC</b> JAPAN AIRPORT CONSULTANTS, INC. <b>NIPPON KOEI CO., LTD.</b> <b>NIS CONSULTANTS CO., LTD.</b>	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX: - AMENDMENTS: - Prepared by: WIM Checked by: HC Validated by:	SHEET NO: <b>B3-5200-05</b> DRAWING SCALE: <b>1:100M</b>



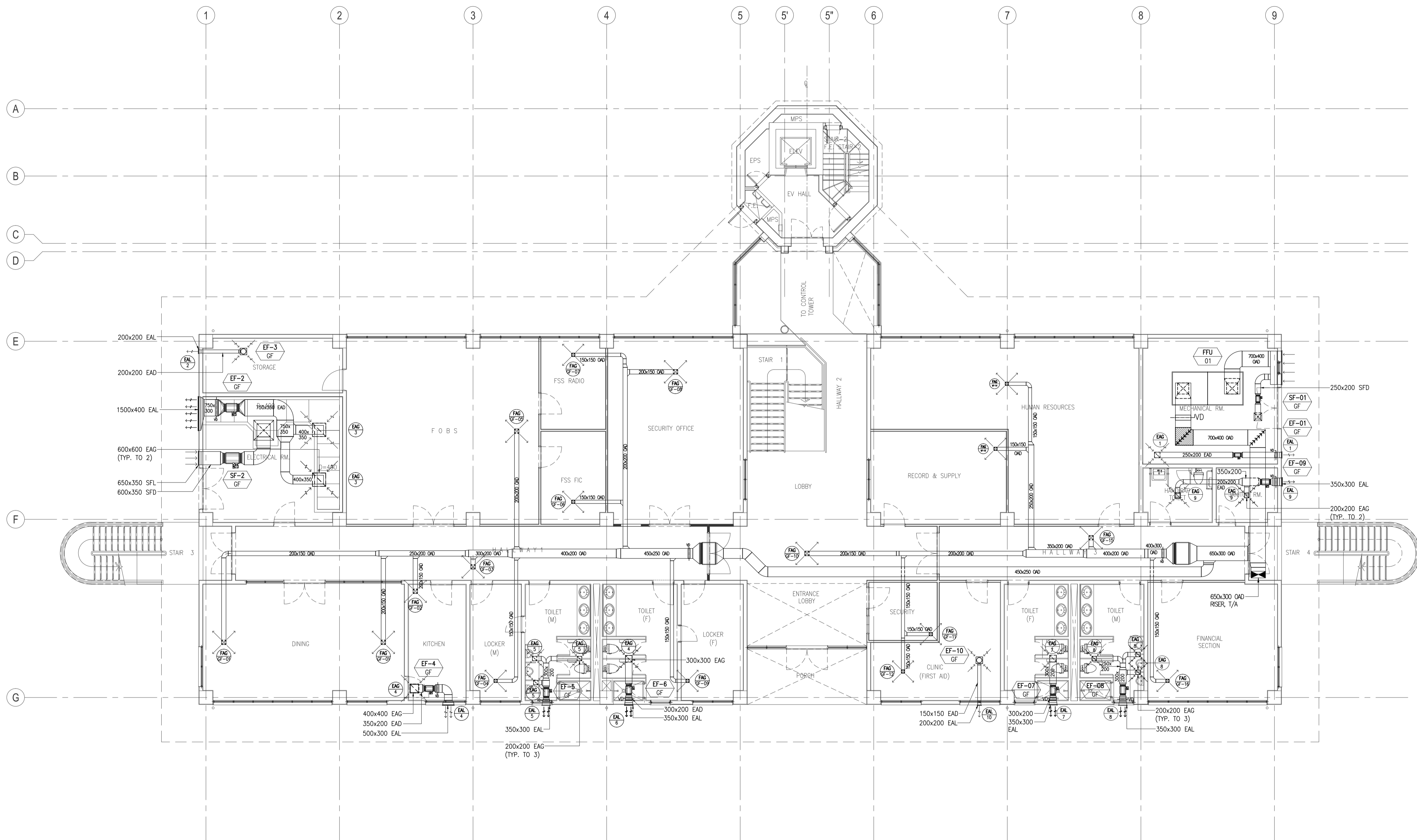
**CONTROL TOWER & ADMINISTRATION BUILDING  
THIRD FLOOR AND ROOF DECK REFRIGERANT PIPING LAYOUT**

1  
B3-5200-06

SCALE

1:100M

	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small> <small>PROF: MECHANICAL ENGINEER PIR. 1725187</small> <small>REG. NO.: 2379 DATE: JANUARY 01, 2013</small> <small>T.I.N. 150-563-379 PLACE: TAGBILAR CITY</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING THIRD FLOOR AND ROOF DECK REFRIGERANT PIPING LAYOUT	SHEET NO: <b>B3-5200-06</b> DRAWING SCALE: <b>1:100M</b>
	JICA DESIGN CONSULTANT JOINT VENTURE <small>Republic of the Philippines DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS</small> <small>JAPAN INTERNATIONAL COOPERATION AGENCY</small>	TADASHI AOI <small>Team Leader</small>	JULY 2013 DATE INDEX AMENDMENTS Prepared by WIM Checked by HC Validated by	JICA <small>JAPAN AIRPORT CONSULTANTS, INC.</small> <small>NIPPON KOEI CO., LTD.</small> <small>NIS CONSULTANTS CO., LTD.</small>		

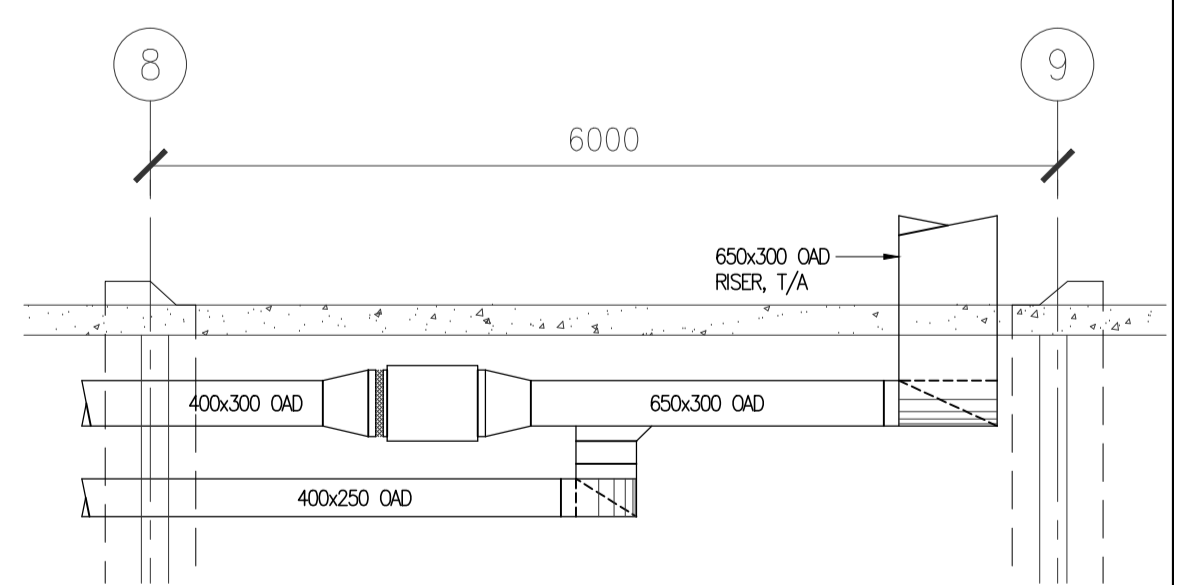
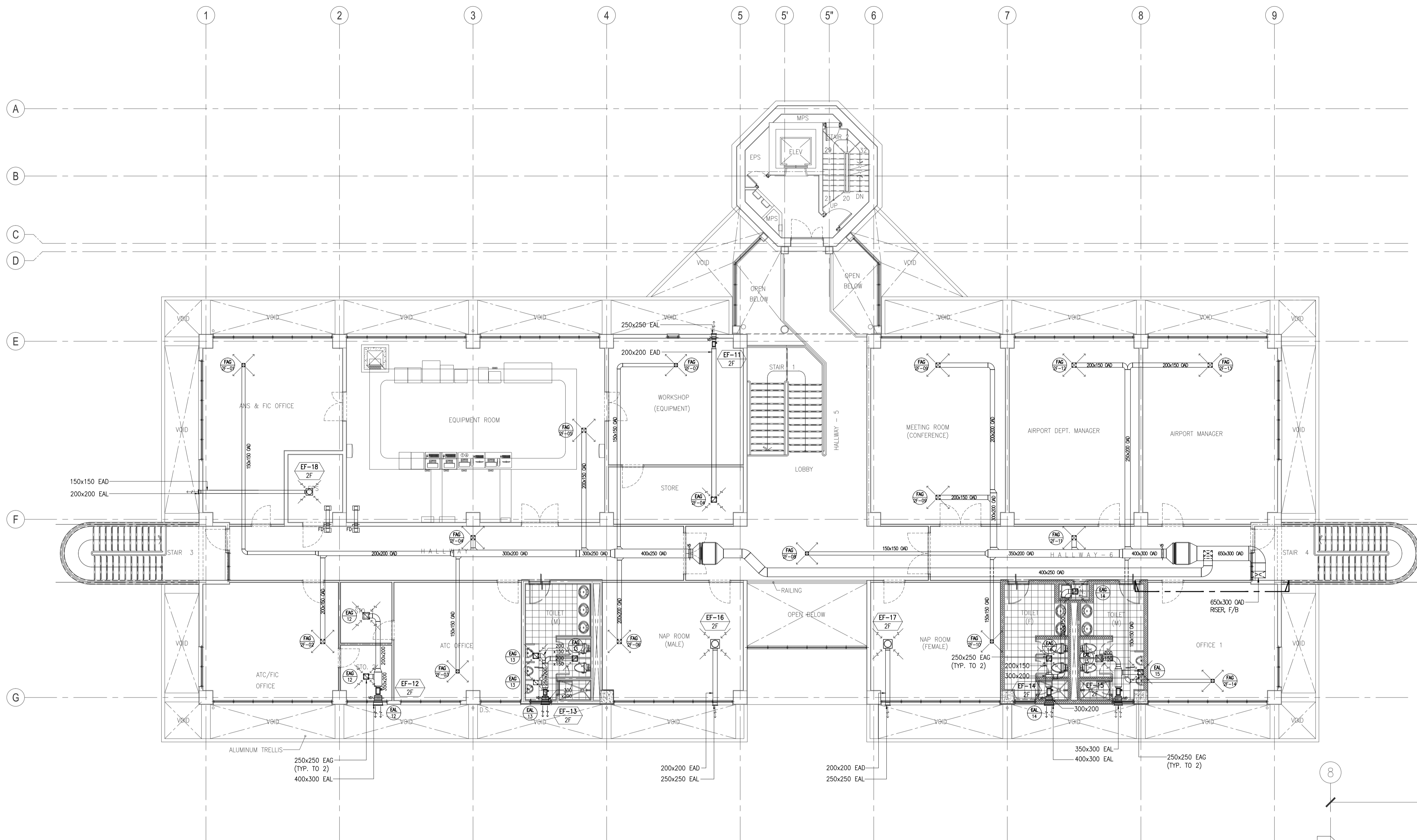


**CONTROL TOWER & ADMINISTRATION BUILDING  
GROUND FLOOR FRESH AIR & EXHAUST LAYOUT**

1  
B3-5200-07

SCALE 1:100M

	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING	SHEET NO: <b>B3-5200-07</b>
	<small>PROF: MECHANICAL ENGINEER PIR. 1725187          REG. NO.: 2378 DATE: JANUARY 01, 2013          T.A.N. 150-963-379 PLACE: TAGBILAR CITY</small>	<small>TADASHI AOI          Team Leader</small>	<small>DATE: JUNE 2013</small>	<small>WIM HC</small>	<small>DATE INDEX AMENDMENTS Prepared by Checked by Validated by</small>	DRAWING SCALE: <b>1:100M</b>



**CONTROL TOWER & ADMINISTRATION BUILDING  
SECOND FLOOR FRESH AIR & EXHAUST LAYOUT**

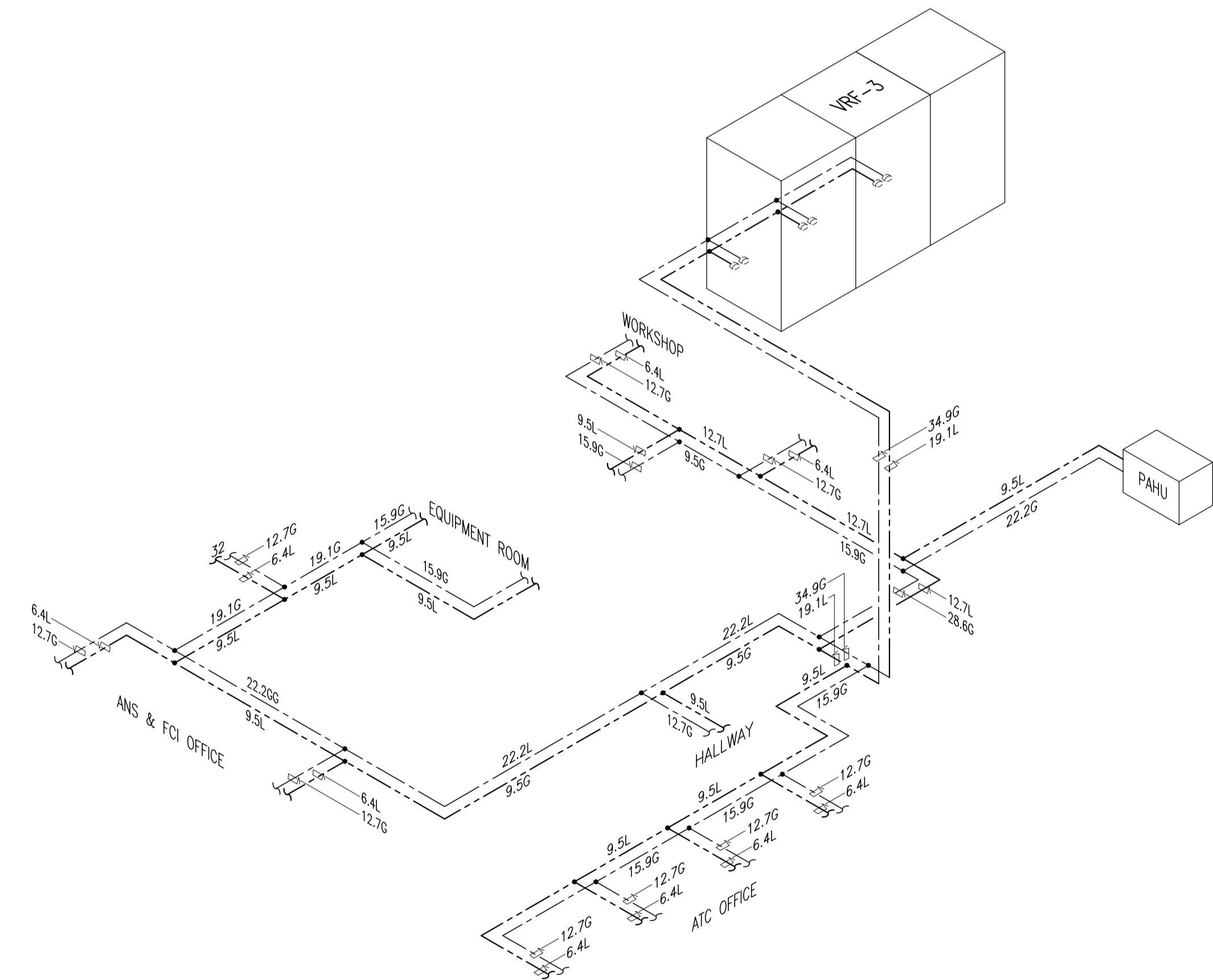
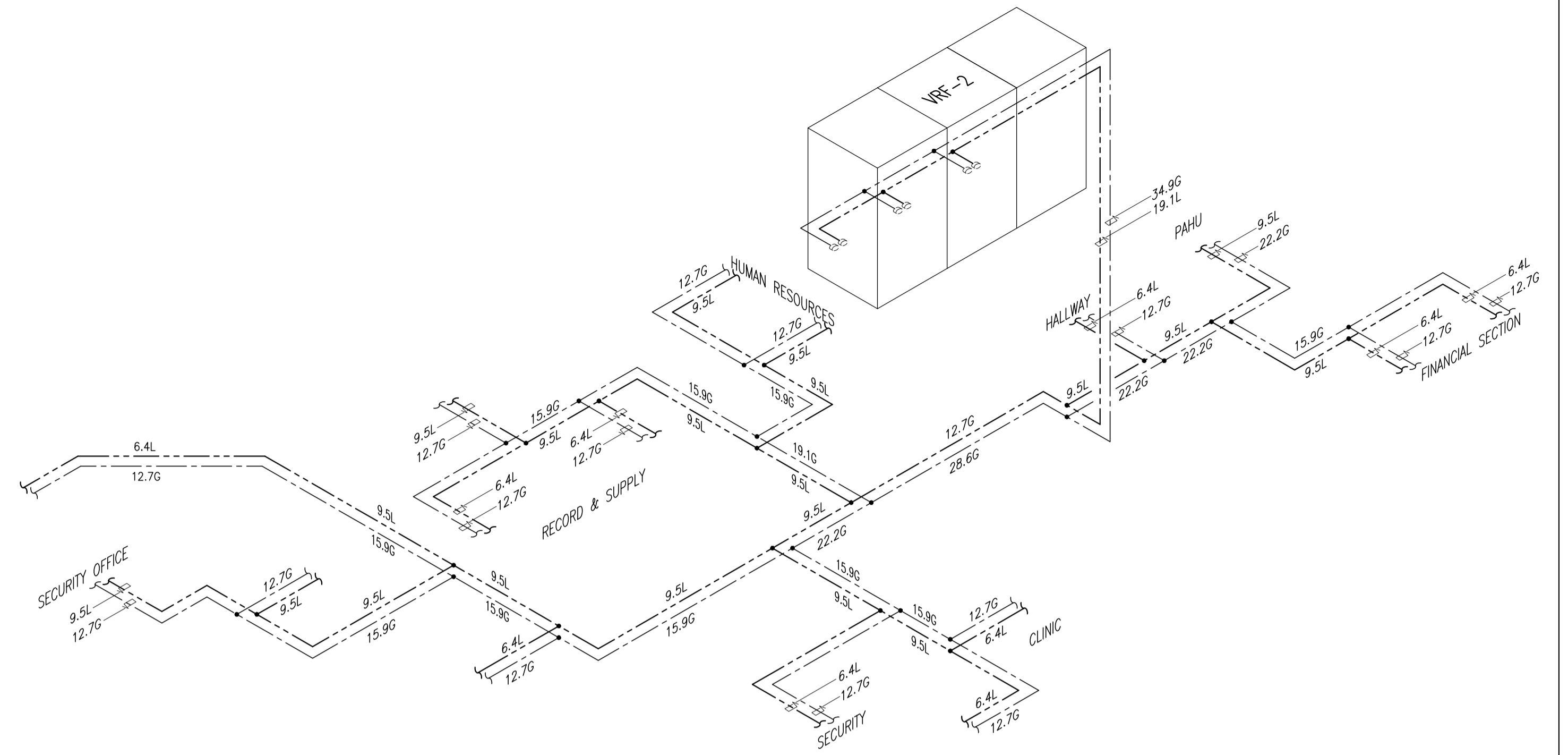
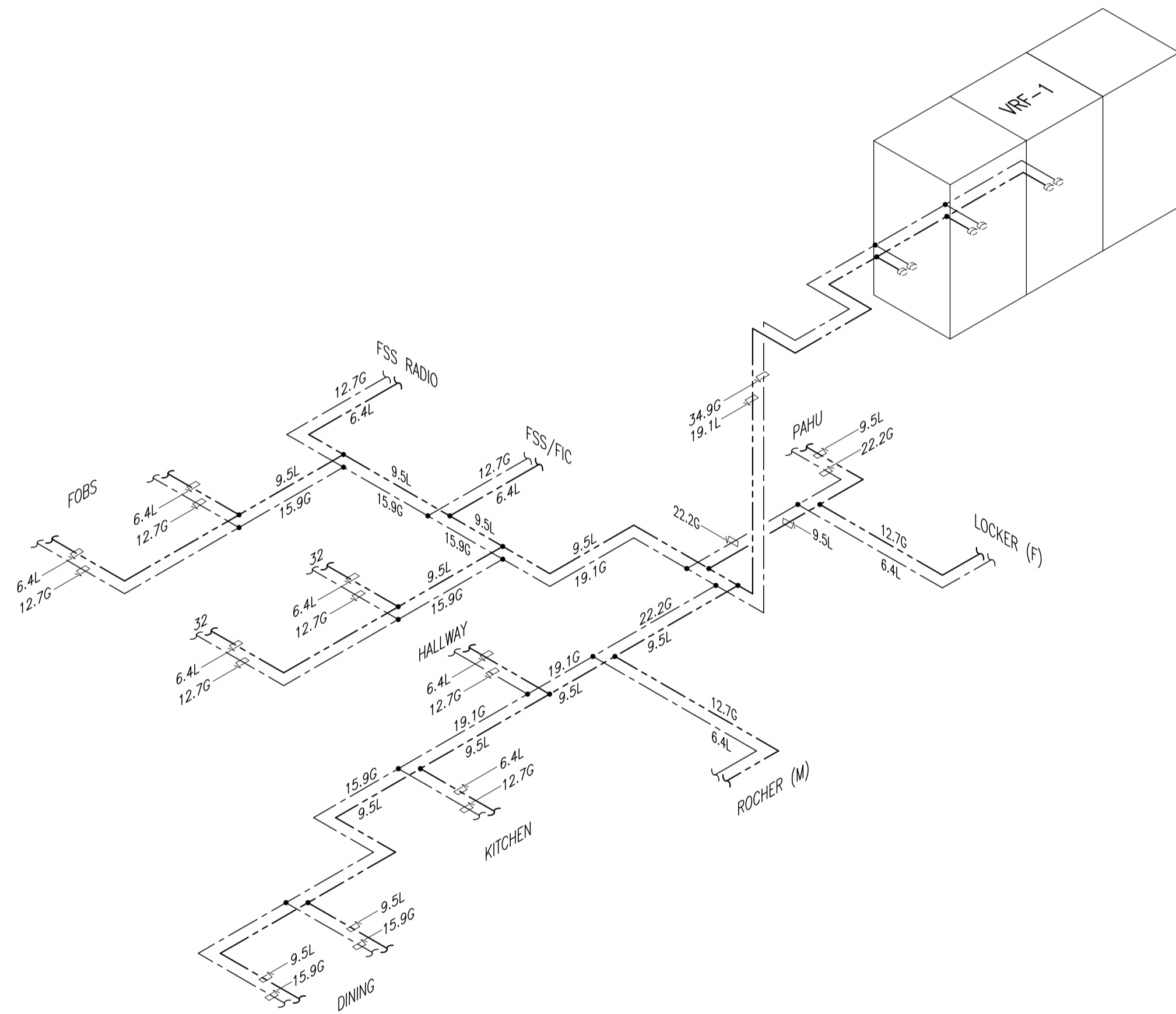
1  
B3-5200-08  
SCALE

2  
B3-5200-08  
SCALE 1:50M

	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small> PROF: MECHANICAL ENGINEER PIR. 1725187 REG. NO.: 2379 DATE: JANUARY 01, 2013 T.I.N. 150-563-379 PLACE: TAGBILAR CITY	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING SECOND FLOOR FRESH AIR & EXHAUST LAYOUT AND DETAIL	SHEET NO: <b>B3-5200-08</b> DRAWING SCALE: <b>1:100M</b>
	JICA DESIGN CONSULTANT JOINT VENTURE <b>JAC</b> JAPAN AIRPORT CONSULTANTS, INC. <b>NIPPON KOEI CO., LTD.</b> <b>NIS CONSULTANTS CO., LTD.</b>	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	JUNE 2013 DATE INDEX AMENDMENTS Prepared by WIM Checked by HC Validated by	



