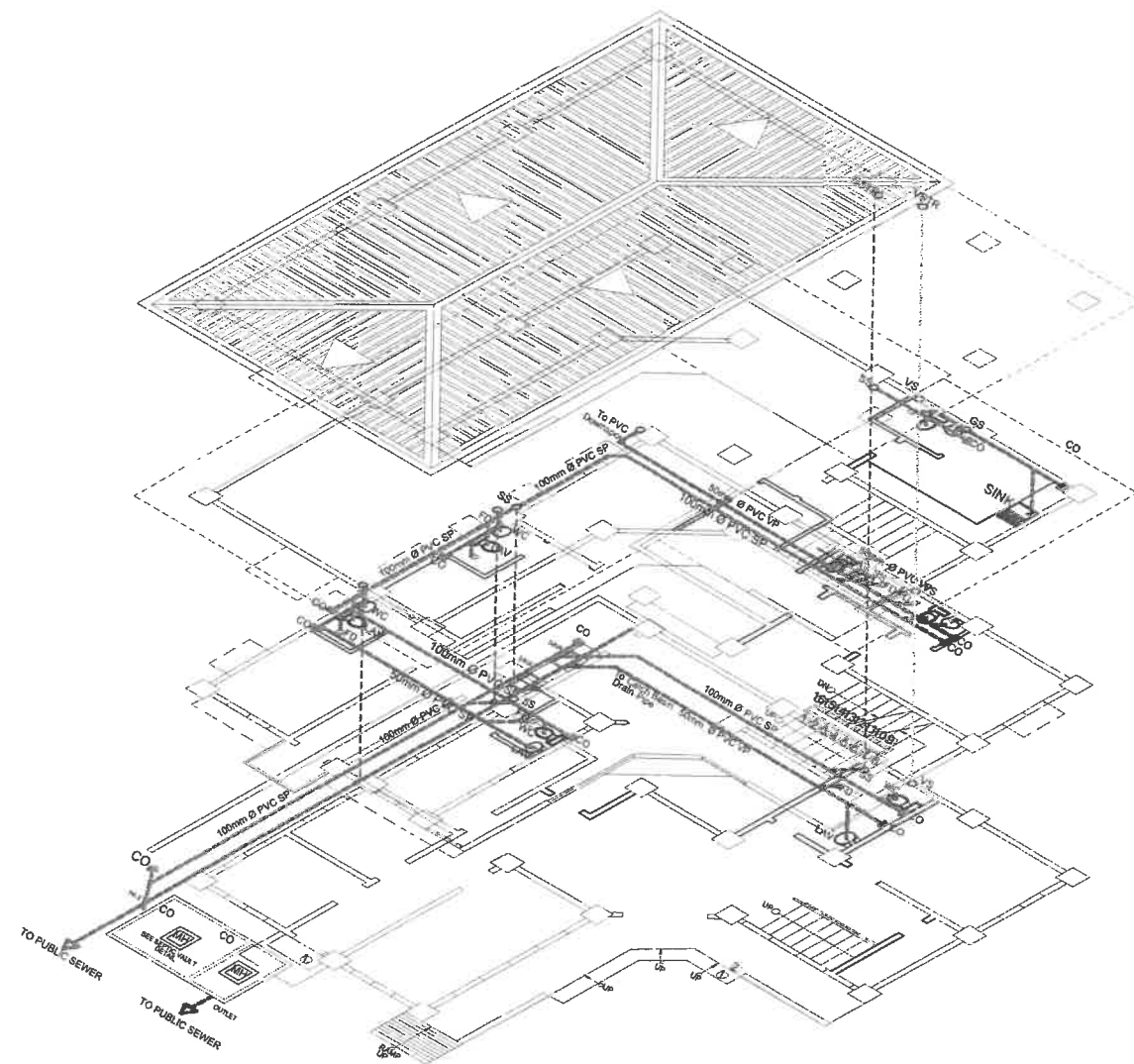
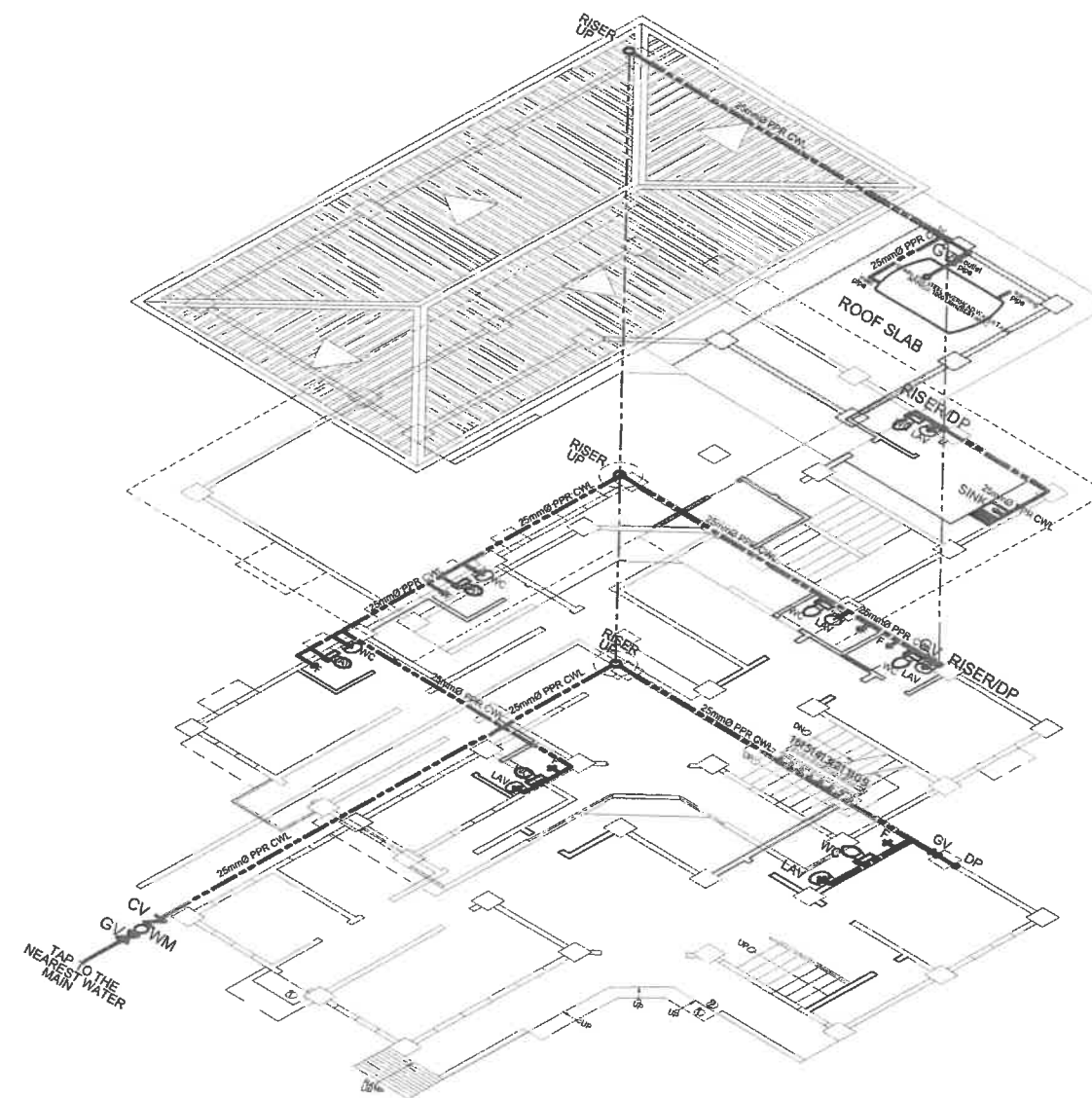


LEGEND:
NOT INCLUDED IN PHASE II
(PLUMBING, WATER PIPE, WATERPUMP ETC)



1 ISOMETRIC LAYOUT/SANITARY LINE
P-6 SCALE: 1:100M



2 ISOMETRIC LAYOUT/WATERLINE LINE
P-6 SCALE: 1:100M



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Catarman, Northern Samar

PROJECT NAME & LOCATION:

CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENTS:

ISOMETRIC DIAGRAM/SANITARY LINE LAYOUT
ISOMETRIC DIAGRAM/WATERLINE LAYOUT

PREPARED:

BURT BRUCE LUCINARIO
ARCHITECT II

REVIEWED:

MAE DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION
Date:

SUBMITTED:

ANDY S. FREÑO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:

VIVIAN G. BIACO
ASST. DISTRICT ENGINEER

APPROVED:	
-----------	--

ALVIN A. IGNACIO
DISTRICT ENGINEER

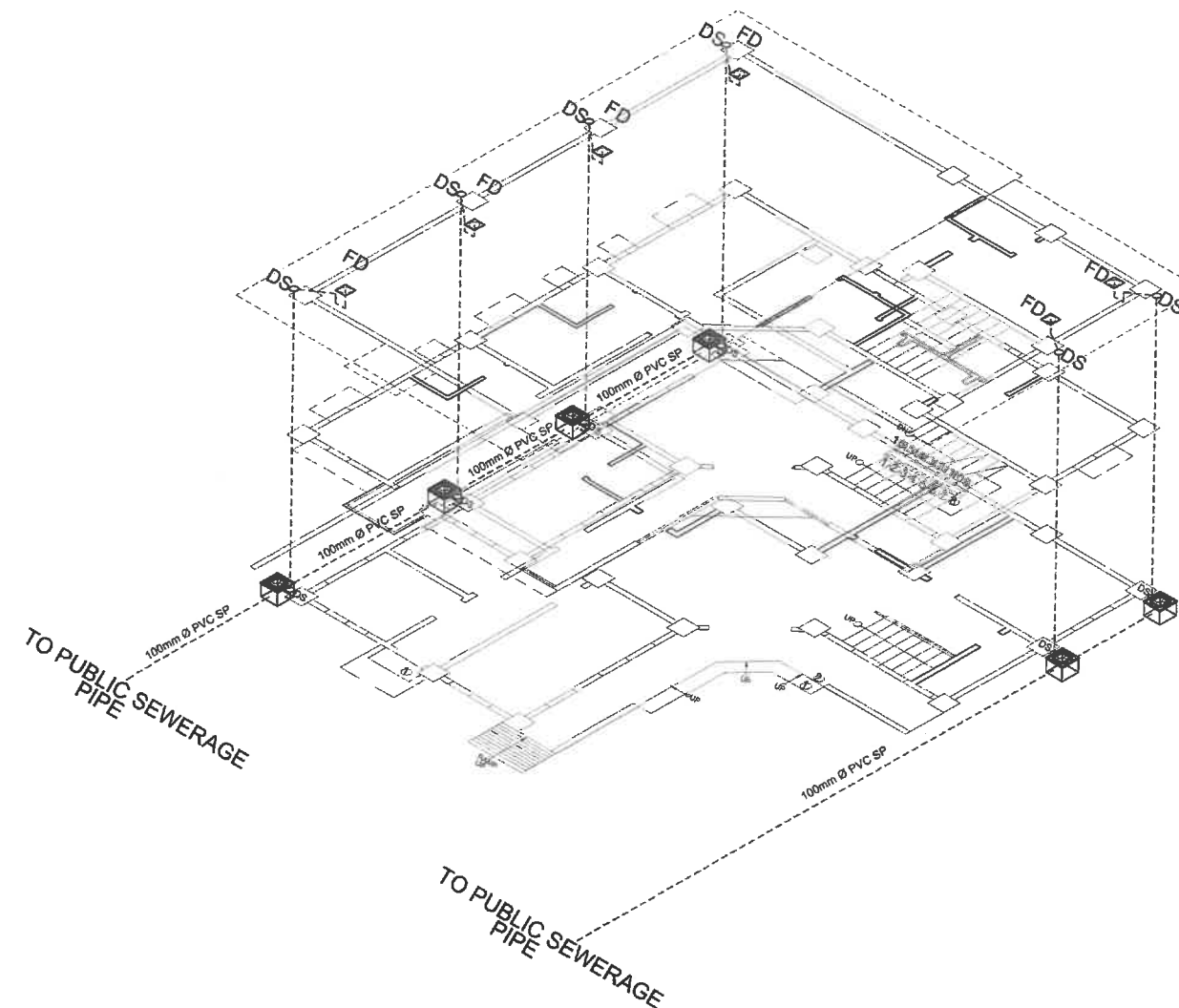
SET No.

P-6

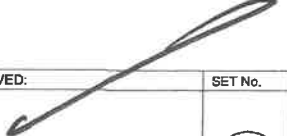
SHEET No.

