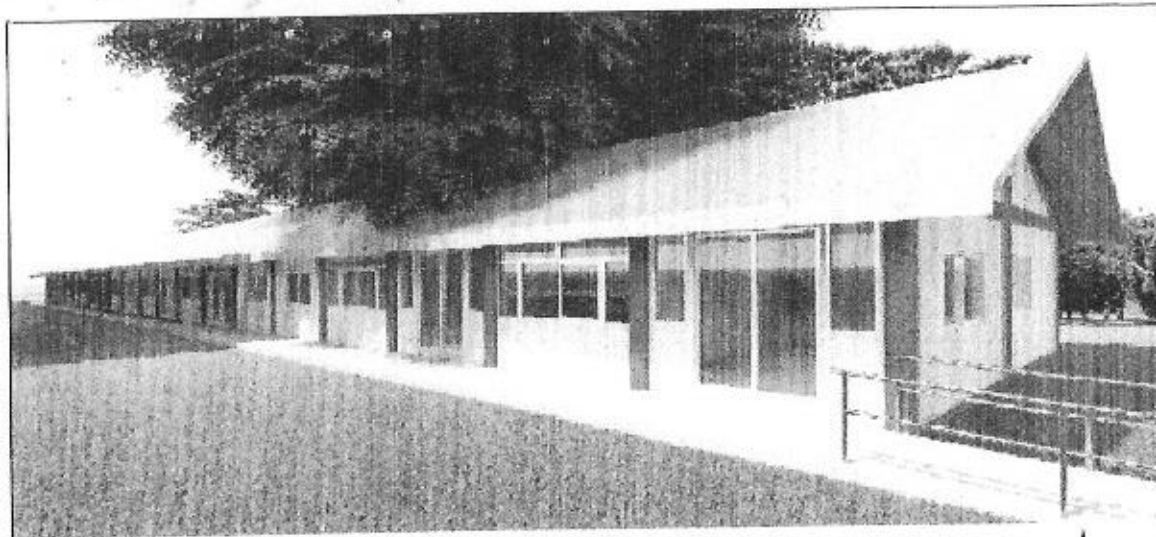
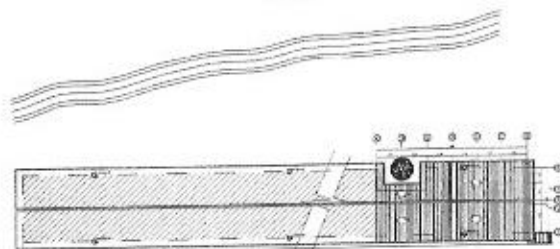


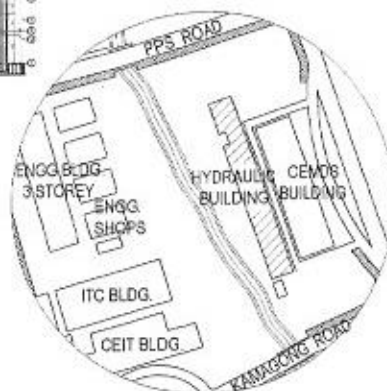


PERSPECTIVE

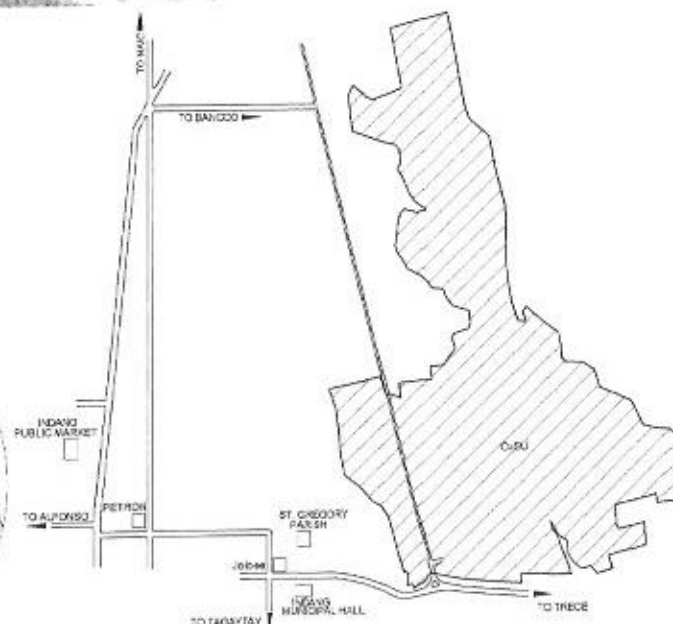


CEMDS BUILDING

SITE DEVELOPMENT PLAN



LOCATION MAP



VICINITY MAP

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REPUBLIC OF THE PHILIPPINES
TRANSPORTATION & COMMUNICATION
OFFICE OF THE BUILDING OFFICIAL
DISTRICT CITY / MUNICIPALITY

LAND USE & ZONING

LINE & GRADE

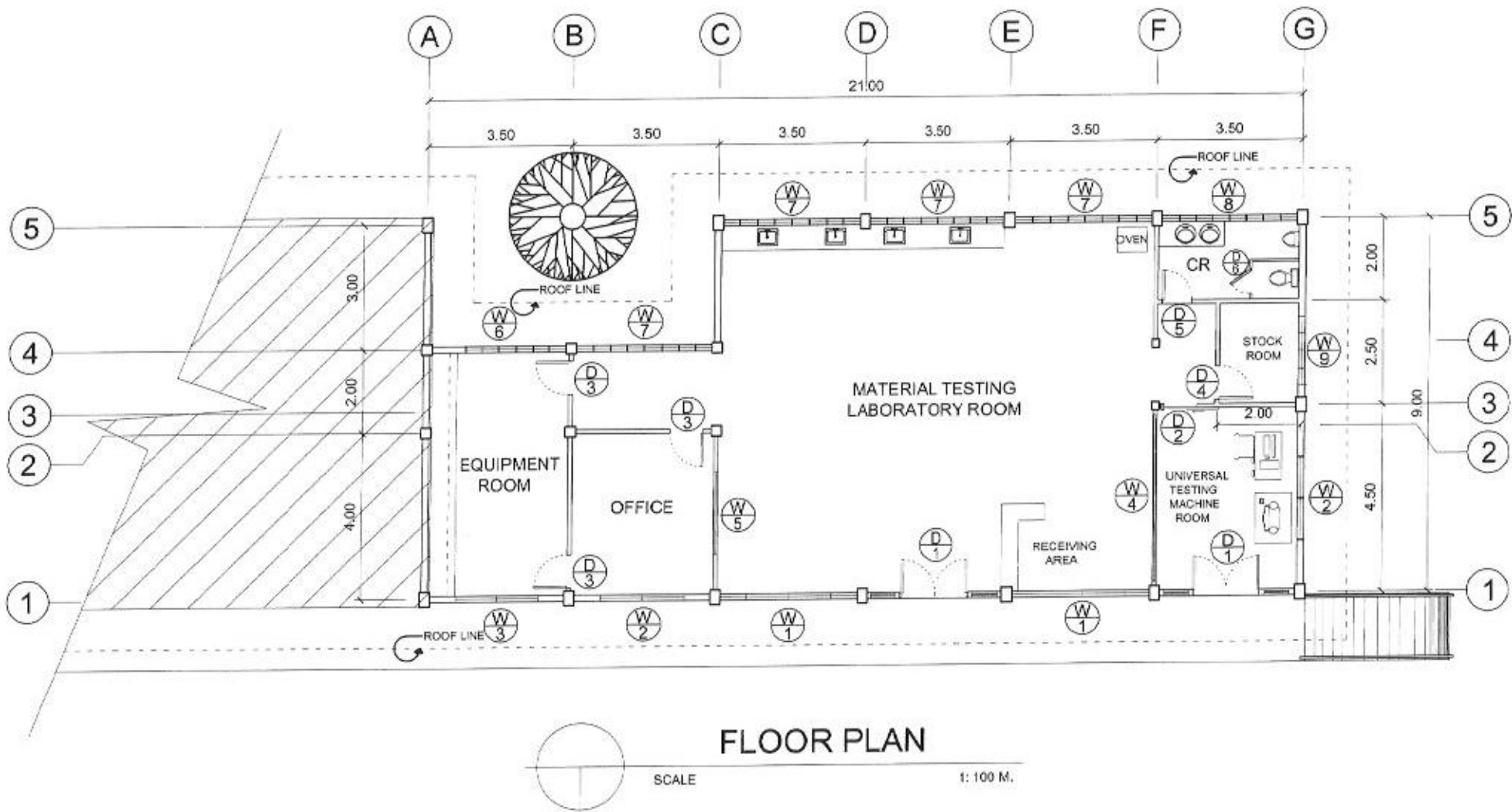
ARCHITECTURAL

STRUCTURAL

SANITARY

ELECTRICAL

CIVIL ENGINEER LARRY E. ROCELA PPU	ENDORSED BY MARILYN M. ESCOBAR DGAK	ENDORSED BY RENATO B. CUBILLA PPU	SEC. APPROVAL HENRY O. GARCIA VRASS	APPROVED BY HERNANDO D. ROBLES PRESIDENT	PROJECT TITLE/LOCATION REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY MAIN CAMPUS	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY BIDANG, CAVITE	SHEET NO. A 0
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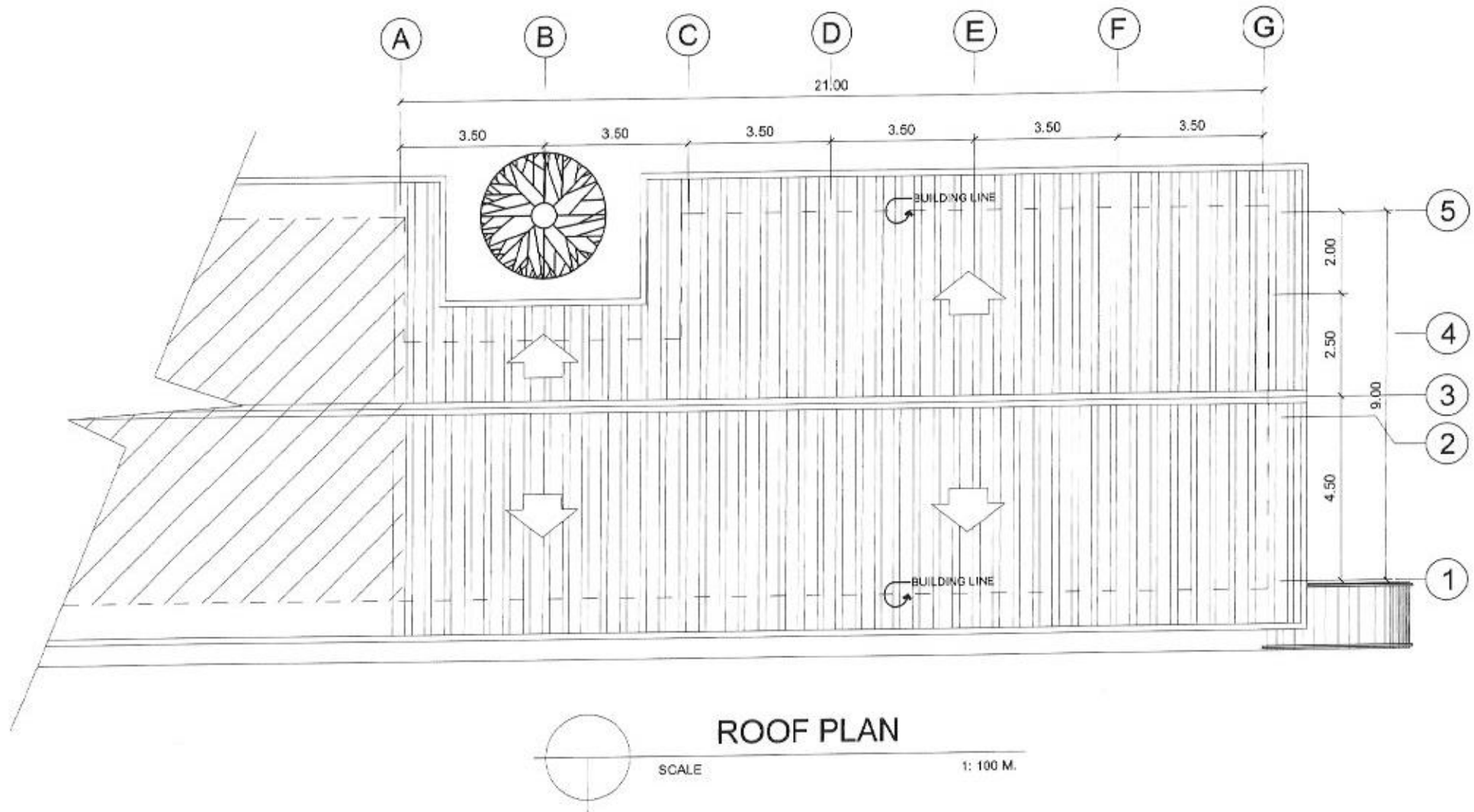


