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CIVIL AVIATION AUTHORITY OF THE PHILIPPI AERODROME DEVELOPMENT AND MANAGEMENT SER NAIA ROAD, 1300 PASAY CITY

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIG

DESIGNED BY:	IDDD
DRAWN BY:	IDDD
REVIEWED BY:	

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RAUL R. CRUCENA Acting Division Chief III, IDDD-ADMS

SUBMITTED B

ARNEL F. BORLADO
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RECOMMEND APPROVAL:

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

APPROVED

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General

NOTES/REVISIONS

PROJECT:

IMPROVEMENT/REHABILITATION OF FOURTH FLOOR

LOCATIO

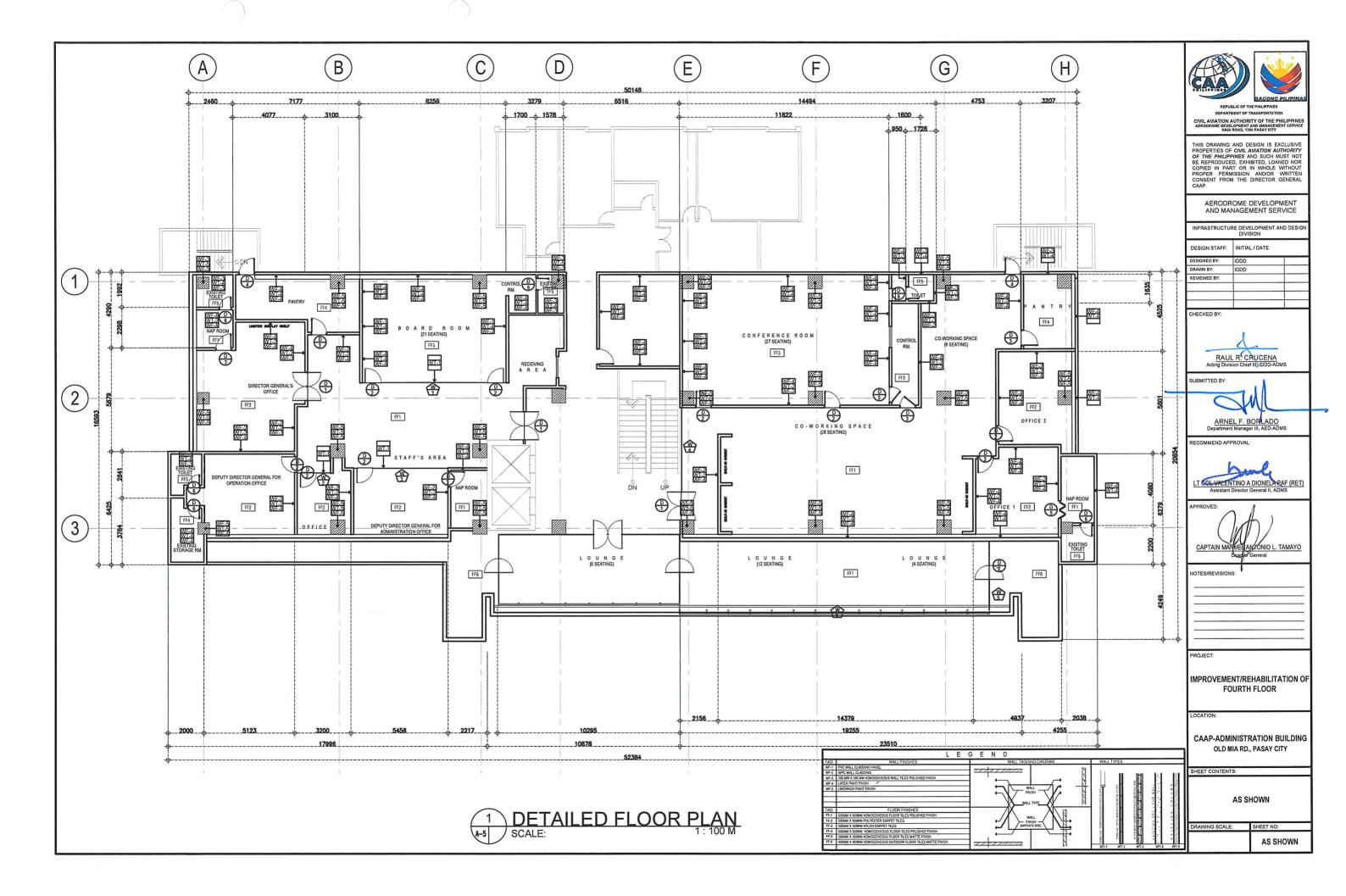
CAAP-ADMINISTRATION BUILDING OLD MIA RD., PASAY CITY

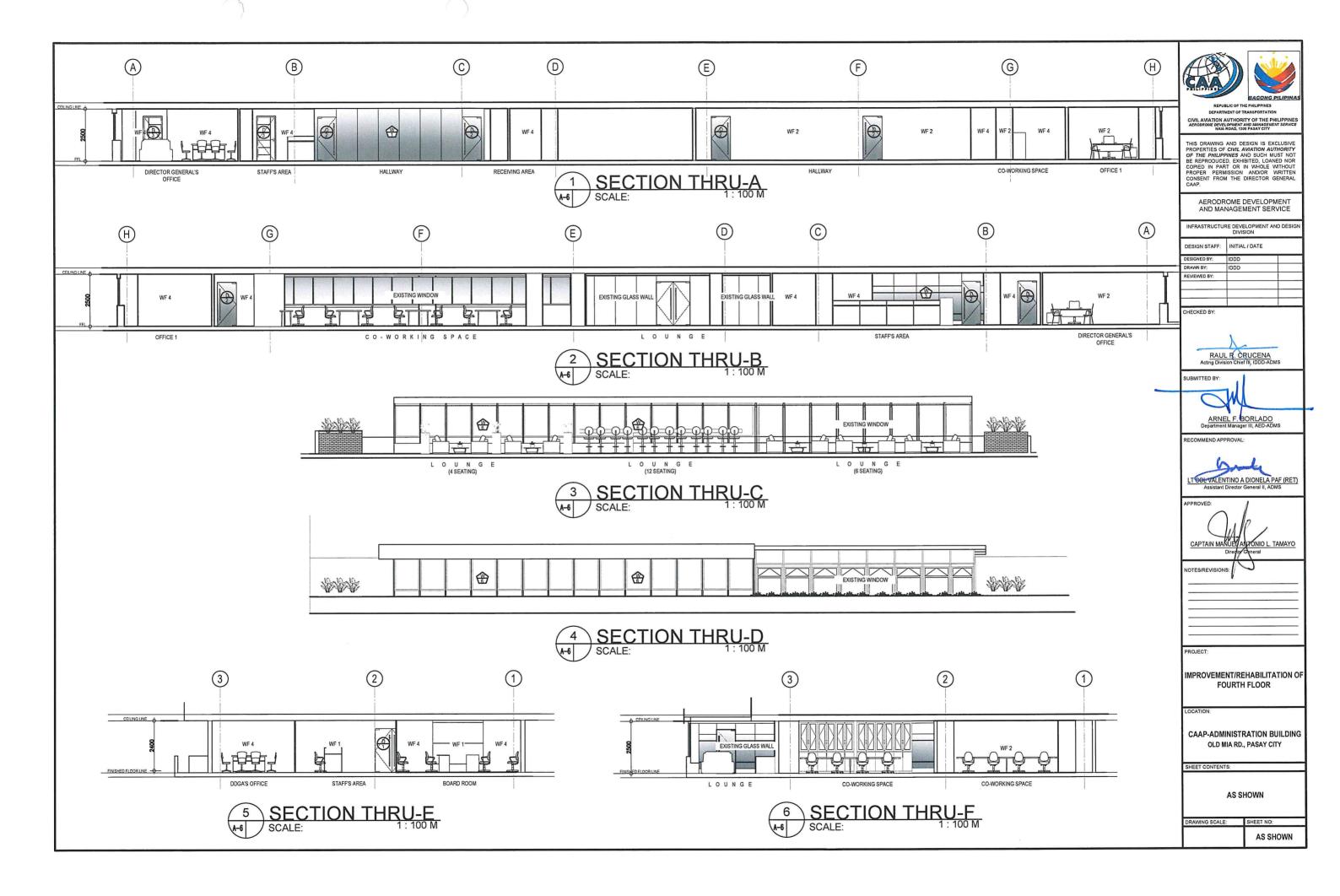
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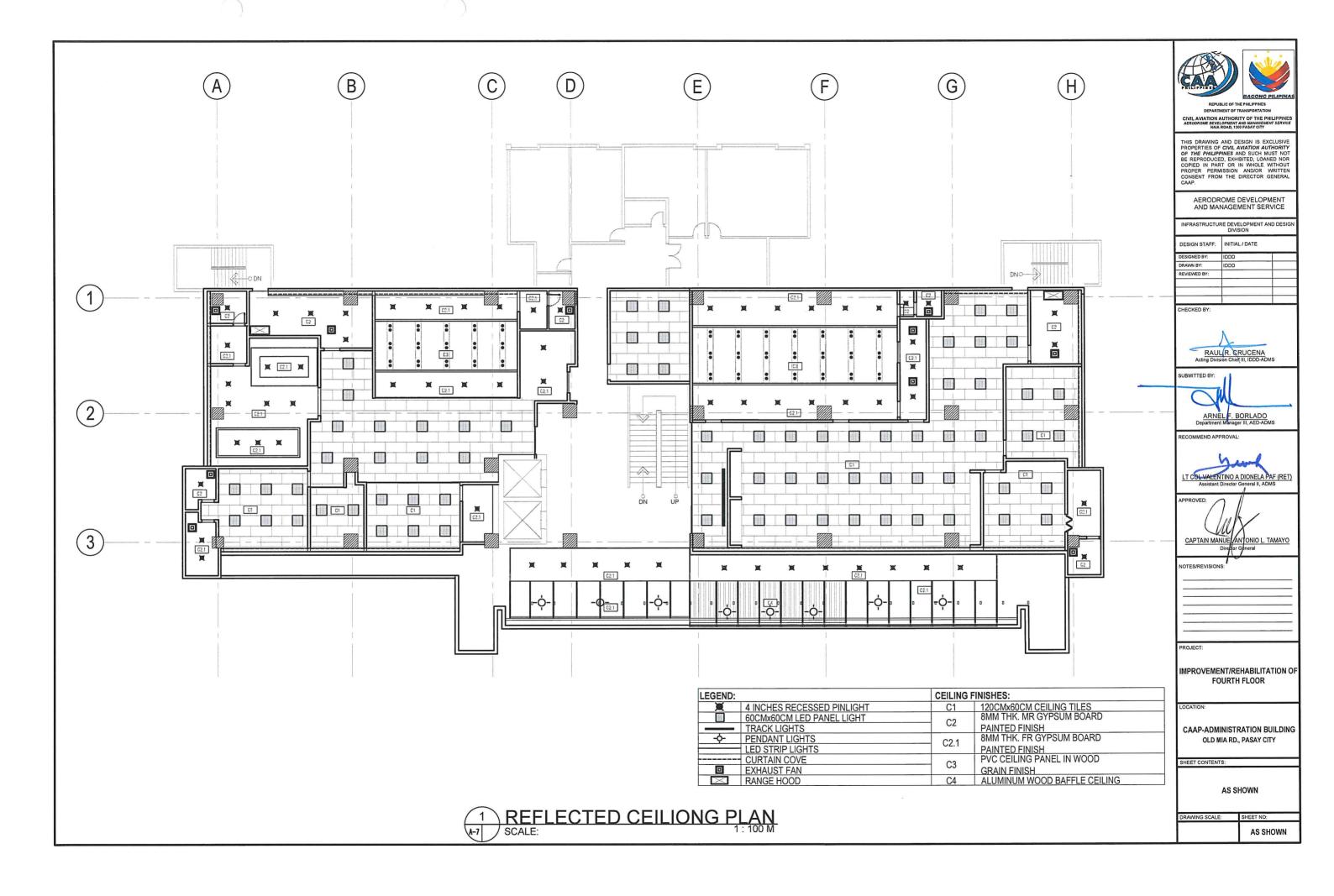
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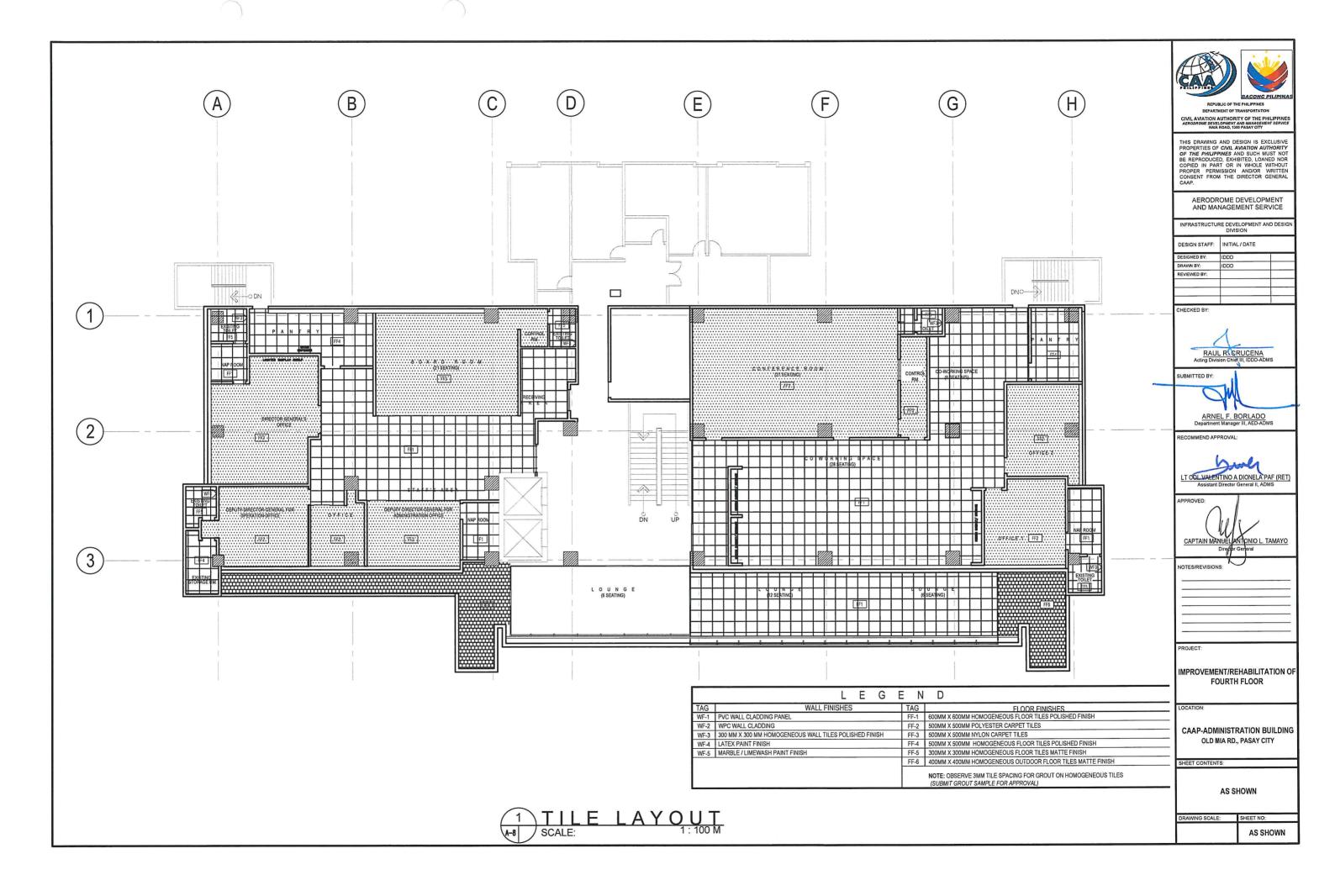
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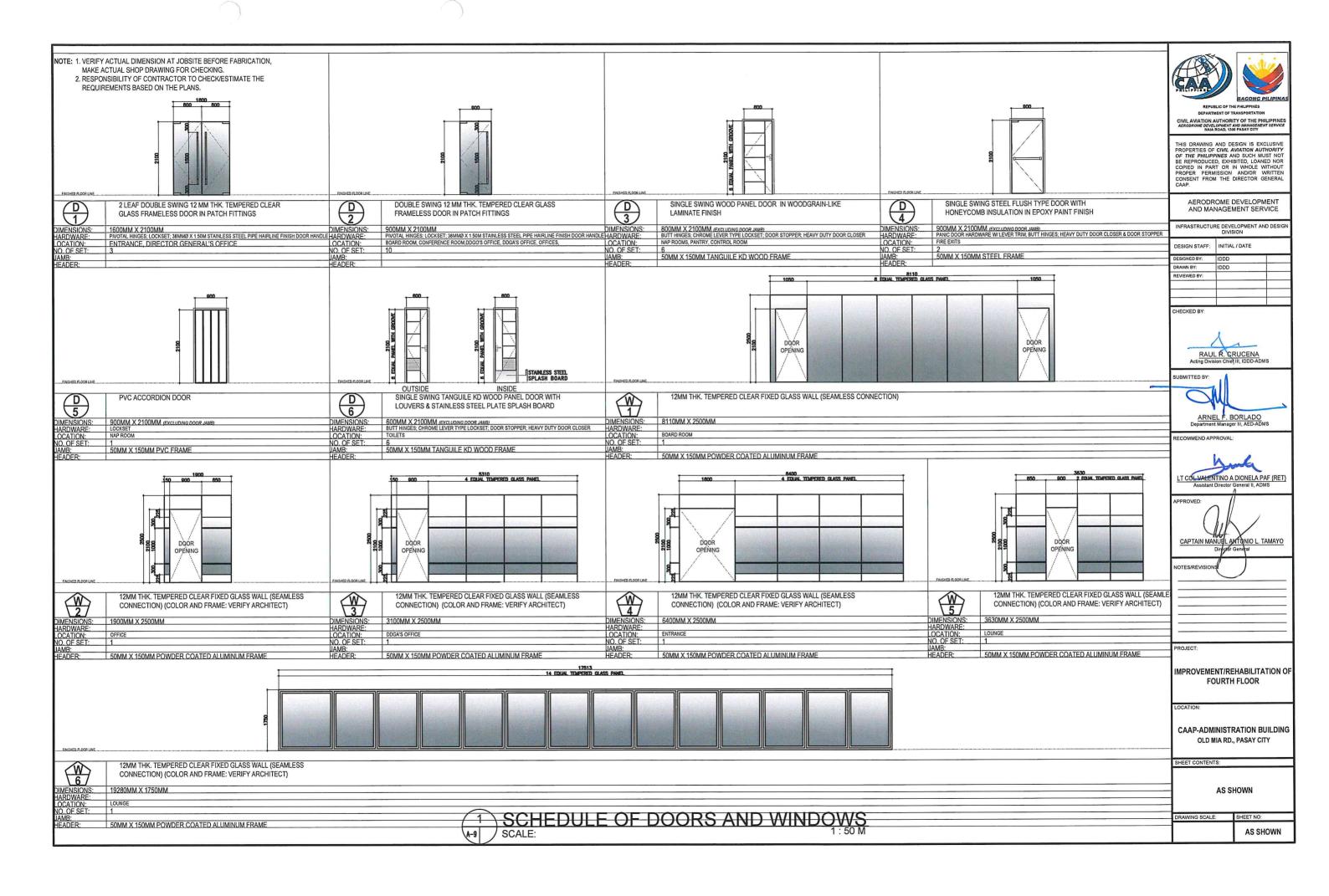
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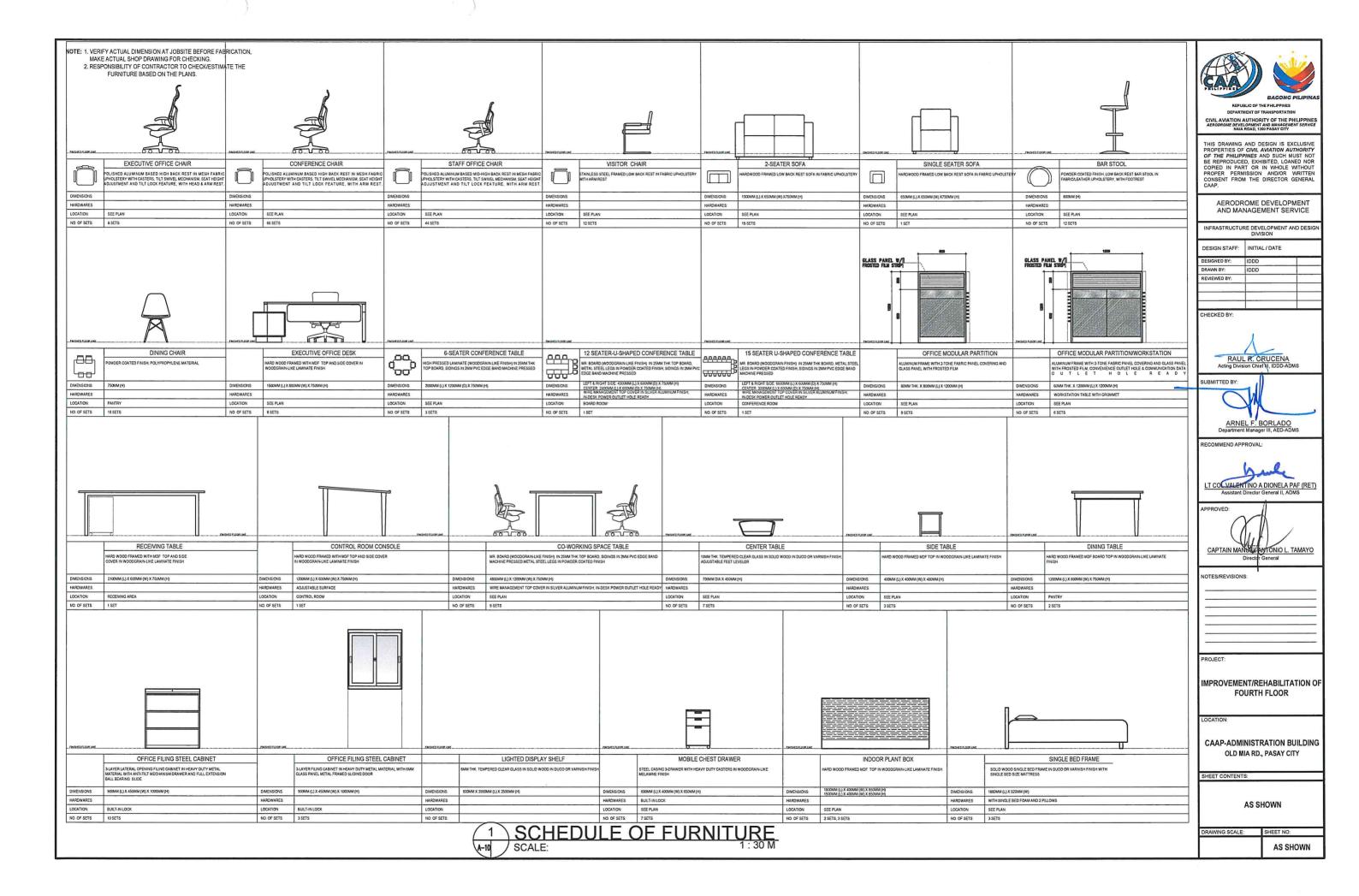


