

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
NATIONAL CAPITAL REGION
METRO MANILA FIRST DISTRICT ENGINEERING OFFICE
WEST BANK ROAD, MANGGAHAN FLOODWAY
ROSARIO, PASIG CITY

C.Y. 2025 PROJECT
DETAILED ENGINEERING DESIGN PLAN FOR

**CONSTRUCTION OF SIX (6) STOREY ACADEMIC BUILDING, PAICOE, AIR, PHILIPPINE
ARMY, LEGASPI COMPOUND, FORT BONIFACIO, TAGUIG CITY, PHASE V**

LOCATION: FORT BONIFACIO, TAGUIG CITY

SUBMITTED:

ELINO V. CASTRO

CHIEF, PLANNING & DESIGN SECTION

DATE:

RECOMMENDED:

EDUARDO B. DEL ROSARIO

OIC - ASSISTANT DISTRICT ENGINEER

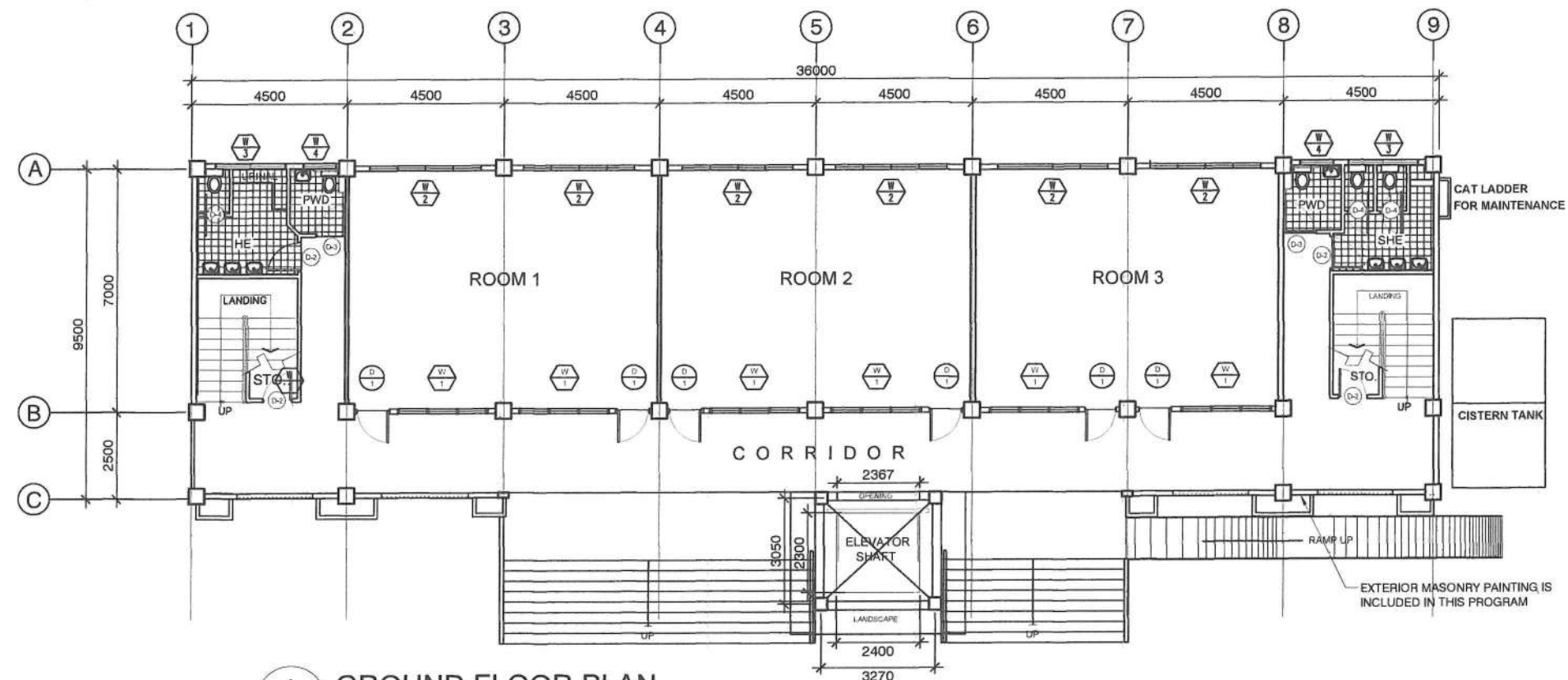
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APPROVED:

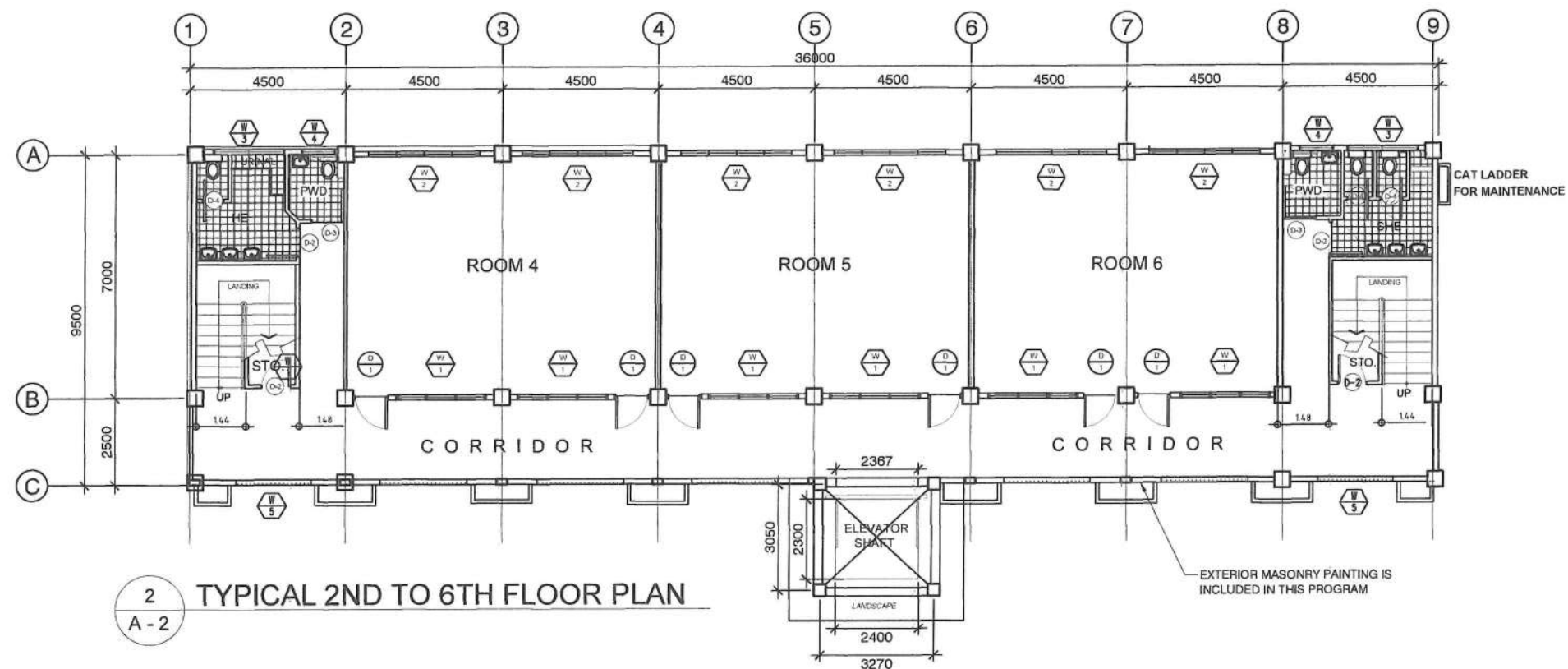
ARISTOTLE B. RAMOS

DISTRICT ENGINEER

DATE:



1 GROUND FLOOR PLAN
A - 2



2 TYPICAL 2ND TO 6TH FLOOR PLAN
A - 2

NOTE:
ALL STRUCTURAL WORKS, MASONRY WORKS
AND PLASTERING WORKS ARE FINISHED ON
PHASE 1 AND 2 OF THIS PROJECT



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NATIONAL CAPITAL REGION
METRO MANILA FIRST ENGINEERING DISTRICT
WEST BANK ROAD, MANGGAHAN FLOODWAY
ROSARIO, PASIG CITY

PROJECT/LOCATION:
**CONSTRUCTION (COMPLETION) OF SIX (6)
STOREY ACADEMIC BUILDING, PAICOE, AIR,
PHILIPPINE ARMY, LEGASPI COMPOUND,
FORT BONIFACIO, TAGUIG CITY**