FLOOR PLAN

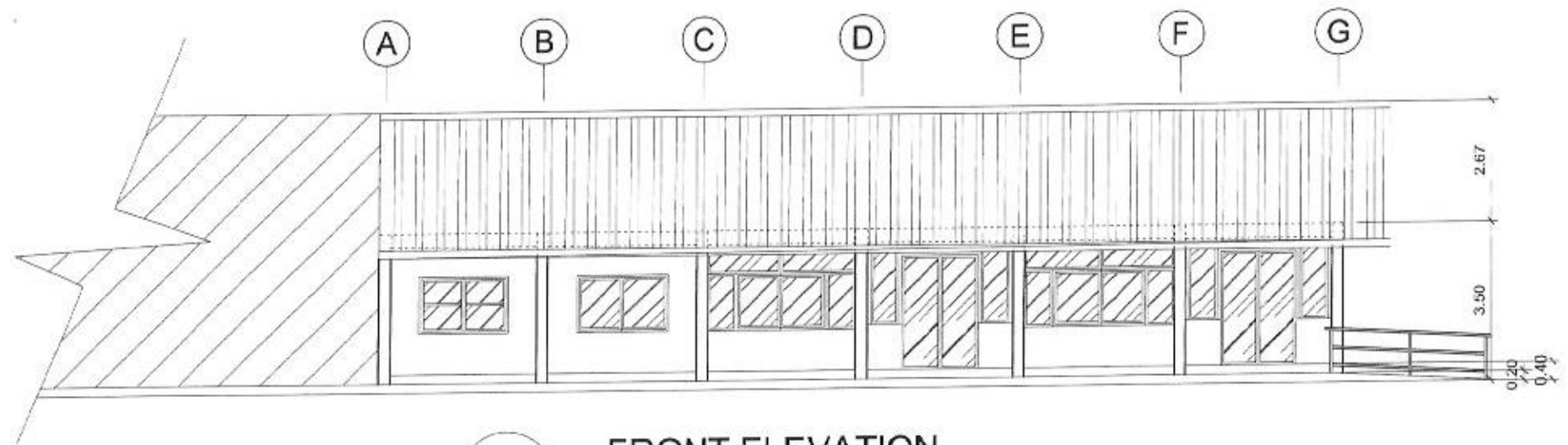
SCALE

1:100 M.

CIVIL ENGINEER: <i>L. E. ROGELA</i> P.E. / C.E.T.	ENCUSER: <i>MARILYN M. ESCOBAR</i> DEAN / C.E.T.	ENDORSED BY: <i>RENATO B. CUBILLA</i> DIRECTOR / P.D.	REC. APPROVAL: <i>HENRY O. GARCIA</i> CHIEF / C.E.T.	APPROVED BY: <i>HERNANDO D. ROBLES</i> PRESIDENT / C.E.T.	PROJECT TITLE / LOCATION: REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY HAN CAMPUS	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY HONAN, CAVITE	SHEET NO: A / 1
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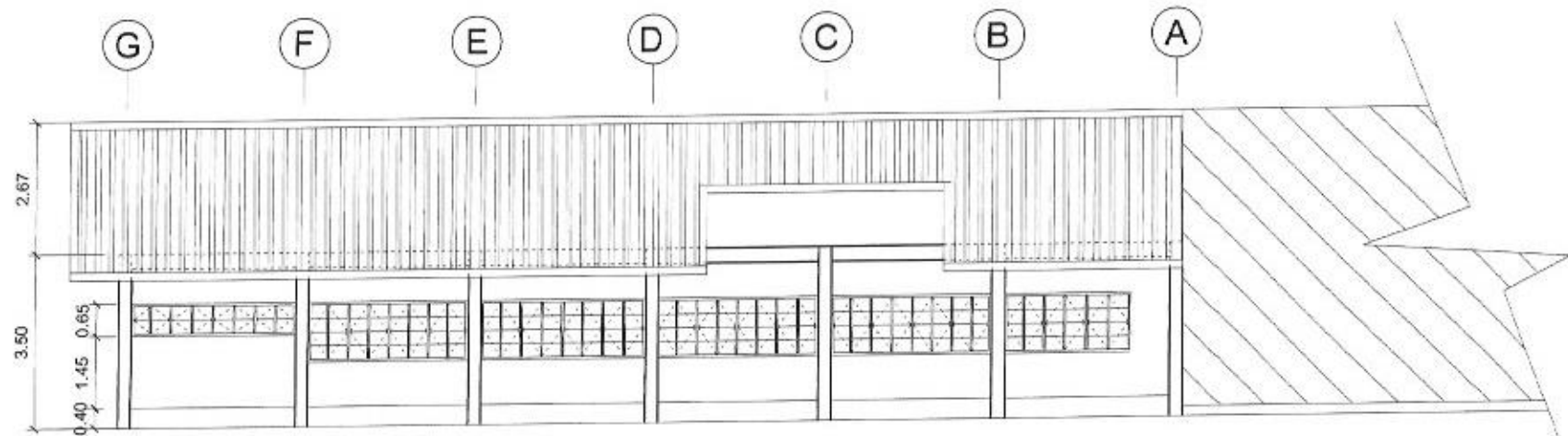
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L. E. ROCELA PP-01	MARILYN M. ESCOBAR DEAN	RENATO B. CUBILLA DIRECTOR	HENRY O. GARCIA V-030	HERNANDO D. ROBLES PRESIDENT	REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY VAN CAMPUS INDANG, CAVITE	CAVITE STATE UNIVERSITY	A / 2



FRONT ELEVATION

SCALE

1: 100 M.

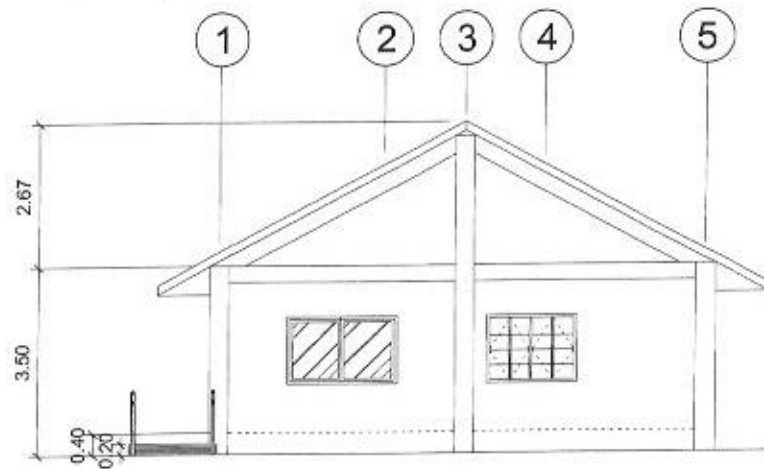


REAR ELEVATION

SCALE

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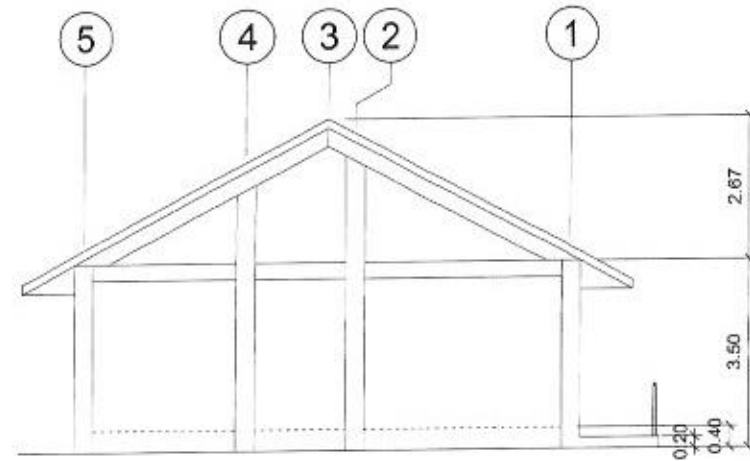
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L. E. ROCELA RPU CET	MARILYN M. ESCOBAR OEN CET	RENATO B. CUBILLA RUC CET	HENRY O. GARCIA VGA CET	HERNANDO D. ROBLES RUB CET	REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY MAIN CAMPUS INDANG, CAVITE	CAVITE STATE UNIVERSITY	A 3



LEFT SIDE ELEVATION

SCALE

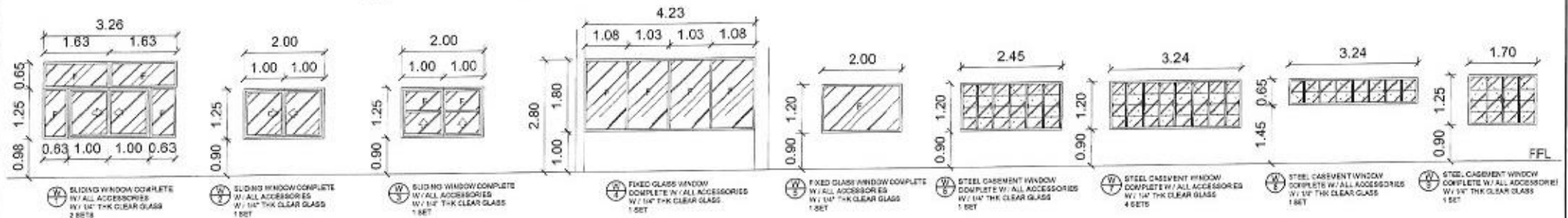
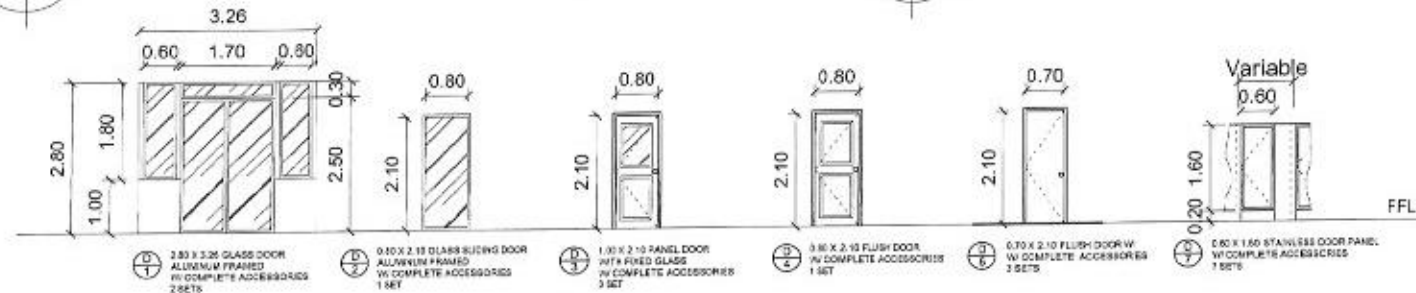
1: 100 M.



RIGHT SIDE ELEVATION

SCALE

1: 100 M.