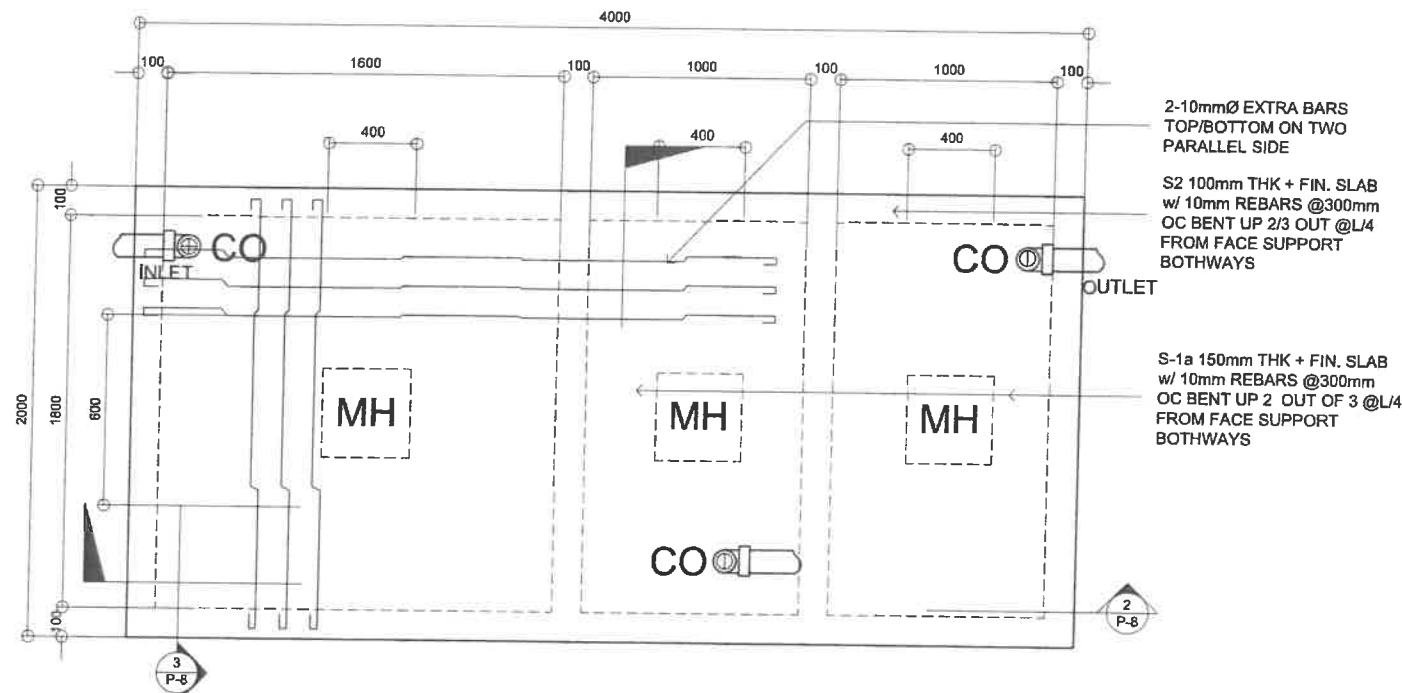
$$\frac{53}{84}$$

LEGEND:
NOT INCLUDED IN PHASE II
(PLUMBING, WATER PIPE, WATERPUMP ETC)



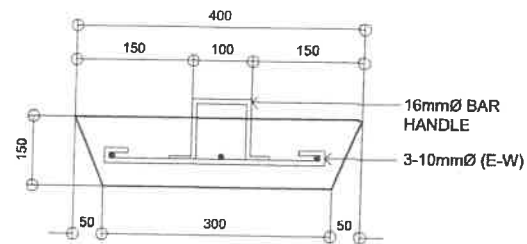
1 ISOMETRIC LAYOUT/STORMWATER LAYOUT
P-7 SCALE: 1:100M

 Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE No. VIII NORTHERN SAMAR FIRST DISTRICT ENGINEERING OFFICE Cataman, Northern Samar	PROJECT NAME & LOCATION: CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR	SHEET CONTENTS: ISOMETRIC DIAGRAM/WATERLINE LAYOUT	PREPARED:  BURT B. LUCINARIO ARCHITECT II	REVIEWED:  MAR DONALD N. EIMAN ASST. CHIEF, PLANNING & DESIGN SECTION	SUBMITTED:  ANDY S. ERENO CHIEF, PLANNING & DESIGN SECTION	RECOMMENDED:  VIVIAN B. BIACO ASST. DISTRICT ENGINEER	APPROVED:  ALVIN A. IGNACIO DISTRICT ENGINEER	SET No. SHEET No. P-7 54 84
--	--	--	---	---	--	---	---	---



1 DETAIL PLAN OF SEPTIC VAULT
P-8 SCALE: 1:40M

LEGEND:
NOT INCLUDED IN PHASE II
(PLUMBING, WATER PIPE, WATERPUMP ETC)



4 MANHOLE COVER DET.
P-8 SCALE: 1:40M

GENERAL NOTES

- GRADES OF HORIZONTAL PIPINGS
RUN ALL HORIZONTAL PIPINGS PERFECT ALIGNMENT AND AT A GRADE NOT LESS THAN 2%.
- CHANGE IN DIRECTION
ALL CHANGE IN DIRECTION SHALL BE MADE APPROPRIATE USE OF FORTY-FIVE DEGREES (45°) WYES, LONG WEEP QUARTER BEND, SIXTH EIGHT OR SIXTEENTH BEND. WHEN THE CHANGE OF FLOW IS FROM HORIZONTAL AND VERTICAL, A SINGLE $\frac{1}{8}$ BEND COMBINATION MAY BE USE ON VERTICAL STACK, AND SHORT QUARTER BENDS MAY BE USE ON WASTE LINE, TEE AND CROSSES MAYBE USED IN BENT PIPES.
- PROHIBITED FITTINGS:
NO DOUBLE HUB OR TEE BRANCE SHALL BE USED ON HORIZONTAL SOIL AND WASTE LINES, THE DRILLINGS AND THE TAPPING OF HOUSE DRAIN, WASTE OR VENT PIPES AND USE OF SADDLE HUB AND BEND ARE PROHIBITED.
- PIPE CLEAN-OUTS
CLEAN-OUTS ARE REQUIRED UNDER THE FOLLOWING CONDITIONS:
a. EVERY CHANGE IN HORIZONTAL DIRECTION EXCEEDING TWENTY TWO AND HALF DEGREES (22 1/2°).
b. ONE AND ONE-HALF METERS (1.50m) INSIDE THE PROPERTY LINES BEFORE THE HOUSE DRAINAGE CONNECTION.
c. EVERY FIFTEEN METER (15.00) IN HORIZONTAL RUN OF PIPES.
d. AT THE END OF ANY HORIZONTAL PIPE LINES.
- THE DIGESTION CHAMBER OF SEPTIC VAULT MUST BE WATERPROOFED.
- NOT LESS THAN 0.30M OF AIR SPACE MUST BE LEFT BETWEEN THE TOP OF THE SEWAGE AND THE UNDER PART OF VAULT ROOF SLAB.
- NO SEPTIC VAULT SHALL BE CONSTRUCTED UNDER THE BUILDING.
- ALL PLUMBING WORKS SHALL BE UNDER THE SUPERVISION OF A LICENSED MASTER PLUMBER AND A LICENSED PLUMBING CONTRACTOR.

DESIGN CRITERIA

i. LIVE LOAD _____ 1000Pa

ii. ALLOWABLE STRESS

1. CONCRETE

a. FOR FOOTING, BEAMS, AND SLABS
 $f_c' = 20\text{MPa}$

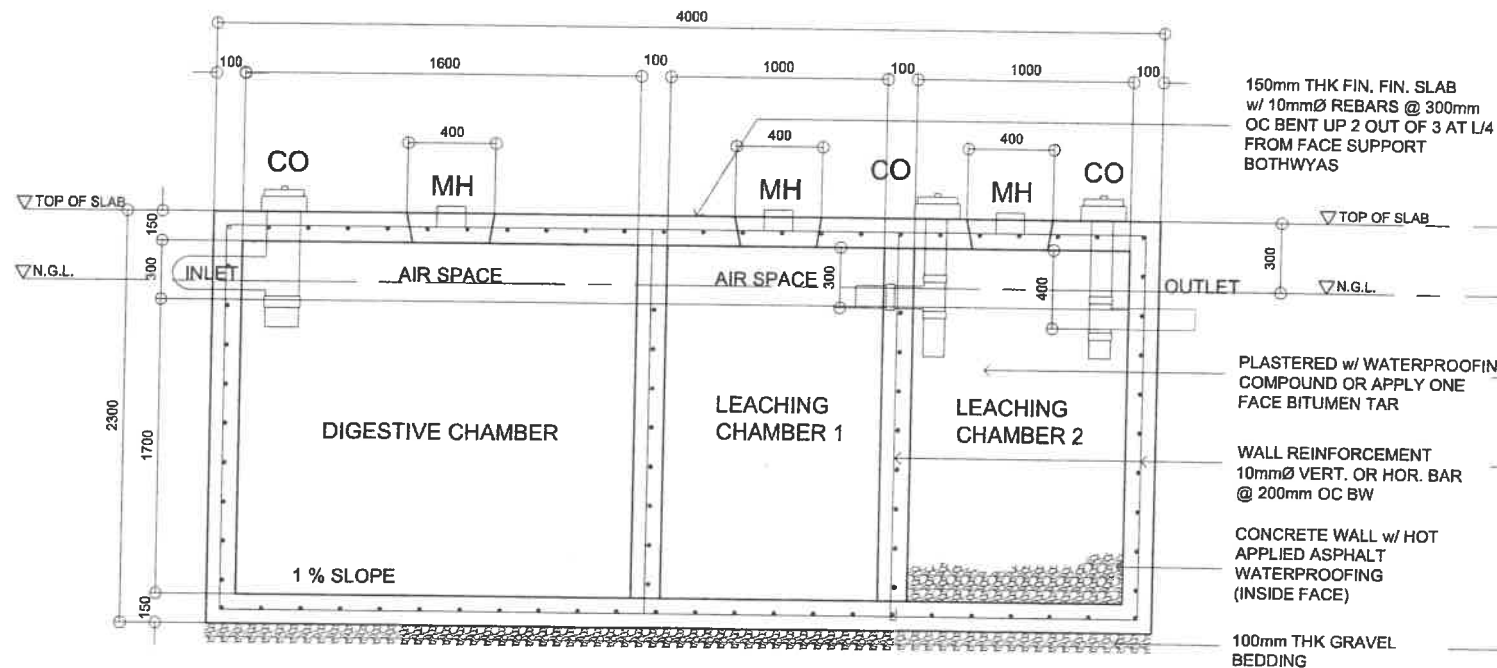
2. CONCRETE MASONRY UNITS (LOAD BEARING CHB)
 $f_m' = 6.90\text{MPa}$, $f_m = 2.41\text{MPa}$

3. REINFORCING STEEL BARS
FOR BARS SMALLER THAN 16mmØ
 $f_y = 230\text{MPa}$

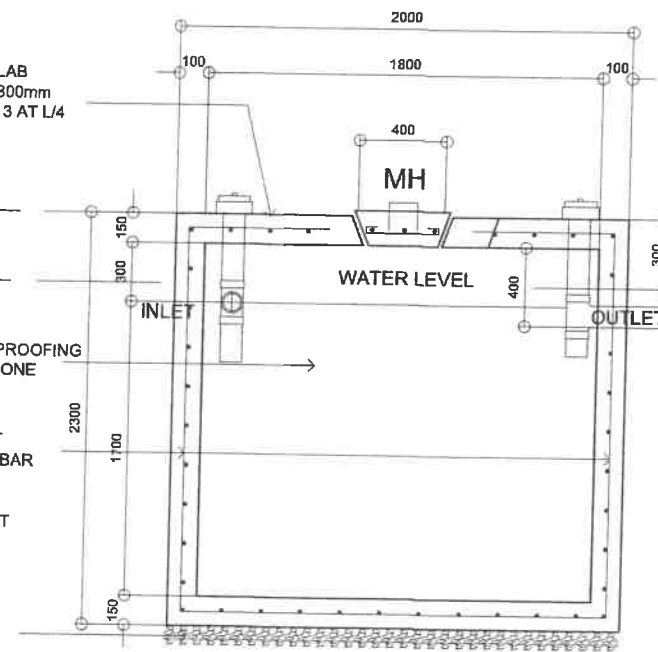
NOTE: WATER TABLE IS 1500 BELOW GROUND LEVEL

LEGEND:

CV	CHECK VALVE
HB	HOSE BIBB
FD	FLOOR DRAIN
PPR	POLYPROPYLENE COLD WATER
PPR	POLYPROPYLENE COLD WATER
GV	GATE VALVE
MH	MANHOLE
CO	CLEAN OUT
PVCSP	POLYVINYL CHLORIDE SOIL PIPE
PVCVAC	POLYVINYL CHLORIDE VENT, ACROSS CEILING
PVCVP	POLYVINYL CHLORIDE VENT, PIPE
PVCVS	POLYVINYL CHLORIDE VENT STACK
VTR	POLYVINYL CHLORIDE VENT TRU ROOFWALL
PVCWP	POLYVINYL CHLORIDE WASTE PIPE
RD	ROOF DRAIN
UR	URINAL DRAIN
WC	WATER CLOSET
LAV	LAVATORY
KS	KITCHEN SINK
GV	GATE VALVE
CV	CHECK VALVE
WM	WATER METER
PL	PLUMBING LINE/ STORM DRAIN
WL	WATER LINE
SL	STORM LINE
VP	VENT PIPE



2 LONGITUDINAL SECTION
P-8 SCALE: 1:40M



3 CROSS SECTION
P-8 SCALE: 1:40M



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Catamaran, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, N. SAMAR

SHEET CONTENTS:
ISODetail Plan of Septic Vault
LONGITUDINAL SECTION
CROSS SECTION
MANHOLE COVER DETAIL

PREPARED:

BURT B. LUCINARIO
ARCHITECT II

REVIEWED:

MAR DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION
Date:

SUBMITTED:

ANDY S. ERENO
CHIEF, PLANNING & DESIGN SECTION
Date:

RECOMMENDED:

ALVIN A. IGNACIO
ASST. DISTRICT ENGINEER
Date:

APPROVED:

ALVIN A. IGNACIO
DISTRICT ENGINEER
Date:

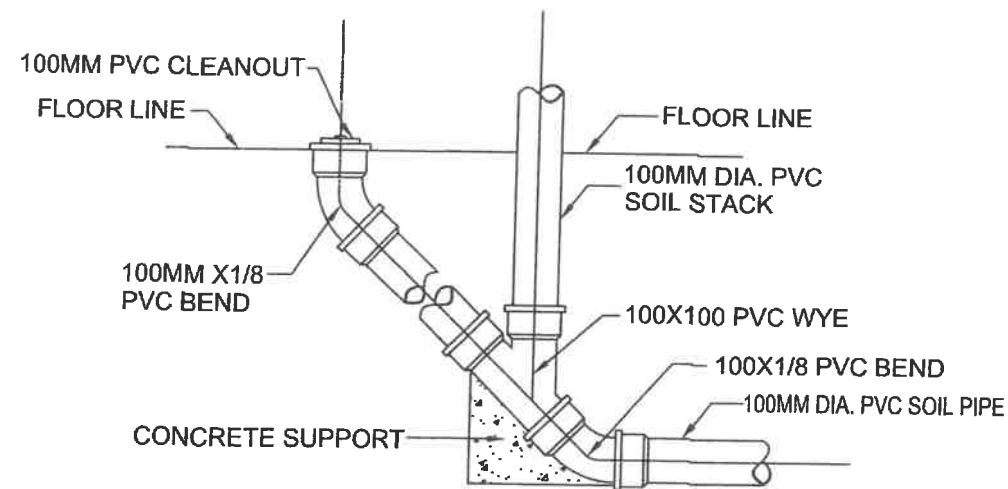
SET No.

P-8

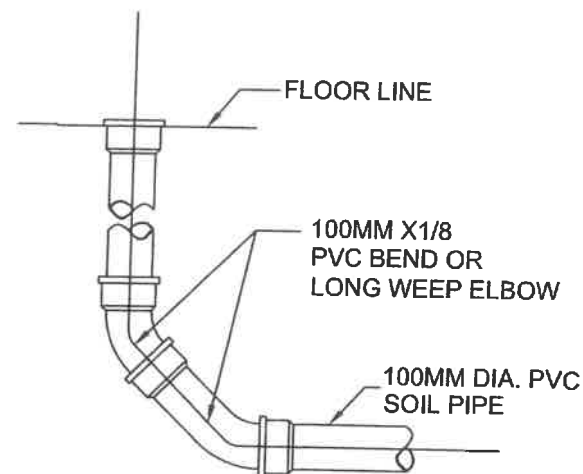
SHEET No.