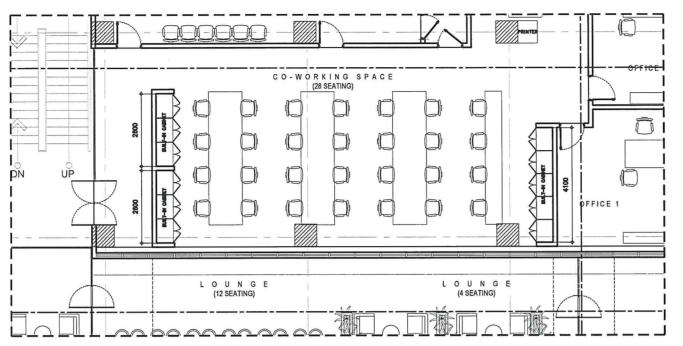




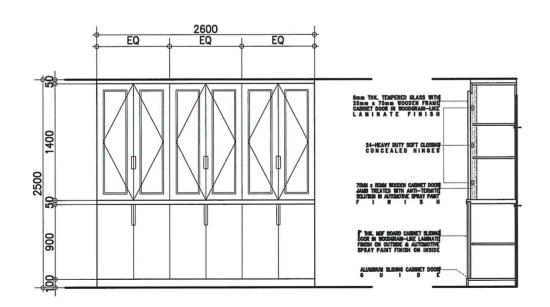


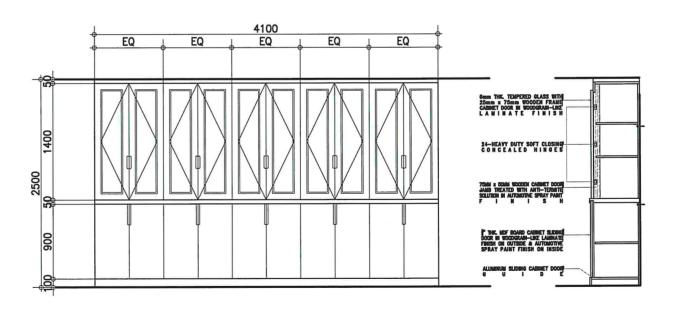






BLOW UP- PLAN SCALE: 1:75 MTS.





600MM X 2600MM X 2500 CABINET DETAILS SCALE: 1:25 MTS. 3 CABINET DETAILS SCALE: 1:25 MTS.





DEPARTMENT OF TRANSPORTATION

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

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SUBMITTED

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RECOMMEND APPROVAL:

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IMPROVEMENT/REHABILITATION OF FOURTH FLOOR

LOCATION

CAAP-ADMINISTRATION BUILDING OLD MIA RD., PASAY CITY

SHEET CONTEN

AS SHOWN

DRAWING SCALE: SHEET NO:

AS SHOWN

CONSTRUCTION NOTES:

A GENERAL

- CONSTRUCTION NOTES AND TYPICAL DETAILS APPLY TO ALL UNLESS OTHERWISE SHOWN OR NOTED. MODIFY TYPICAL DETAILS AS DIRECTED TO MEET SPECIAL CONDITIONS.
- SPECIAL CONDITIONS.

 2. SHOP DRAWINGS WITH ERECTION AND PLACING DIAGRAMS OF ALL STRUCTURAL STEEL, MISCELLANEOUS IRON, PRE—CAST CONCRETE ETC. SHALL BE SUBMITTED FOR ENGINEER'S APPROVAL BEFORE FABRICATION.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE ALL WORK IS TO BEGIN. CHECK WITH MECHANICAL AND ELECTRICAL CONTRACTORS FOR CONDUITS, PIPE SLEEVES, ETC. TO BE EMBEDED IN CONCRETE.
- T SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE HORNINGS AND BRACING OF THE STRUCTURE FOR ALL LOADS THAT MAYBE MYOSED DURING CONSTRUCTION.

B: CONCRETE AND REINFORCEMENT

- ALL MATERIALS WORKMANSHIP SHALL CONFORM WITH THE LATEST BUILDING CODE OF AMERICAN CONCRETE INSTITUTE (ACI-318).
- ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH AT THE END OF TWENTY EIGHT (28) DAYS WITH CORRESPONDING MAXIMUM SIZE AGGREGATE AND SLUMPS AS FOLLOWS

LOCATION	28 DAYS STRENGTH	WIAX. SIZE AGGILGATE	WAX. SECIM
CURBS AND SLAB ON GRADE EXCEPT FOUND.	3000 PSI	1 in. (25 mm)	4 in. (100 mm)
FOUNDATION & RETAINING WALL	3000 PSI	3/4 in. (19 mm)	4 in. (100 mm)

- 3/4 in. (19 mm) 5 in. (125 mm)
- AND COLUMNS
 3. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 40 FOR Ø12 & SMALLER REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 FOR Ø16 & BIGGER IN GENERAL, THE LATEST EDITION OF ACI-315, MANUAL OF STANDARD PRACTICE DETAILING REINFORCED CONCRETE STRUCTURES SHALL BE ADHERED TO UNLESS OTHERWISE SHOWN OR NOTED.
- 5. MAINTAIN MINIMUM CONCRETE COVER FOR REINFORCING STEEL AS FOLLOWS. 3/4 in. (19mm) 1 1/2 in. (38mm) 1 in. (25mm) SUSPENDED SLABS SLAB ON GRADE WALLS ABOVE GRADE 1 1/2 in. (38mm) BEAM STIRRUPS AND COLUMN TIES WHERE CONCRETE IS EXPOSED TO EARTH BUT POURED AGAINST FORMS 2 in. (50mm) WHERE CONCRETE IS DEPOSITED DIRECTLY AGAINST EARTH 3 in (75mm)
- 6. SPLICES SHALL BE SECURELY WIRED AND SHALL LAP OR EXTEND IN ACCORDANCE WITH TABLE 1 (TABLE OF LAP SPLICE AND ANCHORAGE LENGTH) UNLESS OTHERWISE SHOWN ON DRAWINGS, SPLICES SHALL BE STAGGERED WHENEVER POSSIBLE.
- 7. ALL ANCHOR BOLTS, DOWELS, AND OTHER INSERTS, SHALL BE PROPERLY POSITIONED AND SECURED IN PLACE PRIOR TO PLACING OF CONCRETE.
- B. CONTRACTOR SHALL NOTE AND PROVIDE ALL MISCELLANEOUS CURBS, SILLS, TOOLS, EQUIPMENTS AND MECHANICAL BASES THAT ARE REQUIRED BY THE ARCHITECTURAL, ELECTRICAL, AND MECHANICAL BRAWNOGAL DRAWING.

 9. ALL CONCRETE SHALL BE KEPT MOIST FOR A MINIMUM OF SEVEN (7) CONSECUTIVE DAYS IMMEDIATELY AFTER POURING BY THE USE OF WET BURLAP, FOG SPRAYING, CURING COMPOUNDS OR OTHER APPROVED METHODS.
- 10. STRIPPING OF FORMS AND SHORES

C: CAMBER REQUIREMENTS

- UNLESS PTHERWISE NOTED ON THE PLANS OR SPECFICATIONS, CAMBER ALL R.C BEAMS AT LEAST 10mm FOR EVERY 4000mm OF CLEAR SPAN EXCEPT CANTILEVERS WHICH SHALL BE 50mm FOR EVERY 3000mm OF CLEAR SPAN.
- UNLESS OTHERWISE NOTED IN PLANS OR SPECIFICATIONS, CAMBERS ALL SLABS 8mm PER 3000mm OF SHORTER SPAN AND 14mm, FOR EVERY 2000mm OF SLABS CANTILEVER

D: MASONRY AND CONCRETE BLOCKS

- ALL-LOAD BEARING TYPE CONCRETE BLOCKS SHALL HAVE A UNIT WEIGHT NOT TO EXCEED 80 PGF FOR LOAD BEARING TYPE CONCRETE BLOCKS A MINIMUM COMPRESSIVE STRENGTH OF 6-90 MPA. SHALL BE DEVELOPED.
- PROVIDE $1-\phi 16$ VERTICAL BARS AT CORNERS, INTERSECTIONS, END OF WALLS. EACH SIDE OF OPENINGS.
- 3. LINTEL BEAMS SHALL BEAR AT LEAST 8 INCHES (200 MM.) ON EACH SIDE OF MASONRY WALL OPENING.
- 4. WALL REINFORCEMENTS SHALL BE AS FOLLOWS:
- WALL THICKNESS VERTICAL REINFORCEMENT HORIZONTAL REINFORCEMENT ¢10 @ 600 mm ¢10 @ 600 mm ¢10 @ 600 mm 4 IN. (100 mm) ø10 @ 600 mm
- 5. REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 40 BARS DIAMETERS WHERE SPLICED DOWELS FROM CONCRETE FOOTINGS OR SLABS EXTEND INTO THE BLOCK WALL A MINIMUM OF 40 BAR DIAMETERS, AND DOWELS TO MATCH VERTICAL REINFORCEMENTS OF WALL.
- ALL CELLS CONTAINING REINFORCING BARS OR INSERTS SHALL BE SOLIDLY FILLED WITH CONCRETE GROUT, (REFER TO SPECIFICATIONS).

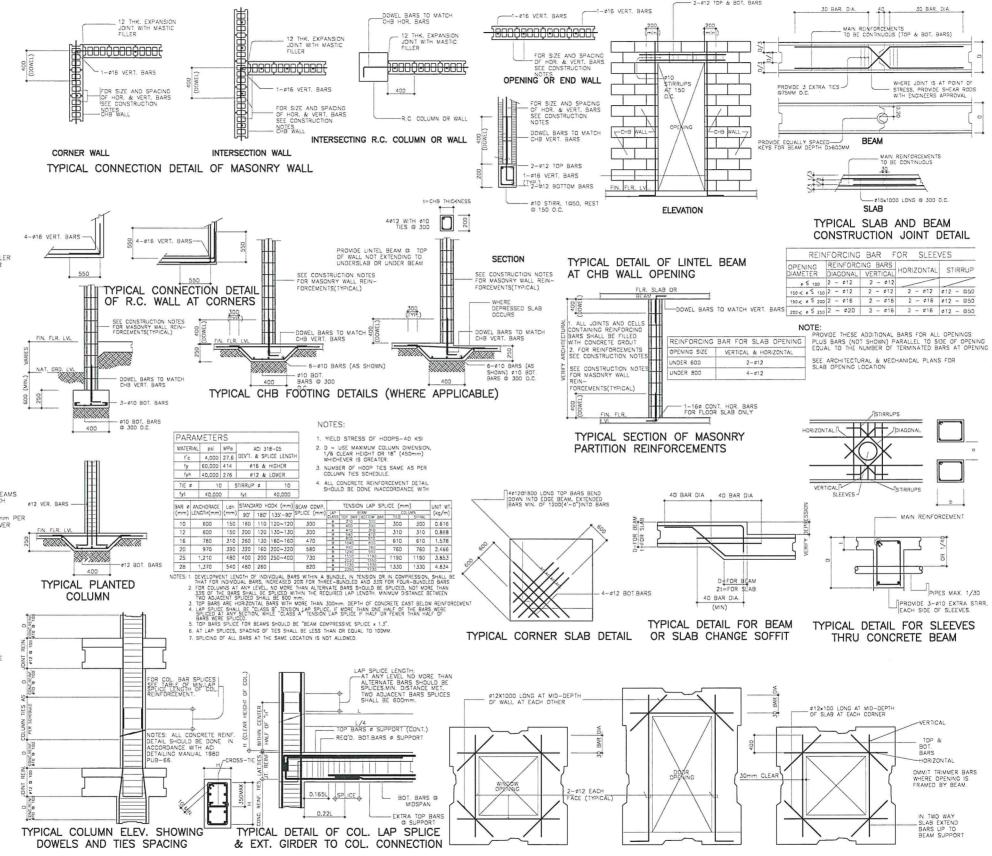
- ALL STRUCTURAL STEEL SHAPES SHALL CONFORM TO STD. REQUIREMENTS OF AISC FOR ASTM A36 STEEL
- ALL COLD FORMED STEEL SHAPES SHALL CONFORM TO STD. REQUIREMENTS OF AISI FOR JIS G3141 SPCC

 3. ALL WELDS SHALL CONFORM WITH AWS STD.
- 4. CONNECTORS
- BOLTS ASTM A307 OR ASTM A325 AS SPECIFIED WELDS E60XX ELECTRODE

F: FOUNDATION

- FOUNDATION IS DESIGNED BASED ON THE ASSUMPTION OF 120 KPA SOIL BEARING CAPACITY FOR FOOTING NOT LESS THAN 1.5M.
- FOUNDATION SHALL REST ON NATURAL SOIL, UNLESS OTHERWISE NOTED BY THE ENGINEER, NO PART OF THE FOUNDATION SHALL REST ON FILL.
- 3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AFTER FOOTING EXCAVATION HAVE BEEN COMPLETED AND PRIOR TO CONCRETING TO CONFIRM THE DESIGN SOIL BEARING CAPACITY.
- SOIL BEARING CAPACHY.

 4. THE CONTRACTOR SHALL HAVE THE SOLE RESPONSIBILITY TO DEVISE & IMPLEMENT EXCAVATION PROCEDURES THAT WILL ENSURE SAFETY OF LIFE







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DIVISION	ND DES
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SUBMITTED BY:

RECOMMEND APPROVAL:



ARNEL F. BORLADO
partment Manager III, AED-ADMS

APPROVED:	Auk >
CAPTAIN MAI	NUEL ANTONID L. TAMAYO
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NOTES/REVISION	us:

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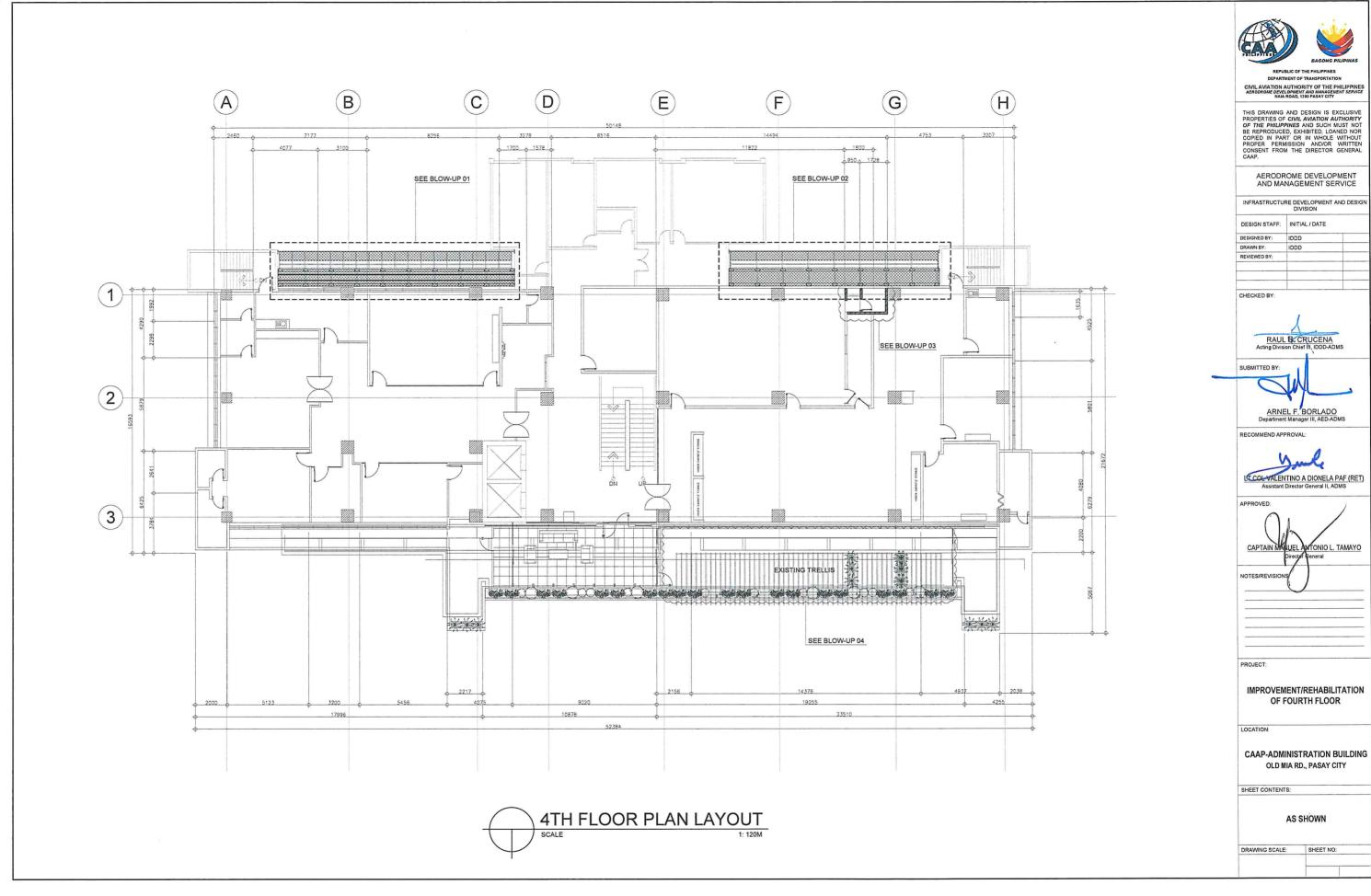
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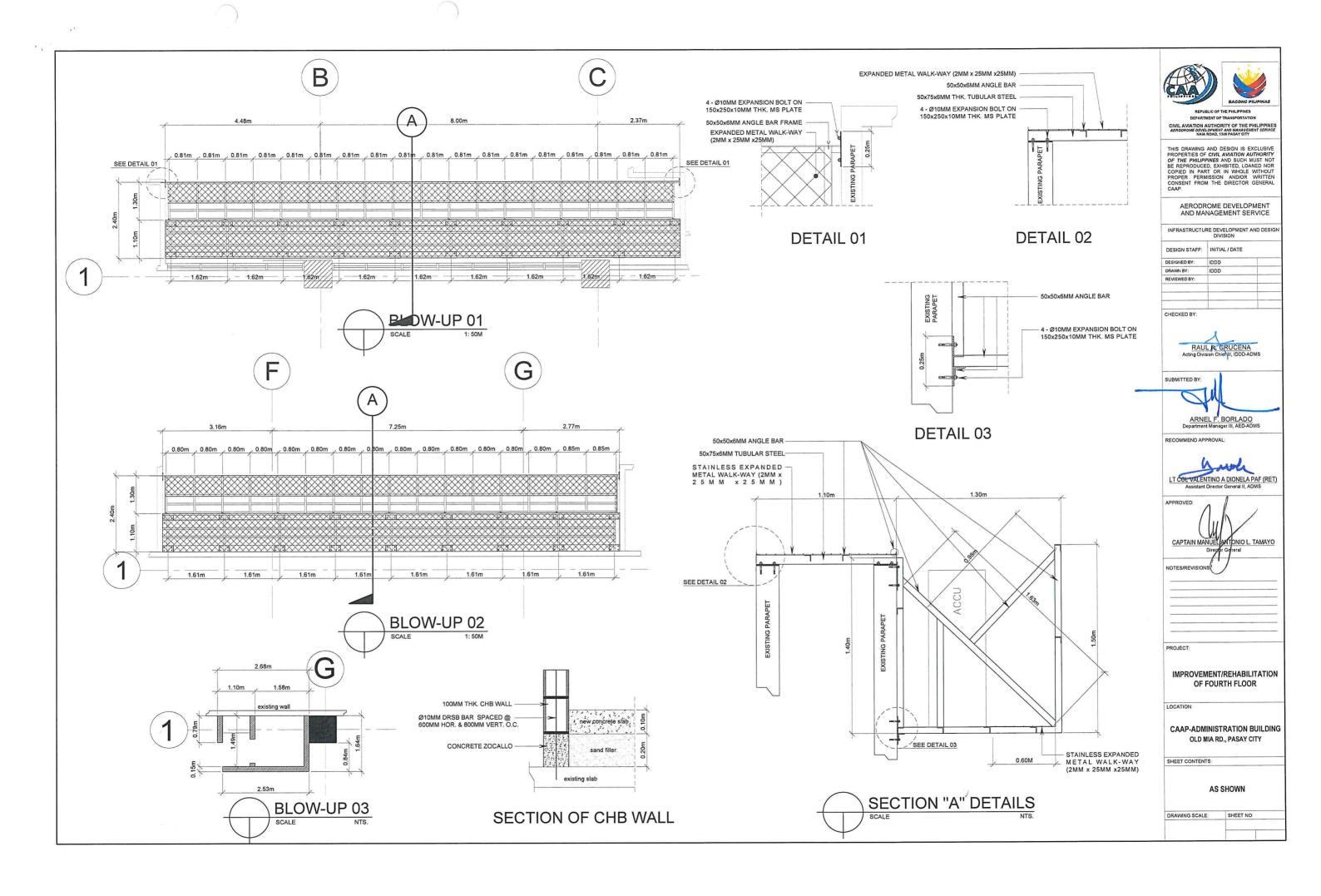
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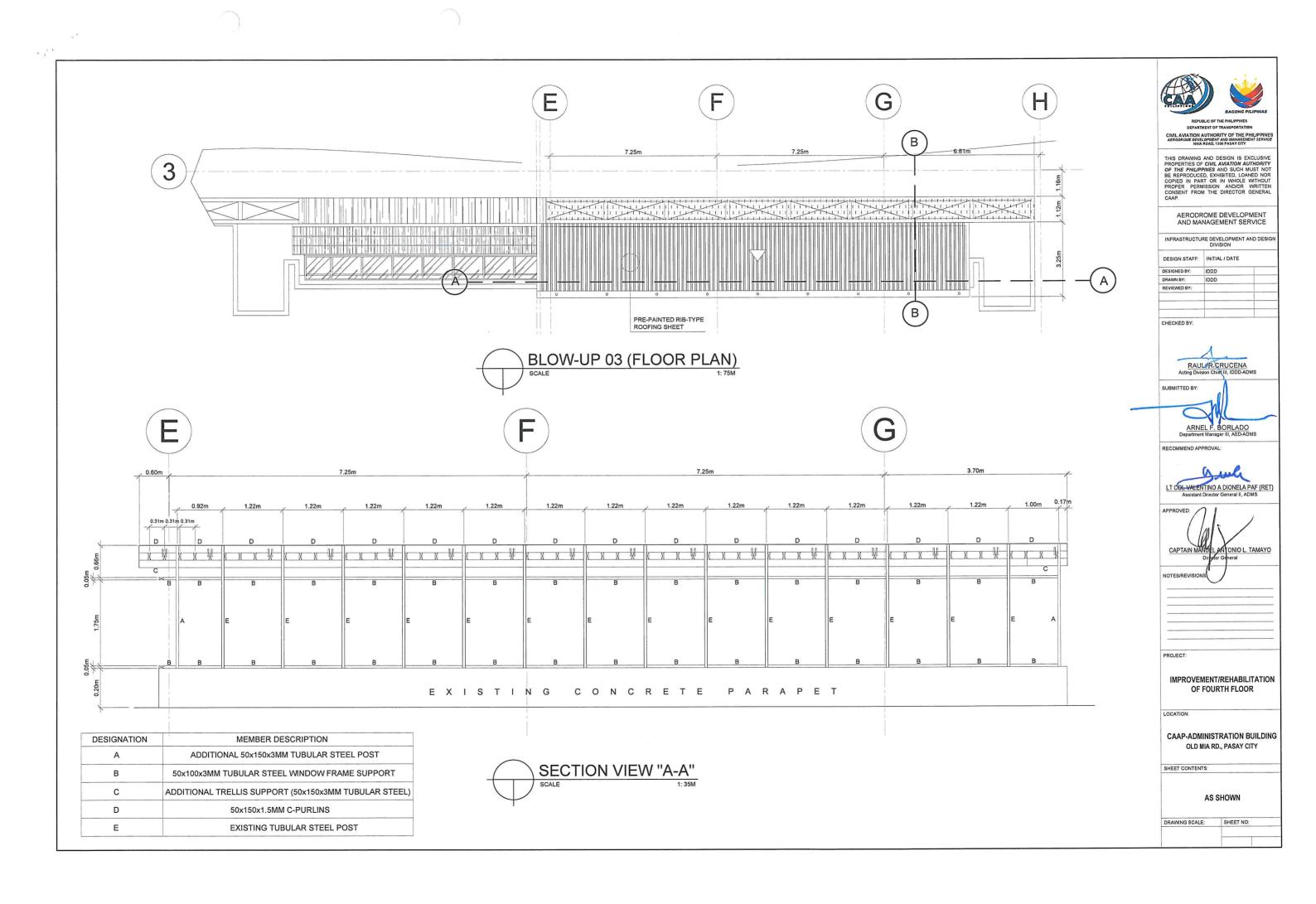
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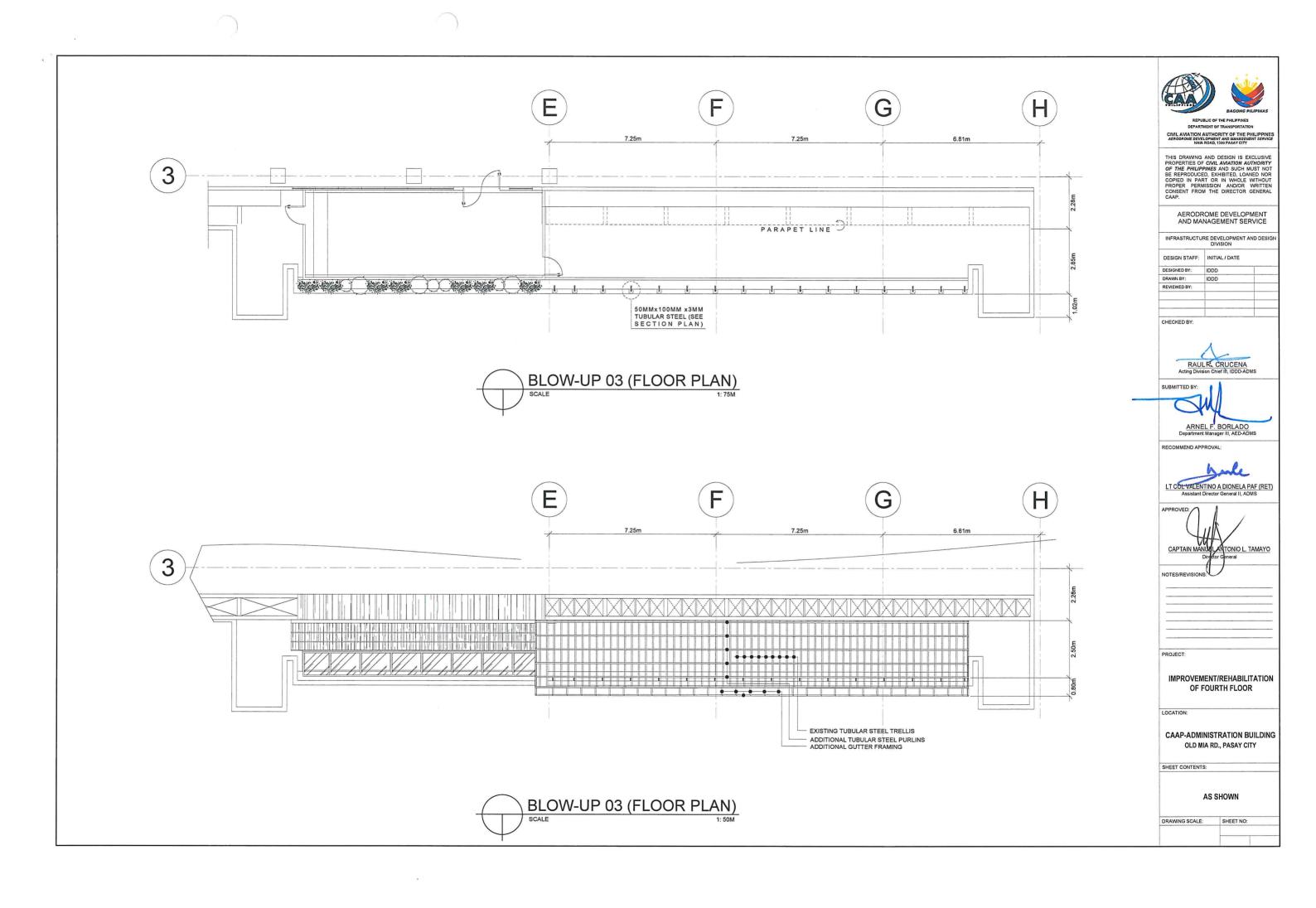
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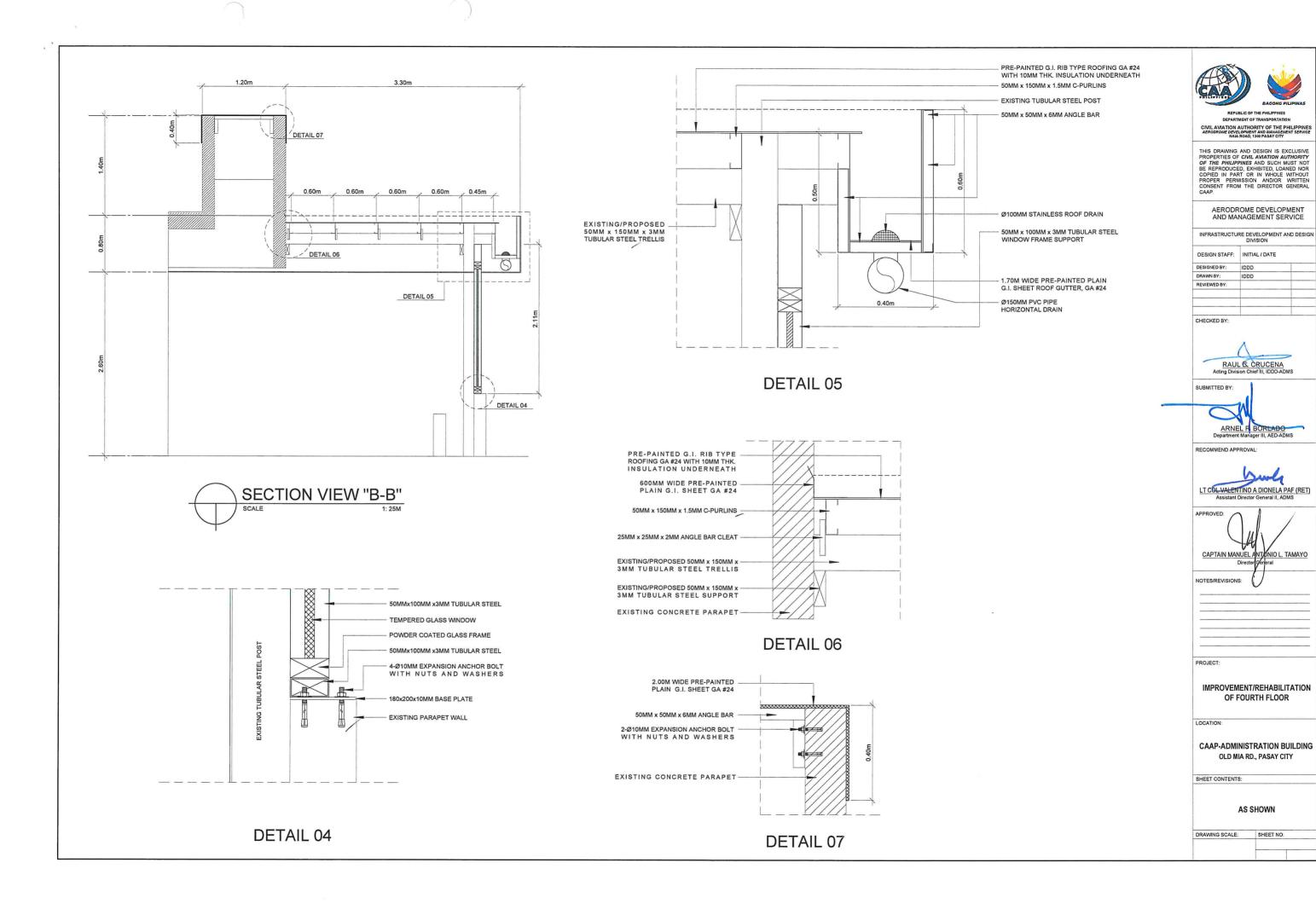
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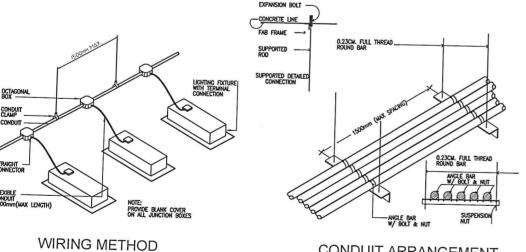


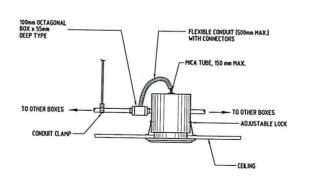


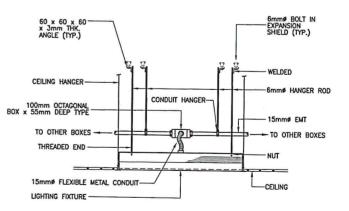
GENERAL NOTES & SPECIFICATIONS:

- 1. ALL ELECTRICAL WORKS AND INSTALLATIONS SHALL COMPLY WITH THE PROVISIONS OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE WITH THE RULES AND REGULATIONS OF THE NATIONAL AND LOCAL AUTHORITIES CONCERNED IN THE ENFORCEMENT OF ELECTRICAL LAWS AND REGULATIONS OF THE UTILITY
- 2. ALL ELECTRICAL WORKS HEREIN SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER...
- GENERAL USED RECEPTACLE SHALL BE RATED 16 AMPERES, 2 POLE, 250 VOLTS, UNIVERSAL TYPE WITH GROUND WITH PARALLEL SLOTS, SPECIAL PURPOSE OUTLET SHALL BE OF THE TYPE AND RATING INSULATED FOR RATING SUITED FOR THE EQUIPMENT SERVED.
- 4. ALL ELECTRICAL EQUIPMENT SHALL BE PROPERLY GROUNDED IN ACCORDANCE WITH THE REQUIREMENT OF THE PHILIPPINE ELECTRICAL CODE.
- 5. ALL MATERIALS TO BE USED SHALL BE BRANDED AND SHALL BE NEW AND OF THE APPROVED TYPE FOR BOTH LOCATION AND PURPOSE INTENDED.
- 6. ELECTRICAL PIPES, WIRES AND CABLES TO BE USED SHALL BE UNDERWRITERS LABORATORY (UL) LISTED.
- 7. EMERGENCY LAMPS SHALL BE CONNECTED TO THE NEAREST LIGHTING CIRCUIT AND PROVIDE SIMPLEX CONVENIENCE OUTLET.
- 8. MANHOLES, HAND HOLES, JUNCTION BOXES, PULL BOXES, AND WIRE GUTTER GAUGE NO. 16 (MINIMUM) SHALL BE PROVIDED BY THE CONTRACTOR WHENEVER REQUIRED AND NECESSARY AND SHALL BE INSTALLED AT CONVENIENT SPACE AND LOCATION TO FACILITATE WIRE PULLING EVEN IF THESE ITEMS ARE NOT SHOWN IN THE PLAN.
- 9. ROUTING OF FEEDERS AND BRANCH CIRCUITS SHALL BE DONE IN THE FIELD WITH THE APPROVAL OF THE SUPERVISING REPRESENTATIVE OF CAAP.
- 10. PANEL BOARD SHALL BE EQUIPPED WITH GROUND KIT TERMINALS WITH NUMBER OF TERMINALS EQUAL TO THE NUMBER OF BRANCH CIRCUITS. ALL CIRCUIT BREAKERS MUST BE MOLDED CASE CIRCUIT BREAKER BOLT-ON TYPE.
- 11. FOR EACH SPARE BRANCH CIRCUIT IN PANEL BOARD, PROVIDE ONE 15MMØ EMPTY CONDUIT CONNECTED TO A PULL BOX AT ABOVE CEILING.
- 12. PRINTED INDEX LABEL SHALL BE AFFIXED TO INSIDE SURFACE OF EACH PANEL BOARD DOOR, CLEARLY INDICATING AREA AND TYPE OF LOAD SERVED BY EACH BRANCH CIRCUIT PROTECTIVE DEVICE, INCLUDING SPARES. HAND WRITTEN WILL NOT BE ACCEPTED. ENGRAVED LAMINATED PLASTIC IDENTIFICATION PLATES SHALL BE FURNISHED AND INSTALLED ON ALL PANELS, PANELS SHALL BE AFFIXED IN FRONT OF PANELS.
- 13. LOAD DATA IS BASED ON INFORMATION GIVEN TO THE ENGINEER AT THE TIME OF DESIGN. VERIFY ALL EQUIPMENT NAMEPLATE RATING BEFORE ORDERING.
- 14. FURNISH AND INSTALL DISCONNECT SWITCHES, WRING AND CONNECTIONS ON AIR CONDITIONING SYSTEM AS SHOWN ON PLANS. ELECTRICAL CONTRACTOR SHALL VERIFY AND COORDINATE WITH MECHANICAL CONTRACTOR REGARDING SUPPLY AND INSTALLATION OF ALL REQUIRED CONTROLS AND CIRCUIT PROTECTION.
- 15. ALL PIPES AND SLEEVES SHALL BE PROVIDED WITH PROPER SUPPORT OR ANCHORAGE RUNWAY OR PERMANENT CONNECTION WITH CONCRETE WALL OR BEAM.
- 16. MOUNTING HEIGHT SHALL BE AS FOLLOWS:
- A. LIGHTING SWITCHES
 B. CONVENIENCE OUTLETS
- 01LOWS: 1.40m FROM CENTER OF DEVICE TO FINISHED FLOOR LEVEL 0.35m FROM CENTER OF DEVICE TO FINISHED FLOOR LEVEL 1.80m FROM TOP OF PANEL TO FINISHED FLOOR LEVEL
- 17. COLOR CODING OF WIRES AND CABLES SHALL BE AS FOLLOWS:
 - LINE 3
- RED YELLOW GREEN
- 18. SECURING OF NECESSARY ELECTRICAL PERMITS, CEI, AND OTHER NECESSARY REQUIREMENTS SHALL BE PART OF THE GENERAL CONTRACTOR INCLUDING COORDINATION/APPLICATION WITH THE UTILITY COMPANY FOR POWER INTERRUPTION.
- 19. THE CONTRACTOR SHALL BE RESPONSIBLE IN THE REMOVAL OF THE EXISTING CIRCUIT BREAKERS AT EXISTING PANEL DPA AND THE INSTALLATION OF NEW CIRCUIT BREAKERS. VERIFY THE AMPERE FRAME OF CIRCUIT BREAKERS TO BE INSTALLED.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE IN THE TERMINATION OF MAIN FEEDER LINES FROM PANEL MDP TO EXISTING PANEL DPA AT ELECTRICAL ROOM AS INDICATED ON THE APPROVED PLANS. INSTALL NEW 250AT 250AF MCCB AT 4MDP112.
- 21. ALL WORKS SHALL BE EXECUTED IN A WORKMANSHIP MANNER AND SHALL PRESENT A NEAT AND ORDERLY ACCEPTANCE. ALL WIRING SHALL BE CONCEALED AS MUCH