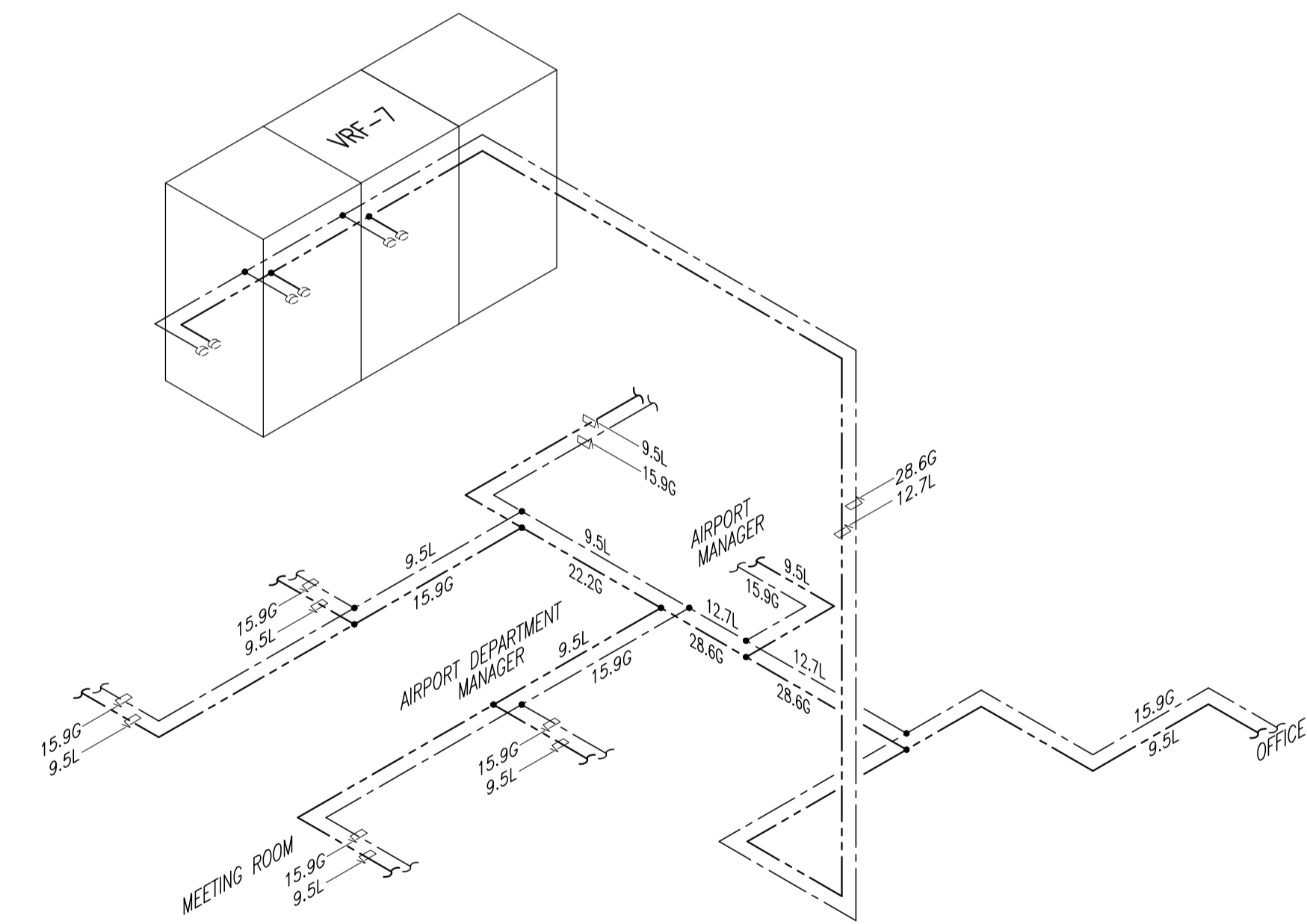
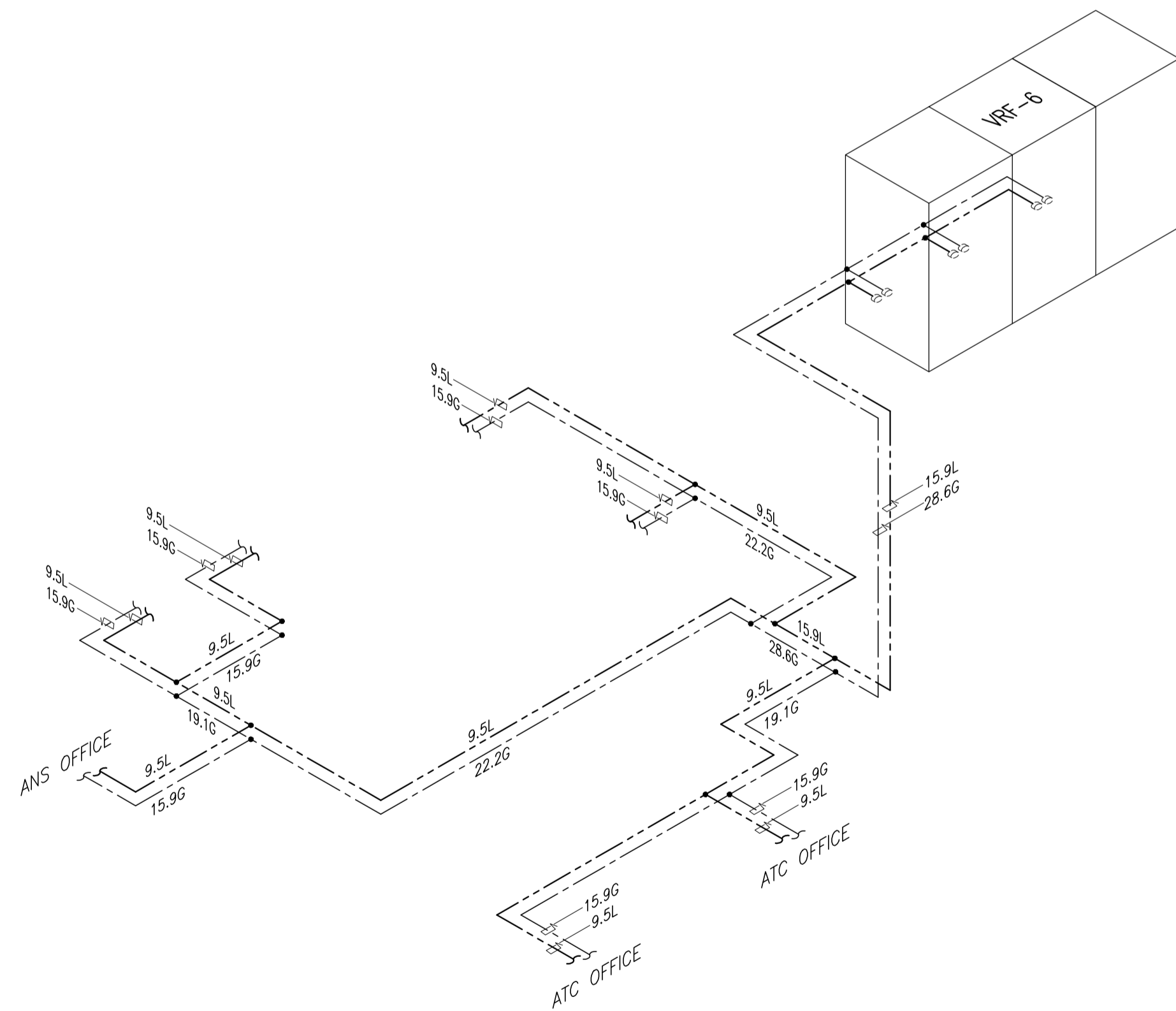
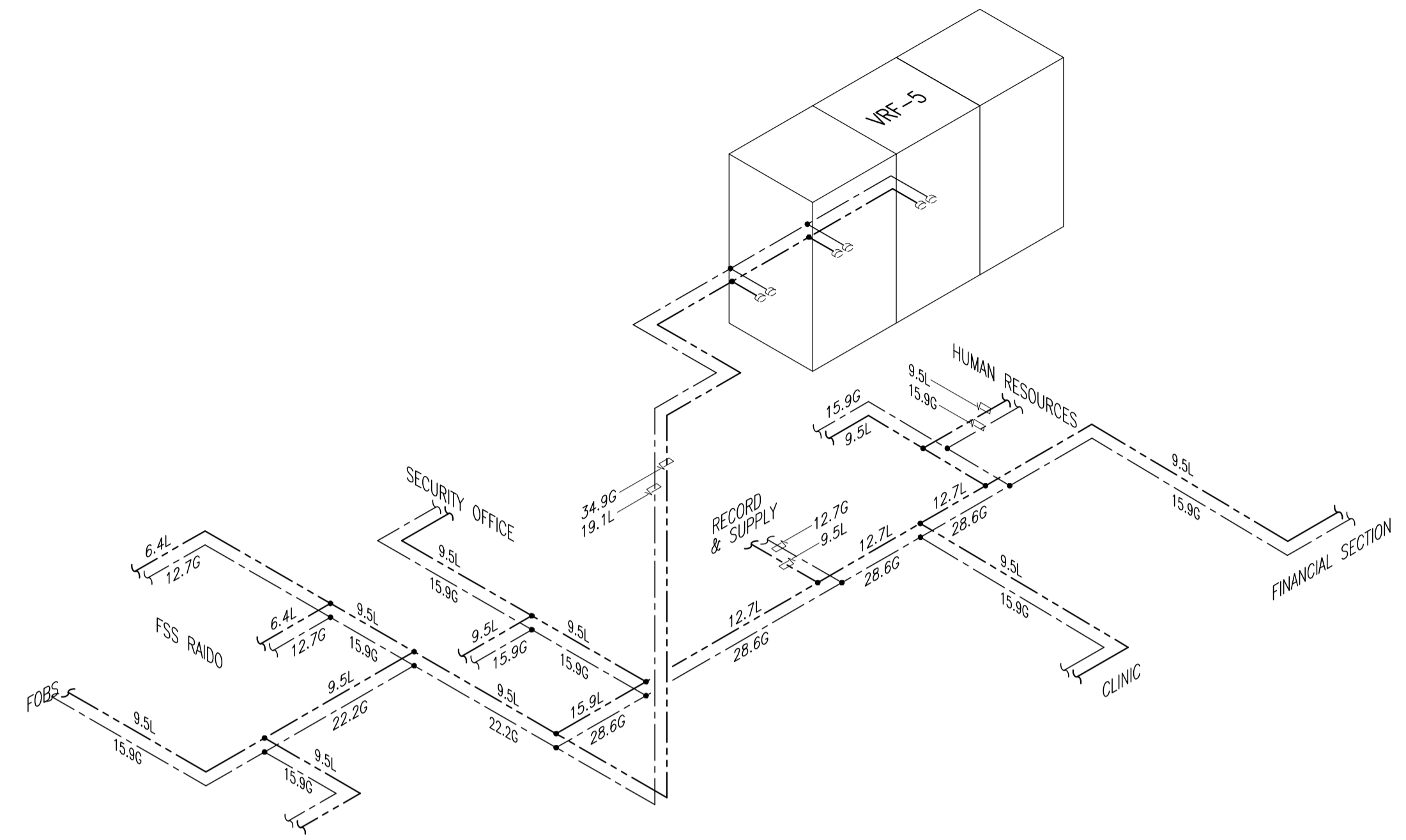
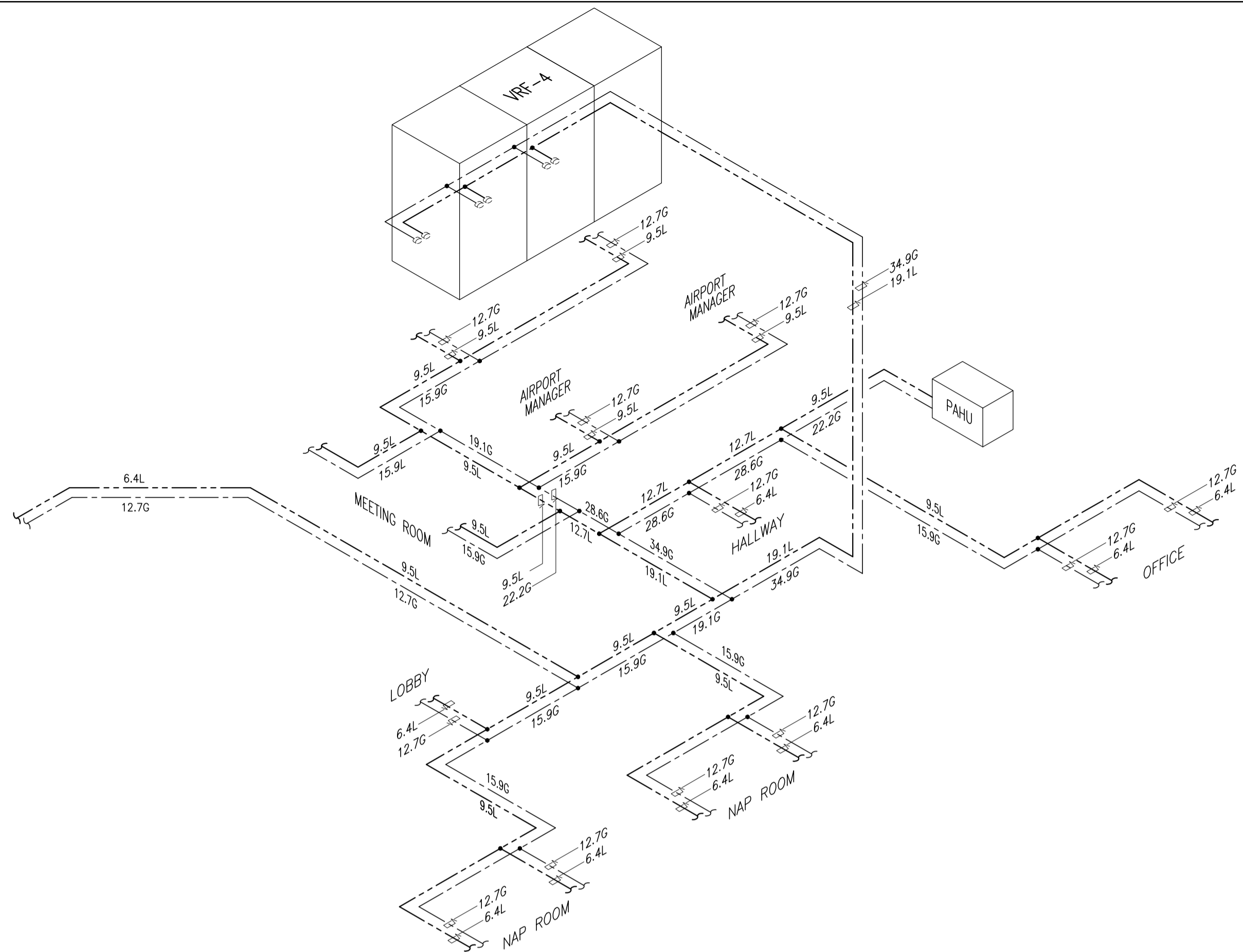
OUTDOOR UNIT			INDEX UNIT			INDOOR UNIT		
HP	GAS	LIQUID	INDEX	GAS	LIQUID	HP	GAS	LIQUID
5HP	15.9	9.5	150	15.9	9.5	20	12.7	6.4
8HP	19.1	9.5	150-200	19.1	9.5	25	12.7	6.4
10HP	22.2	9.5	200-290	22.2	9.5	32	12.7	6.4
12HP-16HP	28.6	12.7	290-420	28.6	12.7	40	12.7	6.4
18HP-22HP	28.6	15.9	420-640	28.6	12.7	50	12.7	6.4
24HP	34.9	15.9	640-920	34.9	15.9	63	15.9	9.5
26HP-34HP	34.9	19.1	920-	34.9	19.1	80	15.9	9.5
36HP-54HP	41.3	19.1	-	41.3	19.1	100	15.9	9.5
						125		



**ADMINISTRATION BUILDING  
ISOMETRIC LAYOUT LIQUID AND GAS (PART 1)**

1  
B3-5200-09 NTS

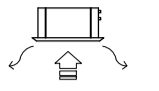
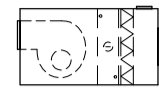
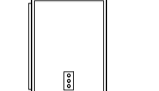
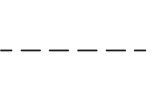
	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>PE Registered Engineer</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING ISOMETRIC LAYOUT LIQUID AND GAS (PART 1)	SHEET NO: <b>B3-5200-09</b>
	JICA DESIGN CONSULTANT JOINT VENTURE <b>JAC</b> JAPAN AIRPORT CONSULTANTS, INC.	TADASHI AOI <small>Team Leader</small>					DRAWING SCALE: <b>NTS</b>



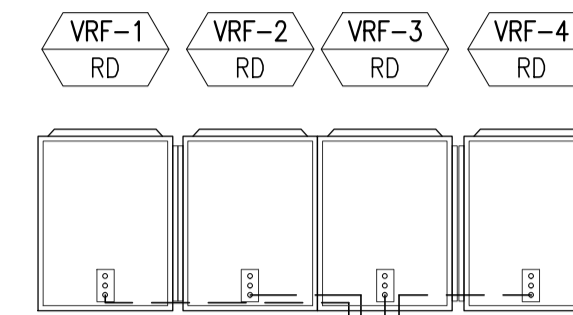
ADMINISTRATION BUILDING  
ISOMETRIC LAYOUT LIQUID AND GAS (PART 2)

1  
B3-5200-10 NTS

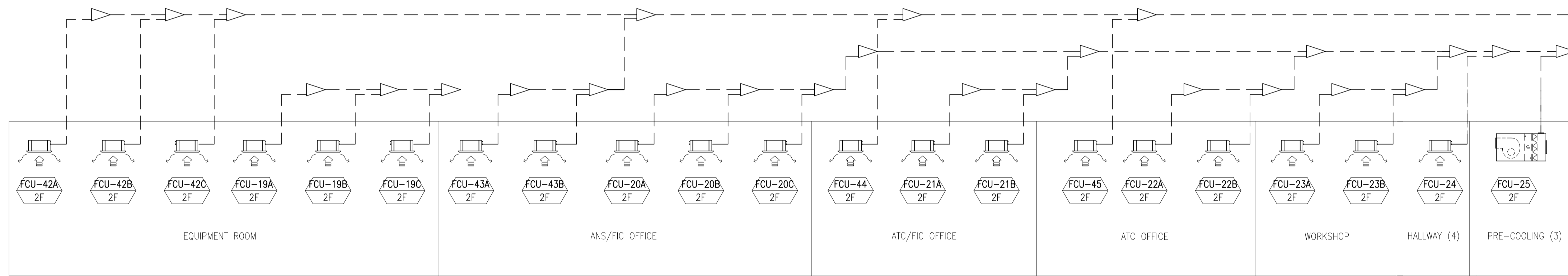
	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>PEIR Registered Engineer</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING	SHEET NO: <b>B3-5200-10</b>
	<small>PROJ: MECHANICAL ENGINEER PIR. 1725187          REC. NO: 2379 DATE: JANUARY 01, 2013          PLAN: 150-963-379 PLACE: TAGBILARAN CITY</small>	<b>TADASHI AOI</b> <small>Team Leader</small>	<b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	DATE: JUNE 2013 INDEX: - AMENDMENTS: - Prepared by: WIM Checked by: HC Validated by:	DRAWING SCALE: <b>NTS</b>

LEGEND:	
	VRF INDOOR UNIT (CEILING CASSETTE FAN COIL UNIT)
	DIRECT EXPANSION AIR HANDLING UNIT
	VRF OUTDOOR UNIT (AIR-COOLED TYPE)
	REFRIGERANT PIPING (SUCTION AND LIQUID LINE)

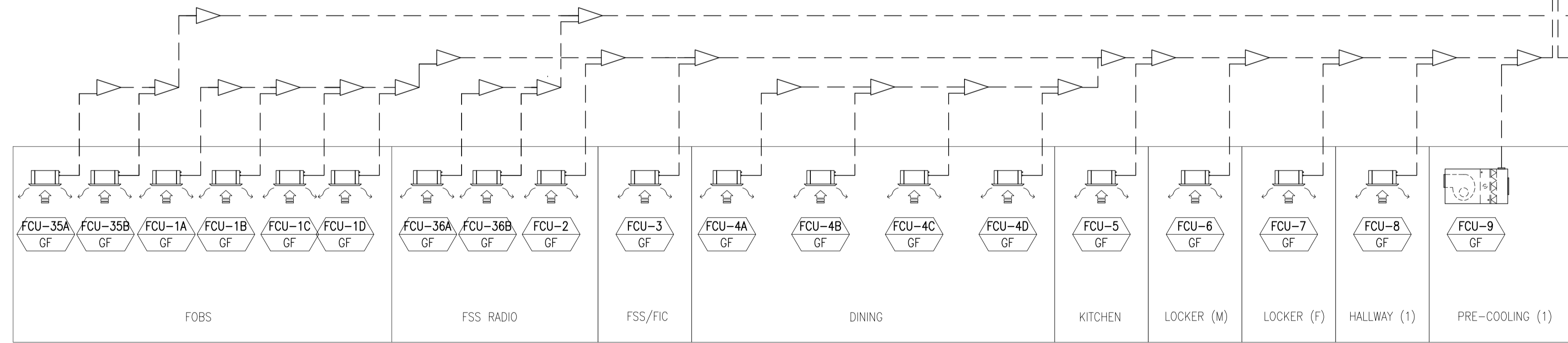
ROOF DECK



SECOND FLOOR




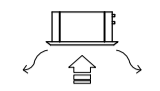
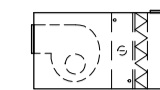
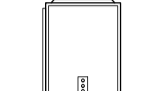
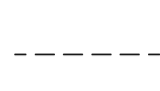
GROUND FLOOR

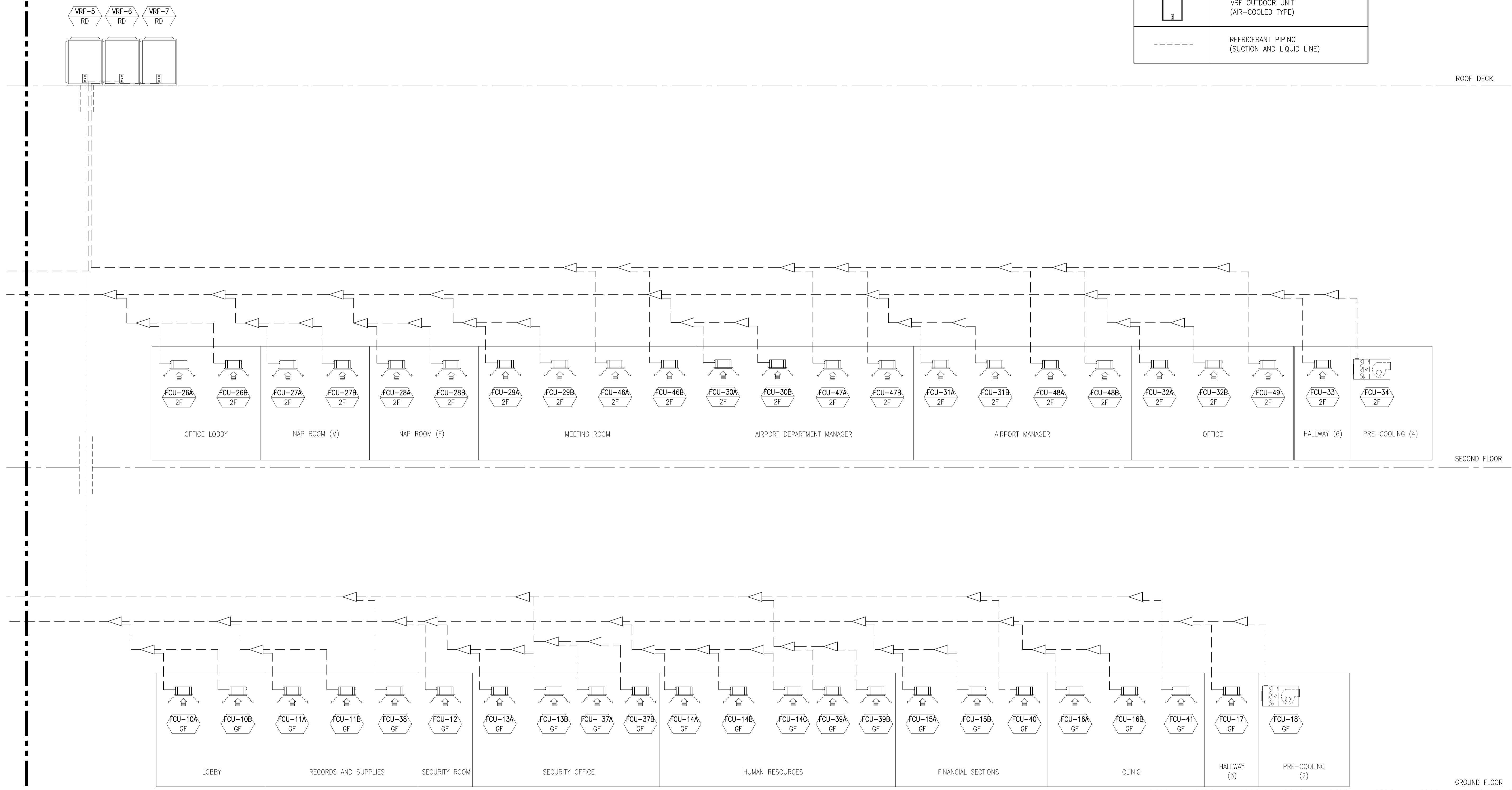


1 GROUND FLOOR & SECOND FLOOR REFRIGERANT PIPING SCHEMATIC DIAGRAM (PART 1)  
B3-5200-11 NTS









MATCHLINE A  
MATCHLINE B

	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>PE, MECHANICAL ENGINEER, PIR. 1725187</small> <small>REG. NO.: 2379 DATE: JANUARY 01, 2013</small> <small>T.N. 150-563-379 PLACE: TAGBILAR CITY</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING	SHEET NO: <b>B3-5200-11</b>
	JICA DESIGN CONSULTANT JOINT VENTURE <b>TADASHI AOI</b> <small>Team Leader</small>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	DATE: JUNE 2013 INDEX: AMENDMENTS: Prepared by: WIM, Checked by: HC, Validated by:	DRAWING SCALE: <b>NTS</b>		

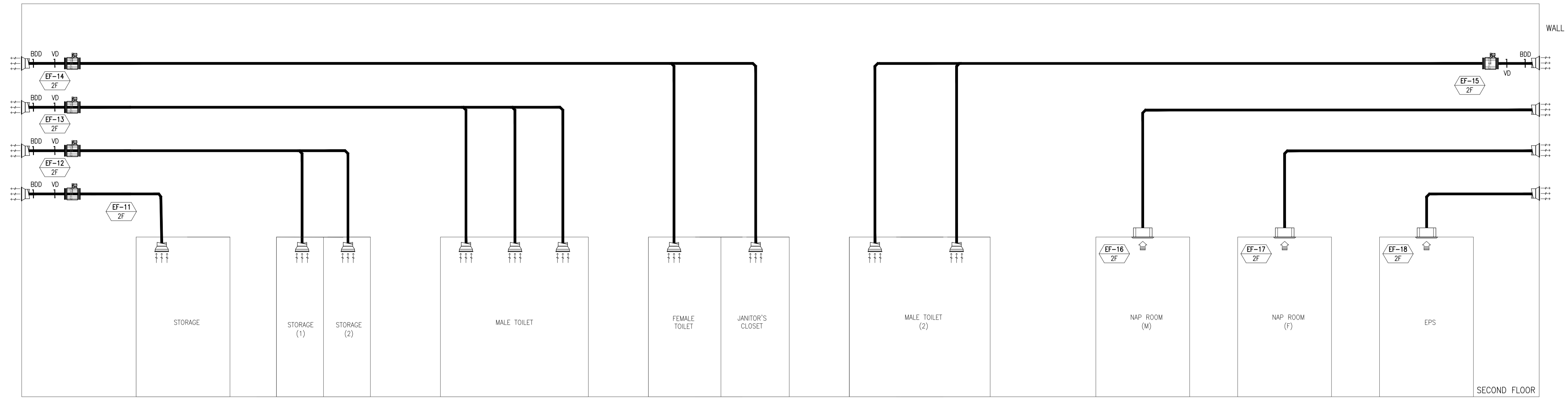
LEGEND:	
	VRF INDOOR UNIT (CEILING CASSETTE FAN COIL UNIT)
	DIRECT EXPANSION AIR HANDLING UNIT
	VRF OUTDOOR UNIT (AIR-COOLED TYPE)
	REFRIGERANT PIPING (SUCTION AND LIQUID LINE)



**1** GROUND FLOOR & SECOND FLOOR REFRIGERANT PIPING SCHEMATIC DIAGRAM (PART 2)  
B3-5200-12 NTS

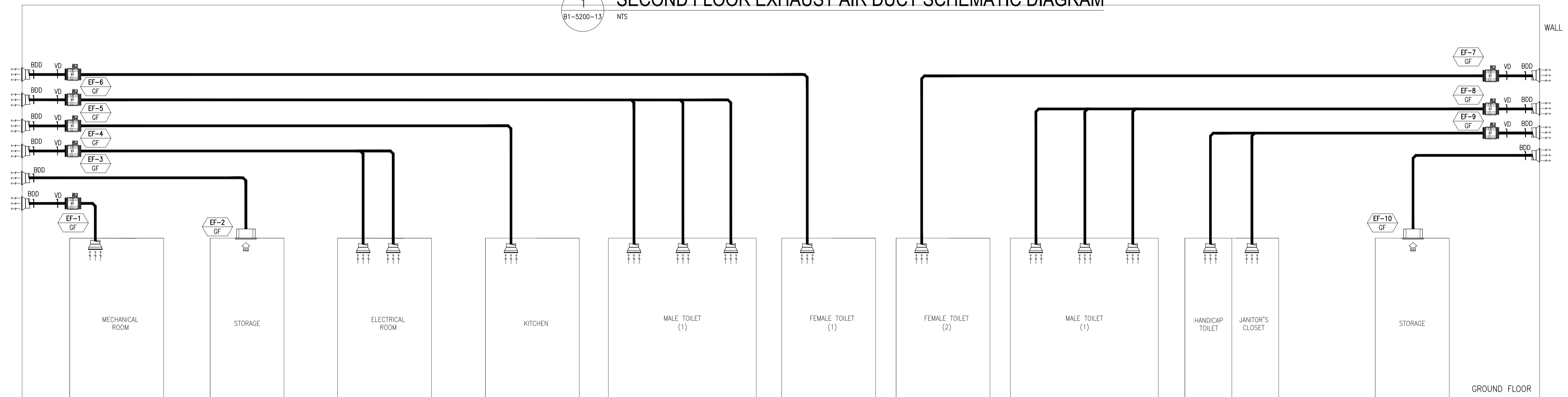
 JICA DESIGN CONSULTANT JOINT VENTURE   	 JAPAN INTERNATIONAL COOPERATION AGENCY	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small> <small>PROF: MECHANICAL ENGINEER PIR. 1725187</small> <small>REG. NO.: 2378 DATE: JANUARY 01, 2013</small> <small>T.I.N. 150-563-378 PLACE: TAGBILAR CITY</small>	RECOMMENDING APPROVAL:  <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED:  <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE:  <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING	SHEET NO: <b>B3-5200-12</b>
		JICA DESIGN CONSULTANT JOINT VENTURE   		TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX: - AMENDMENTS: -	Prepared by: WIM Checked by: HC Validated by:

MECHANICAL VENTILATION AND AIR-CONDITIONING  
GROUND FLOOR & SECOND FLOOR REFRIGERANT PIPING  
SCHEMATIC DIAGRAM (PART 2)



CTO AND ADMINISTRATION BUILDING  
SECOND FLOOR EXHAUST AIR DUCT SCHEMATIC DIAGRAM

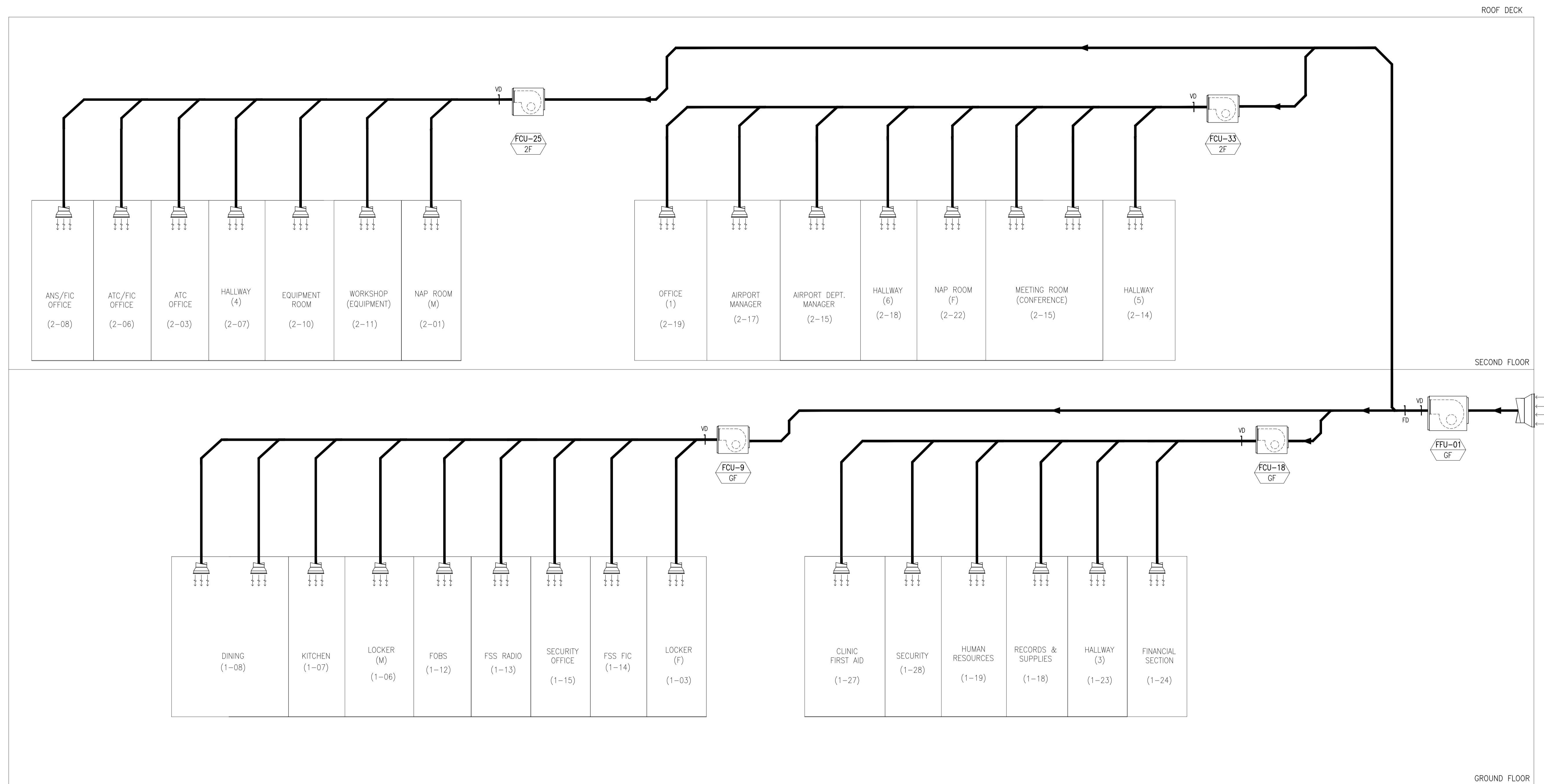
1  
B1-5200-13 NTS



CTO AND ADMINISTRATION BUILDING  
GROUND FLOOR EXHAUST AIR DUCT SCHEMATIC DIAGRAM

2  
B1-5200-13 NTS

	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small> <small>PROF: MECHANICAL ENGINEER PIR. 1725187</small> <small>REG. NO.: 2379 DATE: JANUARY 01, 2013</small> <small>T.I.N. 150-963-379 PLACE: TAGBILAR CITY</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING EXHAUST AIR DUCT SCHEMATIC DIAGRAM	SHEET NO: <b>B3-5200-13</b> DRAWING SCALE: <b>NTS</b>
	JICA DESIGN CONSULTANT JOINT VENTURE <small>JAC JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.</small>	DATE: JUNE 2013 INDEX: AMENDMENTS Prepared by: WIM Checked by: HC Validated by:				



1  
 B1-5200-14 NTS

**CTO AND ADMINISTRATION BUILDING  
 FRESH AIR DUCT SCHEMATIC DIAGRAM**

	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Mechanical Engineer, PIR. 1725187</small> <small>REG. NO.: 2379 DATE: JANUARY 01, 2013</small> <small>T.N. 150-563-379 PLACE: TAGBILAR CITY</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET NO: <b>B3-5200-14</b>
SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING FRESH AIR DUCT SCHEMATIC DIAGRAM					DRAWING SCALE: <b>NTS</b>
JICA DESIGN CONSULTANT JOINT VENTURE <small>Republic of the Philippines DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS</small> <small>JAPAN INTERNATIONAL COOPERATION AGENCY</small> <small>JAC JAPAN AIRPORT CONSULTANTS, INC.</small> <small>NIPON KOEI CO., LTD.</small> <small>NIS CONSULTANTS CO., LTD.</small>					DATE INDEX AMENDMENTS JUNE 2013 Prepared by: WIM Checked by: HC Validated by:

**CONTROL TOWER  
SPLIT TYPE AIRCONDITIONING UNIT:**

UNIT DESIGNATION		EQUIPMENT	AREA SERVED	LEVEL	QUANTITY	EQUIPMENT		REFRIGERANT	POWER INPUT ( W )	ELECTRICAL CHARACTERISTICS			TYPE	REMARKS
INDOOR	OUTDOOR					TOTAL COOLING CAPACITY ( KW )	AIR FLOWRATE ( lps )			VOLTS	PHASE	HERTZ		
FCU-1A 9F	ACCU-1A 8F	SPLIT TYPE AC UNIT	VFR ROOM	9TH FLOOR	1	10.25	466	R410A	4510	230	3	60	CEILING CASSETTE FAN COIL UNIT	STAND-BY/DUTY
FCU-1B 9F	ACCU-1B 8F	SPLIT TYPE AC UNIT	VFR ROOM	9TH FLOOR	1	10.25	466	R410A	4510	230	3	60	CEILING CASSETTE FAN COIL UNIT	
FCU-3A 8F	ACCU-3A 8F	SPLIT TYPE AC UNIT	READY ROOM	8TH FLOOR	1	5.3	200	R410A	2240	230	1	60	WALL MOUNTED FAN COIL UNIT	STAND-BY/DUTY
FCU-2A 9F	ACCU-2A 8F	SPLIT TYPE AC UNIT	VFR ROOM	9TH FLOOR	1	10.25	466	R410A	4510	230	3	60	CEILING CASSETTE FAN COIL UNIT	STAND-BY/DUTY
FCU-2B 9F	ACCU-2B 8F	SPLIT TYPE AC UNIT	VFR ROOM	9TH FLOOR	1	10.25	466	R410A	4510	230	3	60	CEILING CASSETTE FAN COIL UNIT	
FCU-3B 8F	ACCU-3B 8F	SPLIT TYPE AC UNIT	READY ROOM	8TH FLOOR	1	5.3	200	R410A	2240	230	1	60	WALL MOUNTED FAN COIL UNIT	STAND-BY/DUTY

**STAIRWELL PRESSURIZATION FAN:**

UNIT DESIGNATION	EQUIPMENT	AREA SERVED	QUANTITY	EQUIPMENT AIRFLOW ( lps )	STATIC PRESSURE ( Pa )	POWER INPUT ( W )	ELECTRICAL CHARACTERISTICS			TYPE OF FAN	REMARKS
							VOLTS	PHASE	HERTZ		
SPF-1 7F	PRESSURIZATION FAN	CONTROL TOWER STAIRWELL	1	1056	200	750	230	3	60	IN-LINE AXIAL FAN	DUAL MODE FOR STAIRWELL PRESSURIZATION & EXHAUST AIR

**FRESH AIR FAN:**

UNIT DESIGNATION	EQUIPMENT	AREA SERVED	QUANTITY	EQUIPMENT AIRFLOW ( lps )	STATIC PRESSURE ( Pa )	POWER INPUT ( W )	ELECTRICAL CHARACTERISTICS			TYPE OF FAN	REMARK
							VOLTS	PHASE	HERTZ		
FAF-1 7F	FRESH AIR FAN	ELEVATOR HALL	1	1364	105	550	230	3	60	IN-LINE AXIAL FAN	CONTROL TOWER FRESH AIR FAN

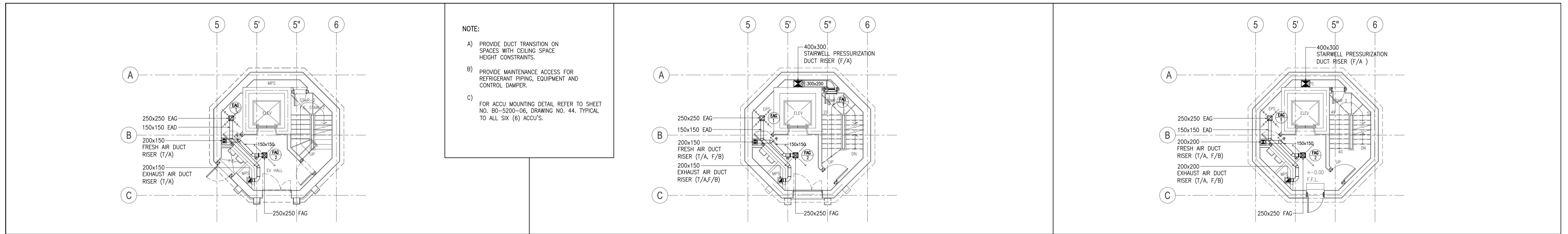
**EXHAUST FANS:**

UNIT DESIGNATION	EQUIPMENT	AREA SERVED	QUANTITY	EQUIPMENT AIRFLOW ( lps )	STATIC PRESSURE ( Pa )	POWER INPUT ( W )	ELECTRICAL CHARACTERISTICS			TYPE OF FAN	REMARK
							VOLTS	PHASE	HERTZ		
EF-1 7F	EXHAUST FAN	GF-6TH FLOOR (EPS)	1	519	175	370	230	1	60	IN-LINE AXIAL FAN	
EF-2 7F	EXHAUST FAN	7TH FLOOR (EPS)	1	356	-	47	230	1	60	WALL MOUNTED PROPELLER FAN	
EF-3 8F	EXHAUST FAN	8TH FLOOR MECH. ROOM	1	728	170	370	230	1	60	IN-LINE AXIAL FAN	
EF-4A 8F	EXHAUST FAN	8TH FLOOR (MALE TOILET)	1	15	48	30	230	1	60	CEILING CASSETTE EXFAUST FAN	
EF-4B 8F	EXHAUST FAN	8TH FLOOR (FEMALE TOILET)	1	15	48	30	230	1	60	CEILING CASSETTE EXFAUST FAN	

**AIR TERMINAL DEVICES:**

AIR TERMINAL DEVICE DESIGNATION	EQUIPMENT LOCATION	LEVEL	SERVICE	QUANTITY	TOTAL AIR FLOWRATE ( lps )	TYPE	AIR FLOWRATE PER TERMINAL DEVICE ( lps )	DIMENSION		REMARKS
								HEIGHT ( mm )	WIDTH ( mm )	
EAG-1	EPS ROOM	GROUND TO EIGHT FLOOR	EXHAUST AIR	7	605	EXHAUST AIR GRILLE	86	250	250	TWO-WAY OPPOSED BLADE W/ INTEGRAL VOLUME DAMPER
EAL-1	MPS	SEVENTH FLOOR	EXHAUST AIR	1	519	EXHAUST AIR LOUVER	519	700	450	LOW NOISE, WEATHER PROOF
EAG-2	MECH. ROOM	EIGHT FLOOR	EXHAUST AIR	4	642	EXHAUST AIR GRILLE	161	350	350	TWO-WAY OPPOSED BLADE W/ INTEGRAL VOLUME DAMPER
EAL-2	MECH. ROOM	EIGHT FLOOR	EXHAUST AIR	1	729	EXHAUST AIR LOUVER	729	900	500	LOW NOISE, WEATHER PROOF
EAL-3	MALE/FEMALE TOILET	EIGHT FLOOR	EXHAUST AIR	1	30	EXHAUST AIR LOUVER	30	200	150	LOW NOISE, WEATHER PROOF
FAG-1	STAIRWELL	SECOND TO EIGHT FLOOR	PRESSURIZATION AIR	4	1056	FRESH AIR GRILLE	264	500	400	TWO-WAY OPPOSED BLADE W/ INTEGRAL VOLUME DAMPER
FAL-1	MPS	SEVENTH FLOOR	FRESH AIR	1	1056	FRESH AIR LOUVER	1056	900	850	LOW NOISE, WEATHER PROOF
FAG-2	EV HALL	GROUND TO SEVENTH FLOOR	FRESH AIR	7	605	FRESH AIR GRILLE	86	250	250	TWO-WAY OPPOSED BLADE W/ INTEGRAL VOLUME DAMPER
FAG-3	EV HALL	EIGHT FLOOR	FRESH AIR	1	117	FRESH AIR GRILLE	117	300	300	TWO-WAY OPPOSED BLADE W/ INTEGRAL VOLUME DAMPER
FAL-2	EV HALL	SEVENTH FLOOR	FRESH AIR	1	1363	FRESH AIR LOUVER	1363	1350	700	LOW NOISE, WEATHER PROOF

	PREPARED BY: <b>RENATO A. ARRIOLA</b> Filipino Registered Engineer PRF: MECHANICAL ENGINEER PIR. 1725187 REG. NO.: 2379 DATE: JANUARY 01, 2013 T.A.N. 150-563-379 PLACE: TAGBILAR CITY	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> Assistant Secretary for Project Implementation, DOTC	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> Undersecretary for Project Implementation, DOTC	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING EQUIPMENT SCHEDULE AND AIR TERMINAL DEVICE SCHEDULE	SHEET NO: <b>B3-5200-15</b> DRAWING SCALE: <b>NTS</b>
	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.	DATE: JUNE 2013 INDEX: AMENDMENTS Prepared by: WIM Checked by: HC Validated by:				



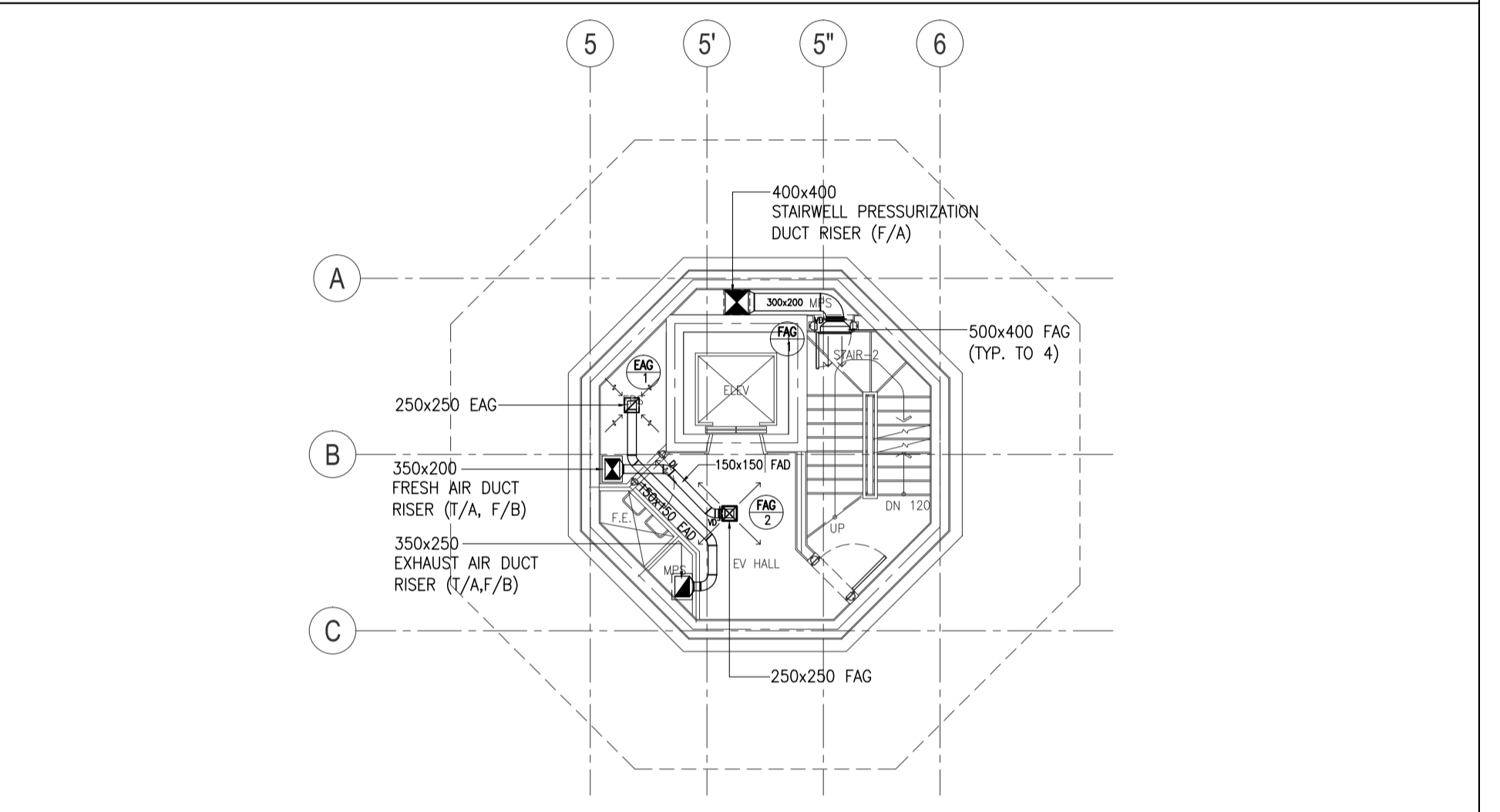
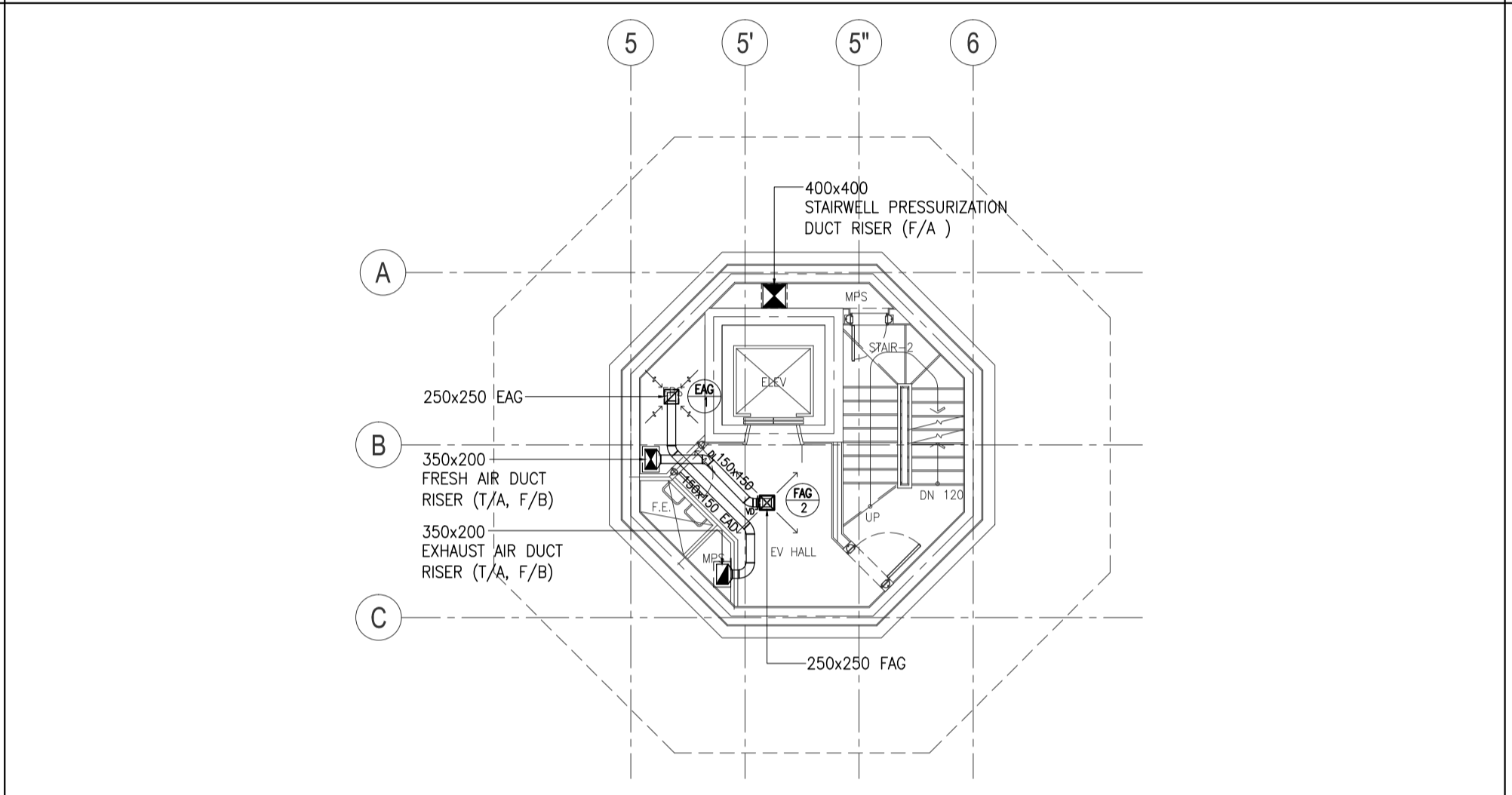
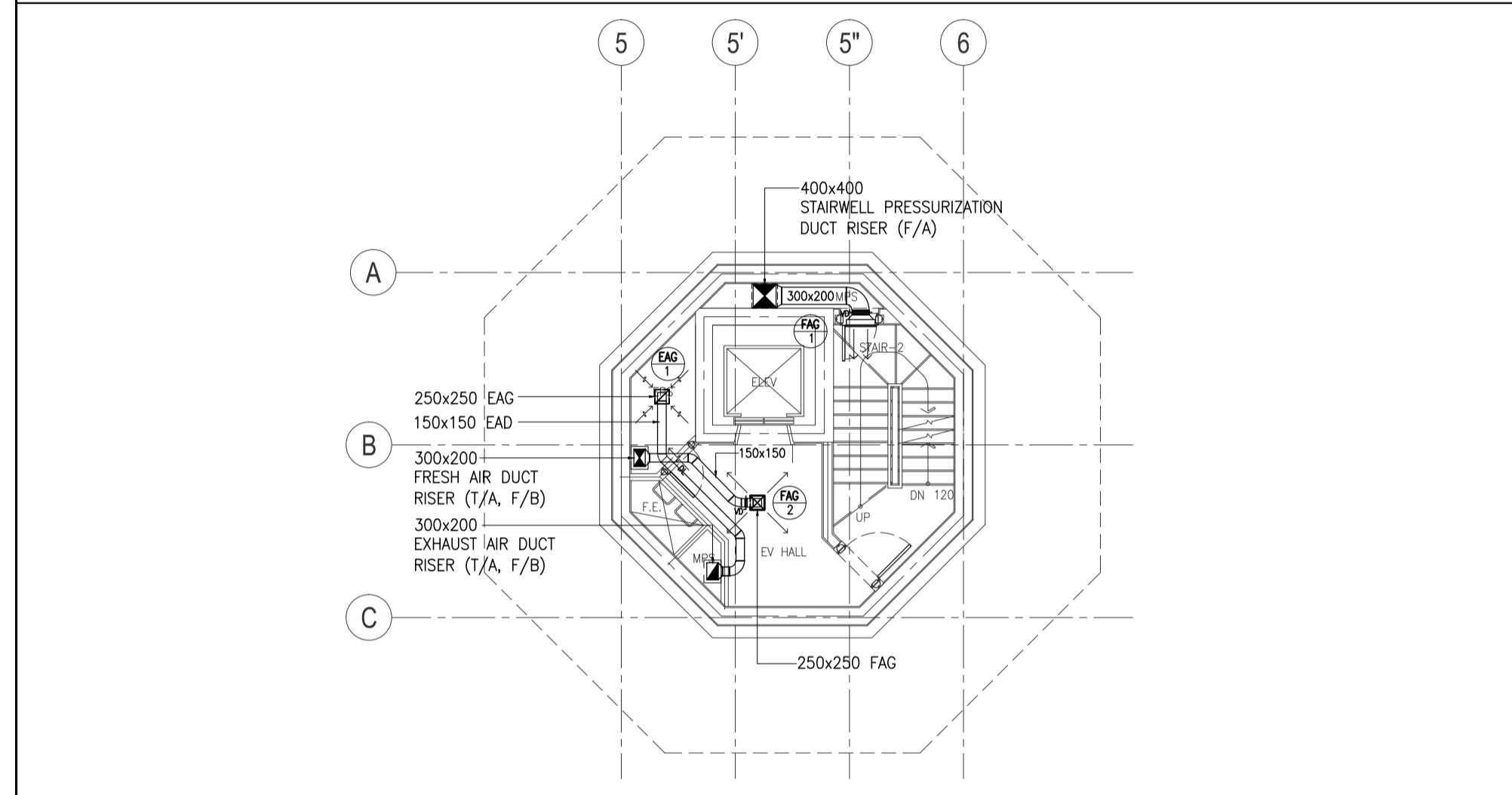
**NOTE:**

- A) PROVIDE DUCT TRANSITION ON SPACES WITH CEILING SPACE HEIGHT CONSTRAINTS.
- B) PROVIDE MAINTENANCE ACCESS FOR REFRIGERANT PIPING, EQUIPMENT AND CONTROL DAMPER.
- C) FOR ACCU MOUNTING DETAIL REFER TO SHEET NO. B0-5200-06, DRAWING NO. 44, TYPICAL TO ALL SIX (6) ACCU'S.

**1 CONTROL TOWER GROUND FLOOR AIR-CONDITIONING AND VENTILATION LAYOUT**  
 B3-5200-16 SCALE 1:100M

**2 CONTROL TOWER SECOND FLOOR AIR-CONDITIONING AND VENTILATION LAYOUT**  
 B3-5200-16 SCALE 1:100M

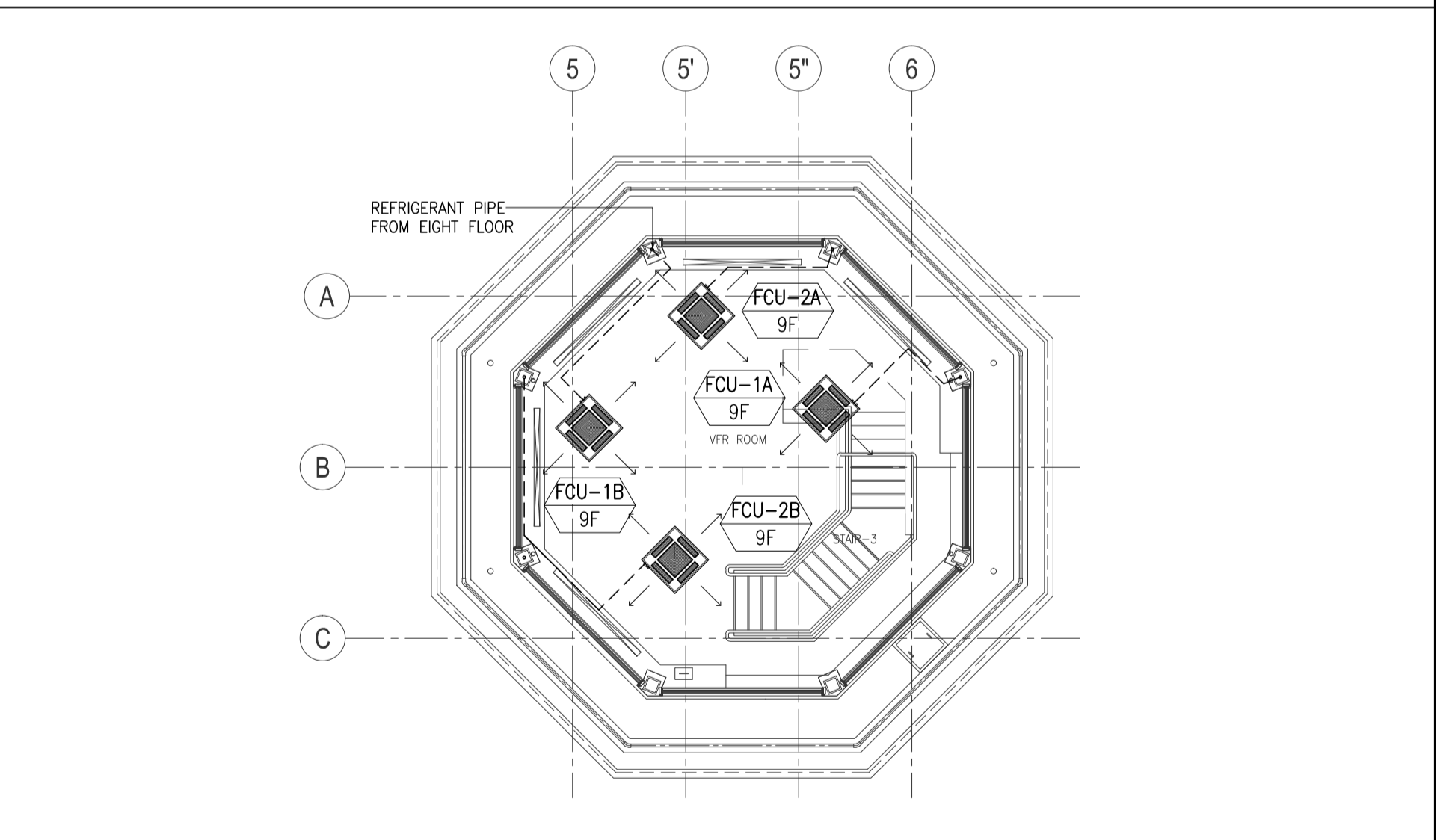
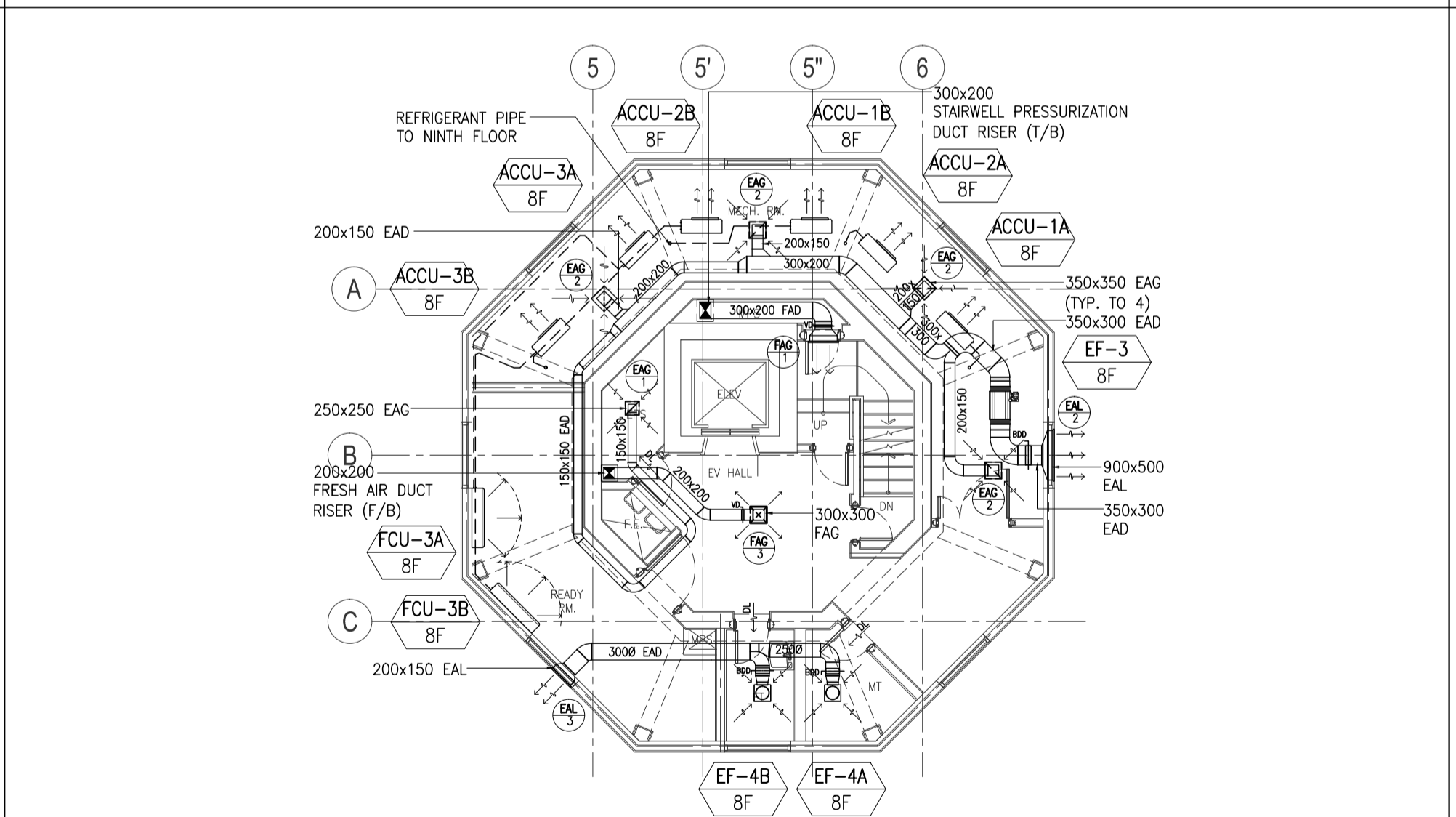
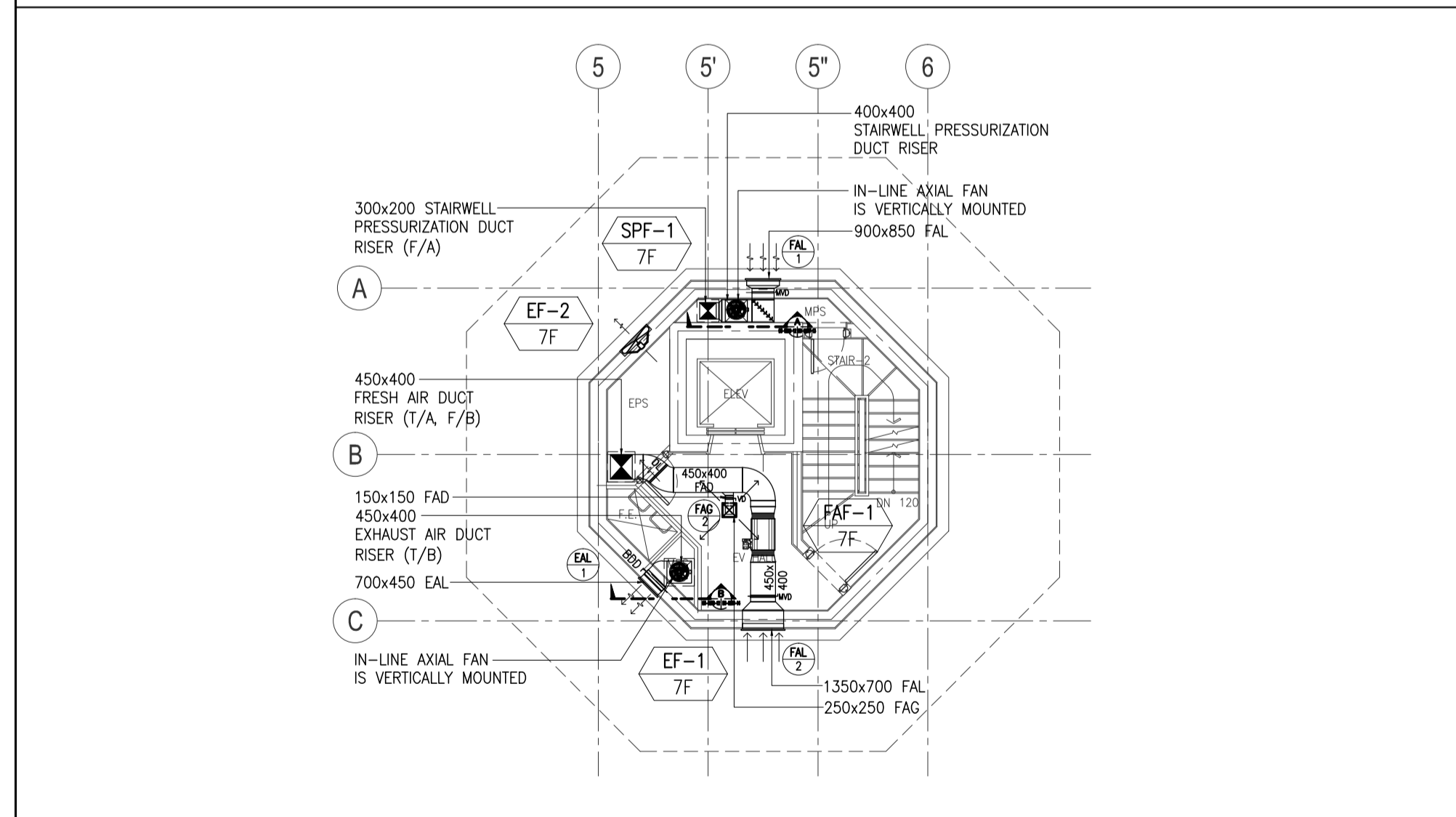
**3 CONTROL TOWER THIRD FLOOR AIR-CONDITIONING AND VENTILATION LAYOUT**  
 B3-5200-16 SCALE 1:100M