55

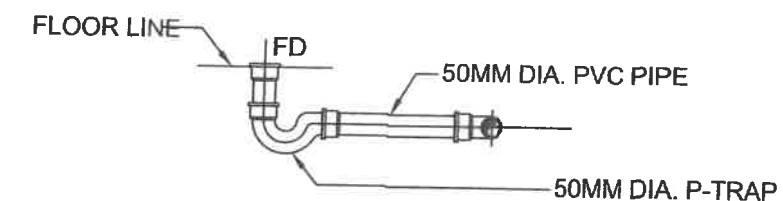
84



FOR SOIL STACK TO HOUSE DRAIN
scale: 1:5m

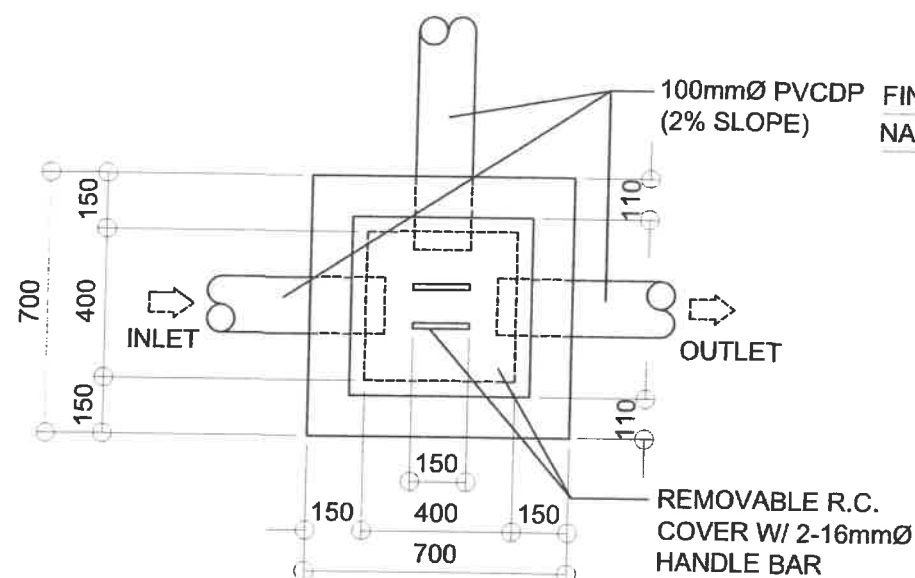


FOR WATER CLOSET
scale: 1:5m

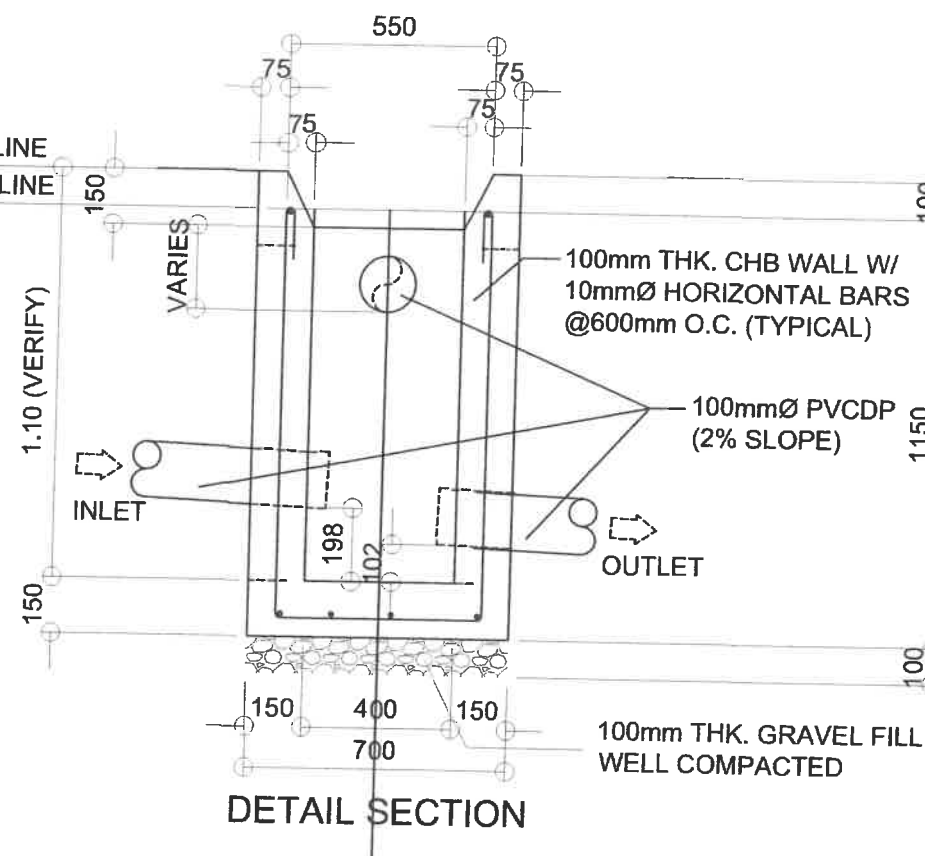


FOR FLOOR DRAIN
scale: 1:5m

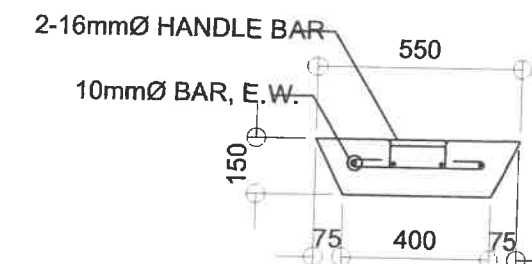
LEGEND:
NOT INCLUDED IN PHASE II
(PLUMBING, WATER PIPE, WATERPUMP ETC)



DETAIL PLAN



DETAIL SECTION



REMOVABLE CB COVER

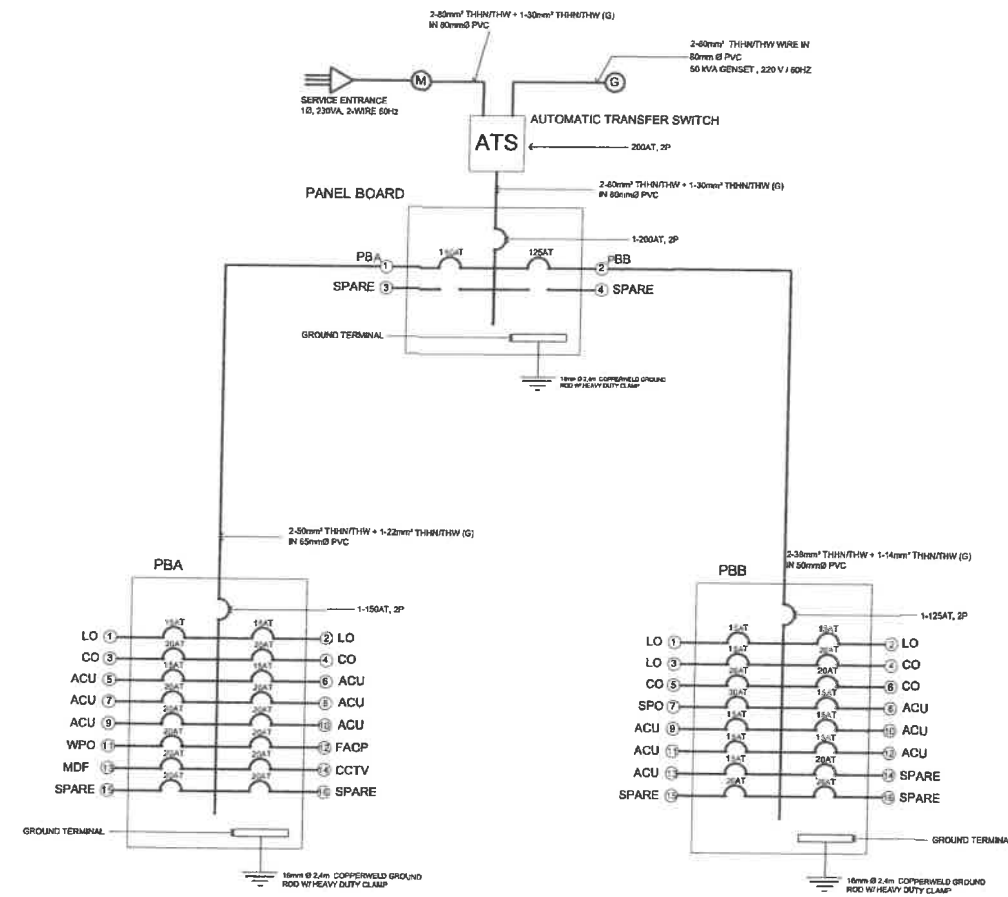
Republic of the Philippines DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS REGIONAL OFFICE No. VIII NORTHERN SAMAR FIRST DISTRICT ENGINEERING OFFICE Catamaran, Northern Samar	PROJECT NAME & LOCATION: CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING, UNIVERSITY OF EASTERN PHILIPPINES, CATAMARAN, NORTHERN SAMAR	SHEET CONTENTS: FOR SOIL STACK TO HOUSE DRAIN FOR WATER CLOSET DET. FOR FLOOR DRAIN DET. DETAIL PLAN CB DETAIL SECTION CB REMOVABLE COVER DET.	PREPARED: BURT BUNDO F. LUCINARIO ARCHITECT II	REVIEWED: MAR DONALD N. EIMAN ASST. CHIEF, PLANNING & DESIGN SECTION	SUBMITTED: ANDY S. EREÑO CHIEF, PLANNING & DESIGN SECTION	RECOMMENDED: VIVIAN C. BIACO ASST. DISTRICT ENGINEER	APPROVED: ALVIN A. IGNACIO DISTRICT ENGINEER	SET No. P-9	SHEET No. 56 84
---	---	---	---	---	--	---	---	------------------------	--------------------------------

GENERAL NOTES

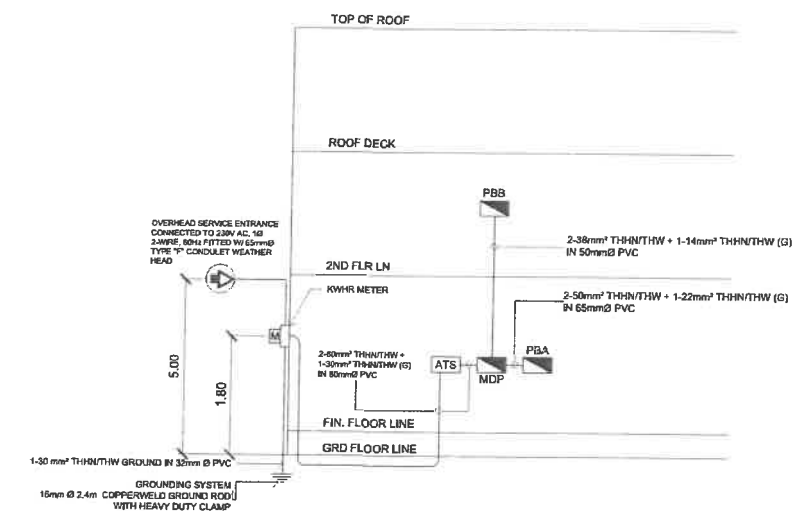
- ALL ELECTRICAL WORKS SHALL COMPLY W/ THESE PLANS AND SPECIFICATIONS. THE APPLICABLE PROVISION OF THE LATEST EDITION OF THE PHILIPPINE ELECTRICAL CODE (PEC), THE RULES AND REGULATIONS OF THE LOCAL ENFORCING AUTHORITY AND THE REQUIREMENTS OF THE LOCAL POWER COMPANY.
- THE ELECTRICAL SERVICE POWER SHALL BE 1-PHASE, 3-WIRE, 230V AC, 60Hz.
- WIRING METHOD SHALL BE AS FOLLOWS:
RIGID STEEL CONDUIT OR POLYVINYL CHLORIDE CONDUIT SCHEDULE 40 SHALL BE USED AS SPECIFIED PLAN.
- ALL WIRES SHALL BE COPPER AND THERMOPLASTIC INSULATED TYPE "THHN" UNLESS OTHERWISE INDICATED IN THE PLAN. THE MINIMUM SIZE WIRE FOR POWER AND LIGHTING CIRCUIT HOMERUNS SHALL BE 2.0mm² AND INSULATED FOR 600VOLTS. LIKE WISE, ALL CONDUCTORS SHALL BE COLOR CODED. SMALLEST RACEWAYS SHALL BE 15mmØ. (NOMINAL)
- ALL OUTLET BOXES SHALL BE GALVANIZED GAGE NO.16 DEEP TYPE.
- ALL MATERIALS TO BE USED SHALL BE BRAND NEW AND APPROVED FOR THE PARTICULAR LOCATION AND USAGE.
- EQUIPMENT GROUNDING SYSTEM SHALL BE PROVIDED TO THE ELECTRICAL SYSTEM AS PER PHILIPPINE ELECTRICAL CODE REQUIREMENT.
- MOUNTING HEIGHT OF WIRING DEVICES SHALL BE AS FOLLOWS:
 - LIGHT SWITCH -1200MM ABOVE FINISH FLOOR
 - CONVENIENCE OUTLET - 300MM ABOVE FINISH FLOOR
 - PANELBOARDS -1500MM ABOVE FINISH FLOOR
- ALL ELECTRICAL WORKS SHALL BE DONE UNDER THE DIRECT AND IMMEDIATE SUPERVISION OF A DULY REGISTERED ELECTRICAL ENGINEER.

