

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF: INITIAL / DATE
DESIGNED BY:
DRAWN BY:
CHECKED BY:

REVIEWED BY:
RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:
ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:
LT SOL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:
CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:
NEW CAAP BUILDING

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
GENSET/TRANSFORMER ROOM ELECTRONIC SYSTEM PLAN LAYOUT

PROFESSIONAL ELECTRICAL ENGINEER:
ENGR. FREDERICK R. CALAMLAM

LICENSE NO.: 0003482 VALID UNTIL: 06/04/2025
PTR NO.: 2296325 ISSUED ON: 01/04/2024
TIN NO.: 214-207-341-000 ISSUED AT: LAGUNA

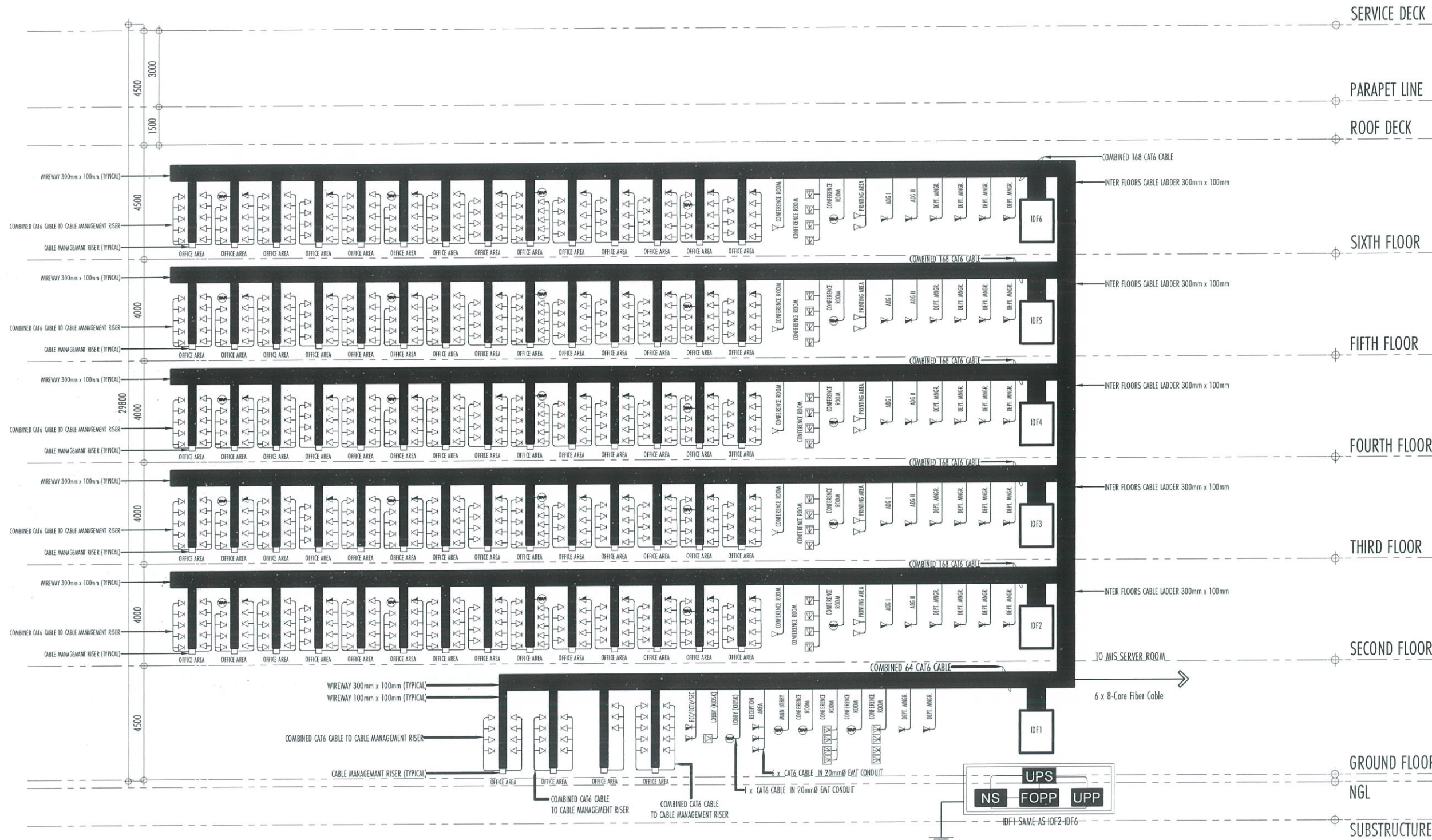
DRAWING SCALE: AS SHOWN
SHEET NO.: EC-20

NOTES:

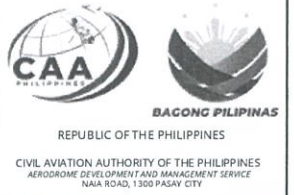
- THIS SCHEMATIC PURPOSE IS TO PROVIDE GENERAL CONCEPT AND PRINCIPLE ON STRUCTURED CABLING SYSTEMS.
- QUANTITY OF OUTLETS ARE INDICATIVE ONLY, REFER TO FLOOR PLAN FOR FINAL QUANTITY AND LOCATION.
- SPECIALTY CONTRACTOR TO PROVIDE COMPLETE WIRING, ACCESSORIES, DEVICES AND EQUIPMENT AS NEEDED FOR SUCCESSFUL OPERATION OF THE SYSTEM.

WIRING SCHEDULE

- (1-3) 4-PAIR CAT6 CABLE IN 20MMØ EMT
(4-6) 4-PAIR CAT6 CABLE IN 25MMØ EMT



1
EC-21 SCALE: STRUCTURAL CABLING/VOICE AND DATA SYSTEM SCHEMATIC DIAGRAM NTS



THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	

REVIEWED BY:

RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:

NEW CAAP BUILDING

LOCATION:

CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:

- STRUCTURAL CABLING/VOICE AND DATA SYSTEM SCHEMATIC DIAGRAM

PROFESSIONAL ELECTRICAL ENGINEER:
ENGR. FREDERICK R. CALAMLAM

LICENSE NO.:	0003482	VALID UNTIL:	06/04/2025
PTR NO.:	2296325	ISSUED ON:	01/04/2024
TIN NO.:	214-207-341-000	ISSUED AT:	LAGUNA

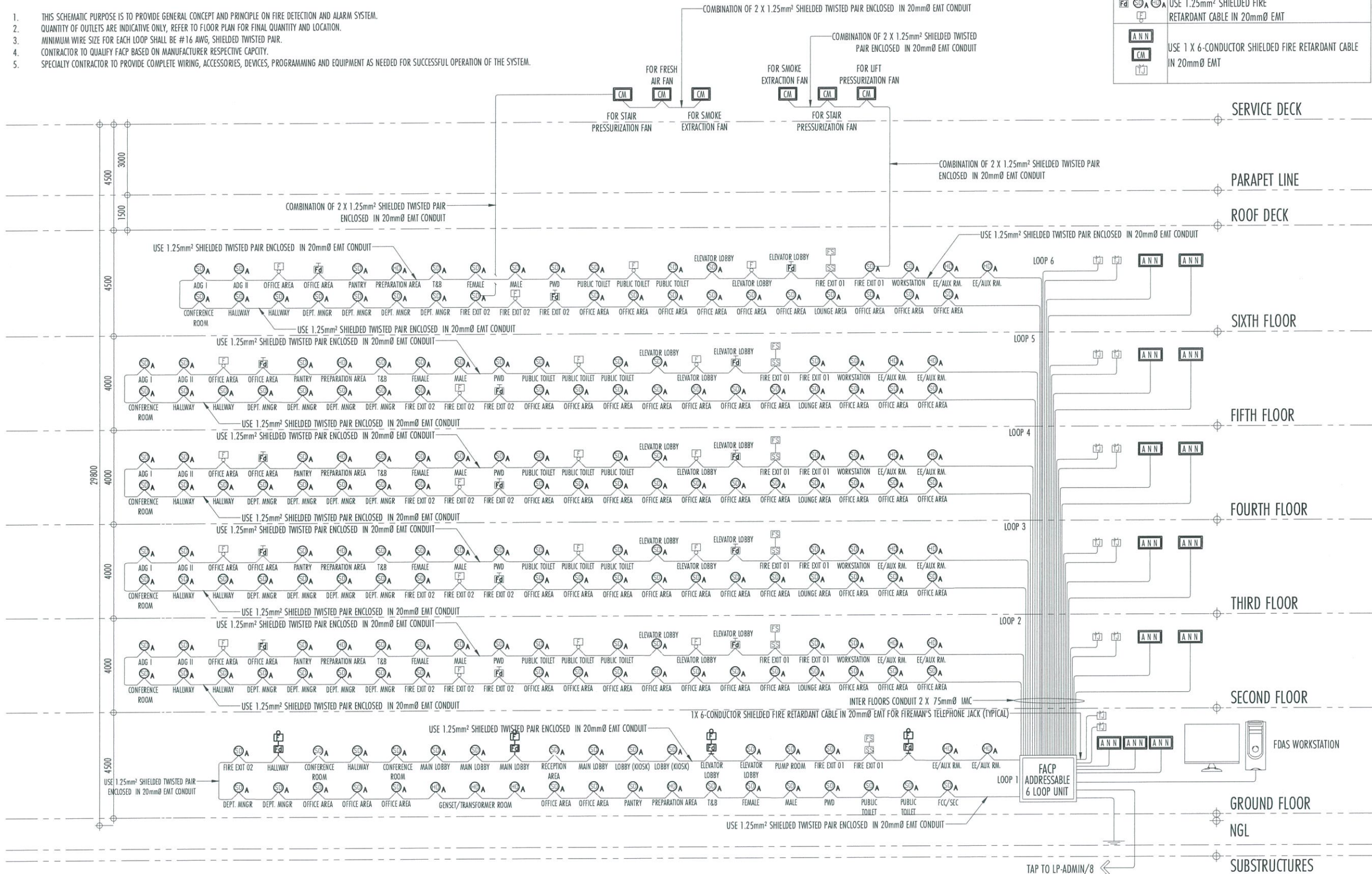
DRAWING SCALE:	SHEET NO.:
AS SHOWN	EC-21

NOTES:

1. THIS SCHEMATIC PURPOSE IS TO PROVIDE GENERAL CONCEPT AND PRINCIPLE ON FIRE DETECTION AND ALARM SYSTEM.
2. QUANTITY OF OUTLETS ARE INDICATIVE ONLY, REFER TO FLOOR PLAN FOR FINAL QUANTITY AND LOCATION.
3. MINIMUM WIRE SIZE FOR EACH LOOP SHALL BE #16 AWG, SHIELDED TWISTED PAIR.
4. CONTRACTOR TO QUALIFY FACP BASED ON MANUFACTURER RESPECTIVE CAPACITY.
5. SPECIALTY CONTRACTOR TO PROVIDE COMPLETE WIRING, ACCESSORIES, DEVICES, PROGRAMMING AND EQUIPMENT AS NEEDED FOR SUCCESSFUL OPERATION OF THE SYSTEM.

LEGEND:

	USE 1.25mm ² SHIELDED FIRE RETARDANT CABLE IN 20mmØ EMT
	USE 1 X 6-CONDUCTOR SHIELDED FIRE RETARDANT CABLE IN 20mmØ EMT



FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAM

1
EC-22

SCALE:

MIS

PROFESSIONAL ELECTRICAL ENGINEER:

ENGR. FREDERICK R. CALAMLAM

LICENSE NO.: 0003482 VALID UNTIL: 06/04/2025

PTR NO.: 2296325 ISSUED ON: 01/04/2024

TIN NO.: 214-207-341-000 ISSUED AT: LAGUNA

DRAWING SCALE: AS SHOWN

SHEET NO.: EC-22

SHEET CONTENTS:
• FIRE DETECTION AND ALARM SYSTEM SCHEMATIC DIAGRAMPROJECT:
NEW CAAP BUILDINGLOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

NOTES/REVISIONS:

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director GeneralLT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

RECOMMEND APPROVAL:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

SUBMITTED BY:

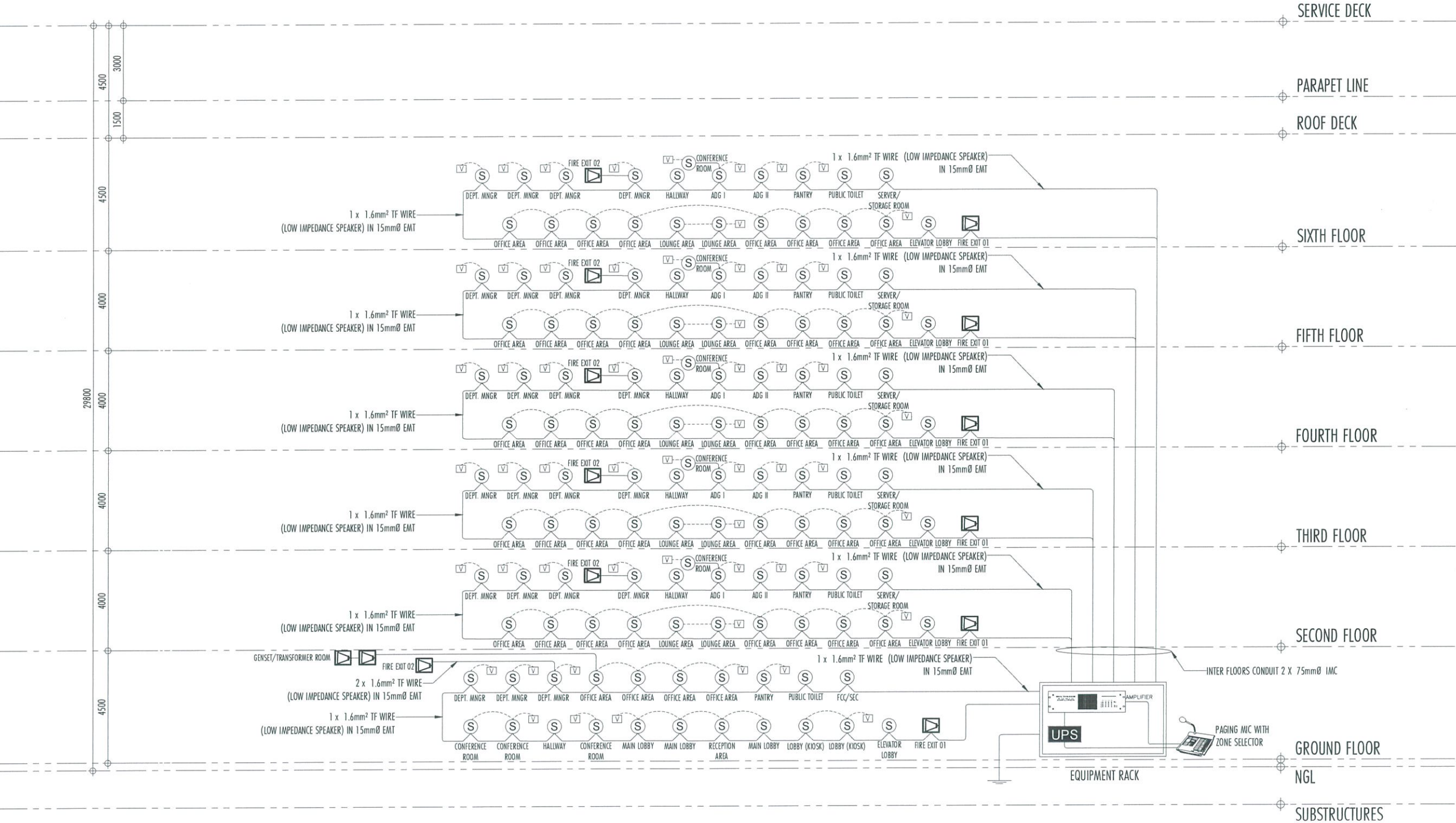
RAUL R. CRUCENA
Division Chief III, IDDD-AED

REVIEWED BY:

INFRASTRUCTURE DEVELOPMENT
AND DESIGN DIVISIONAERODROME DEVELOPMENT
AND MANAGEMENT SERVICETHIS DRAWINGS AND DESIGN IS EXCLUSIVE
PROPERTIES OF CIVIL AVIATION AUTHORITY OF
THE PHILIPPINES AND SUCH MUST NOT BE
REPRODUCED, EXHIBITED, LOANED NOR
COPIED IN PART OR IN WHOLE WITHOUT
PROPER PERMISSION AND/OR WRITTEN
CONSENT FROM THE DIRECTOR GENERAL CAAP.CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

NOTES:

1. THIS SCHEMATIC PURPOSE IS TO PROVIDE GENERAL CONCEPT AND PRINCIPLE ON PUBLIC ADDRESS SYSTEM.
2. QUANTITY OF OUTLETS ARE INDICATIVE ONLY, REFER TO FLOOR PLAN FOR FINAL QUANTITY AND LOCATION.
3. TREAT AS 1 ZONE PER FLOOR FOR EVACUATION PURPOSES.
4. SPECIALTY CONTRACTOR TO PROVIDE COMPLETE WIRING, ACCESSORIES, DEVICES AND EQUIPMENT AS NEEDED FOR SUCCESSFUL OPERATION OF THE SYSTEM.



1
EC-23

PAGING BACKGROUND MUSIC SYSTEM SCHEMATIC DIAGRAM

SCALE:

NTS



THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	
DRAWN BY:	
CHECKED BY:	

REVIEWED BY:

RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL VICTORIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:

NEW CAAP BUILDING

LOCATION:

CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:

PAGING BACKGROUND MUSIC SYSTEM SCHEMATIC DIAGRAM

PROFESSIONAL ELECTRICAL ENGINEER:

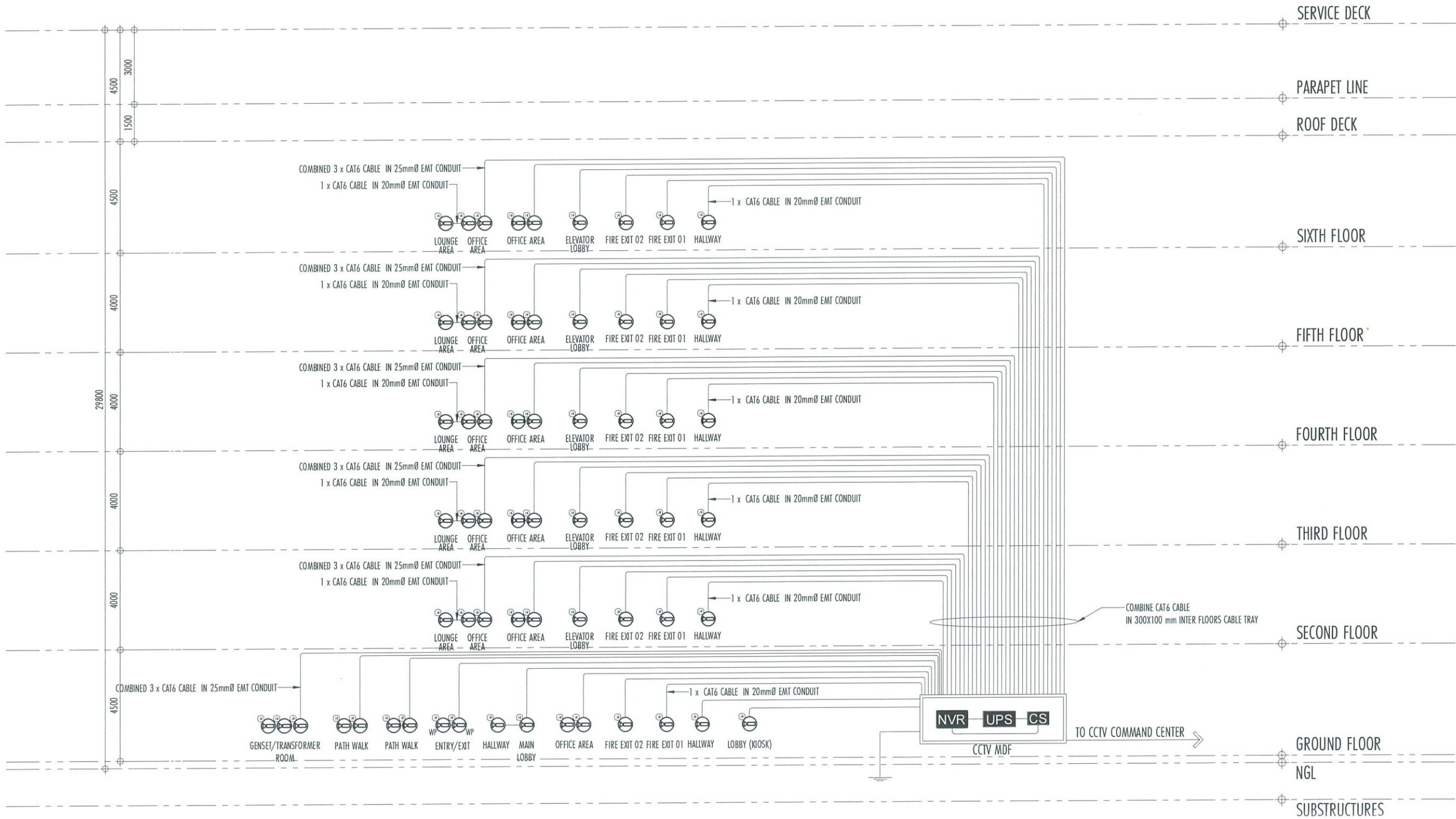
ENGR. FREDERICK R. CALAMLAM

LICENSE NO.:	0003482	VALID UNTIL:	06/04/2025
PTR NO.:	2296325	ISSUED ON:	01/04/2024
ITIN NO.:	214-207-341-000	ISSUED AT:	LAGUNA

DRAWING SCALE:	SHEET NO.:
AS SHOWN	EC-23

NOTES:

1. THIS SCHEMATIC PURPOSE IS TO PROVIDE GENERAL CONCEPT ON CCTV SYSTEMS.
2. CONTRACTOR TO PROVIDE COMPLETE CCTV SYSTEMS INCLUDING WIRING, ACCESSORIES, DEVICES SOFTWARE, AND EQUIPMENT AS NEEDED FOR SUCCESSFUL OPERATION OF THE SYSTEM.
3. QUANTITY OF CAMERA SHALL BE BASED ON ACTUAL LAYOUT.
4. THE NETWORK VIDEO RECORDER (NVR) SHALL HAVE STORAGE CAPACITY OF 30 DAYS.