**4 CONTROL TOWER FOURTH FLOOR AIR-CONDITIONING AND VENTILATION LAYOUT**  
 B3-5200-16 SCALE 1:100M

**5 CONTROL TOWER FIFTH FLOOR AIR-CONDITIONING AND VENTILATION LAYOUT**  
 B3-5200-16 SCALE 1:100M

**6 CONTROL TOWER SIXTH FLOOR AIR-CONDITIONING AND VENTILATION LAYOUT**  
 B3-5200-16 SCALE 1:100M



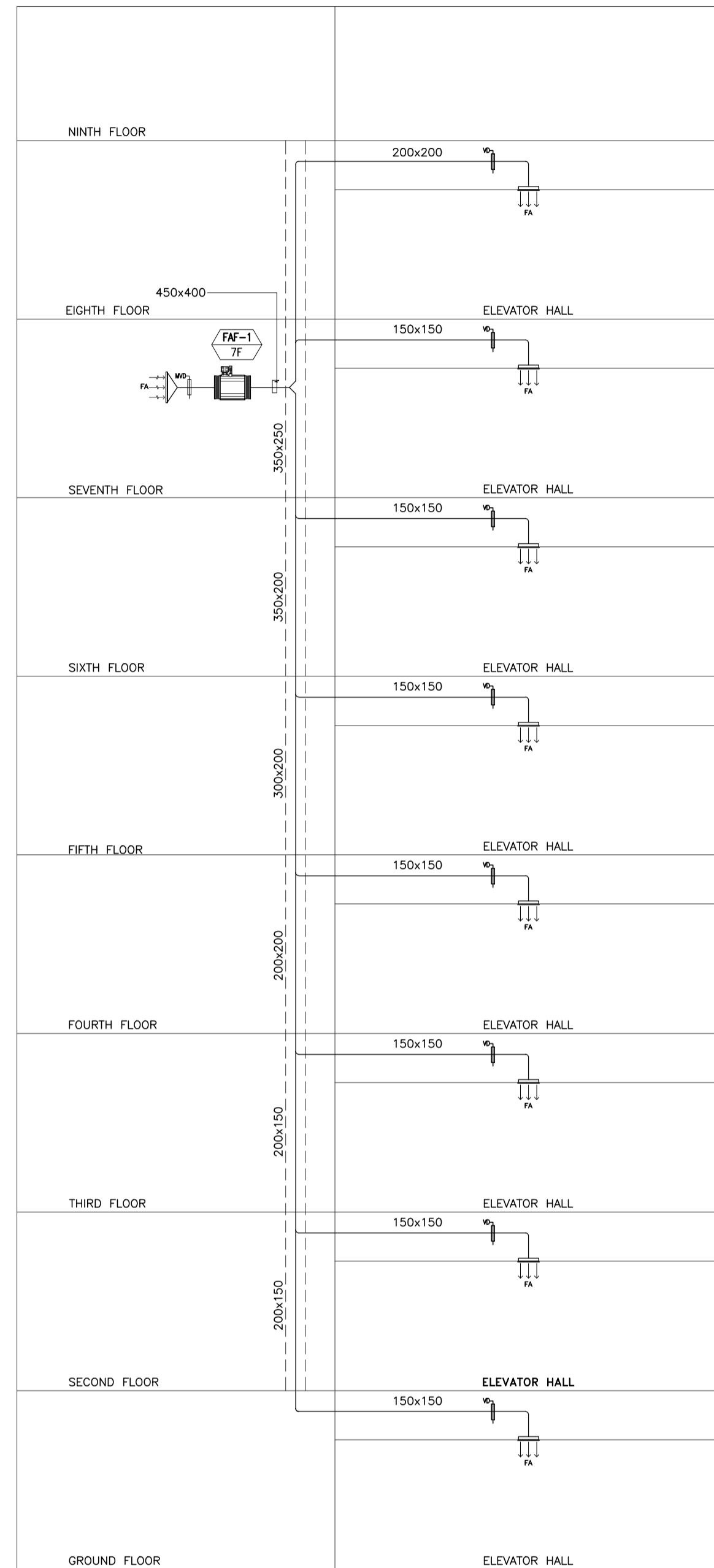
**7 CONTROL TOWER SEVENTH FLOOR AIR-CONDITIONING AND VENTILATION LAYOUT**  
 B3-5200-16 SCALE 1:100M

**8 CONTROL TOWER EIGHT FLOOR AIR-CONDITIONING AND VENTILATION LAYOUT**  
 B3-5200-16 SCALE 1:100M

**9 CONTROL TOWER NINTH FLOOR AIR-CONDITIONING AND VENTILATION LAYOUT**  
 B3-5200-16 SCALE 1:100M

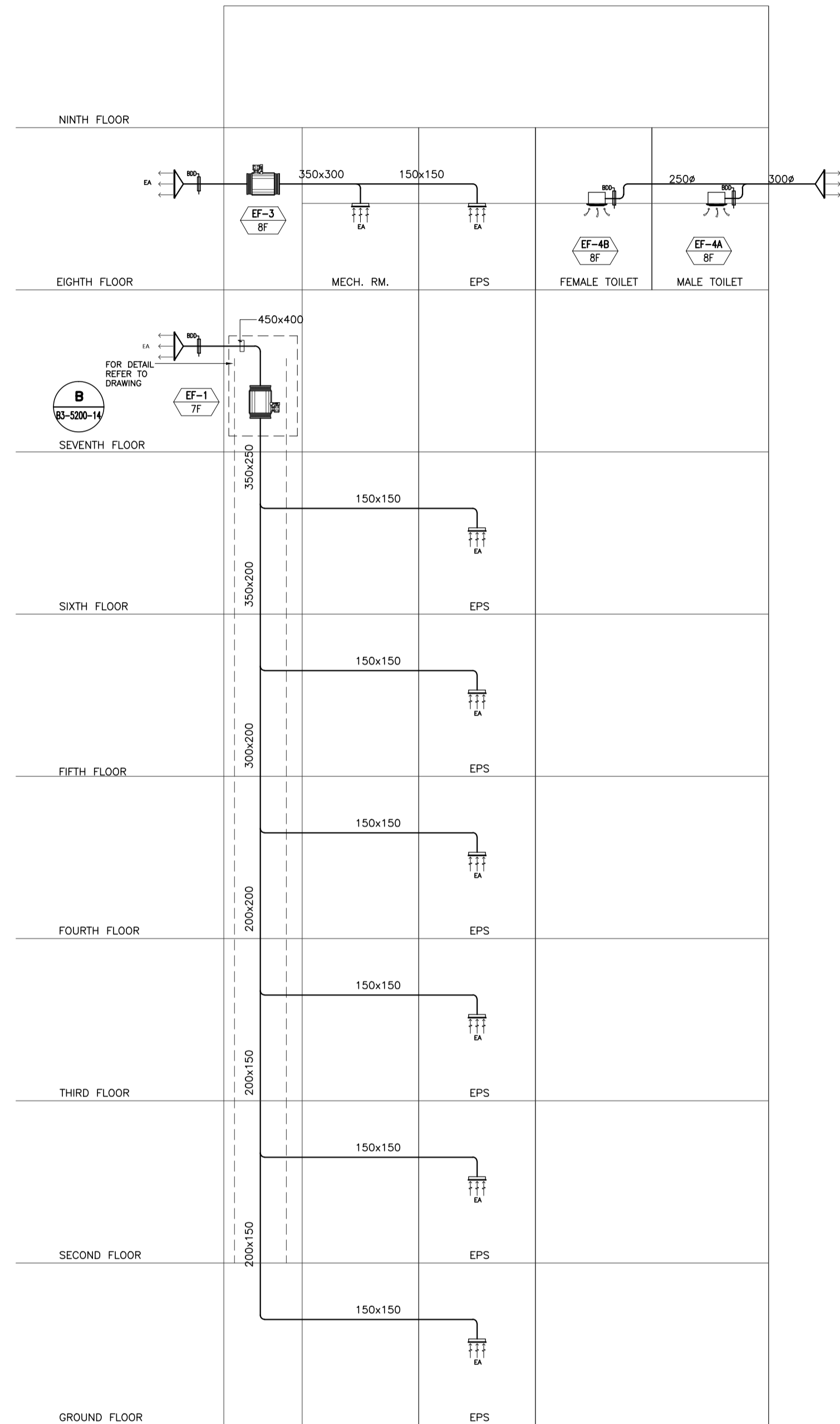
	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING	SHEET NO: <b>B3-5200-16</b>
	JICA DESIGN CONSULTANT JOINT VENTURE <b>JAC</b> JAPAN AIRPORT CONSULTANTS, INC. <b>NIPON KOEI CO., LTD.</b> <b>NIS CONSULTANTS CO., LTD.</b>	REG. NO: 2379 DATE: JANUARY 01, 2013 PLAN: 150-363-379 PLACE: TAGBILAR CITY	TADASHI AOI <small>Team Leader</small>	DATE INDEX AMENDMENTS	WIM HC <small>Prepared by Checked by Validated by</small>	MECHANICAL VENTILATION AND AIR-CONDITIONING CONTROL TOWER AIR-CONDITIONING AND VENTILATION LAYOUT	DRAWING SCALE: <b>1:100M</b>





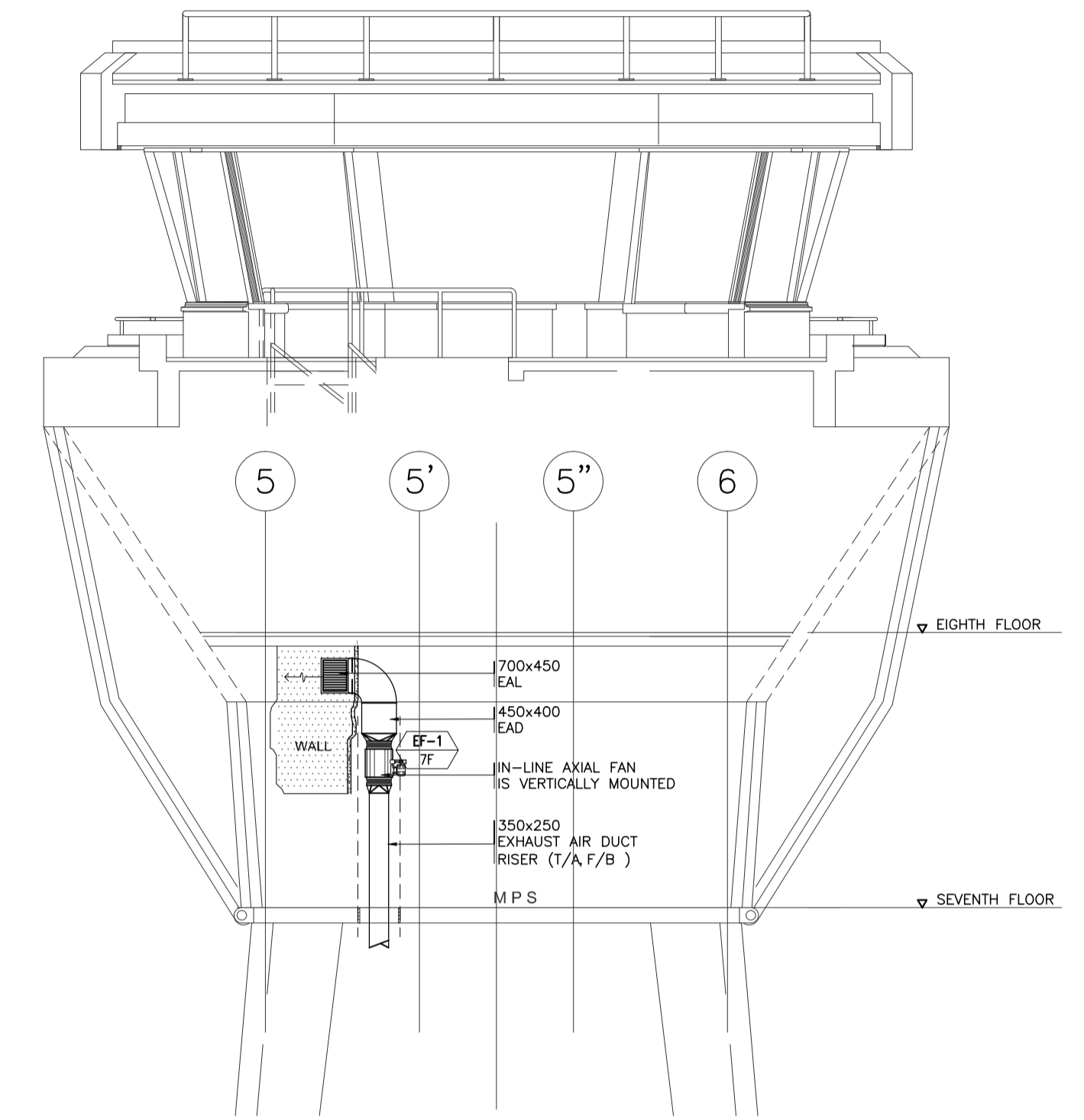
**CONTROL TOWER  
FRESH AIR DUCT SCHEMATIC DIAGRAM**

1  
B1-5200-17 NTS



**CONTROL TOWER  
EXHAUST AIR DUCT SCHEMATIC DIAGRAM**

2  
B1-5200-17 NTS



**CONTROL TOWER  
EXHAUST AIR DUCT SECTION**

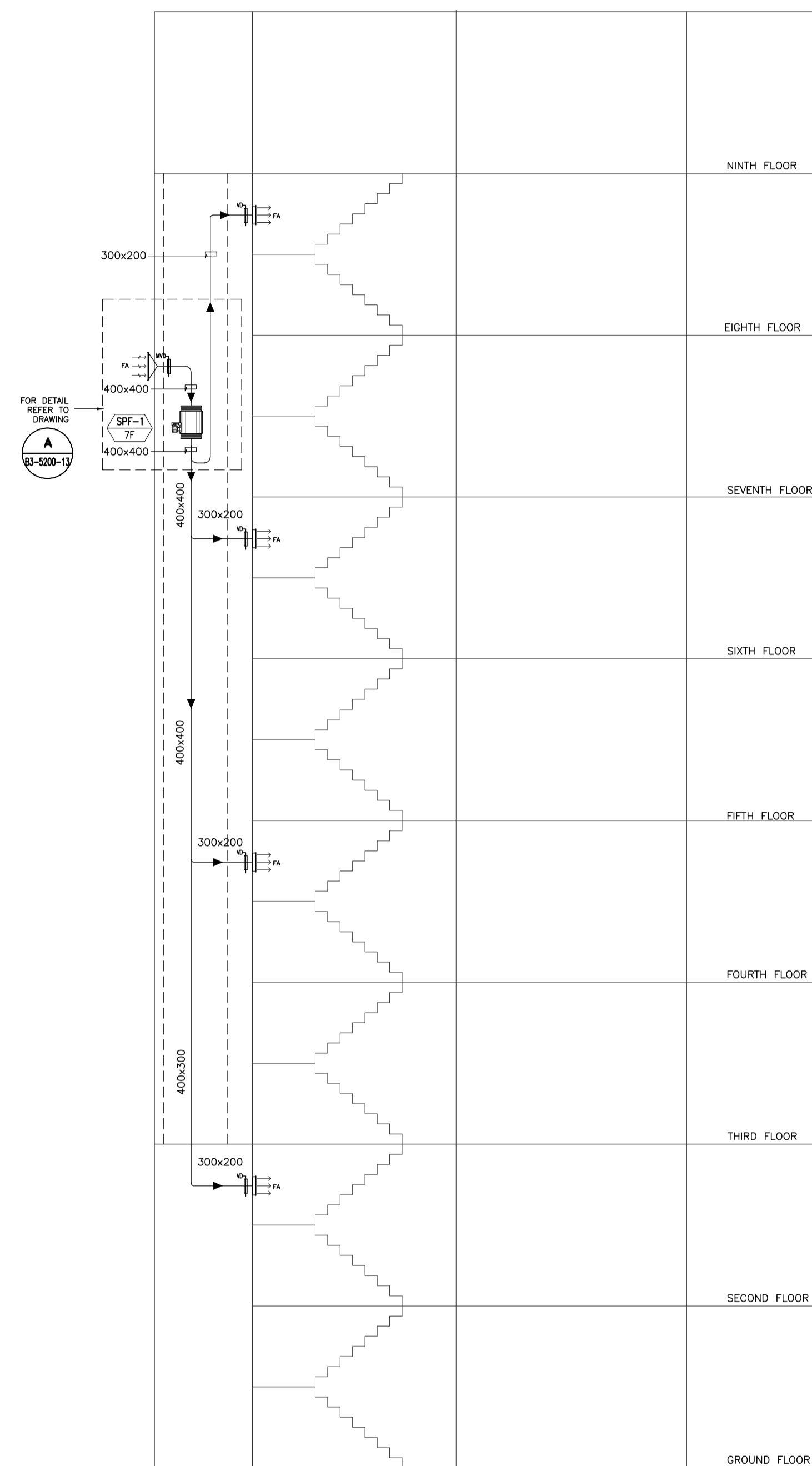
B  
B1-5200-17

SCALE

1:75M

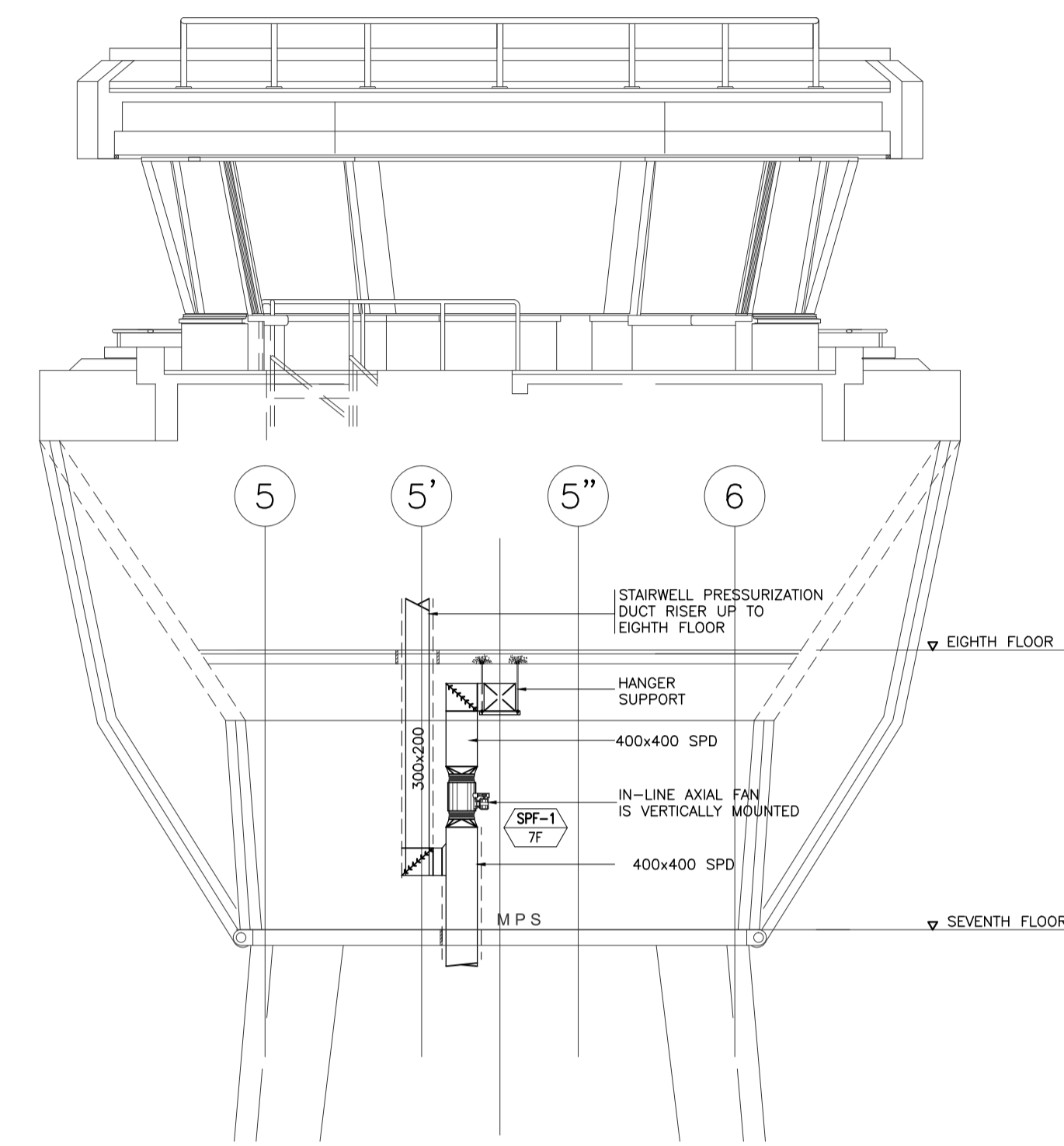
LEGEND:	
	IN-LINE AXIAL FAN
	FRESH AIR GRILLE
	EXHAUST AIR GRILLE
	MOTORIZED VOLUME CONTROL DAMPER
	BACK DRAFT DAMPER
	CEILING CASSETTE EXHAUST FAN

	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small> PROF: MECHANICAL ENGINEER PIR. 1725187 REG. NO.: 2378 DATE: JANUARY 01, 2013 T.I.N. 150-563-378 PLACE: TAGBILAR CITY	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULJANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING CONTROL TOWER FRESH AIR DUCT SCHEMATIC DIAGRAM EXHAUST AIR DUCT SCHEMATIC DIAGRAM, EXHAUST AIR DUCT SECTION	SHEET NO: <b>B3-5200-17</b> DRAWING SCALE: <b>AS SHOWN</b>
	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULJANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE INDEX AMENDMENTS JUNE 2013	Prepared by: WIM Checked by: HC Validated by:



**CONTROL TOWER STAIRWELL PRESSURIZATION SCHEMATIC DIAGRAM**

1  
B1-5200-18  
NTS



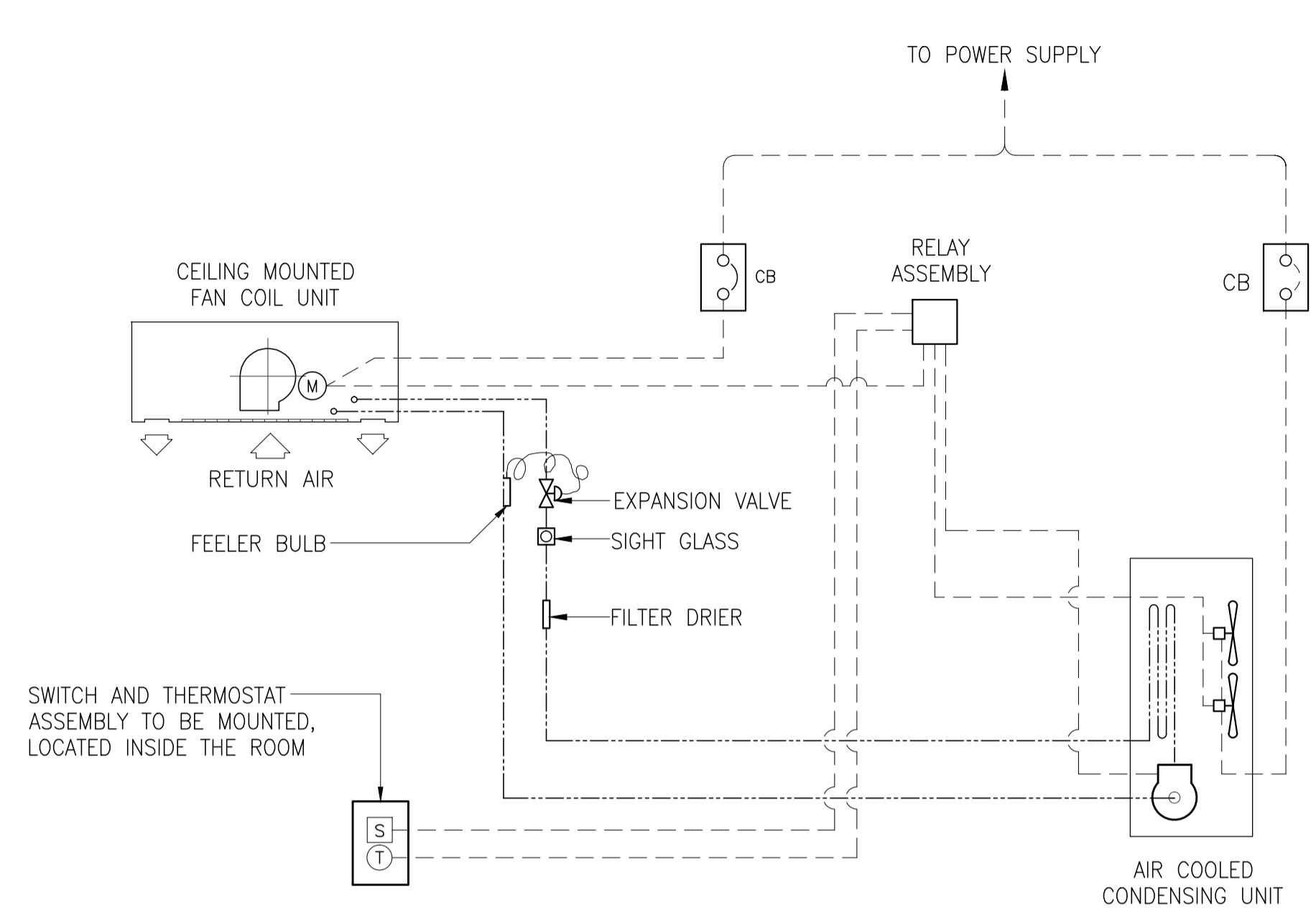
**CONTROL TOWER STAIRWELL PRESSURIZATION FAN SECTION**

A  
B1-5200-18  
SCALE

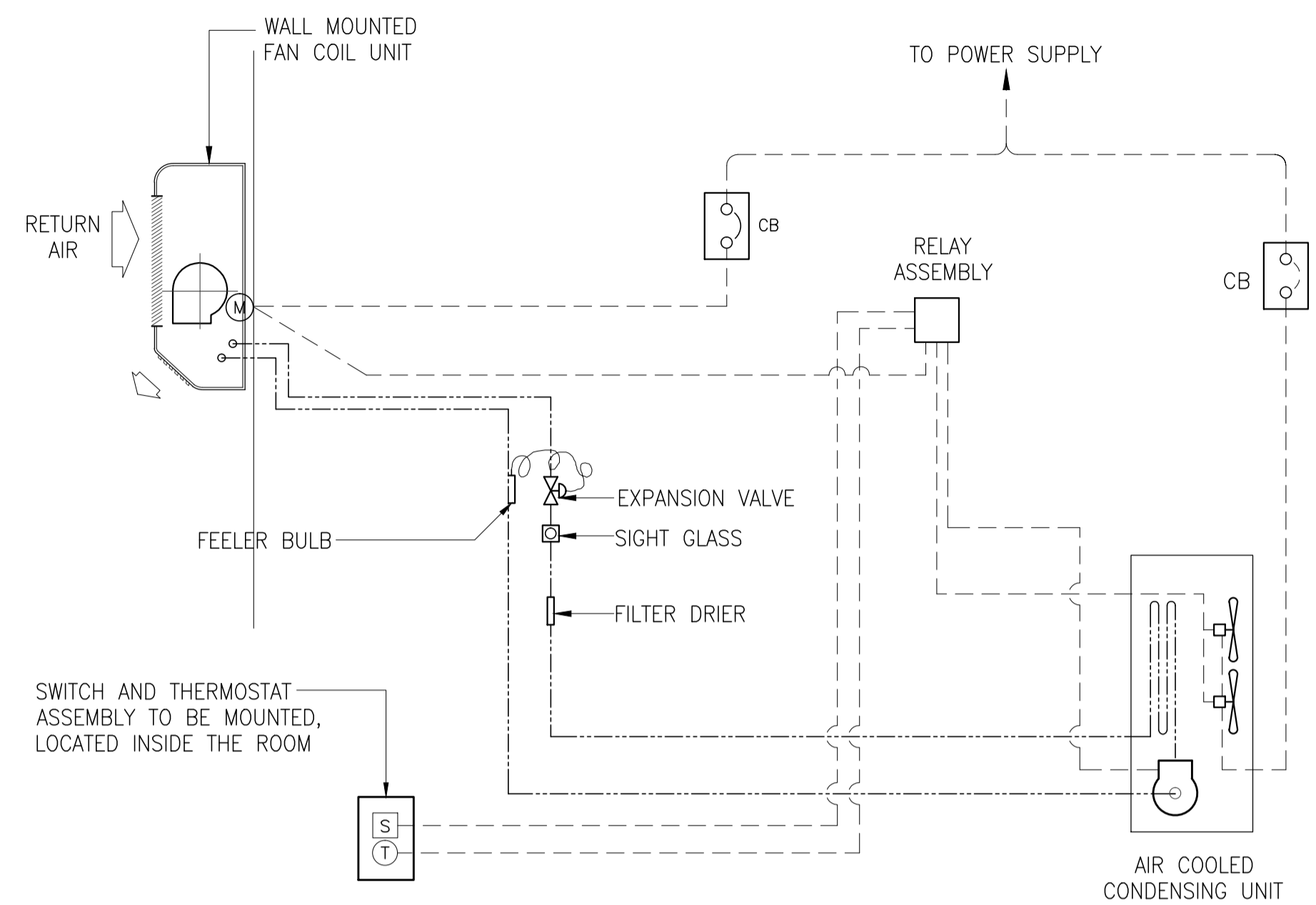
1:75M

LEGEND:	
	STAIRWELL PRESSURIZATION FAN
	STAIRWELL PRESSURIZATION GRILLE
	STAIRWELL PRESSURIZATION DUCT
	VOLUME CONTROL DAMPER

	PREPARED BY: _____ Filipino Registered Engineer	RECOMMENDING APPROVAL: _____ ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	APPROVED: _____ JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING	SHEET NO: <b>B3-5200-18</b>
	JICA DESIGN CONSULTANT JOINT VENTURE	PROF: _____ REG. NO: _____ T.I.N: _____	DATE: _____ PLACE: _____	TADASHI AOI Team Leader	DATE: JUNE 2013 INDEX: _____ AMENDMENTS: _____	Prepared by: _____ Checked by: _____ Validated by: _____	DRAWING SCALE: <b>AS SHOWN</b>



CEILING CASSETTE AIR-CONDITIONING UNIT



WALL MOUNTED AIR-CONDITIONING UNIT

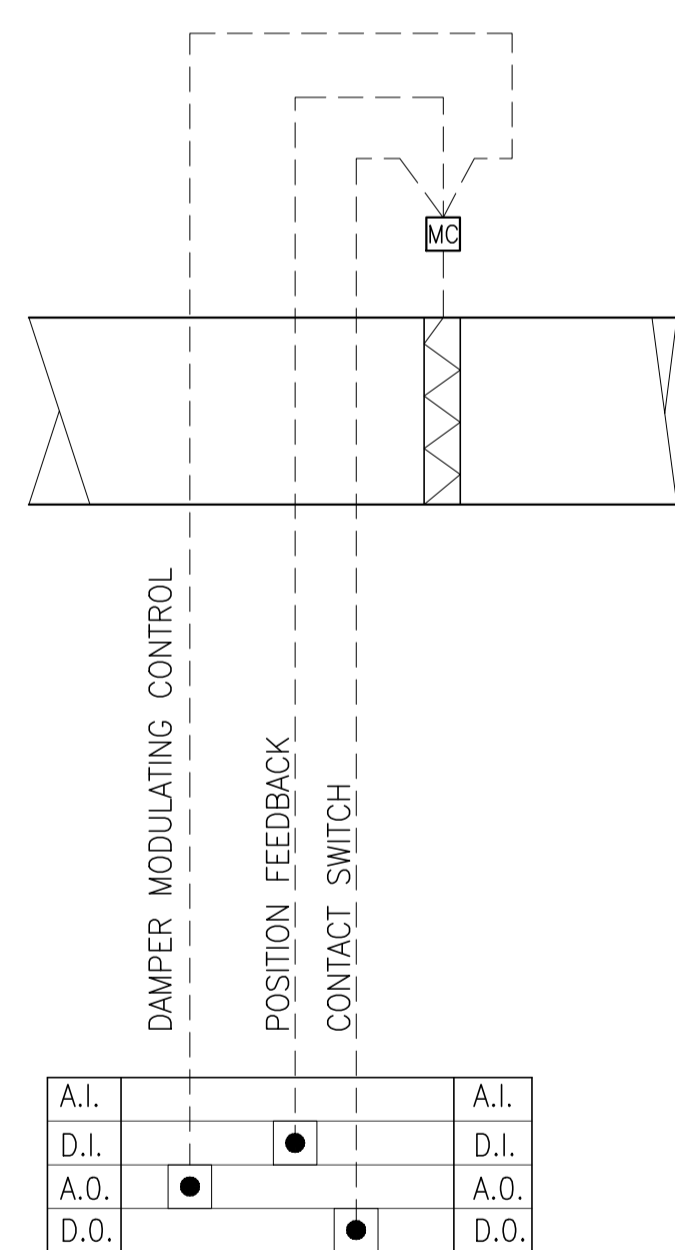
SEQUENCE OF OPERATION:

1. WHEN SWITCH (S) IS IN "OFF" POSITION, RELAY ASSEMBLY AND ALL OTHER CONTROLS ARE IN OFF POSITION.
2. WHEN SWITCH IS PUT IN ON POSITION, CONTROL RELAY ASSEMBLY WILL BE DE-ENERGIZED STARTING THE OPERATION OF THE FOLLOWING MOTOR IN SEQUENCE.
  - A. FAN COIL UNIT EVAPORATOR FAN
  - B. AIR COOLED CONDENSING UNIT AFTER 3 TO 5 MINUTES DELAY
3. THERMOSTAT (T) SHALL SENSE THE AVERAGE RETURN AIR TEMPERATURE AND SHALL OPERATE THE COMPRESSOR. THERMOSTAT SHALL BE SET AT 24°C.