LEGEND:

SYMBOL	DESCRIPTION
	6'D PIN LIGHT w/ 1-18 WATTS LED Light Bulb
	20 WATTS WALL LAMP w/ E27 Base
	9 WATTS LED LIGHT BULB
	ONE-GANG SWITCH
	TWO-GANG SWITCH
	THREE-GANG SWITCH
	THREE-WAY SWITCH
	RACEWAY CONDUIT CONCEALED IN CEILING
	RACEWAY CONDUIT CONCEALED UNDER FLOOR
	PANEL BOARD, MARKED AS "PB"
	AUTOMATIC TRANSFER SWITCH
	CKT. BREAKER, RATING AS INDICATED
	DUPLEX CONVENIENCE OUTLET, GROUNDING TYPE 15 AMPS, 240 VOLTS
	DUPLEX FLOOR OUTLET, GROUNDING TYPE 15 AMPS, 240 VOLTS
	WEATHERPROOF DUPLEX CONVENIENCE OUTLET, GROUNDING TYPE 15 AMPS, 240 VOLTS
	WATER PUMP OUTLET (NEMA 3R ENCLOSURE)
	ACU OUTLET (NEMA 3R ENCLOSURE)
	EMERGENCY LIGHT OUTLET
	EXIT LIGHT OUTLET
	VOICE/DATA OUTLET
	CIRCUIT HOMERUN
	SERVICE METER
	SERVICE ENTRANCE



1 SINGLE LINE DIAGRAM
E-1 SCALE: NTS



2 ELECTRICAL RISER DIAGRAM
E-1 SCALE: NTS



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Cataman, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR

SHEET CONTENTS:
GENERAL NOTES
LEGEND
SINGLE LINE DIAGRAM
ELECTRICAL RISER DIAGRAM

DESIGNED:

MARY JOY L. CORNICO
ENGINEER I

REVIEWED:

MAR DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED:

ANDY S. ERENO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:

VIVIAN S. LIACO
ASST. DISTRICT ENGINEER

APPROVED:

ALVIN A. IGNACIO
DISTRICT ENGINEER

SET No. SHEET No.
E-1 57
84

PANELBOARD: PBA FLUSH MOUNTED, NEMA 1 ENCLOSURE W/ GROUND TERMINAL

CKT NO.	LOAD DISCRPTION	VA LOAD	CIRCUIT BREAKER					WIRE AND CONDUIT SIZE
			VOLT	POLE	AT	AF	KAIC	
1	LIGHTING OUTLET (21 UNITS)	525	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
2	LIGHTING OUTLET (23 UNITS)	630	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
3	CONVENIENCE OUTLET(15 UNITS)	2,270	230	2	20	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
4	CONVENIENCE OUTLET(16 UNITS)	2,160	230	2	20	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
5	ACU OUTLET (2.0 HP)	2,000	230	2	20	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
6	ACU OUTLET (1.0 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
7	ACU OUTLET (1.0 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
8	ACU OUTLET (1.0 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
9	ACU OUTLET (1.5 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
10	ACU OUTLET (1.0 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
11	WATER PUMP (2.0 HP)	2,760	230	2	30	50	10	2-5.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
12	FACP	1000	230	2	20	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
13	MDF	1000	230	2	20	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
14	CCTV	1000	230	2	20	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
15	SPARE	—	230	2	20	50	10	_____
16	SPARE	—	230	2	20	50	10	_____
TOTAL		18,365	150AT/250AF, 2P, 18KAIC					
TOTAL DEMAND @100% DF :								
$I_T = \frac{18,365 \text{ VA}}{230 \text{ V}} + 25\%(12 \text{ A})$$= 82.85 \text{ A} \times 100\% \text{DF}$$I_T = 82.85 \text{ A}$ $I_{\text{feeder}} = I_T \times 125\%$$= 82.85 \text{ A} \times 125\%$$I_{\text{feeder}} = 103.56 \text{ A}$ $I_{\text{CB}} = I_T \times 125\%$$= 82.85 \text{ A} \times 125\%$$I_{\text{CB}} = 103.56 \text{ A}$								
USE : 2 - 50mm² THHN + 1 - 22mm² THHN (G) in 65mm Ø PVC CONDUIT.								

PANELBOARD: PBB FLUSH MOUNTED, NEMA 1 ENCLOSURE W/ GROUND TERMINAL

CKT NO.	LOAD DISCRPTION	VA LOAD	CIRCUIT BREAKER					WIRE AND CONDUIT SIZE
			VOLT	POLE	AT	AF	kAIC	
1	LIGHTING OUTLET (22 UNITS)	715	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
2	LIGHTING OUTLET (22 UNITS)	610	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
3	LIGHTING OUTLET (28 UNITS)	755	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
4	CONVENIENCE OUTLET(17 UNITS)	2,270	230	2	20	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
5	CONVENIENCE OUTLET(11 UNITS)	1,150	230	2	20	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
6	CONVENIENCE OUTLET (11 UNITS)	1,370	230	2	20	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
7	SPECIAL PURPOSE OUTLET	1,500	230	2	30	50	10	2-5.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
8	ACU OUTLET (1.0 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
9	ACU OUTLET (1.0 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
10	ACU OUTLET (1.0 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
11	ACU OUTLET (1.0 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
12	ACU OUTLET (1.0 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
13	ACU OUTLET (1.0 HP)	1,000	230	2	15	50	10	2-3.5mm² THHN WIRE STRANDED IN 20mm Ø PVC CONDUIT
14	SPARE	—	230	2	20	50	10	_____
15	SPARE	—	230	2	20	50	10	_____
16	SPARE	—	230	2	20	50	10	_____
TOTAL		14,370	125AT/250AF, 2P, 18kAIC					
TOTAL DEMAND @100% DF :								
$I_T = \frac{14,370 \text{ VA}}{230 \text{ V}} + 25\%(4.35 \text{ A})$$= 63.57 \text{ A} \times 100\% \text{DF}$$I_T = 63.57 \text{ A}$ $I_{\text{feeder}} = I_T \times 125\%$$= 63.57 \text{ A} \times 125\%$$I_{\text{feeder}} = 79.46 \text{ A}$ $I_{\text{CB}} = I_T \times 125\%$$= 63.57 \text{ A} \times 125\%$$I_{\text{CB}} = 79.46 \text{ A}$								
USE : 2 - 38mm² THHN + 1 - 14mm² THHN (G) in 50mm Ø PVC CONDUIT.								

PANELBOARD: MDP FLUSH MOUNTED, NEMA 1 ENCLOSURE W/ GROUND TERMINAL

CKT NO.	LOAD DISCRPTION	VA LOAD	CIRCUIT BREAKER					WIRE AND CONDUIT SIZE
			VOLT	POLE	AT	AF	KAIC	
1	PBA	18,365	230	2	150	50	10	2 - 50mm² THHN + 1 - 22mm² THHN (G) in 50mm Ø PVC CONDUIT
2	PBB	14,370	230	2	125	50	10	2 - 38mm² THHN + 1 - 14mm² THHN (G) in 50mm Ø PVC CONDUIT
3	SPARE							
4	SPARE							
TOTAL		32,735	200AT/400AF, 2P, 25 KAIC					
TOTAL DEMAND @80% DF :								
$I_T = \frac{32,735 \text{ VA}}{230 \text{ V}} + 25\%(12 \text{ A})$ $= 143.33 \text{ A} \times 80\% \text{DF}$ $I_T = 114.66 \text{ A}$ $I_{\text{feeder}} = I_T \times 125\%$ $= 143.33 \text{ A} \times 125\%$ $I_{\text{feeder}} = 179.16 \text{ A}$ $I_{\text{CB}} = I_T \times 125\%$ $= 143.33 \text{ A} \times 125\%$ $I_{\text{CB}} = 179.16 \text{ A}$ USE : 2 - 80mm² THHN + 1 - 30mm² THHN (G) in 80mm Ø PVC CONDUIT FOR MAIN CIRCUIT BREAKER & AUTOMATIC TRANSFER SWITCH.								

1 SCHEDULE OF LOADS
E-2 SCALE: NTS

RECOMMENDED SIZE OF TRANSFORMER

CONNECTED LOAD = $\frac{32,735 \text{ VA}}{1000} = 32.735 \text{ kVA}$

CAPACITY @ 1.2 DIV. FACTOR = $\frac{32.735 \text{ kVA}}{1.2} = 27.28 \text{ kVA}$

NOTE: 1- 37.5kVA, 1PH, 60Hz, 13.8 kV(Pri)/230V(sec)

GENERATOR SIZE

kVA = $32.735 \text{ kVA} \times 0.8 \text{ pf} = 26.19 \text{ kVA}$

kVA @ 10% GROWTH FACTOR
= $32.735 \text{ kVA} \times 1.1 = 36 \text{ kVA}$

USE: 45 kVA (36 kW), 1PH, 1800 RPM, 240V, 60Hz, 0.8pf



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Cataraman, Northern Samar

PROJECT NAME & LOCATION:

CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN N. SAMAR

SHEET CONTENTS:

SCHEDULE OF LOADS

DESIGNED:

MARY JOY L. GORNICO
ENGINEER I

REVIEWED:

MAR DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED:

ANDY S. EREÑO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:

VIVIANO B. BIACO
ASST. DISTRICT ENGINEER

APPROVED:

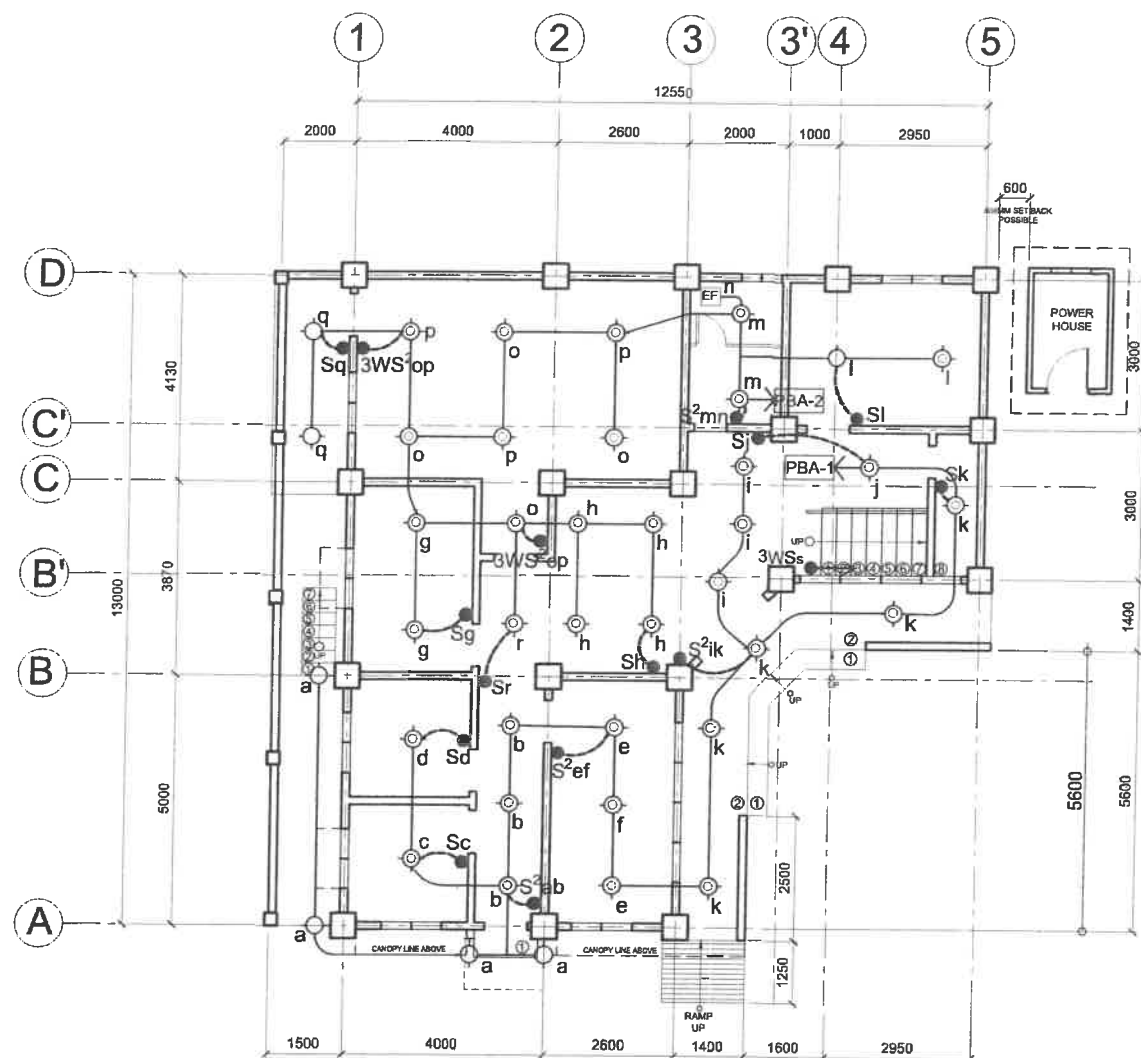
ALVIN A. IGNACIO
DISTRICT ENGINEER

SET No.

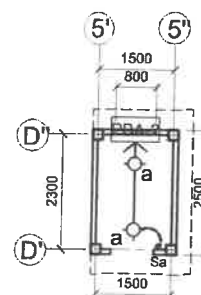
E-2

SHEET No.

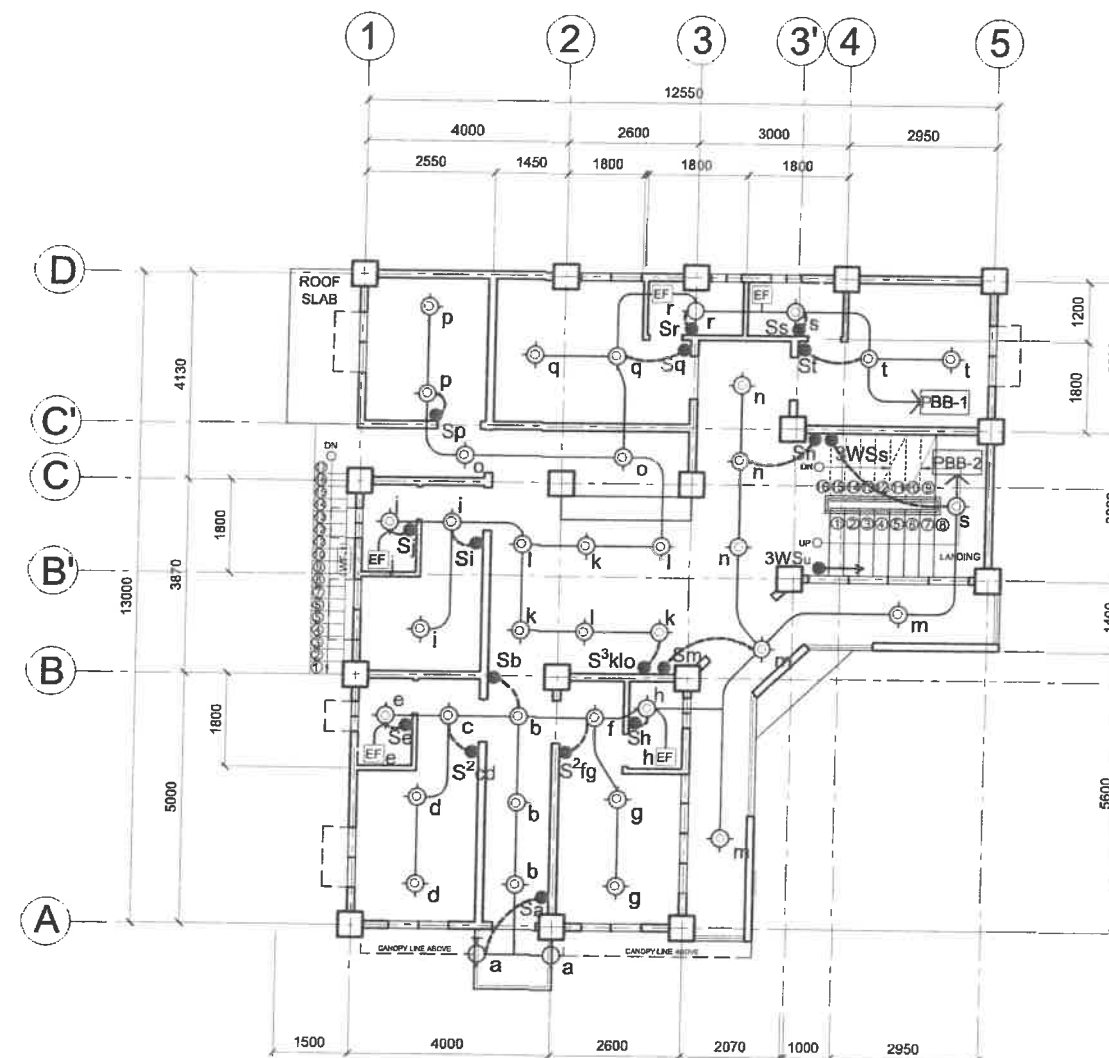
58
84



1 GROUND FLOOR LIGHTING LAYOUT
E-3 SCALE: 1:100M



3 POWER HOUSE LIGHTING LAYOUT
E-3 SCALE: 1:100M



2 SECOND FLOOR LIGHTING LAYOUT
E-3 SCALE: 1:100M



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Cataman, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN N. SAMAR