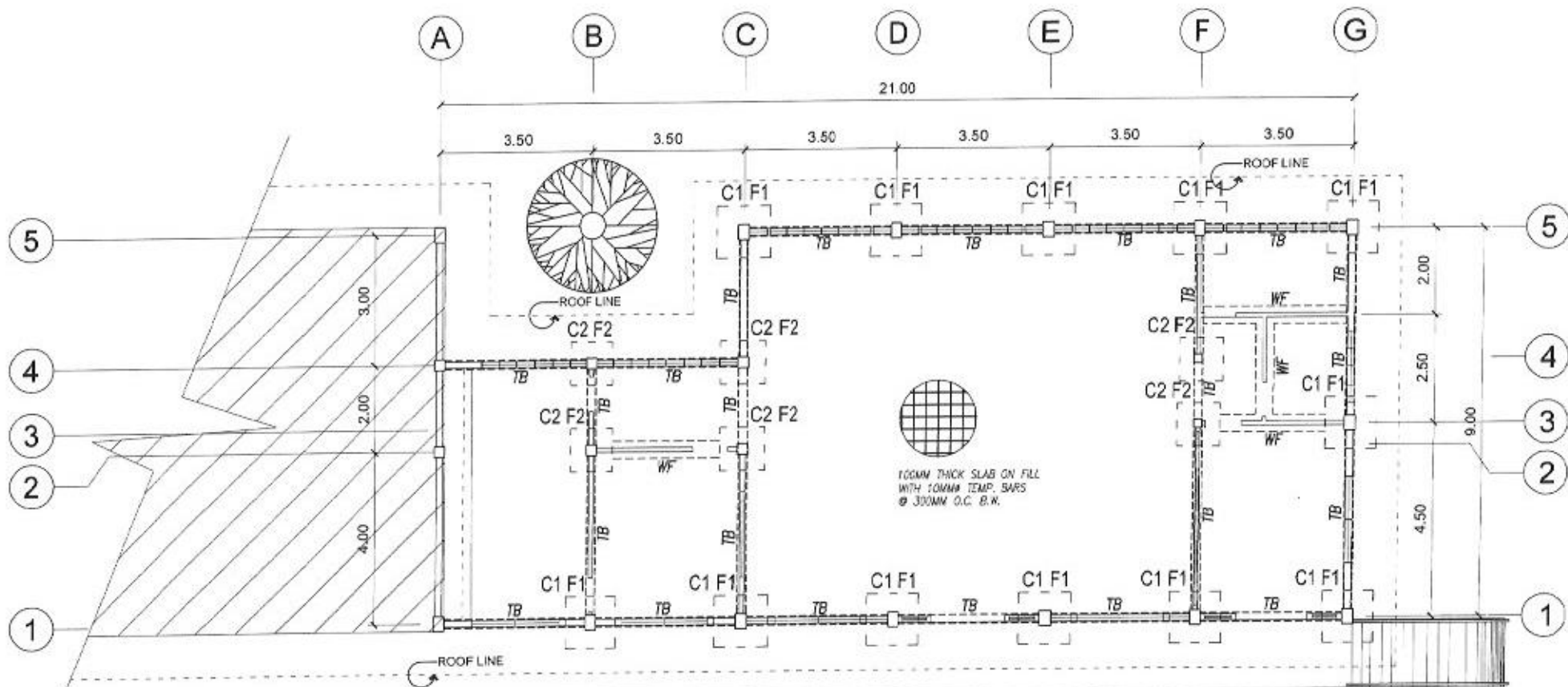


SCHED. OF DOORS & WINDOWS

SCALE

1: 100 M.

CIVIL ENGINEER: L. E. ROCELA DES	END USER: MARILYN M. ESCOBAR DES	ENGINEER BY: RENATO B. CUBILLA DES	SEC. APPROVAL: HENRY O. GARCIA DES	APPROVED BY: HERNANDO D. ROBLES DES	PROJECT TITLE/LOCATION: REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY - SAN CAISLE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHEET NO: A/4
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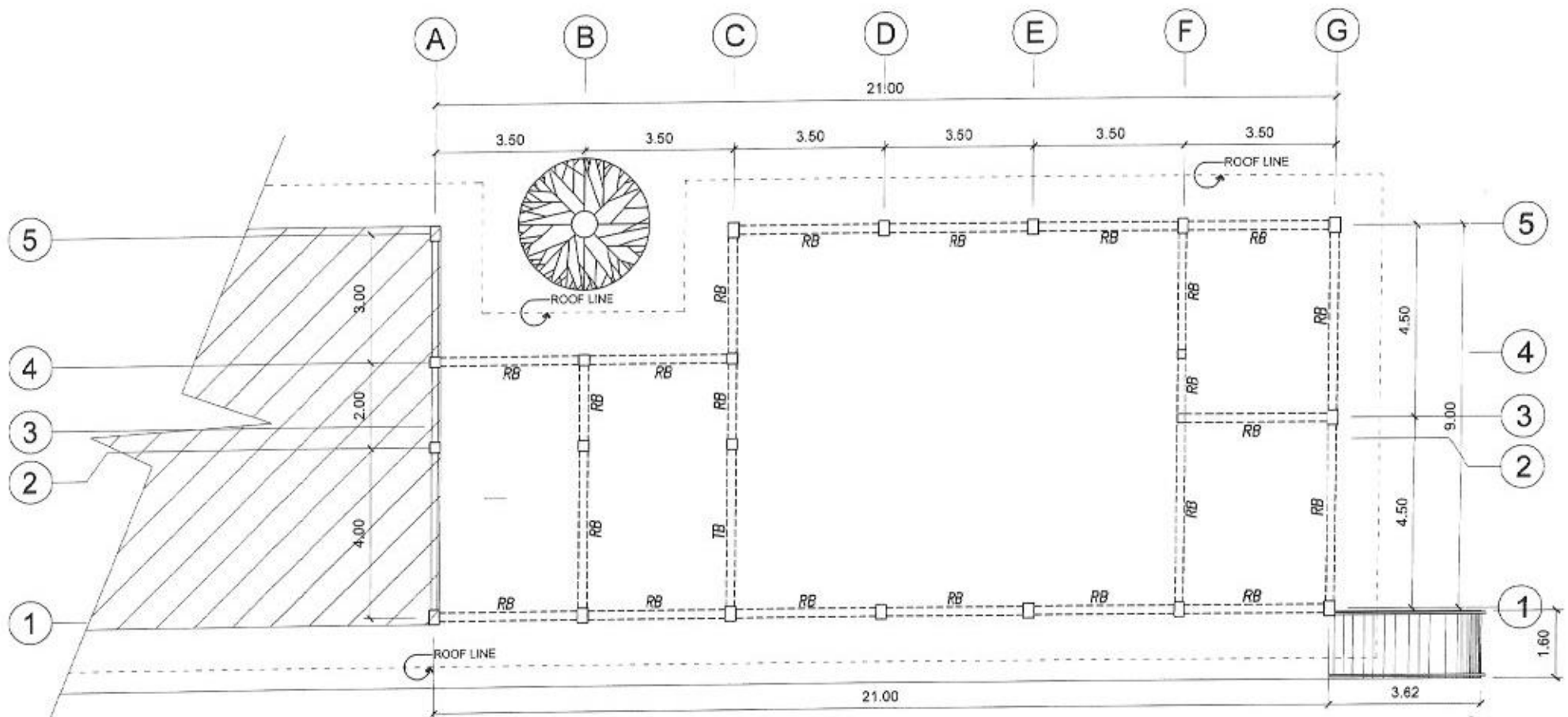


FOUNDATION PLAN

SCALE

1: 100 M.

CIVIL ENGINEER LARRY E. ROCELA PEU CEIT	END-USER MARILYN M. ESCOBAR DEAN CEIT	ENDORSED BY RENATO B. CUBILLA DIRECTOR POO	REC. APPROVAL HENRY O. GARCIA VPAS CIVIL	APPROVED BY HERNANDO D. ROBLES PRESIDENT CIVIL	PROJECT TITLE/LOCATION REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY MAIN CAMPUS EDDANG, CAVITE	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. S 1
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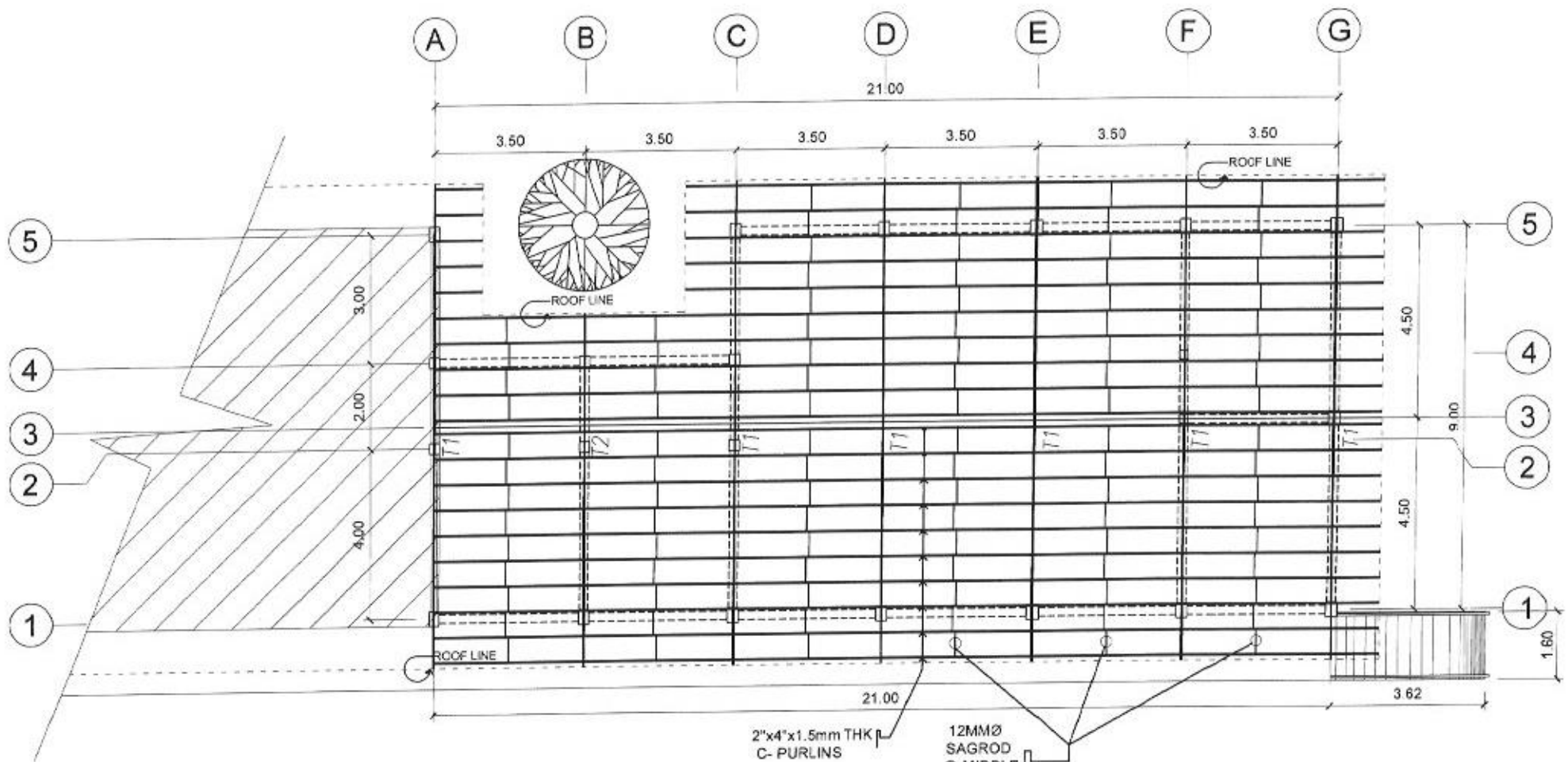


ROOF BEAM PLAN

SCALE

1: 100 M.