1
EC-24 SCALE: NTS

CLOSED CIRCUIT TELEVISION SYSTEM SCHEMATIC DIAGRAM



THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF: INITIAL / DATE
DESIGNED BY:
DRAWN BY: *[Signature]*
CHECKED BY:

REVIEWED BY:
[Signature]
RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:
[Signature]
ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:
[Signature]
LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:
[Signature]
CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:
NEW CAAP BUILDING

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• CLOSED CIRCUIT TELEVISION SYSTEM SCHEMATIC DIAGRAM

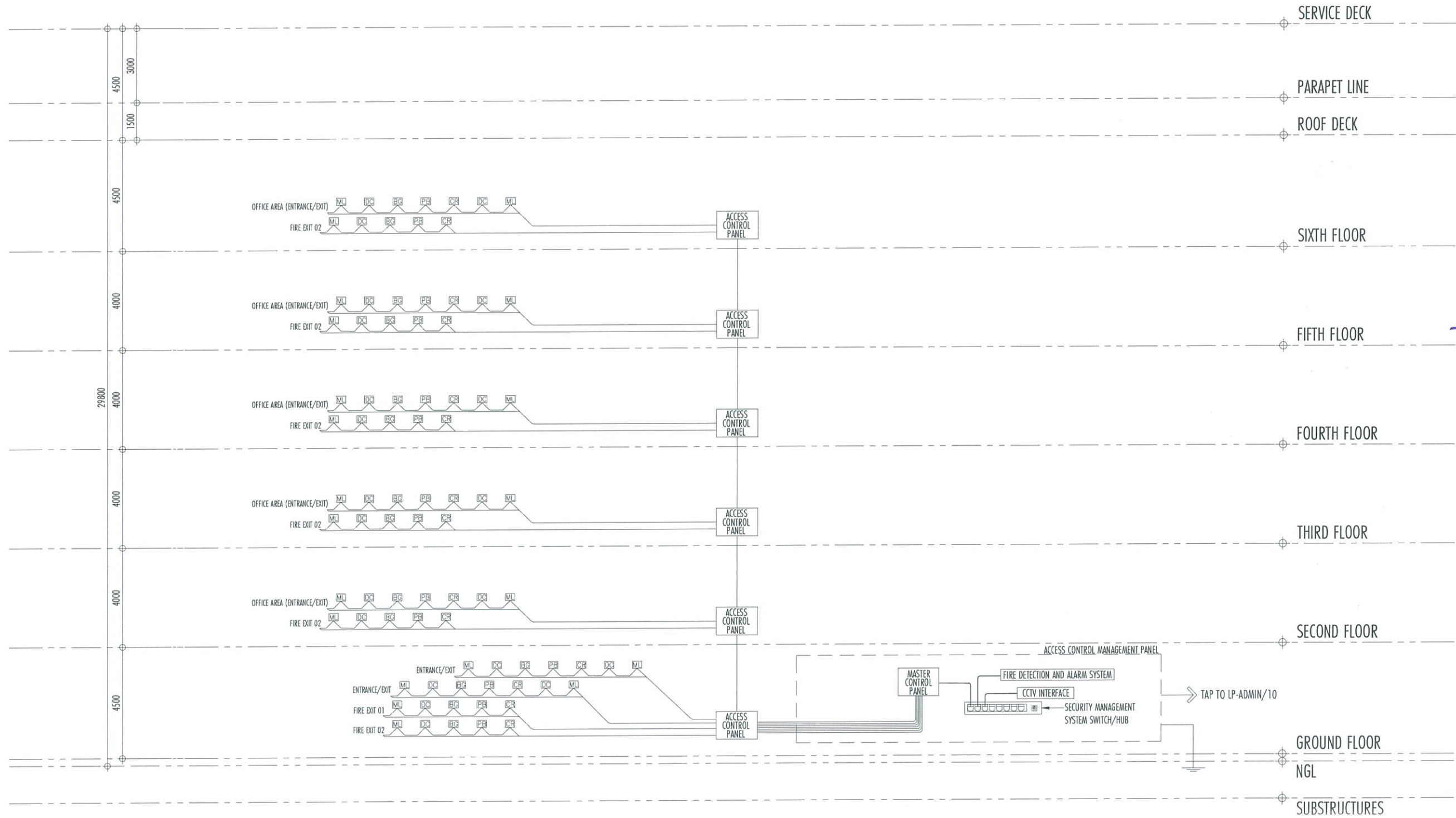
PROFESSIONAL ELECTRICAL ENGINEER:
ENGR. FREDERICK R. CALAMLAM

LICENSE NO.: 0003482 VALID UNTIL: 06/04/2025
PTR NO.: 2296325 ISSUED ON: 01/04/2024
TIN NO.: 214-207-341-000 ISSUED AT: LAGUNA

DRAWING SCALE: AS SHOWN
SHEET NO.: EC-24

NOTES:

1. THIS SCHEMATIC PURPOSE IS TO PROVIDE GENERAL CONCEPT AND PRINCIPLE ON ACCESS CONTROL SYSTEM.
2. QUANTITY OF OUTLETS ARE INDICATIVE ONLY, REFER TO FLOOR PLAN FOR FINAL QUANTITY AND LOCATION.
3. SPECIALTY CONTRACTOR TO PROVIDE COMPLETE WIRING, ACCESSORIES, DEVICES, PROGRAMMING AND EQUIPMENT AS NEEDED FOR SUCCESSFUL OPERATION OF THE SYSTEM.
4. USE CAT6 CABLE FOR NETWORK AND AWG 18 Str 4-Pair Shielded Cable FOR CARD READERS, RS485 COM AND DOOR.



1 ACCESS CONTROL MANAGEMENT SYSTEM SCHEMATIC DIAGRAM
EC-25 SCALE: NTS



THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	
DRAWN BY:	<i>[Signature]</i>
CHECKED BY:	

REVIEWED BY:
[Signature]
RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:
[Signature]
ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:
[Signature]
LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:
[Signature]
CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:
NEW CAAP BUILDING

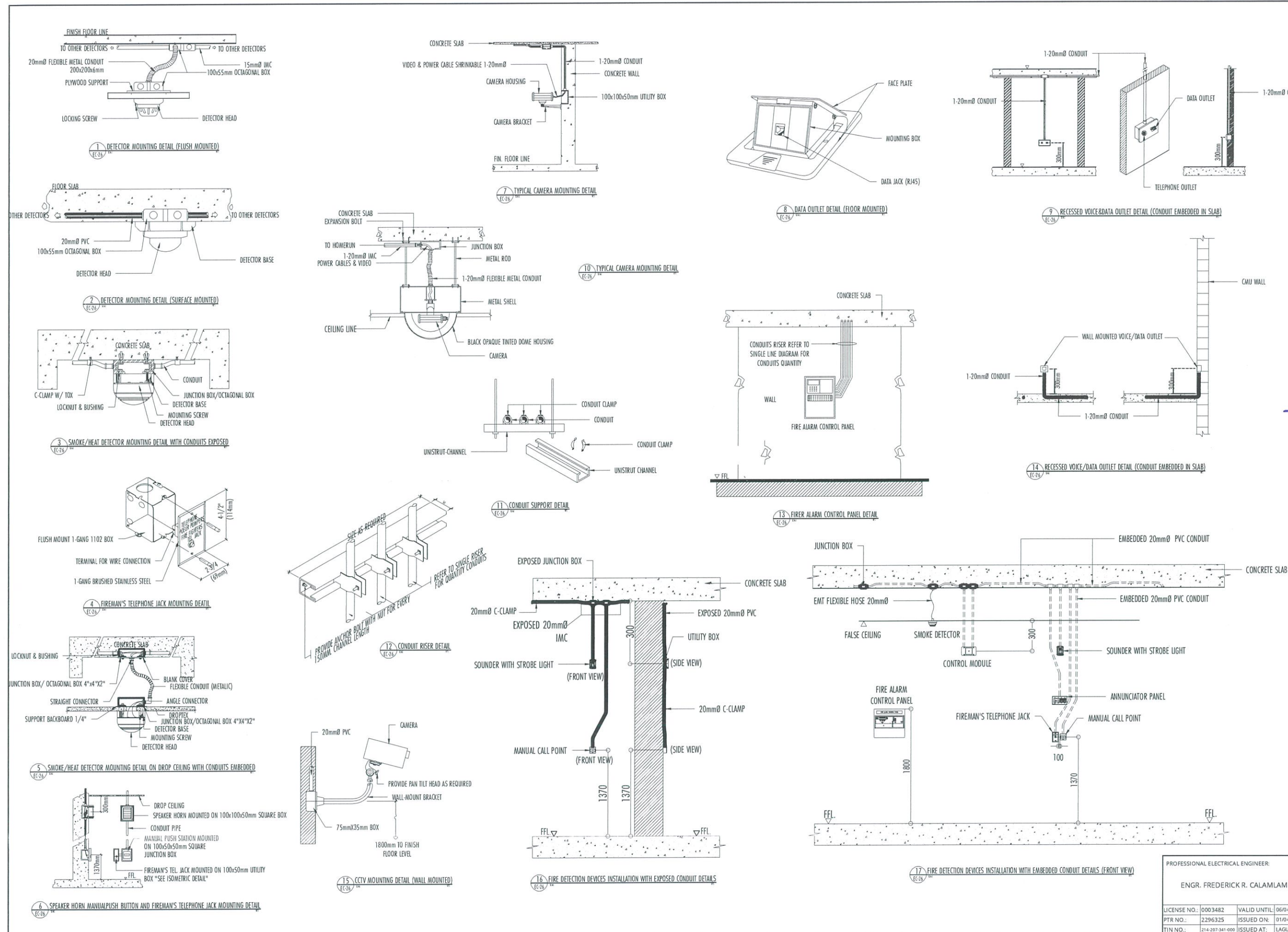
LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY



SHEET CONTENTS:
ACCESS CONTROL MANAGEMENT SYSTEM SCHEMATIC DIAGRAM

PROFESSIONAL ELECTRICAL ENGINEER:
ENGR. FREDERICK R. CALAMILAM

LICENSE NO.:	0003482	VALID UNTIL:	06/04/2025
PTR NO.:	2296325	ISSUED ON:	01/04/2024
TIN NO.:	214-207-341-000	ISSUED AT:	LAGUNA

DRAWING SCALE:	SHEET NO.:
AS SHOWN	EC-25









REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

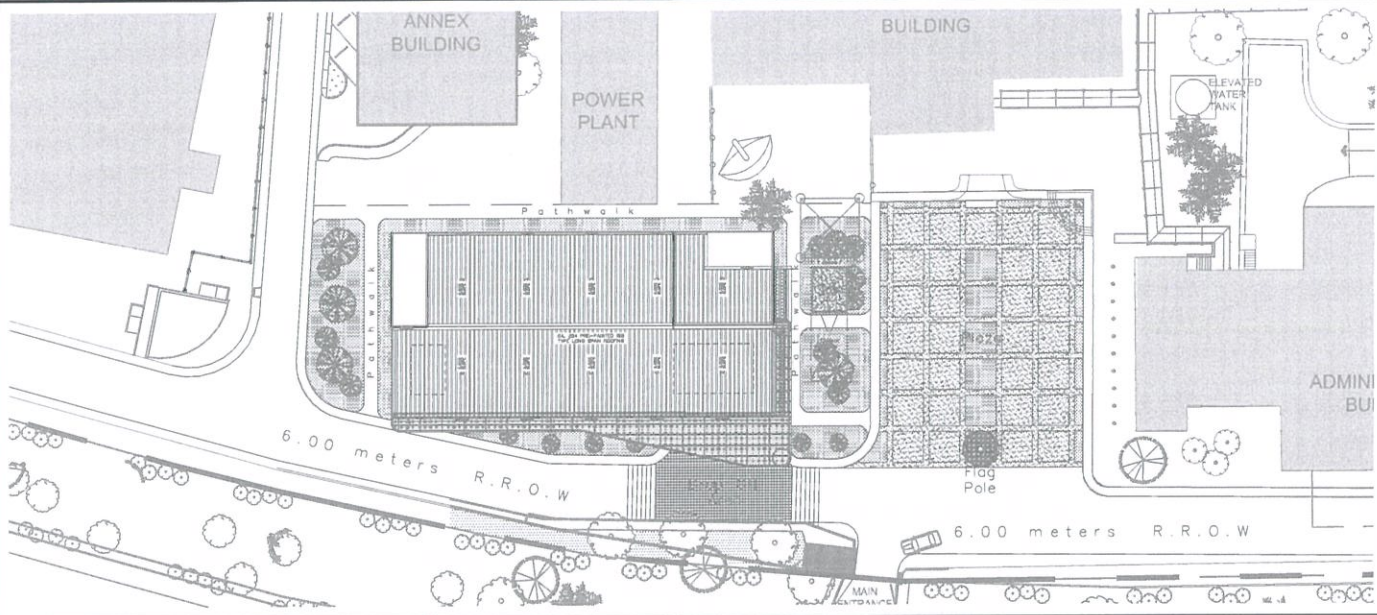
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	
DRAWN BY:	<i>J. M. Lopez</i>
CHECKED BY:	
REVIEWED BY:	
 <p>RAUL R. CRUCENA Division Chief III, IDDD-AED</p>	
SUBMITTED BY:  <p>ARNEL F. BORLADO Department Manager III, AED-ADMS</p>	
RECOMMEND APPROVAL:  <p>LT COL VALENTINO A. DIONELA PAF (RET) Assistant Director General II, ADMS</p>	
APPROVED BY:  <p>CAPTAIN MANUEL ANTONIO L. TAMAYO Director General</p>	
NOTES/REVISIONS:	
PROJECT: NEW CAAP BUILDING	
LOCATION: CAAP HEAD OFFICE NAIA ROAD, PASAY CITY	
SHEET CONTENTS:	
• MISCELLANEOUS DETAILS	
PROFESSIONAL ELECTRICAL ENGINEER: ENGR. FREDERICK R. CALAMILAM	
LICENSE NO.: 0003482	VALID UNTIL: 06/04/2025
PTR NO.: 2296325	ISSUED ON: 01/04/2024
TIN NO.: 214-207-341-000	ISSUED AT: LAGUNA
DRAWING SCALE:	SHEET NO:
AS SHOWN	EC-26

GENERAL NOTES:

1. ALL MECHANICAL WORKS SHALL BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENT IN THE PHILIPPINE MECHANICAL CODE. PSME, ASME, ASHRAE, SMACNA, AND OTHER STANDARDS.
2. ALL MECHANICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH GENERAL NOTES, SPECIFICATIONS, MISCELLANEOUS DETAILS AND ARCHITECTURAL, STRUCTURAL AND ELECTRICAL FINAL DESIGN DRAWINGS.
3. UNLESS OTHERWISE SPECIFIED, ALL DUCT SIZES AND OTHER DIMENSIONS ARE IN MILLIMETERS.
4. ALL DUCT DIMENSIONS INDICATED ARE INSIDE CLEAR DIMENSIONS IN MM., EXCLUDING INTERNAL LINING & EXTERNAL INSULATION THICKNESS, UNLESS OTHERWISE INDICATED.
5. ALL SUPPLY AIR DUCTS SHALL BE INSULATED. THE RETURN AIR DUCTS SHALL BE INSULATED WHERE IT IS PASSING THROUGH NON-AIR CONDITIONED AREA OR CEILING SPACES NOT USED AS RETURN AIR PLENUM.
6. PROVIDE 6MM SQUARE MESH SCREEN ON ALL DUCT AND WALL OPENINGS IN CEILING SPACE.
7. FLEXIBLE DUCT CONNECTION TO ANY AIR OUTLET SHALL NOT EXCEED A LENGTH OF 1.50 METERS AND SHOULD BE STRAIGHTENED AS MUCH AS POSSIBLE TO ACHIEVE MINIMUM RESISTANCE TO AIR FLOW.
8. DUCTWORK, FITTINGS, HANGERS AND ACCESSORIES SHALL BE AS PER SMACNA RECOMMENDATIONS AND AS SPECIFIED IN THE SPECIFICATIONS.
9. BELLMOUTH OPENING FOR RETURN AIR SHALL BE SIZED AT A MAXIMUM VELOCITY OF 2.5 METERS PER SECOND.
10. ALL OPEN ENDED DUCTS SHALL BE BELLMOUTHED, SCREENED AND REINFORCED WITH 37.5mm x 37.5mm x 3.5mm GALVANIZED STEEL ANGLES BOLTED, SCREWED OR RIVETED 150mm ON CENTER (MAXIMUM) ALL AROUND THE EXTERIOR PERIMETER OF THE DUCT.
11. PIPES, SLEEVES AND DUCTS PASSING THROUGH FIRE BARRIER, THE GAP BETWEEN THE PIPES AND ITS SLEEVES, AND THE GAP BETWEEN THE DUCTS AND FIRE BARRIERS MUST BE FIRMLY SEALED WITH FIRESTOP MATERIALS HAVING A PERIOD OF FIRE RESISTANCE EQUAL TO THE FIRE BARRIERS. DETAILS OF DUCTS AND PIPES THROUGH WALL AND FLOOR SHALL COMPLY WITH U.L. STANDARD AND REQUIREMENTS.
12. ALL DUCTS PASSING THRU SLAB SHALL BE PROVIDED WITH FIRE DAMPERS.
13. WHERE DUCT REQUIRING INSULATION PASSES THROUGH A FIRE BARRIER AND IS PROVIDED WITH A FIRE DAMPER, THE EXTERNAL INSULATION MUST HAVE A PERIOD OF FIRE RESISTANCE EQUAL TO THE BARRIERS.
14. VOLUME CONTROL DAMPER SHALL BE PROVIDED FOR SUPPLY AIR DUCT AT EACH BRANCH, WHETHER SHOWN OR NOT SHOWN ON PLANS.
15. ALL DUCT ELBOWS MUST BE FITTED WITH TURNING VANES TO SMACNA STANDARD.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL FIRE DAMPERS NECESSARY AND REQUIRED BY CODE IN ORDER TO SUIT FIELD CONDITIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RESISTANCE RATING OF BUILDING FIRE RATED WALLS.
17. PROVIDE ACCESS PANELS IN THE CEILING TO ALL FIRE DAMPERS, VOLUME DAMPERS, FCU CONTROL VALVES AND OTHER CONCEALED EQUIPMENT. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT FOR THE FINAL LOCATION OF ACCESS PANELS TO SUIT THE SELECTED EQUIPMENT.
18. ALL OPENING FOR DUCTS AND PIPES SHALL NOT, IN ANYWAY, PENETRATE STRUCTURAL RIB ON BEAMS UNLESS OTHERWISE AUTHORIZED.
19. COORDINATE AND REFER TO ARCHITECTURAL CEILING PLANS AND FINAL FF & E LAYOUT FOR EXACT LOCATION OF ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES, COORDINATE EXACT LOCATION OF SLOTS, GRILLES, REGISTERS, AND DIFFUSERS WITH ARCHITECTURAL REFLECTED CEILING PLANS. IF A PARTICULAR ITEM IS NOT SHOWN ON THE ARCHITECTURAL REFLECTED CEILING PLAN, PREPARE A DRAWING AND PRESENT IT TO THE ARCHITECT FOR HIS REVIEW AND/OR APPROVAL.
20. SIZE OF ALL BRANCH DUCTS TO GRILLES, LOUVERS OR DIFFUSERS SHALL BE THE SAME OF THE NECK SIZE OF THE RESPECTIVE GRILLES, LOUVERS OR DIFFUSERS UNLESS OTHERWISE SPECIFIED.
21. ALL HVAC EQUIPMENT SHALL BE SELECTED TO MEET THE REQUIRED CAPACITIES AND DATA INDICATED ON THE EQUIPMENT SCHEDULE.
22. FAN SYSTEM RESISTANCE, AND ELECTRICAL MOTOR RATINGS STATED IN THE SCHEDULES ARE DESIGN APPROXIMATIONS ONLY AND SHALL BE CHECKED AND REVISED BY MECHANICAL SERVICES CONTRACTOR PRIOR TO THE FINAL ORDERING OF EQUIPMENT WITHOUT ADDITIONAL COST TO THE CONTRACT.
23. REFER TO ARCHITECTURAL DRAWINGS FOR DOOR GRILLE AND DOOR UNDERCUT SIZES AND DETAILS.
24. PROVIDE SLEEVES WHERE PIPES/DUCTS PENETRATE THROUGH WALL AND SLABS.
25. ALL CONDENSATE DRAIN PIPES SHALL BE INSULATED AS PER SPECIFICATIONS.
26. PIPE ALL CONDENSATE DRAIN LINES TO THE NEAREST DRAIN POINT UNDER PLUMBING WORKS UNLESS OTHERWISE SHOWN IN THE DRAWING.
27. ALL JOINTS FOR CONDENSATE DRAIN PIPE (CDP) CONNECTIONS TO PLUMBING STUB-OUTS OR CDP LINES SHALL BE PART OF MECHANICAL WORKS.
28. ALL VRF & SPLIT TYPE AIR CONDITIONING SYSTEM SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS. REFRIGERANT PIPING LAYOUT AND SIZE SHALL BE APPROVED BY CERTIFIED CONTRACTOR.
28. INSTALL ALL EQUIPMENT AS PER MANUFACTURER'S RECOMMENDATIONS.
27. KITCHEN EXHAUST DUCTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NFPA 96 AND ENCLOSURES AROUND HORIZONTAL & VERTICAL RUNS SHALL BE COORDINATED WITH THE ARCHITECTURAL LAYOUTS.
28. CONTRACTOR SHALL EXECUTE ALL ELECTRICAL WORKS RELATED TO MECHANICAL SYSTEM INCLUDING ALL CONTROLS TO PROVIDE A COMPLETE AND OPERABLE SYSTEM TO THE SATISFACTION OF THE ENGINEER AND AS PRE APPROVED SHOP DRAWINGS.
29. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL TRADES AT SITE. HE IS RESPONSIBLE TO PROVIDE DUCT REDUCERS (AS NECESSARY) TO ABIDE WITH ARCHITECTURAL, STRUCTURAL AND MECHANICAL REQUIREMENTS.
30. UNLESS OTHERWISE NOTED, ALL EXTERNAL LOUVERS SHALL BE WEATHERPROOF TYPE WITH 12mm STAINLESS WIRE MESH SUPPLIED AND INSTALLED BY OTHERS (BUILDER'S WORK).
31. UNLESS OTHERWISE NOTED, THE FREE AREA OF ALL EXTERNAL LOUVERS SHALL BE A MINIMUM OF 50% OF GROSS AREA.
32. EMERGENCY STOP OR DISCONNECT SWITCHES SHALL BE INSTALLED ADJACENT TO EACH MOTOR.
33. THE CONTRACTOR SHALL PROVIDE AND SELECT SILENCERS FOR ALL FAN AT SUCTION AND DISCHARGE SIDE CONNECTIONS TO ACHIEVE THE SPECIFIED ROOM AND EXTERNAL ACOUSTIC LEVELS AS REQUIRED. COORDINATE WITH THE ACOUSTIC AND/OR CONTRACTOR.
34. ALL AIR GRILLES / LOUVERS SHALL BE MADE OF ALUMINUM UNLESS OTHERWISE SPECIFIED. THE COLOR & SURFACE FINISHING OF THE GRILLES / LOUVERS SHALL BE SUBMITTED TO ARCHITECT FOR APPROVAL BEFORE MATERIAL ORDERING. UNLESS OTHERWISE SPECIFIED, COLOR FINISH SHALL BE IN BAKED ENAMEL PAINT.
35. ALL ANTI-VIBRATION MOUNTS FOR EQUIPMENT AND PIPE WORK SHALL BE OF SEISMIC SPRING TYPE UNLESS OTHERWISE SHOWN ON DRAWINGS.
36. ALL EQUIPMENT, DUCTWORKS AND OTHER ACCESSORIES INSTALLED OUTDOOR SHALL BE WEATHERPROOFED AND PROTECTED.
37. MAINTAIN DUCTWORK LEVEL AND AS HIGH AS POSSIBLE UNLESS OTHERWISE NOTED. TRANSITION RECTANGULAR DUCTWORK ON THE TOP AND AT THE SIDES. ALL DUCT TRANSITIONS FROM SQUARE TO ROUND SHALL BE SMOOTH SQUARE TO ROUND TRANSITIONS. SPIN-IN FITTINGS AT THE END OF CAPPED DUCTS ARE NOT ACCEPTABLE.
38. ALL WIRING IN THE CEILING PLENUM SHALL BE PLENUM RATED CABLE PER NFPA-70 OR BE INSTALLED IN METAL CONDUIT.
39. ALL CEILING MOUNTED AIR DISTRIBUTION DEVICES LOCATED IN INACCESSIBLE CEILINGS SHALL HAVE FACE OPERABLE DAMPERS TO ALLOW AIR BALANCING OF THE SYSTEM AFTER THE CEILING IS IN PLACE.
40. FOR ALL EQUIPMENT, DUCTWORK, PIPING AND APPURTENANCES EXPOSED TO AN OUTDOOR ENVIRONMENT, SPECIAL CARE SHALL BE TAKEN TO ENSURE THAT THE UNIT CASING, MOTORS, VALVES AND OTHER APPURTENANCES ARE PROPERLY PROTECTED AS SPECIFIED. PROVIDE EITHER AN EPOXY COATING, STAINLESS STEEL MATERIALS OR OTHER SIMILAR WEATHERPROOFING PROTECTION.
41. ALL FANS, FCU's, AND OTHER AIR DISTRIBUTION EQUIPMENT DISCHARGING INTO COMMON DUCTS, RISER OR HEADERS SHALL BE PROVIDED WITH BACKDRAFT DAMPERS, WHETHER SHOWN OR NOT SHOWN ON DRAWINGS.
41. AFTER SUBMITTAL APPROVALS AND PRIOR TO ORDERING OF ANY EQUIPMENT OR ACCESSORIES, OR BEFORE FABRICATION AND/OR ASSEMBLY OF PIPING, DUCTS AND ANY DEVICES/COMPONENTS, THE CONTRACTOR SHALL ENSURE THAT EVERYTHING HAS BEEN VERIFIED AT SITE AND COORDINATED WITH ALL THE OTHER DISCIPLINES AS TO THE CONTRACTIBILITY AND MAINTAINABILITY OF THE EQUIPMENT AND UTILITIES. IF FOR ANY REASON, CONFLICT ARISE DUE TO CONTRACTOR'S FAILURE TO FOLLOW THE ABOVE OR HIS LACK OF DUE DILIGENCE, ALL WORKS AS NECESSITATED SHALL BE PERFORMED BY THE CONTRACTOR WITHOUT ADDITIONAL COST CHANGE ORDER.
48. ALL CEILING MOUNTED OR CEILING HANGED EQUIPMENT MUST BE PROVIDED WITH VIBRATION ISOLATOR TO PREVENT MECHANICAL NOISE TRANSFER.
49. ALL REFRIGERANT PIPES INSTALLED MUST BE CONDUCTED WITH PRESSURE TEST PRIOR TO FINAL INSTALLATION.
50. AL KITCHEN EXHAUST DUCTWORK (COMMERCIAL) SHALL BE MADE OF B.I. PIPE GA. 16 W/ 50kg/m³ INSULATION.
51. ALL KITCHEN EXHAUST DUCTWORK (RESIDENTIAL) SHALL BE MADE OF B.I. PIPE GA. 18 W/ 50kg/m³ INSULATION.
52. EXHAUST DUCT FOR STP SHALL BE MADE OF STAINLESS STEEL.
53. ALL INSTALLATION WORK SHALL BE DONE IN A NEAT AND WORKMAN LIKE MANNER.
54. ALL MATERIALS SHALL BE NEW AND CLEAN.
55. PROVIDE WASHABLE FILTER ON RANGE HOOD.
56. ANY DISCREPANCY ON DRAWING SHALL BE SUBJECT FOR VERIFICATION.
57. ALL NECESSARY GOVERNMENT PERMIT SHALL BE PAID BY THE CONTRACTOR.

1 GENERAL NOTES
M-00 SCALE: NTS



2 SITE DEVELOPMENT
M-00 SCALE: NTS

ABBREVIATIONS			
ACMV	AIR CONDITIONING AND MECHANICAL VENTILATION	KW	KILOWATT
ACCU	AIR-COOLED CONDENSING UNIT	L-R	LEFT TO RIGHT
BOD	BACKDRAFT DAMPER	LPS	LITERS PER SECOND
B.I.	BLACK IRON	LCP	LOCAL CONTROL PANEL
C/W	COMPLETE WITH	LPD	LIFT PRESSURIZATION DUCT
CFM	CUBIC FEET PER MINUTE	LPF	LIFT PRESSURIZATION FAN
CMH	CUBIC METER PER HOUR	MD	MOTORIZED DAMPER
DA	DAMPER ACTUATOR	MS	MOTOR STARTER
DL	DOOR LOUVER	MTS	METERS
DSPC	DIFFERENTIAL STATIC PRESSURE CONTROLLER	NFA	NET FREE AREA
DPS	DIFFERENTIAL PRESSURE SENSOR	NTS	NOT TO SCALE
EAD	EXHAUST AIR DUCT	Pa	PASCALS
EAG	EXHAUST AIR GRILLE	PH	PHASE
EAL	EXHAUST AIR LOUVER	RAD	RETURN AIR DUCT
EF	EXHAUST FAN	RH	RANGE HOOD
ESP	EXTERNAL STATIC PRESSURE	RP	REFRIGERANT PIPE
F/A	FROM ABOVE	SAD	SUPPLY AIR DUCT
F/B	FROM BELOW	SCD	SUPPLY CEILING DIFFUSER
FAF	FRESH AIR FAN	SED	SMOKE EXTRACTION DUCT
FACP	FIRE ALARM CONTROL PANEL	SEF	SMOKE EXTRACTION FAN
FAD	FRESH AIR DUCT	SPD	STAIRWELL PRESSURIZATION DUCT
FCU	FAN COIL UNIT	T/A	TO ABOVE
FDAS	FIRE DETECTION ALARM SYSTEM	T/B	TO BELOW
FD	FIRE DAMPER	T-B	TOP TO BOTTOM
HP	HORSEPOWER	TEB	TOILET EXHAUST BLOWER
HZ	HERTZ	TED	TOILET EXHAUST DUCT
JF	JET FAN	TEF	TOILET EXHAUST FAN
KEB	KITCHEN EXHAUST BLOWER	VRF	VARIABLE REFRIGERANT FLOW
KSB	KITCHEN SUPPLY BLOWER	VD	VOLUME DAMPER

LEGENDS & SYMBOLS			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	EQUIPMENT TAG		DUCT TRANSITION (RECTANGULAR TO ROUND)
	AIR-COOLED CONDENSING UNIT (PLAN)		VOLUME DAMPER (PLAN)
	AIR-COOLED CONDENSING UNIT (SCHEMATIC)		VOLUME DAMPER (SCHEMATIC)
	WALL MOUNTED FCU (PLAN)		BELLMOUTH WITH INSECT SCREEN
	WALL MOUNTED FCU (SCHEMATIC)		JET FAN
	VRF OUTDOOR UNIT - UPBLAST (SCHEMATIC)		EXHAUST AIR DUCT RISER
	VRF OUTDOOR UNIT - UPBLAST (PLAN)		FRESH AIR DUCT RISER
	VRF OUTDOOR UNIT - SIDE/THROW (SCHEMATIC)		SUPPLY/FRESH AIR GRILLE
	CEILING CONCEALED FCU (PLAN)		EXHAUST/RETURN AIR GRILLE
	CEILING CONCEALED FCU (SCHEMATIC)		EXHAUST/RETURN AIR LOUVER
	CEILING CASSETTE FCU (PLAN)		SUPPLY/FRESH AIR LOUVER
	CEILING CASSETTE FCU (SCHEMATIC)		CEILING CASSETTE TYPE TOILET EXHAUST FAN
	CEILING SUSPENDED FCU (PLAN)		RANGE HOOD
	CENTRIFUGAL FAN		AIR VENT CAP
	FLEXIBLE DUCT		REFRIGERANT PIPE
	DUCT		REFRIGERANT PIPE RISER DOWN
	ECCENTRIC DUCT REDUCER		REFRIGERANT PIPE RISER UP
	CONCENTRIC DUCT REDUCER		REFRIGERANT PIPE FITTINGS
	SUPPLY LINEAR DIFFUSER		MOTORIZED DAMPER (PLAN)
	RETURN LINEAR DIFFUSER		MOTORIZED DAMPER (SCHEMATIC)
	DOOR LOUVER		MOTOR STARTER
	IN-LINE AXIAL FAN		LOCAL CONTROL PANEL
	IN-LINE CENTRIFUGAL FAN		DAMPER ACTUATOR
	DUCT STUB-OUT		DIFFERENTIAL STATIC PRESSURE CONTROLLER
	FIRE DAMPER (SCHEMATIC)		DIFFERENTIAL STATIC PRESSURE SENSOR

3 ABBREVIATION, LEGEND AND SYMBOLS
M-00 SCALE: NTS



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD
DRAWN BY:	IDDD
CHECKED BY:	

REVIEWED BY:

RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:
NEW CAAP OFFICE BUILDING

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• GENERAL NOTES
• SITE DEVELOPMENT
• ABBREVIATION, LEGEND AND SYMBOLS

DRAWING SCALE:	SHEET NO:
AS SHOWN	M-00

SPLIT TYPE AC UNITS

FAN COIL UNIT						AIR COOLED CONDENSING UNIT					REFRIGERANT	REMARKS
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	COOLING CAPACITY (kW)	UNIT DESIGNATION	QTY	TOTAL COOLING CAPACITY (kW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	TOTAL POWER INPUT (kW)		
FCU-GF	2	OFFICE AREA	GROUND FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-GF	2	14.0 kW	230 / 1 / 60	4.49 kW	R-410A	EACH UNIT SHALL BE FACTORY TESTED AND ASSEMBLED TO MEET THE DESIGN REQUIREMENTS AND SHALL BE COMPLETE WITH DECORATIVE PANELS, WASHABLE TYPE AIR FILTERS, AND WIRED REMOTE CONTROLLERS. FAN SPEED CONTROL AND WIDE RANGE OF TEMPERATURE SETTINGS. COMPRESSOR SHALL BE INVERTER TYPE.
FCU-GF	6	MAIN LOBBY	GROUND FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-GF	6	14.0 kW	230 / 1 / 60	4.49 kW		
FCU-GF	2	CONFERENCE-1	GROUND FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-GF	2	14.0 kW	230 / 1 / 60	4.49 kW		
FCU-GF	1	CONFERENCE-2	GROUND FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-GF	1	14.0 kW	230 / 1 / 60	4.49 kW		
FAN COIL UNIT						AIR COOLED CONDENSING UNIT					REFRIGERANT	REMARKS
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	COOLING CAPACITY (kW)	UNIT DESIGNATION	QTY	TOTAL COOLING CAPACITY (kW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	TOTAL POWER INPUT (kW)		
FCU-2ND	8	OFFICE AREA	SECOND FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-2ND	8	14.0 kW	230 / 1 / 60	4.49 kW	R-410A	EACH UNIT SHALL BE FACTORY TESTED AND ASSEMBLED TO MEET THE DESIGN REQUIREMENTS AND SHALL BE COMPLETE WITH DECORATIVE PANELS, WASHABLE TYPE AIR FILTERS, AND WIRED REMOTE CONTROLLERS. FAN SPEED CONTROL AND WIDE RANGE OF TEMPERATURE SETTINGS. COMPRESSOR SHALL BE INVERTER TYPE.
FCU-2ND	1	MEETING ROOM	SECOND FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-2ND	1	14.0 kW	230 / 1 / 60	4.49 kW		
FAN COIL UNIT						AIR COOLED CONDENSING UNIT					REFRIGERANT	REMARKS
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	COOLING CAPACITY (kW)	UNIT DESIGNATION	QTY	TOTAL COOLING CAPACITY (kW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	TOTAL POWER INPUT (kW)		
FCU-3RD	8	OFFICE AREA	THIRD FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-3RD	8	14.0 kW	230 / 1 / 60	4.49 kW	R-410A	EACH UNIT SHALL BE FACTORY TESTED AND ASSEMBLED TO MEET THE DESIGN REQUIREMENTS AND SHALL BE COMPLETE WITH DECORATIVE PANELS, WASHABLE TYPE AIR FILTERS, AND WIRED REMOTE CONTROLLERS. FAN SPEED CONTROL AND WIDE RANGE OF TEMPERATURE SETTINGS. COMPRESSOR SHALL BE INVERTER TYPE.
FCU-3RD	1	MEETING ROOM	THIRD FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-3RD	1	14.0 kW	230 / 1 / 60	4.49 kW		
FAN COIL UNIT						AIR COOLED CONDENSING UNIT					REFRIGERANT	REMARKS
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	COOLING CAPACITY (kW)	UNIT DESIGNATION	QTY	TOTAL COOLING CAPACITY (kW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	TOTAL POWER INPUT (kW)		
FCU-4TH	8	OFFICE AREA	FOURTH FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-4TH	8	14.0 kW	230 / 1 / 60	4.49 kW	R-410A	EACH UNIT SHALL BE FACTORY TESTED AND ASSEMBLED TO MEET THE DESIGN REQUIREMENTS AND SHALL BE COMPLETE WITH DECORATIVE PANELS, WASHABLE TYPE AIR FILTERS, AND WIRED REMOTE CONTROLLERS. FAN SPEED CONTROL AND WIDE RANGE OF TEMPERATURE SETTINGS. COMPRESSOR SHALL BE INVERTER TYPE.
FCU-4TH	1	MEETING ROOM	FOURTH FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-4TH	1	14.0 kW	230 / 1 / 60	4.49 kW		
FAN COIL UNIT						AIR COOLED CONDENSING UNIT					REFRIGERANT	REMARKS
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	COOLING CAPACITY (kW)	UNIT DESIGNATION	QTY	TOTAL COOLING CAPACITY (kW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	TOTAL POWER INPUT (kW)		
FCU-5TH	8	OFFICE AREA	FIFTH FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-5TH	8	14.0 kW	230 / 1 / 60	4.49 kW	R-410A	EACH UNIT SHALL BE FACTORY TESTED AND ASSEMBLED TO MEET THE DESIGN REQUIREMENTS AND SHALL BE COMPLETE WITH DECORATIVE PANELS, WASHABLE TYPE AIR FILTERS, AND WIRED REMOTE CONTROLLERS. FAN SPEED CONTROL AND WIDE RANGE OF TEMPERATURE SETTINGS. COMPRESSOR SHALL BE INVERTER TYPE.
FCU-5TH	1	MEETING ROOM	FIFTH FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-5TH	1	14.0 kW	230 / 1 / 60	4.49 kW		
FAN COIL UNIT						AIR COOLED CONDENSING UNIT					REFRIGERANT	REMARKS
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	COOLING CAPACITY (kW)	UNIT DESIGNATION	QTY	TOTAL COOLING CAPACITY (kW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	TOTAL POWER INPUT (kW)		
FCU-6TH	8	OFFICE AREA	SIXTH FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-6TH	8	14.0 kW	230 / 1 / 60	4.49 kW	R-410A	EACH UNIT SHALL BE FACTORY TESTED AND ASSEMBLED TO MEET THE DESIGN REQUIREMENTS AND SHALL BE COMPLETE WITH DECORATIVE PANELS, WASHABLE TYPE AIR FILTERS, AND WIRED REMOTE CONTROLLERS. FAN SPEED CONTROL AND WIDE RANGE OF TEMPERATURE SETTINGS. COMPRESSOR SHALL BE INVERTER TYPE.
FCU-6TH	1	MEETING ROOM	SIXTH FLOOR	FLOOR MOUNTED	14.0 kW	ACCU-6TH	1	14.0 kW	230 / 1 / 60	4.49 kW		
FAN COIL UNIT						AIR COOLED CONDENSING UNIT					REFRIGERANT	REMARKS
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	COOLING CAPACITY (kW)	UNIT DESIGNATION	QTY	TOTAL COOLING CAPACITY (kW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	TOTAL POWER INPUT (kW)		
FCU-GF	1	FCU/CCTV/SEC ROOM (BACK-UP)	GROUND FLOOR	WALL MOUNTED	2.8 kW	ACCU-GF	1	2.8 kW	230 / 1 / 60	1.024 kW	R-410A	EACH UNIT SHALL BE FACTORY TESTED AND ASSEMBLED TO MEET THE DESIGN REQUIREMENTS AND SHALL BE COMPLETE WITH DECORATIVE PANELS, WASHABLE TYPE AIR FILTERS, AND WIRED REMOTE CONTROLLERS. FAN SPEED CONTROL AND WIDE RANGE OF TEMPERATURE SETTINGS. COMPRESSOR SHALL BE INVERTER TYPE.

KITCHEN RANGEHOOD

UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	DRIVE	AIR FLOW CAPACITY CFM		ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	POWER INPUT (W)	REMARKS
						LO	HI			
RH	6	PANTRY	GF-6TH FLOOR	DUCTED TYPE	DIRECT	273	459	230 / 1 / 60	127 W	COMPLETE WITH GREASE AND ODOR CONTROL FILTER. SIMILAR TO KDK.

TOILET EXHAUST FANS:

UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	DRIVE	AIR FLOW CAPACITY		E.S.P (Pa)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	POWER INPUT (W)	REMARKS
						CMH	CFM				
TEF	6	T&B	GF-6TH FLOOR	CEILING MOUNTED CASSETTE TYPE, EXHAUST FAN	DIRECT	120	70	50	230 / 1 / 60	21	WITH BUILT-IN BACKDRAFT DAMPER. MINIMUM OF 35 dB WHEN RUNNING. FAN TO BE INTERLOCKED WITH LIGHT SWITCH.
TEF	6	PWD	GF-6TH FLOOR	CEILING MOUNTED CASSETTE TYPE, EXHAUST FAN	DIRECT	120	70	50	230 / 1 / 60	21	WITH BUILT-IN BACKDRAFT DAMPER. MINIMUM OF 35 dB WHEN RUNNING. FAN TO BE INTERLOCKED WITH LIGHT SWITCH.
TEF	12	FEMALE	GF-6TH FLOOR	CEILING MOUNTED CASSETTE TYPE, EXHAUST FAN	DIRECT	330	194	75	230 / 1 / 60	48	WITH BUILT-IN BACKDRAFT DAMPER. MINIMUM OF 35 dB WHEN RUNNING.
TEF	12	MALE	GF-6TH FLOOR	CEILING MOUNTED CASSETTE TYPE, EXHAUST FAN	DIRECT	480	282	75	230 / 1 / 60	65	WITH BUILT-IN BACKDRAFT DAMPER. MINIMUM OF 35 dB WHEN RUNNING.