	LEGEND
⊗ A	10-WATTS 220V-240V 800-LUMEN RECESSED TYPE LED GLARE-FREE CIRCULAR DOWNLIGHT LAMP AND DRIVER IN ONE ASSEMBLY, POLYCARBONATE PLASTIC WITH OPAQUE DIFFUSER 125mmØ x 73mm AND 110mmØ CUTOUT SIZE; LETTER DENOTES CONTROL/SWITCH.
@ A	10-WATTS 220V-240V 850-LUMEN RECESSED TYPE LED CIRCULAR DOWNLIGHT, LAMP AND DRIVER IN ONE ASSEMBLY, MOLDED PLASTIC LAMP CASING, MATTE WHITE FINISH, 120mm DIAMETER AND 105mmØ CUTOUT SIZE; LETTER DENOTES CONTROL/SWITCH.
⊗^	300mm PENDANT INDOOR LIGHT, BLACK+WOOD SHADE COLOR, METAL+WOOD SHADE MATERIAL BLACK CANOPY COLOR AND METAL CANOPY MATERIAL, 300mmØ x 255mm ,WITH 12-WATTS E27 LED BULB; LETTER DENOTES CONTROUSWITCH.
A	40-WATTS 220V-240V 4000-LUMEN RECESSED TYPE LED PANEL LIGHT, 600mm x 600mm; LETTER DENOTES CONTROL/SWITCH.
⊠ A	8-WATTS 100V-240V 600-LUMEN LED TRACK LIGHT, 52mm DIAMETER; LETTER DENOTES CONTROL/SWITCH.
	LED STRIP LIGHT, 220V-240V, 8-WATTS PER METER, 350-LUMEN PER METER, 15mm WIDTH, WITH AC POWER CORD; LETTER DENOTES CONTROL/SWITCH.
	DUAL OPTICS EMERGENCY LIGHT, 2x5WATTS LED BULB 100V-240V 1200LM 6500K, ADJUSTABLE LAMP HEADS, WITH 6V 3.0Ah SEALED ACID BATTERY, 258mm x 255mm x 68mm,
0	SIMPLEX UNIVERSAL CONVENIENCE OUTLET WITH GROUND, 16A, 250V, WIDE SERIES, WITH DEVICE PLATE COVER
\$	DUPLEX UNIVERSAL CONVENIENCE OUTLET WITH GROUND, 16A, 250V, WIDE SERIES, WITH DEVICE PLATE COVER
₩P	WEATHERPROOF DUPLEX UNIVERSAL CONVENIENCE OUTLET WITH GROUND, 16A, 250V, WIDE SERIES, WITH DEVICE PLATE COVER
B	POP-UP FLOOR BOX WITH DUPLEX UNIVERSAL CONVENIENCE OUTLET WITH GROUND, 16A, 250V WITH SAFETY SHUTTER AND STAINLESS STEEL FINISH
(DRO)	POP-UP TABLE TOP/FLOOR BOX WITH DUPLEX UNIVERSAL CONVENIENCE OUTLET WITH GROUND 16A 250V, HDMI OUTLET, VGA OUTLET, USB OUTLET, AND 2-CAT6 LAN OUTLET
14	ONE-GANG, ONE WAY SWITCH, 16A, 250V, WIDE SERIES, WITH DEVICE PLATE COVER; LETTER DENOTES LIGHTS BEING CONTROLLED
∄ AB	TWO-GANG, ONE WAY SWITCH, 16A, 250V, WIDE SERIES, WITH DEVICE PLATE COVER; LETTER DENOTES LIGHTS BEING CONTROLLED
∄ ABC	THREE-GANG, ONE WAY SWITCH, 16A, 250V, WIDE SERIES, WITH DEVICE PLATE COVER; LETTER DENOTES LIGHTS BEING CONTROLLED
(Bi	SQUARE CEILING MOUNTED EXHAUST FAN
•	TWO-GANG CAT6 LAN OUTLET, WIDE SERIES
	24-PORTS RJ45 BLANK PATCH NETWORK PANEL ALL-METAL RACK MOUNT SUITABLE FOR CAT6 INSERTED WITH ETHERNET CABLE
₩.	POP-UP FLOOR BOX STAINLESS STEEL FINISH, WITH 3-WAY XLR FEMALE CONNECTOR
Ø	ENCLOSED CIRCUIT BREAKER
PP-01	CIRCUIT HOMERUN TO PANELBOARD
	PANEL BOARD (SEE SCHEDULE OF LOADS AND PANEL DIAGRAM FOR DETAILS)







CONDUIT ARRANGEMENT

RECESSED LED DOWNLIGHT

RECESSED LED PANEL LIGHT

GENERAL NOTES, LEGENDS, & MISCELLANEOUS DETAILS E-01 E-01 SCALE:





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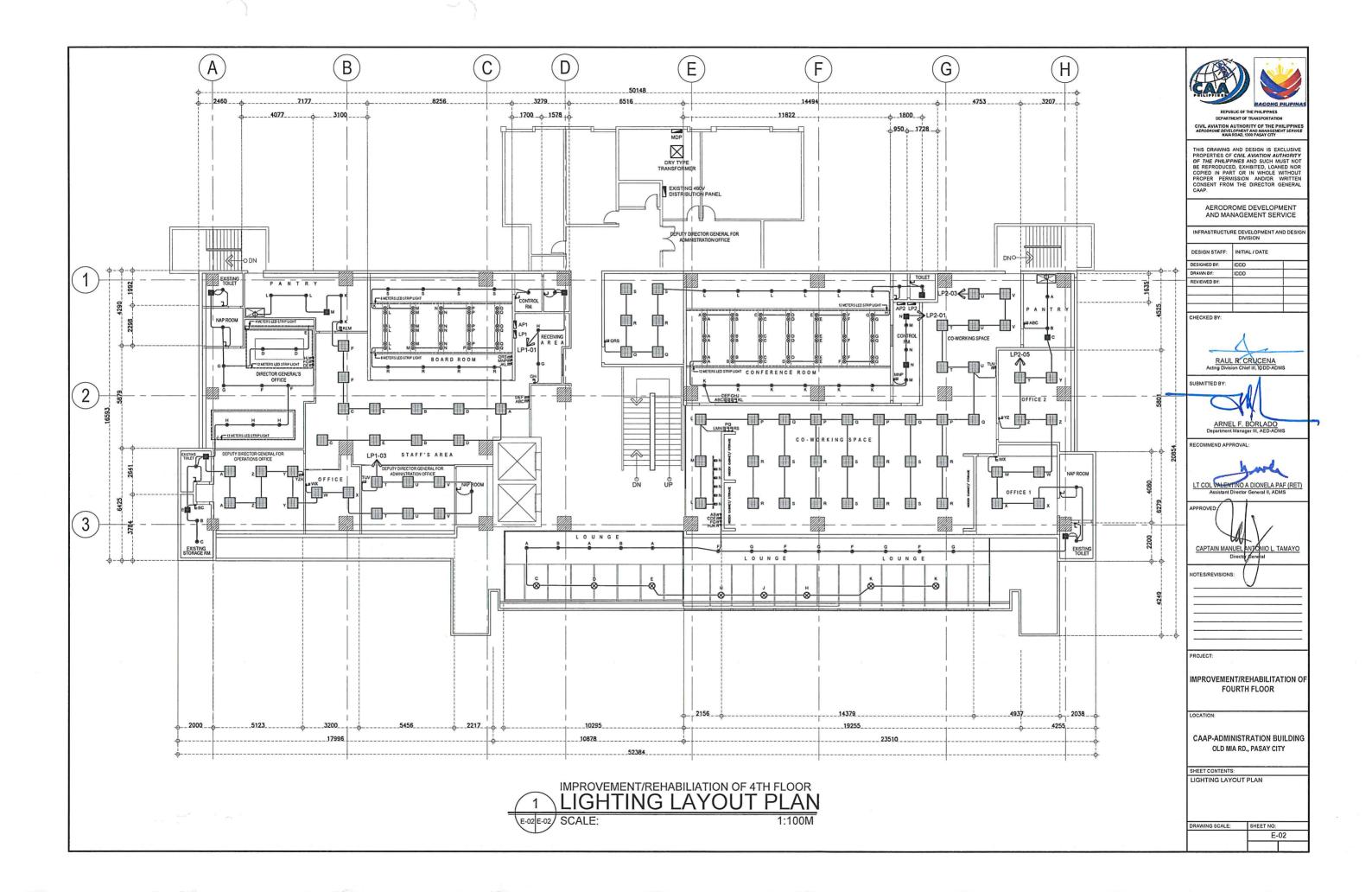
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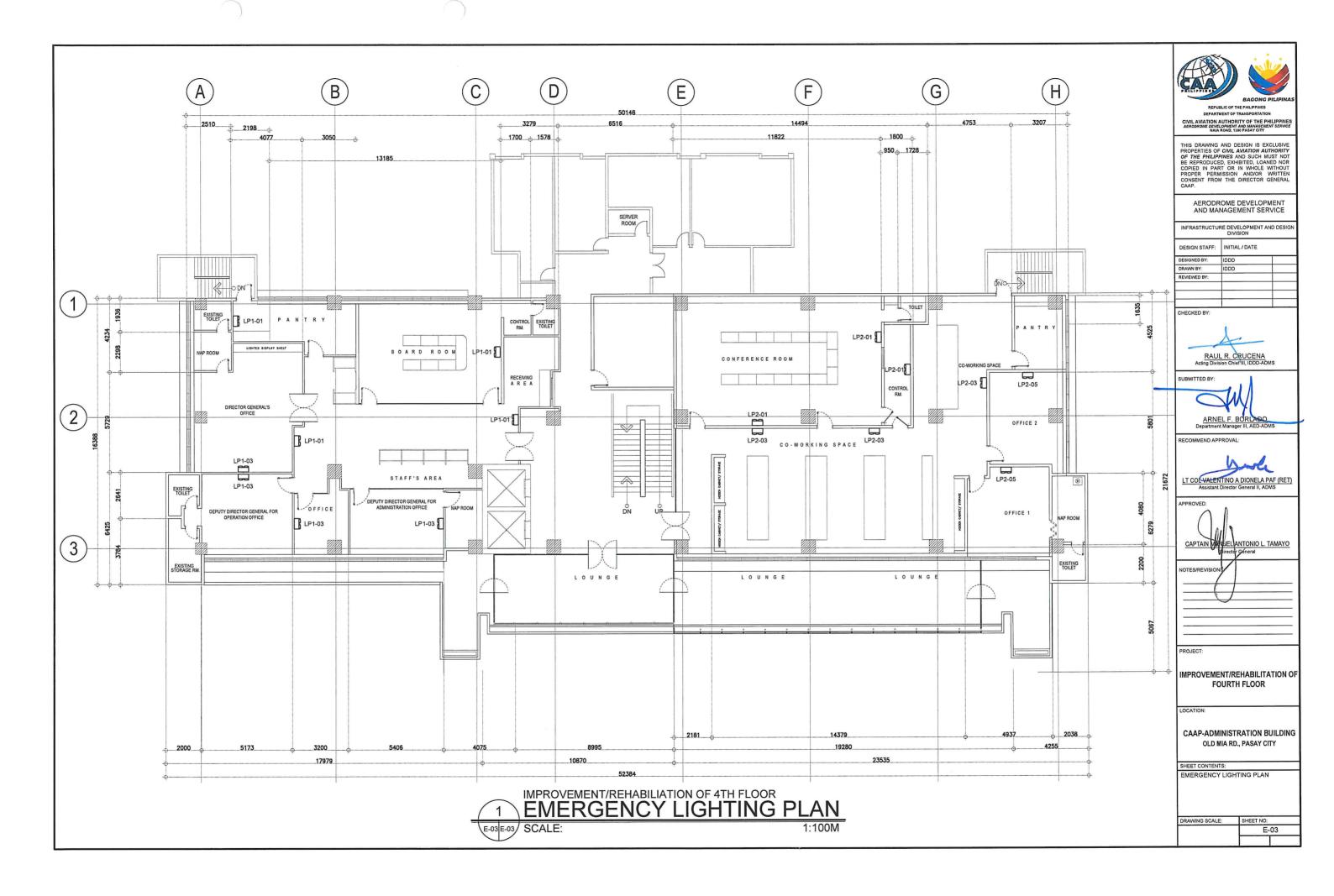
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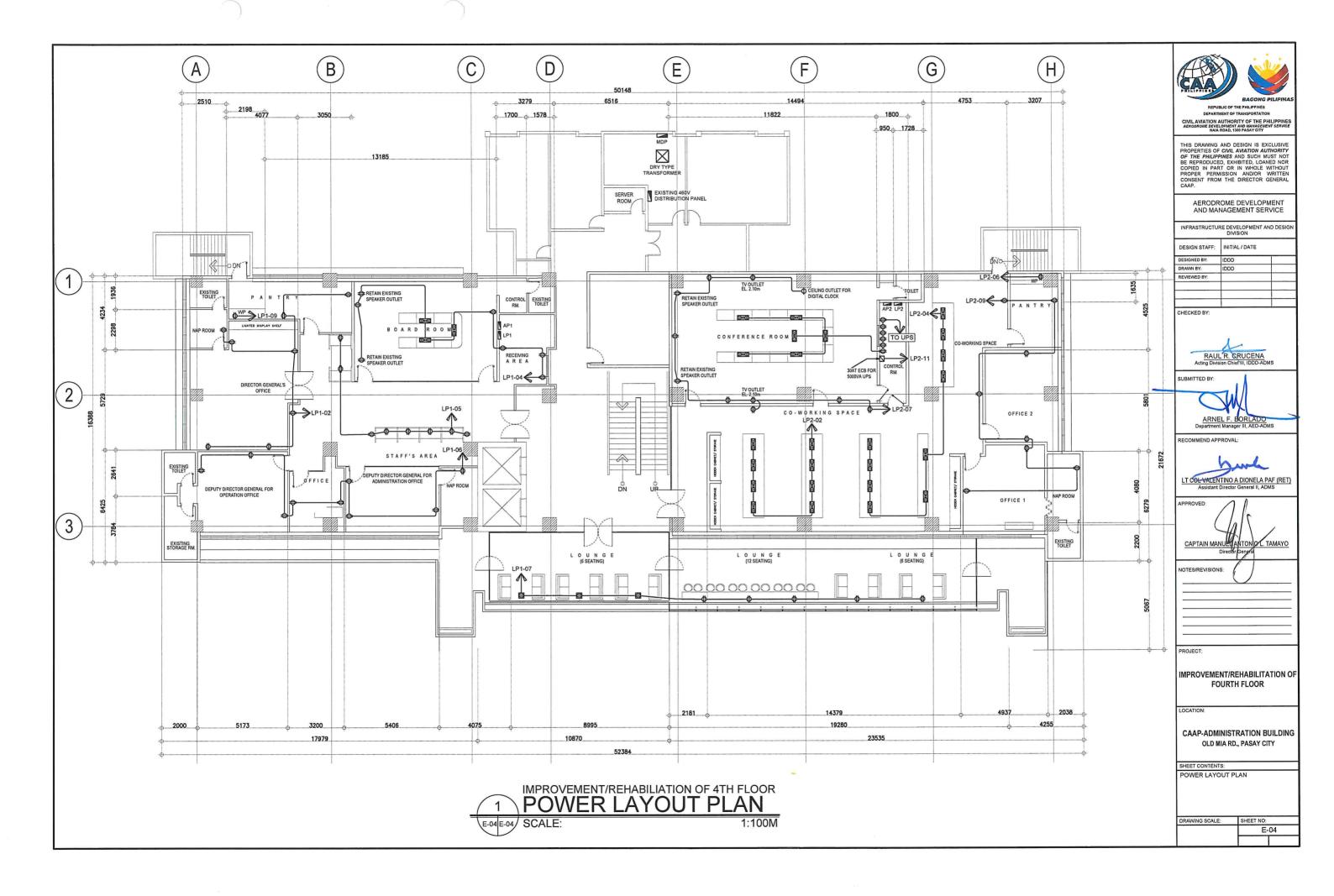
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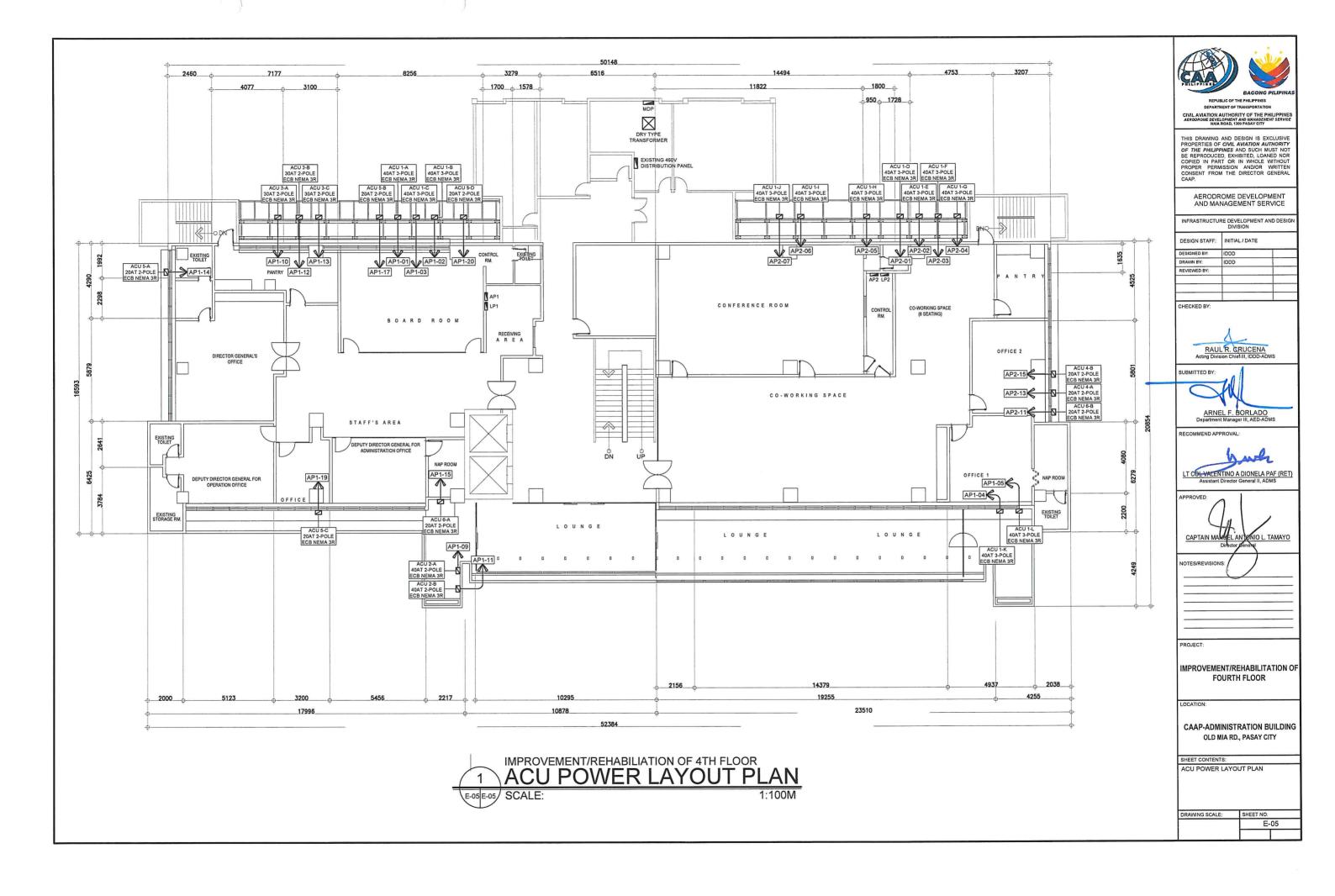
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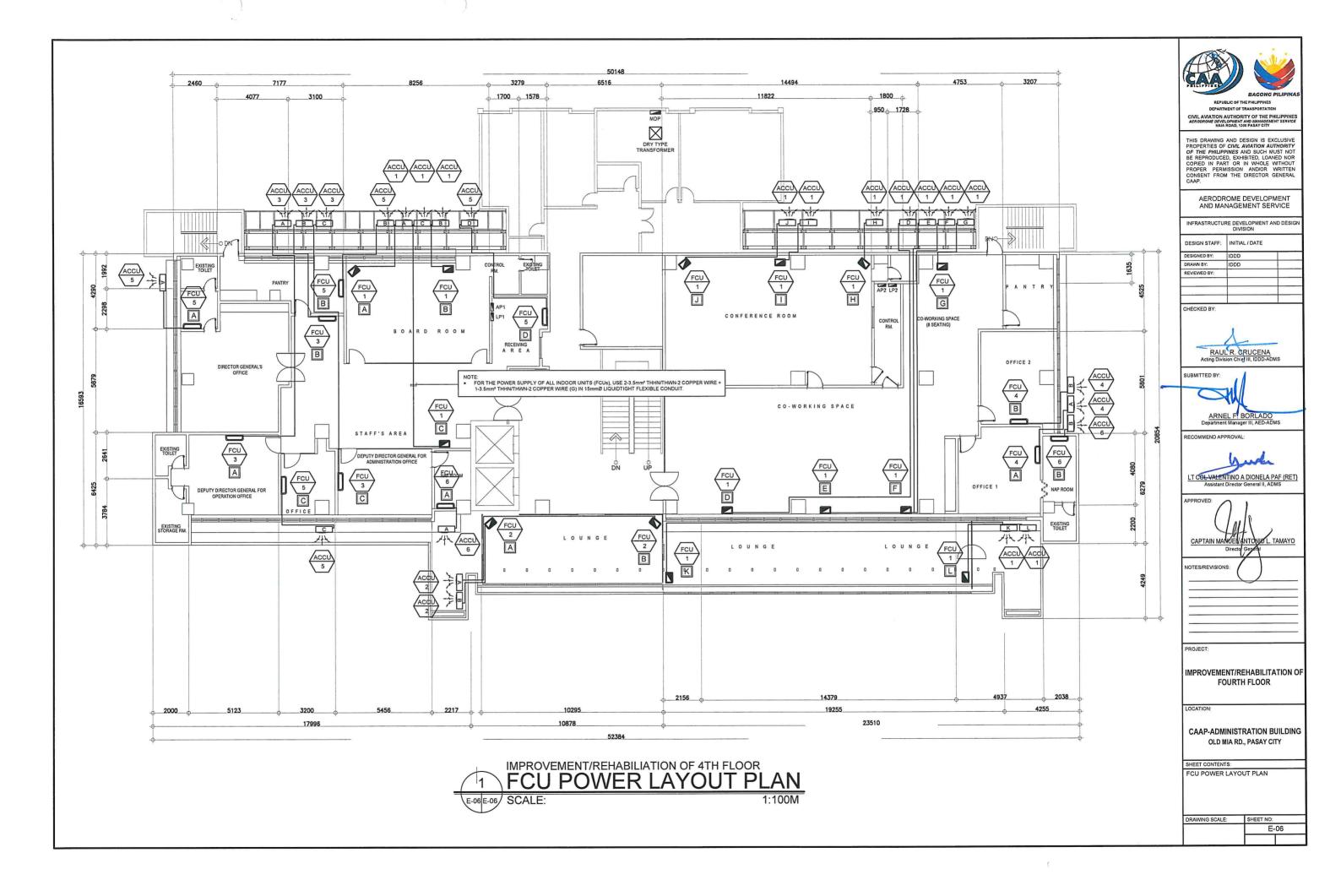
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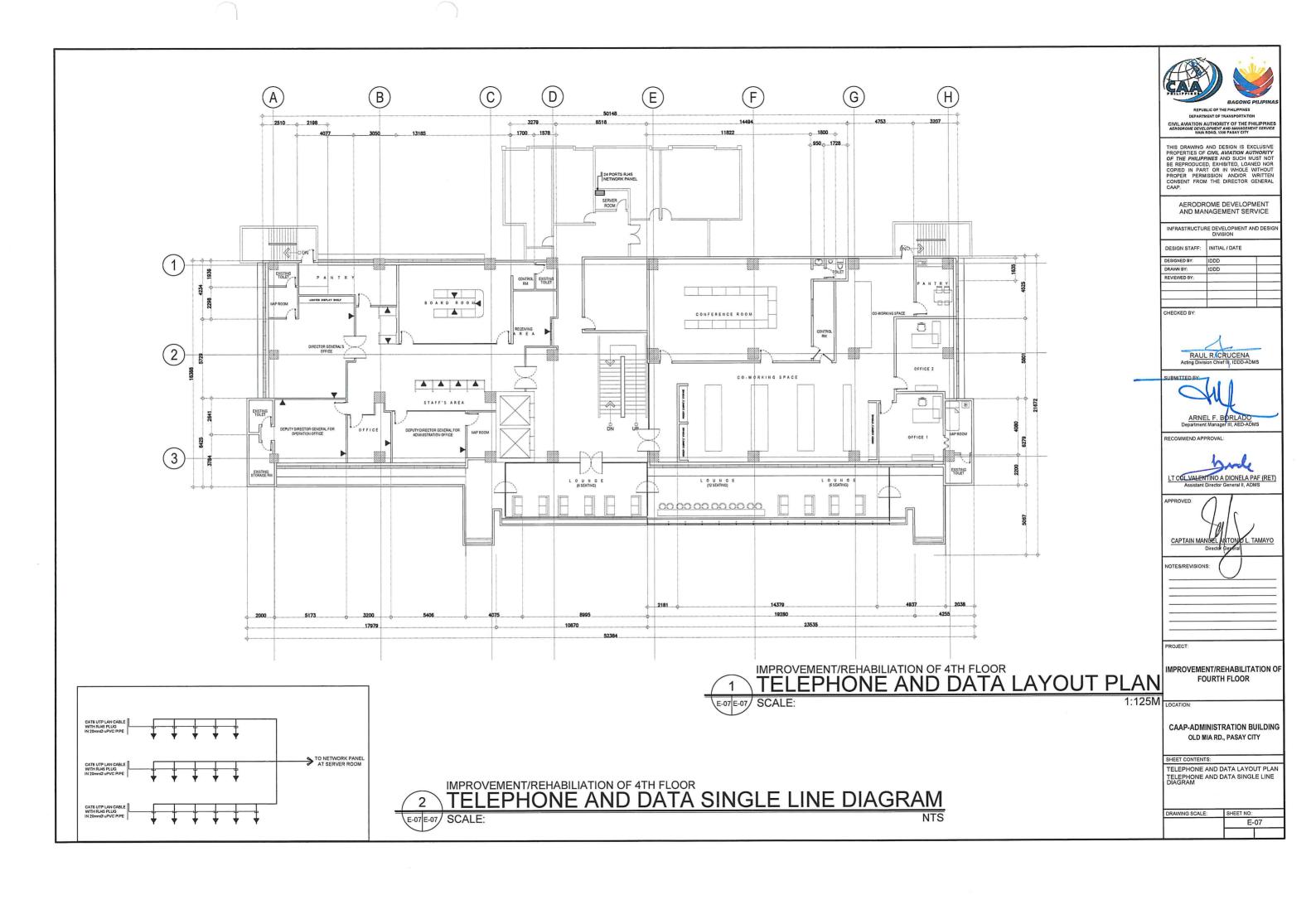