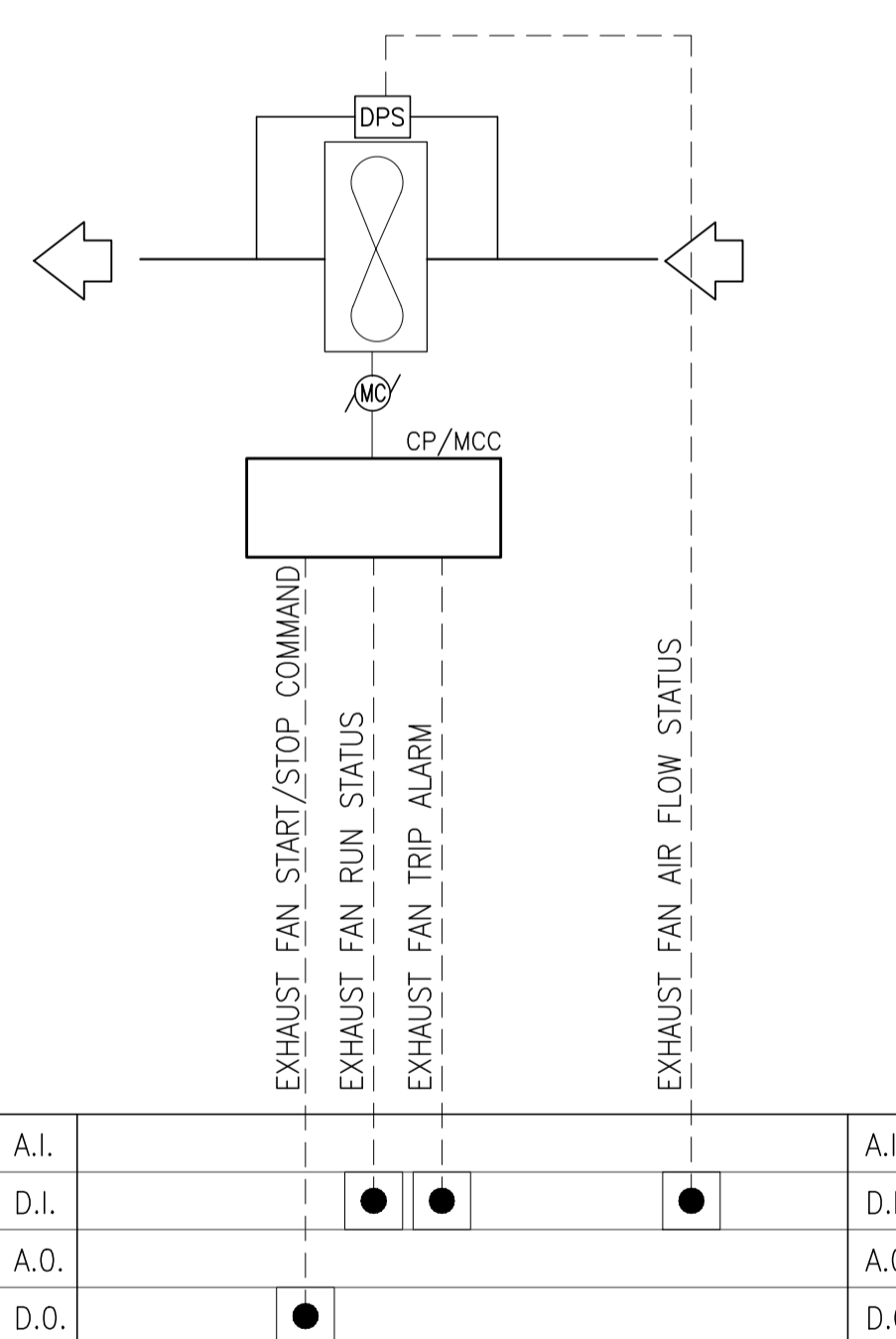
NOTE :

CIRCUIT BREAKER SIZE SHALL BE IN ACCORDANCE WITH THE RECOMMENDATION OF THE ACCU MANUFACTURER.

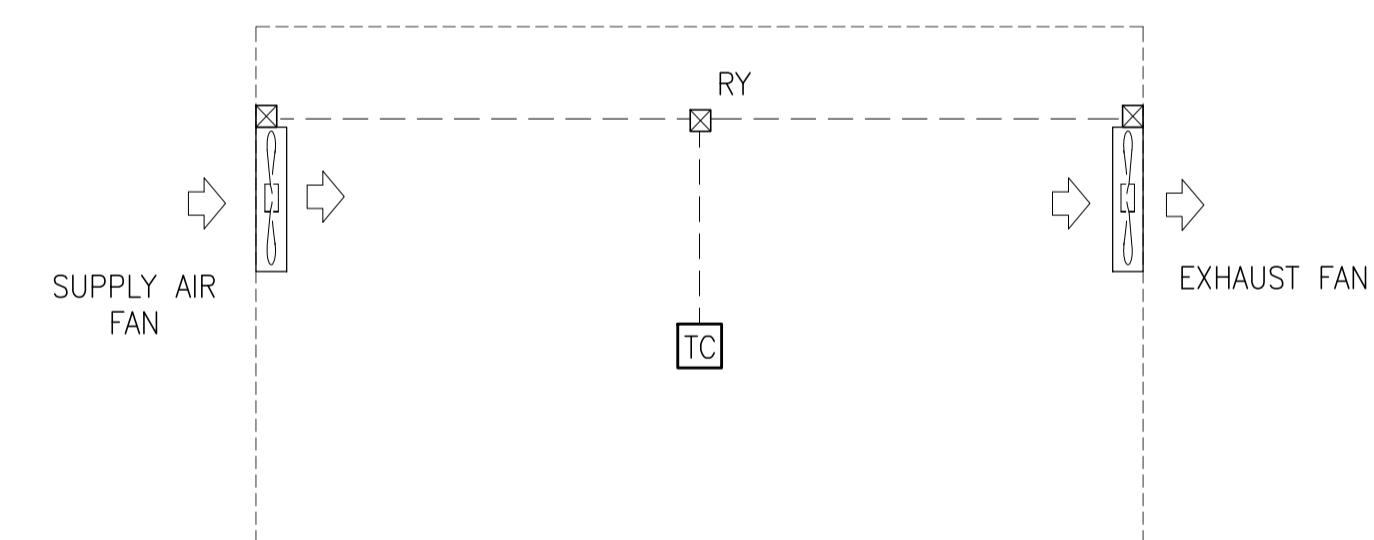
1  
B3-5200-19 NTS  
**SPLIT TYPE FCU CONTROL DIAGRAM**



2  
B3-5200-19 NTS  
**MOTORIZED DAMPER CONTROL DIAGRAM**



3  
B3-5200-19 NTS  
**FAN MOTOR CONTROL DIAGRAM**

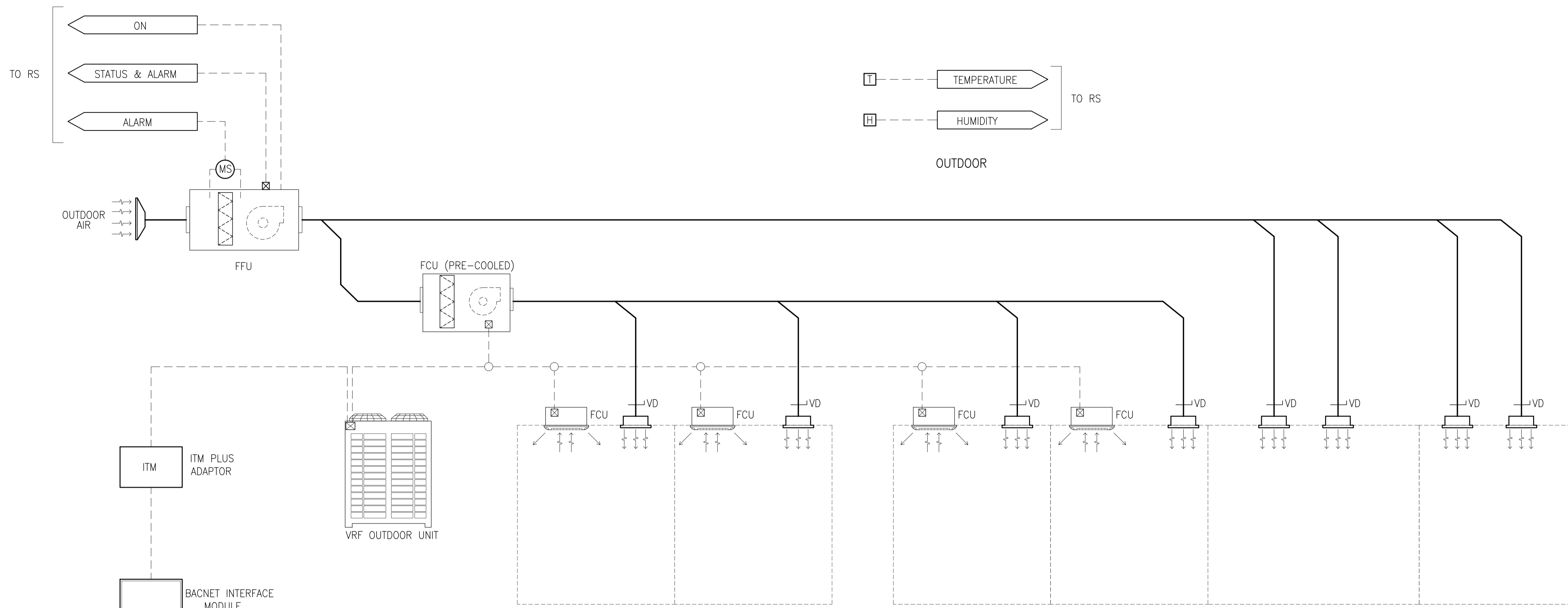


LEGENDS

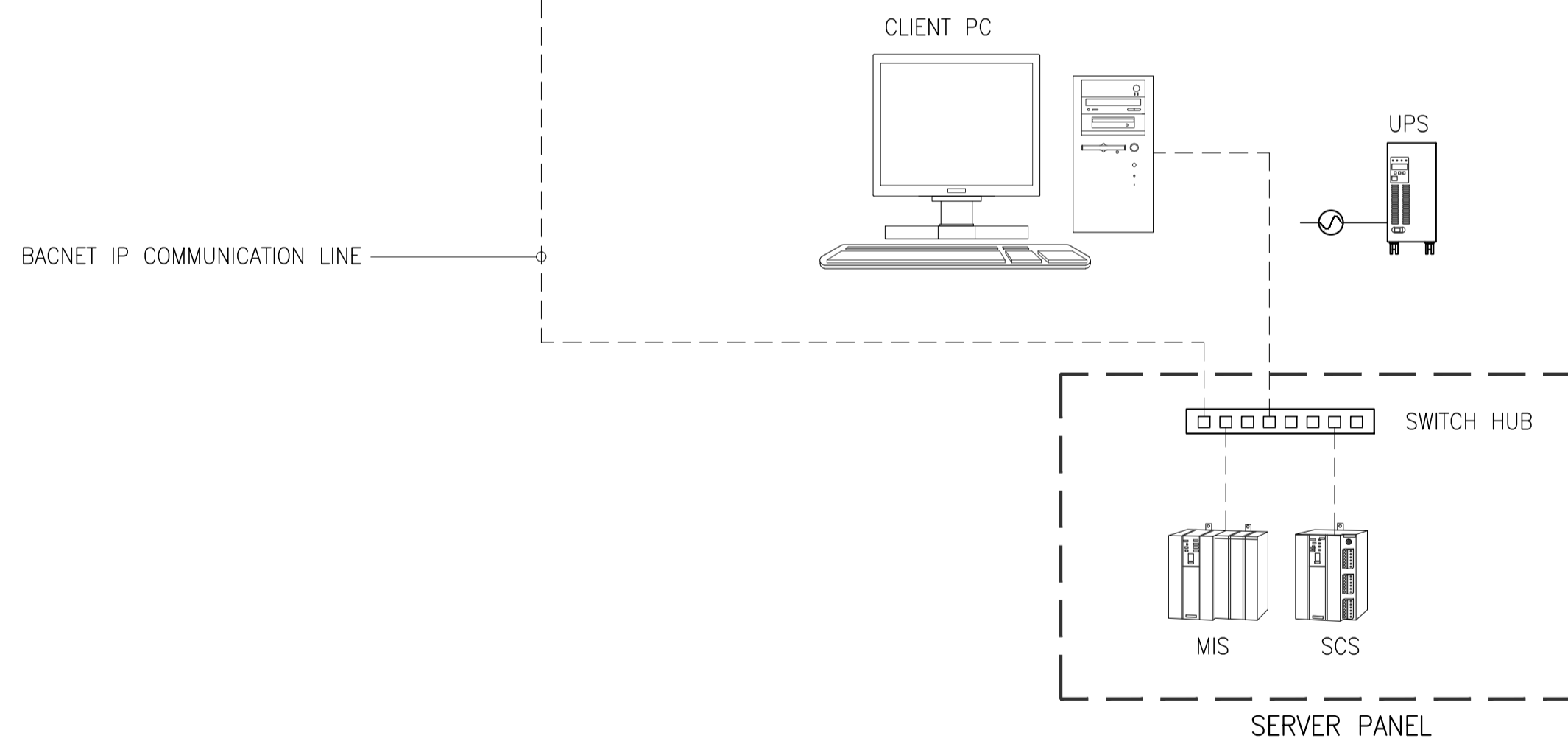
SYMBOL	DESCRIPTION	MODEL
TC	THERMOSTAT	TY63002500
RY	AUXILLIARY RELAY	HH54P

4  
B3-5200-19 NTS  
**SUPPLY AIR FAN AND EXHAUST FAN CONTROL DIAGRAM**

	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Philippine Registered Engineer</small> PROF. MECHANICAL ENGINEER I.P.R. 1725187 REG. NO. 2379 DATE: JANUARY 01, 2013 T.N. 150-563-379 PLACE: TAGUIG CITY	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL VENTILATION AND AIR-CONDITIONING AUTOMATIC CONTROL SYSTEM (PART A)	SHEET NO: <b>B3-5200-19</b> DRAWING SCALE: <b>NTS</b>
	JICA DESIGN CONSULTANT JOINT VENTURE <b>JAC</b> JAPAN AIRPORT CONSULTANTS, INC. <b>NIPON KOEI CO., LTD.</b> <b>NIS CONSULTANTS CO., LTD.</b>	JUNE 2013 DATE INDEX AMENDMENTS Prepared by: WIM HC Checked by: Validated by:				



MECHANICAL  
BMS

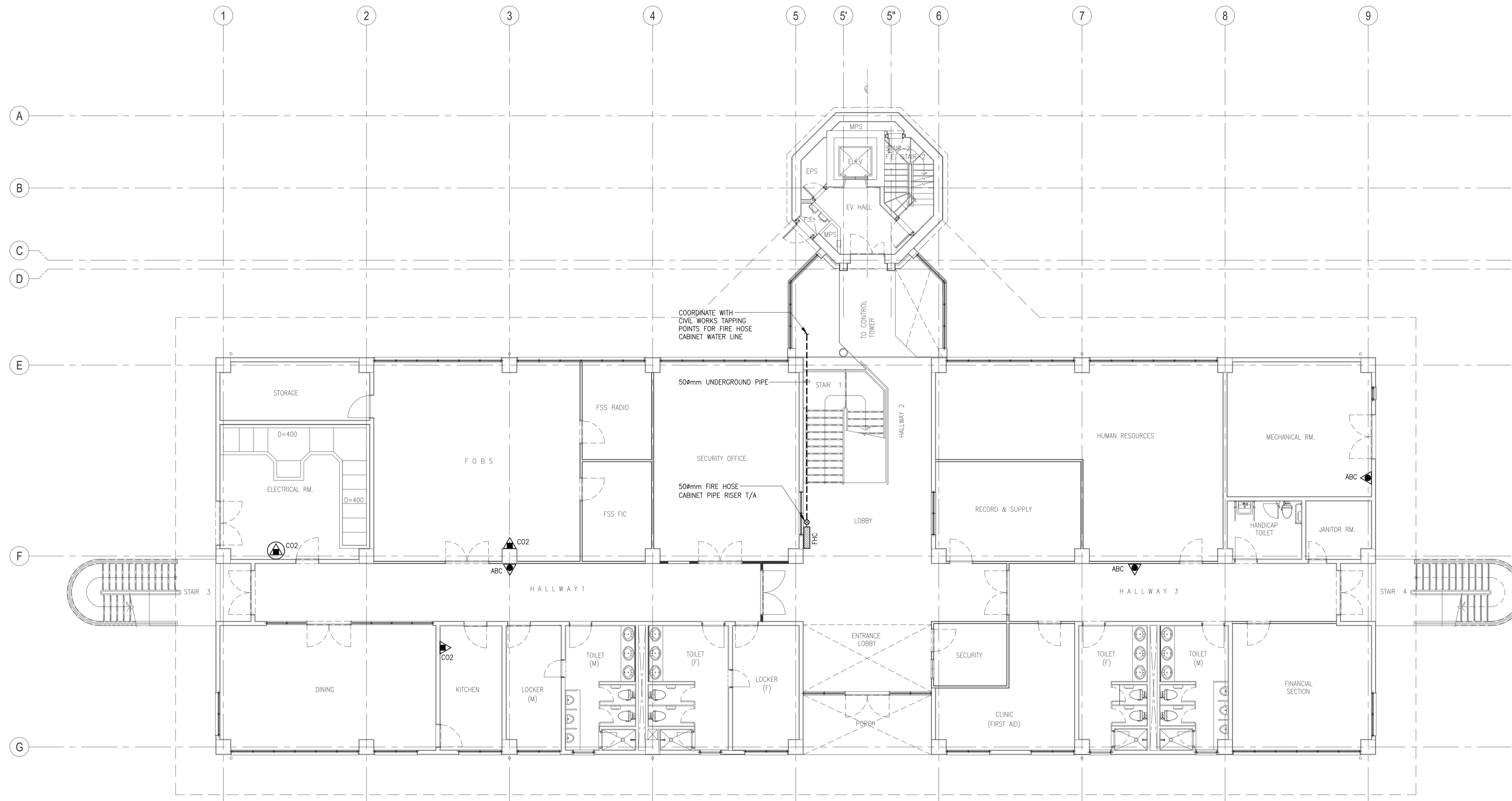


LEGENDS

SYMBOL	DESCRIPTION	MODEL
TIC	TEMPERATURE INDICATING CONTROLLER	R36TROUA2200
TEW	TEMPERATURE SENSOR (PIPE INSERTION)	TY7830B1015
MIS	MANAGEMENT INTEGRATION SERVER	BSY4530
SCS	SYSTEM CORE SERVER	BCY4410
UPS	UNINTERRUPTABLE POWER SUPPLY	
T/H	TEMP/HUMI SENSOR	HTY7813T4
TC	THERMOSTAT	TY63002500
RY	AUXILLIARY RELAY	HH54P

1 VRF AND FFU EQUIPMENT CONTROL DIAGRAM  
B1-5200-25 NTS

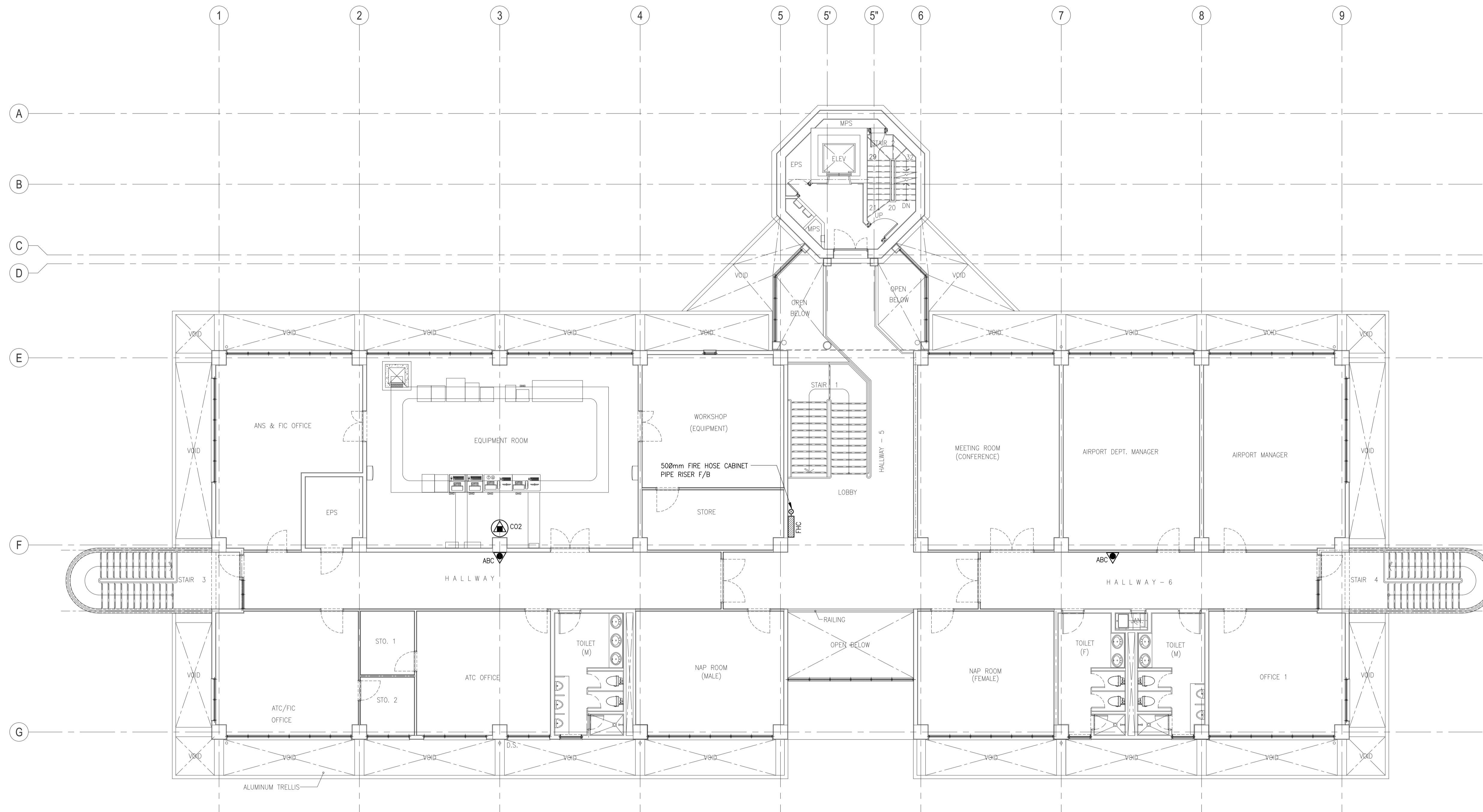
	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Filipino Registered Engineer</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING	SHEET NO: <b>B3-5200-20</b>
	JICA DESIGN CONSULTANT JOINT VENTURE <small>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS</small>	<small>PROF. MECHANICAL ENGINEER</small> T.P.R. 1725187 <small>REG. NO. 2379</small> DATE: JANUARY 01, 2013 <small>T.L.N. 150-563-379</small> PLACE: TAGUIG CITY	<b>TADASHI AOI</b> <small>Team Leader</small>	<b>JUNE 2013</b> DATE INDEX	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	MECHANICAL VENTILATION AND AIR-CONDITIONING AUTOMATIC CONTROL SYSTEM (PART B)



1
**ATC OPERATIONS AND ADMINISTRATION BUILDING  
GROUND FLOOR FIRE PROTECTION LAYOUT**  
 B3-5300-01 SCALE 1:100M

LEGEND:	
	FIRE HOSE CABINET
	4.5 KG. FIRE EXTINGUISHER DRY CHEMICAL
	9.0 KG. FIRE EXTINGUISHER CARBON DIOXIDE
	23.0 KG. FIRE EXTINGUISHER CARBON DIOXIDE (WHEEL TYPE)
	50mm UNDERGROUND PIPE

	Republic of the Philippines DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS	JAPAN INTERNATIONAL COOPERATION AGENCY	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Filipino Registered Engineer</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING	SHEET NO: <b>B3-5300-01</b>	
	JICA DESIGN CONSULTANT JOINT VENTURE 		TADASHI AOI <small>Team Leader</small>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES		DATE: JUNE 2013	INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:



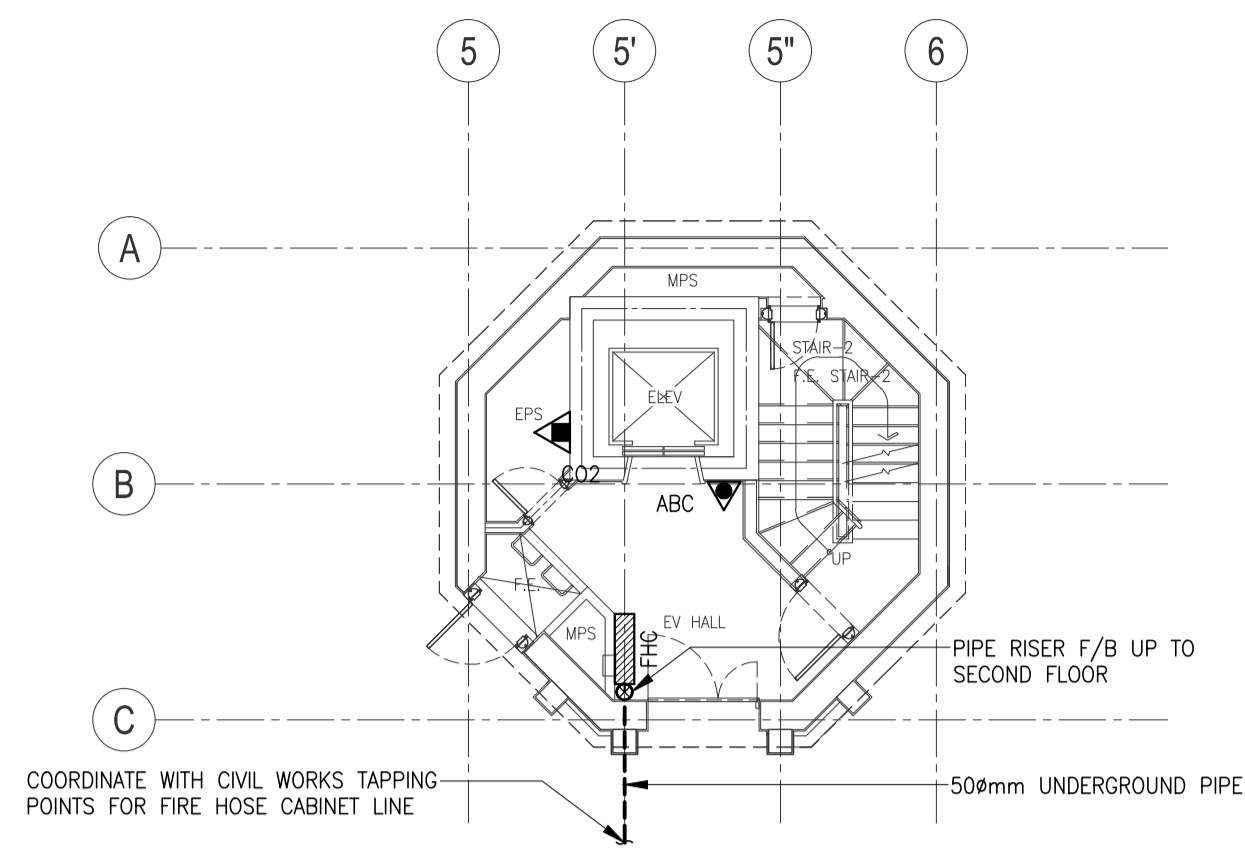
1
**ATC OPERATIONS AND ADMINISTRATION BUILDING  
SECOND FLOOR FIRE PROTECTION LAYOUT**  
 SCALE 1:100M

LEGEND:	
	FIRE HOSE CABINET
	4.5 KG. FIRE EXTINGUISHER DRY CHEMICAL
	9.0 KG. FIRE EXTINGUISHER CARBON DIOXIDE
	23.0 KG. FIRE EXTINGUISHER CARBON DIOXIDE (WHEEL TYPE)