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD
DRAWN BY:	IDDD
CHECKED BY:	

REVIEWED BY:

RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:

NEW CAAP OFFICE BUILDING

LOCATION:

CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• EQUIPMENT SCHEDULE

DRAWING SCALE:	SHEET NO:
AS SHOWN	M-01



EQUIPMENT SCHEDULE

SCALE:

NTS

VRF TYPE AIR CONDITIONING UNITS:

INDOOR UNIT							OUTDOOR UNIT					REMARKS	
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	SELECTED COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	POWER INPUT	UNIT DESIGNATION	LOCATION	SELECTED TOTAL COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)		TOTAL POWER INPUT (KW)
FCU-GF	1	DEPT. MANAGER	GROUND FLOOR	WALL MOUNTED	5.6 KW	230 / 1 / 60	32.0 W	ACCU-GF	GROUND FLOOR ACCU LEDGE	14.0	400 / 3 / 60	3.78	HIGH COP UNITS. COMPLETE W/ CONTROLLER AND FILTER INVERTER COMPRESSOR W/ R-410A REFRIGERANT (ACCU SIDE-THROW TYPE)
FCU-GF	1	DEPT. MANAGER	GROUND FLOOR	WALL MOUNTED	2.2 KW	230 / 1 / 60	11.0 W						
FCU-GF	2	MALE/FEMALE(TAB)	GROUND FLOOR	WALL MOUNTED	4.5 KW	230 / 1 / 60	23.0 W						
FCU-GF	1	FCU/CCTV/SEC ROOM	GROUND FLOOR	WALL MOUNTED	2.8 KW	230 / 1 / 60	12.0 W						
INDOOR UNIT							OUTDOOR UNIT					REMARKS	
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	SELECTED COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	POWER INPUT	UNIT DESIGNATION	LOCATION	SELECTED TOTAL COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)		TOTAL POWER INPUT (KW)
FCU-2ND	1	DEPT. MANAGER	2ND FLOOR	WALL MOUNTED	5.6 KW	230 / 1 / 60	32.0 W	ACCU-2ND	SECOND FLOOR ACCU LEDGE	39.2	400 / 3 / 60	8.68	HIGH COP UNITS. COMPLETE W/ CONTROLLER AND FILTER INVERTER COMPRESSOR W/ R-410A REFRIGERANT (ACCU UP-BLAST TYPE)
FCU-2ND	3	DEPT. MANAGER	2ND FLOOR	WALL MOUNTED	2.2 KW	230 / 1 / 60	11.0 W						
FCU-2ND	1	HALLWAY	2ND FLOOR	FLOOR MOUNTED	2.8 KW	230 / 1 / 60	36.0 W						
FCU-2ND	2	ADD I & ADD II	2ND FLOOR	FLOOR MOUNTED	2.2 KW	230 / 1 / 60	24.0 W						
FCU-2ND	1	ELEVATOR LOBBY	2ND FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	54.0 W						
FCU-2ND	2	MALE/FEMALE(TAB)	2ND FLOOR	WALL MOUNTED	4.5 KW	230 / 1 / 60	23.0 W						
FCU-2ND	1	LOUNGE AREA	2ND FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	54.0 W						
FCU-2ND	1	SERVER	2ND FLOOR	WALL MOUNTED	2.8 KW	230 / 1 / 60	12.0 W						
INDOOR UNIT							OUTDOOR UNIT					REMARKS	
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	SELECTED COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	POWER INPUT	UNIT DESIGNATION	LOCATION	SELECTED TOTAL COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)		TOTAL POWER INPUT (KW)
FCU-3RD	1	DEPT. MANAGER	3RD FLOOR	WALL MOUNTED	5.6 KW	230 / 1 / 60	32.0 W	ACCU-3RD	THIRD FLOOR ACCU LEDGE	39.2	400 / 3 / 60	8.68	HIGH COP UNITS. COMPLETE W/ CONTROLLER AND FILTER INVERTER COMPRESSOR W/ R-410A REFRIGERANT (ACCU UP-BLAST TYPE)
FCU-3RD	3	DEPT. MANAGER	3RD FLOOR	WALL MOUNTED	2.2 KW	230 / 1 / 60	11.0 W						
FCU-3RD	1	HALLWAY	3RD FLOOR	FLOOR MOUNTED	2.8 KW	230 / 1 / 60	36.0 W						
FCU-3RD	2	ADD I & ADD II	3RD FLOOR	FLOOR MOUNTED	2.2 KW	230 / 1 / 60	24.0 W						
FCU-3RD	1	ELEVATOR LOBBY	3RD FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	54.0 W						
FCU-3RD	2	MALE/FEMALE(TAB)	3RD FLOOR	WALL MOUNTED	4.5 KW	230 / 1 / 60	23.0 W						
FCU-3RD	1	LOUNGE AREA	3RD FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	54.0 W						
FCU-3RD	1	SERVER	3RD FLOOR	WALL MOUNTED	2.8 KW	230 / 1 / 60	12.0 W						
INDOOR UNIT							OUTDOOR UNIT					REMARKS	
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	SELECTED COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	POWER INPUT	UNIT DESIGNATION	LOCATION	SELECTED TOTAL COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)		TOTAL POWER INPUT (KW)
FCU-4TH	1	DEPT. MANAGER	4TH FLOOR	WALL MOUNTED	5.6 KW	230 / 1 / 60	32.0 W	ACCU-4TH	FOURTH FLOOR ACCU LEDGE	39.2	400 / 3 / 60	8.68	HIGH COP UNITS. COMPLETE W/ CONTROLLER AND FILTER INVERTER COMPRESSOR W/ R-410A REFRIGERANT (ACCU UP-BLAST TYPE)
FCU-4TH	3	DEPT. MANAGER	4TH FLOOR	WALL MOUNTED	2.2 KW	230 / 1 / 60	11.0 W						
FCU-4TH	1	HALLWAY	4TH FLOOR	FLOOR MOUNTED	2.8 KW	230 / 1 / 60	36.0 W						
FCU-4TH	2	ADD I & ADD II	4TH FLOOR	FLOOR MOUNTED	2.2 KW	230 / 1 / 60	24.0 W						
FCU-4TH	1	ELEVATOR LOBBY	4TH FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	54.0 W						
FCU-4TH	2	MALE/FEMALE(TAB)	4TH FLOOR	WALL MOUNTED	4.5 KW	230 / 1 / 60	23.0 W						
FCU-4TH	1	LOUNGE AREA	4TH FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	54.0 W						
FCU-4TH	1	SERVER	4TH FLOOR	WALL MOUNTED	2.8 KW	230 / 1 / 60	12.0 W						
INDOOR UNIT							OUTDOOR UNIT					REMARKS	
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	SELECTED COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	POWER INPUT	UNIT DESIGNATION	LOCATION	SELECTED TOTAL COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)		TOTAL POWER INPUT (KW)
FCU-5TH	1	DEPT. MANAGER	5TH FLOOR	WALL MOUNTED	5.6 KW	230 / 1 / 60	32.0 W	ACCU-5TH	FIFTH FLOOR ACCU LEDGE	39.2	400 / 3 / 60	8.68	HIGH COP UNITS. COMPLETE W/ CONTROLLER AND FILTER INVERTER COMPRESSOR W/ R-410A REFRIGERANT (ACCU UP-BLAST TYPE)
FCU-5TH	3	DEPT. MANAGER	5TH FLOOR	WALL MOUNTED	2.2 KW	230 / 1 / 60	11.0 W						
FCU-5TH	1	HALLWAY	5TH FLOOR	FLOOR MOUNTED	2.8 KW	230 / 1 / 60	36.0 W						
FCU-5TH	2	ADD I & ADD II	5TH FLOOR	FLOOR MOUNTED	2.2 KW	230 / 1 / 60	24.0 W						
FCU-5TH	1	ELEVATOR LOBBY	5TH FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	54.0 W						
FCU-5TH	2	MALE/FEMALE(TAB)	5TH FLOOR	WALL MOUNTED	4.5 KW	230 / 1 / 60	23.0 W						
FCU-5TH	1	LOUNGE AREA	5TH FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	54.0 W						
FCU-5TH	1	SERVER	5TH FLOOR	WALL MOUNTED	2.8 KW	230 / 1 / 60	12.0 W						
INDOOR UNIT							OUTDOOR UNIT					REMARKS	
UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	SELECTED COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	POWER INPUT	UNIT DESIGNATION	LOCATION	SELECTED TOTAL COOLING CAPACITY (KW)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)		TOTAL POWER INPUT (KW)
FCU-6TH	1	DEPT. MANAGER	6TH FLOOR	WALL MOUNTED	5.6 KW	230 / 1 / 60	32.0 W	ACCU-6TH	SIXTH FLOOR ACCU LEDGE	44.8	400 / 3 / 60	10.89	HIGH COP UNITS. COMPLETE W/ CONTROLLER AND FILTER INVERTER COMPRESSOR W/ R-410A REFRIGERANT (ACCU UP-BLAST TYPE)
FCU-6TH	3	DEPT. MANAGER	6TH FLOOR	WALL MOUNTED	2.2 KW	230 / 1 / 60	11.0 W						
FCU-6TH	1	HALLWAY	6TH FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	36.0 W						
FCU-6TH	2	ADD I & ADD II	6TH FLOOR	FLOOR MOUNTED	2.2 KW	230 / 1 / 60	24.0 W						
FCU-6TH	1	ELEVATOR LOBBY	6TH FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	54.0 W						
FCU-6TH	2	MALE/FEMALE(TAB)	6TH FLOOR	WALL MOUNTED	4.5 KW	230 / 1 / 60	23.0 W						
FCU-6TH	1	LOUNGE AREA	6TH FLOOR	FLOOR MOUNTED	5.6 KW	230 / 1 / 60	54.0 W						
FCU-6TH	1	SERVER	6TH FLOOR	WALL MOUNTED	2.8 KW	230 / 1 / 60	12.0 W						

EXHAUST FAN

UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	DRIVE	AIR FLOW CAPACITY		E.S.P (Pa)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	MOTOR SIZE	REMARKS
						CMH	CFM				
EF	6	EE/AUX. ROOM	GF-6TH FLOOR	CEILING MOUNTED CASSETTE TYPE, EXHAUST FAN	DIRECT	330	194	75	230 / 1 / 60	48 W	COMPLETE W/ OFF-ON SELECTION SWITCH.

FANS & BLOWERS FRESH AIR BLOWER

UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	DRIVE	AIR FLOW CAPACITY		E.S.P (Pa)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	MOTOR SIZE	REMARKS
						CMH	CFM				
FAB	6	PUBLIC TOILET	GF-6TH FLOOR	CENTRIFUGAL IN - LINE FAN	DIRECT	1360	800	250	230 / 1 / 60	350 W	COMPLETE W/ LMCP AND MANUAL OFF-ON SELECTION SWITCH. WITH MERV 13 FILTER
FAB	1	GF-6TH OFFICE AREA	ROOF DECK	CABINET TYPE FAN DIDW	BELT	8415	4950	250	400 / 3 / 60	1.5 HP	COMPLETE W/ LMCP AND MANUAL OFF-AUTO SELECTION SWITCH. WITH MERV 13 FILTER

FANS & BLOWERS SMOKE EXTRACTION,STAIR PRESSURIZATION AND LIFT PRESSURIZATION

UNIT DESIGNATION	QTY	AREA SERVED	LOCATION	TYPE	DRIVE	AIR FLOW CAPACITY		E.S.P (Pa)	ELECTRICAL CHARACTERISTICS (Volts / Phase / Cycle)	MOTOR SIZE	REMARKS
						CMH	CFM				
SEF	2	OFFICE AREA	ROOF DECK	CENTRIFUGAL FAN SISW	BELT	5950	3500	500	400 / 3 / 60	2.5 HP	COMPLETE W/ LMCP AND MANUAL OFF-AUTO SELECTION SWITCH.
SPF	2	STAIR	ROOF DECK	CABINET TYPE FAN DIDW	BELT	24990	14700	250	400 / 3 / 60	5.0 HP	COMPLETE W/ LMCP AND MANUAL OFF-AUTO SELECTION SWITCH.
LPF	1	ELEVATOR SHAFT	ROOF DECK	CABINET TYPE FAN DIDW	BELT	8500	5000	250	400 / 3 / 60	2.0 HP	COMPLETE W/ LMCP AND MANUAL OFF-AUTO SELECTION SWITCH.



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF: INITIAL / DATE
DESIGNED BY: IDDD
DRAWN BY: IDDD
CHECKED BY:

REVIEWED BY:
RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:
ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:
LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:
CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

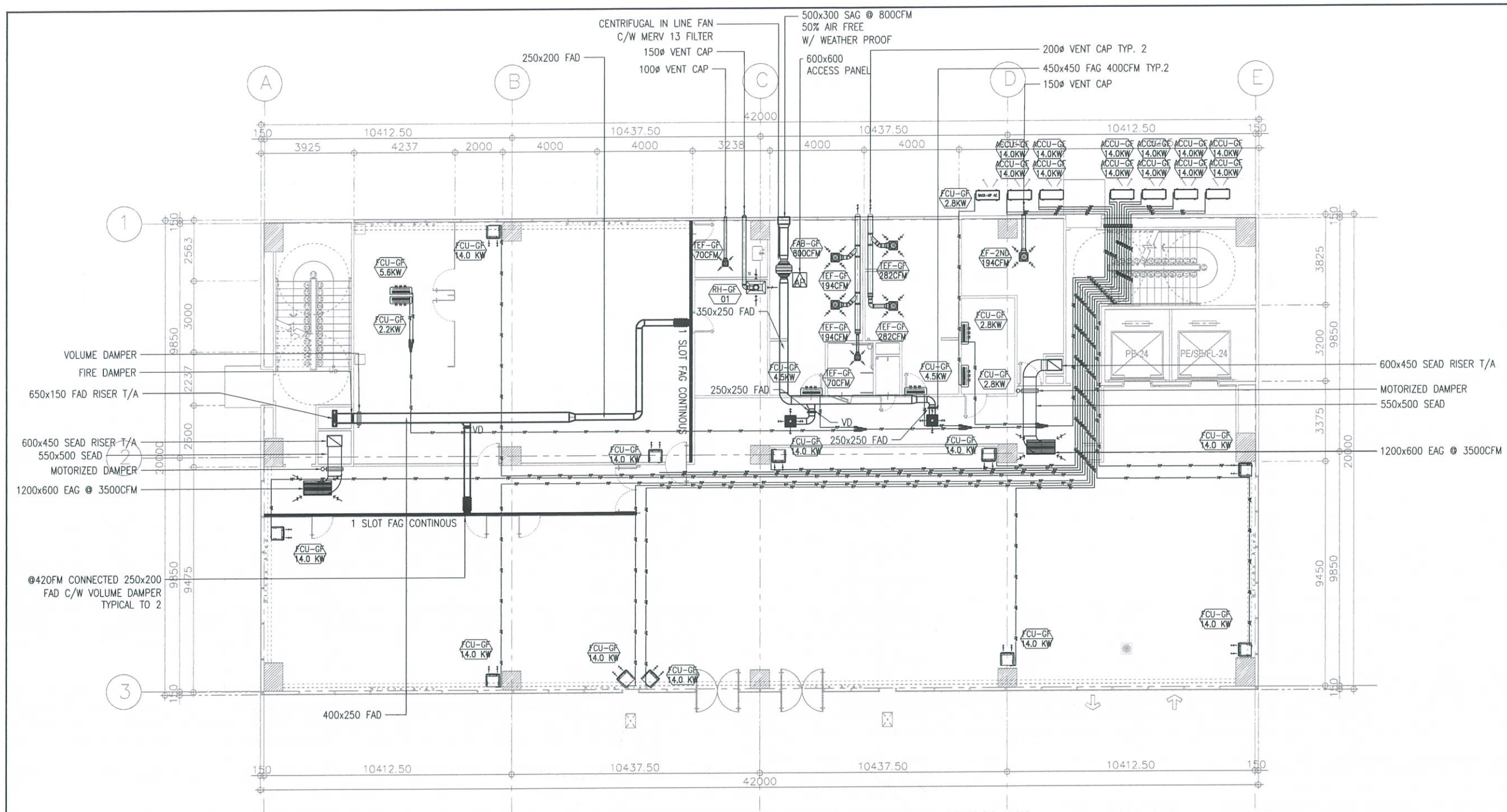
NOTES/REVISIONS:



PROJECT:
NEW CAAP OFFICE BUILDING

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• EQUIPMENT SCHEDULE

DRAWING SCALE: AS SHOWN
SHEET NO: M-02




REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.


AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD
DRAWN BY:	IDDD
CHECKED BY:	


REVIEWED BY:


RAUL R. CRUCENA
 Division Chief III, IDDD-AED


SUBMITTED BY:


ARNEL F. BORLADO
 Department Manager III, AED-ADMS

RECOMMEND APPROVAL:


LT COL VALENTINO A DIONELA PAF (RET)
 Assistant Director General II, ADMS

APPROVED BY:


CAPTAIN MANUEL ANTONIO L. TAMAYO
 Director General

NOTES/REVISIONS:

PROJECT:

NEW CAAP OFFICE BUILDING

LOCATION:

**CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY**

SHEET CONTENTS:

- GROUND FLOOR PLAN
- AIR CONDITIONING AND VENTILATION LAYOUT

DRAWING SCALE:	SHEET NO:
AS SHOWN	M-03



1
M-03

GROUND FLOOR PLAN AIR CONDITIONING AND VENTILATION LAYOUT

SCALE:

1:100 MTS



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED, NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD
DRAWN BY:	IDDD
CHECKED BY:	

REVIEWED BY:

RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

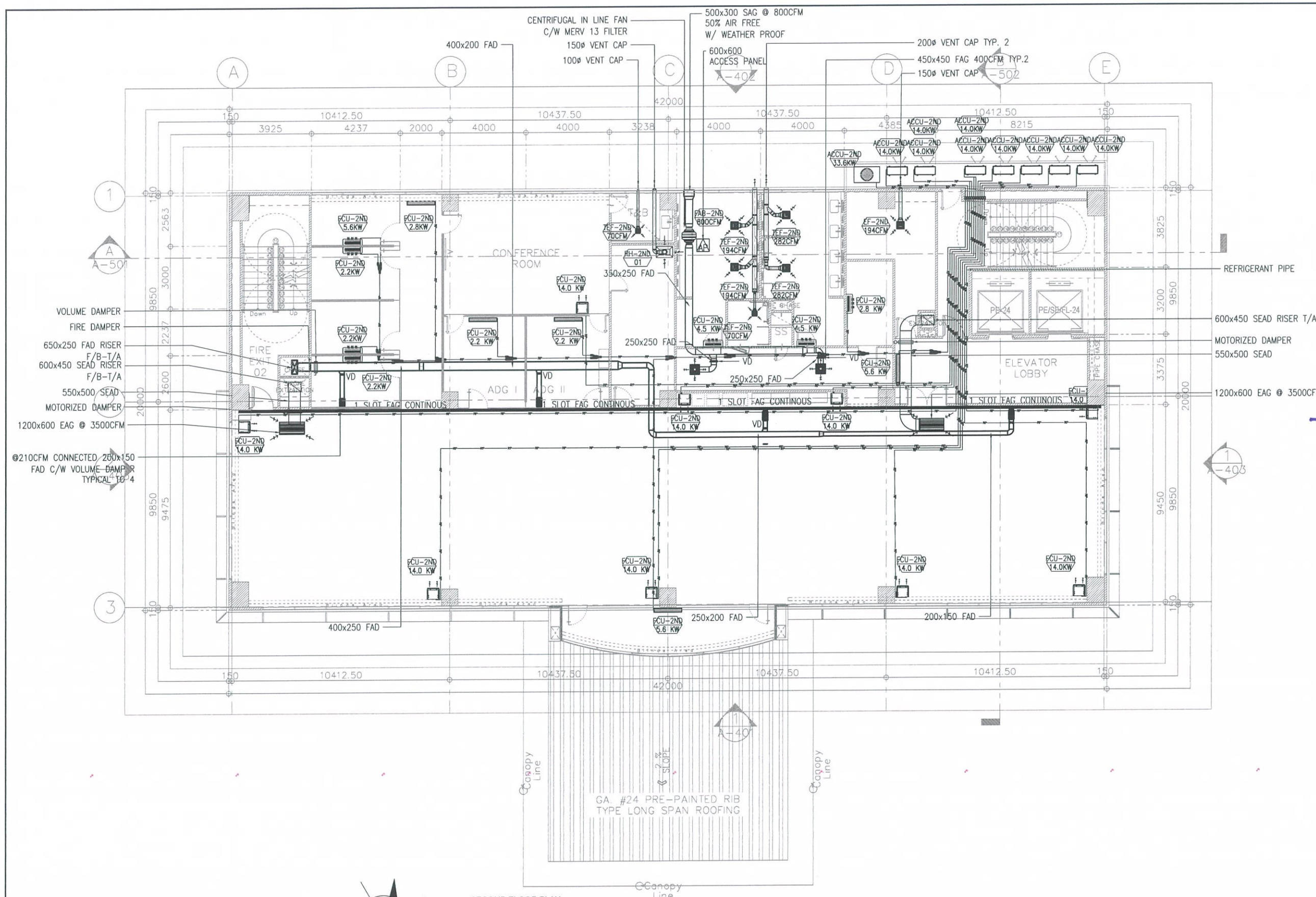
NOTES/REVISIONS:

PROJECT:
NEW CAAP OFFICE BUILDING

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• SECOND FLOOR PLAN
• AIR CONDITIONING AND VENTILATION LAYOUT

DRAWING SCALE:	SHEET NO:
AS SHOWN	M-04



1
M-04

SECOND FLOOR PLAN AIR CONDITIONING AND VENTILATION LAYOUT

SCALE:

1:100 MTS



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE
PROPERTIES OF CIVIL AVIATION AUTHORITY OF
THE PHILIPPINES AND SUCH MUST NOT BE
REPRODUCED, EXHIBITED, LOANED NOR
COPIED IN PART OR IN WHOLE WITHOUT
PROPER PERMISSION AND/OR WRITTEN
CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT
AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT
AND DESIGN DIVISION

DESIGN STAFF: INITIAL / DATE
DESIGNED BY: IDDD
DRAWN BY: IDDD
CHECKED BY:

REVIEWED BY:
RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:
ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:
LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:
CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

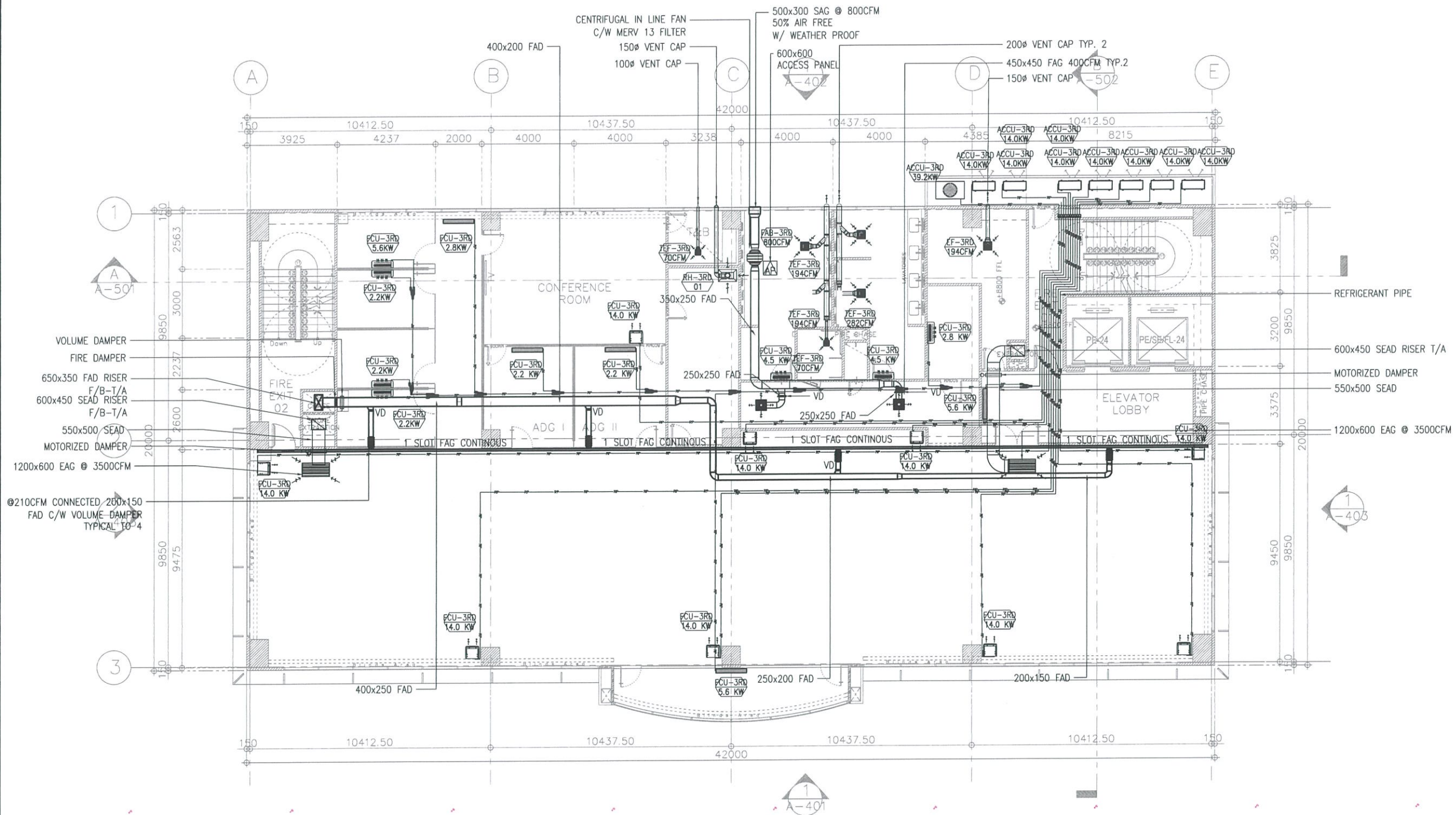
NOTES/REVISIONS:

PROJECT:
NEW CAAP OFFICE
BUILDING

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• THIRD FLOOR PLAN
• AIR CONDITIONING AND VENTILATION
LAYOUT

DRAWING SCALE: AS SHOWN
SHEET NO: M-05



1
M-05

THIRD FLOOR PLAN

AIR CONDITIONING AND VENTILATION LAYOUT

SCALE:

1:100 MTS



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD
DRAWN BY:	IDDD
CHECKED BY:	

REVIEWED BY:

RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL. VALENTINO A. DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

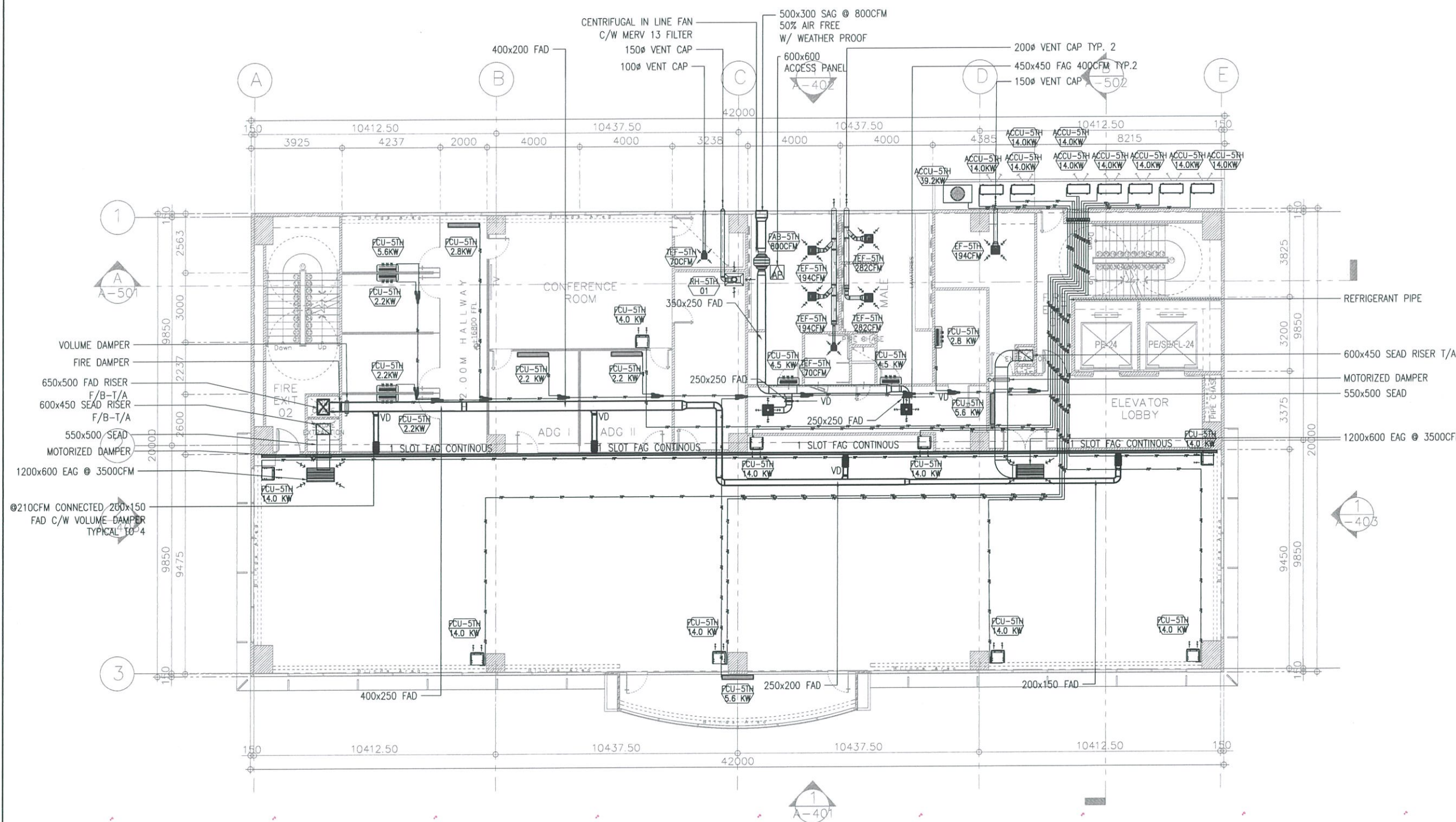
NOTES/REVISIONS:

PROJECT:
NEW CAAP OFFICE BUILDING

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• FIFTH FLOOR PLAN
• AIR CONDITIONING AND VENTILATION LAYOUT

DRAWING SCALE:	SHEET NO:
AS SHOWN	M-07



1
M-07

FIFTH FLOOR PLAN AIR CONDITIONING AND VENTILATION LAYOUT

SCALE:

1:100 MTS



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE
PROPERTIES OF CIVIL AVIATION AUTHORITY OF
THE PHILIPPINES AND SUCH MUST NOT BE
REPRODUCED, EXHIBITED, LOANED NOR
COPIED IN PART OR IN WHOLE WITHOUT
PROPER PERMISSION AND/OR WRITTEN
CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT
AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT
AND DESIGN DIVISION

DESIGN STAFF: INITIAL / DATE
DESIGNED BY: IDDD
DRAWN BY: IDDD
CHECKED BY:

REVIEWED BY:

RAUL R. CRUCENA
Division Chief II, IDDD-AED

SUBMITTED BY:
ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:
LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:
CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

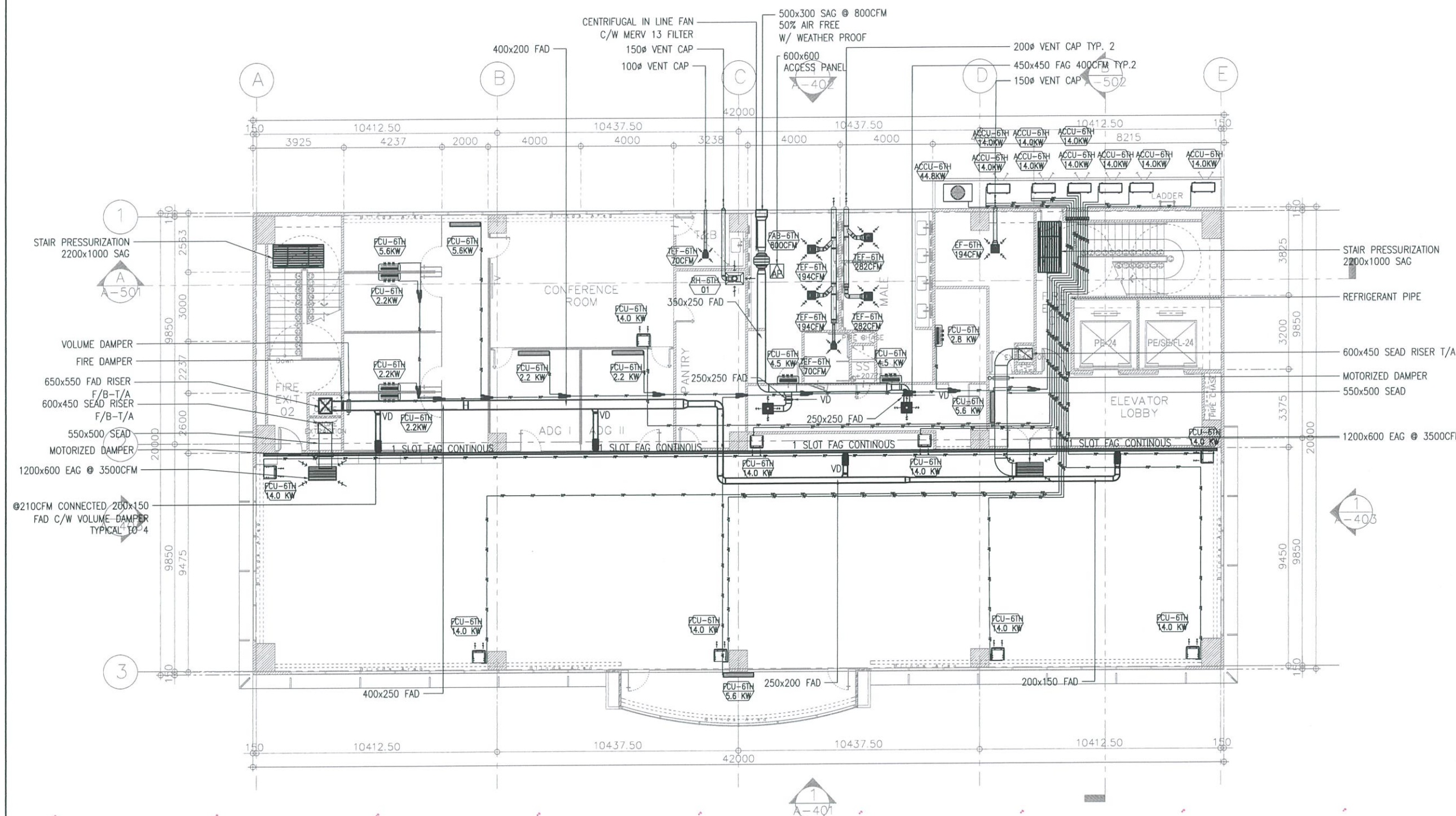
NOTES/REVISIONS:

PROJECT:
NEW CAAP OFFICE
BUILDING

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• SIXTH FLOOR PLAN
• AIR CONDITIONING AND VENTILATION
LAYOUT

DRAWING SCALE: AS SHOWN
SHEET NO: M-08



1
M-08

SIXTH FLOOR PLAN AIR CONDITIONING AND VENTILATION LAYOUT

SCALE:

1:100 MTS



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE
PROPERTIES OF CIVIL AVIATION AUTHORITY OF
THE PHILIPPINES AND SUCH MUST NOT BE
REPRODUCED, EXHIBITED, LOANED NOR
COPIED IN PART OR IN WHOLE WITHOUT
PROPER PERMISSION AND/OR WRITTEN
CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT
AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT
AND DESIGN DIVISION

DESIGN STAFF: INITIAL / DATE

DESIGNED BY: IDDD

DRAWN BY: IDDD

CHECKED BY:

REVIEWED BY:

RAUL R. CRUCENA
Division Chief II, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL. VALENTINO A. DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANGEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:

NEW CAAP OFFICE
BUILDING

LOCATION:

CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:

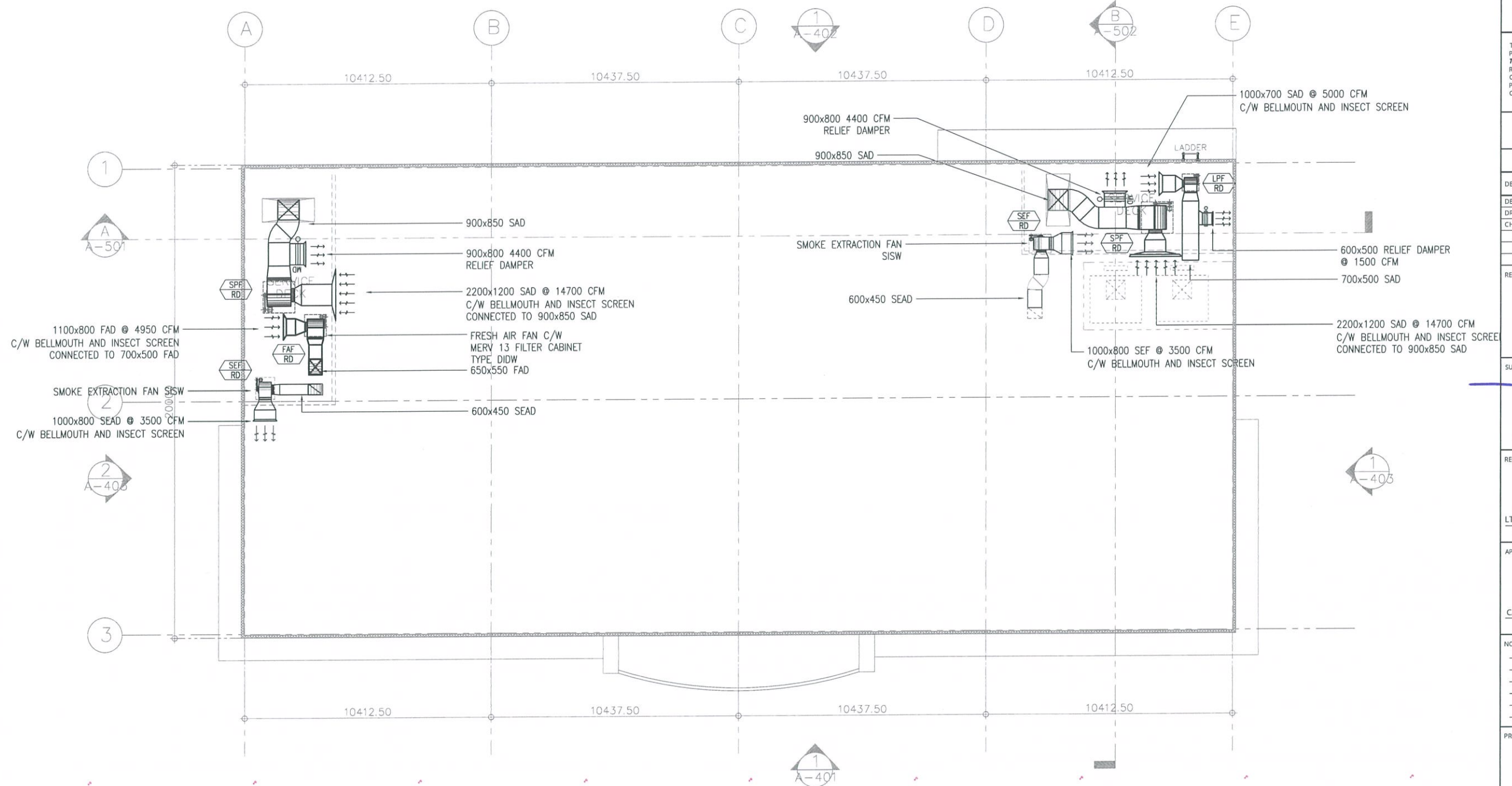
- ROOF DECK
- FANS AND BLOWER LAYOUT

DRAWING SCALE:

AS SHOWN

SHEET NO:

M-09



1
M-09

ROOFDECK FAN AND BLOWER PLAN

SCALE:

1:100 MTS



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD
DRAWN BY:	IDDD
CHECKED BY:	

REVIEWED BY:

RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

STAI 01
STAI 01
STAI 01

PROJECT:

NEW CAAP OFFICE BUILDING

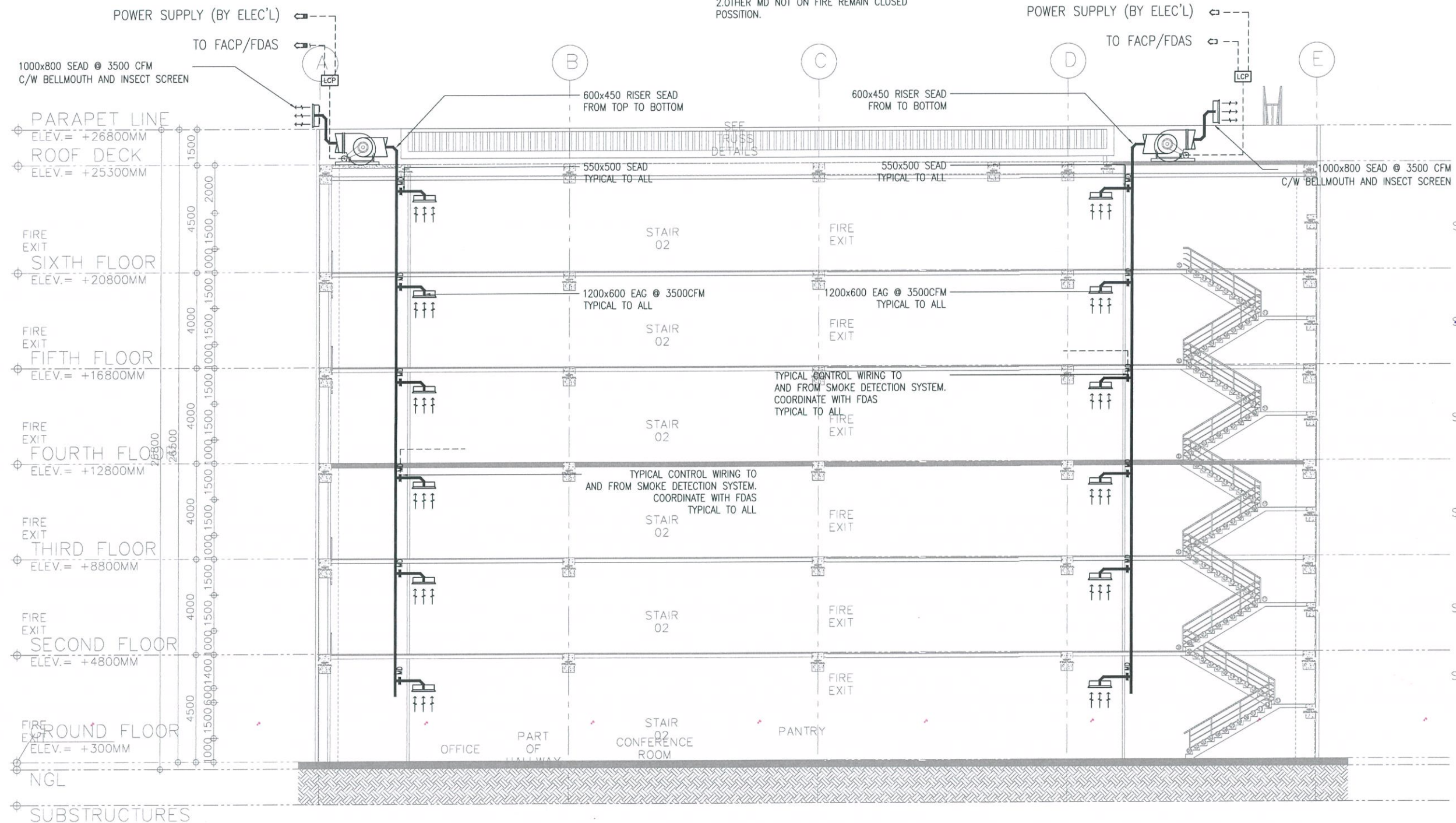
LOCATION:

CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• SMOKE EXTRACTION SCHEMATIC DIAGRAM

DRAWING SCALE:	SHEET NO:
AS SHOWN	M-10

SMOKE EXTRACTION FAN OPERATION
1.ON FIRE MODE SENSED BY ALARM SYSTEM.
THE MD SERVING ON FLOOR ON FIRE SHALL
AUTOMATICALLY FULLY OPEN POSSITION AND
FAN RUN FULL SPEED.
2.OTHER MD NOT ON FIRE REMAIN CLOSED
POSSITION.