CIVIL ENGINEER	END-USER	ENDORSED BY	REC. APPROVAL	APPROVED BY	PROJECT TITLE/LOCATION	IMPLEMENTING AGENCY	SHEET NO.
LARRY E. ROCELA FPU DET	MARILYN M. ESCOBAR DEAN DET	RENATO B. CUBILLA DIRECTOR POD	HENRY O. GARCIA VPASB POD	HERNANDO. D. ROBLES PRESIDENT CIBU	REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY SAN CAULIS ROWAY - CAVITE	CAVITE STATE UNIVERSITY	3 / 2

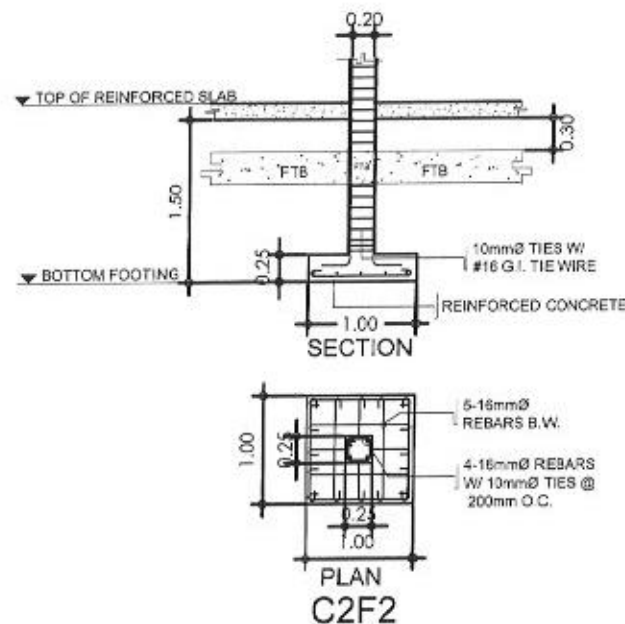
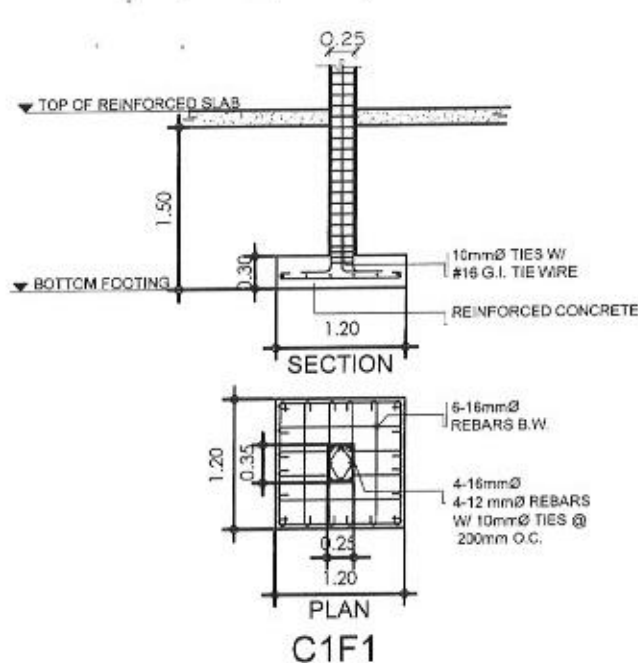


ROOF FRAMING PLAN

SCALE

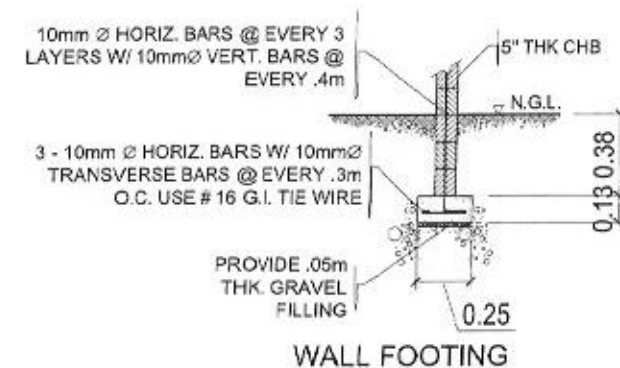
1: 100 M.

CIVIL ENGINEER	END USER	ENDORSED BY	REC. APPROVAL	APPROVED BY	PROJECT TITLE/LOCATION	IMPLEMENTING AGENCY	SHEET NO.
LARRY E. ROCELA PEU EIT	MARILYN M. ESCOBAR DEAN EIT	RENATO B. CUBILLA DIRECTOR POG	HENRY O. GARCIA VPAS CSEU	HERNANDO D. ROBLES PRESIDENT CSEU	REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY MAIN CAMPUS BAGONG, CAVITE	CAVITE STATE UNIVERSITY	S 3



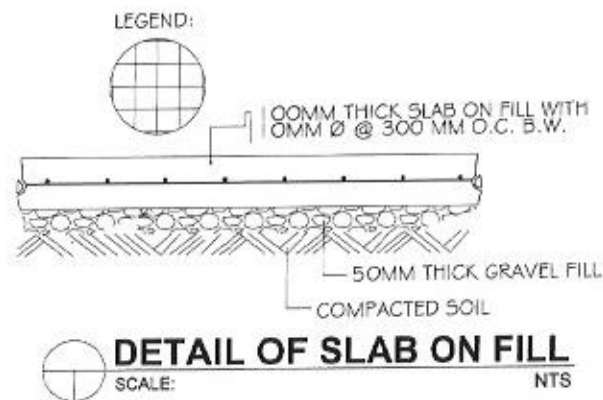
FOOTING DETAILS

SCALE: 1:50 MTS



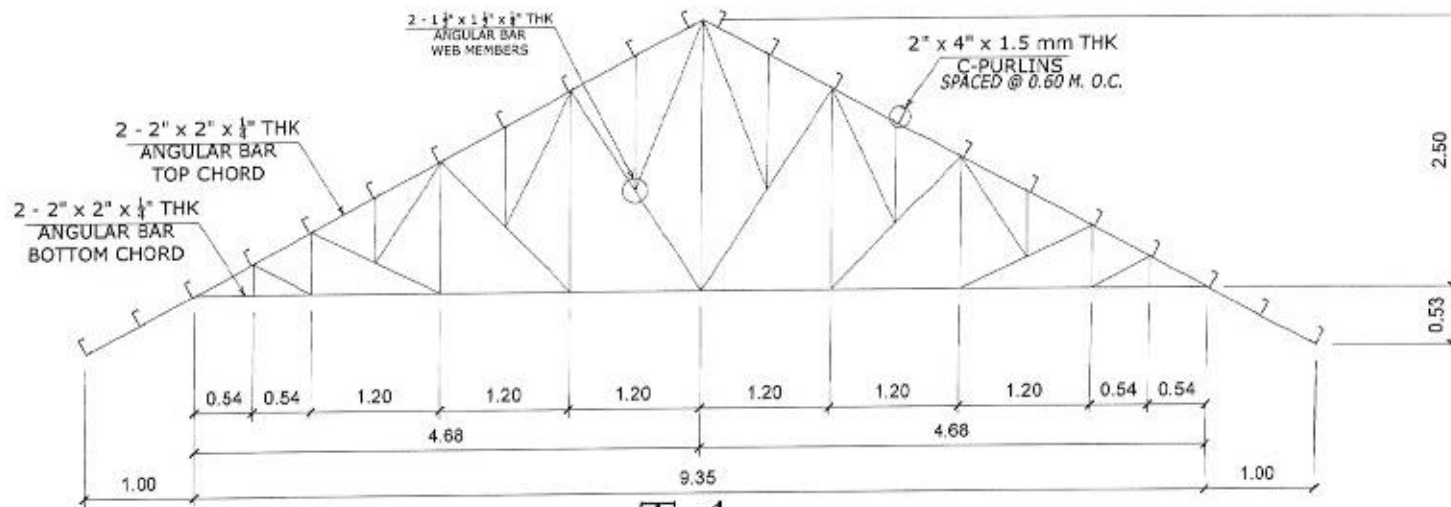
SCHEDULE OF COLUMN

C1	C2
0.35 0.25 4-16mm$\varnothing$ 4-12mm$\varnothing$ GRADE 40	0.25 0.25 4-16mm$\varnothing$ GRADE 40

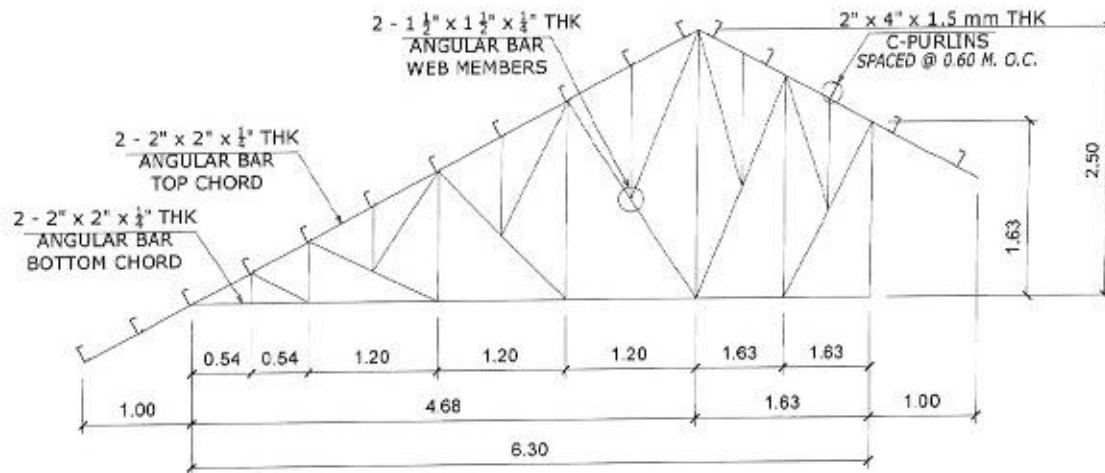


SCHEDULE OF BEAMS

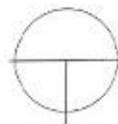
SECTION	END - SECT REBARS	MID - SECT REBARS	SPACING OF STIRRUPS	SPACING OF STIRRUPS
RB	0.30 0.20 2-16MM$\varnothing$ T.B. 2-10MM$\varnothing$ B.B. 2-16MM$\varnothing$ B.B.	0.30 0.20 2-16MM$\varnothing$ T.B. 2-10MM$\varnothing$ B.B. 2-16MM$\varnothing$ B.B.	A,B,C,D	A = 2+ METERS 10$\varnothing$ MM STIRRUPS 2$\varnothing$ 50 MM 2$\varnothing$ 75 MM 2$\varnothing$ 100MM REST @ 200 MM O.C. B = 3 METERS 10$\varnothing$ MM STIRRUPS 2$\varnothing$ 50 MM 2$\varnothing$ 75 MM 3$\varnothing$ 100 MM REST @ 200 MM O.C. C = 4 METERS 10$\varnothing$ MM STIRRUPS 2$\varnothing$ 50 MM 4$\varnothing$ 75 MM 4$\varnothing$ 100 MM REST @ 200 MM O.C. D = 5 METERS 10$\varnothing$ MM STIRRUPS 2$\varnothing$ 50 MM 5$\varnothing$ 75 MM 5$\varnothing$ 100 MM REST @ 200 MM O.C.
TB	0.30 0.20 2-16MM$\varnothing$ T.B. 2-10MM$\varnothing$ B.B. 2-16MM$\varnothing$ B.B.	0.30 0.20 2-16MM$\varnothing$ T.B. 2-10MM$\varnothing$ B.B. 2-16MM$\varnothing$ B.B.	A,B,C,D	



T-1



T-2



STEEL TRUSS DETAILS

SCALE :

NTS

CIVIL ENGINEER	END-USER	ENDORSED BY	REC. APPROVAL	APPROVED BY	PROJECT TITLE/LOCATION	IMPLEMENTING AGENCY	SHEET NO.
LARRY E. ROCELA PEU	MARILYN M. ESCOBAR DEAN	RENATO B. CUBILLA DIRECTOR	HENRY O. GARCIA VPAS	HERNANDO D. ROBLES PRESIDENT	REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY MAIN CAMPUS	CAVITE STATE UNIVERSITY FUSANO, CAVITE	S 5

GENERAL NOTES

GENERAL:

- MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF THE FOLLOWING BUILDING CODE.
 - ACI 318-13
 - AISC 2011
 - NSCP 2010

- ALL DRAWINGS SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES UNLESS OTHERWISE INDICATED.
- FOR ALL OTHER REQUIREMENTS, REFER TO ARCHITECTURAL, SANITARY, ELECTRICAL AND MECHANICAL WORKING DRAWINGS.