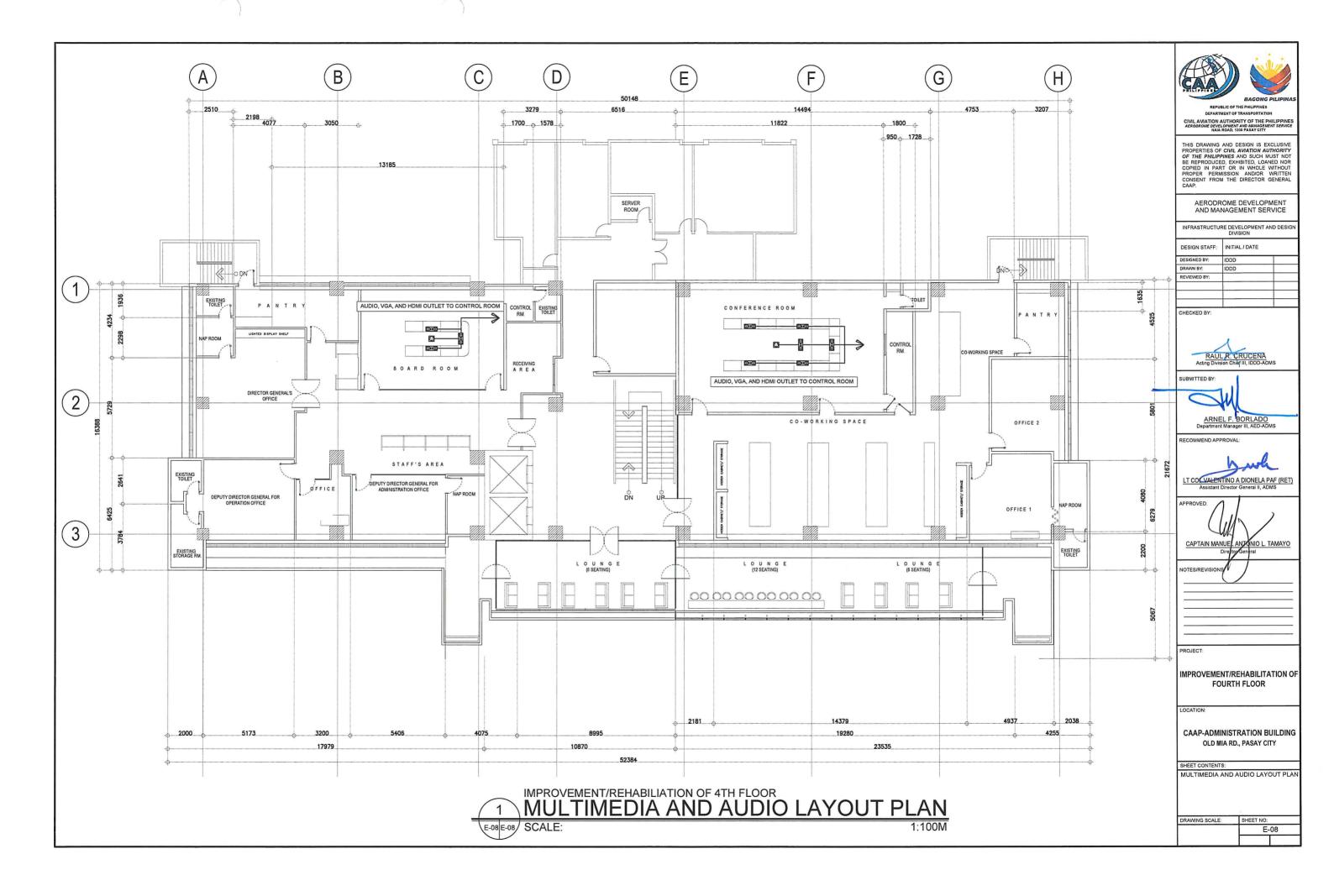


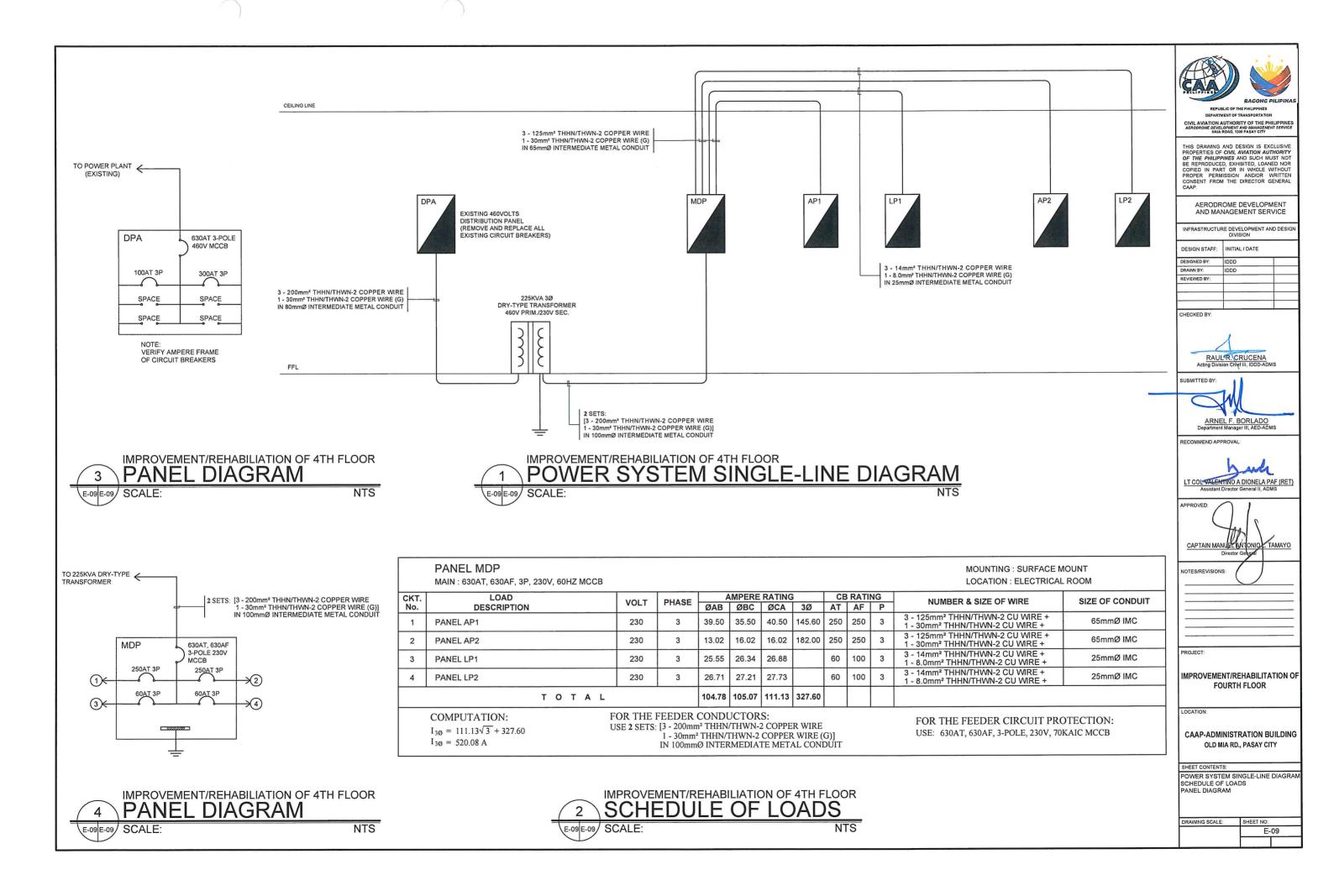












СКТ.	LOAD	NO. OF		VA PER	PHASE	A	MPERE	RATING	i	CB	RATII	NG	NUMBER & SIZE OF WIRE	SIZE OF CONDUIT
No.	DESCRIPTION	OUTLET	VOLT	CIRCUIT	PHASE	ØAB	ØBC	ØCA	3Ø	AT	AF	Р	2-2-00-0-00 (Section 5)	SIZE OF CONDUIT
1	7.0HP ACU 1-A	1	230	7250	3				18.20	40	100	3	3 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
2	7.0HP ACU 1-B	1	230	7250	3				18.20	40	100	3	3 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
3	7.0HP ACU 1-C	1	230	7250	3				18.20	40	100	3	3 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
4	7.0HP ACU 1-K	1	230	7250	3				18.20	40	100	3	3 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
5	7.0HP ACU 1-L	1	230	7250	3				18.20	40	100	3	3 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
6	SPARE		230	7250	3				18.20	40	100	3		15mmØ EMT
7	SPARE		230	7250	3				18.20	40	100	3		15mmØ EMT
8	SPARE		230	7250	3				18.20	40	100	3		15mmØ EMT
9	4.0HP ACU 2-A	1	230	4600	1	20.00				40	100	2	2 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
10	3.0HP ACU 3-A	1	230	2990	1	13.00				30	100	2	2 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
11	4.0HP ACU 2-B	1	230	4600	1			20.00		40	100	2	2 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
12	3.0HP ACU 3-B	1	230	2990	1			13.00		30	100	2	2 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
13	3.0HP ACU 3-C	1	230	2990	1		13.00			30	100	2	2 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
14	1.5HP ACU 5-A	1	230	1725	1		7.50			20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
15	1.0HP ACU 6-A	1	230	1495	1	6.50				20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
16	SPACE													
17	1.5HP ACU 5-B	1	230	1725	1		,	7.50		20	100	2	2 - 3.5mm² THHN/THWN-2 CU WIRE + 1 - 3.5mm² THHN/THWN-2 CU WIRE (G)	15mmØ EMT
18	SPACE													
19	1.5HP ACU 5-C	1	230	1725	1		7.50			20	100	2	2 - 3.5mm² THHN/THWN-2 CU WIRE + 1 - 3.5mm² THHN/THWN-2 CU WIRE (G)	15mmØ EMT
20	1.5HP ACU 5-D	1	230	1725	1		7.50			20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT

 $I_{30} = 46.56 \text{ A}$

 $I_{30} = 40.50\sqrt{3} + 145.60$ $I_{30} = 215.75 \text{ A}$

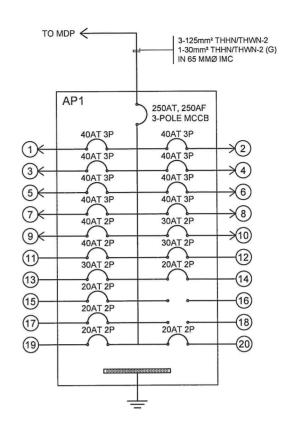
	PANEL LP1												MOUNTING : FLUSH MOUNT	NADEA
	MAIN : 6AT, 100AF, 3P, 230V, 60HZ N	ICCB											LOCATION : ODG RECEIVING	AREA
CKT. No.	LOAD DESCRIPTION	NO. OF OUTLET	VOLT	VA PER CIRCUIT	PHASE	ØAB	MPERE ØBC	ØCA	3Ø	AT	AF	NG P	NUMBER & SIZE OF WIRE	SIZE OF CONDUIT
1	LIGHTING OUTLET	62	230	1498	1	6.51				20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WIRE (G)	15mmØ EMT
2	CONVENIENCE OUTLET	8	230	1440	1	6.26				20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
3	LIGHTING OUTLET	35	230	1382	1			6.01		20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
4	CONVENIENCE OUTLET	10	230	1800	1			7.83		20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
5	CONVENIENCE OUTLET	8	230	1440	1		6.26			20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
6	CONVENIENCE OUTLET	9	230	1620	1		7.04			20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
7	CONVENIENCE OUTLET	8	230	1440	1	6.26				20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
8	SPARE		230	1500	1	6.52				20	100	2		15mmØ EMT
9	SMALL APPLIANCE OUTLET	1	230	1500	1			6.52		20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
10	SPARE		230	1500	1			6.52		20	100	2		15mmØ EMT
11	SPARE		230	1500	1		6.52			20	100	2		15mmØ EMT
12	SPARE		230	1500	1		6.52			20	100	2		15mmØ EMT
	топ	AL				25.55	26.34	26.88						
	COMPUTATION: $I_{30} = 26.88\sqrt{3}$			THE FEE 3 - 14mm ² 1 - 8.0mm ²	THHN/T	HWN-2	COPPER	WIRE	G)				FOR THE FEEDER CIRCUIT PROTE JSE: 60AT, 100AF, 3-POLE, 230V, 25KAIC	

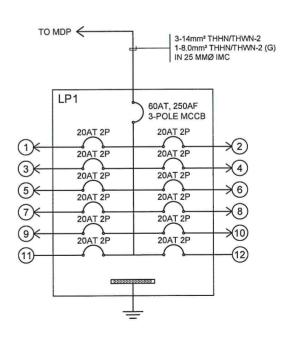
USE: 3 - 125mm² THHN/THWN-2 COPPER WIRE 1 - 30mm² THHN/THWN-2 COPPER WIRE (G) IN 65mmØ INTERMEDIATE METAL CONDUIT