SHEET CONTENTS:
GROUND FLOOR LIGHTING LAYOUT
SECOND FLOOR LIGHTING LAYOUT
LIGHTING LAYOUT/POWER HOUSE

DESIGNED:
MARY JOY L. CORNICO
ENGINEER I

REVIEWED:
MAR DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED:
ANDY S. ERENO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:
VIVIAN G. BIACO
DISTRICT ENGINEER

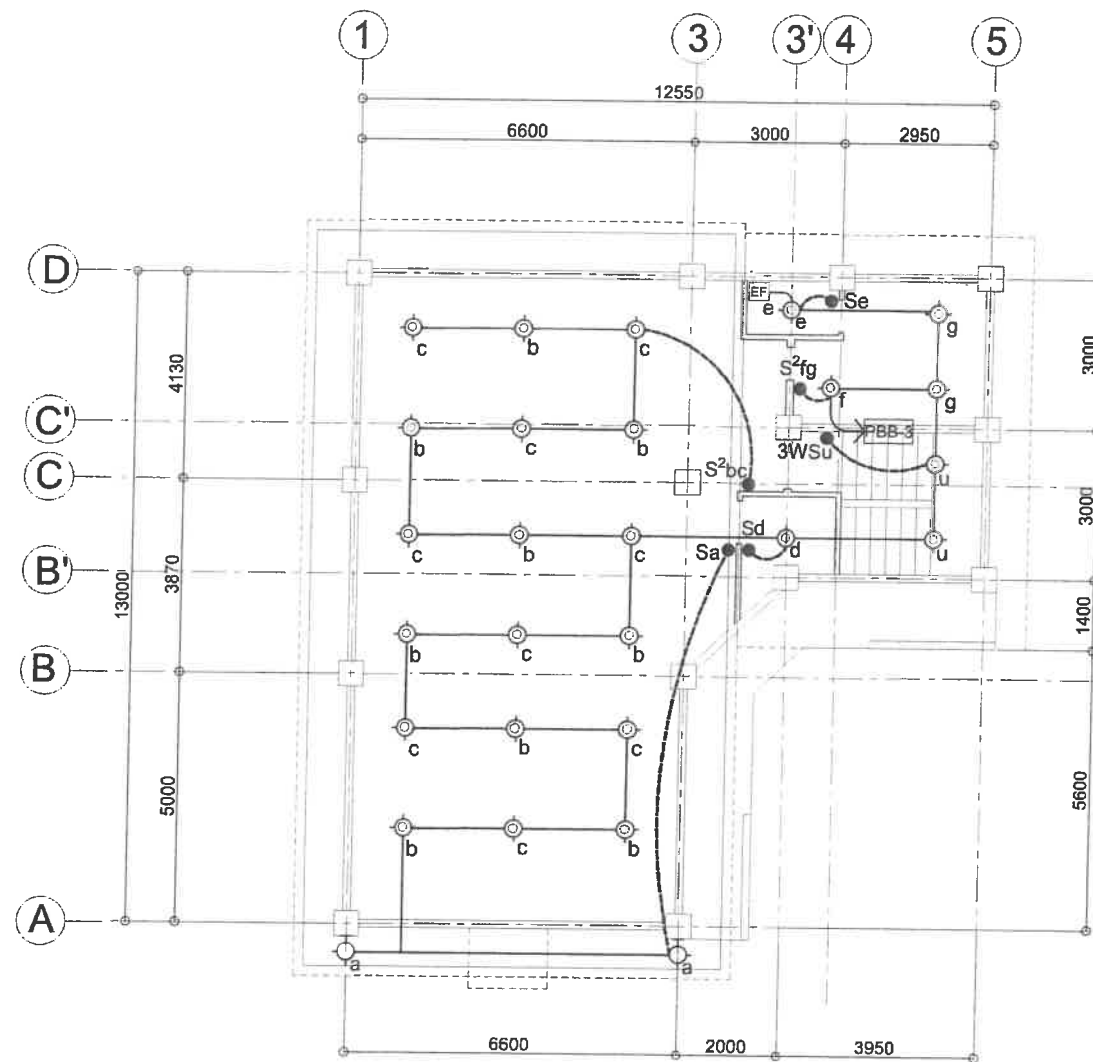
APPROVED:
ALVIN A. IGNACIO
DISTRICT ENGINEER

SET No.

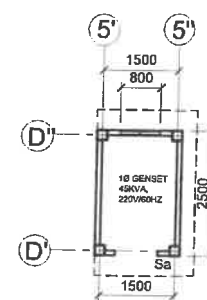
E-3

SHEET No.

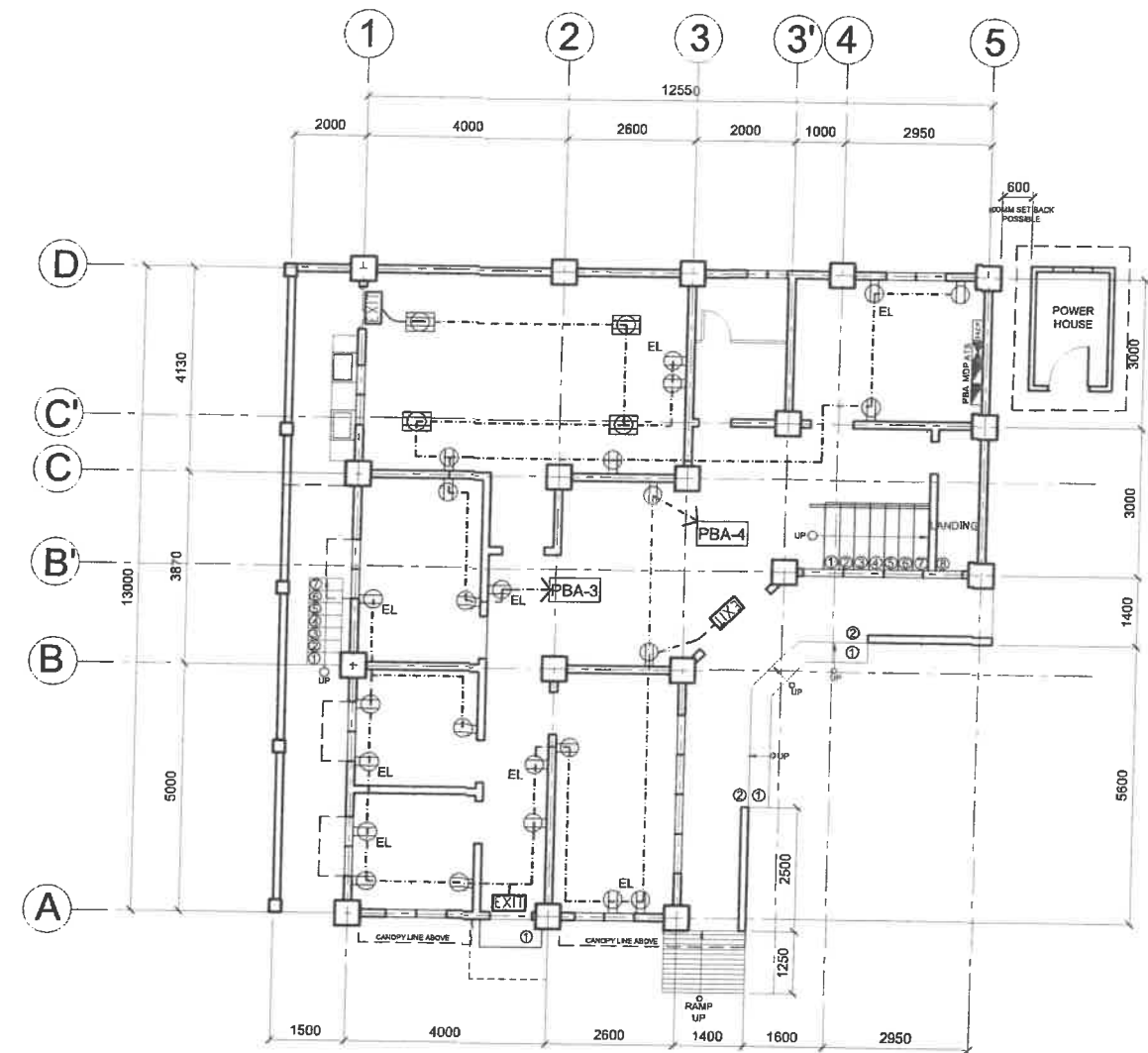
59
84



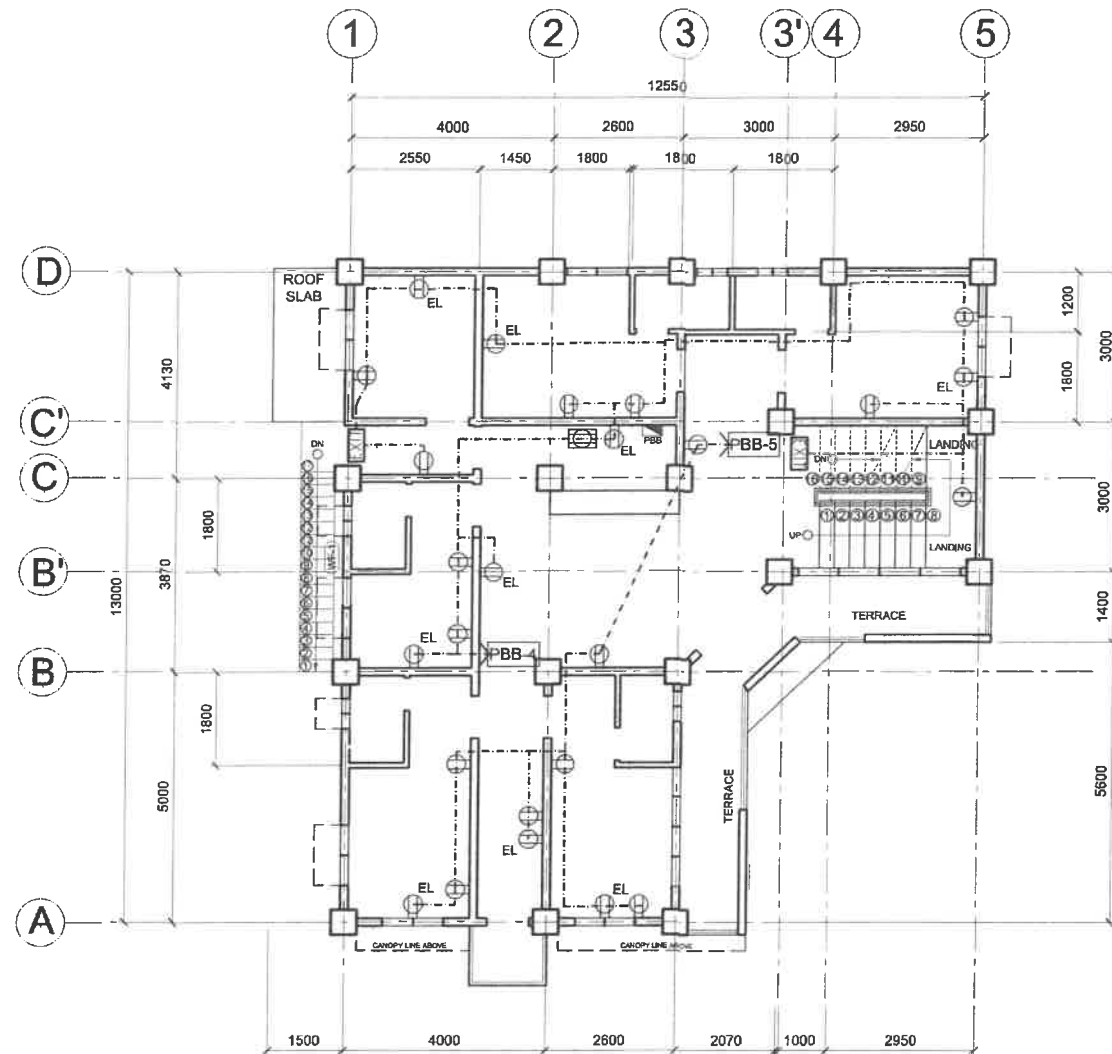
1 ROOF DECK LIGHTING LAYOUT
E-4 SCALE: 1:100M