FOOTINGS:

- FOOTINGS ARE DESIGNED ON NATURAL GRADE LINE WITH A MIN. BEARING CAPACITY OF 144 KPa WITH A DEPTH OF 1.5 M. FROM NATURAL GRADE.
- NO FOOTING SHALL REST ON FILL.
- MINIMUM CONCRETE PROTECTION FOR REBARS SHALL BE 0.075m CLEAR FOR CONCRETE DEPOSITED AGAINST THE GROUND AND 0.05m CLEAR FOR CONCRETE DEPOSITED AGAINST THE FORM WORK.

CONCRETE MIXES & PLACINGS:

- UNLESS OTHERWISE SPECIFIED, THE MINIMUM 28 DAYS CYLINDER COMPRESSIVE STRENGTH ARE AS FOLLOWS.

FOOTINGS & BEAMS ON GRADE	21.0 MPa
COLUMNS	21.0 MPa
SLAB, BEAMS & GIRDERS	21.0 MPa
PARTITIONS, PARAPET & SHEAR WALL	21.0 MPa
BEDDED SLABS, CATCH BASINS & SIDE WALK	17.5 MPa

- ALL CONCRETE MUST BE DEPOSITED, VIBRATED AND CURED IN ACCORDANCE WITH ACT STANDARD 318-89.
- STRIPPING FORMS AND SHORES SHALL BE AS FOLLOWS

FOUNDATIONS	1 DAY
COLUMNS & WALLS	3 DAYS
BEAMS & GIRDER	21 DAYS
SLABS	17 DAYS

- CONCRETE SHALL BE DEPOSITED IN ITS FINAL POSITION WITHOUT SEGREGATION, RE-HANDLING OR FLOWING. PLACING SHALL BE DONE PREFERABLY WITH BUCKETS, BUCKETS OR WHEEL BARROWS. NO CHUTES WILL BE ALLOWED EXCEPT TO TRANSFER CONCRETE FROM HOPPERS TO BUCKETS, WHEELBARROWS, OR BUCKETS IN WHICH CASE THEY SHALL NOT EXCEED 600mm IN AGGREGATE LENGTH. NO DEPOSITING OF CONCRETE SHALL BE ALLOWED WITHOUT THE USE OF VIBRATOR. UNLESS AUTHORIZED IN WRITING BY THE DESIGNERS AND ONLY FOR USUAL CONDITIONS WHERE VIBRATOR IS EXTREMELY DIFFICULT TO ACCOMPLISH.

BEAMS & GIRDERS:

- CAMBERS ALL BEAMS AND GIRDERS AT LEAST 62mm FOR EVERY 3.00m OF SPAN.
- FOR TWO OR MORE LAYERS OF REINFORCING BARS, USED SEPARATOR SPACED AT 0.914 M. O.C. AND IN NO CASE SHALL BE LESS THAN TWO (2) SEPARATORS.
- NO SPLICE SHALL BE PERMITTED ON BEAMS AND GIRDERS WHERE CRITICAL BENDING STRESSES OCCUR. TENSION SPLICE SUPERMITTED SHALL BE 48 DIAMETER FOR PLAIN BARS AND 24 DIAMETER FOR DEFORMED BARS. COMPRESSION SPLICE SHALL BE 40 DIA. FOR PLAIN BARS AND 20 DIA. FOR DEFORMED BARS. LAP SPLICES SHALL BE WELDED TOGETHER SPLICE TOP BARS AT MID SPAN BOTTOM BARS AT SUPPORT BENT BARS AT BEND POINTS IN SUPERSTRUCTURE WELDED SPLICES SHALL BE DEVELOPED INTENSION AT LEAST 1.25 D OF THE SPECIFIED YIELD STRENGTH OF THE BAR NOT MORE THAN 50% OF THE BARS AT ANY ONE SECTION SHALL BE PERMITTED TO BE SPLICED.
- IF BEAM REINFORCING BARS END IN A WALL THE CLEAR DISTANCE FROM THE BAR TO THE FURTHER FACE OF THE WALL SHALL NOT BE LESS THAN 0.05m EMBEDMENT LENGTH SHALL BE 40. DIA FOR TENSION AND 20 DIA. COMPRESSION BARS.
- MINIMUM CONCRETE PROTECTION REINFORCING BARS OR SHAPE SHALL BE AS SHOWN

- UNLESS OTHERWISE NOTED IN PLANS OR SPECIFICATIONS, CAMBER ALL BEAMS AND GIRDERS AT LEAST 62mm FOR EVERY 3.00m OF SPAN EXCEPT CANTILEVERS FOR WHICH THE CAMBERS SHALL BE AS NOTED IN THE PLANS OR ORDERED THE DESIGNER, BUT IN NO CASE LESS THAN 6.7mm FOR EVERY 3.00m OF FREE SPAN.

CONCRETE HOLLOW BLOCKS:

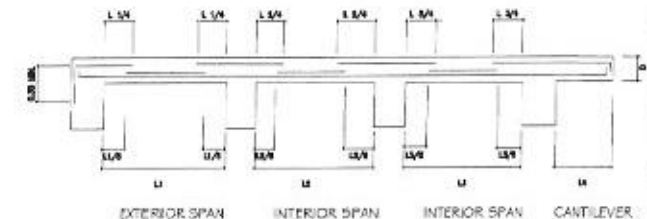
REINFORCEMENT AS TABULATED BELOW SHALL BE PROVIDED UNLESS OTHERWISE SPECIFIED IN THE PLAN

CONCRETE HOLLOW BLOCKS REINFORCEMENT		
BLOCK THK.	REINFORCEMENT	
	HORIZONTAL	VERTICAL
0.76 M	# 10 AT 0.60 M	# 10 AT 0.60 M
0.100 M	# 10 AT 0.60 M	# 10 AT 0.60 M
0.150 M	# 10 AT 0.60 M	# 10 AT 0.60 M
0.200 M	# 12 AT 0.60 M	# 10 AT 0.60 M

A. WELSPICE AT LAP 0.25M
B. PROVIDE 90° ANGLE REINFORCEMENT AT CORNER 0.24M LONG
C. WHERE C.B. WALLS ADJOINING COL. REBARS AND CORNERS 1/2 SIZE AS VERT. OR HOR. REIN. SHALL BE PROVIDED

CONCRETE SLABS:

- ALL REINFORCEMENT SHALL BE 0.019m CLEAR MINIMUM FROM TOP AND BOTTOM OF SLAB.
- FOR TWO-WAY SLAB BARS ALONG SHORTER SPAN SHALL BE PLACED BELOW THOSE ALONG THE LONGER SPAN AT CENTER AND OVER THE LONGER SPAN BARS NEAR THE SUPPORT UNLESS OTHERWISE INDICATED OR SHOWN IN DETAILS THE SPACING OF THE BARS AT THE COLUMN STRIPS CAN BE APPROXIMATELY 1-1/3 OF THE MIDDLE STRIPS BUT IN NO CASE GREATER THAN 2-1/3 TIMES THE SLAB THICK.
- UNLESS OTHERWISE SHOWN IN DETAIL FOR ONE WAY SLAB, REINFORCING BARS SHALL BE BEND, EXTENDED OR CUT AS FOLLOWS. NO CASE LESS THAN 6.7mm FOR EVERY 3.00m OF FREE SPAN.



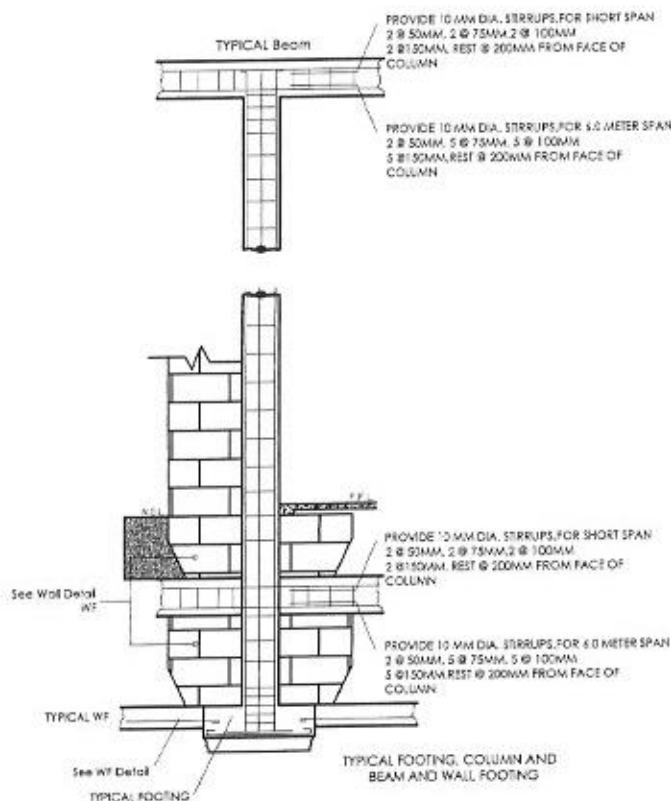
MILD STEEL REINFORCEMENT:

- ALL MILD STEEL REINFORCEMENT SHALL CONFORM TO ASTM A-13-62-21 AND DEFORMATIONS TO A REVISIONS.
- DEVELOPMENT LENGTH FOR ALL BARS SHALL BE A MINIMUM OF 40 BARS DIA. UNLESS OTHERWISE SPECIFIED.

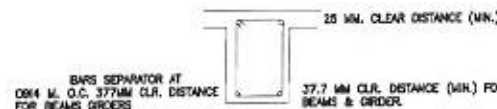
BAR # 012 : $F_y = 225 \text{ MPa}$
BAR # 016 : $F_y = 275 \text{ MPa}$

STRUCTURAL STEEL:

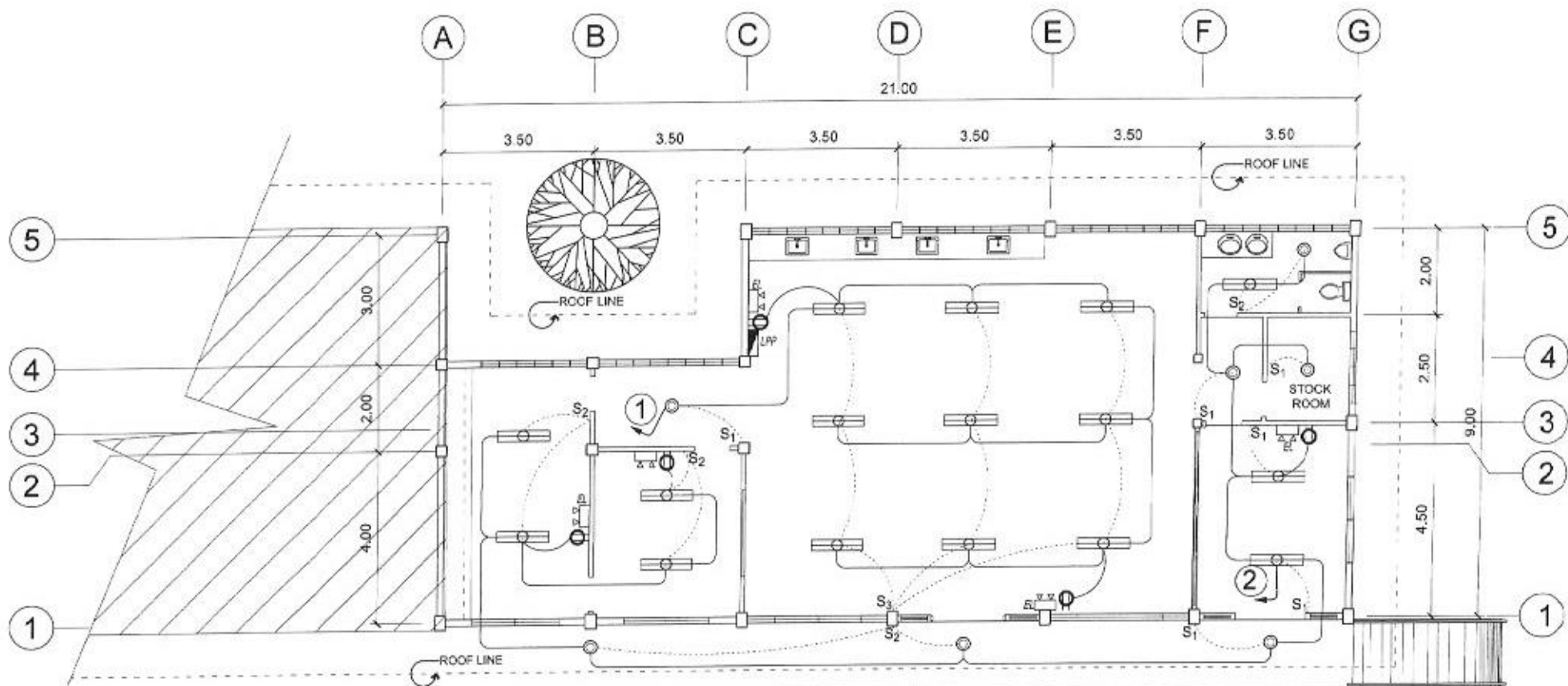
- ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36 $F_y = 36,000 \text{ PSI}$
- WELDING SHALL CONFORM TO AWS STANDARDS.
- FABRICATOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL BY THE ENGINEER AND THE OWNER PRIOR TO FABRICATION.