USE: 250AT, 250AF, 3-POLE, 230V, 50KAIC MCCB



IN 25mmØ INTERMEDIATE METAL CONDUIT











DEPARTMENT OF TRANSPORTATION CIVIL AVIATION AUTHORITY OF THE PHILIPPINE AERODROME DEVELOPMENT AND MANAGEMENT SERVICE NAIA ROAD, 1300 PASAY CITY

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

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DESIGNED BY:	IDDD
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JBMITTED BY

ARNEL F. BORLADO

PPROVED:

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

CAPTAIN MANUEL ANTONIO L. TAMAYO

PROJECT:

IMPROVEMENT/REHABILITATION OF FOURTH FLOOR

CAAP-ADMINISTRATION BUILDING OLD MIA RD., PASAY CITY

SHEET CONTENTS: SCHEDULE OF LOADS PANEL DIAGRAM

SHEET NO: E-10

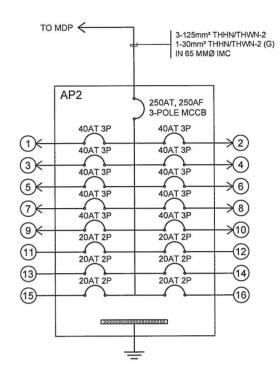
скт.	LOAD	l No. or		VA DED		_	MPERE	DATING		CB	RATII	ıc		
No.	DESCRIPTION	NO. OF OUTLET	VOLT	VA PER CIRCUIT	PHASE	ØAB	ØBC	ØCA	3Ø	AT	AF	P	NUMBER & SIZE OF WIRE	SIZE OF CONDUIT
1	7.0HP ACU 1-D	1	230	7250	3				18.20	40	100	3	3 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
2	7.0HP ACU 1-E	1	230	7250	3				18.20	40	100	3	3 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
3	7.0HP ACU 1-F	1	230	7250	3				18.20	40	100	3	3 - 5.5mm² THHN/THWN-2 CU WIRE + 1 - 3.5mm² THHN/THWN-2 CU WIRE (G)	15mmØ EMT
4	7.0HP ACU 1-G	1	230	7250	3				18.20	40	100	3	3 - 5.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
5	7.0HP ACU 1-H	1	230	7250	3				18.20	40	100	3	3 - 5.5mm² THHN/THWN-2 CU WIRE + 1 - 3.5mm² THHN/THWN-2 CU WIRE (G)	15mmØ EMT
6	7.0HP ACU 1-I		230	7250	3				18.20	40	100	3		15mmØ EMT
7	7.0HP ACU 1-J		230	7250	3				18.20	40	100	3		15mmØ EMT
8	SPARE		230	7250	3				18.20	40	100	3		15mmØ EMT
9	SPARE		230	7250	3				18.20	40	100	3		15mmØ EMT
10	SPARE		230	7250	3				18.20	40	100	3		15mmØ EMT
11	1.0HP ACU 6-B	1	230	1495	1	6.50				20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
12	SPARE		230	1500	1	6.52				20	100	2		15mmØ EMT
13	2.5HP ACU 4-A	1	230	2185	1			9.50		20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
14	SPARE		230	1500	1			6.52		20	100	2		15mmØ EMT
15	2.5HP ACU 4-B	1	230	2185	1		9.50			20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
16	SPARE		230	1500	1		6.52			20	100	2		15mmØ EMT
	то	T A L		i.		13.02	16.02	16.02	182.00					
	COMPUTATION: $I_{30} = 16.02\sqrt{3} + 182.00$ $I_{30} = 209.75 A$			THE FEE 3 - 125mm 1 - 30mm ² IN 65mm ⁰	THHN/T	THWN-2 HWN-2 (COPPER	WIRE (C				_	FOR THE FEEDER CIRCUIT PROTE USE: 250AT, 250AF, 3-POLE, 230V, 50KAI	

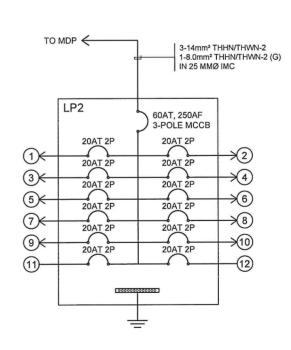
	PANEL LP2 MAIN: 60AT, 100AF, 3P, 230V, 60HZ	мссв											MOUNTING : SURFACE MOU LOCATION : CONTROL ROOF	
CKT.	LOAD DESCRIPTION	NO. OF	VOLT	VA PER CIRCUIT	PHASE	ØAB	MPERE	RATING	3Ø	AT CE	RATI	NG P	NUMBER & SIZE OF WIRE	SIZE OF CONDUIT
1	LIGHTING OUTLET	70	230	1402	1	6.10	220	ZUA	U.D.	20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
2	CONVENIENCE OUTLET	8	230	1440	1	6.26				20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
3	LIGHTING OUTLET	38	230	1660	1			7.12		20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
4	CONVENIENCE OUTLET	10	230	1800	1			7.83		20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
5	LIGHTING OUTLET	36	230	1100	1		4.78			20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	15mmØ EMT
6	SMALL APPLIANCE OUTLET	1	230	1500	1		6.52			20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
7	CONVENIENCE OUTLET	11	230	1800	1	7.83				30	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
8	SPARE		230	1500	1	6.52				20	100	2		15mmØ EMT
9	CONVENIENCE OUTLET	8	230	1440	1			6.26		20	100	2	2 - 3.5mm² THHN/THWN-2 CU WRE + 1 - 3.5mm² THHN/THWN-2 CU WRE (G)	20mmØ uPVC PIPE
10	SPARE		230	1500	1			6.52		20	100	2		15mmØ EMT
11	30 AMPS ECB FOR UPS	12	230	2160	1		9.39							20mmØ uPVC PIPE
12	SPARE		230	1500	1		6.52			20	100	2		15mmØ EMT
	т о	r a L				26.71	27.21	27.73						
	COMPUTATION: $I_{30} = 27.73\sqrt{3}$			THE FEE 3 - 14mm ² 1 - 8.0mm ²	THHN/T	HWN-2	COPPER	WIRE	G)				FOR THE FEEDER CIRCUIT PROTE JSE: 60AT, 100AF, 3-POLE, 230V, 25KAIC	



IN 25mmØ INTERMEDIATE METAL CONDUIT

 $I_{30} = 48.03 \text{ A}$





IMPROVEMENT/REHABILIATION OF 4TH FLOOR PANEL DIAGRAM NTS E-11 E-11 SCALE:





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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

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

CHECKED BY:





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

APPROVED:	11	
	(4)	/
CAPTAIN N	MANUEL ANTO	DNIO L. TAMAYO
NOTES/REVISI	1]

PROJECT:

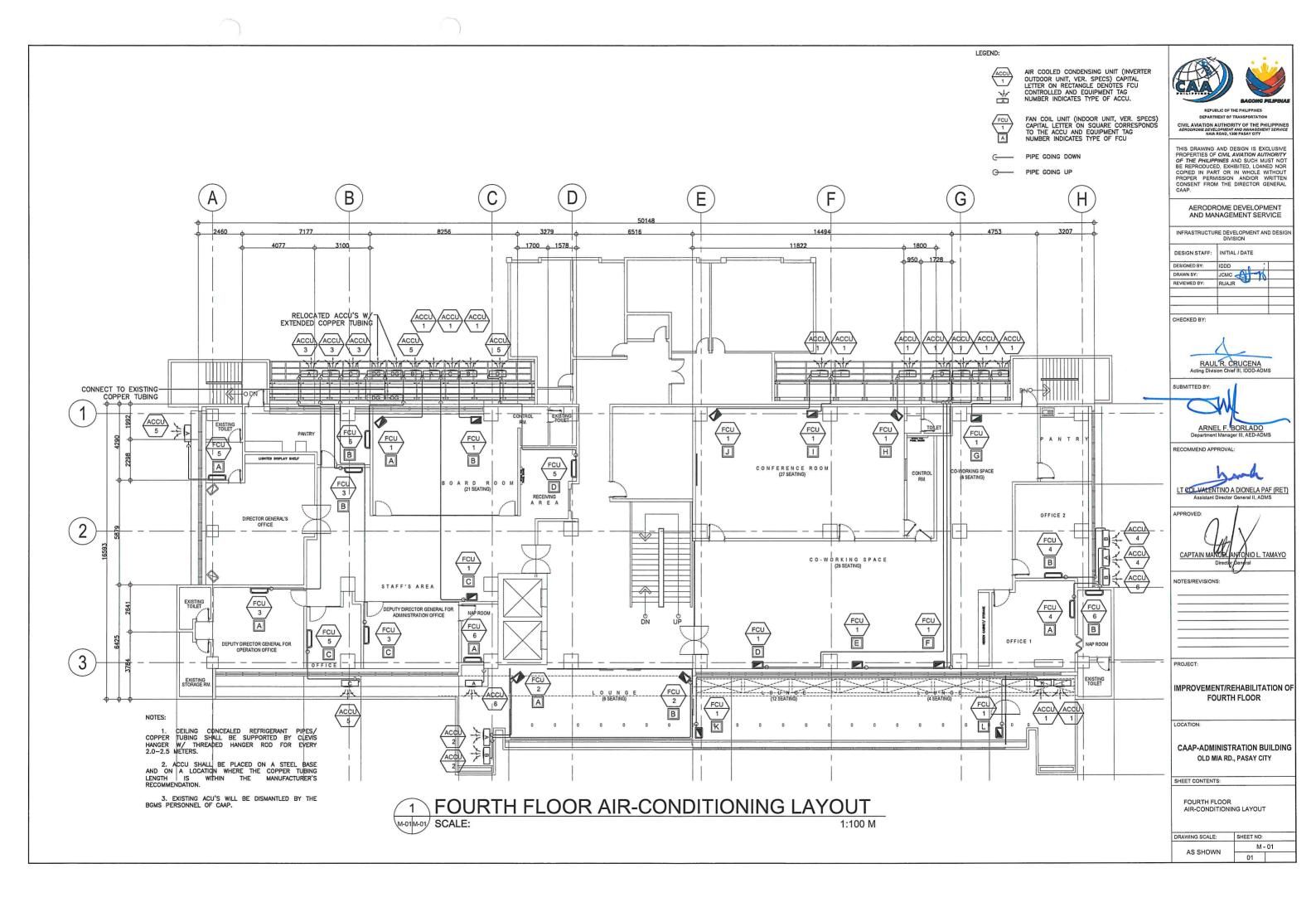
IMPROVEMENT/REHABILITATION OF FOURTH FLOOR

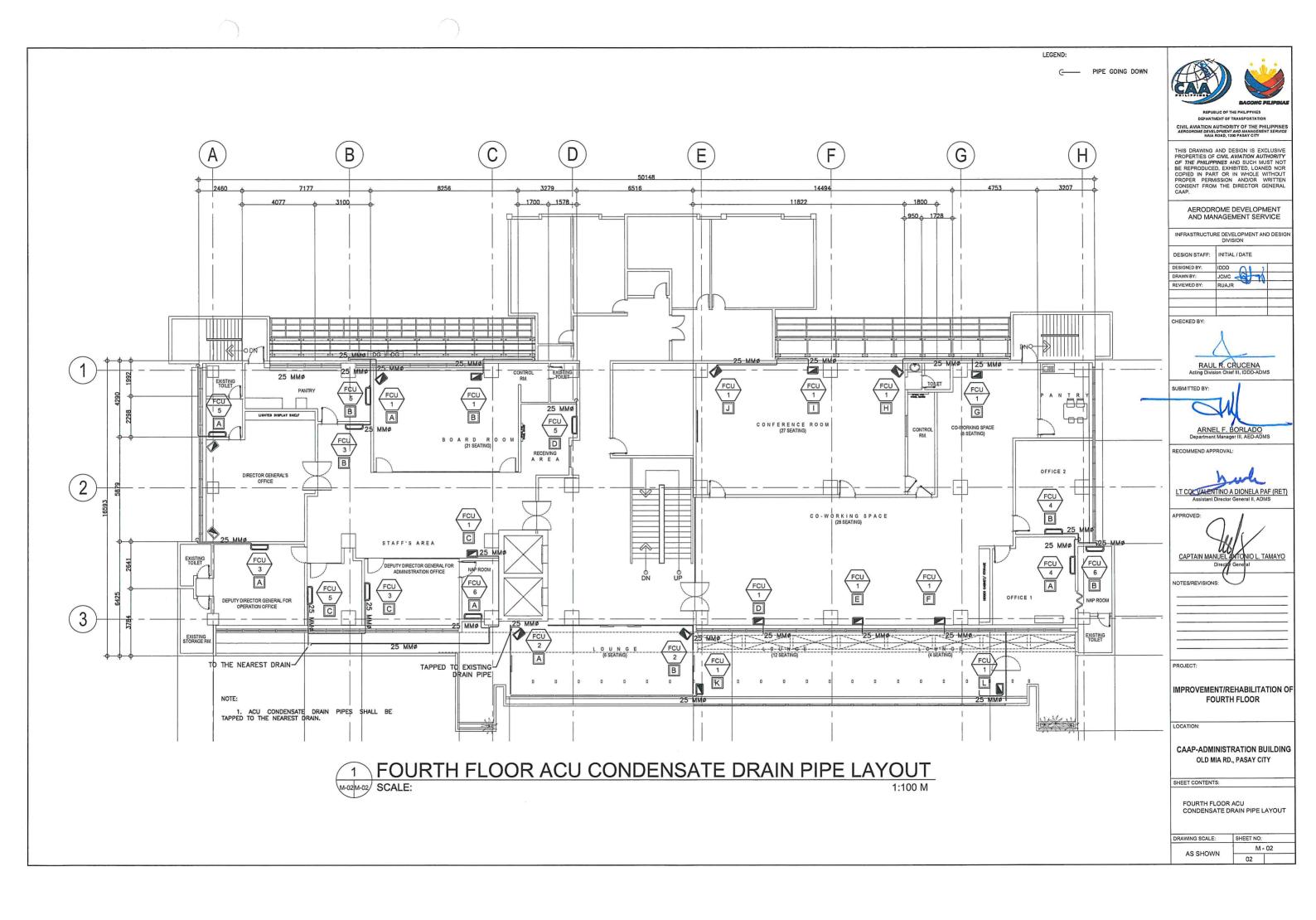
CAAP-ADMINISTRATION BUILDING OLD MIA RD., PASAY CITY

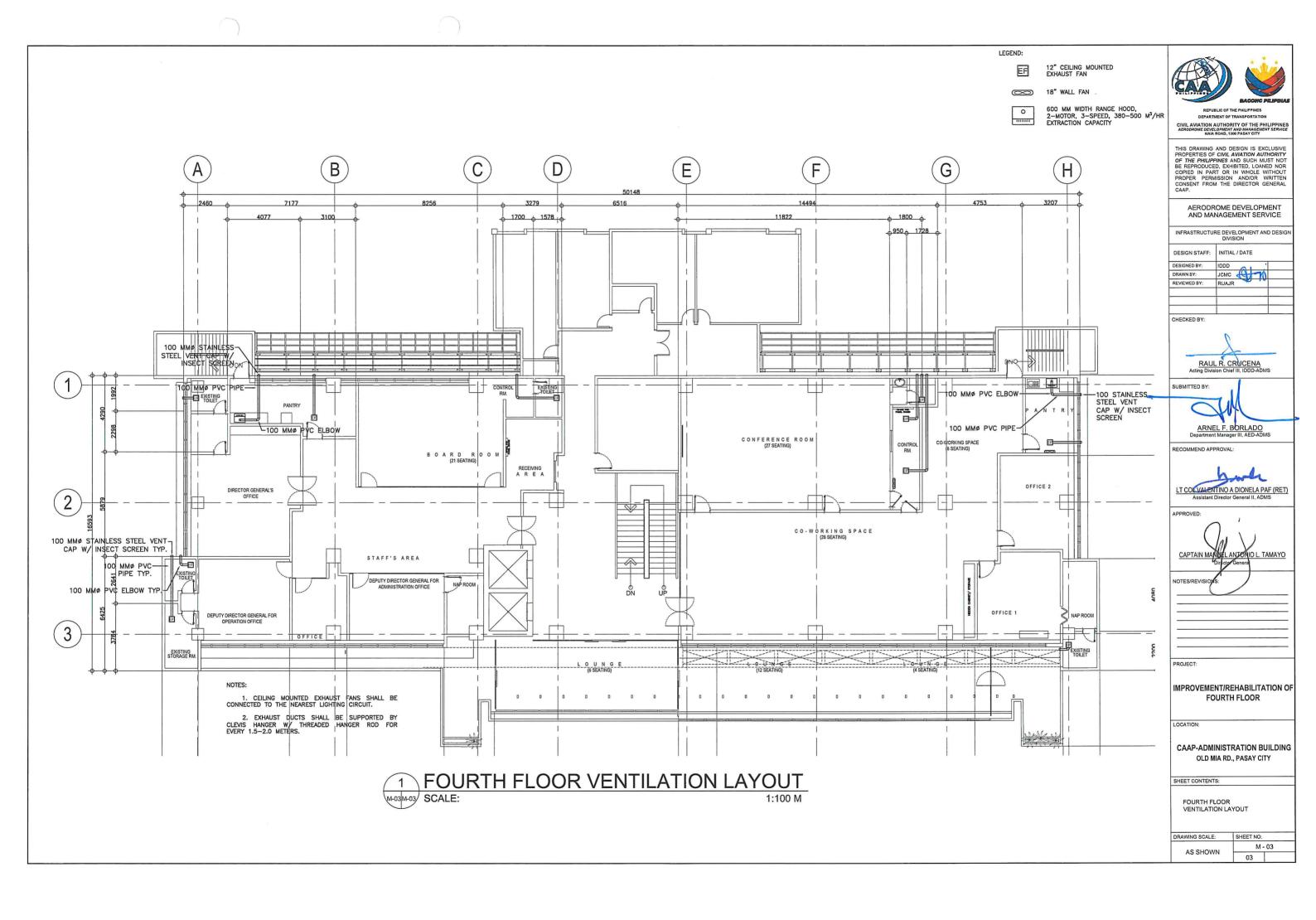
SHEET CONTENTS:

SCHEDULE OF LOADS PANEL DIAGRAM

DRAWING SCALE: SHEET NO: E-11

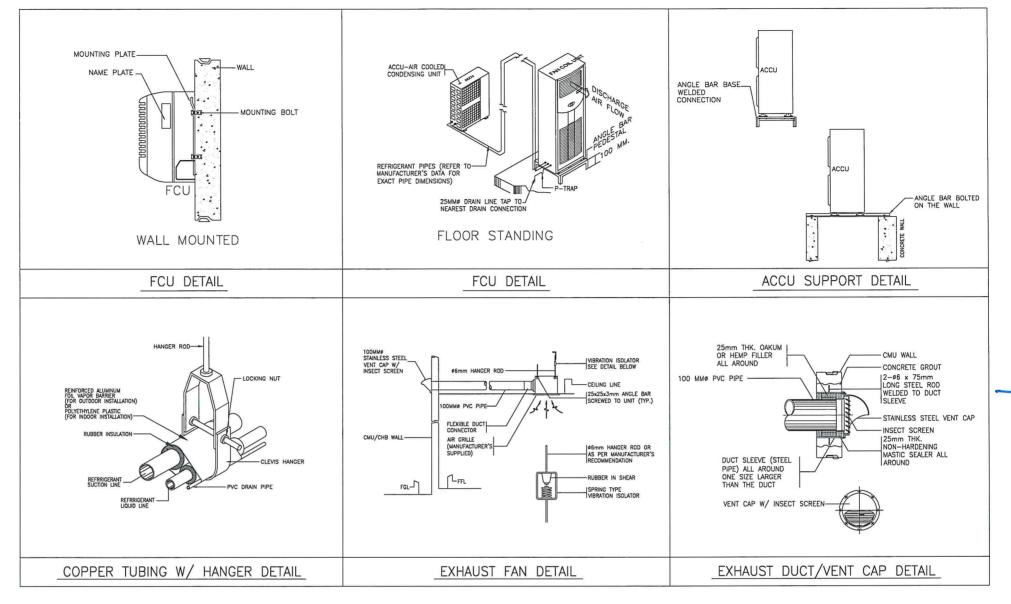






GENERAL NOTES:

- IT IS NOT INTENDED THAT THE DRAWINGS SHALL SHOW EVERY PIPE FITTINGS, DUCT FITTINGS, VALVES, DAMPERS, HANGERS/SUPPORTS, ETC.. ALL SUCH ITEM WHETHER SPECIFICALLY MENTIONED OR NOT, OR INDICATED ON THE DRAWINGS SHALL BE FURNISHED AND INSTALLED IF NECESSARY TO COMPLETE THE SYSTEM TO THE SATISFACTION OF THE ENGINEER AND THE OWNER.
- CONTRACTOR SHALL BE RESPONSIBLE IN VERIFYING AND COORDINATING, THE FOLLOWING IN ACCORDANCE WITH MANUFACTURER'S DATA AND RECOMMENDATIONS.
 - . FLOOR, ROOF AND WALL OPENINGS
 - B. EQUIPMENT PADS/PEDESTALS
 - C. CONDENSATE DRAIN LINES
- 3. ALL PIPE SIZES ARE IN MILLIMETER (mm) UNLESS OTHERWISE INDICATED.
- ALL STRUCTURAL AND ARCHITECTURAL FINISHES DAMAGED DURING THE
 COURSE OF WORK SHALL BE RESTORED TO IT'S ORIGINAL CONDITION OR
 AS APPROVED BY OWNER.
- PROVIDE SERVICE ACCESS & CLEARANCE TO CHANGE AIR FILTER ELEMENT FOR AC EQUIPMENT AS RECOMMENDED BY MANUFACTURER.
- ALL INSULATED MECHANICAL PIPES THAT ARE EXPOSED SHALL BE CLADDED WITH ALUMINUM SHEET. CLADDING SHALL BE MACHINE/SHOP FABRICATED.
- CONTRACTOR/VENDOR SHOULD BE FAMILIAR WITH THE ACTUAL SITE CONDITION AND INSTALLATION TO VERIFY IF THE WORK IS IN CONFORMANCE TO MANUFACTURER RECOMMENDATION AND SHOULD RECTIFY IF SUCH CONDITION EXIST.
- THE CONTRACTOR SHALL COORDINATE W/ THE STRUCTURAL, SANITARY, ARCHITECTURAL AND ELECTRICAL REGARDING THE ROUGHING—INS OF FUTURE AIR CONDITIONING UNITS. ALL EMBEDDED ITEMS SHALL BE INSTALLED IN PLACE UNDER THIS CONTRACT.
- FINAL EQPT. TAG NUMBERING SHALL BE MADE BY THE OWNER'S FNGINFFRING DEPARTMENT FOR CASE OF IDENTIFICATION OF INDIVIDUAL UNIT.
- INSTALLATION OF ALL WORKS SHALL BE DONE IN A NEAT AND WORKMANLIKE MANNER, IMPROPERLY SET WORK OR FINISH AS DETERMINED BY THE ARCHITECT SHALL BE REMOVED AND REPLACED AT NO EXTRA COST.
- 11. ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND CLEAN.
- DEVIATION AND REVISIONS FROM PLAN SHALL BE REFERRED TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL.
- 13. ALL NECESSARY GOVERNMENT PERMIT SHALL BE SECURED AND PAID FOR THE CONTRACTOR.
- ALL MECHANICAL WORKS SHALL BE IN ACCORDANCE WITH THE LATEST MECHANICAL ENGINEER'S CODE ASVE, ASHRAE AND SMACNA STANDARD.
- 15. ALL A/C AND VENTILATING EQUIPMENT CONTROL PANEL SWITCH AND CIRCUIT BREAKERS ARE PROVIDED BY THE MECHANICAL CONTRACTOR.
- THE MECHANICAL CONTRACTOR SHALL CONDUCT TESTING, BALANCING AND COMMISSIONING OF ALL A/C AND VENTILATING EQUIPMENT.



FAN COIL UNIT (INDOOR UNIT)

		LOCATION /	COOLING LOAD/UNIT	DRAIN LINE		REFRIGERANT			ELECTRICAL DATA					
MARK	QTY.	LOCATION / AREA SERVED	ΉΡ	mm	TYPE	PIPE CONNECTION GAS LINE LIQUID LINE						WEIGHT KG	REMARKS	
			(TR)	(IN)		mm (IN)	mm (IN)	V	PH	HZ	RATED CURRENT (A)			
FCU 1	12	BOARD ROOM, STAFF'S AREA, CONFERENCE ROOM, CO-WORKING SPACE & NEW LOUNGE	7.0 (5.0)	25 (1)	R-410a	19.05 (3/4)	9.52 (3/8)	220-230	3	60	-	58	INVERTER FLOOR STANDING TYPE INDOOR FREE BLOW FAN COIL UNIT COMPLETE WITH REMOTE, TEMPERATURE CONTROLLER, FAN SPEED SWITCH, EQUIPMENT SUPPORT AND STANDARD ACCESSORIES.	
FCU 2	2	LOUNGE	4.0 (3.0)	25 (1)	R-32 / R-410o	15.88 (5/8)	9.52 (3/8)	220-230	1	60	ī	54	INVERTER FLOOR STANDING TYPE INDOOR FREE BLOW FAN COIL UNIT COMPLETE WITH REMOTE, TEMPERATURE CONTROLLER, FAN SPEED SWITCH, EQUIPMENT SUPPORT AND STANDARD ACCESSORIES.	
FCU 3	3	DDGO OFFICE, STAFF'S AREA & DDGA OFFICE	3.0	25 (1)	R-32	15.88 (5/8)	6.35 (1/4)	220-230	1	60	13.0	16.5	INVERTER WALL MOUNTED TYPE INDOOR FREE BLOW FAN COIL UNIT COMPLETE WITH REMOTE, TEMPERATURE CONTROLLER, FAN SPEED SWITCH, EQUIPMENT SUPPORT AND STANDARD ACCESSORIES.	
FCU 4	2	OFFICE 1 & 2	2.5	25 (1)	R-32	12.70 (1/2)	6.35 (1/4)	220-230	1	60	8.5	13	INVERTER WALL MOUNTED TYPE INDOOR FREE BLOW FAN COIL UNIT COMPLETE WITH REMOTE, TEMPERATURE CONTROLLER, FAN SPEED SWITCH, EQUIPMENT SUPPORT AND STANDARD ACCESSORIES.	
FCU 5	4	DG'S NAP AREA, OFFICE, PANTRY & RECEIVING AREA	1.5	25 (1)	R-32	9.52 (3/8)	6.35 (1/4)	220-230	1	60	4.0	7.7	INVERTER WALL MOUNTED TYPE INDOOR FREE BLOW FAN COIL UNIT COMPLETE WITH REMOTE, TEMPERATURE CONTROLLER, FAN SPEED SWITCH, EQUIPMENT SUPPORT AND STANDARD ACCESSORIES.	
FCU 6	2	DDGA & OFFICE 1 NAP ROOMS	1.0	25 (1)	R-32	9.52 (3/8)	6.35 (1/4)	220-230	1	60	3.7	7.2	INVERTER WALL MOUNTED TYPE INDOOR FREE BLOW FAN COIL UNIT COMPLETE WITH REMOTE, TEMPERATURE CONTROLLER, FAN SPEED SWITCH, EQUIPMENT SUPPORT AND STANDARD ACCESSORIES.	

AIR COOLED CONDENSING UNIT (OUTDOOR UNIT)

MARK		CAPACITY HP	EQUIPMENT	DRAIN LINE	REFRIGERANT PIPE CONNECTION			ELECTRICAL DATA					NET WEIGHT	REMARKS	
MAIN	Q11.	(TR)	SERVED	mm (IN)	TYPE	GAS LINE mm (IN)	LIQUID LINE mm (IN)	v	РН	HZ	RATED CURRENT (A)	CIRCUIT BREAKER (A)	KG		
ACCU 1	12	7.0 (5.0)	FCU-1	25 (1)	R-410a	19.05 (3/4)	9.52 (3/8)	220-230	3	60	20.5	40	92	INVERTER FLOOR MOUNTED AIR COOLED CONDENSER UNIT COMPLETE WITH CONDENSER FAN, HERMETIC COMPRESSOR, ELECTRICAL CONNECTION AND EQUIPMENT SUPPORT. THE UNIT SHALL BE THE SAME MANUFACTURER OF FCU.	
ACCU 2	2	4.0 (3.0)	FCU-2	25 (1)	R-32 / R-410a	15.88 (5/8)	9.52 (3/8)	220-230	1	60	19.91	40	55	INVERTER FLOOR MOUNTED AIR COOLED CONDENSER UNIT COMPLETE WITH CONDENSER FAN, HERMETIC COMPRESSOR, ELECTRICAL CONNECTION AND EQUIPMENT SUPPORT. THE UNIT SHALL BE THE SAME MANUFACTURER OF FCU.	
ACCU 3	3	3.0	FCU-3	25 (1)	R-32	15.88 (5/8)	6.35 (1/4)	220-230	1	60	-	30	43	INVERTER FLOOR MOUNTED AIR COOLED CONDENSER UNIT COMPLETE WITH CONDENSER FAN, HERMETIC COMPRESSOR, ELECTRICAL CONNECTION AND EQUIPMENT SUPPORT, THE UNIT SHALL BE THE SAME MANUFACTURER OF FCU.	
ACCU 4	2	2.5	FCU-4	25 (1)	R-32	12.70 (1/2)	6.35 (1/4)	220-230	1	60	=	30	29	INVERTER FLOOR MOUNTED AIR COOLED CONDENSER UNIT COMPLETE WITH CONDENSER FAN, HERNETIC COMPRESSOR, ELECTRICAL CONNECTION AND EQUIPMENT SUPPORT, THE UNIT SHALL BE THE SAME MANUFACTURER OF FCU.	
ACCU 5	4	1.5	FCU-5	25 (1)	R-32	9.52 (3/8)	6.35 (1/4)	220-230	1	60	-	20	20	INVERTER FLOOR MOUNTED AIR COOLED CONDENSER UNIT COMPLETE WITH CONDENSER FAN, HERMETIC COMPRESSOR, ELECTRICAL CONNECTION AND EQUIPMENT SUPPORT. THE UNIT SHALL BE THE SAME MANUFACTURER OF FCU.	
ACCU 6	2	1.0	FCU-6	25 (1)	R-32	9.52 (3/8)	6.35 (1/4)	220-230	1	60	-	20	19	INVERTER FLOOR MOUNTED AIR COOLED CONDENSER UNIT COMPLETE WITH CONDENSER FAN, HERWETIC COMPRESSOR, ELECTRICAL CONNECTION AND EQUIPMENT SUPPORT. THE UNIT SHALL BE THE SAME MANUFACTURER OF FCU.	





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DEPARTMENT OF TRANSPORTATION
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AERODROME DEVELOPMENT AND MANAGEMENT SERVIC
NAIL ROBO. 1300 PASAY CITY

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

	DIVISION
DESIGN STAFF:	INITIAL / DATE
DESIGNED BY:	IDDD (1)
DRAWN BY:	JCMC (C)
REVIEWED BY:	RUAJR
CHECKED BY:	

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RAUL R. CRUCENA Acting Division Chief III, IDDD-ADMS

SUBMITTED BY:



RECOMMEND APPROVAL:



APPROVED:

CAPTAIN MANUEL ANPONIO L. TAMAYO
Director Gerbral

NOTES/REVISIONS:

PROJECT:

IMPROVEMENT/REHABILITATION OF

LOCATION:

CAAP-ADMINISTRATION BUILDING OLD MIA RD., PASAY CITY

SHEET CONTENTS:

GENERAL NOTES

MISCELLANEOUS DETAILS
EQUIPMENT SCHEDULE

1	DRAWING SCALE:	SHEET NO:					
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	AS SHOWN	04					
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GENERAL NOTES

- IT IS NOT INTENDED THAT THE DRAWINGS SHALL SHOW EVERY PIPE FITTING, VALVE AND APPURTENANCE. ALL SUCH ITEMS WHETHER SPECIFICALLY MENTIONED OR NOT, OR INDICATED ON THE DRAWINGS SHALL BE FURNISHED AND INSTALLED IF NECESSARY TO COMPLETE THE SYSTEM TO THE SATISFACTION OF THE OWNER.
- 2. ALL PLUMBING WORKS SHALL BE INSTALLED IN ACCORDANCE WITH THE PROVISION OF THE NATIONAL PLUMBING CODE OF THE PHILIPPINES, THE REQUIREMENTS OF THE LOCAL PLUMBING INSPECTION OFFICE, PERTINENT PROVISIONS OF THE UNIFORM BUILDING CODE AND THE NATIONAL BUILDING CODE OF THE PHILIPPINES.
- ALL PLUMBING INSTALLATIONS SHALL BE COORDINATED WITH OTHER TRADES. ANY REVISION IN THE PIPING LAYOUT REQUIRED FOR PROPER EXECUTION OF OTHER TRADES SHALL BE WITH PRIOR APPROVAL OF THE PROJECT ENGINEER.
- HORIZONTAL SANITARY SEWER PIPING SHALL BE RUN IN PRACTICAL ALIGNMENT AT A MINIMUM SLOPE OF 1% FOR PIPES 100MMØ AND LARGER AND 2% FOR 75MMØ AND SMALLER.
- ALL VENT PIPE SHALL BE FREE FROM DROPS OR SAGS AND SHALL BE SLOPED OR GRADED AS TO DRIP BACK BY GRAVITY TO THE DRAINAGE PIPE IT SERVES.
- 6. ALL PLUMBING FIXTURES SHALL BE INDIVIDUALLY VENTED.
- 7. ALL DIMENSIONS AND PIPE SIZES ARE IN MILLIMETERS EXCEPT OTHERWISE SHOWN. INDICATED METRIC EQUIVALENT USED ON THESE PLANS FOR PIPE SIZES:

1/2" = 15mm	2" = 50mm	6"	= 150mm
3/4" = 20mm	2 1/2" = 65mm	8"	= 200 mm
1 1/4'' = 32 mm	3" = 75mm	10"	= 250 mm
$1 \frac{1}{2}$ " = 40mm	4" = 100mm	12"	= 300 mm

- 8. THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AT SITE, SUCH AS, THE ACTUAL PIPE SIZES, LOCATIONS, DEPTHS, TOP AND INVERT ELEVATIONS OF ALL EXISTING PIPES AND RELATED STRUCTURES. THE CONTRACTOR SHALL PROVIDE THE NECESSARY EXCAVATIONS, BACKFILLING AND SURFACE RESTORATION OF THE AFFECTED AREAS IN THE LAYING OF SEWER, STORM DRAINAGE AND SUPPLY LINES.
- CONDENSATE DRAINAGE SYSTEM FOR AIRCONDITIONING EQUIPMENT INCLUDING PIPINGS, FITTINGS, SUPPORTS, ALL REQUIRED ACCESSORIES AND TAPPING PINTS SHALL BE PART OF MECHANICAL WORKS.
- 10. PROVIDE VALVE BOX FOR EACH EMBEDDED GATE VALVE.
- 11. THE SIZES OF WATER SUPPLY FIXTURES SHALL BE IN ACCORDANCE THE MANUFACTURER'S

MATERIAL SPECIFICATIONS

COLD WATER LINE

 SHALL BE POLYPROPYLENE RANDOM (TYPE 3) PN 20; HIGH RESISTANCE TO PRESSURE AN TEMPERATURE, CONFORMING TO EN ISO 15874, SIMILAR TO GEORGE FISCHER, NELTEX, UNITEC PP—R PIPE OR APPROVED EQUIVALENT

SOIL, WASTE AND VENT LINES

 SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE (uPVC) PIPE CONFORMING TO ASTM D2729, SIMILAR TO NELTEX, MOLDEX OR EMERALD SERIES 1000 uPVC OR APPROVED EQUAL.

DOWNSPOUTS AND DRAINAGE LINE (INSIDE AND OUTSIDE OF BUILDING)

- SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE (uPVC) PIPE AND FITTINGS FOR 250mmØ AND SMALLER CONFORMING TO ASTM D2729, SIMILAR TO NELTEX, MOLDEX OR FMFRALD SFRIES 1000 uPVC OR APPROVED EQUIVALENT.
- SHALL BE HIGH DENSITY POLYETHYLENE (HDPE) PIPE AND FITTINGSS FOR 300mm@ AND LARGER, PE 3408 SDR 17 CONFORMING TO ASTM D3350, ASTM F714, AND ASTM D3261

PLUMBING LEGEND AND SYMBOLS

	COLD WATERLINE
	SOIL PIPE/ WASTE PIPE
	VENT PIPE
	END CAP
——————————————————————————————————————	FLOOR CLEANOUT
	GROUND CLEANOUT
+>< +	GATE VALVE
+/-	CHECK VALVE
+	WATER METER
+□+	INCREASER/ REDUCER
CB/ AD	CATCH BASIN/ AREA DRAIN
ST	SEPTIC TANK
AAV	AIR ADMITTANCE VALVE
csws	COMBINED SOIL AND WASTE STACK

CWDF	COLD WATER DOWN FEED				
BS	BIDET SPRAY				
CWR	COLD WATER RISER				
DD	DECK DRAIN				
DP	DRAIN PIPE				
DS	DOWNSPOUT				
EPDR/L	ELEVATOR PIT PIPE DISCHARGE RISER/LINE				
FD	FLOOR DRAIN				
GD	GUTTER DRAIN				
GT	GREASE TRAP				
НВ	HOSE BIBB				
KLAV	KID'S LAVATORY				
KS	KITCHEN SINK				
KUR	KID'S URINAL				

LAV	LAVATORY			
PD	PLANTER'S DRAIN			
RD	ROOF DRAIN			
RED	REDUCER			
SHO	SHOWER HEAD			
SP	SOIL PIPE			
SS	SLOP SINK			
UR	URINAL			
VS	VENT STACK			
VSTD	VENT STACK THRU DECK			
VSTR	VENT STACK THRU ROOF			
VSTW	VENT STACK THRU WALL			
WC	WATER CLOSET			
WP	WASTE PIPE			



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

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN

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

CHECKED BY:



SUBMITTED BY



RECOMMEND APPROVAL:



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CAPTAIN MANUEL ANTONIO L. TAI

NOTES/REVISION:

IMPROVEMENT/REHABILITATION
OF FOURTH FLOOR

LOCATION:

CAAP-ADMINISTRATION BUILDING OLD MIA RD., PASAY CITY

SHEET CONTENTS:

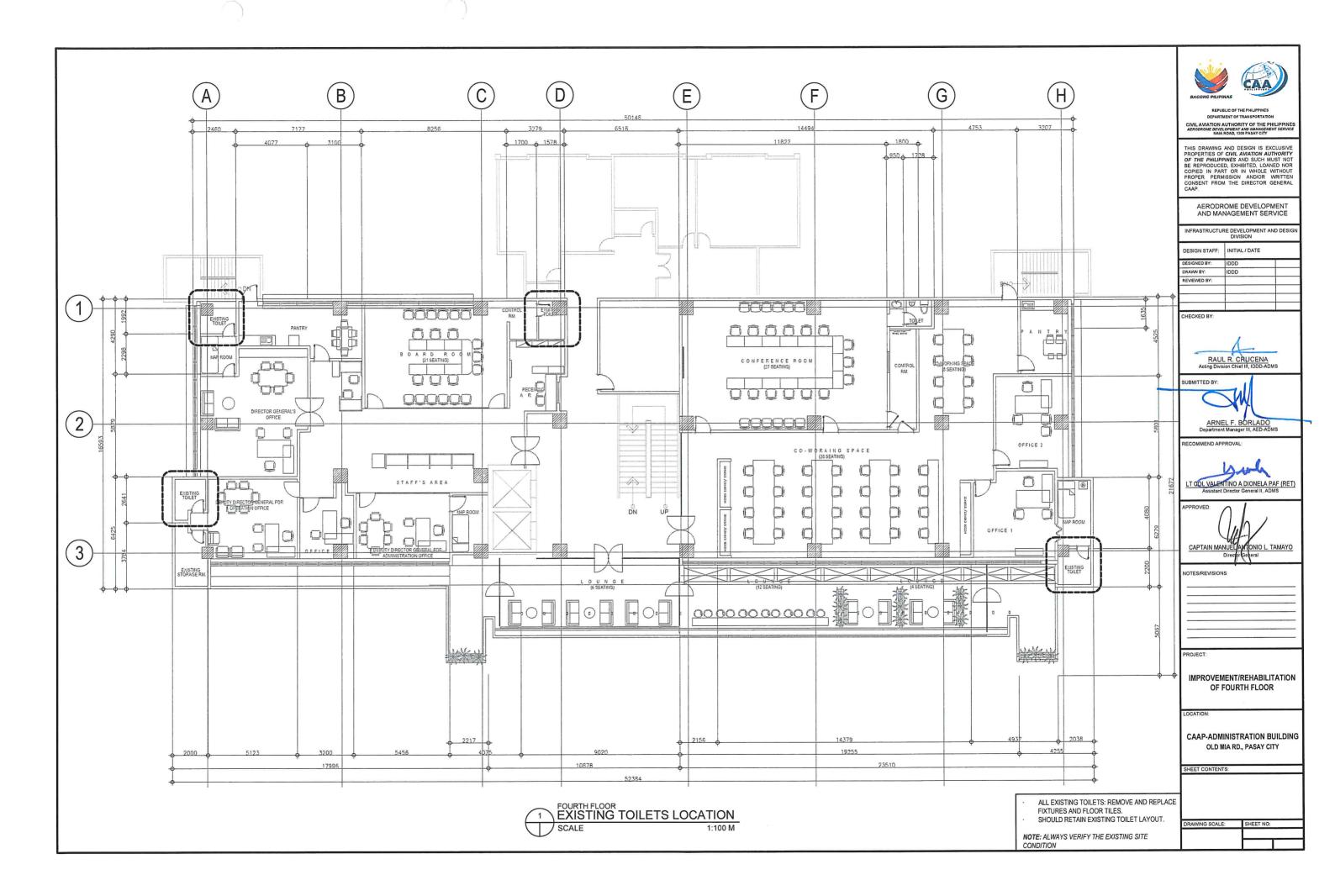
GENERAL HOTES
MATERIAL SPECIFICATIONS
PLUMBING LEGEND AND SYMBOLS
EQUIVALENT PIPE SIZE FOR WATER PIPES
PLUMBING FIXTURE CONNECTION SCHEDULE