SHEET CONTENTS :
AS INDICATED

DRAWN BY:
GERSAM C. BALAG
ENGINEER II
PREPARED BY:
CRISTINA L. JOSE
ARCHITECT II

CHECKED BY:
MANUEL Y. MADRID
ENGINEER II

SUBMITTED BY:
ELINO V. CASTRO
CHIEF, PLANNING & DESIGN SECTION
ENGINEER III

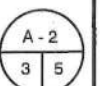
RECOMMENDING APPROVAL:
LAMBERTO C. DE LEON
OIC - ASST. DISTRICT ENGINEER

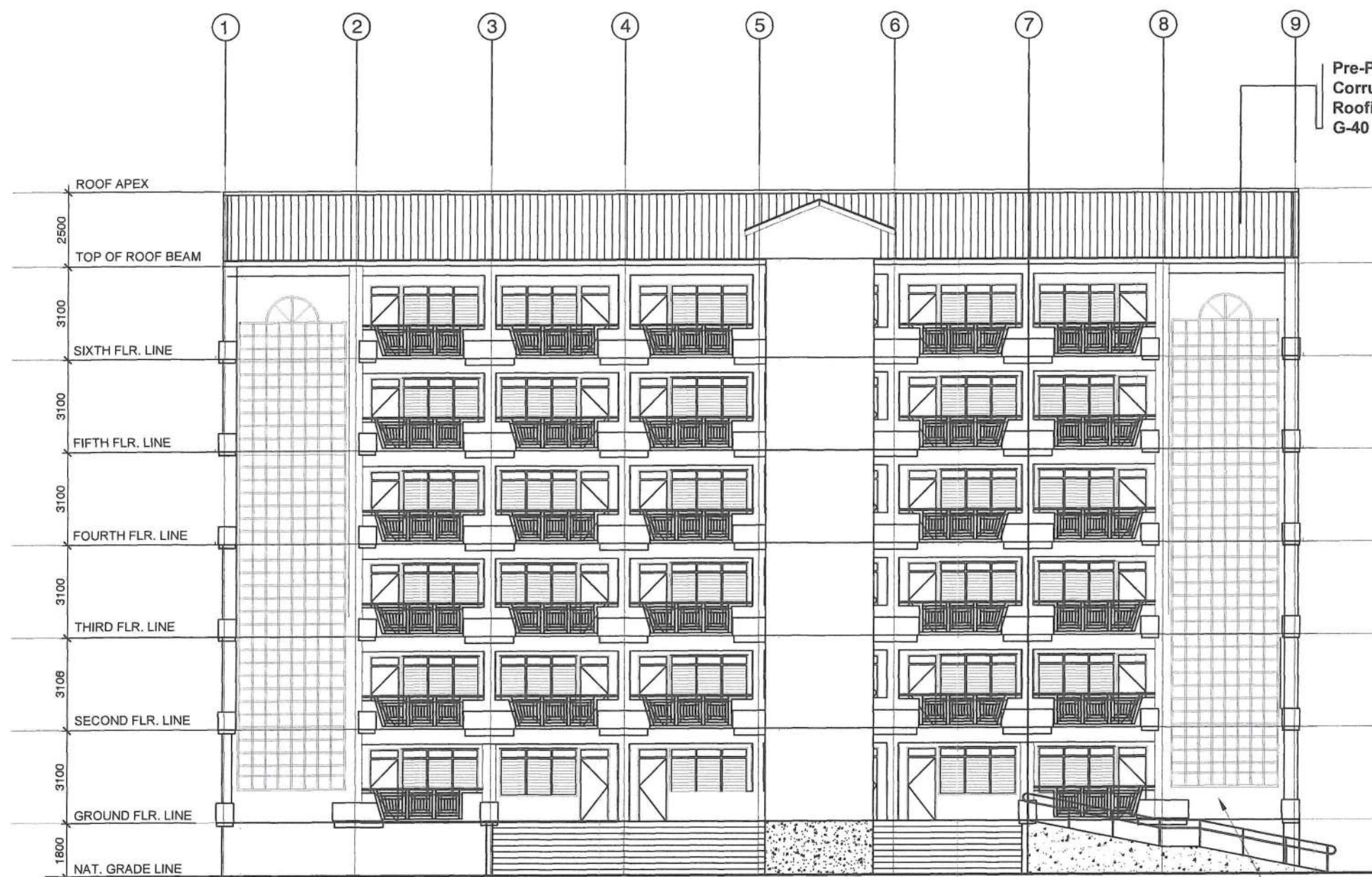
APPROVED:
MEDEL F. CHUA
DISTRICT ENGINEER

SET NO.



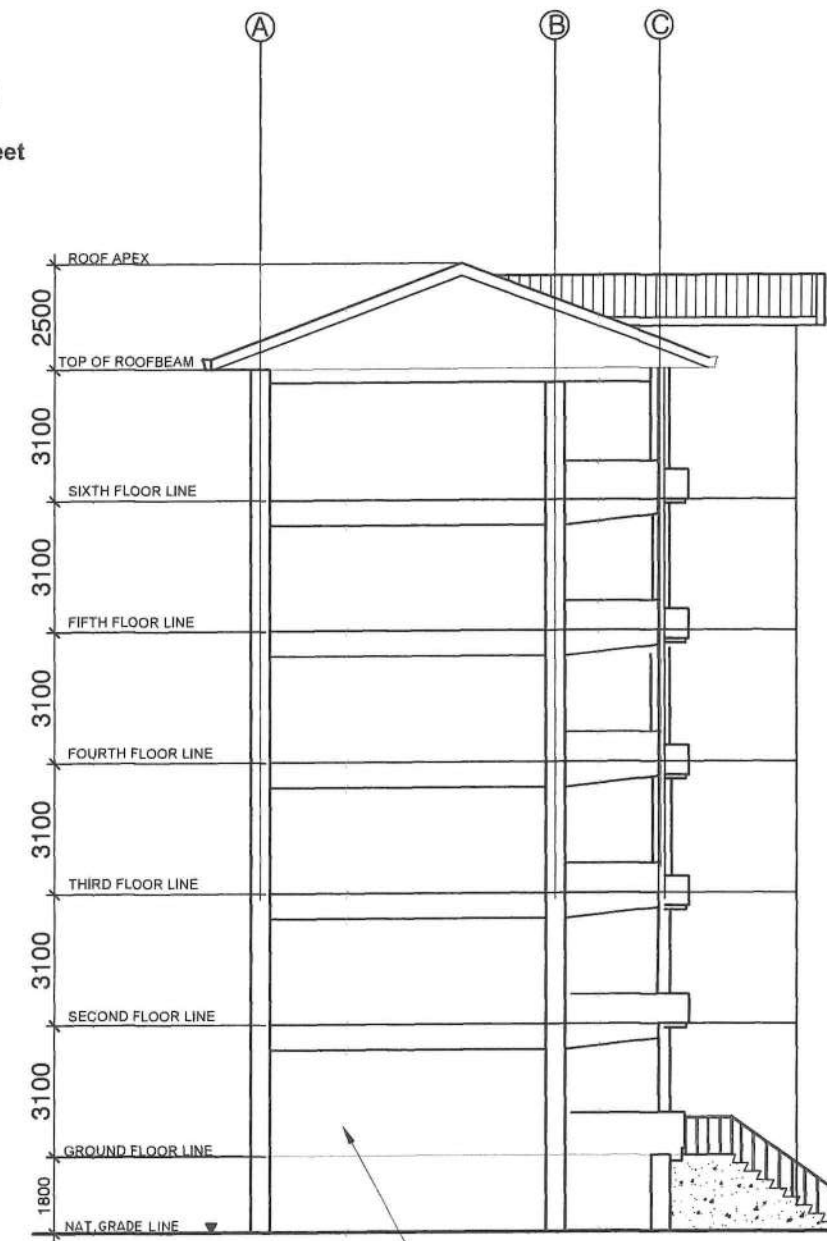
SHEET NO.





Pre-Painted
Corrugated
Roofing Sheet
G-40

EXTERIOR MASONRY PAINTING IS
INCLUDED IN THIS PROGRAM



EXTERIOR MASONRY PAINTING IS
INCLUDED IN THIS PROGRAM

NOTE:
ALL STRUCTURAL WORKS, MASONRY WORKS
AND PLASTERING WORKS ARE FINISHED ON
PHASE 1 AND 2 OF THIS PROJECT

1 FRONT ELEVATION
A - 4

2 LEFT SIDE ELEVATION
A - 4



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SHEET CONTENTS :

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ENGINEER II

SUBMITTED BY:

ELINO V. CASTRO
CHIEF, PLANNING & DESIGN SECTION
ENGINEER III

RECOMMENDING APPROVAL:

LAMBERTO C. DE LEON
OIC - ASST. DISTRICT ENGINEER

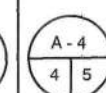
APPROVED:

MEDEL F. CHUA
DISTRICT ENGINEER

SET NO.



SHEET NO.



GENERAL NOTES AND SPECIFICATIONS

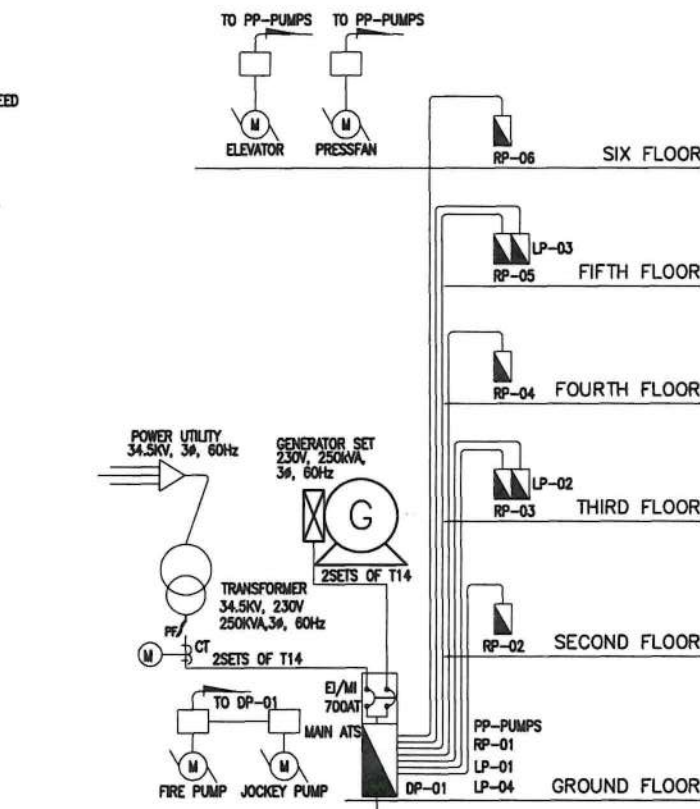
- ALL WORKS HEREIN SHALL BE DONE IN ACCORDANCE WITH THE PROVISION OF THE LATEST EDITION OF THE PHILIPPINES ELECTRICAL CODE, THE LAWS AND ORDINANCES OF THE LOCAL CODE ENFORCING AUTHORITIES AND THE REQUIREMENTS OF THE EXISTING SERVICE PROVIDER.
- THE CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED FOR THE WORK AND SHALL FURNISH THE OWNER THROUGH THE ENGINEER'S FINAL CERTIFICATES OF ELECTRICAL INSPECTION AND APPROVAL FROM PROPER GOVERNMENT AUTHORITIES FOR COMPLETE WORK.
- ALL MATERIALS TO BE USED SHALL BE NEW AND INSTALLED IN APPLICATIONS FOR WHICH THEY ARE INTENDED.
- 34.5KILOVOLTS, THREE PHASE, 60Hz, SHALL BE THE POWER SUPPLY STEP DOWN TO 230VOLTS THREE PHASE LINE TO LINE PLUS GROUND VIA DISTRIBUTION TYPE TRANSFORMER UTILITY PROVIDER SUPPLY, TAPPING POINT SHOULD BE COORDINATED AT SITE.
- CONDUCTOR SHOULD BE INSULATED THHN/THWN THERMOPLASTIC SHALL BE USED SIZE AS PER LOAD SCHEDULE.
- WIRES SHOULD BE COLOR CODED AS FOLLOWED.
LINE 1 - BLACK
LINE 2 - RED
LINE 3 - YELLOW
GROUND - GREEN
- SUITABLE WARNING SIGN SHALL BE PROVIDED TO DIRECT VEHICULAR AND PEDESTRIAN TRAFFIC AROUND EXCAVATIONS.
- CONTRACTORS MUST COORDINATE THEIR WORK WITH OTHER TRADES PRIOR TO ANY INSTALLATION.
- SYSTEM SHOULD HAVE EFFECTIVE GROUNDING. GROUNDING RESISTANCE SHOULD NOT BE MORE THAN 5 OHMS. ADDITIONAL GROUND RODS ARE REQUIRED IF GROUND RESISTANCE EXCEED 5 OHMS.
- FOLLOWING TEST SHALL BE DONE AFTER COMPLETION
A. INSULATION RESISTANCE TEST
B. GROUND RESISTANCE TEST
C. SYSTEM/OPERATION TEST
D. PHASE SEQUENCE TEST