CONNECTION DETAILED SECTION
SCALE: 1/4" = 1'-0"



CIVIL ENGINEER: LARRY E. ROCELA PRJ	ENDORSED BY: MARILYN M. ESCOBAR DEAN	ENDORSED BY: RENATO E. CUBILLA DIRECTOR	REC. APPROVAL: HENRY O. GARCIA VPL	APPROVED BY: HERNANDO D. ROBLES PRESIDENT	PROJECT TITLE/LOCATION: REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY NAAN CAMPUS	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHEET NO.: S 6
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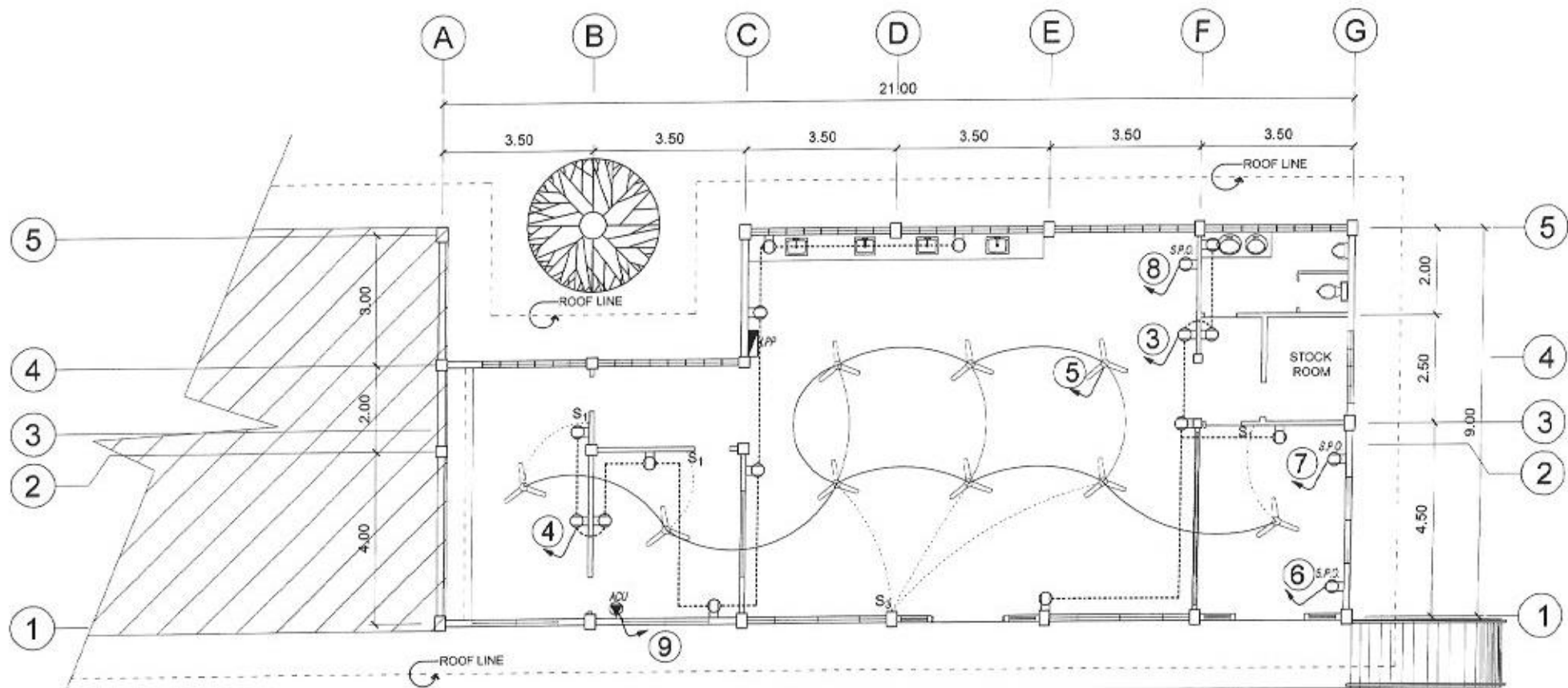


LIGHTING LAYOUT

SCALE

1: 100 M.

PROFESSIONAL ELECTRICAL ENGINEER	END-USER	ENDORSED BY:	REC. APPROVAL	APPROVED BY:	PROJECT TITLE/LOCATION	IMPLEMENTING AGENCY	SHEET NO.
RONALDO P. PENA CEIT	MARILYN M. ESCOBAR DEAN	RENATO B. CUBILLA DIRECTOR	HENRY O. GARCIA VP/ASST.	HERNANDO D. ROBLES PRESIDENT	REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY - NRI CAMPUS	CAVITE STATE UNIVERSITY	E 1



POWER LAYOUT

SCALE

1: 100 M.

PROFESSIONAL ELECTRICAL ENGINEER: <i>Ronald P. Bena</i> RONALD P. BENA CET	END USER: <i>Marilyn M. Escobar</i> MARILYN M. ESCOBAR DEAN	ENDORSED BY: <i>Renato B. Cubilla</i> RENATO B. CUBILLA DIRECTOR	REC. APPROVAL: <i>Henry O. Garcia</i> HENRY O. GARCIA TREAS.	APPROVED BY: <i>Hernando D. Robles</i> HERNANDO D. ROBLES PRESIDENT	PROJECT TITLE/LOCATION: REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY MAIN CAMPUS NEANG, CAVITE	IMPLEMENTING AGENCY: CAVITE STATE UNIVERSITY	SHEET NO. E / 2
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PANEL BOARD: Lighting Power Panel (LPP)

1 - Phase 2 - Wire + Ground 230 volts surface mounted

Circuit No.	NUMBER OF OUTLETS	LOAD DESCRIPTIONS	VOLT RATING	LOAD IN VOLT-AMPS	LOAD IN AMPERE	Circuit Protection				Size of Conductor		Size of Conduit In MM Ø	Color Code
						AT	AF	POLE	TYPE	MM² THHN	MM² THHN (G)		
1	12	LIGHTING OUTLET	230	1200	5.22	15	100	2	B-ON	2-2.0		15	1R, 1BK
2	16	LIGHTING OUTLET	231	1600	6.93	15	100	2	B-ON	2-2.0		15	1R, 1BK
3	6	CONVENIENCE OUTLETS	230	1200	5.22	20	100	2	B-ON	2-3.5	+ 1-3.5	15	1R, 1BK, 1G
4	9	CONVENIENCE OUTLETS	231	1800	7.79	20	100	2	B-ON	2-3.5	+ 1-3.5	15	1R, 1BK, 1G
5	9	CEILING FAN	230	500	2.17	20	100	2	B-ON	2-3.5	+ 1-3.5	15	1R, 1BK, 1G
6	1	SPECIAL PURPOSE OUTLET	230	1500	6.52	30	100	2	B-ON	2-5.5	+ 1-3.5	15	1R, 1BK, 1G
7	1	SPECIAL PURPOSE OUTLET	230	1500	6.52	30	100	2	B-ON	2-5.5	+ 1-3.5	15	1R, 1BK, 1G
8	1	SPECIAL PURPOSE OUTLET	230	1500	6.52	30	100	2	B-ON	2-5.5	+ 1-3.5	15	1R, 1BK, 1G
9	1	ACU	230	2500	11.00	20	100	2	B-ON	2-3.5	+ 1-3.5	15	1R, 1BK, 1G
10		SPARE											
	TOTAL		230	13300	58.89	100	100	2	B-ON	2-22 THHN + 1-8.0 THW		25	1R, 1BK, 1G

$$I_{NL} = \frac{(13300 + 25\% \times 1500) \times DF}{230} = 59.48 \text{ Amperes}$$

FEEDER and CURRENT PROTECTION COMPUTATION:

$$I_{CB} = \frac{(13300 + 250\% \times 1500) \times DF}{230} = 67.83 \text{ Amperes}$$

Note:

This Electrical Design is good for the above connected load. Any additional electrical load connection in the future is not allowed except redesign will be done.

USE:

MAIN : 100 AT, 100AF, 240V, 2P CB, 20 KAIC, with solid neutral
FEEDER: 2 - 22.0 SQ. MM THW + 1 - 5.5 SQ. MM THW (G) in 25 MM dia IMC

NOTE:

1R - COLOR RED CONDUCTOR

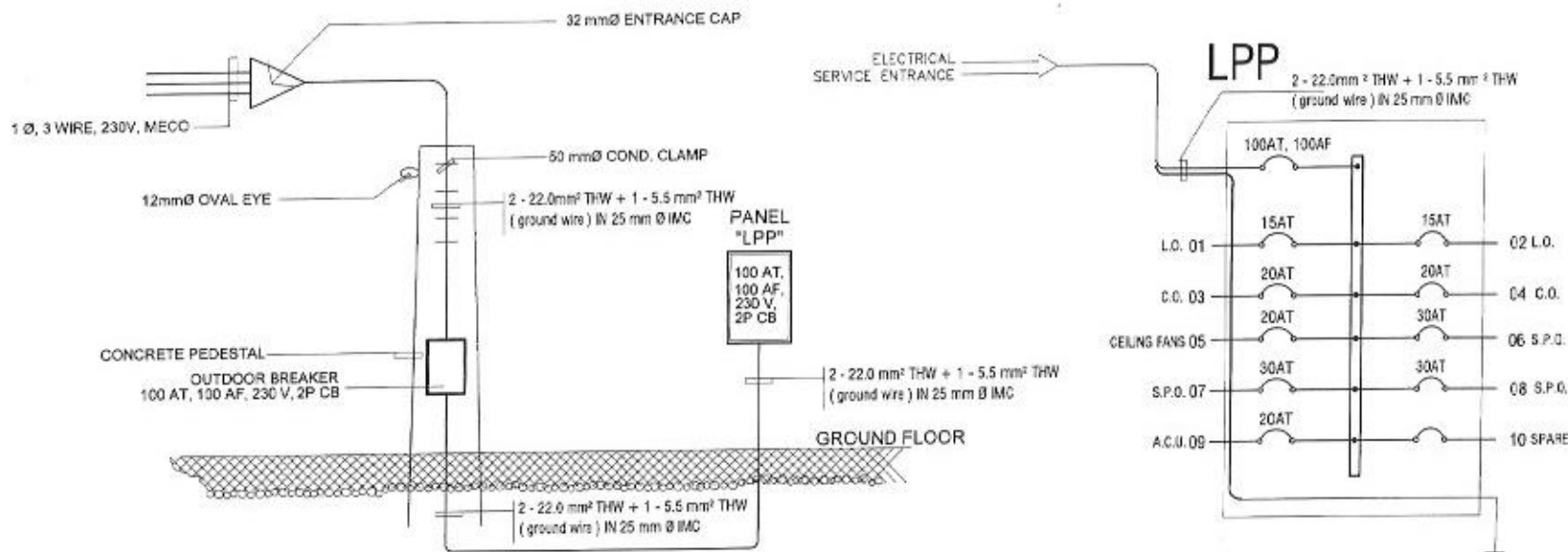
1BK - COLOR BLACK CONDUCTOR

1G - COLOR GREEN CONDUCTOR (EQUIPMENT GROUNDING)