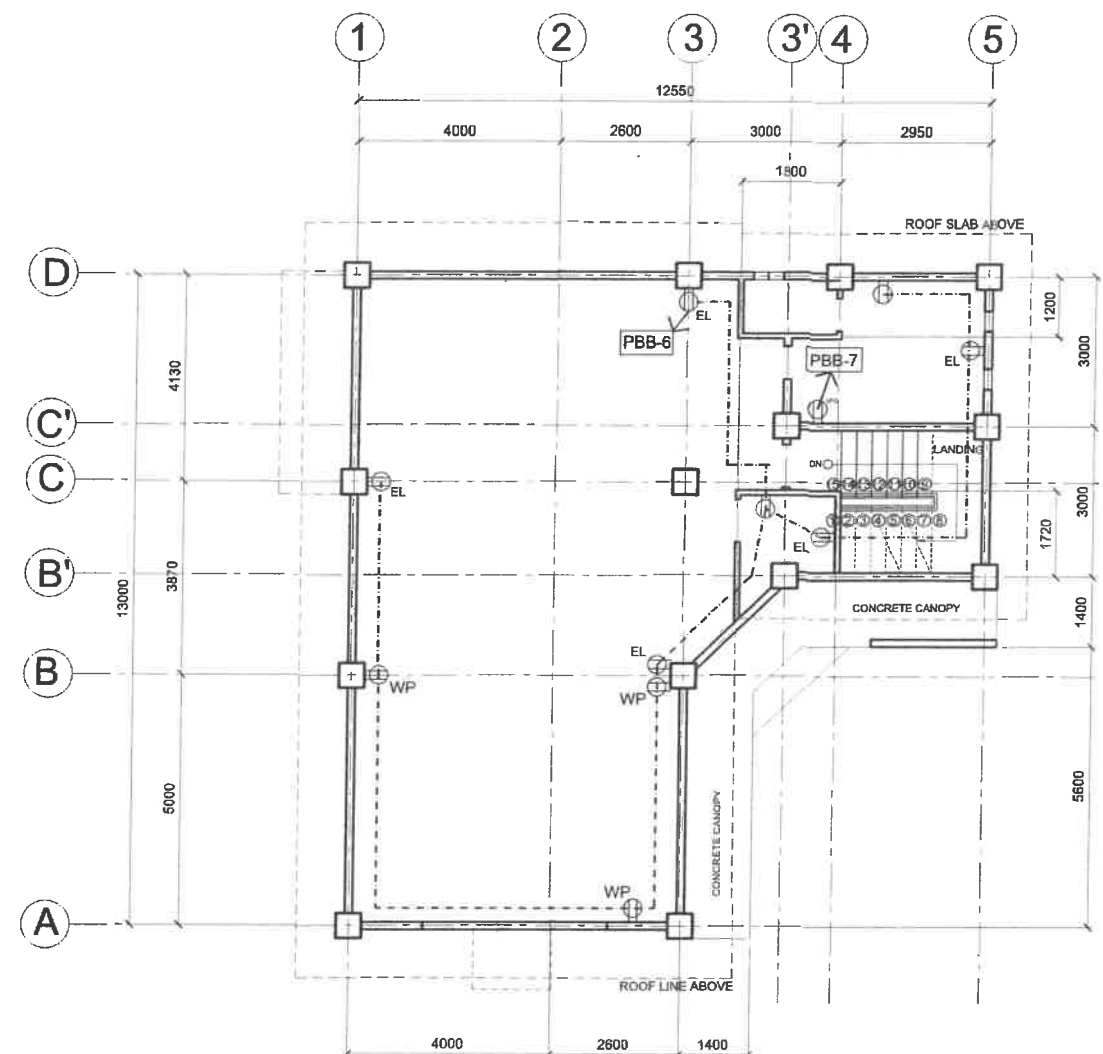
3 POWER HOUSE
CONVENIENCE LAYOUT
E-4 SCALE: 1:100M



2 GROUND FLOOR CONVENIENCE LAYOUT
E-4 SCALE: 1:100M



1 SECOND FLOOR CONVENIENCE LAYOUT
 E-5 SCALE: 1:100M



2 ROOF DECK CONVENIENCE LAYOUT
 E-5 SCALE: 1:100M



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
 REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
 Catarman, Northern Samar

PROJECT NAME & LOCATION:

CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
 UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR

SHEET CONTENTS:

SECOND FLOOR CONVENIENCE LAYOUT
 ROOF DECK CONVENIENCE LAYOUT

DESIGNED:

[Signature]
MARY JOY L. CORNICO
 ENGINEER I

REVIEWED:

[Signature]
MAR DONALD N. EIMAN
 ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED:

[Signature]
ANDY S. EREÑO
 CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:

[Signature]
VIVIAN B. BIACO
 ASST. DISTRICT ENGINEER

APPROVED:

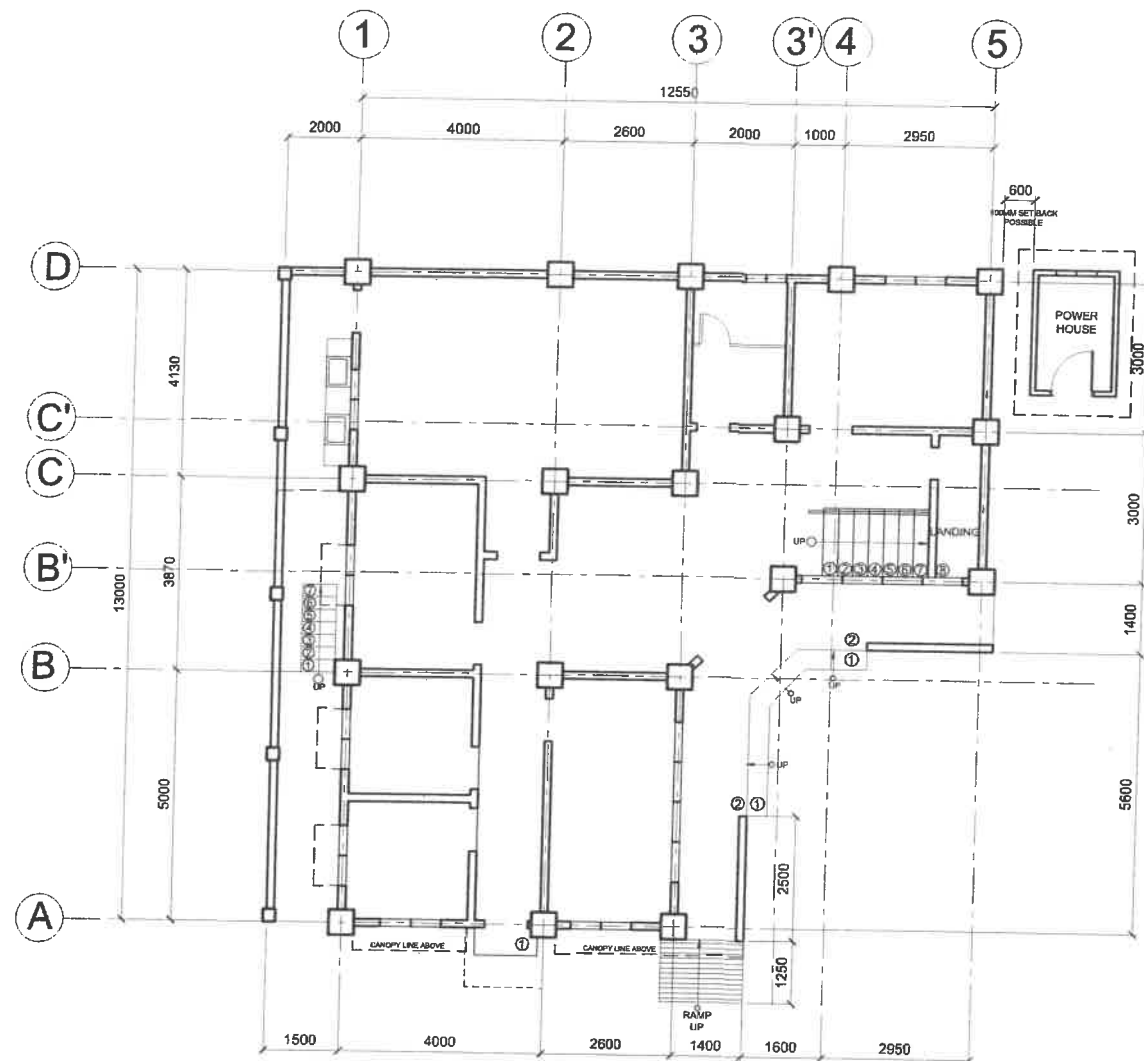
[Signature]
ALVIN A. IGNACIO
 DISTRICT ENGINEER

SET No.

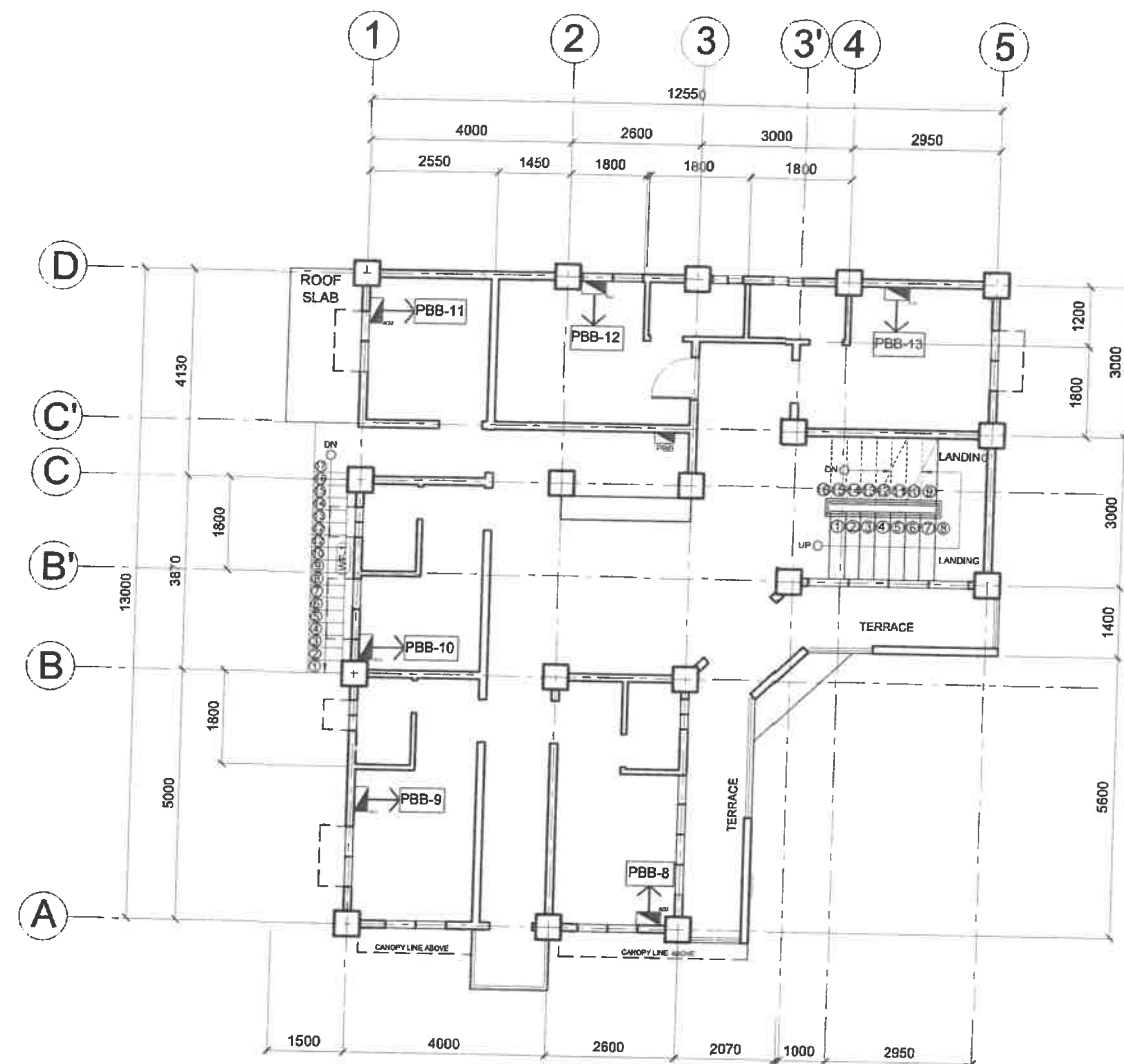
E-5

SHEET No.

61
84



1 GROUND FLOOR ACU LAYOUT
E-6 SCALE: 1:100M



2 SECOND FLOOR ACU LAYOUT
E-6 SCALE: 1:100M



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Cataraman, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, NORTHERN SAMAR

SHEET CONTENTS:
GROUND FLOOR ACU LAYOUT
SECOND FLOOR ACU LAYOUT

DESIGNED:
MARY JOY L. CORNICO
ENGINEER I

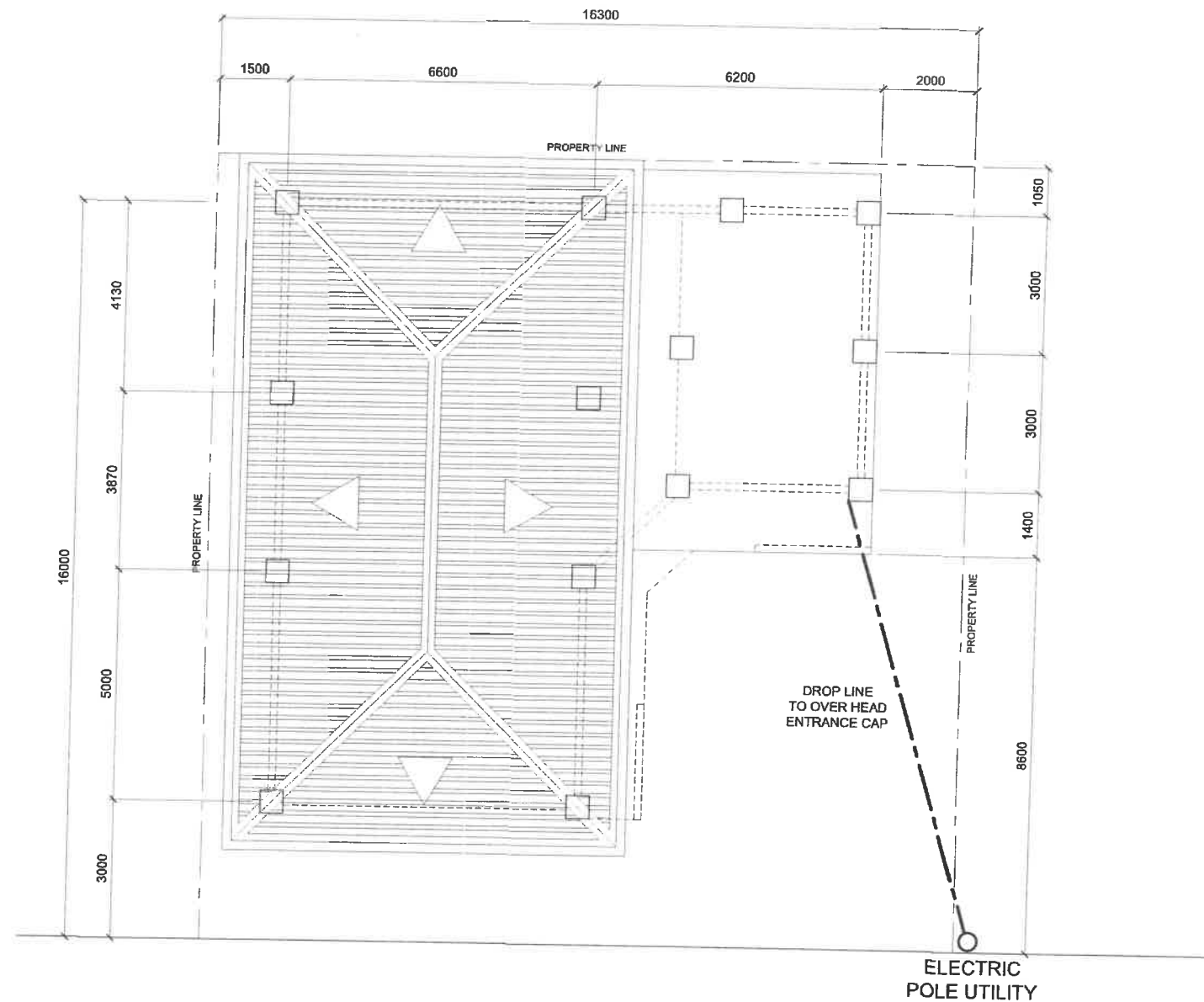
REVIEWED:
MAR DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED:
ANDY S. ERENO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:
VIVIAN S. BIACO
ASST. DISTRICT ENGINEER