LEGEND-POWER:

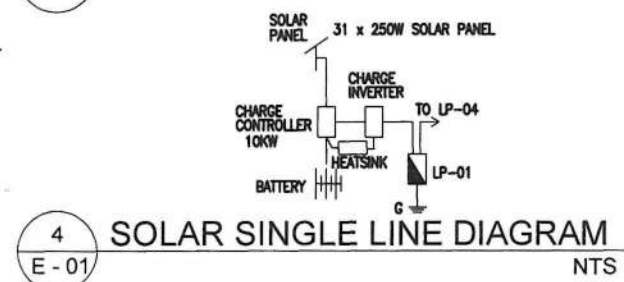
- POWER SERVICE ENTRANCE
- RP - RECEPTACLE PANEL
DP - DISTRIBUTION PANEL
- CIRCUIT BREAKER (RATING AS NOTED)
- GROUND
- KWHR METER 3Ø SELF-CONTAINED
- MOTOR OR MOTORIZED EQUIPMENT.
- MOTOR STARTER, MOTOR CONTROLLER, CONTROL PANEL.
- JUNCTION BOX PROVISION FOR EXHAUST FAN OUTLET POWER SUPPLY
- CIRCUIT RUN UNDERFLOOR OR UNDERGROUND
- CIRCUIT RUN ON CIELING OR BETWEEN WALL PARTITION
- CIRCUIT HOMERUN DESIGNATION, UPPER HALF DENOTES CIRCUIT NO. WHILE LOWER HALF DESIGNATES POWER SOURCE OF THE CIRCUIT
- DUPLEX CONVENIENCE OUTLET, 15 AMPS, 3-WIRE GROUNDING TYPE, 250 VAC, COLOR OF PLATE TO BE APPROVED BY THE OWNER/ARCHITECT
- FLOOR DUPLEX CONVENIENCE OUTLET, 15 AMPS, 3-WIRE GROUNDING TYPE.
- 18W, EXIT LIGHT 230VAC
- FLUORESCENT LIGHT 40W, 230VAC
- PINLIGHT, RECESSED MOUNTED WITH 18W BULB, 230VAC
- EMERGENCY BATTERY PACK
- SINGLE POLE SWITCH, 15 A, 300 VAC (1-DEVICE)
- TWO-GANG SWITCH, 15A 300VAC (2-DEVICE)
- SPECIAL PURPOSE OUTLET, 3-WIRE GROUNDING-TYPE, 30A, 250V TWISTLOCK, INSTALLED ADJACENT TO THE UNIT TO BE SERVED.
- 300mmL x 100mmW x 7mmD PRE-DRILLED COPPER GROUNDING BUSBAR
- 1 BJT 100sq.mm. BARE COPPER WIRE THERMOWELDED CONNECTION BONDING JUMPER TERMINAL
- LIQUID TIGHT FLEXIBLE CONDUIT
- GR GROUND ROD TEST STATION (TRIANGULAR CONFIGURATION)

LEGEND-AUXILIARIES:

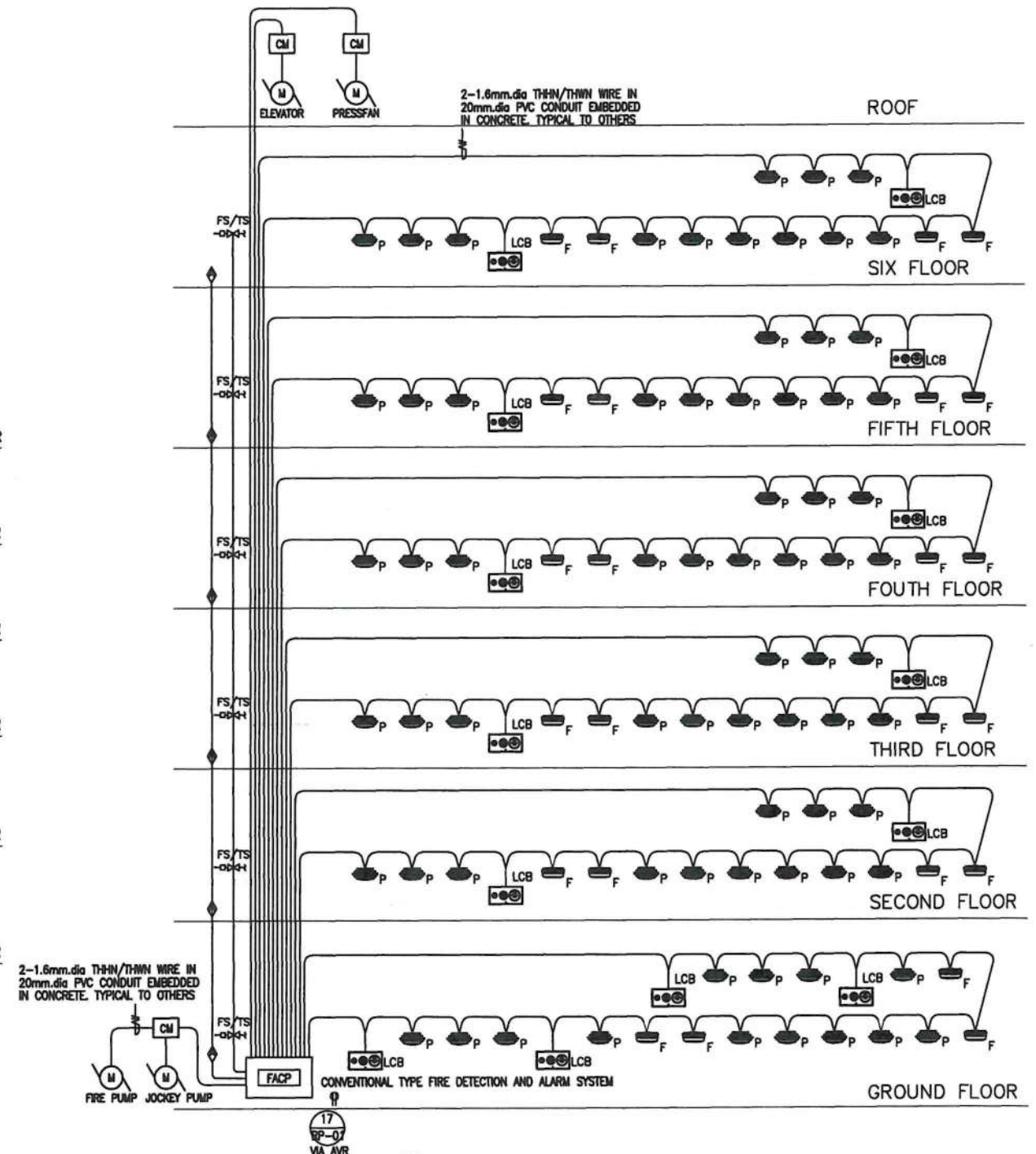
- CLOSE CIRCUIT TV
- FIRE ALARM CONTROL PANEL
- TELEPHONE TERMINAL BOX
- PUBLIC ADDRESS BACK GROUND MUSIC
- DATA OUTLET, MODULAR JACK.
- FLOOR DATA OUTLET
- SPEAKER 8WATTS
- CCTV CAMERA PAN-TILT ZOOM, SPEED DOME-TYPE
- PHOTOELECTRIC TYPE SMOKE DETECTOR.
- FIXED TYPE HEAT DETECTOR.
- FIRE ALARM SYSTEM LOCAL COMBINATION BOX.
- ANNUNCIATOR PANEL