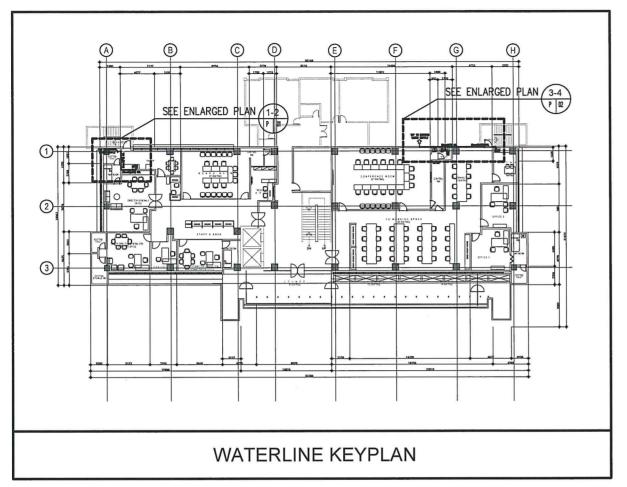
EQUIVALENT PIPE SIZE FOR WATER PIPES

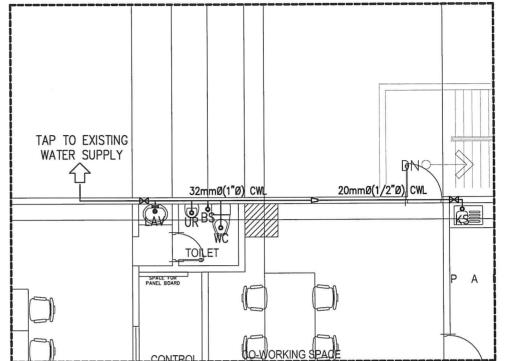
	PIPE SIZES IN MILLIMETERS (mm)								
NOMINAL PIPE SIZE DIAMETER	15	20	25	32	40	50	63	75	
POLYPROPYLENE RANDOM (PPR)	20	25	32	40	50	63	75	100	
GALVANIZED IRON (GI)	15	19	25	32	40	50	65	80	

PLUMBING FIXTURE CONNECTION SCHEDULE

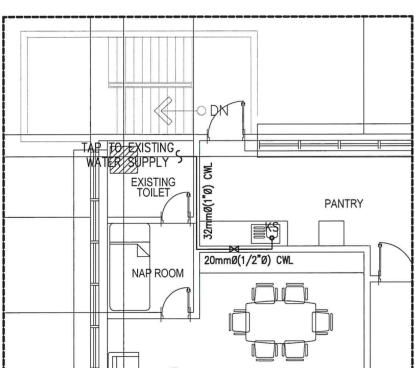
GROUND CLENOUT	SYMBOL	WATER SUPPLY PIPE SIZE (mm)	SOIL/ WASTE PIPE SIZE (mm)	TRAP SIZE (mm)
KITCHEN SINK	кs	15	50	38
LAVATORY	LAV	15	50	38
SERVICE SINK/ SLOP SINK	SSK/SS	15	75	50
SHOWER	SHO	15	50	50
URINAL	UR	20	50	INTEGRAL
WATER CLOSET (FLUSH TANK)	wc	15	100	INTEGRAL
WATER CLOSET (FLUSH VALVE)	wc	32	100	INTEGRAL

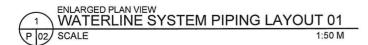


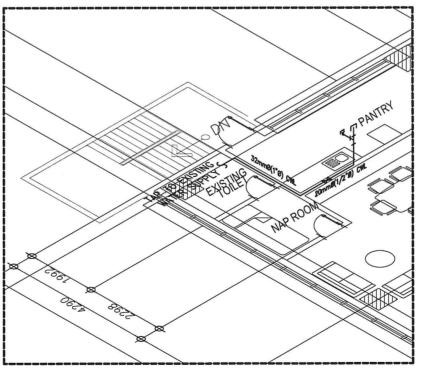




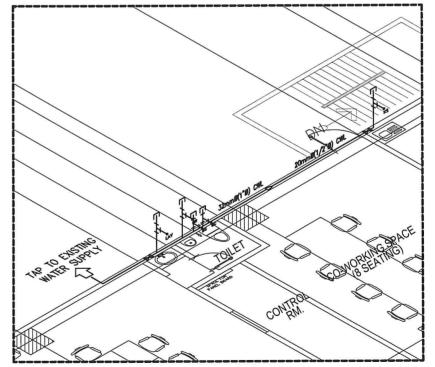
ENLARGED PLAN VIEW WATERLINE SYSTEM PIPING LAYOUT 02
P 02 SCALE 1:50 M







ENLARGED ISOMETRIC VIEW WATERLINE SYSTEM PIPING LAYOUT 01
P 02 SCALE 1:50 M



3 WATERLINE SYSTEM PIPING LAYOUT 02
P | 02 SCALE 1:50 M





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AERODROME DEVLOPMENT AND MANAGEMENT SERVIC
NAME SPAID, 1909 PASAY CITY

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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN

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

CHECKED BY:



SUBMITTED BY:



RECOMMEND APPROVAL:



CAPTAIN MANUE ANTONIO L. TAMAY

NOTES/REVISIONS:

IMPROVEMENT/REHABILITATION
OF FOURTH FLOOR

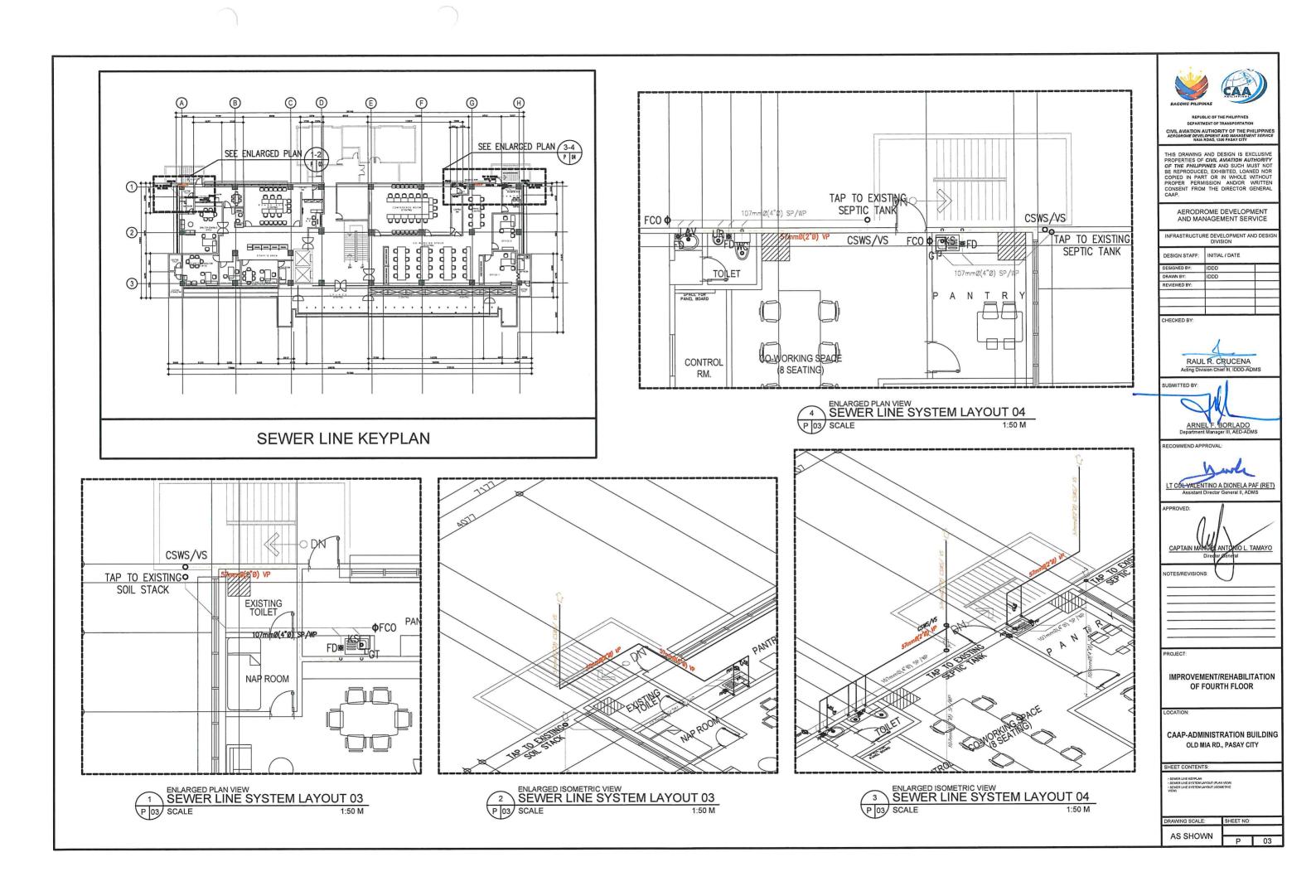
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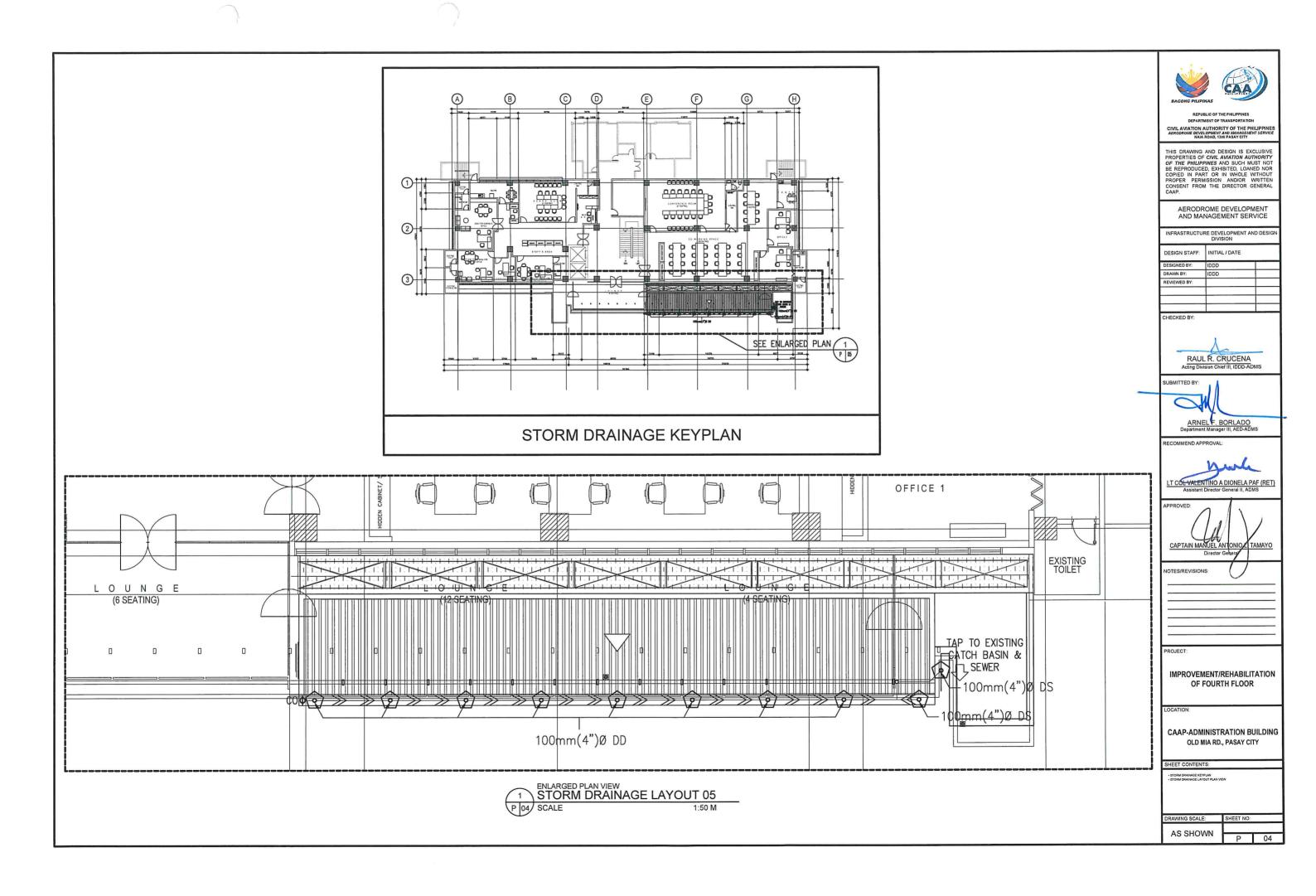
CAAP-ADMINISTRATION BUILDING OLD MIA RD., PASAY CITY

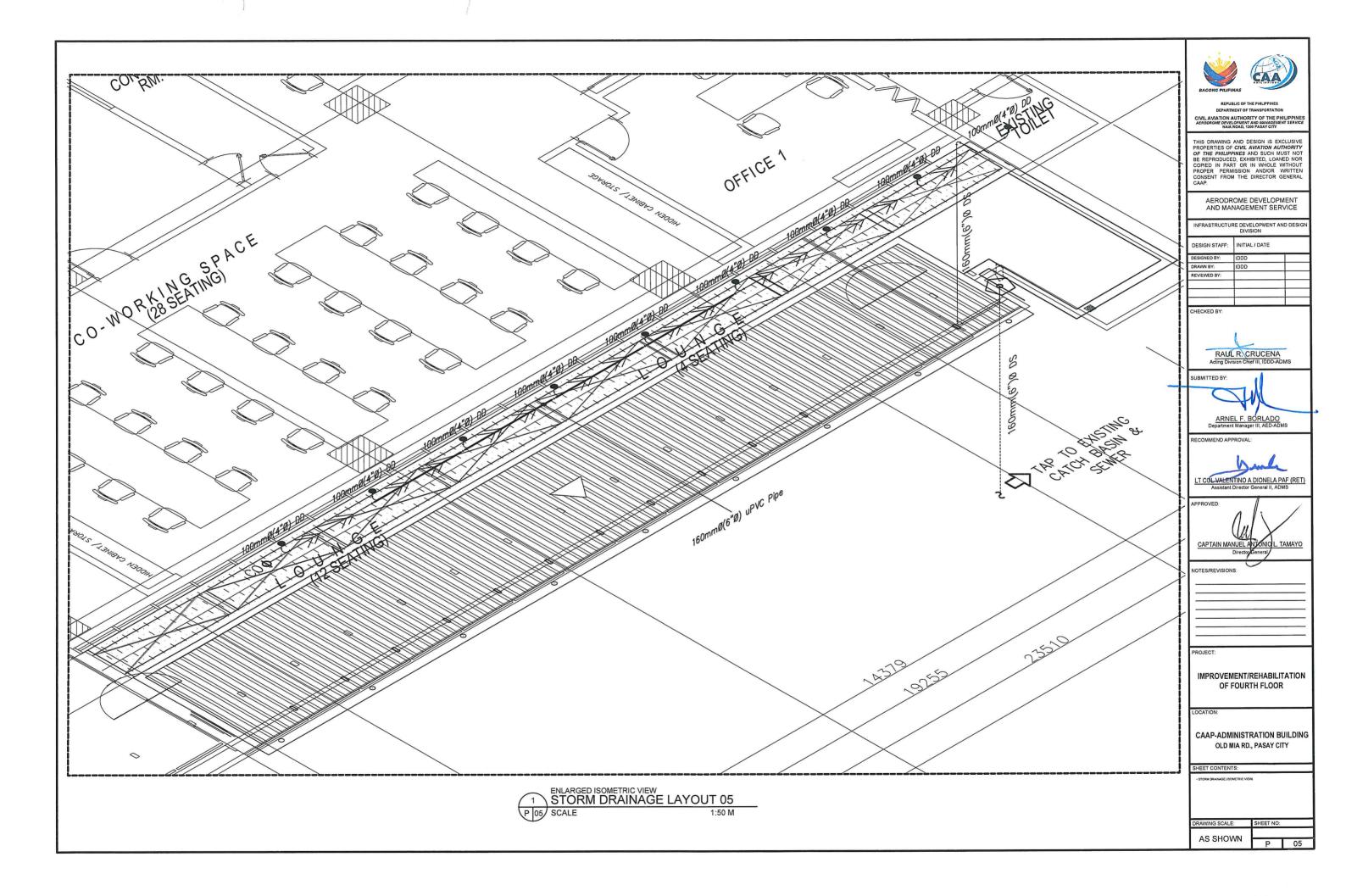
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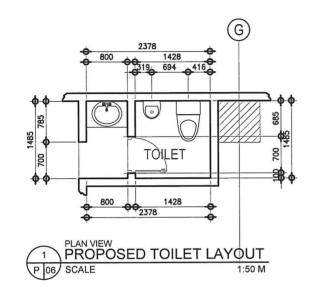
WATERLINE KEYPLAN
 WATERLINE SYSTEM PIPING LAYOUT (PLAN
WEYN
 WATERLINE SYSTEM PIPING LAYOUT
(ISOMETRIC VIEW)

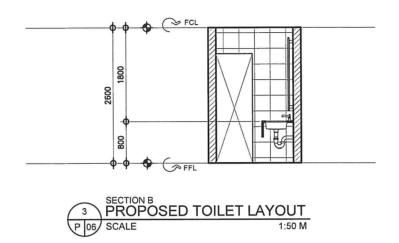
DRAWING SCALE:	SHEET NO:	
AS SHOWN	P	02

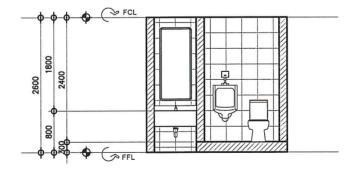




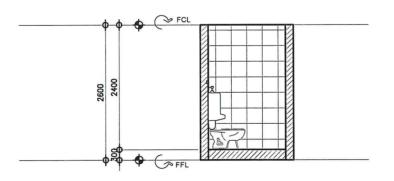




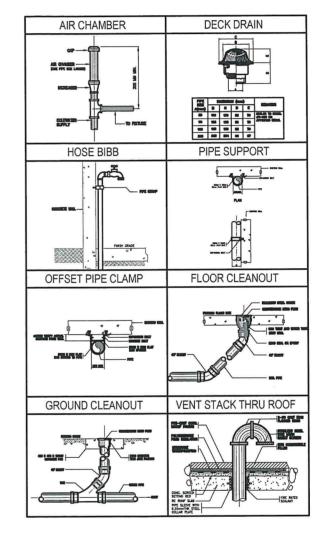


















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AERODROME DEVELOPMENT AND MANAGEMENT SERVICE

INFRASTRUCTURE DEVELOPMENT AND DESIGN DIVISION

NITIAL / DATE	
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CHECKED BY:



SUBMITTED BY



RECOMMEND APPROVAL:



CAPTAIN MANUEL ANJONIO L. T

NOTES/REVISIONS

PROJECT:

IMPROVEMENT/REHABILITATION OF FOURTH FLOOR

LOCATIO

CAAP-ADMINISTRATION BUILDING OLD MIA RD., PASAY CITY

SHEET CONTENTS:

PROPOSED TOILET (PLAN AND SECTION
 MISCELLANEOUS DETAILS

DRAWING SCALE: SHEET NO:

AS SHOWN P