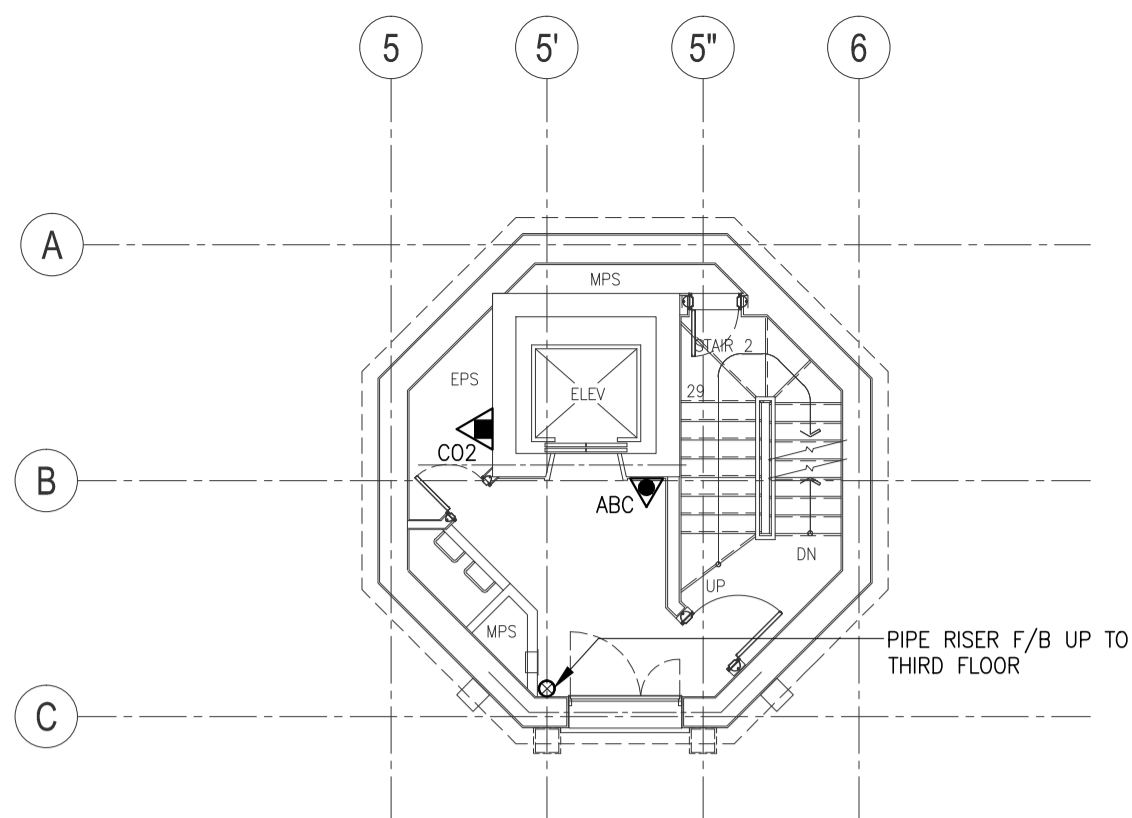
 Republic of the Philippines DEPARTMENT OF TRANSPORTATION AND COMMUNICATIONS	 JAPAN INTERNATIONAL COOPERATION AGENCY	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Filipino Registered Engineer</small> PROF. MESHANICAL ENGINEER PPR. 1725187 REG. NO. 2379 DATE: JANUARY 01, 2013 T.J.N. 150-583-379 PLACE: TAGUIG CITY	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">-</td> <td style="width: 5%;">-</td> <td style="width: 5%;">-</td> <td style="width: 5%;">-</td> <td style="width: 5%;">-</td> <td style="width: 5%;">-</td> </tr> <tr> <td style="width: 5%;">JUNE 2013</td> <td style="width: 5%;">DATE</td> <td style="width: 5%;">INDEX</td> <td style="width: 5%;">AMENDMENTS</td> <td style="width: 5%;">Prepared by</td> <td style="width: 5%;">Checked by</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">WIM</td> <td style="text-align: center;">HC</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Validated by</td> <td></td> </tr> </table>	-	-	-	-	-	-	JUNE 2013	DATE	INDEX	AMENDMENTS	Prepared by	Checked by					WIM	HC					Validated by		SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL FIRE PROTECTION SECOND FLOOR FIRE PROTECTION LAYOUT	SHEET NO: <b>B3-5300-02</b> DRAWING SCALE: <b>1:100M</b>
-	-	-	-	-	-																											
JUNE 2013	DATE	INDEX	AMENDMENTS	Prepared by	Checked by																											
				WIM	HC																											
				Validated by																												

JICA DESIGN CONSULTANT JOINT VENTURE

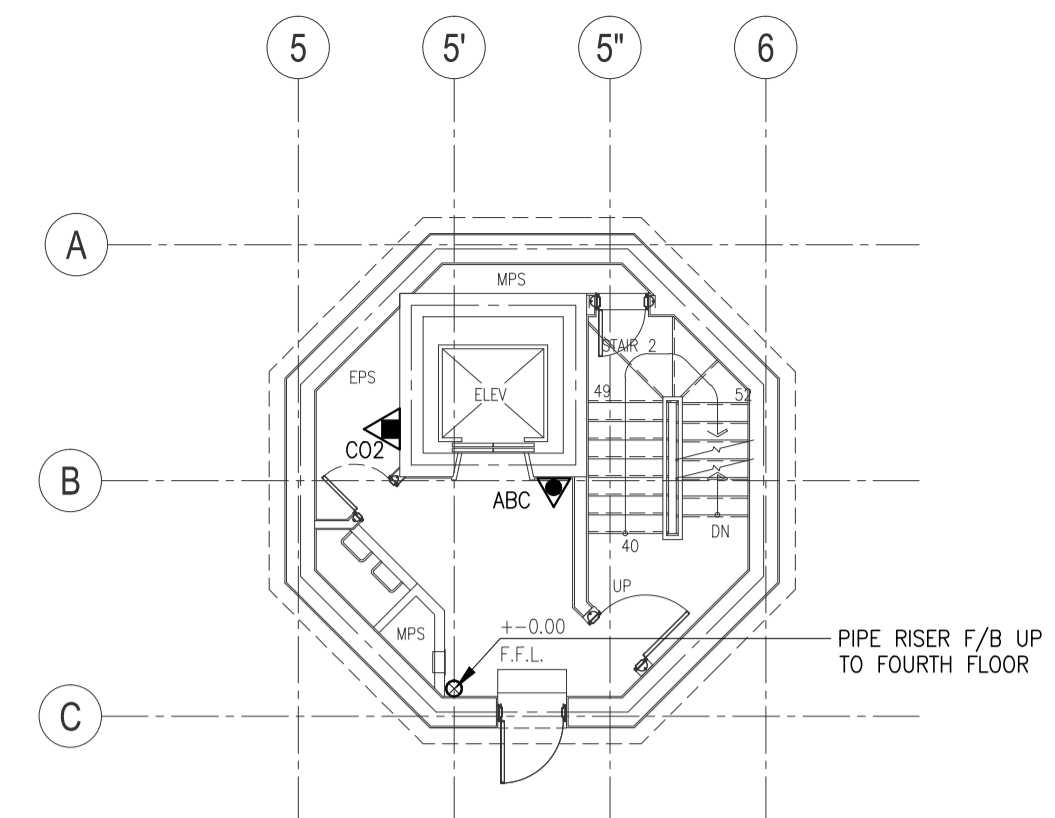
 JAPAN AIRPORT CONSULTANTS, INC.	 NIPPON KOEI CO., LTD.	 NIS CONSULTANTS CO., LTD.
---	------------------------------	----------------------------------



**1 CONTROL TOWER  
GROUND FLOOR FIRE PROTECTION LAYOUT**  
B3-5200-16 SCALE 1:100M

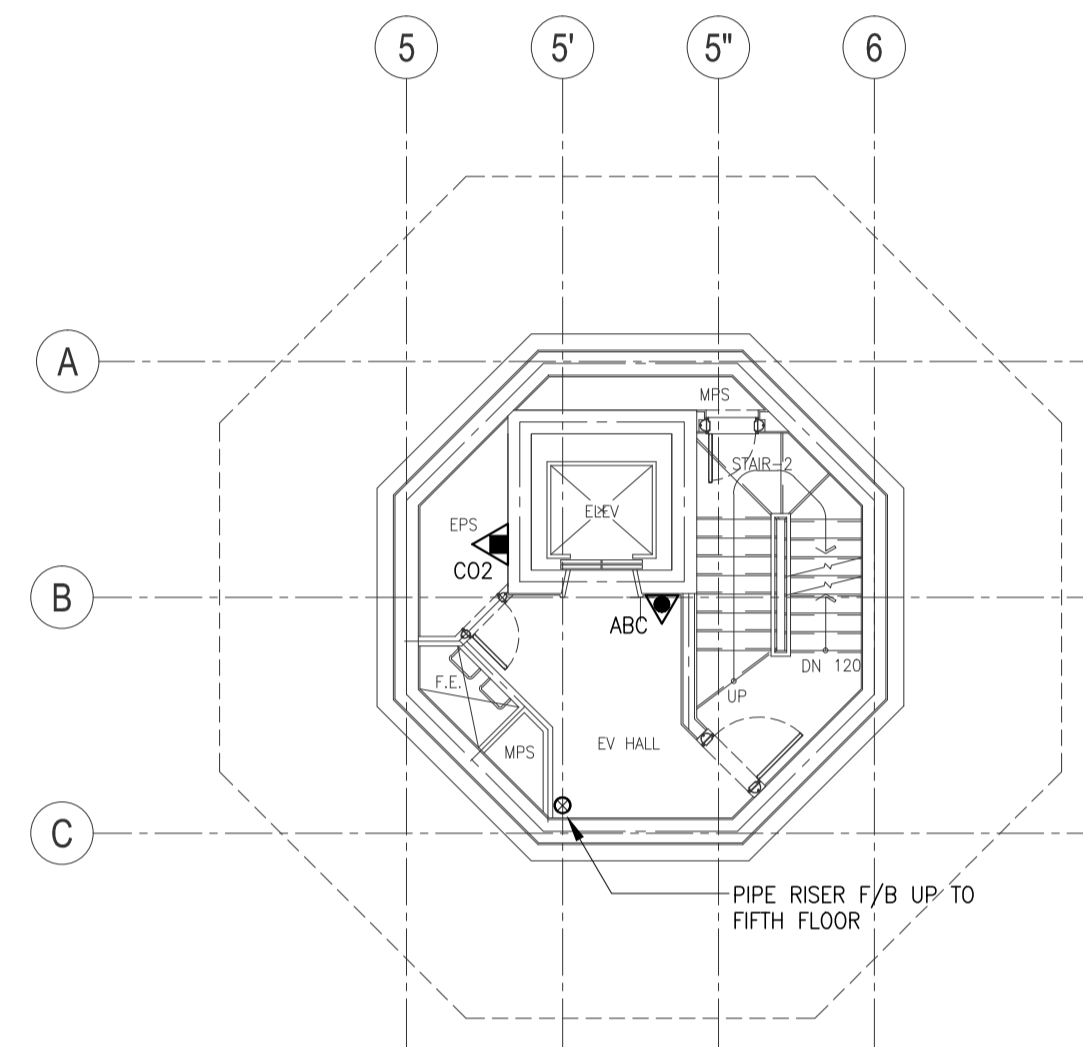


**2 CONTROL TOWER  
SECOND FLOOR FIRE PROTECTION LAYOUT**  
B3-5200-16 SCALE 1:100M

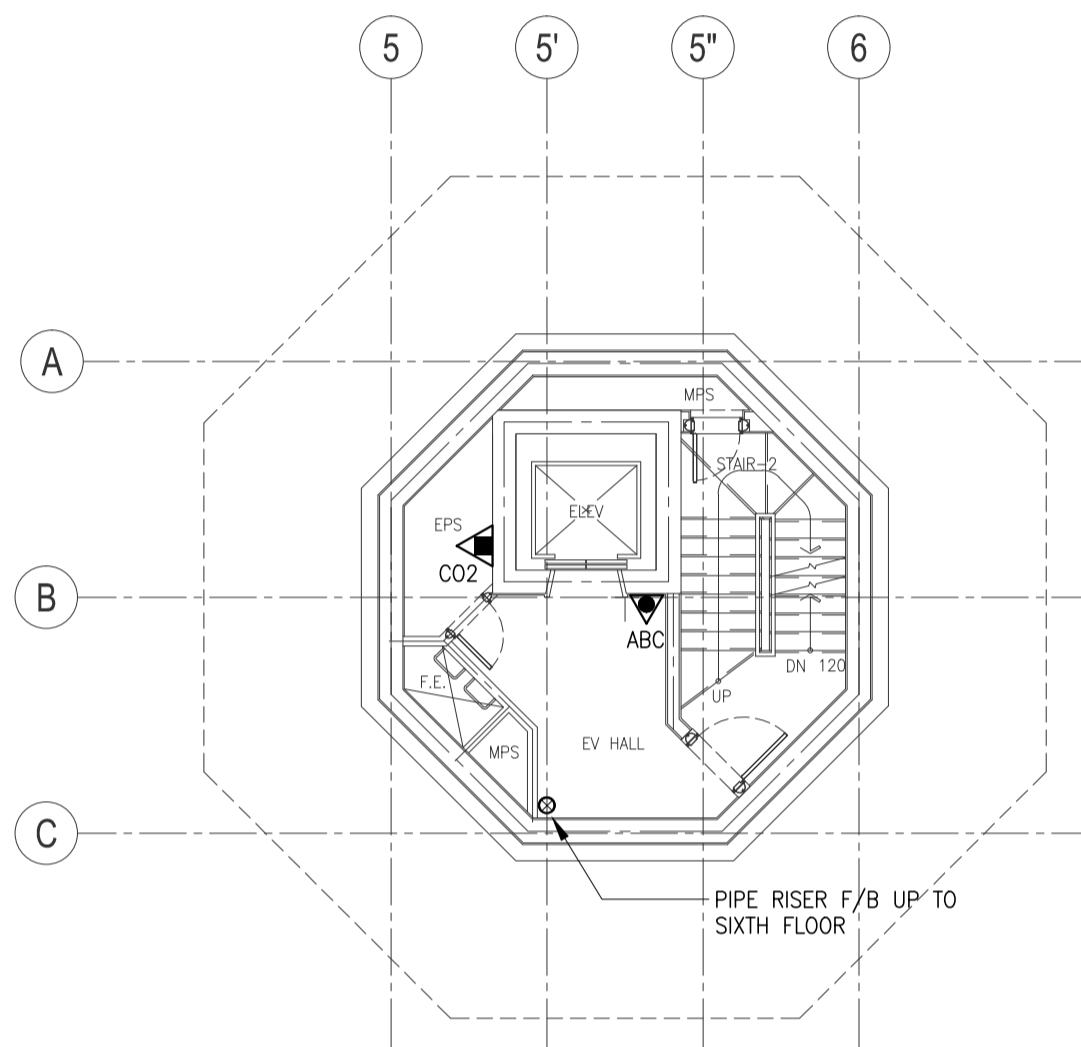


**3 CONTROL TOWER  
THIRD FLOOR FIRE PROTECTION LAYOUT**  
B3-5200-16 SCALE 1:100M

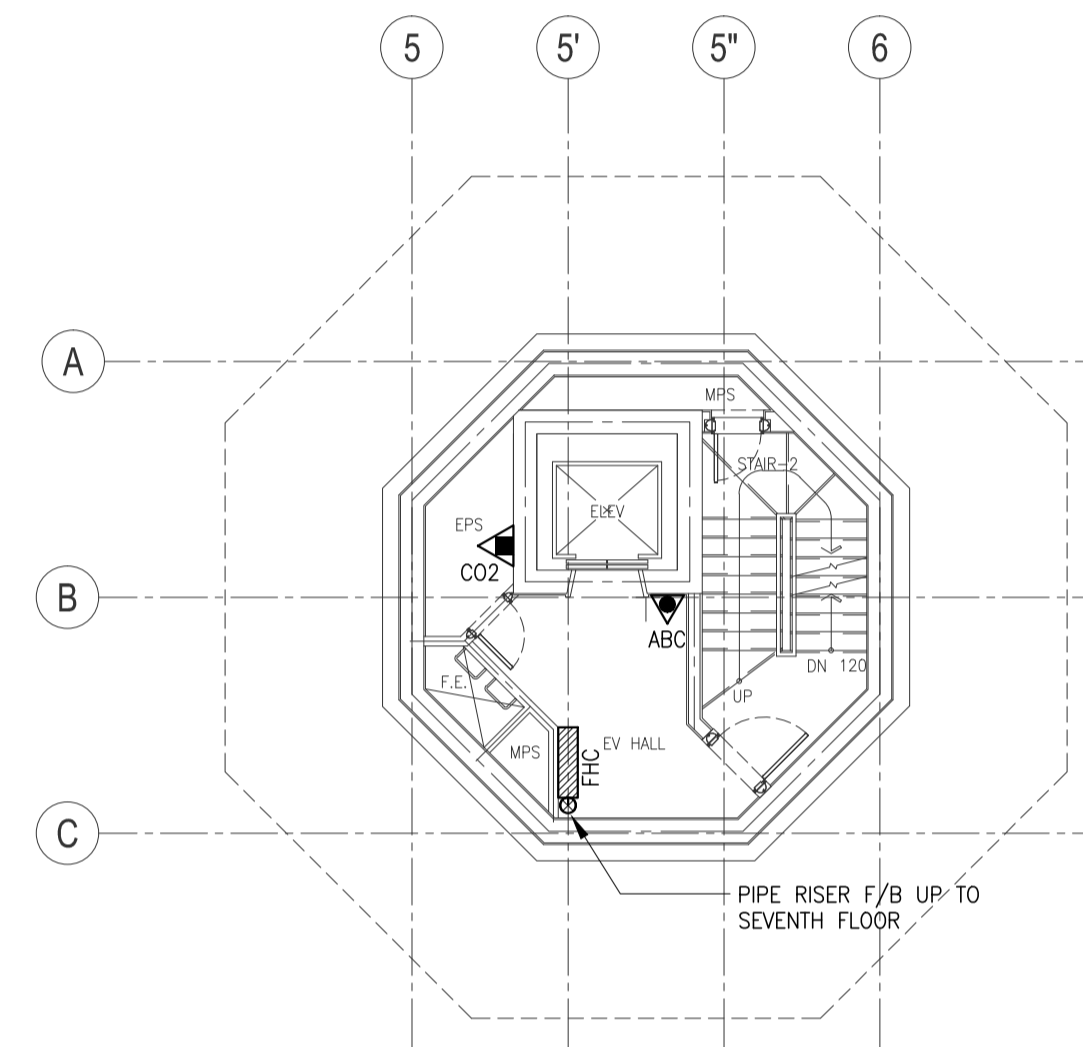
LEGEND:	
	FIRE HOSE CABINET
	4.5 KG. FIRE EXTINGUISHER DRY CHEMICAL
	9.0 KG. FIRE EXTINGUISHER CARBON DIOXIDE
	23.0 KG. FIRE EXTINGUISHER CARBON DIOXIDE (WHEEL TYPE)
	50mm $\varnothing$ UNDERGROUND PIPE



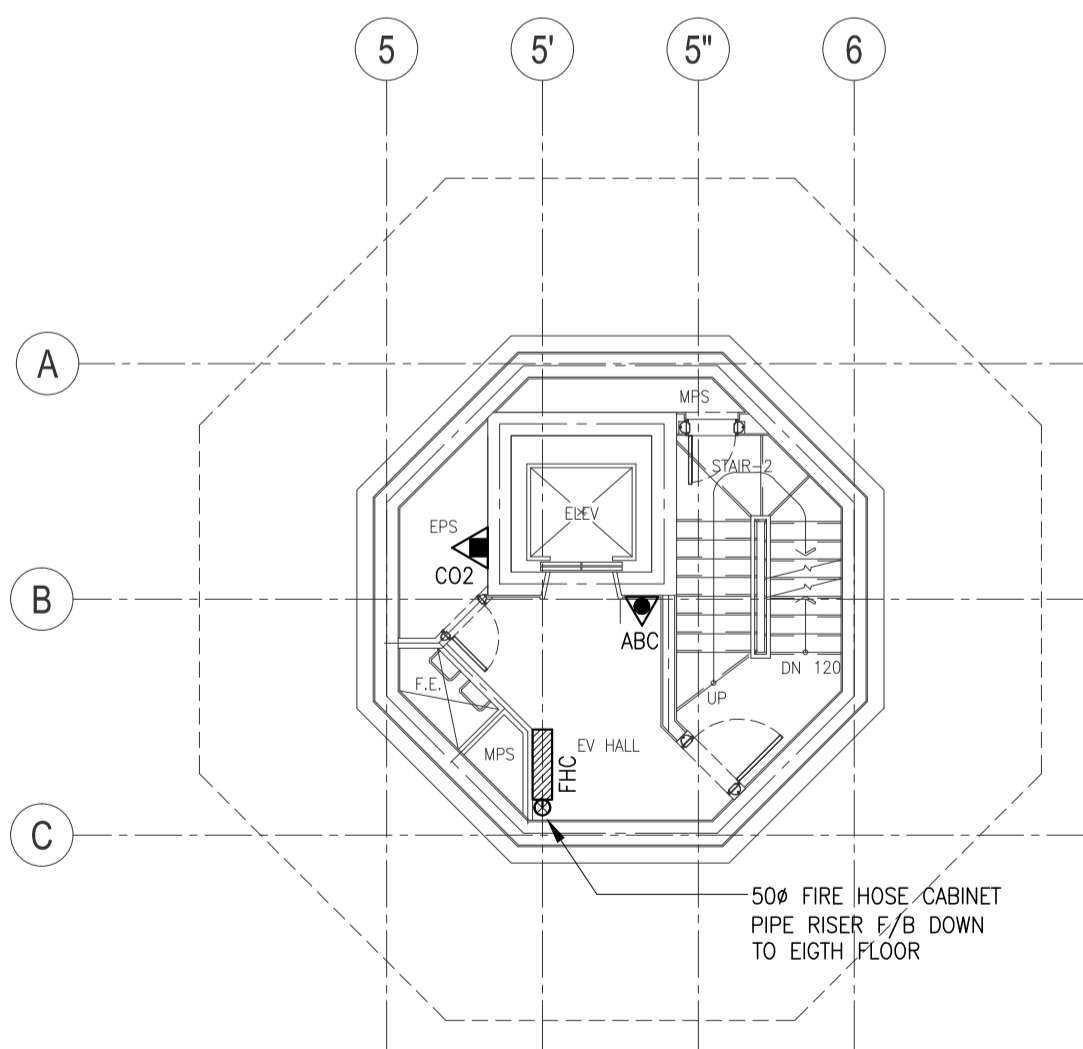
**4 CONTROL TOWER  
FOURTH FLOOR FIRE PROTECTION LAYOUT**  
B3-5200-16 SCALE 1:100M



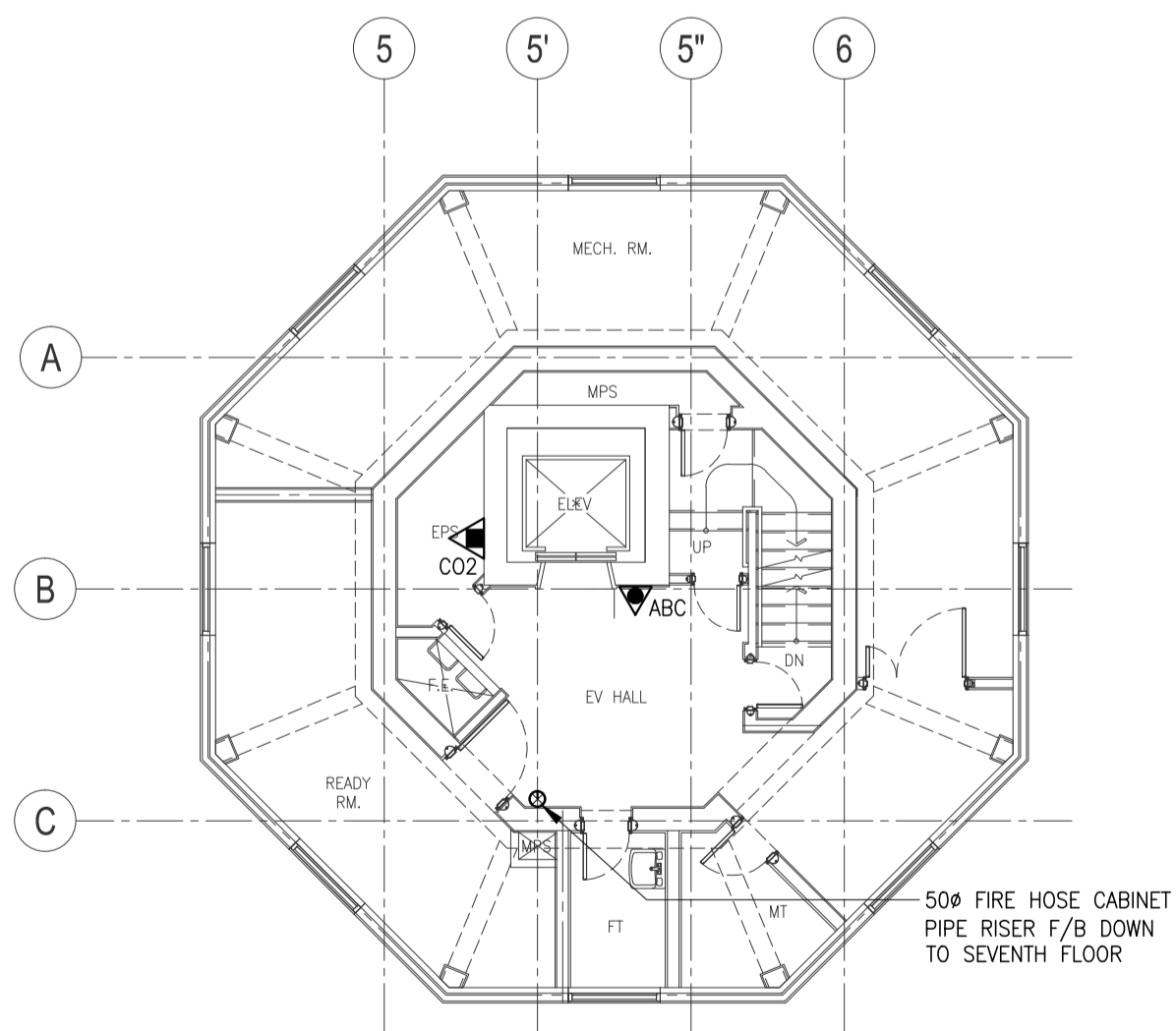
**5 CONTROL TOWER  
FIFTH FLOOR FIRE PROTECTION LAYOUT**  
B3-5200-16 SCALE 1:100M



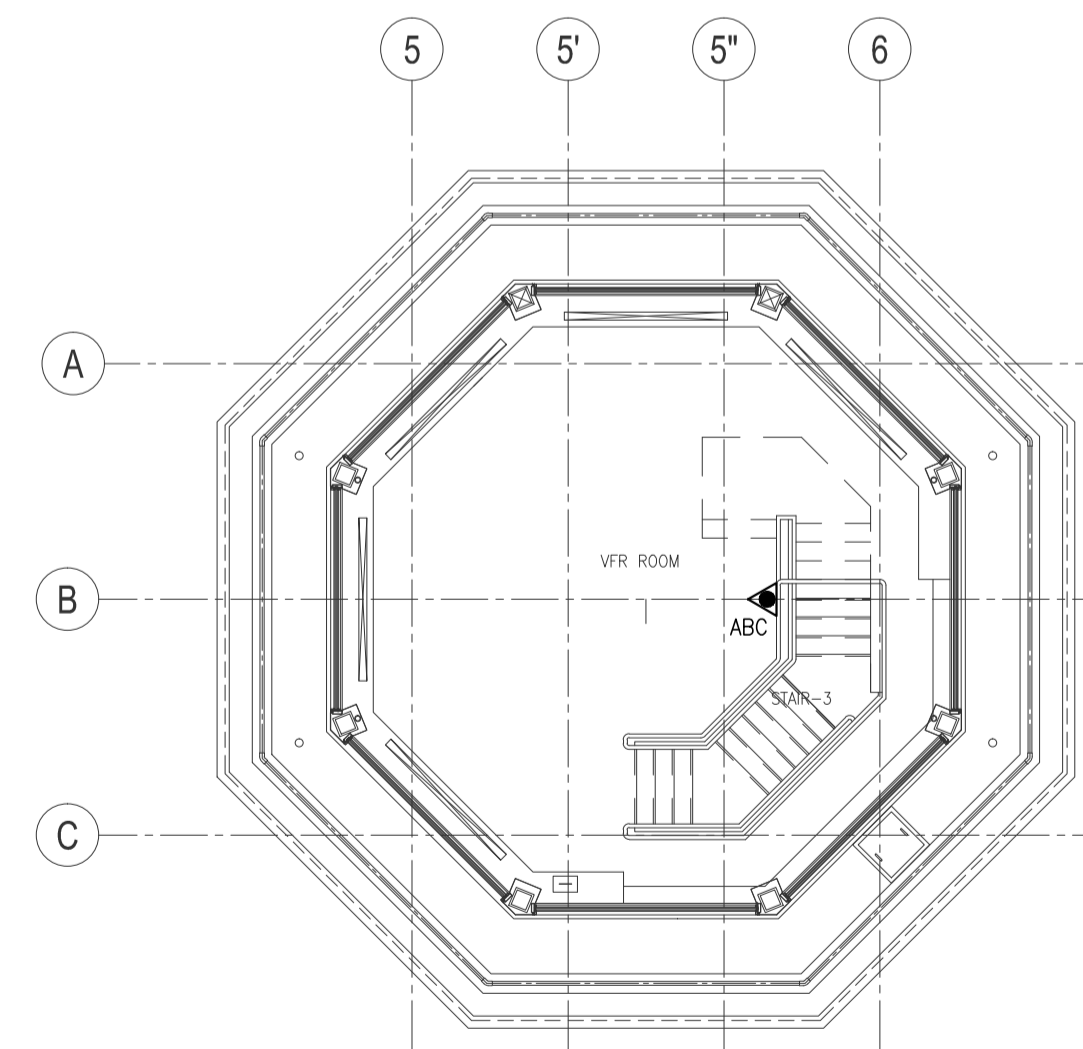
**6 CONTROL TOWER  
SIXTH FLOOR FIRE PROTECTION LAYOUT**  
B3-5200-16 SCALE 1:100M