APPROVED:
ALVIN A. IGNACIO
DISTRICT ENGINEER

SET No. E-6
SHEET No. 62/84



R R O W 6 . 0 0 M T S

1
E-7 SITE DEV'T PLAN POWER LINE
SCALE: NTS



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Catarman, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENTS:
SITE DEVELOPMENT POWER LINE

DESIGNED:
MARY JOY L. CORNICO
ENGINEER I

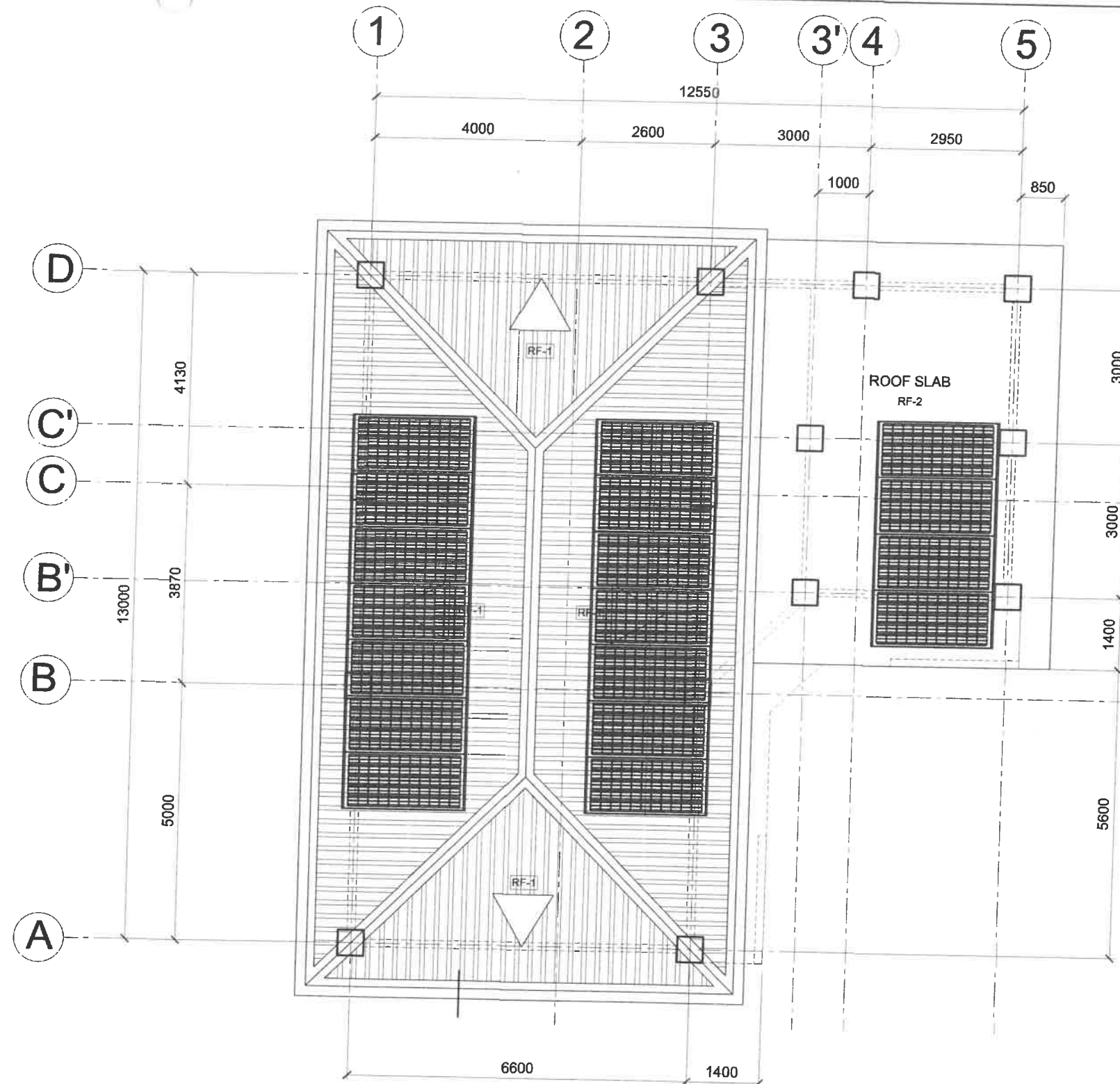
REVIEWED:
MAR DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED:
ANDY S. FREÑO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:
VIVIAN G. LACRO
ASST. DISTRICT ENGINEER

APPROVED:
ALVIN A. IGNACIO
DISTRICT ENGINEER

SET No. SHEET No.
E-7 63
84



1 SOLAR PANEL LAYOUT
E-8 SCALE: NTS



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Cataman, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, SAMAR

SHEET CONTENTS:
SOLAR PANEL LAYOUT

DESIGNED:
MARY JOY L. CORNIEO
ENGINEER I

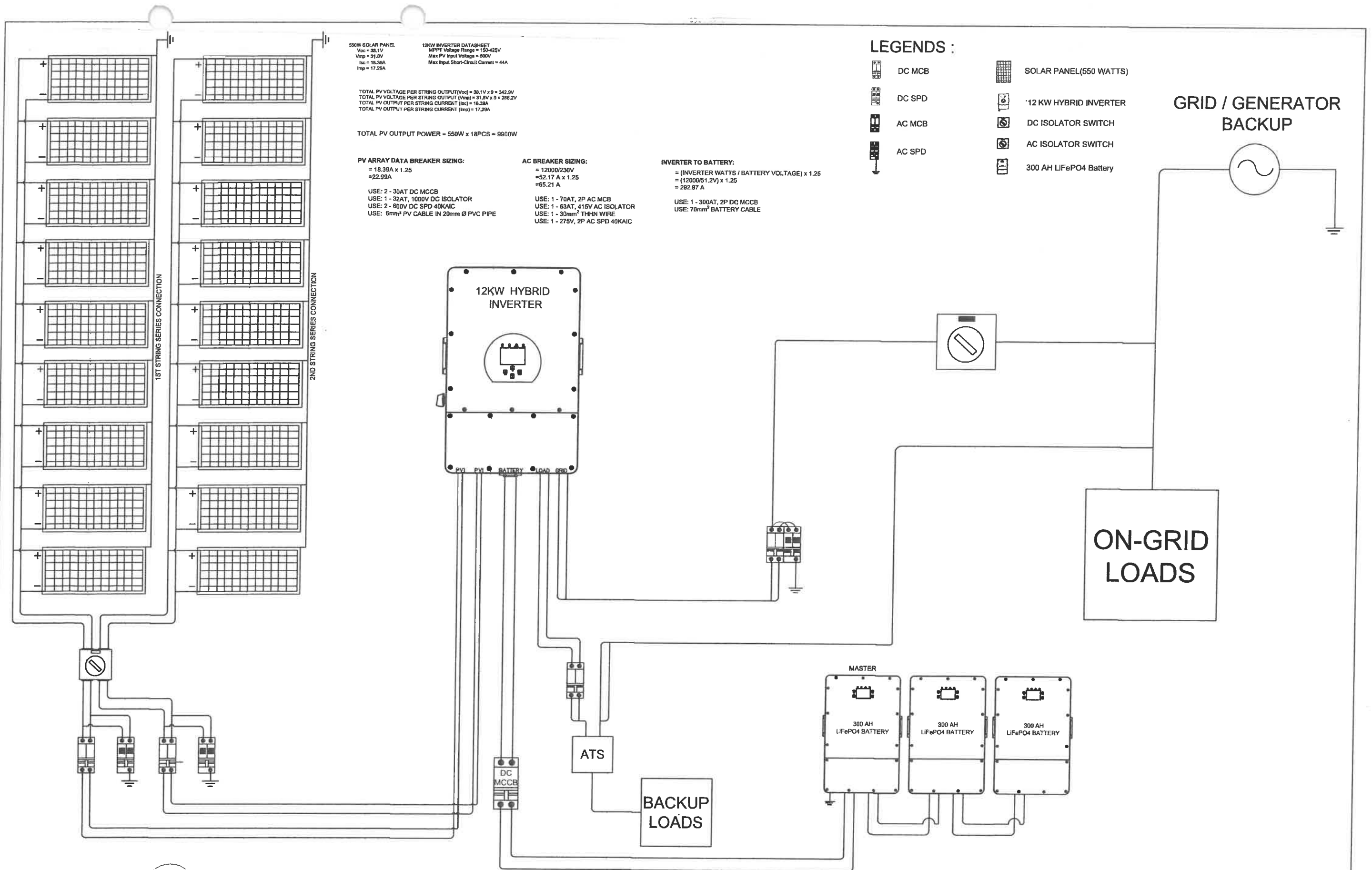
REVIEWED:
MAR DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED:
ANDY S. EREÑO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:
VIVIAN BIACO
ASST. DISTRICT ENGINEER

APPROVED:
ALVIN A. IGNACIO
DISTRICT ENGINEER

SET No. SHEET No.
E-8 64
84



1
E-9
SOLAR SINGLE LINE DIAGRAM
SCALE: NTS



Republic of the Philippines
 DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
 REGIONAL OFFICE No. VIII
 NORTHERN SAMAR FIRST
 DISTRICT ENGINEERING OFFICE
 Cataman, Northern Samar

PROJECT NAME & LOCATION:
 CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
 UNIVERSITY OF EASTERN PHILIPPINES, CATAMAN, NORTHERN SAMAR

SHEET CONTENTS:
 LEGEND
 SOLAR SINGLE LINE DIAGRAM

DESIGNED:

 MARY JOY L. CORNIC
 ENGINEER I

REVIEWED:

 MAR DONALD N. EIMAN
 ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED:

 ANDY S. ENEÑO
 CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED:

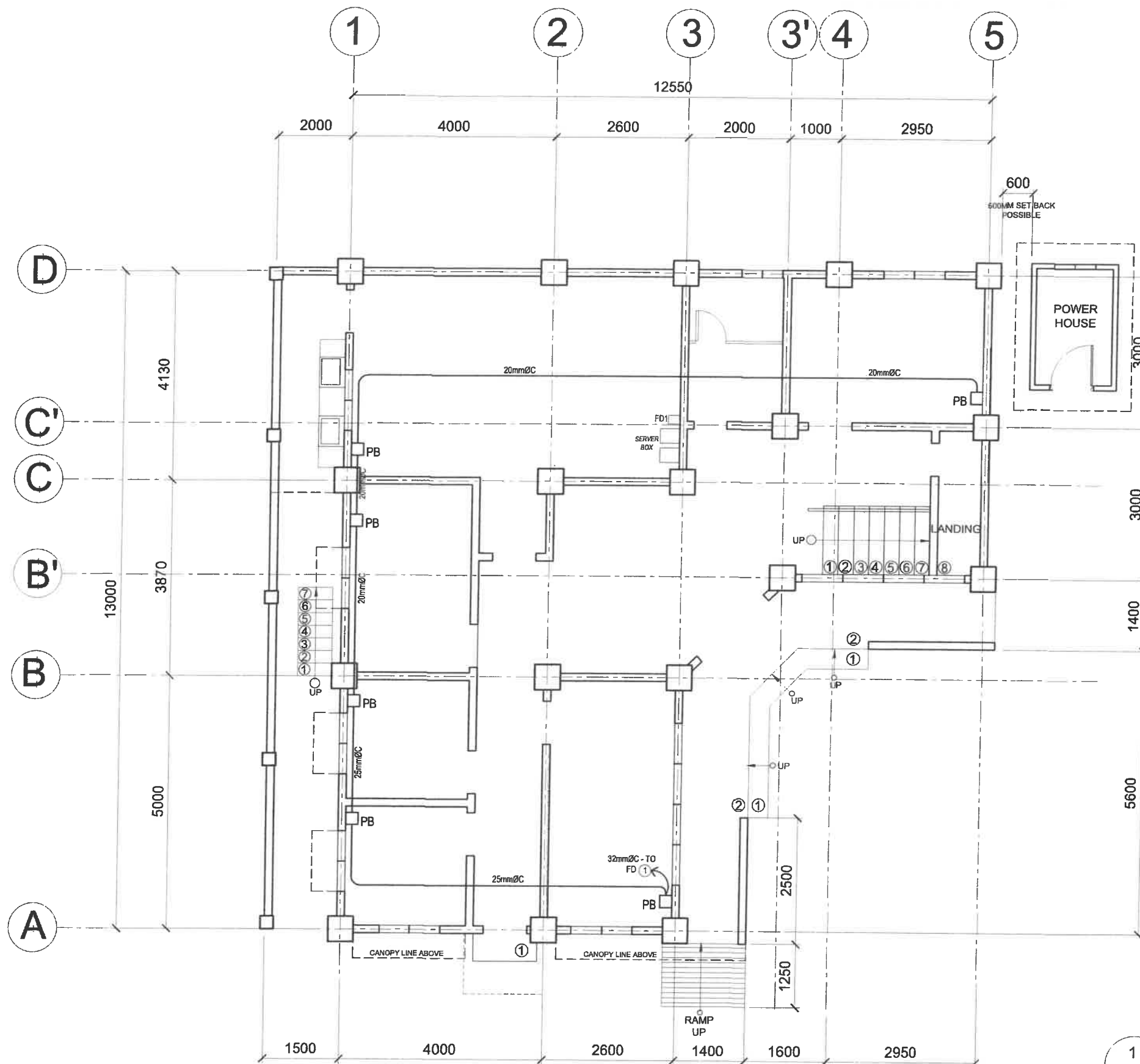
 VIVIAN S. BIACO
 ASST. DISTRICT ENGINEER