3 POWER SINGLE LINE DIAGRAM
E - 01 NTS

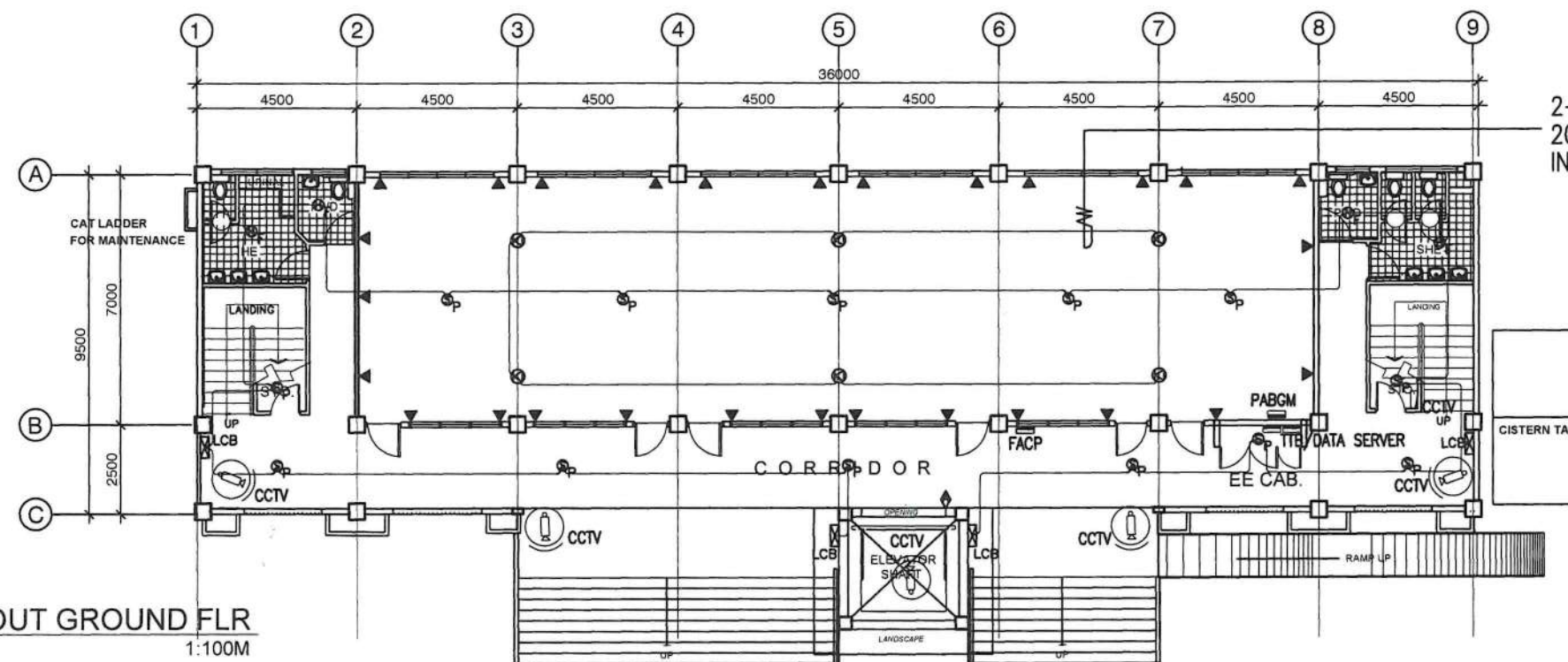


4 SOLAR SINGLE LINE DIAGRAM
E - 01 NTS

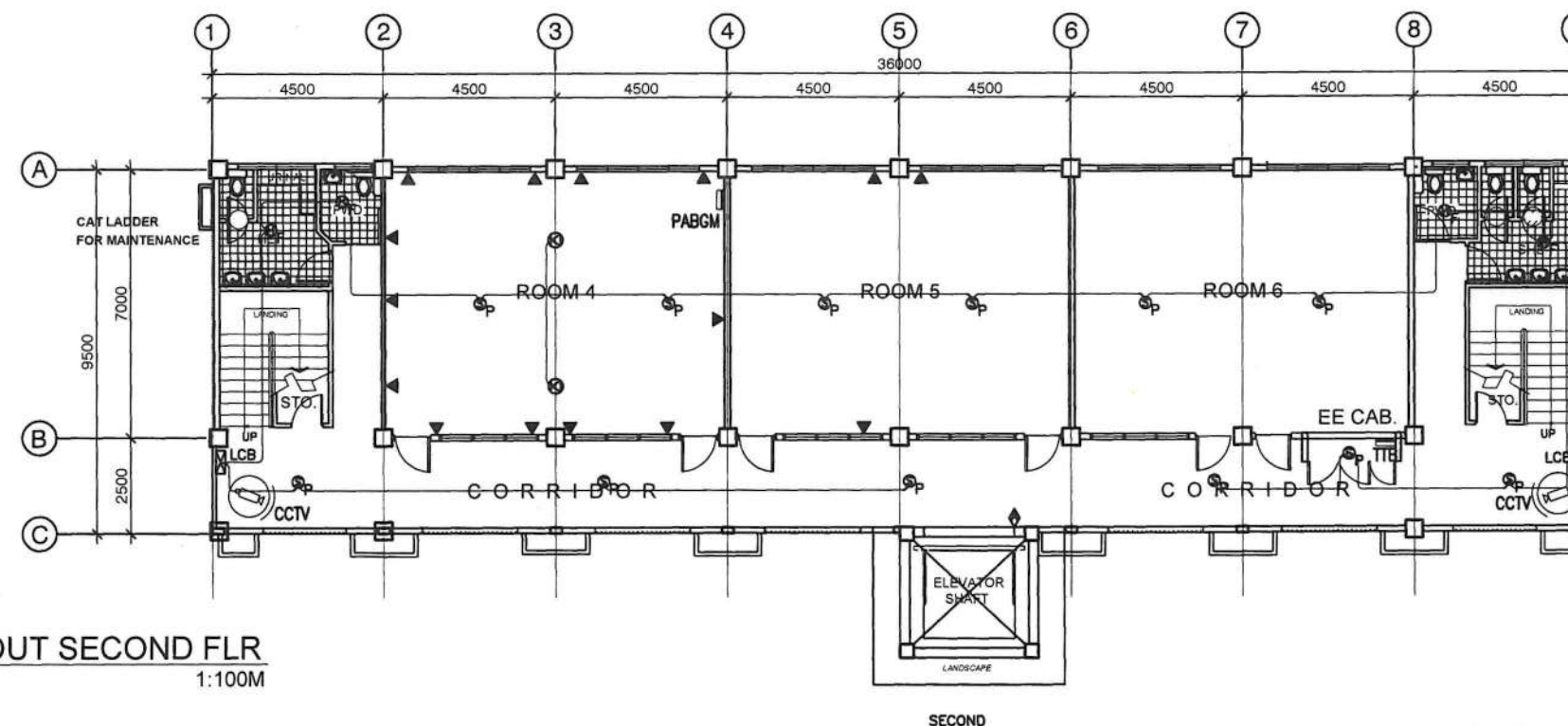


5 FDAS SINGLE LINE DIAGRAM
E - 01 NTS

PROJECT/LOCATION:	SHEET CONTENTS:	PREPARED BY:	CHECKED BY:	SUBMITTED BY:	RECOMMENDING APPROVAL:	APPROVED:	SET NO.	SHEET NO.
<p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS NATIONAL CAPITAL REGION METRO MANILA FIRST ENGINEERING DISTRICT WEST BANK ROAD, MANGAHAN LPOWAY ROSARIO, PASIG CITY</p>	<p>CONSTRUCTION OF SIX (6) STOREY ACADEMIC BUILDING, PAICOE, AIR, PHILIPPINE ARMY, LEGASPI COMPOUND, FORT ANDRESS BONIFACIO, TAGUIG CITY, PHASE V</p>	<p>GENERAL NOTES AND SPECIFICATIONS POWER LEGEND AUXILIARIES LEGEND POWER SINGLE LINE DIAGRAM SOLAR SINGLE LINE DIAGRAM FDAS SINGLE LINE DIAGRAM</p>	<p>LEE ROI R. DIENDO ENGINEER II</p>	<p>JOENEL A. ANGCAJAS ENGINEER II</p>	<p>ELINO V. CASTRO CHIEF, PLANNING & DESIGN SECTION ENGINEER III</p>	<p>EDUARDO B. DEL ROSARIO CIC - ASST. DISTRICT ENGINEER</p>	<p>ARISTOTLE B. RAMOS DISTRICT ENGINEER</p>	<p>E-01 3 13</p>



1
E - 02
AUXILIARIES LAYOUT GROUND FLR
1:100M



2
E - 02
AUXILIARIES LAYOUT SECOND FLR
1:100M

LEGEND-AUXILIARIES:

- CLOSE CIRCUIT TV
- FIRE ALARM CONTROL PANEL
- TELEPHONE TERMINAL BOX
- PUBLIC ADDRESS BACK GROUND MUSIC
- DATA OUTLET, MODULAR JACK.
- FLOOR DATA OUTLET
- SPEAKER 8WATTS
- CCTV CAMERA PAN-TILT ZOOM, SPEED DOME-TYPE
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ACADEMIC BUILDING, PAICOE, AIR,
PHILIPPINE ARMY, LEGASPI COMPOUND,
FORT ANDRESS BONIFACIO, TAGUIG CITY,
PHASE V