Ø - COLOR GRAY/WHITE CONDUCTOR (GROUND WIRE)

SCHEDULE OF LOADS

SCALE: NTS



POWER FEEDER SINGLE LINE DIAGRAM

SCALE: NTS

BOARD PANEL DETAILS

SCALE: NTS

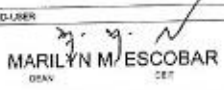
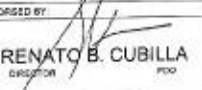
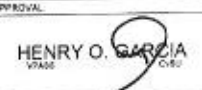
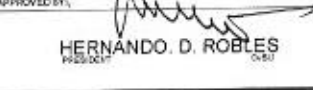
PROFESSIONAL ELECTRICAL ENGINEER	END-USER	ENDORSED BY	REC. APPROVAL	APPROVED BY	PROJECT TITLE/LOCATION	IMPLEMENTING AGENCY	SHEET NO.
RONALDO R. PERA EIT	MARILYN M. ESCOBAR DEAN	RENATO B. CUBILLA DIRECTOR	HENRY O. GARCIA VIAIR	HERNANDO D. ROBLES PRESIDENT	REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY MAIN CAMPUS	CAVITE STATE UNIVERSITY PONDAG, DAVITE	E 3

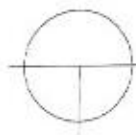
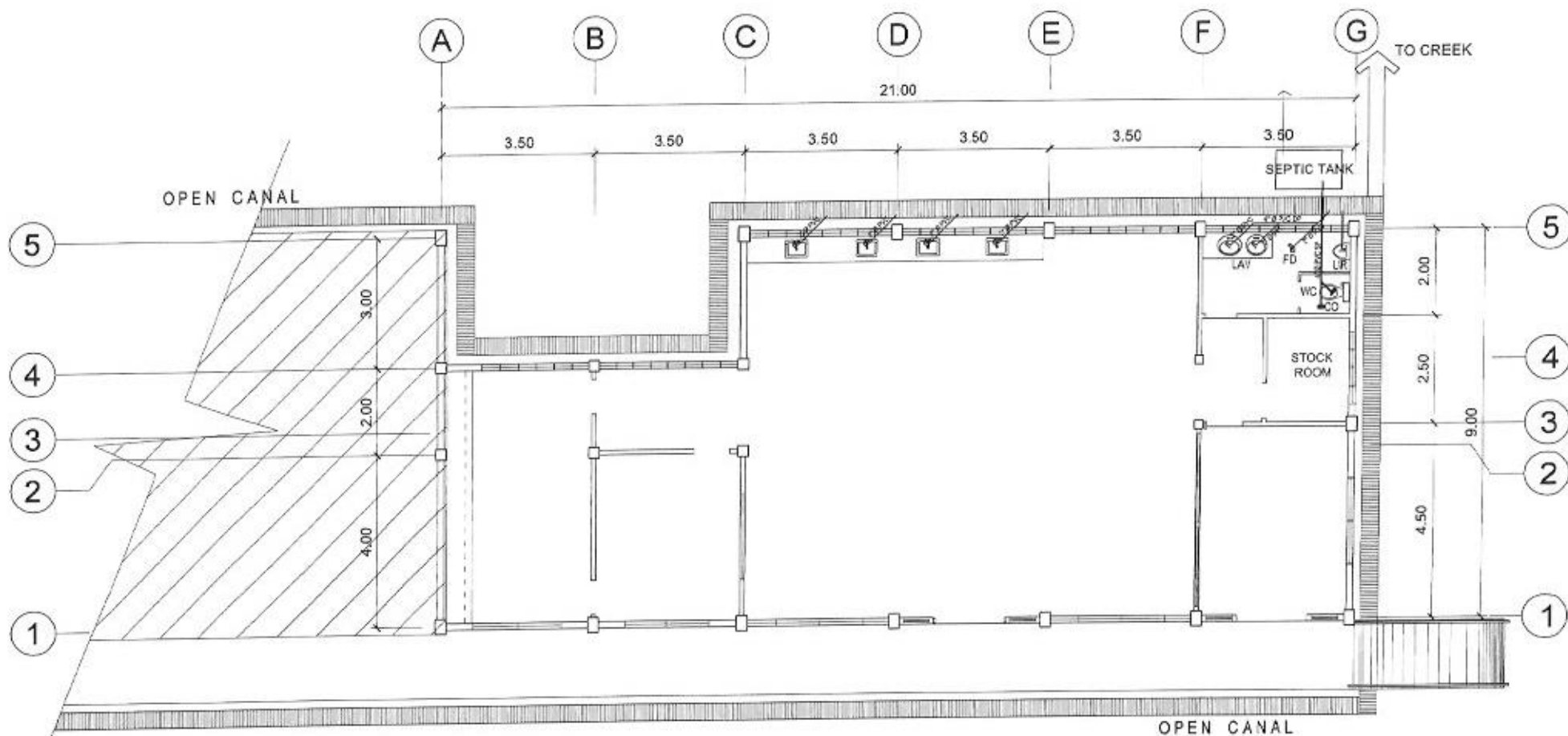
GENERAL NOTES & SPECIFICATIONS

1. ALL ELECTRICAL WORKS SHALL COMPLY W/ THE PROVISIONS OF THE PHILIPPINE ELECTRICAL CODE RULES & REGULATIONS CONCERNED IN THE ENFORCEMENT OF ELECTRICAL LAWS & OF THE LOCAL POWER COMPANY & EXISTING LOCAL AUTHORITIES ORDINANCES.
2. SERVICE VOLTAGE TO THE BUILDING FROM THE POWER SOURCE SHALL BE 230 VOLTS 2-PHASE, 60 Hz, 3 WIRES.
3. ELECTRICAL WORKS SHALL BE IN PVC AND RSC CONDUIT
4. ALL WIRE TO BE USED SHALL BE COPPER W/ THERMOPLASTIC INSULATION TYPE "THHD" UNLESS OTHERWISE INDICATED.
5. ALL PANEL BOARD SHALL BE 1.5 M HIGH ON CENTER
6. WORKMANSHIP SHALL BE FIRST CLASS & IN ACCORDANCE W/ MODERN ENGINEERING PURPOSES.
7. ADEQUATE SERVICE EQUIPMENT GROUNDING SHALL BE PROVIDED.

LEGENDS & SYMBOLS:

	2x40W TROFFER TYPE FLOURESCENT FIXTURE		CEILING FAN
	1x40W TROFFER TYPE FLOURESCENT FIXTURE		EMERGENCY LIGHT
	PIN LIGHT		CIRCUIT HOMERUN
	SWITCH CONTROL		AIR CIRCUIT BREAKER
	PANEL BOARD		AIRCONDITIONING UNIT
	SERVICE ENTRANCE		DUPLEX CONVENIENCE OUTLET

PROFESSIONAL ELECTRICAL ENGINEER  RONALD P. PENAS CET	END USER  MARILYN M. ESCOBAR DEAN CET	ENDORSED BY  RENATO B. CUBILLA DIRECTOR POO	REC. APPROVAL  HENRY O. GARCIA VPM CRO	APPROVED BY  HERNANDO D. ROBLES PRESIDENT CRO	PROJECT TITLE/ LOCATION REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY MAIN CAMPUS INDOOR CAVITE	IMPLEMENTING AGENCY CAVITE STATE UNIVERSITY	SHEET NO. E 4
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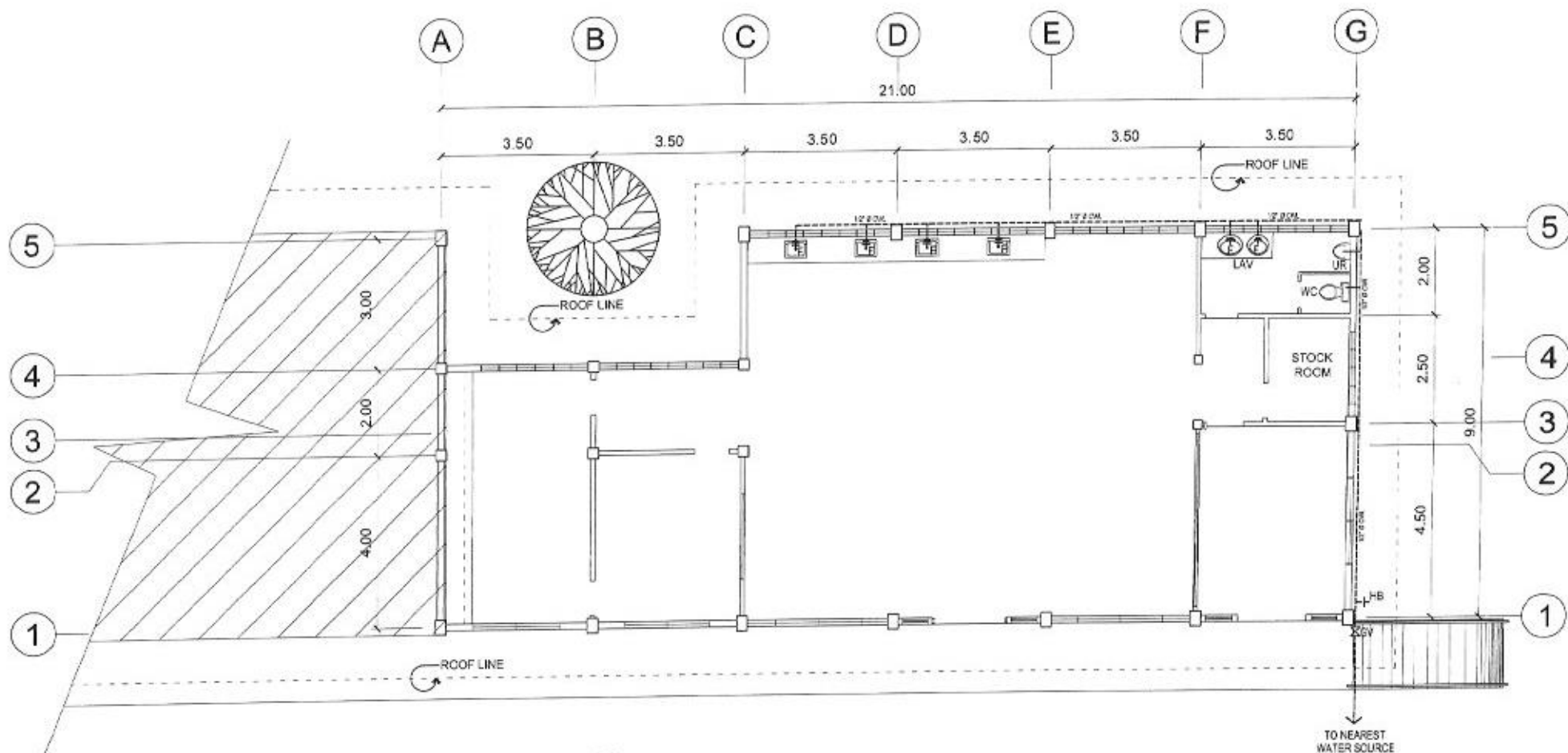


SEWERAGE LAYOUT

SCALE

1: 100 M.