1
M-10

SMOKE EXTRACTION SCHEMATIC DIAGRAM

SCALE:

1:100 MTS


THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION


DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD
DRAWN BY:	IDDD
CHECKED BY:	

REVIEWED BY:




 RAUL R. CRUCENA
 Division Chief III, IDDD-AED

SUBMITTED BY:




 ARNEL F. BORLADO
 Department Manager III, AED-ADMS

RECOMMEND APPROVAL:



 LT COL VALENTINO A. DIONELA PAF (RET)
 Assistant Director General II, ADMS

APPROVED BY:



 CAPTAIN MANUEL ANTONIO L. TAMAYO
 Director General

NOTES/REVISIONS:

PROJECT:

NEW CAAP OFFICE BUILDING

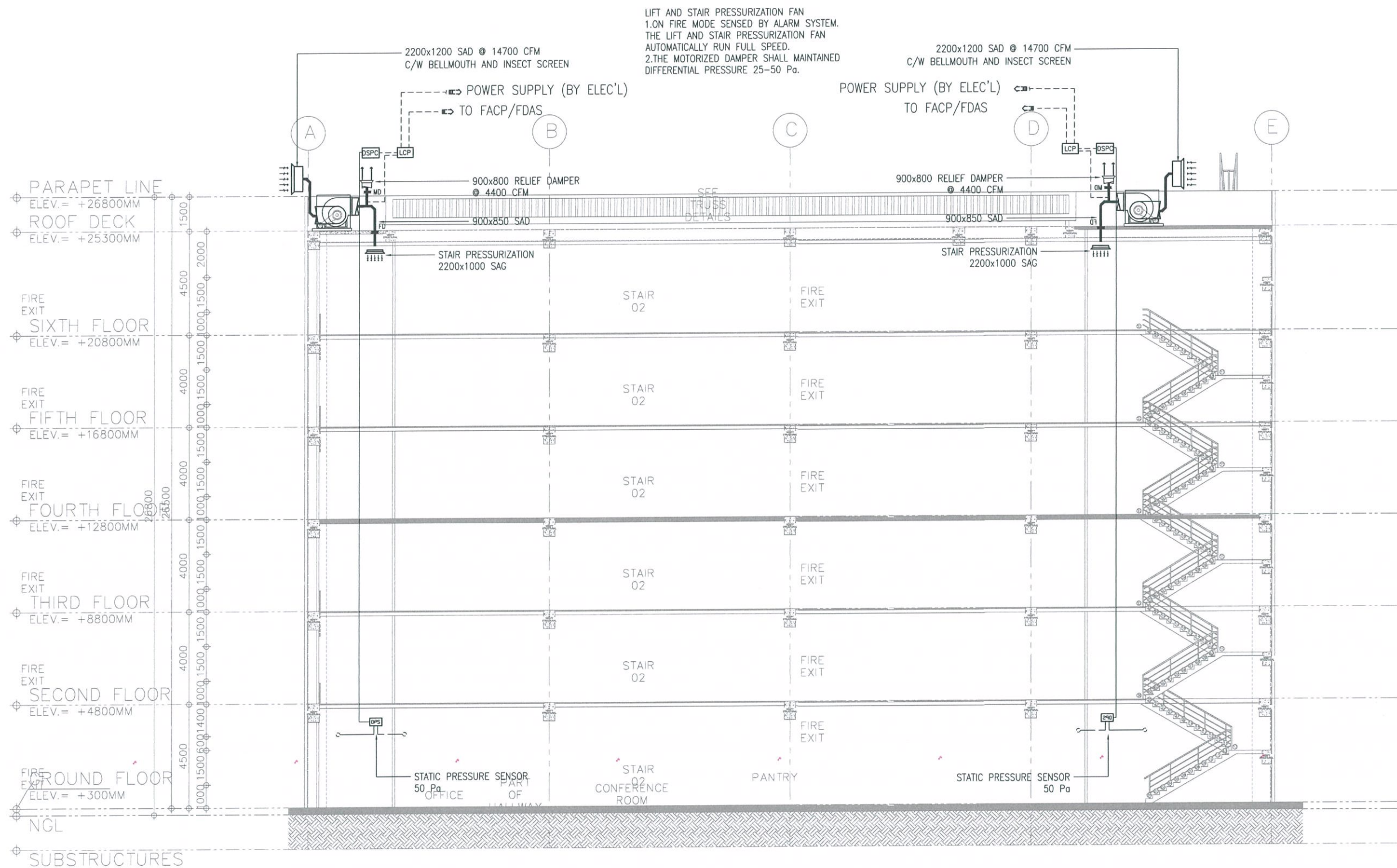
LOCATION:

CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:

- STAIR PRESSURIZATION SCHEMATIC DIAGRAM

DRAWING SCALE:	SHEET NO:
AS SHOWN	M-11





1
 M-11

STAIR PRESSURIZATION SCHEMATIC DIAGRAM

SCALE: 1:100 MTS



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD
DRAWN BY:	IDDD
CHECKED BY:	

REVIEWED BY:

RAULR. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:

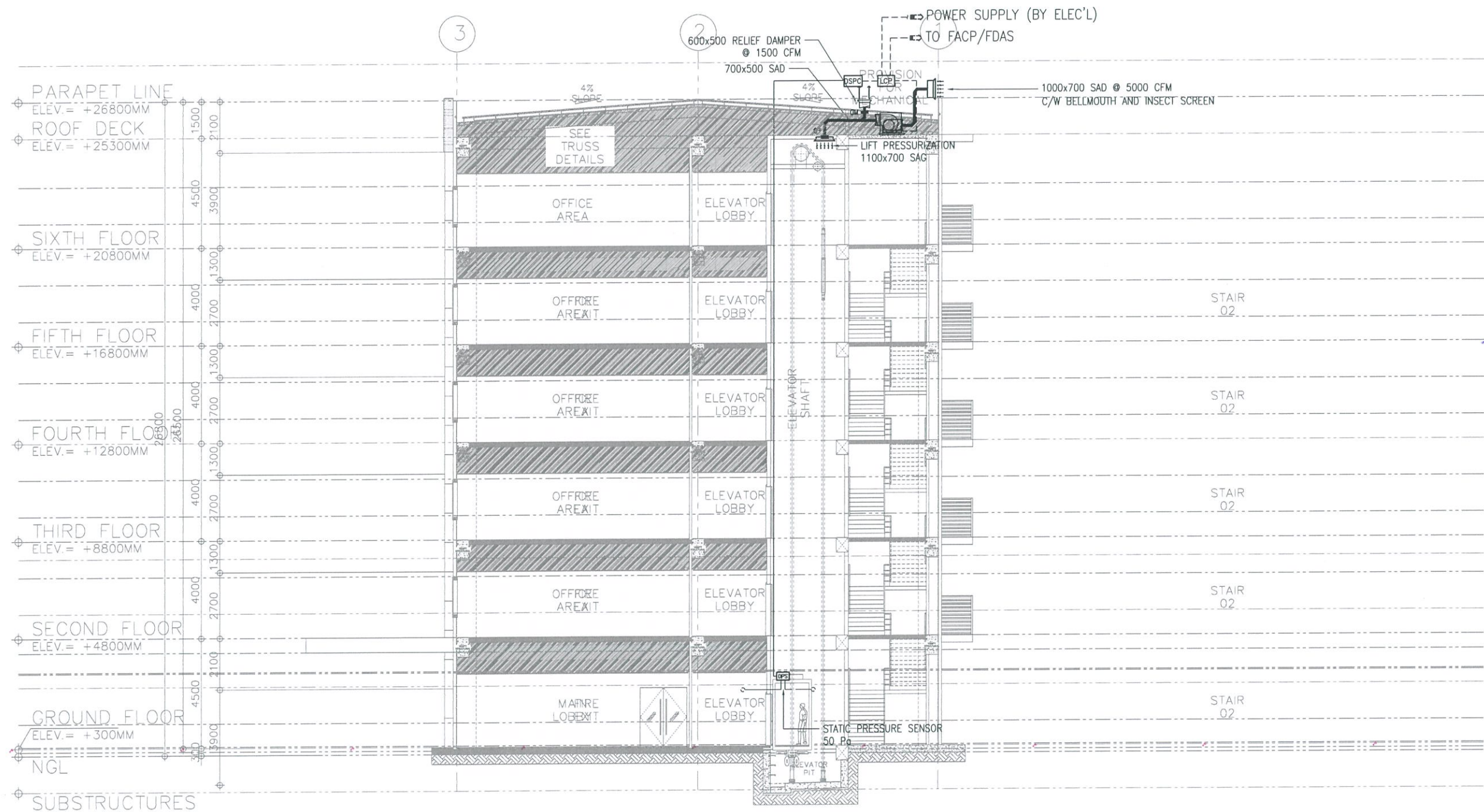
NEW CAAP OFFICE BUILDING

LOCATION:

CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• LIFT PRESSURIZATION SCHEMATIC DIAGRAM

DRAWING SCALE:	SHEET NO:
AS SHOWN	M-12



1
M-12

STAIR PRESSURIZATION SCHEMATIC DIAGRAM

SCALE:

1:100 MTS

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD
DRAWN BY:	IDDD
CHECKED BY:	

REVIEWED BY:

RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

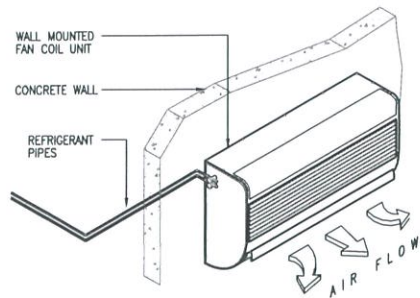
NOTES/REVISIONS:

PROJECT:
NEW CAAP OFFICE BUILDING

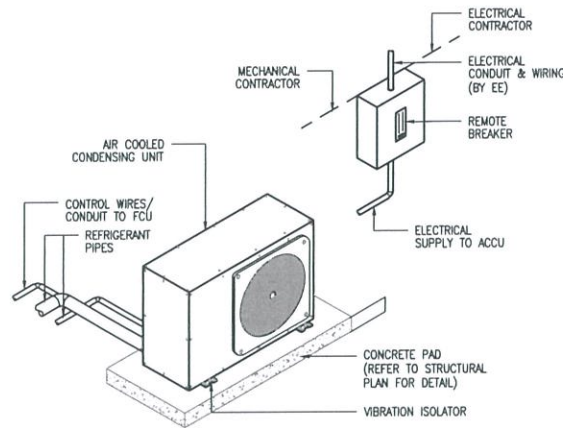
LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• INSTALLATION DETAILS

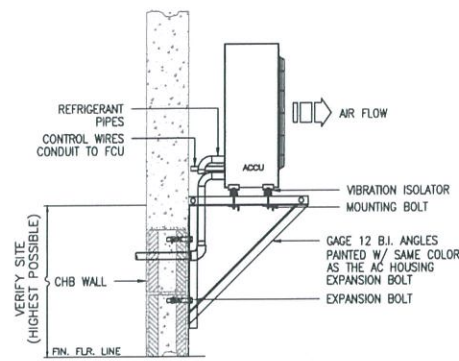
DRAWING SCALE:	SHEET NO:
AS SHOWN	M-13



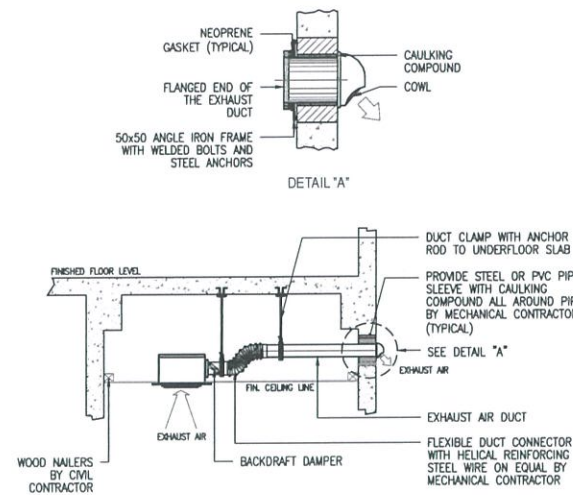
1 WALL MOUNTED FCU CONNECTION DETAIL
M-13 SCALE NTS



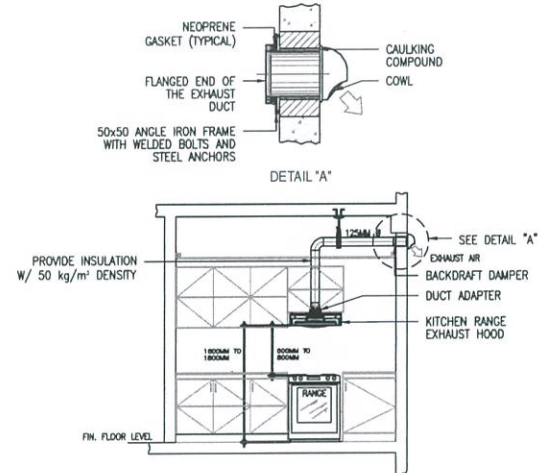
2 FLOOR MOUNTED ACCU INSTALLATION DETAIL
M-13 SCALE NTS



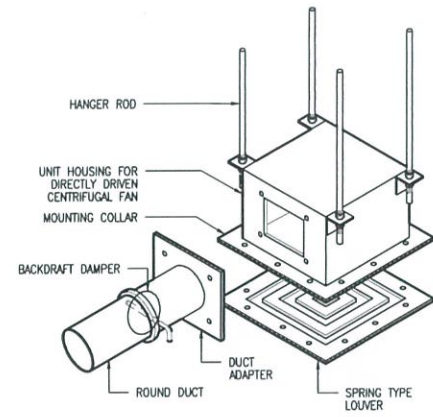
3 SUSPENDED ACCU MOUNTING DETAIL
M-13 SCALE NTS



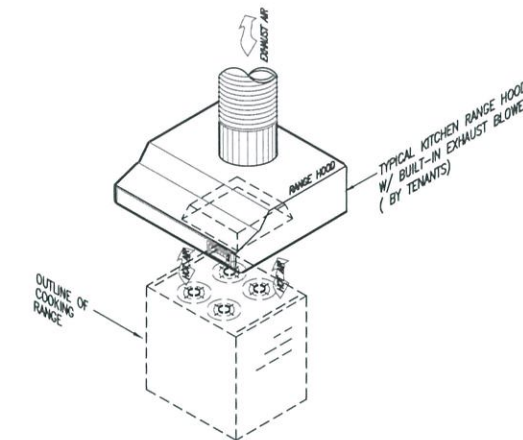
4 CEILING CASSETTE TYPE TEF INSTALLATION DETAILS
M-13 SCALE NTS



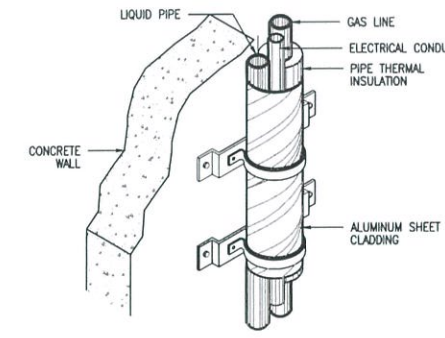
5 DUCTED TYPE RANGE HOOD INSTALLATION DETAIL
M-13 SCALE NTS



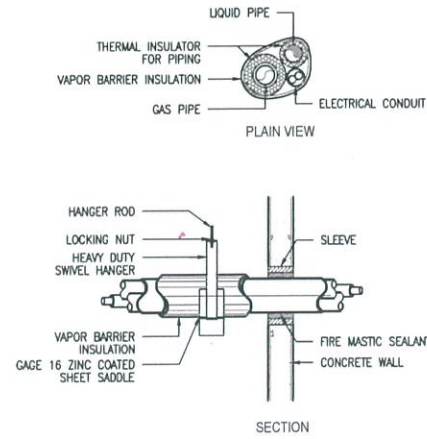
6 CEILING CASSETTE TYPE FAN DETAILS
M-13 SCALE NTS



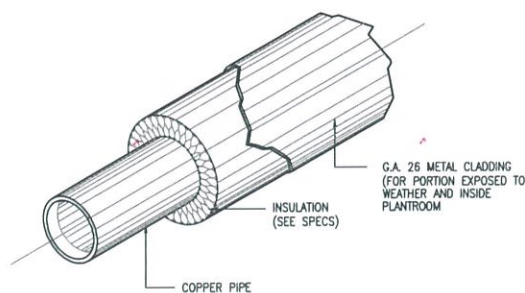
7 RESIDENTIAL DUCT TYPE RANGE HOOD DETAIL
M-13 SCALE NTS



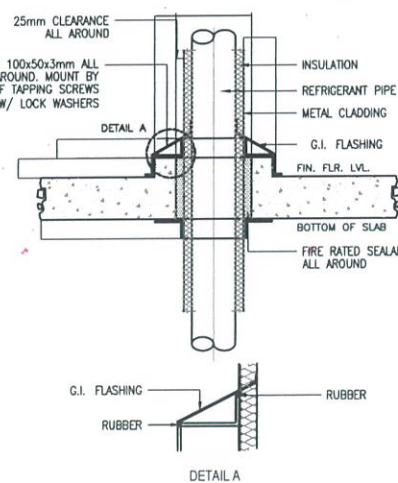
8 REFRIGERANT PIPE RISER SUPPORT DETAIL
M-13 SCALE NTS



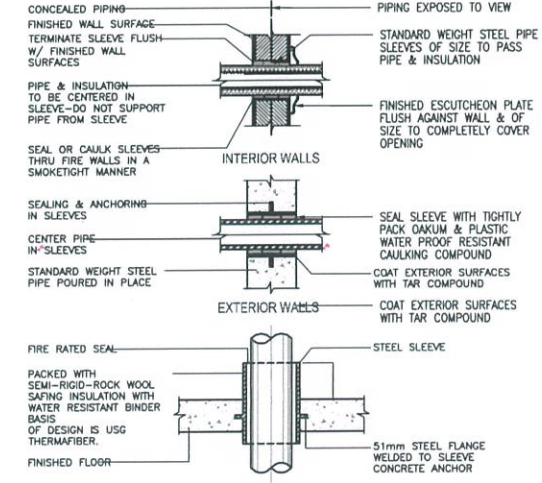
9 REFRIGERANT PIPE THRU WALL DETAIL
M-13 SCALE NTS



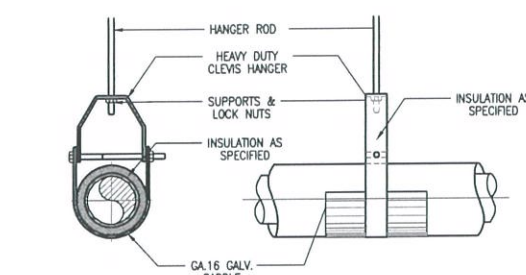
10 REFRIGERANT PIPE INSULATION DETAIL
M-13 SCALE NTS



11 PIPE PENETRATION THRU SLAB DETAIL
M-13 SCALE NTS



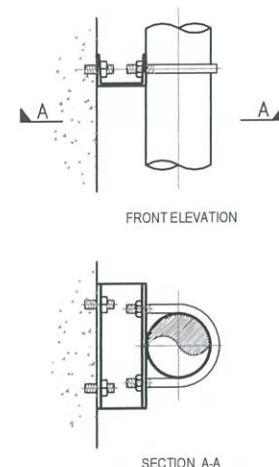
12 TYPICAL PIPE SLEEVE DETAIL
M-13 SCALE NTS