SHEET CONTENTS:
AUXILIARIES LAYOUT GROUND FLOOR
AUXILIARIES LAYOUT SECOND FLOOR

PREPARED BY:
LEE ROI R. DIENDO
ENGINEER II

CHECKED BY:
JOENEL A. ANGCAJAS
ENGINEER II

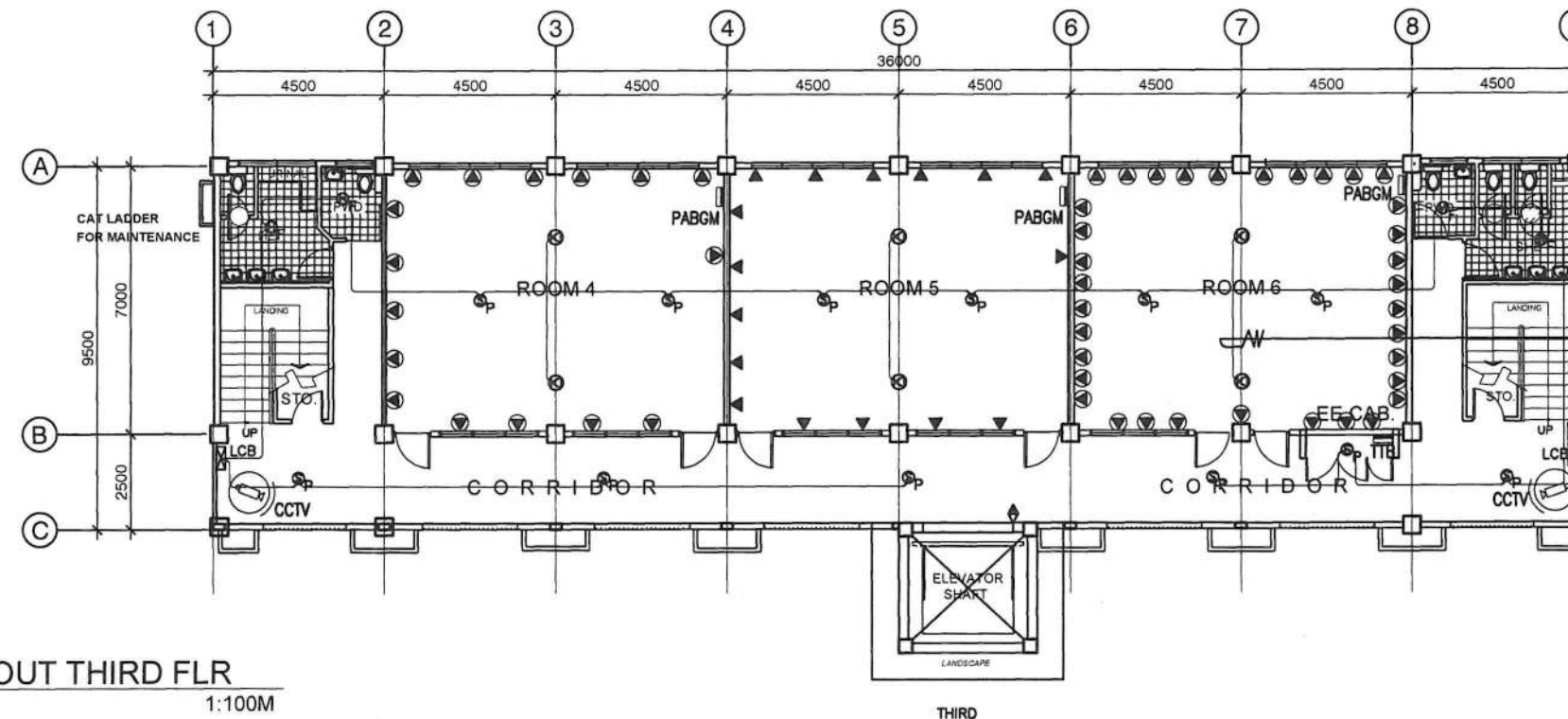
SUBMITTED BY:
ELINO V. CASTRO
CHIEF, PLANNING & DESIGN SECTION
ENGINEER III

RECOMMENDING APPROVAL
EDUARDO B. DEL ROSARIO
OIC - ASST. DISTRICT ENGINEER

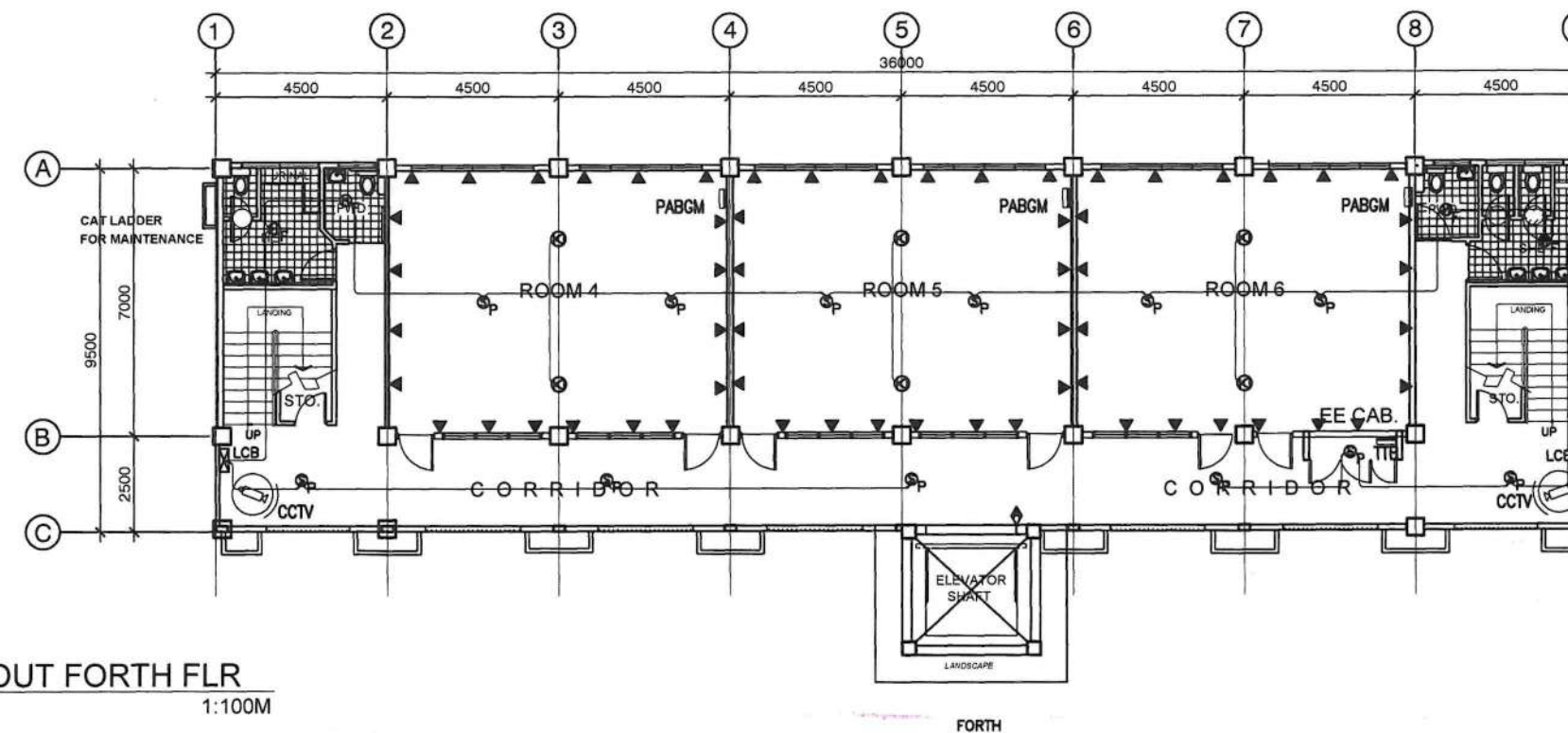
APPROVED:
ARISTOTLE B. RAMOS
DISTRICT ENGINEER

SET NO.
E-02

SHEET NO.
E
4 13



1
E - 03
AUXILIARIES LAYOUT THIRD FLR
1:100M

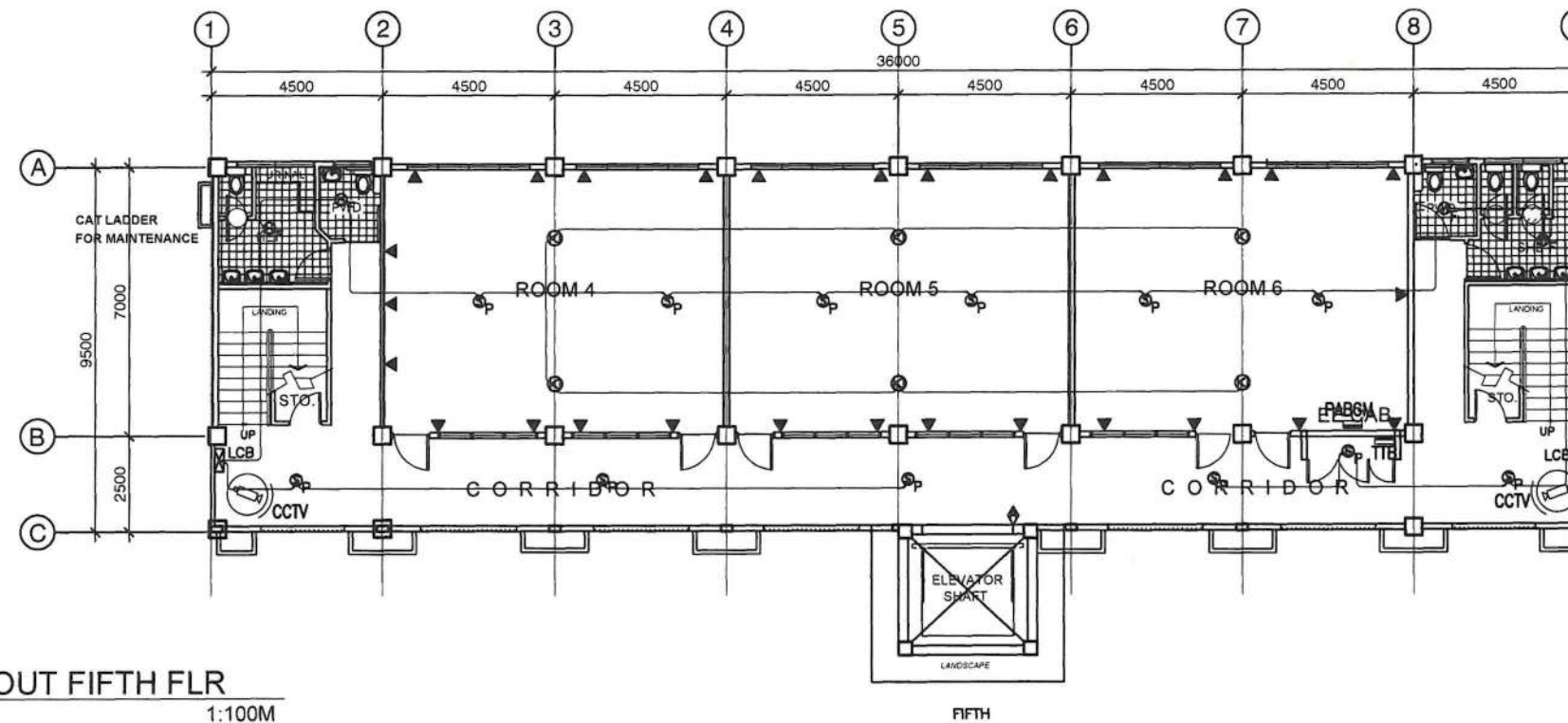


2
E - 03
AUXILIARIES LAYOUT FORTH FLR
1:100M

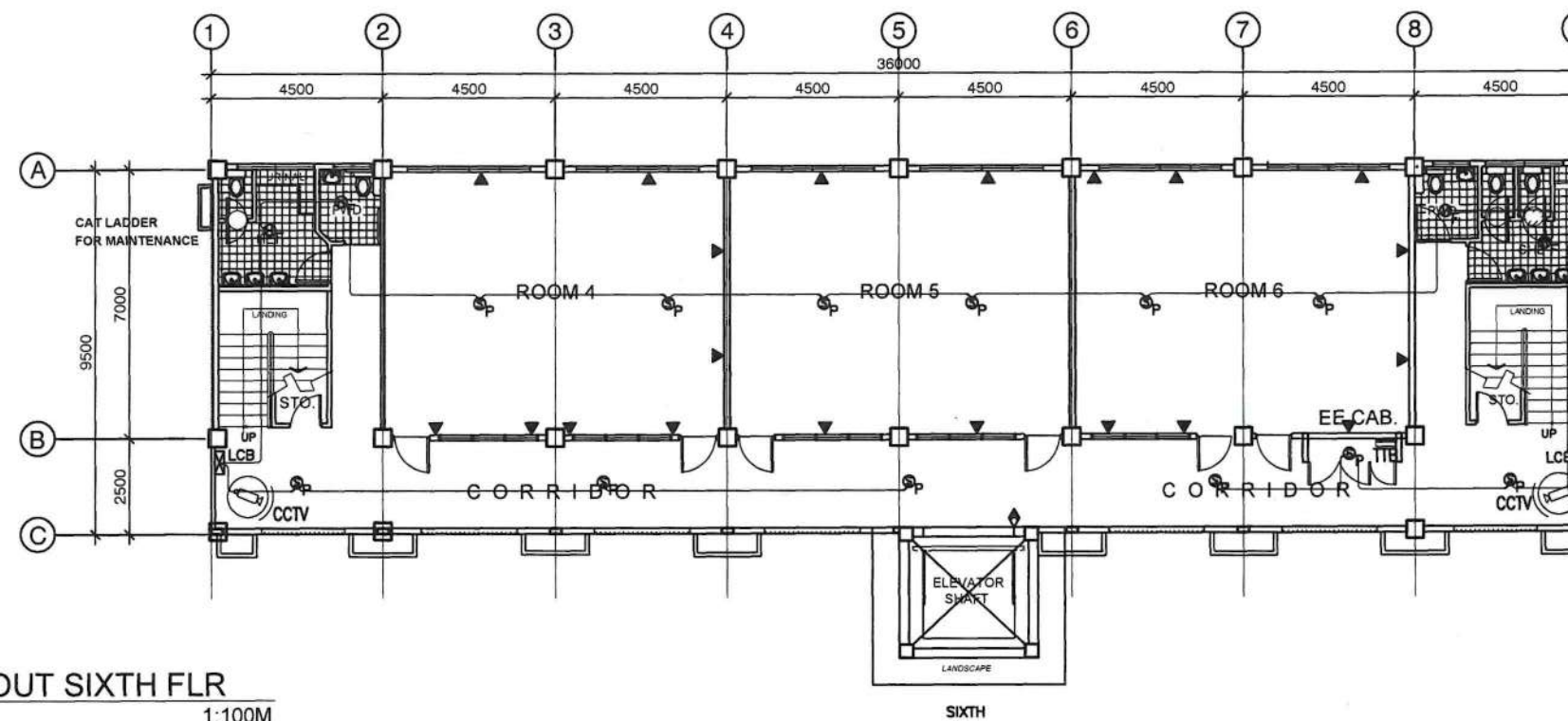
LEGEND-AUXILIARIES:

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- FIRE ALARM CONTROL PANEL
- TELEPHONE TERMINAL BOX
- PUBLIC ADDRESS BACK GROUND MUSIC
- DATA OUTLET, MODULAR JACK
- FLOOR DATA OUTLET
- SPEAKER 8WATTS
- CCTV CAMERA PAN-TILT ZOOM, SPEED DOME-TYPE
- PHOTOELECTRIC TYPE SMOKE DETECTOR
- FIXED TYPE HEAT DETECTOR
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DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS NATIONAL CAPITAL REGION METRO MANILA FIRST ENGINEERING DISTRICT WEST BANK ROAD, MANGGAHAN FLOODWAY ROSARIO, PASIG CITY	CONSTRUCTION OF SIX (6) STOREY ACADEMIC BUILDING, PAICOE, AIR, PHILIPPINE ARMY, LEGASPI COMPOUND, FORT ADDRESS BONIFACIO, TAGUIG CITY, PHASE V	AUXILIARIES LAYOUT THIRD FLOOR AUXILIARIES LAYOUT FORTH FLOOR	LEE ROI R. DIENDO ENGINEER II	JOENEL A. ANGCAJAS ENGINEER II	ELINO V. CASTRO CHIEF, PLANNING & DESIGN SECTION ENGINEER III	EDUARDO B. DEL ROSARIO OIC - ASST. DISTRICT ENGINEER	ARISTOTLE B. RAMOS DISTRICT ENGINEER	<div style="display: flex; justify-content: space-around;"> <div>E-03</div> <div> E 5 13 </div> </div>




1
E - 04
AUXILIARIES LAYOUT FIFTH FLR
1:100M



2
E - 04
AUXILIARIES LAYOUT SIXTH FLR
1:100M

LEGEND-AUXILIARIES:

- CLOSE CIRCUIT TV
- FIRE ALARM CONTROL PANEL
- TELEPHONE TERMINAL BOX
- PUBLIC ADDRESS BACK GROUND MUSIC
- DATA OUTLET, MODULAR JACK
- FLOOR DATA OUTLET
- SPEAKER
- CCTV CAMERA PAN-TILT ZOOM, SPEED DOME-TYPE
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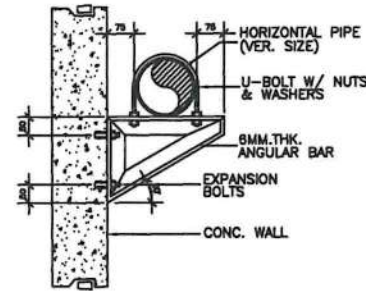
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GENERAL NOTES

- 01- ALL WORKS SHALL BE EXECUTED IN ACCORDANCE TO THE PROVISIONS OF THE FIRE CODE OF THE PHILIPPINES AND THE NATIONAL FIRE CODE BY NFPA.
- 02- THE WORK SHALL BE EXECUTED IN CLOSED COORDINATION WITH OTHER TRADES SO AS TO INSURE THE PROPER IMPLEMENTATION OF THIS PROJECT.
- 03- THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE EXACT LOCATION AND DIMENSIONS OF ALL REQUIRED WALL AND FLOOR OPENINGS.
- 04- THE EXACT LOCATIONS OF ALL SPRINKLER HEADS SHALL BE COORDINATED WITH THE ADMIN. REPRESENTATIVE AND SHALL BE SUBJECTED TO BOTH THE ARCHITECTS AND THE FIRE PROTECTION DESIGN ENGINEERS APPROVAL.
- 05- LOCATION OF DRAIN PIPES AND OF THE BUCK-UP SUPPLY LINES SHALL BE COORDINATED BY PLUMBING CONTRACTOR.
- 06- LOCATION AND MOUNTING OF FIRE HOSE CABINETS SHALL COORDINATED WITH THE ARCHITECTURAL FINISHES AND SHALL BE SUBJECTED TO BOTH THE ARCHITECTS AND FIRE PROTECTION DESIGN ENGINEERS APPROVAL.
- 07- SIZE OF THE RISER NIPPLES SHALL CONFORM TO PIPE SCHEDULES AS DELINEATED IN NFPA 13.
- 08- PIPE SUPPORT, HANGERS AND BRACING SHALL BE APPROVED TYPE AND SHALL BE INDEPENDENT FORM CEILINGS AND DUCT SUPPORT.
- 09- FP AND JP CIRCUIT BREAKER AND STARTERS INCLUDING THE POWER WIRING AND CONDUITING TAPPING FROM MAIN CIRCUIT BREAKER AT FIRE PUMP ROOM SHALL BE SUPPLIED AND INSTALLED BY FIRE PROTECTION CONTRACTOR.
- 10- ALL WIRINGS TO MONITOR FLOW SWITCH IN THE FIRE ALARM PANEL SHALL BE SUPPLIED AND INSTALLED BY FIRE PROTECTION CONTRACTOR. ROUGH-IN SHALL BE BY THE ELECTRICAL CONTRACTOR. WIRING SHALL BE TERMINATED TO THE DESIGNATED TERMINAL BLOCK IN THE ALARM PANEL.
- 11- SHOP DRAWING SHALL BE PREPARED FOR THE FIRE PUMP LAYOUT, PIPE HANGER AND OTHER INSTALLATION AS INDICATED IN THE SPECIFICATION.
- 12- THE CONTRACTOR SHALL PROVIDE AND INSTALL 20LBS. PORTABLE FIRE EXTINGUISHER IN FIRE HOSE CABINET. ALL PORTABLE FIRE EXTINGUISHERS SHALL BE LOCATED SO THAT ALL FIRE AT ANY POINT IN THE BUILDING CAN BE REACHED FROM ONE (1) EXTINGUISHER WITH A TRAVEL DISTANCE OF NOT MORE THAN 75 FT.
- 13- PROVIDE SECTIONALIZING AND FLOW SWITCHES FOR ALL CONNECTION TO RISER.
- 14- PIPE SHALL BE OF SCHEDULE 40 & SHALL CONFORM TO ASTM OR ANSI/ASTM A-120 OR API-5L. FOR PIPE SIZES LARGER THAN 50MM, THE FITTING SHALL ANSIB16-9 FOR FLANGED BECK BUTT WELDED TYPE, FITTING SIZE 50MM & SMALLER SHALL BE TREATED MELEABLE IRON FITTINGS SHALL CONFORM TO ANSI B-16-3, CLASS 150.
- 15- PROVIDE UNION @ EACH THREADED OR WELDED CONNECTION TO EQUIPMENT & VALVES UP TO 50mm.
- 16- VALVES RATING SHALL MEET OR EXCEED THEIR RESPECTIVE SYSTEM OPERATING PRESSURE AND TEMPERATURE. ALL VALVE SHALL BE LINE SIZE UNLESS OTHERWISE SPECIFIED.
- 17- PIPE SHALL BE PAINTED W/ ONE (1) COAT PRIME & TWO (2) COATS FINAL.
- 18- SPACING OF SPRINKLER & BRANCH LINE SHALL CONFORM TO THE DRAWINGS.
- 19- A MINIMUM OF 50MM CLEARANCE SHALL BE PROVIDED AROUND PIPING EXTENDED THROUGH WALL, FLOORS, PLATFORMS & FOUNDATION, INCLUDING DRAINS & OTHER AUXILIARY PIPING.
- 20- JOINT COMPOUND OR TAPE SHALL BE APPLIED TO THE THREADS OF THE PIPE & NOT IN FITTING.
- 21- PIPE HANGER SHALL BE IN SUCH THAT COULD SUPPORT FIVE TIMES THE WEIGHT OF THE WATER FILLED PIPE PLUS 114KG @ EACH POINT OF PIPING SUPPORT.
- 22- MAXIMUM DISTANCE BETWEEN HANGERS SHALL NOT EXCEED 3.66M (12FT.) FOR 25mm OR 4.27(15FT.) FOR 38MM & LARGER DIAMETER.

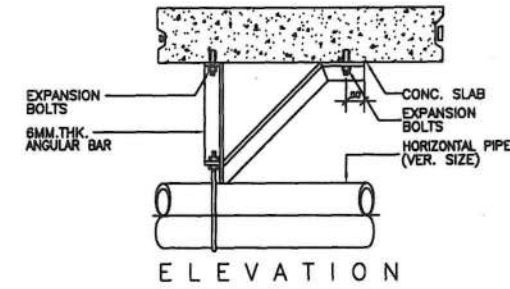
LEGEND & SYMBOLS

ABBREVIATIONS	DESCRIPTION
	END CAP
	PENDENT TYPE SPRINKLER HEADS (CHROME FINISHED 1/2" ESCUTCHEON PLATE)
	UPRIGHT TYPE SPRINKLER HEADS
	PENDENT TYPE SPRINKLER HEADS (CONCEALED TYPE)
	SIDEREAL TYPE SPRINKLER HEADS, EXTENDED COVERAGE TYPE
	CHECK VALVE, FLANGED
	OS & Y GATE VALVE, FLANGED
	CHECK VALVE, SCREWED
	OS & Y GATE VALVE, SCREWED
	PRESSURE RELIEF VALVE WITH ENCLOSED TESTCOCK DISCHARGE TO DRAIN
	WATER FLOW DETECTOR
	OS & Y GATE VALVE WITH SUPERVISORY SWITCH
	ALARMED CHECK VALVE ASSEMBLY
	SPRINKLER RISER
	SIGHT GLASS
	DRAIN VALVE
	FIRE DEPARTMENT CONNECTION 65 x 65 x 100
	HANGER SUPPORT
	LATERAL SWAY BRACE
	LONGITUDINAL SWAY BRACE
	FOUR WAY RISER BRACE
	RISER NIPPLE
	FLEXIBLE CONNECTOR
	REDUCER (ECCENTRIC)
	REDUCER (CONCENTRIC)
	FLOW METER DEVICE
	AUTOMATIC FIRE SPRINKLER SYSTEM
	FLOOR CONTROL VALVE
	FIRE HOSE CABINET