**7 CONTROL TOWER  
SEVENTH FLOOR FIRE PROTECTION LAYOUT**  
B3-5200-16 SCALE 1:100M

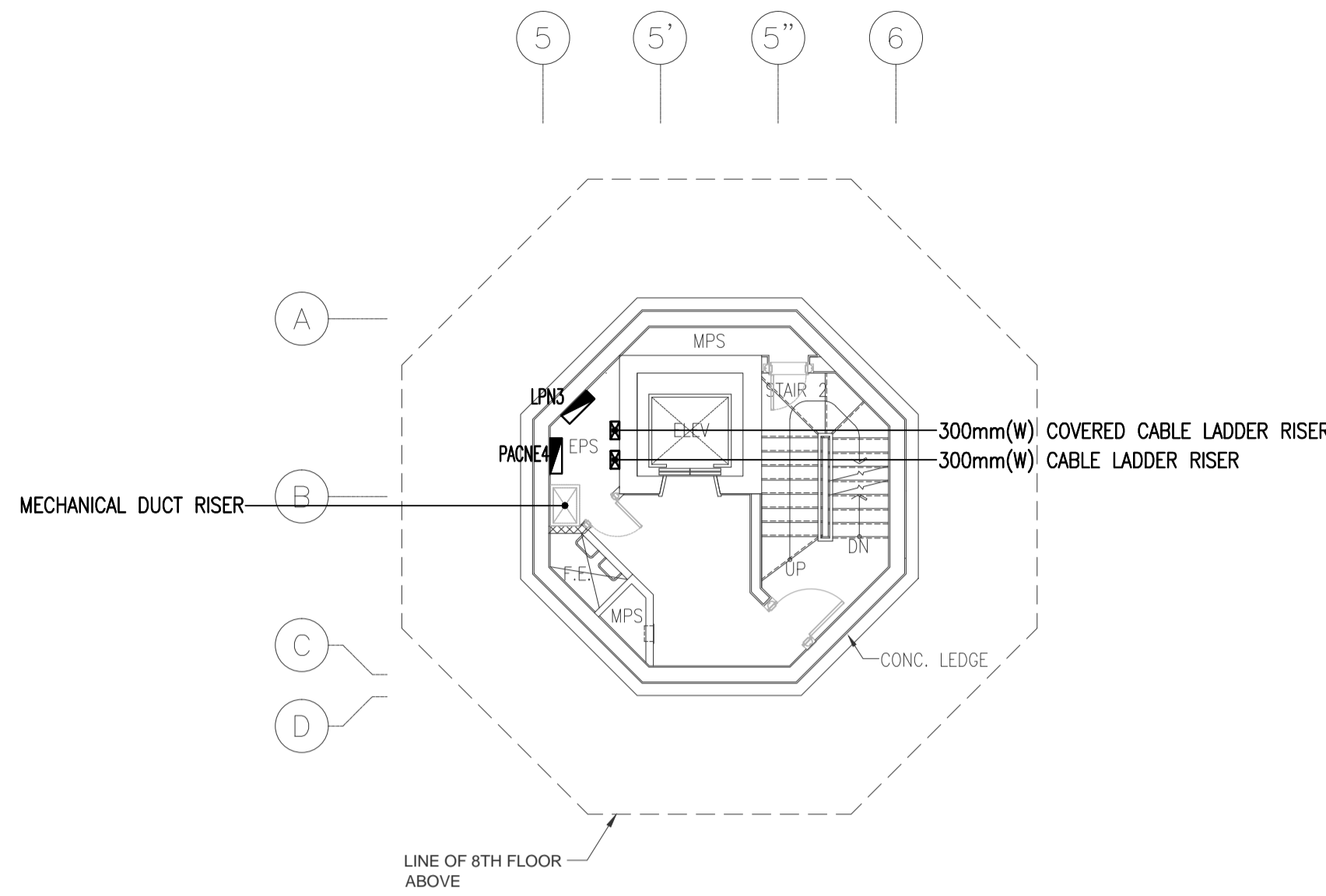


**8 CONTROL TOWER  
EIGHT FLOOR FIRE PROTECTION LAYOUT**  
B3-5200-16 SCALE 1:100M

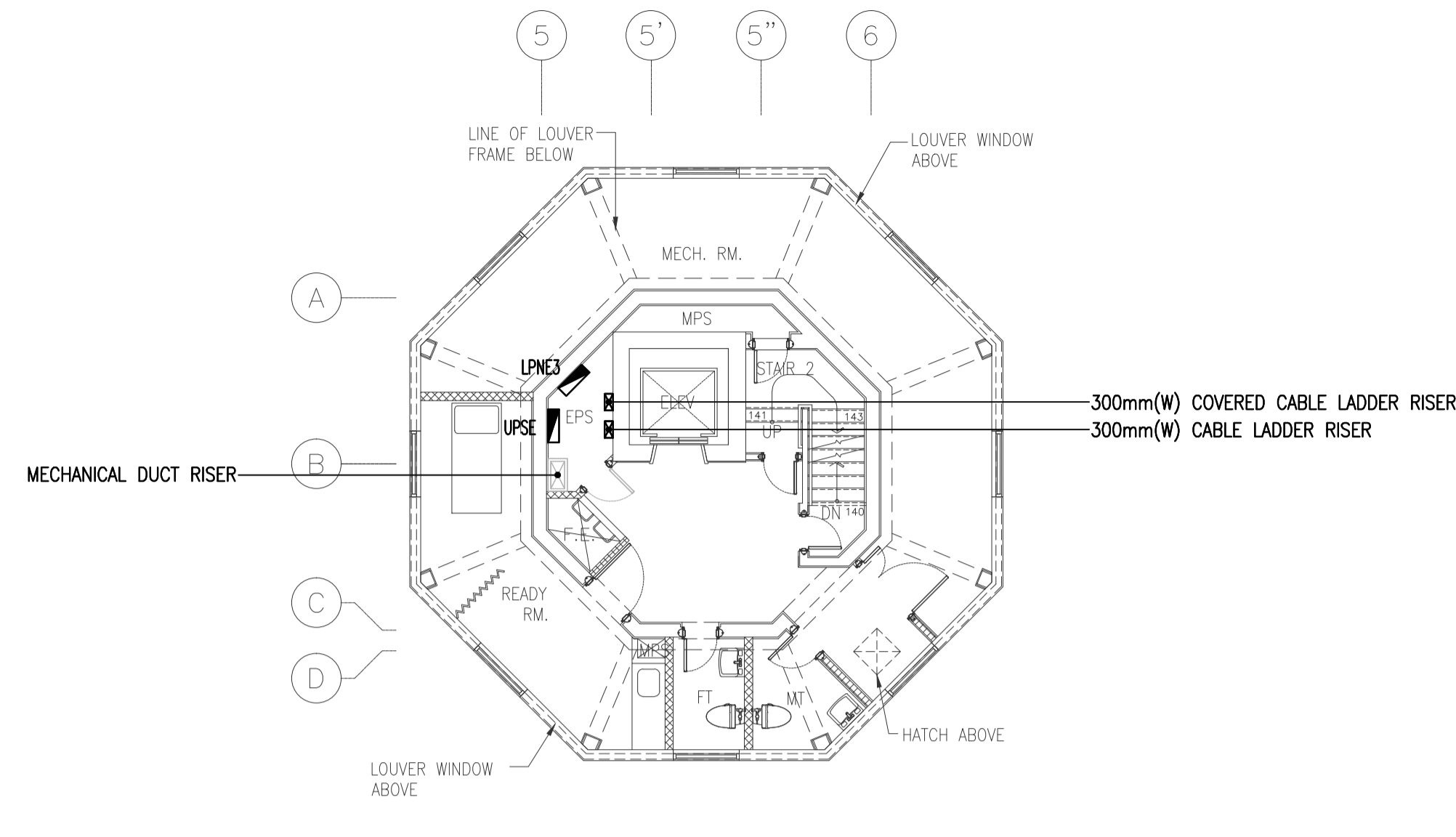


**9 CONTROL TOWER  
NINTH FLOOR FIRE PROTECTION LAYOUT**  
B3-5200-16 SCALE 1:100M

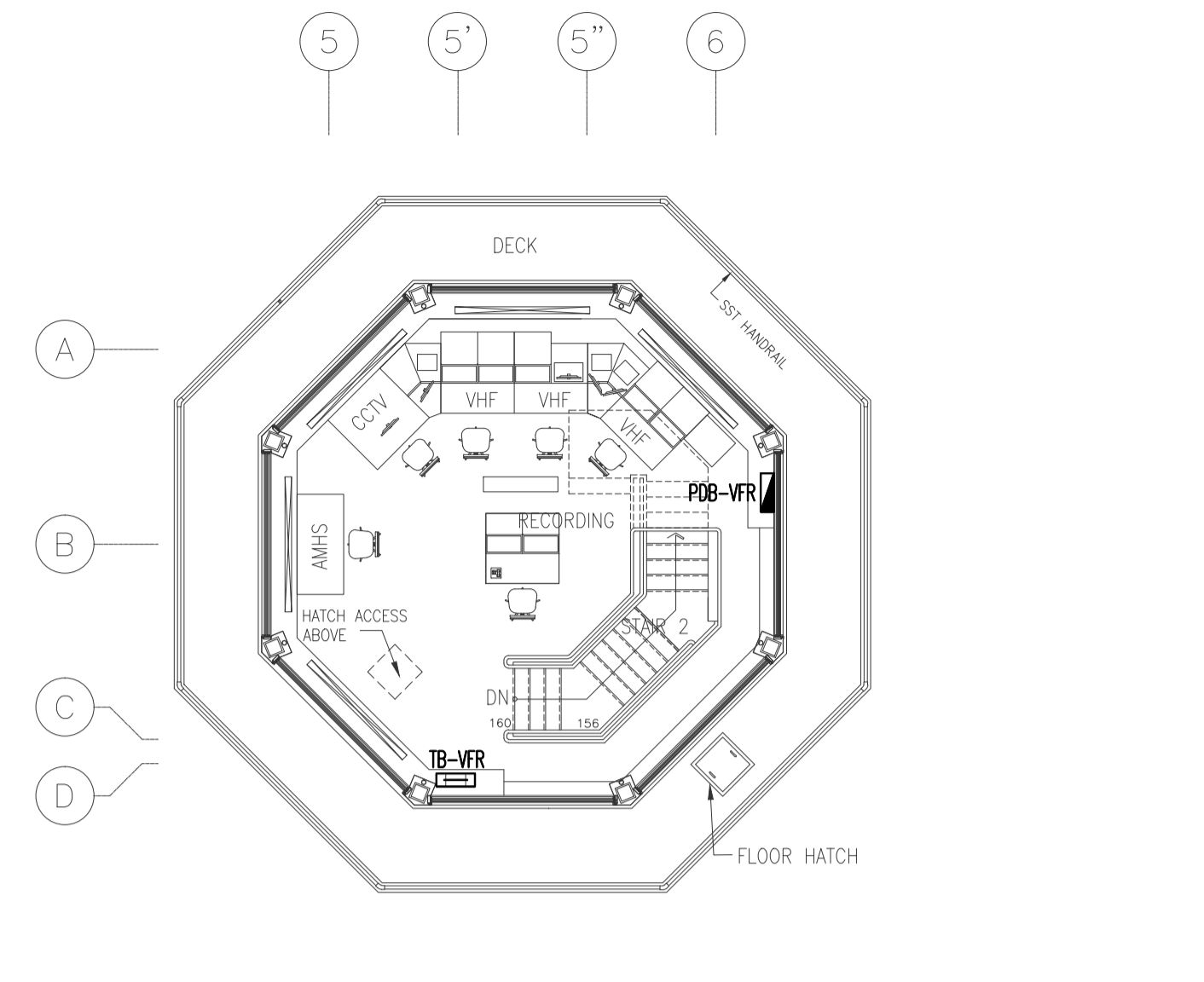
	PREPARED BY: <b>RENATO A. ARRIOLA</b> <small>Filipino Registered Engineer</small> PROF. MECHANICAL ENGINEER I.P.R. 1725187 REG. NO. 2379 DATE: JANUARY 01, 2013 T.L.N. 150-583-379 PLACE: TAGUIG CITY	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4: BUILDING WORKS (B) SUBCOMPONENT-4-3: (B3) CONTROL TOWER, ATC OPERATION & ADMINISTRATION BUILDING MECHANICAL FIRE PROTECTION CONTROL TOWER FIRE PROTECTION LAYOUT	SHEET NO: <b>B3-5300-03</b> DRAWING SCALE: <b>1:100M</b>
	JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.	JAPAN INTERNATIONAL COOPERATION AGENCY	JUNE 2013	DATE INDEX AMENDMENTS	Prepared by: WIM Checked by: HC Validated by:	



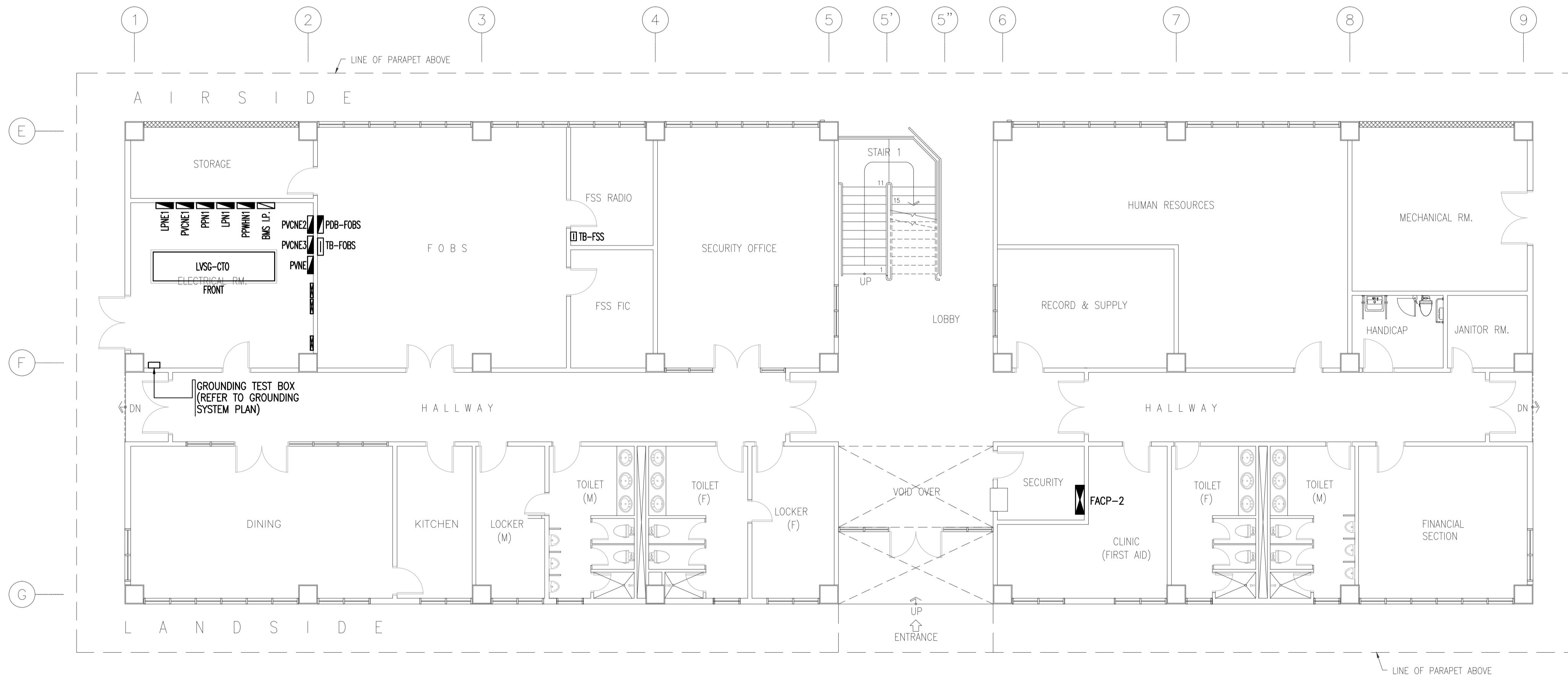
3 CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
7TH FLOOR ELECTRICAL EQUIPMENT LAYOUT PLAN  
B3-6100-01 GRAPHIC SCALE



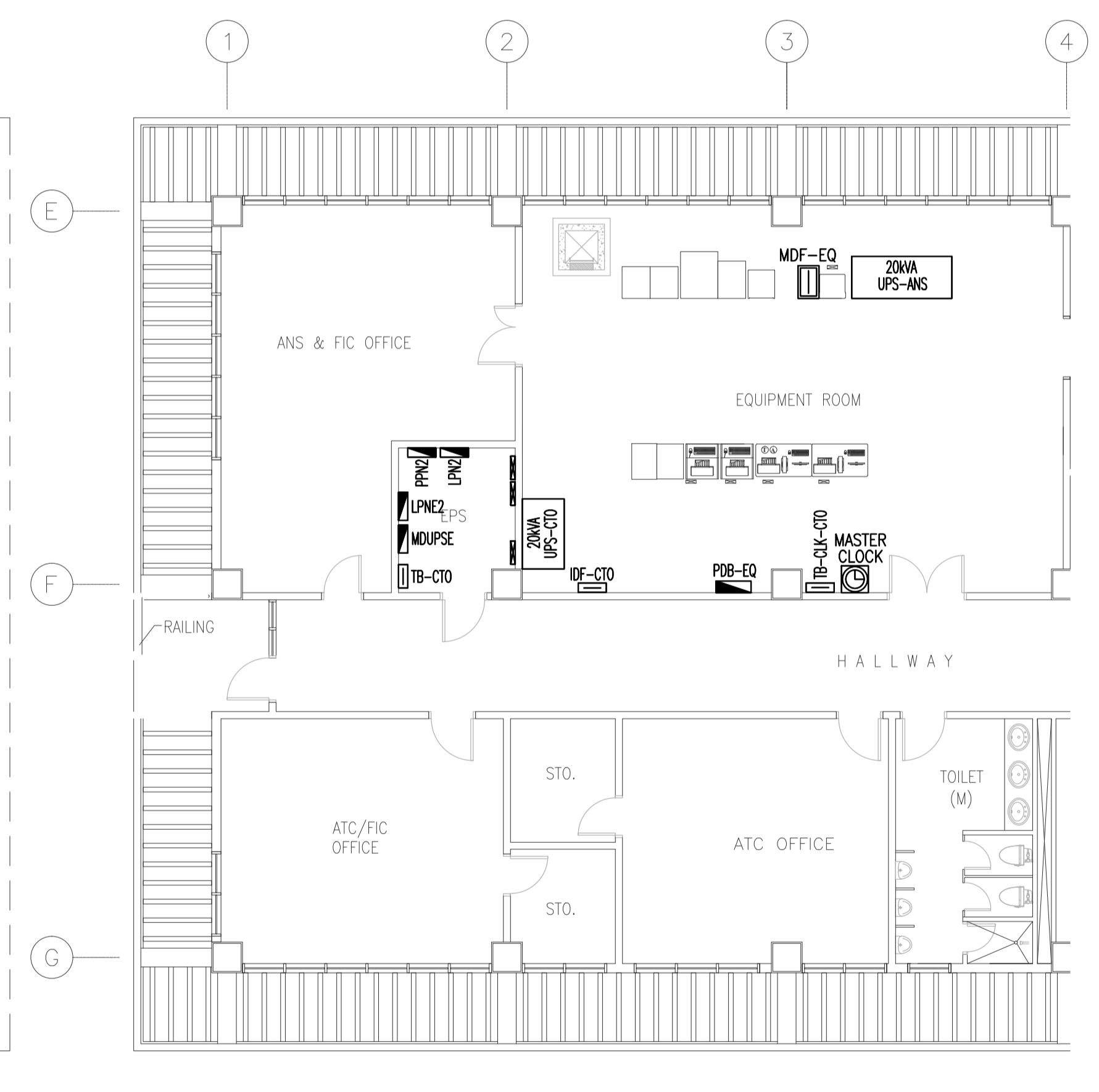
4 CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
8TH FLOOR ELECTRICAL EQUIPMENT LAYOUT PLAN  
B3-6100-01 GRAPHIC SCALE



5 CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
9TH FLOOR ELECTRICAL EQUIPMENT LAYOUT PLAN  
B3-6100-01 GRAPHIC SCALE



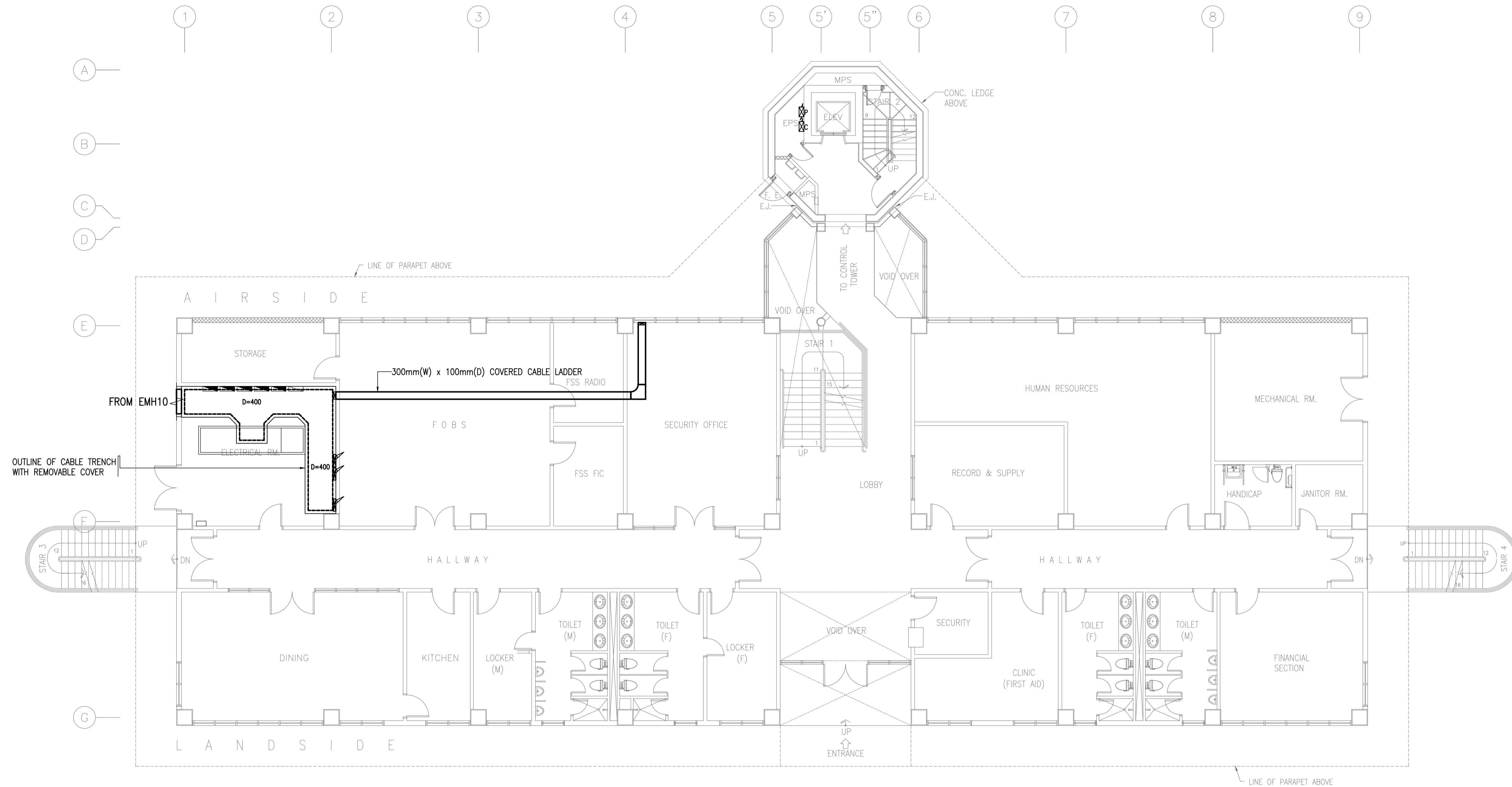
1 CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
PARTIAL GROUND FLOOR ELECTRICAL EQUIPMENT LAYOUT PLAN  
B3-6100-01 GRAPHIC SCALE



CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
PARTIAL SECOND FLOOR ELECTRICAL EQUIPMENT LAYOUT PLAN  
B3-6100-01 GRAPHIC SCALE

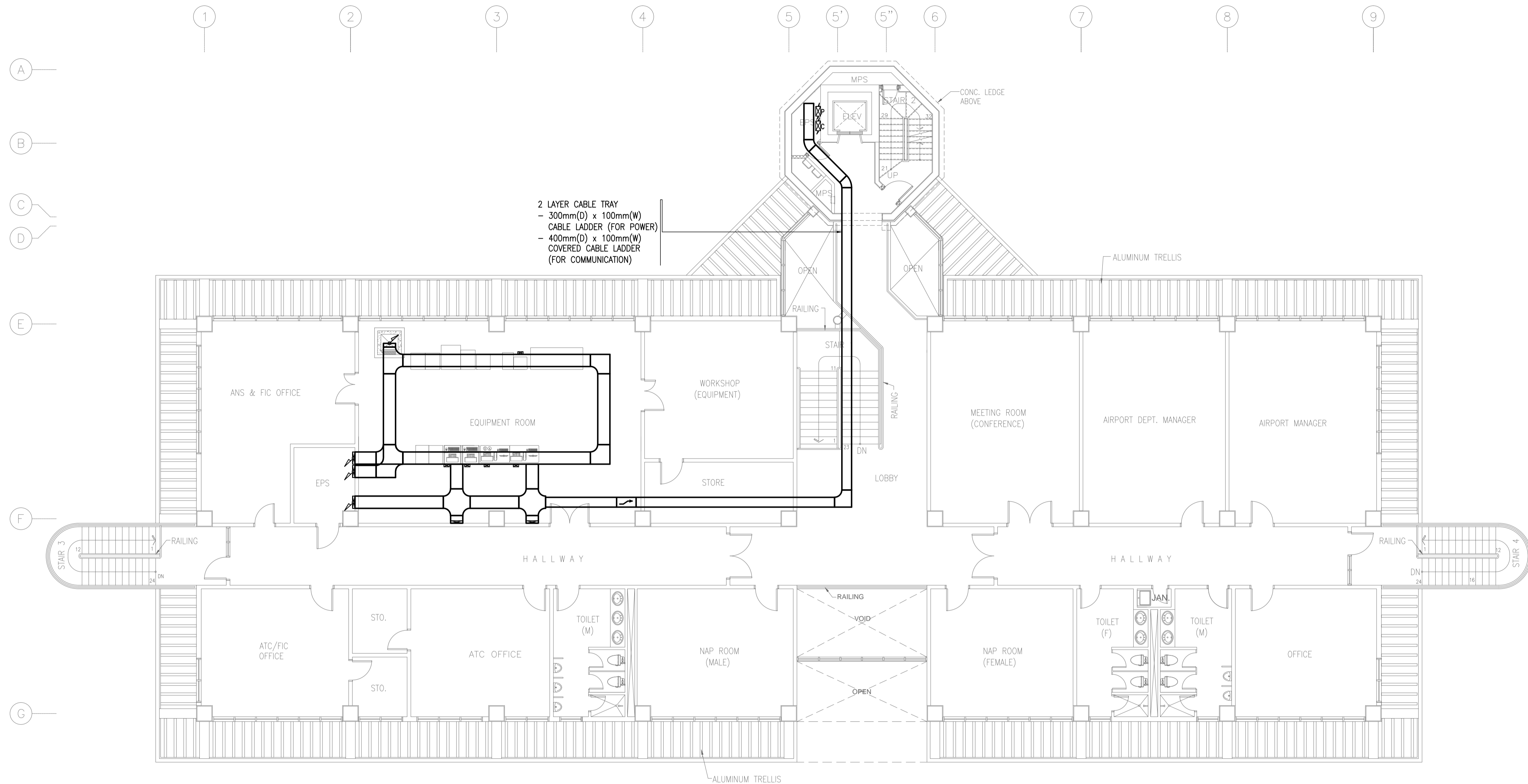
	PREPARED BY: <b>TEODORO N. PAMATMAT</b> <small>PROF. PROF. ELECTRICAL ENGINEER PIR 1403773</small> <small>RES. NO. 1927 DATE: 1-04-13</small> <small>TEL. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: <b>JILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4 BUILDING WORKS (B) SUBCOMPONENT-4-3 (B3) Control Tower, ATC Operation & Administration Building ELECTRICAL EQUIPMENT LAYOUT	SHEET NO: <b>B3-6100-01</b> DRAWING SCALE: 1:100 m
	JICA DESIGN CONSULTANT JOINT VENTURE <small>JAPAN AIRPORT CONSULTANTS, INC. NIPPON KOEI CO., LTD. NIS CONSULTANTS CO., LTD.</small>	JUNE 2013 DATE INDEX AMENDMENTS Prepared by: WIM Checked by: IC Validated by:					





1 CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
**GROUND FLOOR CABLE TRAY LAYOUT PLAN**  
 B3-6100-02 GRAPHIC SCALE 0 1 2 5 10m

	PREPARED BY: <b>TEODORO N. PAMATMAT</b> <small>PROF. ELECTRICAL ENGINEER PIR. 1403773          REG. NO.: 1927 DATE: 1-04-13          T.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary          for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary          for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4 BUILDING WORKS (B) SUBCOMPONENT-4-3 (B3) Control Tower, ATC Operation & Administration Building ELECTRICAL GRD FLR CABLE TRAY LAYOUT	SHEET NO: <b>B3-6100-02</b> DRAWING SCALE: 1:100 m
	JICA DESIGN CONSULTANT JOINT VENTURE <small>JAPAN AIRPORT CONSULTANTS, INC. NIPPO KOGI CO., LTD. NIS CONSULTANTS CO., LTD.</small>	TADASHI AOI Team Leader	ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4 BUILDING WORKS (B) SUBCOMPONENT-4-3 (B3) Control Tower, ATC Operation & Administration Building ELECTRICAL GRD FLR CABLE TRAY LAYOUT

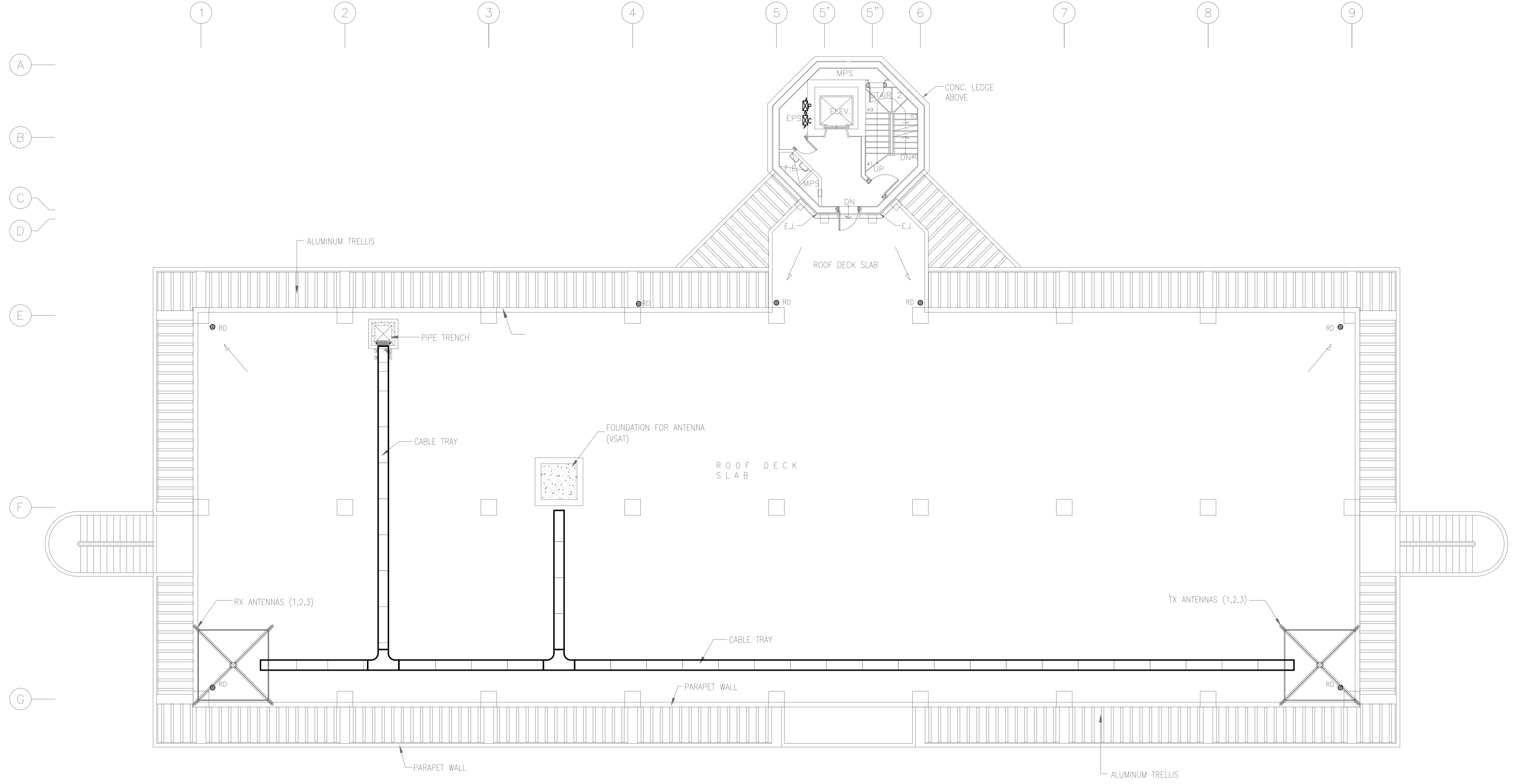


2 LAYER CABLE TRAY  
 - 300mm(D) x 100mm(W)  
 CABLE LADDER (FOR POWER)  
 - 400mm(D) x 100mm(W)  
 COVERED CABLE LADDER  
 (FOR COMMUNICATION)