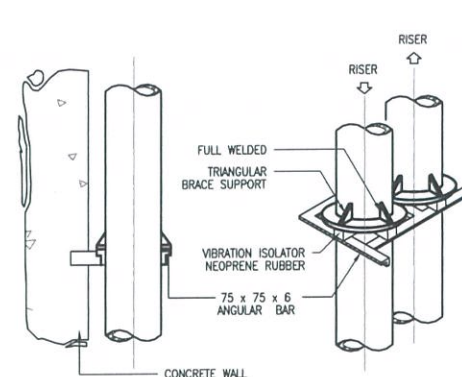
HANGER ROD SIZES									
PIPE SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
HANGER ROD DIAMETER	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"

HANGER SPACING									
PIPE SIZE	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
MAXIMUM SPACING	2'0"	2'4"	2'7"	3'0"	3'3"	3'6"	4'0"	4'6"	5'0"

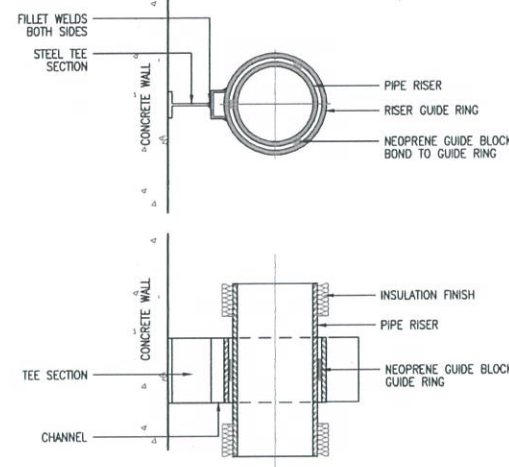
1 PIPE HANGER DETAIL
M-14 SCALE NTS



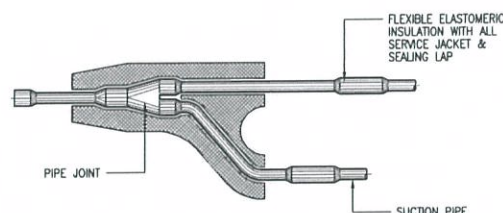
2 DETAILS OF PIPE SUPPORT
M-14 SCALE NTS



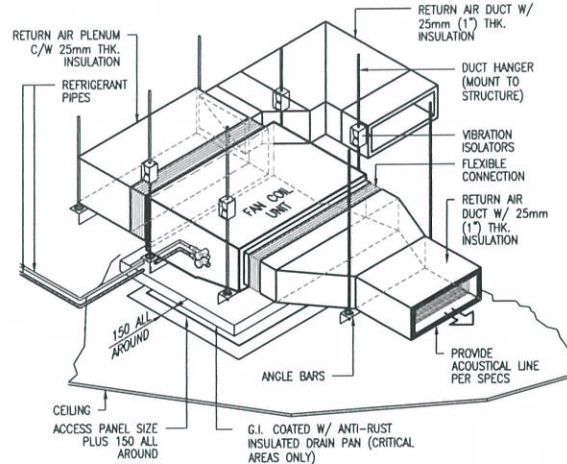
3 PIPE RISER SUPPORT DETAIL
M-14 SCALE NTS



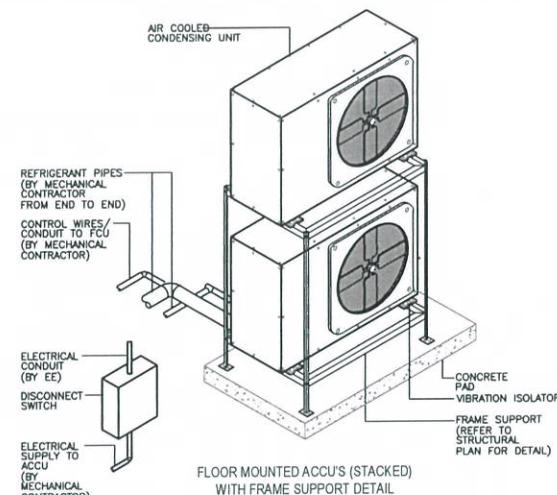
4 RISER GUIDE AT WALL
M-14 SCALE NTS



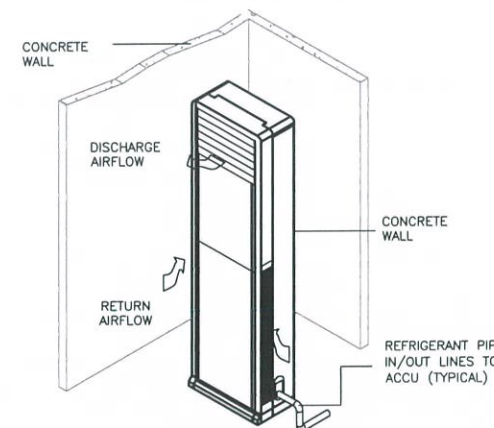
5 REFRIGERANT PIPE CONNECTION DETAIL
M-14 SCALE NTS



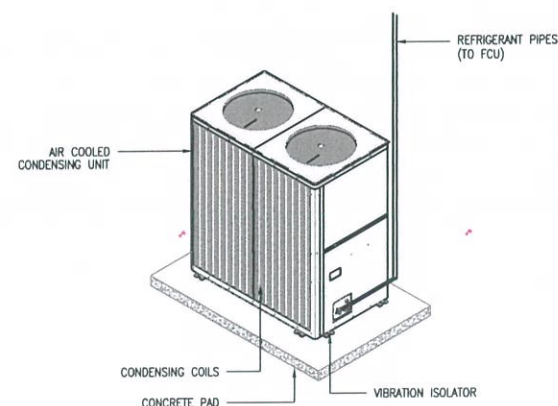
6 CEILING CONCEALED FCU INSTALLATION DETAIL
M-14 SCALE NTS



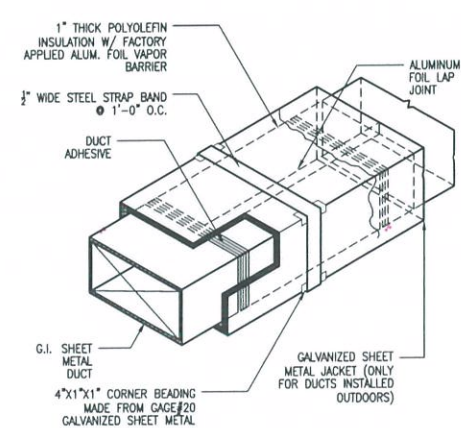
7 ACCU MOUNTING STACK TYPE DETAILS
M-14 SCALE NTS



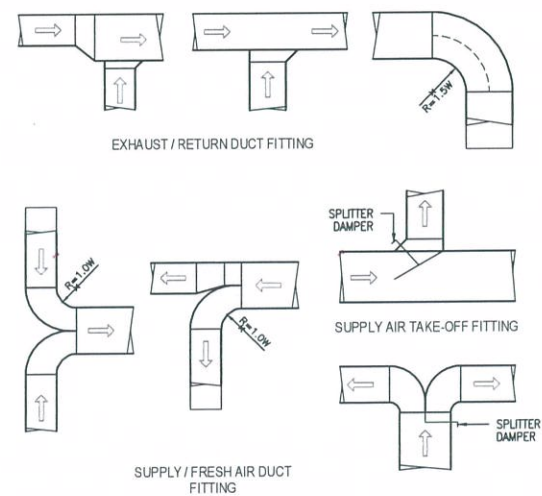
8 FLOOR MOUNTED TYPE FCU MOUNTING DETAIL
M-14 SCALE NTS



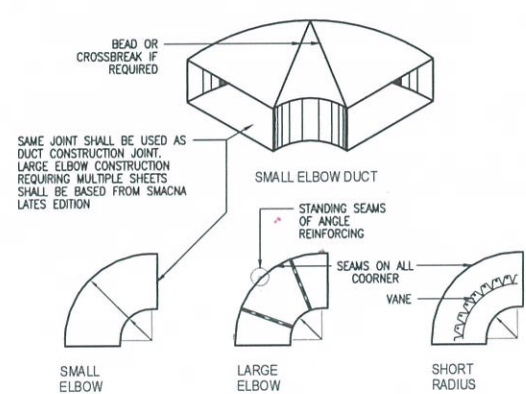
9 VRV (UPBLAST) ACCU W/ DEFLECTOR MOUNTING DETAIL
M-14 SCALE NTS



10 DUCT INSTALLATION DETAIL (INDOOR)
M-14 SCALE NTS



11 STANDARD DUCT FITTINGS
M-14 SCALE NTS



12 LONG AND SHORT ELBOW DUCT DETAIL
M-14 SCALE NTS

THIS DRAWINGS AND DESIGN IS EXCLUSIVE
 PROPERTIES OF **CIVIL AVIATION AUTHORITY OF
 THE PHILIPPINES** AND SUCH MUST NOT BE
 REPRODUCED, EXHIBITED, LOANED, NOR
 COPIED IN PART OR IN WHOLE WITHOUT
 PROPER PERMISSION AND/OR WRITTEN
 CONSENT FROM THE DIRECTOR GENERAL CAAP.


**AERODROME DEVELOPMENT
 AND MANAGEMENT SERVICE**


**INFRASTRUCTURE DEVELOPMENT
 AND DESIGN DIVISION**


DESIGN STAFF: INITIAL / DATE
 DESIGNED BY: IDDD
 DRAWN BY: IDDD
 CHECKED BY:

REVIEWED BY:


RAUL R. CRUCENA
 Division Chief III, IDDD-AED

SUBMITTED BY:

ARNEL F. BORLADO
 Department Manager III, AED-ADMS

RECOMMEND APPROVAL:

LT COL. VALENTINO A. DIONELA PAF (RET)
 Assistant Director General II, ADMS

APPROVED BY:

CAPTAIN MANUEL ANTONIO L. TAMAYO
 Director General

NOTES/REVISIONS:

PROJECT:
**NEW CAAP OFFICE
 BUILDING**

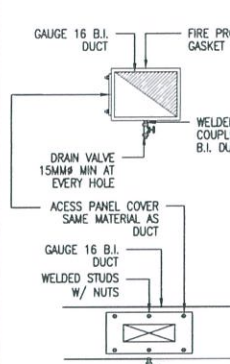
LOCATION:
**CAAP HEAD OFFICE
 NAIA ROAD, PASAY CITY**

SHEET CONTENTS:
• INSTALLATION DETAILS

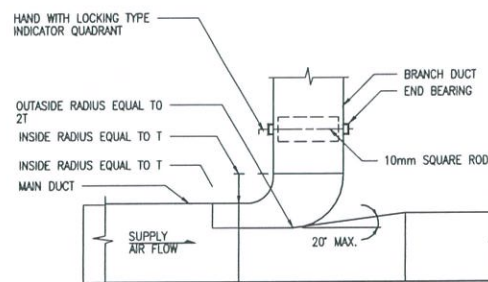
DRAWING SCALE: SHEET NO:
 AS SHOWN M-15

KITCHEN EXHAUST DUCTWORK SPECIFICATIONS:

ALL EXHAUST DUCTS SHALL BE CONSTRUCTED WITH THE MATERIALS RECOMMENDED
 HEREWITH AND SHALL BE INSTALLED IN A PERMANENT WORKMANLIKE MANNER,
 THE INTERIOR OF ALL DUCT SHALL BE SMOOTH AND FREE FROM OBSTRUCTION,
 WITH JOINTS EITHER WELDED, FLANGED OR SOLDERED AIR TIGHT

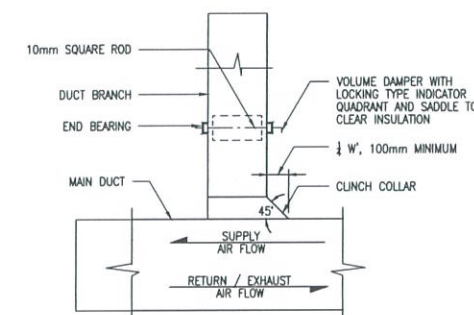


1. THE AIR DUCTS SHALL BE CONSTRUCTED OF BLACK IRON (B.I.) GA.16 US STANDARD GAUGE. WELDED CONSTRUCTION IS RECOMMENDED. PROVIDE GREASE DUCT AIR TIGHT ACCESS PANEL AT CONVENIENT LOCATION. WELDED SEAM SHALL BE LOCATED AT TOP CORNER KITCHEN EXHAUST DUCT.
2. SUPPORT DUCT SUFFICIENTLY TO PREVENT PLACING OF ANY LOAD ON CONNECTED EQUIPMENT AND TO CARRY WEIGHT OF THE SYSTEM IF PLUGGED WITH MATERIALS. USE MINIMUM ALLOWABLE SUPPORT INTERVAL OF 3.0 FOR 200MM OR SMALLER DUCTS AND 1500 MM FOR DUCTS 250MM AND LARGER.
3. PROVIDE 450MM MAXIMUM CLEARANCE BETWEEN EXHAUST DUCTS AND REQUIREMENTS CANNOT BE ATTAINED, THE DUCT SHALL BE SEPARATED FROM COMBUSTIBLE CONSTRUCTION OR METAL SEPARATOR.
4. WHERE FLEXIBLE CONNECTION IS NECESSARY, A NON-COLLAPSIBLE TYPE OF PIPING SHALL BE USED. ITS LENGTH SHALL BE KEPT A MINIMUM AND IT SHALL BE NON-COMBUSTIBLE, WEATHER PROOF, GREASE RESISTANT.
5. WHERE FLEXIBLE CONNECTION IS NECESSARY, A NON-COLLAPSIBLE TYPE ALL AIR DUCTS SHALL BE INSULATED WITH 50MM THICK FIBERGLASS BLANKET INSULATION AT 48KGS/ CUBIC METER DENSITY WITH FACTORY APPLIED REINFORCED ALUMINUM FOIL FINISH AND CLADDED WITH GA. 24 ALUMINUM SHEET.
6. GREASE DUCT ACCESS PANEL SHALL BE PROVIDED AT EVERY 3.0M TO FACILITATE CLEANING.



NOTE:

1. FURNISH THIS TYPE OF CONNECTION WHERE NOTED & WHEN SINGLE LINE DUCTWORK IS INDICATED AS THIS J. FOR BRANCHES WITH MORE THAN 470 L/S.
2. FURNISH THIS TYPE OF CONNECTION WITHOUT HAND DAMPER FOR ALL HIGH PRESSURE DUCTWORK BRANCHES.
3. MUST BE USED WHEN W ≥ 900mm.
4. MINIMUM T = 100mm.



NOTES:

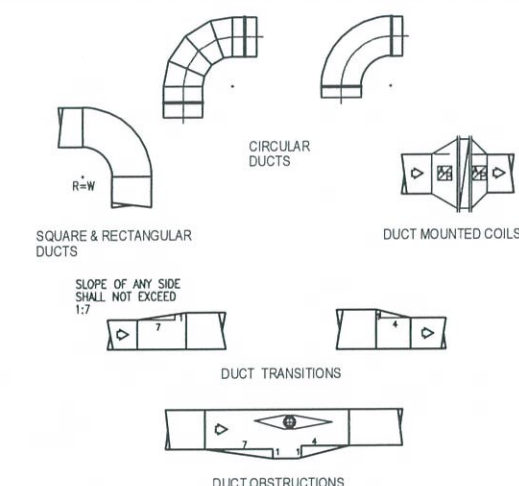
1. USE FOR SYMBOL J. WHERE BRANCH AIR QUANTITY IS LESS THAN 470 LPS.
2. NOT TO BE USED US SUBSTITUTE FOR ELBOW

1 RECTANGULAR TO FLEXIBLE DUCT TRANSITION DETAIL

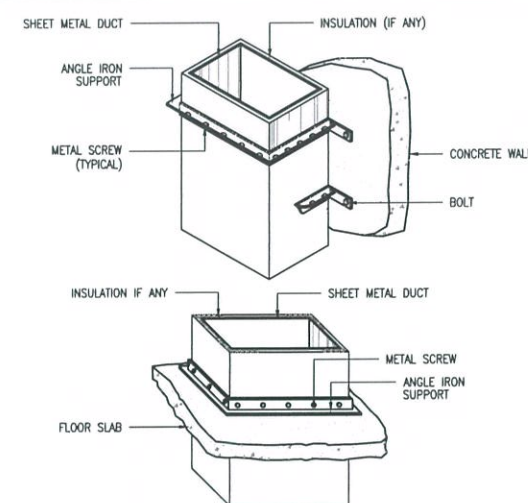
2 KITCHEN EXHAUST DUCTWORK CONSTRUCTION DETAIL

3 RECT. DUCT BRANCH W/ THROAT & VOLUME DAMPER

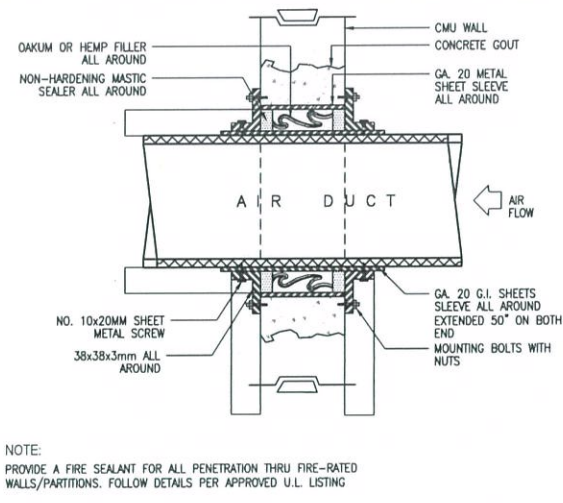
4 RECT. DUCT ANGULAR TAP W/ THROAT & VOL. DAMPER



5 DUCTWORK BEND & TAPER DETAILS



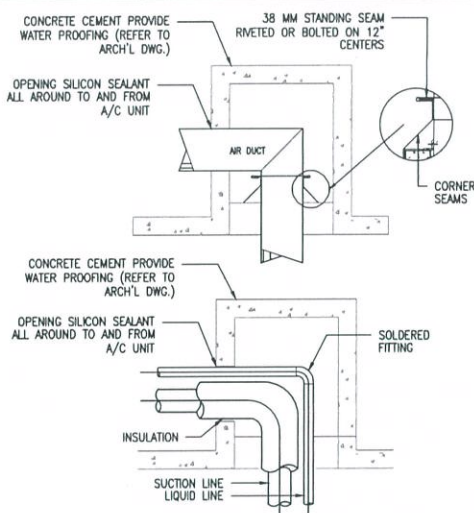
6 VERTICAL DUCT SUPPORT DETAIL



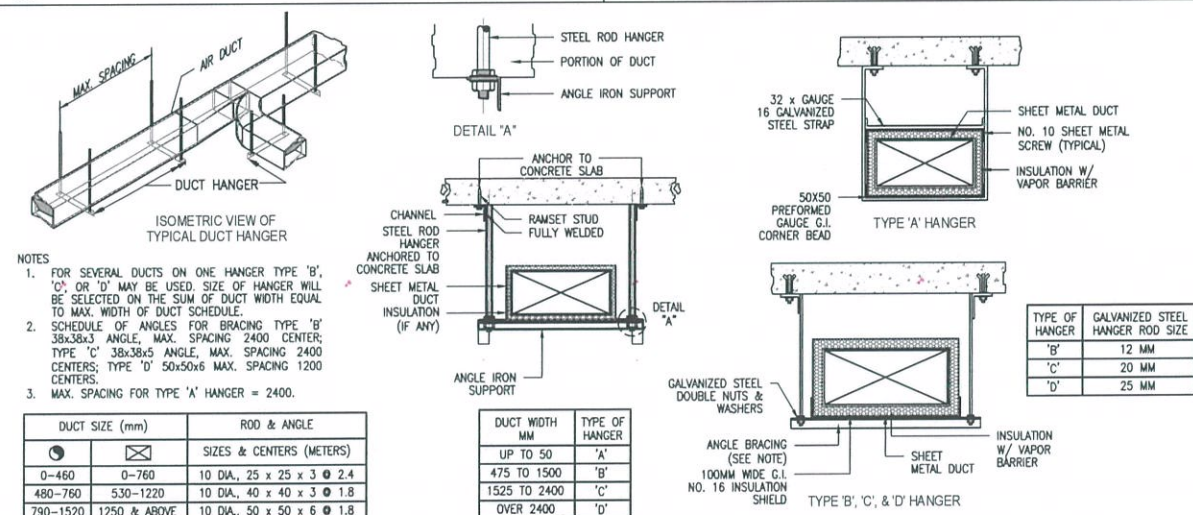
NOTE:

PROVIDE A FIRE SEALANT FOR ALL PENETRATION THRU FIRE-RATED
 WALLS/PARTITIONS. FOLLOW DETAILS PER APPROVED U.L. LISTING

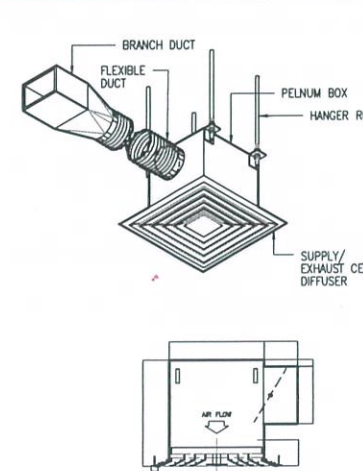
7 DUCT THRU WALL DETAIL



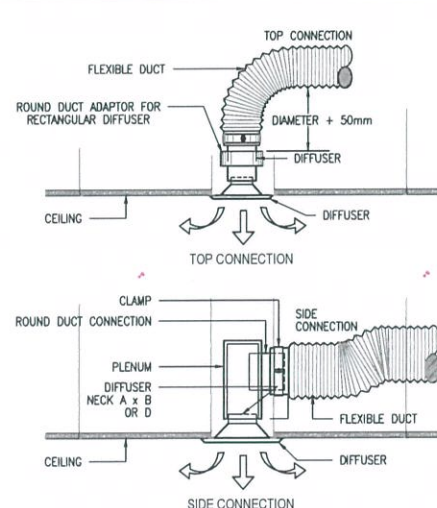
8 PIPE DUCT THRU ROOF DETAIL



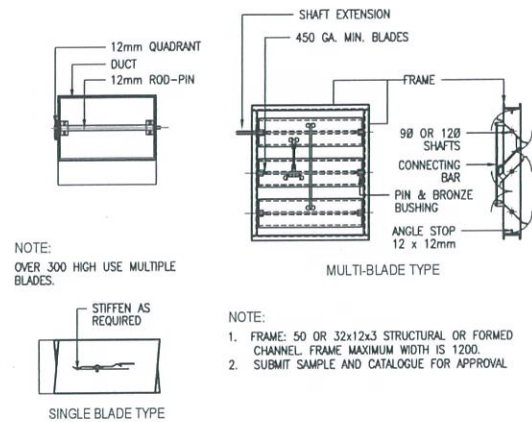
9 DUCT HANGER DETAILS



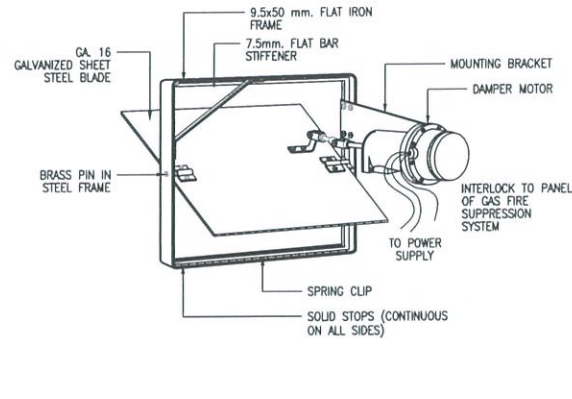
10 SQUARE DIFFUSER CONNECTION DETAIL



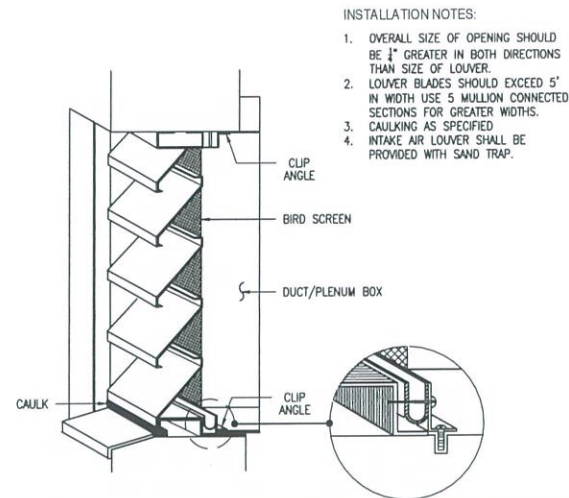
11 SQUARE DIFFUSER CONNECTION DETAIL



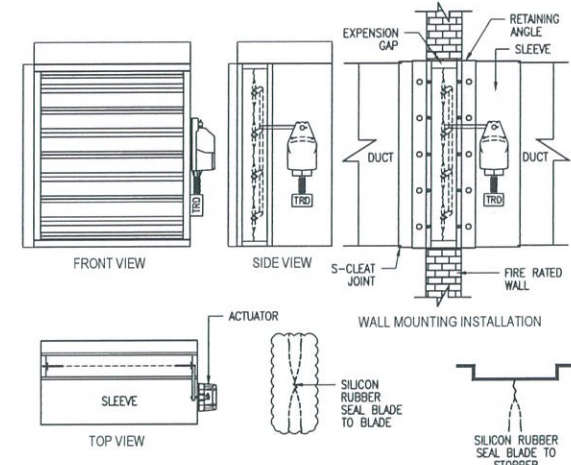
1 VOLUME DAMPER DETAIL
M-16 SCALE NTS



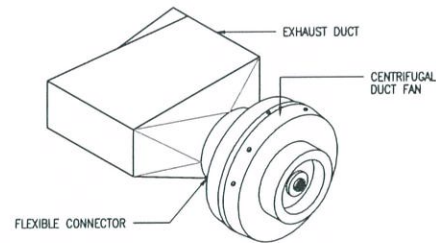
2 MOTORIZED VOLUME DAMPER DETAIL
M-16 SCALE NTS



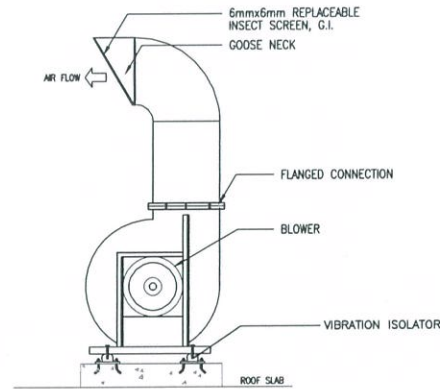
3 INTAKE/DISCHARGE AIR LOUVER DETAIL
M-16 SCALE NTS



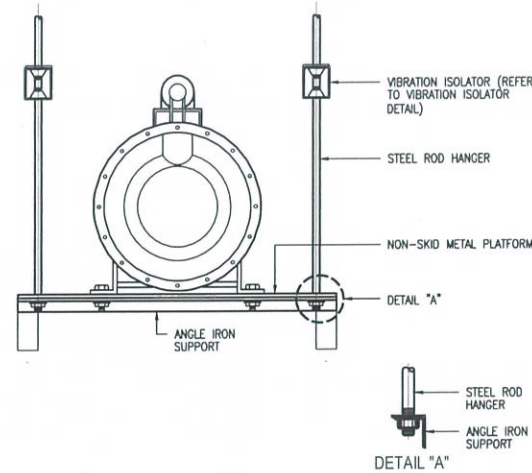
4 MOTORIZED FIRE DAMPER
M-16 SCALE NTS



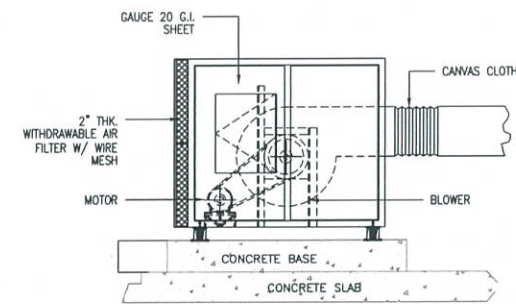
5 IN-LINE CENTRIFUGAL FAN DETAIL
M-16 SCALE NTS



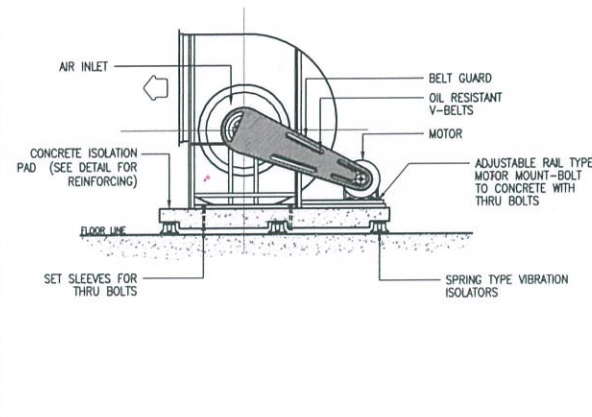
6 EXHAUST BLOWER INSTALLATION DETAIL
M-16 SCALE NTS



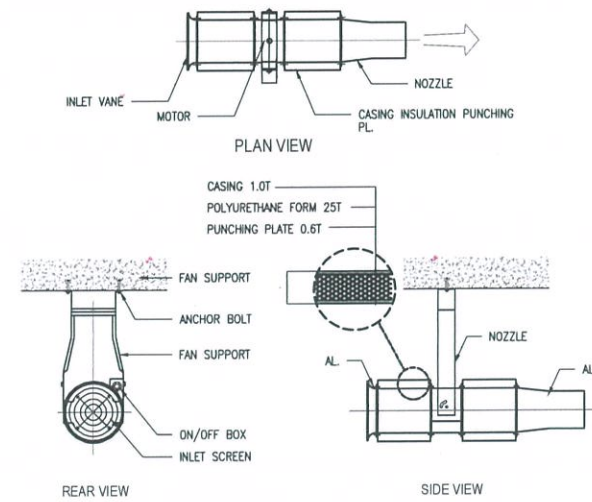
7 IN-LINE FAN MOUNTING DETAIL
M-16 SCALE NTS



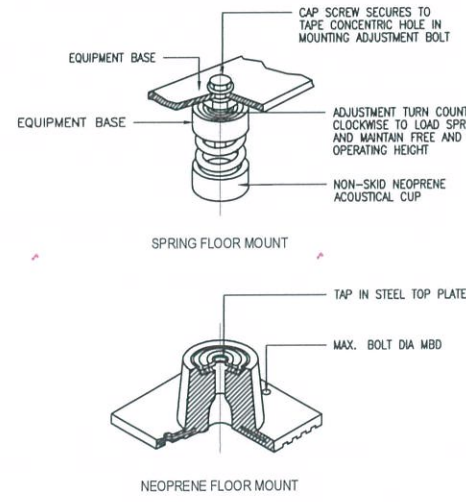
8 PRESSURIZATION BLOWER MOUNTING DETAIL
M-16 SCALE NTS



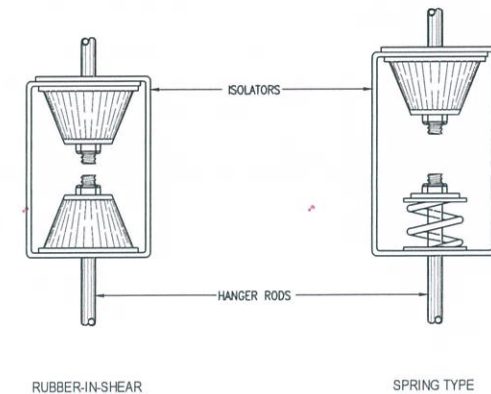
9 CENTRIFUGAL FAN (SISW) MOUNTING DETAIL
M-16 SCALE NTS



10 JET FAN DETAILS (SINGLE NOZZLE)
M-16 SCALE NTS



11 SPRING & NEOPRENE DETAIL
M-16 SCALE NTS



12 VIBRATION ISOLATOR DETAIL
M-16 SCALE NTS

GENERAL NOTES:

1. ALL FIRE PROTECTION WORKS SHALL CONFORM WITH THE LATES EDITION CODES AND REGULATIONS:
- THE FIRE CODE OF THE PHILIPPINES REVISED IMPLEMENTING RULES & REGULATIONS 2019
NATIONAL BUILDING CODE OF THE PHILIPPINES
PSME – PHILIPPINE SOCIETY OF MECHANICAL ENGINEERS
NFPA 10 – STANDARD FOR PORTABLE FIRE EXTINGUISHER
NFPA 13 – STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEM
NFPA 14 – STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEM
NFPA 20 – STANDARD FOR THE INSTALLATION OF CENTRIFUGAL FIRE PUMP
NFPA 101 – LIFE SAFETY CODE
NFPA 5000 – BUILDING CONSTRUCTION AND SAFETY CODE
UNDERWRITERS LABORATORIES, INC. (UL)
FACTORY MUTUAL (FM)
ASTM – AMERICAN SOCIETY FOR TESTING AND MATERIALS
NEMA – NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
2. DESIGN CRITERIA:
- A. TYPE OF OCCUPANCY : OFFICES
HAZARD CLASSIFICATION : LIGHT HAZARD
DESIGN DENSITY : 0.10 GPM/FT²
AREA OF SPRINKLER OPERATION : 1500 FT²
MAX. OVERAGE PER SPRINKLER : 225 FT²
MIN. DURATION OF WATER SUPPLY : 45 MINUTES
SPRINKLER TEMPERATURE RATING : 68°C
ORIFICE K-FACTOR (SPRINKLER) : 5.6 GPM/(PSI)^{1/2}
COMBINED IN/OUT HOSE STREAM ALLOWANCE : 100 GPM
3. ALL POWER WIRING UP TO SPLICE BOX, ECB DONE BY ELECTRICAL CONTRACTOR FROM SPLICE BOX ECB TO EQUIPMENT DONE BY FIRE PROTECTION CONTRACTOR.
4. CONTRACTOR SHALL COORDINATE INSTALLATION WITH CONSTRUCTION SUPERVISOR AND WITH ALL OTHER TRADES TO AVOID CONFLICT.
5. ALL PIPES PASSING THRU SLAB AND WALL SHALL PROVIDE SLEEVES AND CAULKED WITH FIRE SEALANT.
6. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF SPRINKLER IN COORDINATION WITH THE ARCHITECTURAL CEILING LAYOUT. ANY RELOCATION SHALL BE SUBJECT TO ARCHITECT'S AND ENGINEER'S APPROVAL.
7. TAP SPRINKLER ALARM PANEL TO FIRE ALARM PANEL. SUBMIT SHOP DRAWING OF SPRINKLER ALARM SYSTEM FOR APPROVAL PRIOR TO INSTALLATION.
8. ALL DRAIN PIPES FOR INSPECTORS TEST CONNECTION AND DRAIN VALVES SHALL BE PIPED TO THE NEAREST FLOOR DRAIN PROVIDED BY THE PLUMBING CONTRACTOR.
9. FIRE / JOCKEY PUMPS ELECTRICAL CONNECTIONS SHALL BE COORDINATED WITH THE ELECTRICAL CONTRACTOR.
10. MINIMUM PIPE SIZE FOR ALL SPRINKLER SHALL BE 25Ø UNLESS OTHERWISE NOTED.
11. ALL PIPE SIZES ARE IN MILLIMETER (MM), DIAMETER, UNLESS OTHERWISE NOTED.
12. ALL FEEDMAINS AND CROSSMAINS SHALL HAVE WELDED JOINTS AND ALL BRACHLINES SHALL BE OF THREADED JOINTS, UNLESS OTHERWISE NOTED.
13. ALL SPRINKLER PIPES SHALL BE HYDROSTATICALLY TESTED TO A PRESSURE OF 1380 KPa FOR TWO (2) HOURS.
14. WORKMANSHIP: THE WORK THROUGHOUT SHALL BE EXECUTED IN THE BEST AND MOST THOROUGH MANNER KNOWN TO TRADE AND TO THE SATISFACTION OF THE ARCHITECT AND THE ENGINEER.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL GOVERNMENT/ LOCAL CONSTRUCTION AND OPERATION PERMITS AND PAY ALL THE REQUIRED FEES.
16. DRAIN PIPE OF THE SYSTEM SHALL BE CONNECTED THE NEAREST DRAIN. COORDINATE WITH PLUMBING CONTRACTOR.
17. EE ROOM, SHALL BE PROTECTED BY CEILING TYPE FIRE EXTINGUISHER.
18. ALL SERVICE EQUIPMENT AND PIPING SHALL BE PAINTED BY RED COLOR (SAFETY RED) WITH COATING OF RED OXIDE PRIMER.
19. WHEN WELDING WORKS IS NEEDED, SPRINKLER AND STANDPIPE PIPING SHALL BE SHOP WELDED.
20. PROVIDE MECHANICAL COUPLING CONNECTION FOR EVERY 12METERS OF LENGTHS.
21. OTHER EQUIPMENT, VALVE, ETC. NOT SHOWN ON THE PLAN TO COMPLETE THE SYSTEM OPERATIONAL SHALL BE INCLUDED.

LEGEND & SYMBOLS

SYMBOLS	DESCRIPTION	SYMBOLS	DESCRIPTION
	SUPPLY PIPE/BRANCHLINE/		ABC PORTABLE FIRE EXTINGUISHER
	FEEDMAIN/FDC PIPE/CROSSMAIN/		CO2 PORTABLE FIRE EXTINGUISHER
	DRAIN PIPE		PUMP
	UNDERGROUND SUPPLY PIPE		RISER
	CAPPED PIPE		3-WAY FIRE DEPARTMENT CONNECTION
	CONTINUOUS PIPE		ROOF MANIFOLD
	FLOW METER		UPRIGHT SPRINKLER HEAD
	GATE VALVE		PENDENT SPRINKLER HEAD
	CHECK VALVE		SIDEWALL SPRINKLER HEAD
	AUTOMATIC AIR VENT		PRESSURE GAUGE
	ALARM CHECK VALVE		50 LBS (22.7 KG.) WHEELED TYPE CO2 FIRE EXTINGUISHER
	PRV (PRESSURE REDUCING VALVE)		CEILING TYPE FIRE EXTINGUISHER
	FIRE HOSE CABINET(CLASS 2)		

ABBREVIATIONS

AV	AUTOMATIC AIR VENT	GV	GATE VALVE
ACV	ALARM CHECK VALVE	GPM	GALLONS PER MINUTE
CV	CHECK VALVE	KW	KILOWATT
FDC	FIRE DEPARTMENT CONNECTION	HP	HORSEPOWER
FHC	FIRE HOSE CABINET	PFE	PORTABLE FIRE EXTINGUISHER
F/A	FROM ABOVE	RN	RISER NIPPLE
F/B	FROM BELOW	TYP	TYPICAL
FM	FLOW METER	T/A	TO ABOVE
FHV	FIRE HOSE VALVE	T/B	TO BELOW

2 ABBREVIATION, LEGEND AND SYMBOLS
FP-00 SCALE: NTS

EQUIPMENT SCHEDULE

SERVICE	PUMP NO.	TYPE	LOCATION	CAPACITY (GPM)	APPROX HEAD FT.	MOTOR (BHP)	ELECTRICAL CHARACTERISTIC			CUT-IN (PSI)	CUT-OUT (PSI)	OPERATION
							VOLTS	PHASE	HERTZ			
FIRE PUMP	FP 01	VERTICAL TURBINE	PUMP ROOM	750	416	150	400	3	60	180	MANUAL	DUTY
JOCKEY PUMP	JP 01	SUBMERSIBLE JOCKEY PUMP	PUMP ROOM	50	457	10	400	3	60	190	195	DUTY

3 EQUIPMENT SCHEDULE
FP-00 SCALE: NTS

NOTE :

PIPE SCHEDULES FOR LIGHT HAZARD AREAS

MATERIAL : STEEL	
Ø25	2 SPRINKLERS
Ø32	3 SPRINKLERS
Ø40	5 SPRINKLERS
Ø50	10 SPRINKLERS
Ø65	30 SPRINKLERS
Ø80	60 SPRINKLERS
Ø90	100 SPRINKLERS
Ø100	MORE THAN 100 SPRINKLERS

PIPE SCHEDULES

FOR ORDINARY HAZARD AREAS

MATERIAL : STEEL	
Ø25	2 SPRINKLERS
Ø32	3 SPRINKLERS
Ø40	5 SPRINKLERS
Ø50	10 SPRINKLERS
Ø65	20 SPRINKLERS
Ø80	40 SPRINKLERS
Ø90	65 SPRINKLERS
Ø100	100 SPRINKLERS

DRAWING INDEX

FP-00	DRAWING INDEX, GENERAL NOTES, LEGENDS & SYMBOLS, ABBREVIATIONS, EQUIPMENT SCHEDULE
FP-01	GROUND FLOOR FIRE PROTECTION LAYOUT
FP-02	2ND FLOOR FIRE PROTECTION LAYOUT
FP-03	3RD-5TH FLOOR FIRE PROTECTION LAYOUT (TYPICAL)
FP-04	6TH FLOOR FIRE PROTECTION LAYOUT
FP-05	ROOF DECK FIRE PROTECTION LAYOUT
FP-06	SCHEMATIC RISER DIAGRAM
FP-07	PUMP ROOM DETAILS
FP-08	MISCELLANEOUS DETAILS
FP-09	MISCELLANEOUS DETAILS
FP-10	MISCELLANEOUS DETAILS
FP-11	PUMP ROOM PIPING ISOMETRIC DRAWING

1 GENERAL NOTES
FP-00 SCALE: NTS

4 PIPE SCHEDULE
FP-00 SCALE: NTS

5 DRAWING INDEX
FP-00 SCALE: NTS



REPUBLIC OF THE PHILIPPINES
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
AERODROME DEVELOPMENT AND MANAGEMENT SERVICE
NAIA ROAD, 1300 PASAY CITY

THIS DRAWINGS AND DESIGN IS EXCLUSIVE PROPERTIES OF CIVIL AVIATION AUTHORITY OF THE PHILIPPINES AND SUCH MUST NOT BE REPRODUCED, EXHIBITED, LOANED NOR COPIED IN PART OR IN WHOLE WITHOUT PROPER PERMISSION AND/OR WRITTEN CONSENT FROM THE DIRECTOR GENERAL CAAP.

AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD
DRAWN BY:	IDDD
CHECKED BY:	

REVIEWED BY:

RAUL R. CRUCENA
Division Chief III, IDDD-AED

SUBMITTED BY:
ARNEL F. BORLADO
Department Manager III, AED-ADMS

RECOMMEND APPROVAL:
LT COL VALENTINO A DIONELA PAF (RET)
Assistant Director General II, ADMS

APPROVED BY:
CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS:

PROJECT:
NEW CAAP BUILDING

LOCATION:
CAAP HEAD OFFICE
NAIA ROAD, PASAY CITY

SHEET CONTENTS:
• GENERAL NOTES
• ABBREVIATIONS, LEGENDS & SYMBOLS
• EQUIPMENT SCHEDULE
• PIPE SCHEDULE
• DRAWING INDEX

DRAWING SCALE:	SHEET NO:
AS SHOWN	FP-00