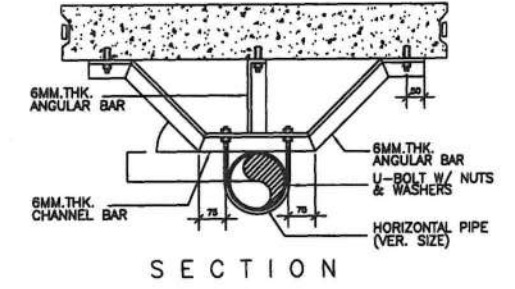


ELEVATION
PIPE BRACKET

PIPE SIZE	U-BOLT DIA.	ANGLE BAR	EXPANSION BOLT
50	10	50 X 50	10
65	10	50 X 50	10
75	10	50 X 50	10
100	12	65 X 65	12

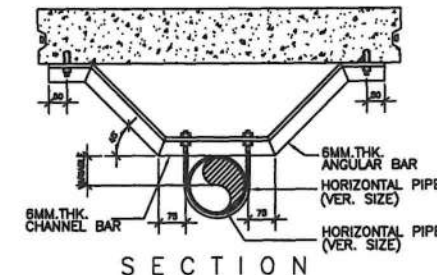


ELEVATION



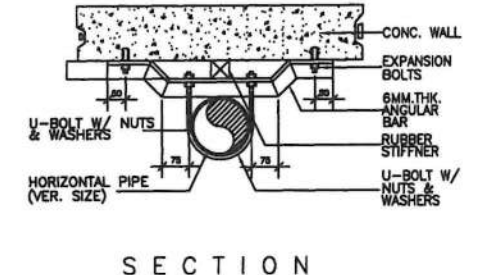
SECTION

LONGITUDINAL BRACE



SECTION

LATERAL BRACE



SECTION

4-WAY SWAY BRACE



FIRE PUMP EQUIPMENT SCHEDULE

TAG	QUANTITY	UNIT DESIGNATION	AREA SERVED	TYPE	WATER FLOW GPM	TOTAL DYNAMIC HEAD/FT	MOTOR DATA			ELECTRICAL CHARACTERISTICS			REMARKS
							DRIVE	HP	RPM	VOLTS	PHASE	CYCLE	
FP GF	1 SET	FIRE PUMP	GROUND FLOOR LEVEL	VERTICAL TURBINE FIRE PUMP	350	250	DIRECT	40	3,450	VERIFY EE	3	60	UNIT SHALL BE MOUNTED ON A COMMON STEEL BASE, VIBRATION ISOLATOR COMPLETE WITH MAGNETIC MOTOR CONTROLLER AND OTHER STANDARD ACCESSORIES.
JP GF	1 SET	JOCKEY PUMP	GROUND FLOOR LEVEL	VERTICAL TURBINE JOCKEY PUMP	35	250	DIRECT	4	3,450	VERIFY EE	3	60	UNIT SHALL BE MOUNTED ON A COMMON STEEL BASE, VIBRATION ISOLATOR COMPLETE WITH MAGNETIC MOTOR CONTROLLER AND OTHER STANDARD ACCESSORIES.

ABBREVIATIONS

ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION	ABBREVIATIONS	DESCRIPTION
AV	AUTOMATIC AIR VENT	FDC	FIRE DEPARTMENT CONNECTION	WFS	WATER FLOW SWITCH	LPM	LITERS PER MINUTES	TYP	TYPICAL		
ACV	ALARM CHECK VALVE	PHC	FIRE HOSE CABINET	GV	GATE VALVE	F/A	FROM ABOVE	T/A	TO ABOVE	M	METER
SV	SHALL VALVE	PHV	FIRE HOSE VALVE	GPM	GALLONS PER MINUTE	F/B	FROM BELOW	T/B	TO BELOW		
FC	FLUSHING CONNECTION	RN	RISER NIPPLE	LPS	LITERS PER SECOND	PRV	PRESSURE REDUCING/RESTRICTING RELIEF VALVE	C/W	COMPLETE WITH		



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NATIONAL CAPITAL REGION
METRO MANILA FIRST DISTRICT ENGINEERING OFFICE
WEST BANK ROAD, MANGGAHAN FLOODWAY
ROSARIO, PASIG CITY

PROJECT TITLE

CONSTRUCTION OF SIX (6) STOREY
ACADEMIC BUILDING, PAICOE, AIR,
PHILIPPINE ARMY, LEGASPI COMPOUND,
FORT BONIFACIO, TAGUIG CITY, PHASE V

SHEET CONTENTS

AS SHOWN

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CHECKED BY

MARY JESSICA P. HONRADE
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EDUARDO B. DEL ROSARIO
OIC - ASSISTANT DISTRICT ENGINEER

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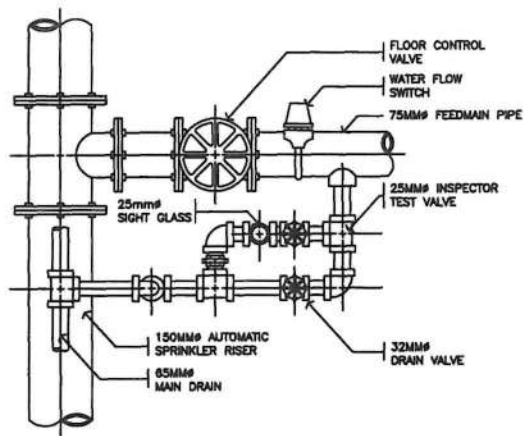
ARISTOTLE B. RAMOS
DISTRICT ENGINEER

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TAG

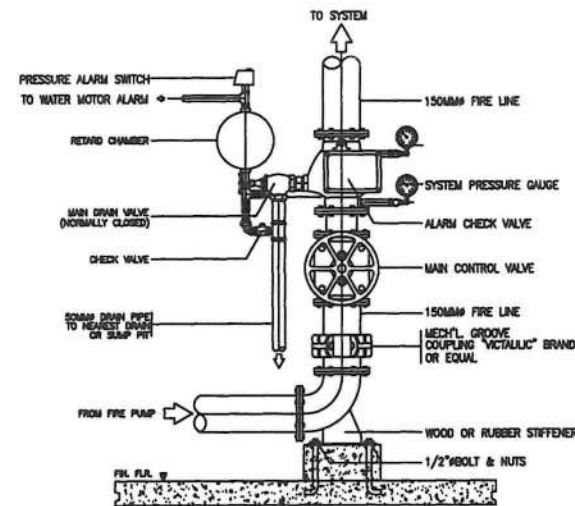
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FP-01



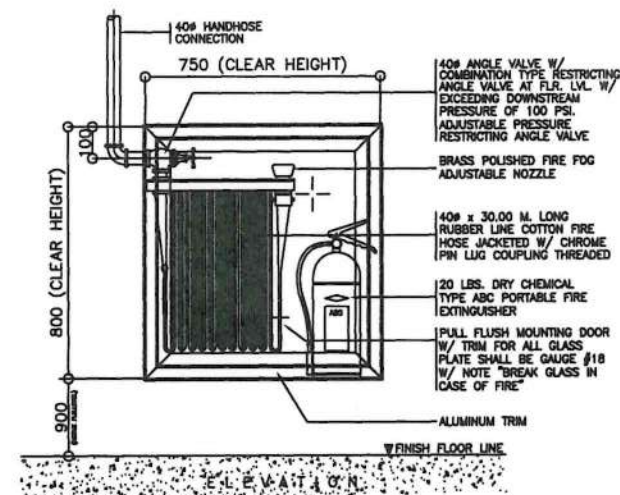
1 FLOOR CONTROL VALVE DETAIL

FP 02 SCALE NTS



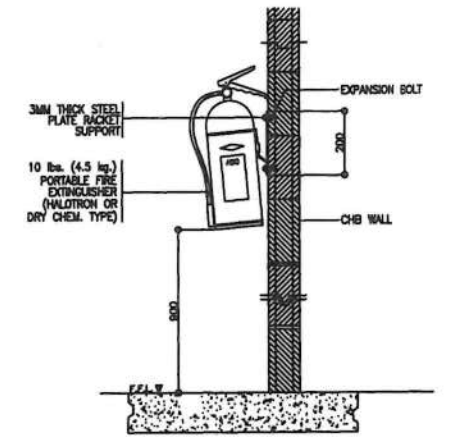
4 ALARM CHECK VALVE DETAIL

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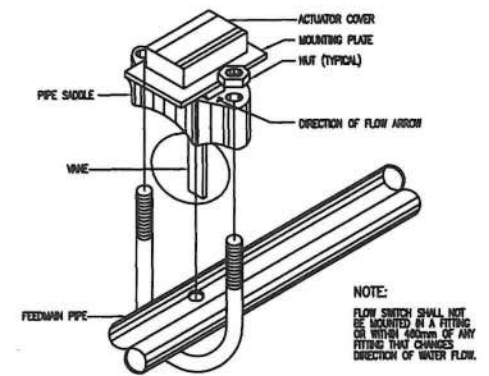
7 FIRE HOSE CABINET DETAIL

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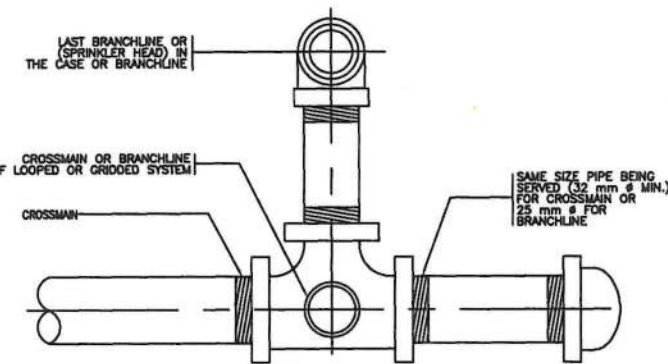
PORTABLE FIRE EXTINGUISHER MOUNTING DETAIL

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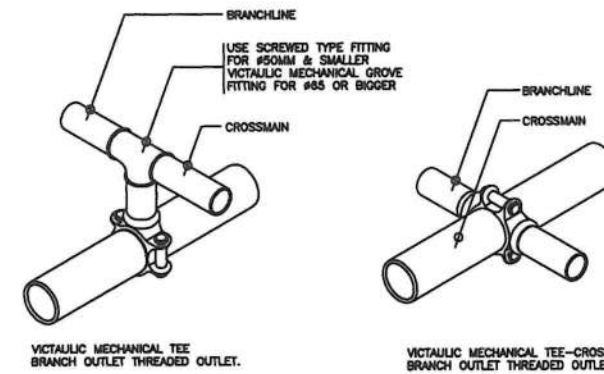
2 FLOW SWITCH INSTALLATION DETAIL

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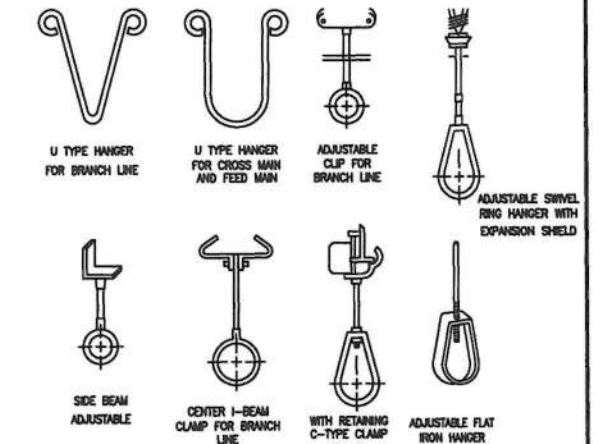
5 FLUSHING CONNECTION DETAIL