**LEGEND:**  
 ☒ - 300mm(W) x 100mm(D) CABLE LADDER (FOR POWER)  
 ☒ - 400mm(W) x 100mm(D) COVERED CABLE LADDER (FOR COMMUNICATION)

**1** CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
**SECOND FLOOR CABLE TRAY LAYOUT PLAN**  
 B3-6100-03 GRAPHIC SCALE 0 1 2 5 10m

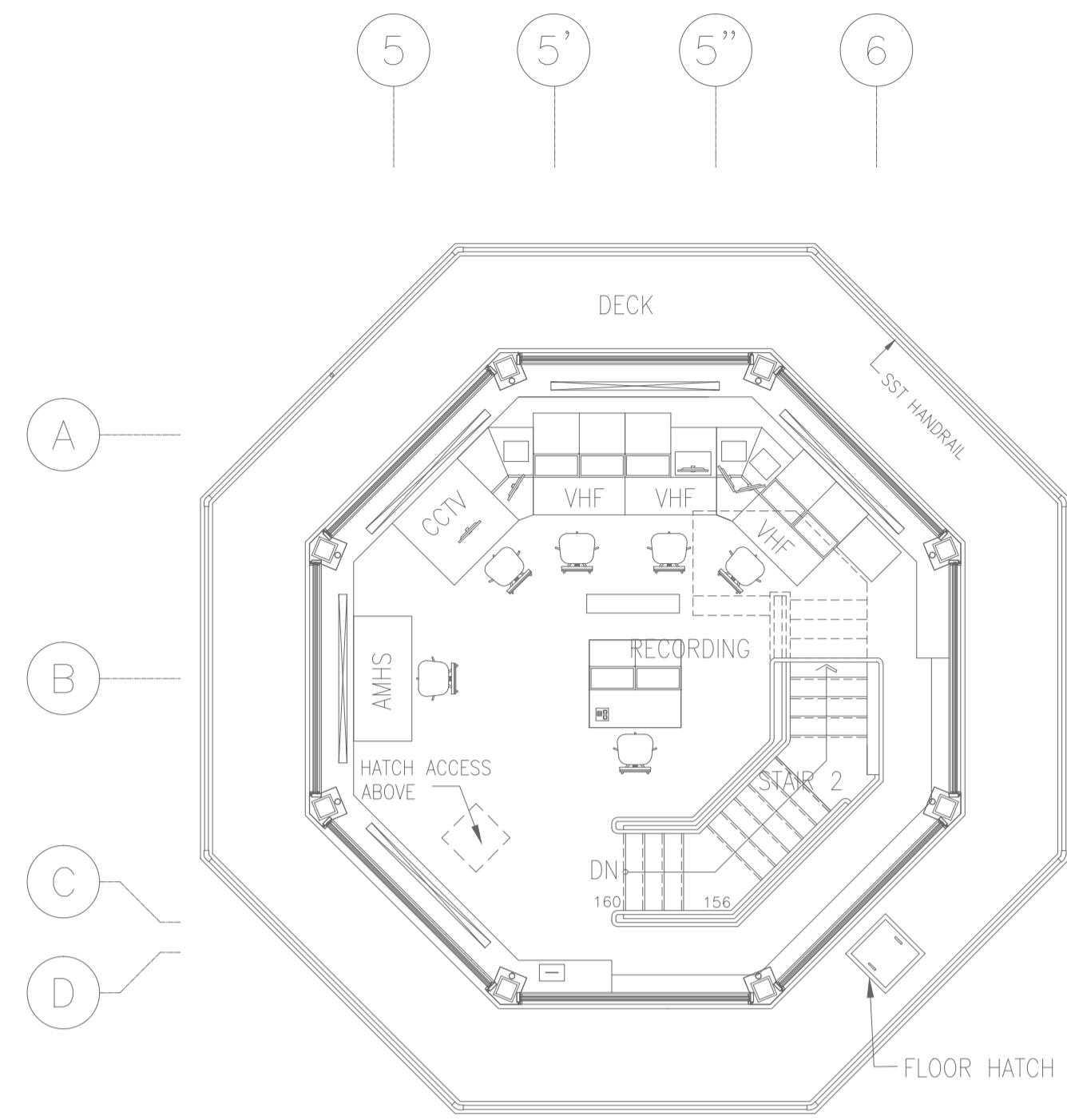
	PREPARED BY: <b>TEODORO N. PAMATMAT</b> <small>PROF. ELECTRICAL ENGINEER PIR. 1403773</small> <small>REG. NO.: 1927 DATE: 1-04-13</small> <small>T.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL:  <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED:  <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE:  <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4 BUILDING WORKS (B) SUBCOMPONENT-4-3 (B3) Control Tower, ATC Operation & Administration Building ELECTRICAL 2ND FLR CABLE TRAY LAYOUT	SHEET NO: <b>B3-6100-03</b> DRAWING SCALE: 1:100 m
	JICA DESIGN CONSULTANT JOINT VENTURE <b>JAC</b> JAPAN AIRPORT CONSULTANTS, INC. <b>NIPON KOEI CO., LTD.</b> <b>NIS CONSULTANTS CO., LTD.</b>	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:



**LEGEND:**  
 ☒ - 300mm(W) x 100mm(D) CABLE LADDER (FOR POWER)  
 ☒ - 400mm(W) x 100mm(D) COVERED CABLE LADDER (FOR COMMUNICATION)

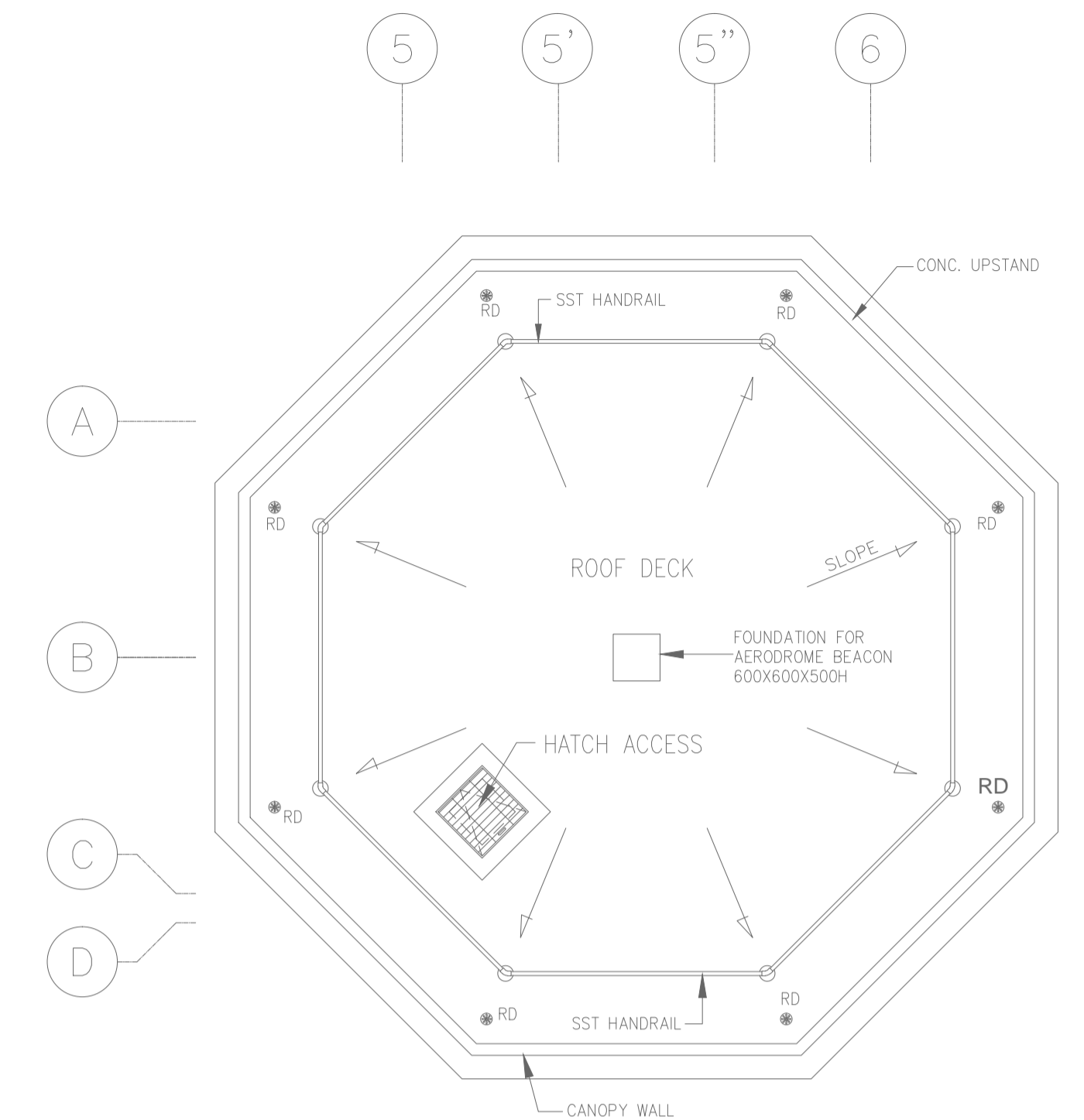
**1** CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
**3RD FLR (ROOF DECK) CABLE TRAY LAYOUT PLAN**  
 B3-6100-04 GRAPHIC SCALE 0 1 2 5 10m

	PREPARED BY: <b>TEODORO N. PAMATMAT</b> <small>PROF. ELECTRICAL ENGINEER PIR. 1403773          REG. NO.: 1927 DATE: 1-04-13          T.J.N. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL:  <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary          for Project Implementation, DOTC</small>	APPROVED:  <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary          for Project Implementation, DOTC</small>	PROJECT TITLE:  <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4 BUILDING WORKS (B) SUBCOMPONENT-4-3 (B3) Control Tower, ATC Operation & Administration Building ELECTRICAL EQUIPMENT LAYOUT	SHEET NO: <b>B3-6100-04</b> DRAWING SCALE: 1:100 m
	JICA DESIGN CONSULTANT JOINT VENTURE <b>JAC</b> JAPAN AIRPORT CONSULTANTS, INC. <b>NIPPO</b> NIPPON KOEI CO., LTD. <b>NIS</b> NIS CONSULTANTS CO., LTD.	TADASHI AOI <small>Team Leader</small>	ILDEFONSO T. PATDU, JR. <small>Assistant Secretary          for Project Implementation, DOTC</small>	JULIANITO G. BUCAYAN, JR. <small>Undersecretary          for Project Implementation, DOTC</small>	DATE: JUNE 2013 INDEX:	AMENDMENTS:	Prepared by: WIM Checked by: HC Validated by:

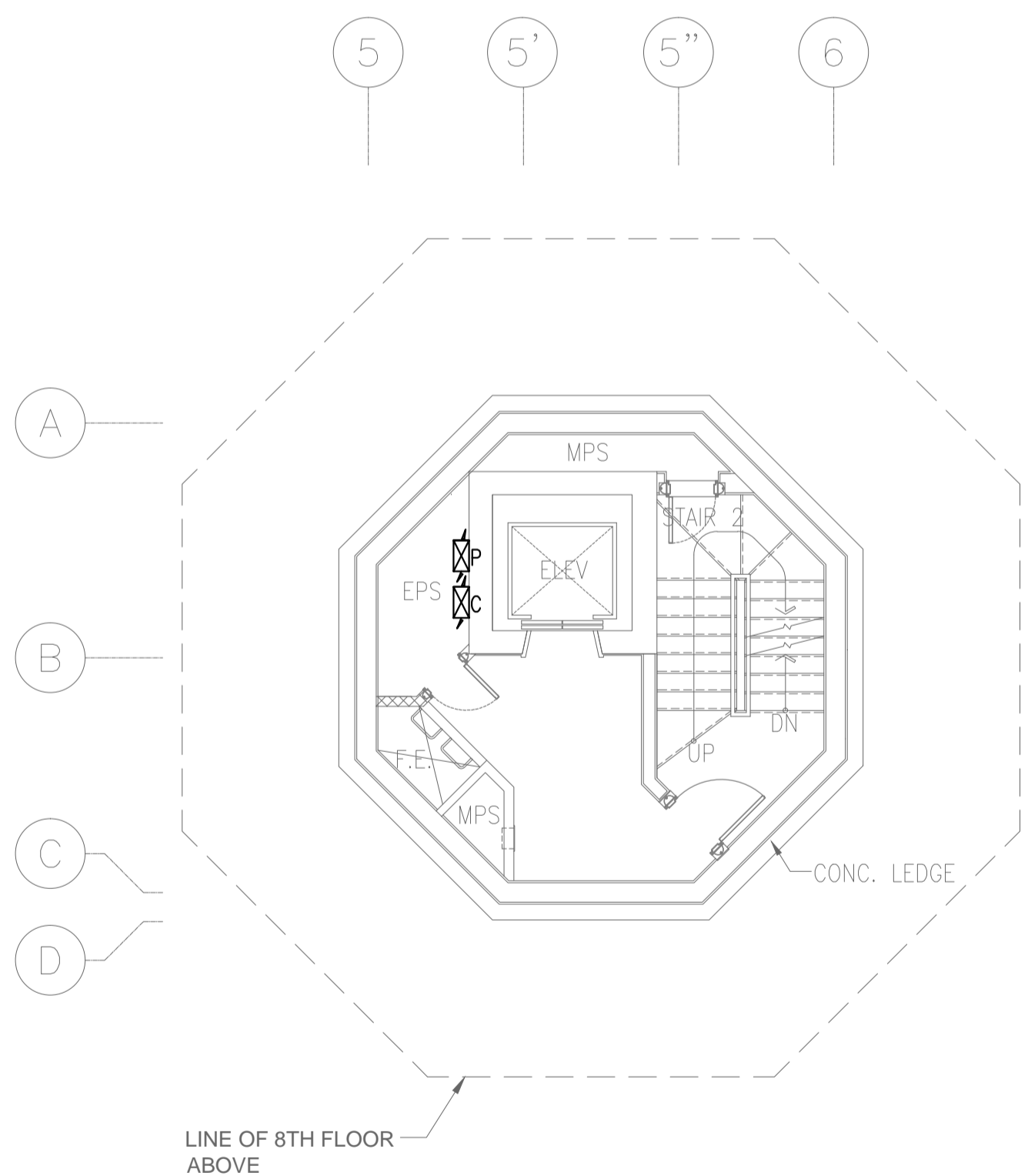


**4 CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
9TH FLR CABLE TRAY LAYOUT PLAN**  
B3-6100-05 GRAPHIC SCALE 0 1 2 5m

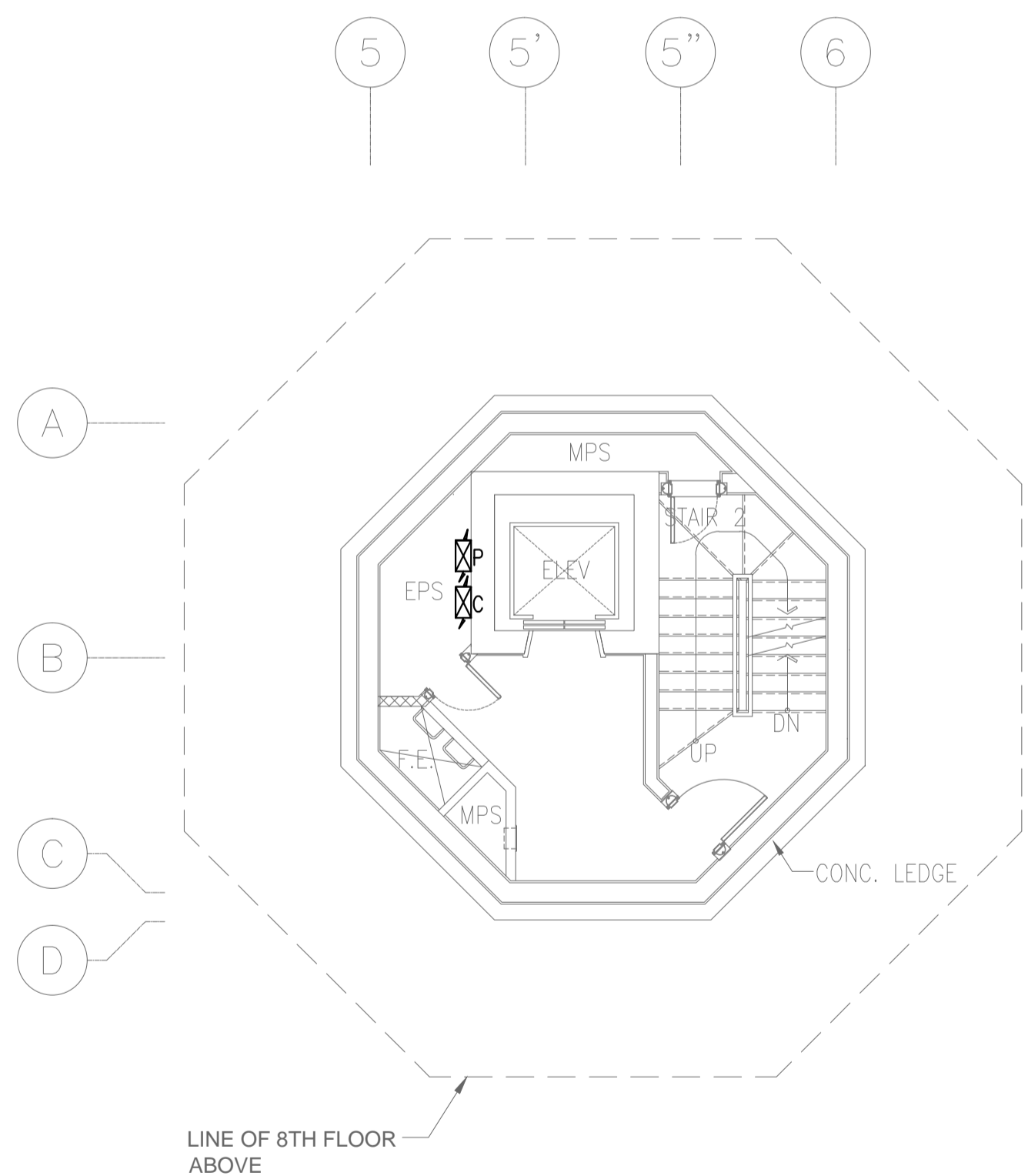
**LEGEND:**  
 - 300mm(W) x 100mm(D) CABLE LADDER (FOR POWER)  
 - 400mm(W) x 100mm(D) COVERED CABLE LADDER (FOR COMMUNICATION)



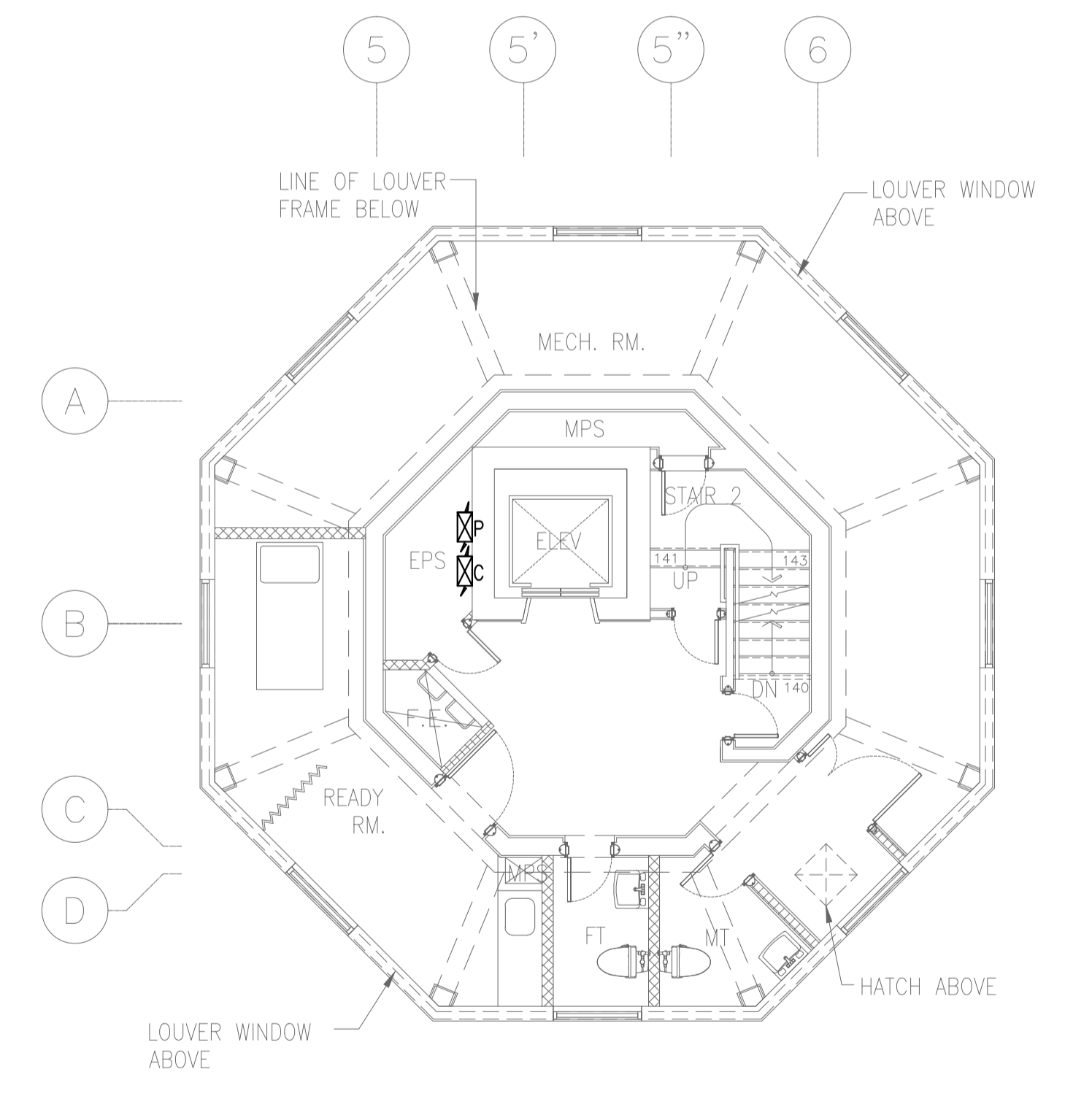
**5 CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
ROOF DECK CABLE TRAY LAYOUT PLAN**  
B3-6100-05 GRAPHIC SCALE 0 1 2 5m



**1 CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
4TH-6TH FLR (TYPICAL) CABLE TRAY LAYOUT PLAN**  
B3-6100-05 GRAPHIC SCALE 0 1 2 5m

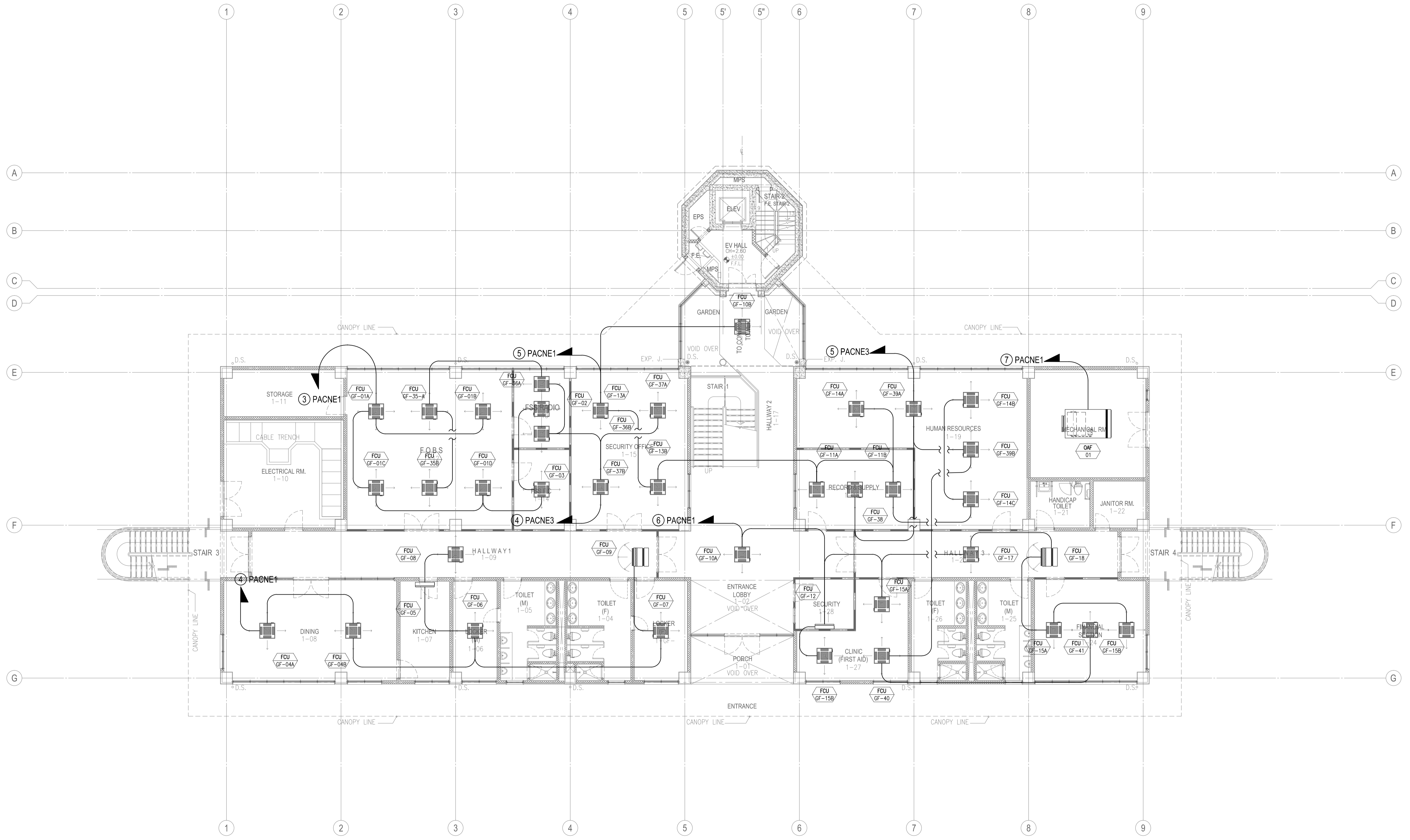


**2 CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
7TH FLR CABLE TRAY LAYOUT PLAN**  
B3-6100-05 GRAPHIC SCALE 0 1 2 5m



**3 CONTROL TOWER, OPERATIONS AND ADMINISTRATION BLDG. (CTO)  
8TH FLR CABLE TRAY LAYOUT PLAN**  
B3-6100-05 GRAPHIC SCALE 0 1 2 5m

	PREPARED BY: <b>TEODORO N. PAMATMAT</b> <small>PROF. ELECTRICAL ENGINEER PTR. 1403773          REG. NO.: 1927 DATE: 1-04-13          TEL. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary          for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary          for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND          SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b>	SHEET CONTENTS: COMPONENT-4 BUILDING WORKS (B) SUBCOMPONENT-4-3 (B3) Control Tower, ATC Operation & Administration Building ELECTRICAL 4TH-9TH FLR CABLE TRAY LAYOUT	SHEET NO: <b>B3-6100-05</b>
	JICA DESIGN CONSULTANT JOINT VENTURE <b>JAC</b> JAPAN AIRPORT CONSULTANTS, INC. <b>NIS</b> NIPPON KOEI CO., LTD. <b>NIS</b> NIS CONSULTANTS CO., LTD.	TADASHI AOI Team Leader	ILDEFONSO T. PATDU, JR. Assistant Secretary for Project Implementation, DOTC	JULIANITO G. BUCAYAN, JR. Undersecretary for Project Implementation, DOTC	LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	DATE INDEX AMENDMENTS JUNE 2013



1 GROUND FLOOR AIR-CONDITIONING LAYOUT  
SCALE 1:100M

	PREPARED BY: <b>TEODORO N. PAMATMAT</b> <small>PROF. ELECTRICAL ENGINEER PIR. 1403773 REG. NO.: 1927 DATE: 1-04-13 T.M. 119-747-900 PLACE: MANILA</small>	RECOMMENDING APPROVAL: <b>ILDEFONSO T. PATDU, JR.</b> <small>Assistant Secretary for Project Implementation, DOTC</small>	APPROVED: <b>JULIANITO G. BUCAYAN, JR.</b> <small>Undersecretary for Project Implementation, DOTC</small>	PROJECT TITLE: <b>NEW BOHOL AIRPORT CONSTRUCTION AND SUSTAINABLE ENVIRONMENT PROTECTION PROJECT</b> LOCATION: MUNICIPALITY OF PANGLAO, PROVINCE OF BOHOL, PHILIPPINES	SHEET CONTENTS: COMPONENT-4 BUILDING WORKS (B) SUBCOMPONENT-4-3 (B3) Control Tower, ATC Operation & Administration Building ELECTRICAL GRD FLR PWR FEEDER1 (FCU)	SHEET NO: <b>B3-6100-06</b> DRAWING SCALE: 1:100
JICA DESIGN CONSULTANT JOINT VENTURE JAPAN AIRPORT CONSULTANTS, INC.    NIPPON KOEI CO., LTD.    NIS CONSULTANTS CO., LTD.					DATE: JUNE 2013 INDEX:    AMENDMENTS:    Prepared by: WIM    Checked by: HC    Validated by:	