APPROVED:

 ALVIN A. IGNACIO
 DISTRICT ENGINEER

SET No. SHEET No.
 E-9 65
 84





1 GROUND FLOOR VOICE & DATA LAYOUT
EC-1 SCALE: 1:100M



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Cataraman, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN N. SAMAR

SHEET CONTENTS:
GROUND FLOOR VOICE & DATA LAYOUT

PREPARED BY:
MARY JOY L. BORRICO
ENGINEER I
DESIGNED BY:

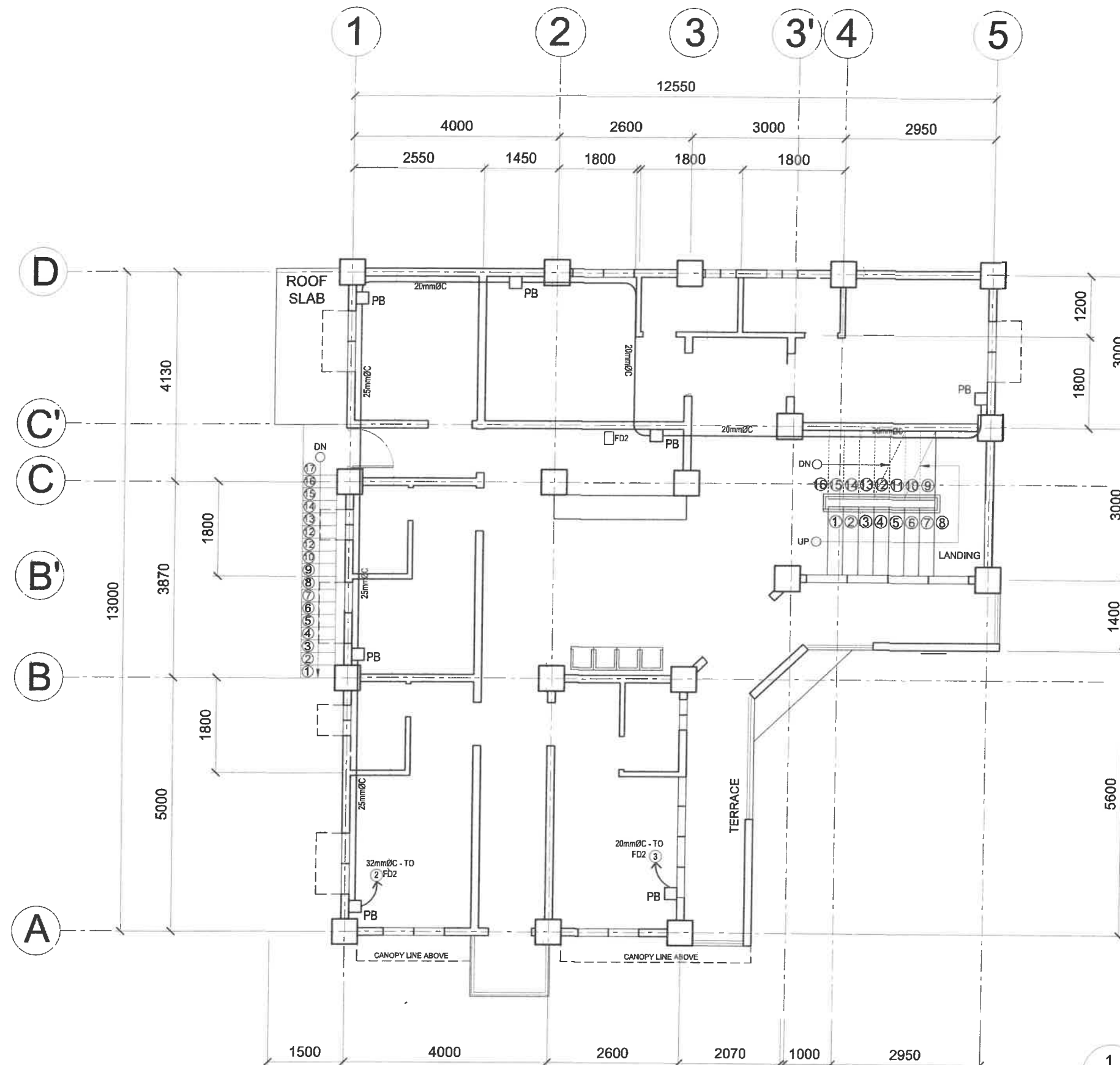
REVIEWED BY:
MAR DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED BY:
ANDY S. ERENO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED BY:
VIVIAN O. BIACO
ASST. DISTRICT ENGINEER

APPROVED BY:
ALVIN A. IGNACIO
DISTRICT ENGINEER

SET No. SHEET No.
EC-1 66
84



1 SECOND FLOOR VOICE & DATA LAYOUT
EC-2 SCALE: 1:100M



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Catarman, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENTS:
SECOND FLOOR VOICE & DATA LAYOUT

PREPARED BY:
MARY JEFFREY C. GARCIA
ENGINEER I
DESIGNED BY:

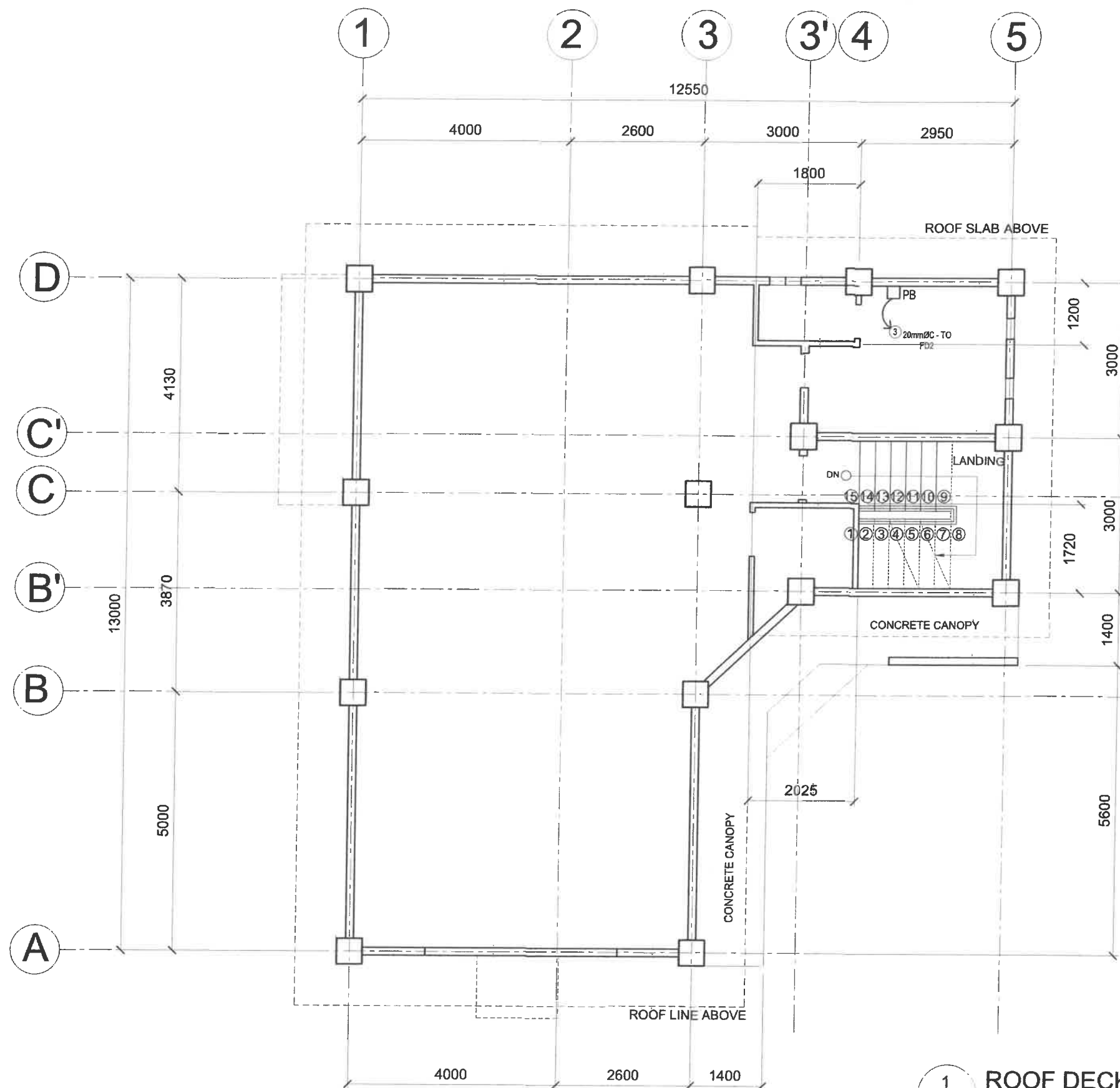
REVIEWED BY:
MAR DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED BY:
ANDY S. ERENO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED BY:
VIVIAN L. BIACO
DISTRICT ENGINEER

APPROVED BY:
ALVIN A. IGNACIO
DISTRICT ENGINEER

SET No. EC-2
SHEET No. 67
84



1 ROOF DECK VOICE & DATA LAYOUT
EC-3 SCALE: 1:100M



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Cataraman, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATARAMAN, NORTHERN SAMAR

SHEET CONTENTS:
ROOF DECK VOICE & DATA LAYOUT

PREPARED BY:
MARY BOYL L. TORRES
ENGINEER I
DESIGNED BY:

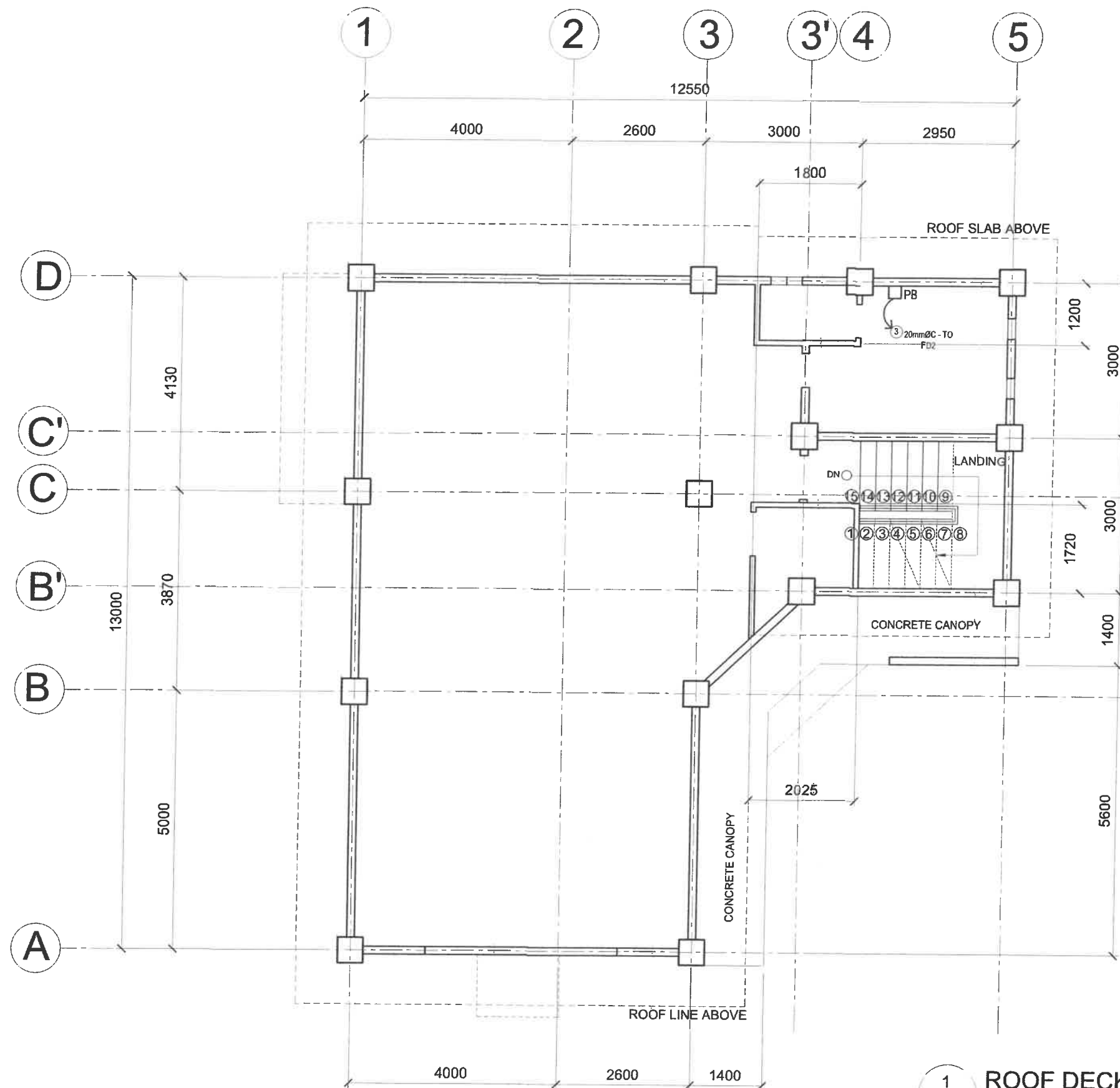
REVIEWED BY:
MAR DONALD N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED BY:
ANDY S. ERERO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED BY:
VIVIAN C. SIACO
ASST. DISTRICT ENGINEER

APPROVED BY:
ALVIN A. IGNACIO
DISTRICT ENGINEER

SET No. EC-3
SHEET No. 68/84



1 ROOF DECK VOICE & DATA LAYOUT
EC-3 SCALE: 1:100M



Republic of the Philippines
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS
REGIONAL OFFICE No. VIII
NORTHERN SAMAR FIRST
DISTRICT ENGINEERING OFFICE
Catarman, Northern Samar

PROJECT NAME & LOCATION:
CONSTRUCTION (COMPLETION) OF MULTI-PURPOSE BUILDING,
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN, NORTHERN SAMAR
UNIVERSITY OF EASTERN PHILIPPINES, CATARMAN N. SAMAR

SHEET CONTENTS:
ROOF DECK VOICE & DATA LAYOUT

PREPARED BY:
MARY JOY L. TORRES
ENGINEER I
DESIGNED BY:

REVIEWED BY:
MAR DIONALO N. EIMAN
ASST. CHIEF, PLANNING & DESIGN SECTION

SUBMITTED BY:
ANDY S. ERERO
CHIEF, PLANNING & DESIGN SECTION

RECOMMENDED BY:
VIVIAN C. BIACO
ASST. DISTRICT ENGINEER

APPROVED BY:
ALVIN A. IGNACIO
DISTRICT ENGINEER

SET No. EC-3
SHEET No. 68/84