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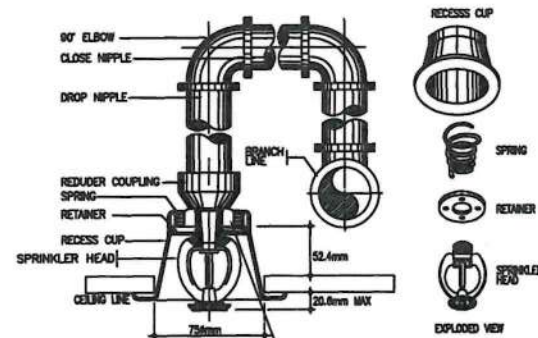
8 CROSSMAIN TO BRANCH LINE CONNECTION DETAIL

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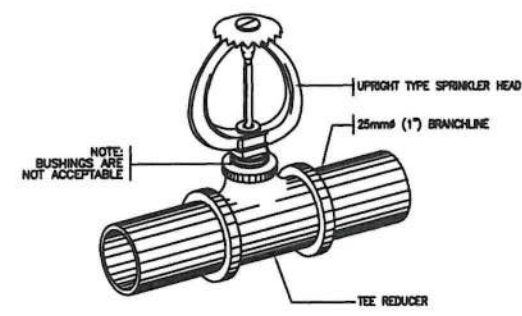
11 ACCEPTABLE TYPES OF HANGERS

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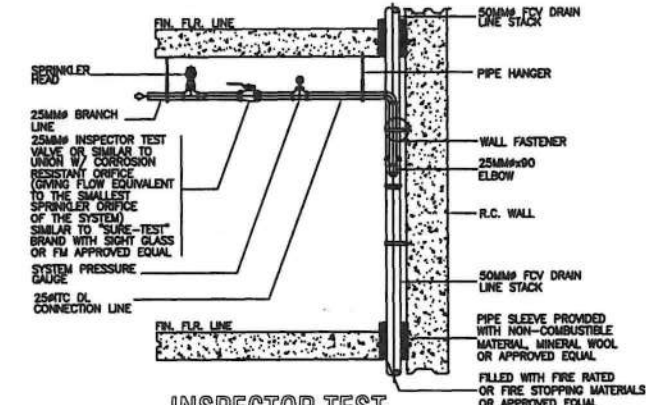
3 PENDENT TYPE W/ ESCUTCHEON PLATE SPRINKLER HEAD DETAIL

FP 02 SCALE NTS



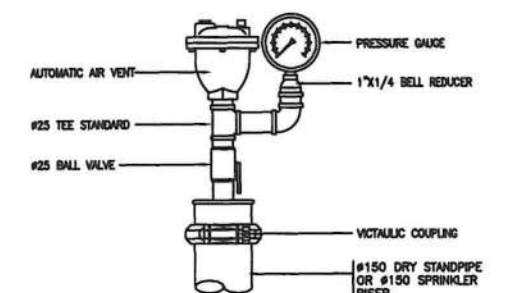
6 UPRIGHT TYPE SPRINKLER HEAD DETAIL

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9 INSPECTOR TEST CONNECTION DETAIL

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12 AUTOMATIC AIR VENT ASSEMBLY DETAIL (AAV)

FP 02 SCALE NTS



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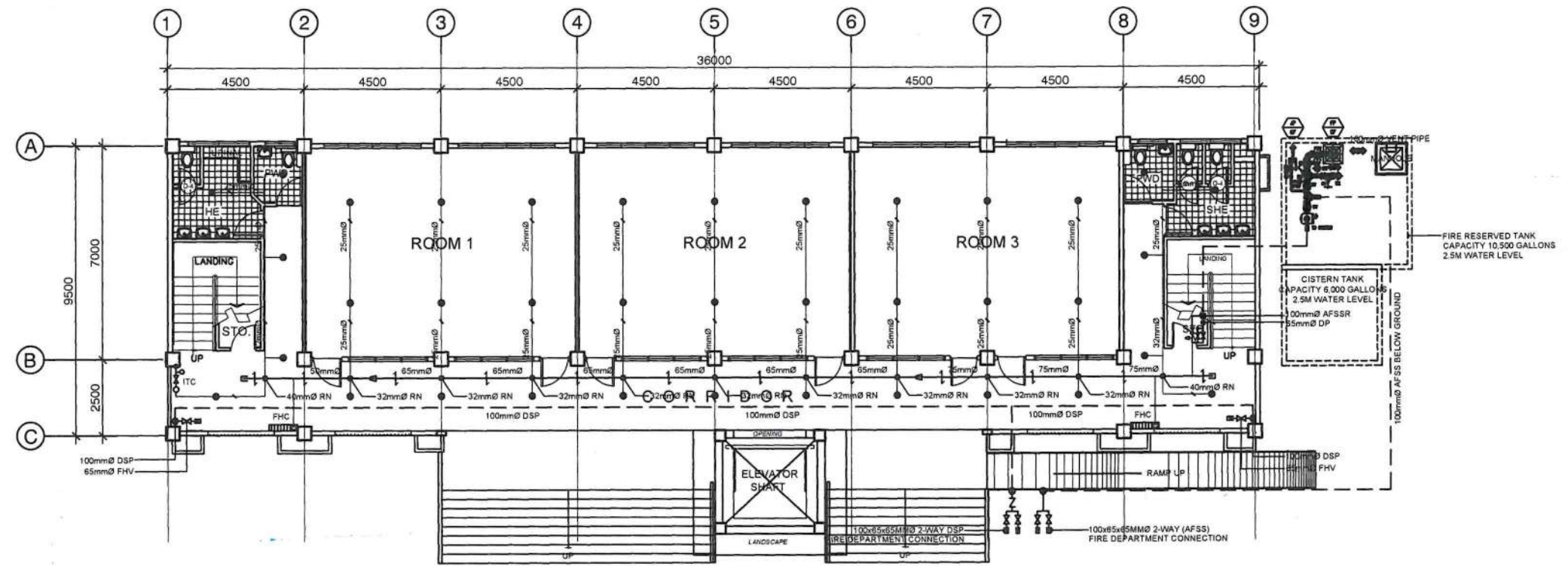
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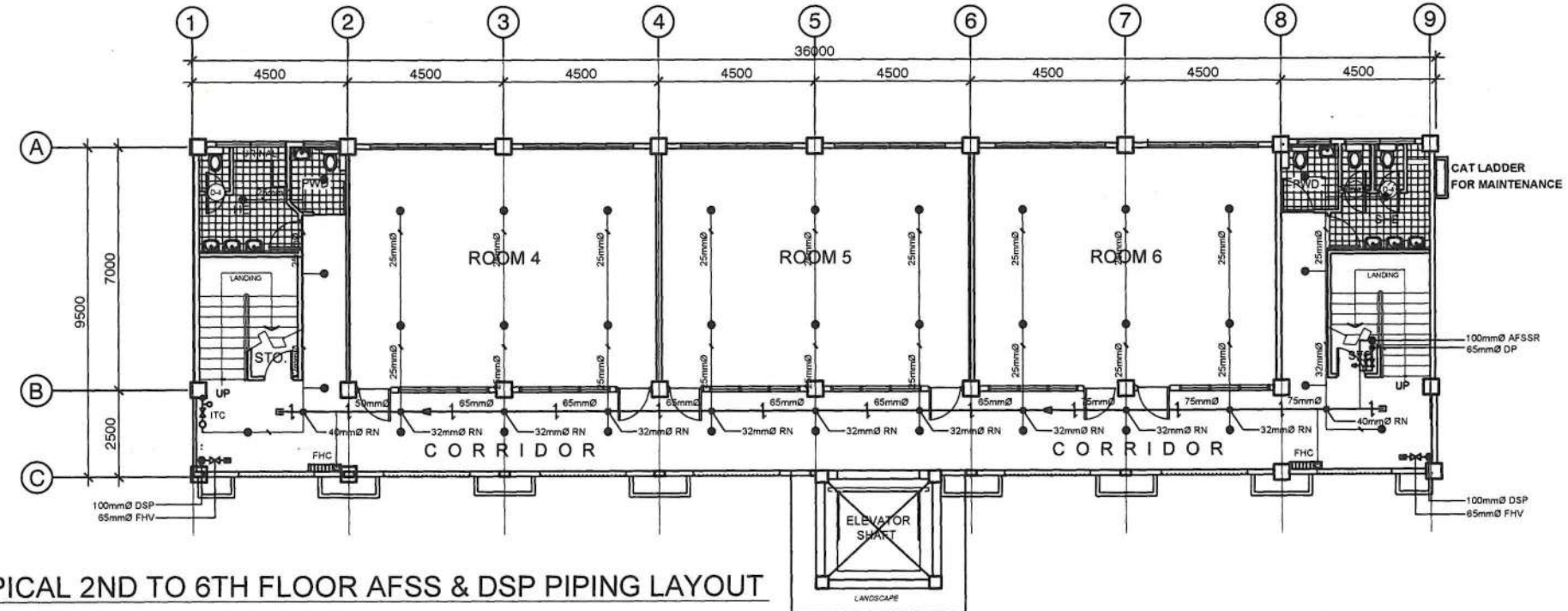
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SHEET


FP-02



1
GROUND FLOOR AFSS & DSP PIPING LAYOUT
FP - 03



2
TYPICAL 2ND TO 6TH FLOOR AFSS & DSP PIPING LAYOUT
FP - 03

 <p>REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS NATIONAL CAPITAL REGION METRO MANILA FIRST DISTRICT ENGINEERING OFFICE WEST BANK ROAD, MANGGAHAN FLOODWAY, ROSARIO, PASIG CITY</p>	PROJECT TITLE	SHEET CONTENTS	DRAWN BY:	CHECKED BY	SUBMITTED BY	RECOMMENDING APPROVAL	APPROVED BY	SET	SHEET
	CONSTRUCTION OF SIX (6) STOREY ACADEMIC BUILDING, PAICOE, AIR, PHILIPPINE ARMY, LEGASPI COMPOUND, FORT BONIFACIO, TAGUIG CITY, PHASE V	AS SHOWN	FRITZIE ROSE C. UY ARCHITECT II	MARY JESSICA P. HONRADE ENGINEER II	ELINO V. CASTRO CHIEF, PLANNING AND DESIGN SECTION	EDUARDO B. DEL ROSARIO OIC - ASSISTANT DISTRICT ENGINEER	ARISTOTLE B. RAMOS DISTRICT ENGINEER	TAG	FP-03
			GERARDO G. MENDOZA ENGINEER II	DATE:	DATE:	DATE:	DATE:		