MASTER PLANNER: SANCHO B. BAYOT JR. CET	END USER: MARILYN M. ESCOBAR DEAN CET	ENDORSED BY: RENATO B. CUBILLA DIRECTOR POO	REC. APPROVAL: HENRY O. GARCIA VICE CEN	APPROVED BY: HERNANDO D. ROBLES PRESIDENT CEN	PROJECT TITLE/LOCATION: REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY KAN CAMPUS NOBAND, CAVITE	SPONSORING AGENCY: CAVITE STATE UNIVERSITY	SHEET NO. P 1
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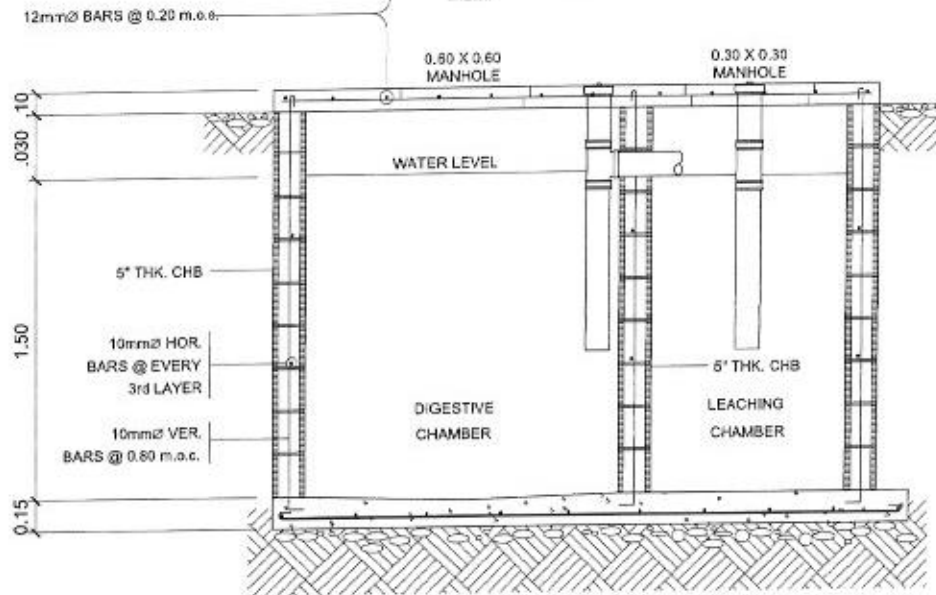
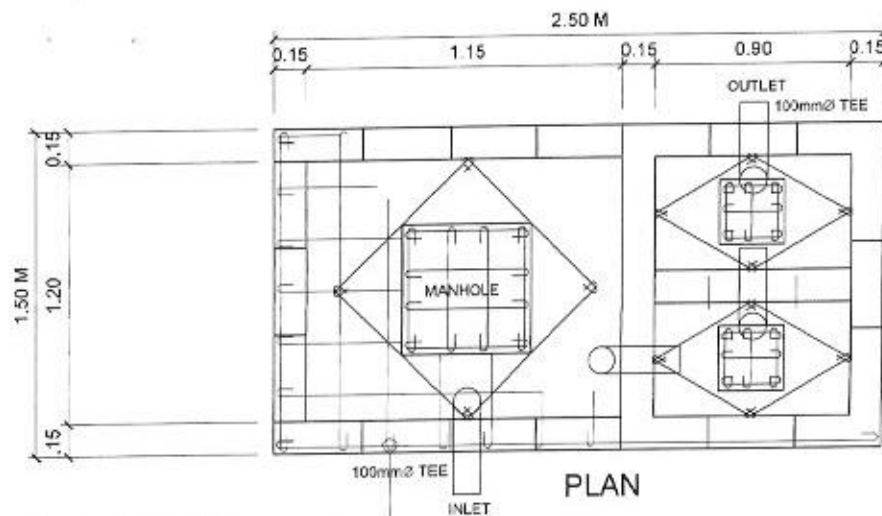


WATER SUPPLY LAYOUT

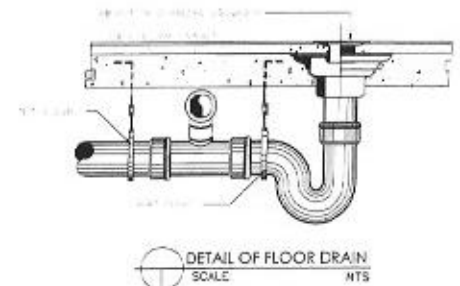
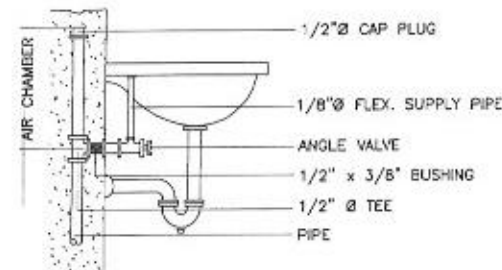
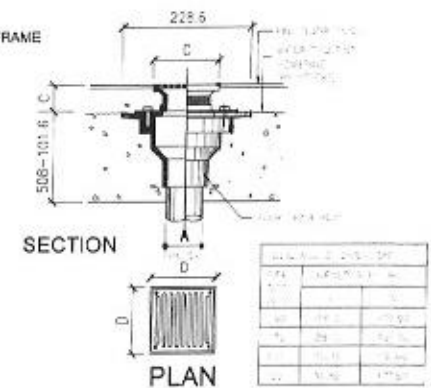
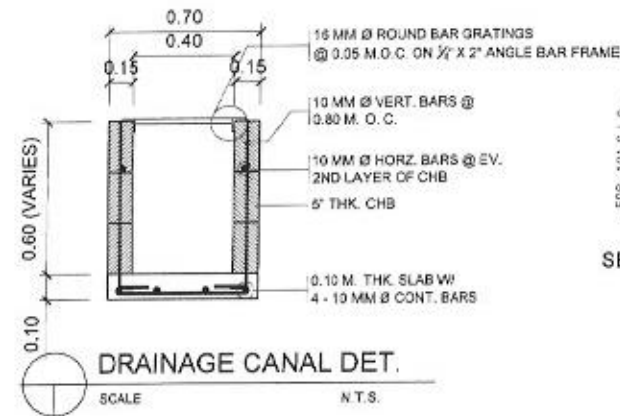
SCALE

1: 100 M.

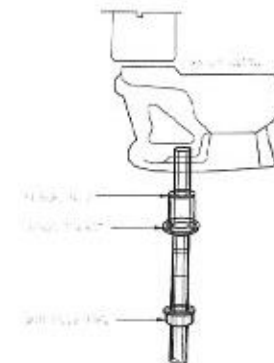
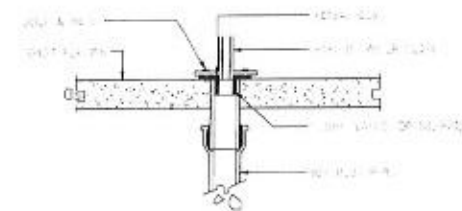
MASTER PLANNER	EXD-USER	ENDORSE BY	REC. APPROVAL	APPROVED BY	PROJECT TITLE/LOCATION	IMPLEMENTING AGENCY	SHEET NO.
SANCHO B. BAYOT JR. PRJ	MARILYN M. ESCOBAR QGAN	RENATO B. CUBILLA DIR	HENRY O. GARCIA VCE	HERNANDO D. ROBLES PRES	REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY DAVITE STATE UNIVERSITY MAIN CAMPUS	DAVITE STATE UNIVERSITY BOARD, CAVITE	P 2



SECTION
DETAIL OF SEPTIC TANK
SCALE 1 : 20 MTS.



AIR CHAMBER DETAIL
SCALE N.T.S.



DETAIL OF WATER CLOSET CONNECTION
SCALE: N.T.S.

MASTER PLANNER	END USER	ENDORSED BY	REC. APPROVAL	APPROVED BY	PROJECT TITLE/LOCATION	IMPLEMENTING AGENCY	SHEET NO.
SANCHO B. BAYOT JR. SR.	MARILYN M. ESCOBAR DRM	RENATO B. CUBILLA DIRECTOR	HENRY O. GARCIA SEAS	HERNANDO D. ROBLES PRESIDENT	REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY DAVITE STATE UNIVERSITY RAN CANTUS	CAVITE STATE UNIVERSITY BANGALAY	P 3

GENERAL NOTES

ALL PLUMBING WORKS INCLUDED HEREIN SHALL BE EXECUTED ACCORDING TO THE PROVISIONS OF THE PHIL. PLUMBING CODE. THE NATIONAL PLUMBING CODE & THE RULES & REGULATIONS OF INDANG, CAVITE.

COORDINATE THE DRAWING WITH OTHER RELATED DRAWINGS AND SPECIFICATION. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DICREPANCY FOUND THEREIN.

ALL PIPES SHALL BE INSTALLED AS INDICATED ON PLANS. ANY RELOCATIONS REQUIRED FOR PROPER EXECUTION OF OTHER TRADE SHALL BE WITH PRIOR APPROVAL OF THE ARCHITECHT OR ENGINEER.

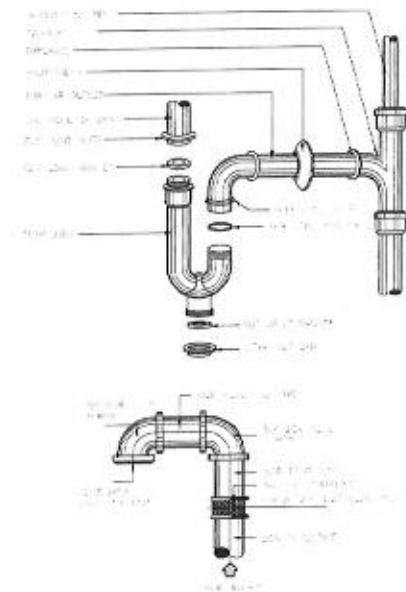
PROPOSED SANITARY UTILITIES SHALL CONFORM TO THE ACTUAL LOCATION, DEPTH AND INVERT ELEVATION OF ALL EXISTING PIPES AND STRUCTURES AS VERIFIED BY THE CONTRACTOR.
APPROVED EQUAL.

ALL SLOPES FOR HORIZONTAL DRAINAGE SHALL MAINTAIN 1% UNLESS OTHERWISE SPECIFIED.

SIZE OF WATER SUPPLY PIPES TO FIXTURES SHALL BE IN ACCORDANCE WITH WITH THE MANUFACTURER'S INSTRUCTIONS.

THE CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES AT SITE, COORDINATE THE WORKS WITH THE SEWER LINE EFFLUENT DISPOSAL POINT AND WATER LINE SERVICE CONNECTING POINT UNLESS OTHERWISE SPECIFIED.

ALL PIPE SIZES ARE IN MILLIMETERS AND ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.



DETAIL OF PVC TO G.I.
CONNECTION @ VTR

SCALE: NTS

LEGEND

—————	4" Ø PVC PIPE WASTE LINE
—————	2" Ø PVC PIPE DRAINAGE LINE
-----	1/2" Ø G. I. PIPE COLD WATER LINE
-----	2" Ø PVC PIPE VENTILATION LINE
—————	6" Ø CONCRETE PIPE DRAINAGE LINE

C.O.	CLEAN OUT
F.D.	FLOOR DRAIN
G.V.	GATE VALVE
H.B.	HOSE BIBB
W.C.	WATER CLOSET
LAV.	LAVATORY

MASTER PLUMBER	END USER	ENDORSED BY	ISC. APPROVAL	APPROVED BY	PROJECT TITLE/ LOCATION	IMPLEMENTING AGENCY	SHEET NO.
SANCHO B. BAYOT JR. PPLU	MARILYN M. ESCOBAR DEN	RENATO B. CUBILLA DIRECCION	HENRY O. GARCIA STAFF	HERNANDO. D. ROBLES PRESIDENT	REPAIR & IMPROVEMENT OF MATERIAL TESTING LABORATORY CAVITE STATE UNIVERSITY MAIN CAMPUS	CAVITE STATE UNIVERSITY REAR, CAVITE	P 4