



Republic of the Philippines  
**Benguet State University**  
 La Trinidad, 2601, Benguet Province  
 Tel/Fax No. 619-1839



**Bids and Awards Committee (BAC) – Infrastructure**

**INVITATION TO SUBMIT QUOTATION**

April 12, 2024

Reference Number: **2024-339**

Name of Project: **CLUSTER REPAIR AND UPGRADING OF VARIOUS ACADEMIC LABORATORIES**

Project Location: BSU Compound, Km 6, La Trinidad, Benguet

Approved Budget for the Contract (ABC): Php. 1,800,000.00

Contract Duration: 72 calendar days

Source of Fund: 2024 GAA-MOOE

**I. Introduction:**

- A. The Benguet State University, through the Bids and Awards Committee (BAC), is inviting registered contractors with valid license issued and classified by the Philippine Contractors Accreditation Board (PCAB) to bid for the above stated project. The project is a Repair and Upgrading of four (4) academic laboratories having a total area of 199.00 sq.m.
- B. Prospective Bidders must have key personnel and equipment (owned, leased or under leased agreement) available for the prosecution of the project.

**II. Scope of Work**

Item No.	Scope of Work
A	General Requirements
B	CRAC Laboratory of the College of Forestry <ul style="list-style-type: none"> <li>1. Siteworks</li> <li>2. Masonry Works</li> <li>3. Electrical Works</li> <li>4. Plumbing Works</li> <li>5. Architectural Finishings</li> </ul>
C.	Sensory Laboratory of the College of Home Economics and Technology <ul style="list-style-type: none"> <li>1. Masonry Works</li> <li>2. Electrical Works</li> <li>3. Plumbing Works</li> <li>4. Architectural Finishings</li> <li>5. Fire Safety</li> </ul>
D.	Floriculture Biotechnology Laboratory of the College of Agriculture <ul style="list-style-type: none"> <li>1. Site works</li> <li>2. Reinforced concrete Works</li> <li>3. Roofing Works</li> <li>4. Masonry Works</li> <li>5. Electrical Works</li> <li>6. Architectural Finishings</li> </ul>
E.	AC 208 Laboratory of the College of Agriculture <ul style="list-style-type: none"> <li>1. Site Works</li> <li>2. Electrical Works</li> <li>3. Plumbing works</li> <li>4. Architectural Finishings</li> </ul>

III. Technical Personnel Required

- a. 1 - Site Engineer/ site Architect – full time
- b. 1 - Safety Officer/ Practitioner – part time
- c. 1 – Master Electrician
- d. 1 – Master Plumber
- e. 4- Construction Foreman

IV. List of Equipment – must be in good condition

- a. 1 – Truck (2.-5 MT)
- b. 1 – Bagger Mixer
- c. 1 – Concrete Vibrator
- d. 1 – Welding Machine
- e. 1 – Submersible Water Pump (1.5 HP)
- f. 1 - Bar Bender
- g. 1 - Cutting Outfit
- h. 8 - H-Frame 1.7mx1.2m, set
- i. Various Power tools
- j. Various Minor Tools

V. Eligibility Requirements (must be updated)- All eligibility requirements will be used for procurement purposes only.

- a. PhilGEPS Registration (must be Platinum)- with complete annexes
- b. Business Permit
- c. PCAB License
- d. Computation of Net Financial Contracting Capacity (NFCC)
- e. Income and Business Tax Returns
- f. Audited Financial Statements
- g. Certificate of Site Inspection
- h. Omnibus Sworn Statement
- i. List of Technical Personnel with updated PRC licenses and accreditation
- j. List of Equipment with proof of ownership

VI. Procurement Activities:

a. Issuance of bid documents:

Interested bidders/ contractors can get a copy of the plans and designs, bill of quantities of the project **starting April 16, 2024** during office hours at the Procurement Management Office (PMO), 1<sup>st</sup> Floor, Administration Building, BSU, La Trinidad, Benguet

b. Deadline for Submission of Quotation

Quotation is to be submitted in a sealed envelope with the eligibility requirements on or before **April 23, 2024** at 10:00 AM at the Procurement Management Office (PMO), 1<sup>st</sup> Floor, Administration Building, BSU, La Trinidad, Benguet.

c. Opening of Quotation

**April 23, 2024 at 10:00 AM** at the VP Adfin Conference Hall, 2/F BSU Administration Building, La Trinidad, Benguet.

For further information, please refer to:

**BAC Secretariat Committee**

*Benguet State University-La Trinidad Campus*

*Tel No. 661-1839; 0950-603-2749*

*Email: procurement@bsu.edu.ph*

**(Sgd) SAMUEL S. POLIDEN**  
Chairperson  
Bids and Awards Committee

**COMPANY LETTER HEAD**

**PROJECT PROGRAM OF WORKS**

PROJECT TITLE: PROJECT LOCATION : TOTAL PROJECT COST : PROJECT DURATION: IMPLEMENTATION MODE:	<b>CLUSTER REPAIR AND UPGRADING OF VARIOUS ACADEMIC LABORATORIES</b> <b>BSU La Trinidad Campus</b>  <b>72 C.D.      INCLUSIVE OF:      10 UNWORKABLE DAYS</b>
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PROJECT DESCRIPTION	EQUIPMENT NEEDED		EQUIPMENT NEEDED	
	NO.	DESCRIPTION	NO.	DESCRIPTION
<i>The project is a repair and upgrading of four (4) academic laboratories having a total area of 199.00 sq.m.</i>	1	Truck (2-5 MT)	1	Bar Bender
	1	Bagger Mixer	1	Cutting outfit
	1	Concrete Vibrator	8	H-Frame 1.7m x 1.2m, set
	1	Welding Machine	1	Various Power tools
	1	Bar Cutter	1	Various Minor tools
	1	Submersible Water Pump 1.5 hp	TECHNICAL PERSONEL	
			NO.	DESCRIPTION
		1	Site Engineer/ Site Architect	
		1	Safety Officer (Part-time)	
		4	Construction Foreman	
		1	Master Electrician	
		1	Master Plumber	

ITEM NO.	DESCRIPTION	% WEIGHT	QUANTITY	UNIT	UNIT COST	TOTAL COST
<b>A.</b>	<b>GENERAL REQUIREMENTS</b>					
a.	Mobilization/Demobilization		1.00	lot		
b.	Project Billboard		1.00	lot		
c.	Safety and Health		1.00	lot		
<b>B.</b>	<b>CRAC LABORATORY OF CF</b>					
<b>I.</b>	<b>SITWORKS</b>					
a.	Clearing, Grubbing and Cleaning		33.56	m <sup>2</sup>		
<b>II.</b>	<b>MASONRY WORKS</b>					
a.	CHB Laying		21.27	m <sup>2</sup>		
b.	Plastering and topping		28.27	m <sup>2</sup>		
<b>III.</b>	<b>ELECTRICAL WORKS</b>					
a.	Conduits and boxes		11.00	pcs.		
b.	Wires and Wiring Devices		7.00	sets		
c.	Electrical Fixtures		4.00	sets		
<b>IV.</b>	<b>PLUMBING WORKS</b>					
a.	Pipe Lines		21.00	lm		
b.	Plumbing Fixtures		5.00	units		
<b>V.</b>	<b>ARCHITECTURAL FINISHINGS</b>					
a.	Tile Works (Unglazed Tiles)		4.05	m <sup>2</sup>		
b.	Tile Works (Glazed Tiles)		11.70	m <sup>2</sup>		
c.	Painting Works		22.98	m <sup>2</sup>		
d.	Hollow Core Flush Door		4.20	m <sup>2</sup>		
e.	Aluminum Windows		3.54	m <sup>2</sup>		
f.	Drywall Partition		32.48	m <sup>2</sup>		
g.	Steel Gate		2.92	m <sup>2</sup>		
<b>C.</b>	<b>SENSORY LABORATORY OF CHET</b>					
<b>I.</b>	<b>MASONRY WORKS</b>					
a.	CHB Laying		1.50	m <sup>2</sup>		
b.	Cement Plaster Finish		2.00	m <sup>2</sup>		
<b>II.</b>	<b>ELECTRICAL WORKS</b>					
a.	Conduits, Boxes, and Fittings		110.00	lm.		
b.	Wires and Wiring Devices		110.00	lm.		
c.	Electrical Fixtures		23.00	sets		
d.	Panel Board/ Boxes/ Breaker		8.00	set		
<b>III.</b>	<b>PLUMBING WORKS</b>					
a.	Pipe Lines		25.00	lm.		
b.	Plumbing Fixtures		1.00	set		
c.	HVAC (Heating, Ventilation and Air-Conditioning)		3.00	sets		
<b>IV.</b>	<b>ARCHITECTURAL FINISHINGS</b>					
a.	Dry Wall Partition		14.31	m <sup>2</sup>		
b.	Granite works		2.00	m <sup>2</sup>		
c.	Aluminum Windows		2.60	m <sup>2</sup>		
d.	Aluminum Glass Doors		5.98	m <sup>2</sup>		
e.	Painting Works		14.31	m <sup>2</sup>		

f.	Modular Cabinets and Furnitures		17.00	units		
VI.	<b>FIRE SAFETY</b>		2.00	units		
<b>D.</b>	<b>FLORICULTURE BIOTECHNOLOGY LABORATORY OF CA</b>					
<b>I.</b>	<b>SITE WORKS</b>					
a.	Clearing and Grubbing		8.96	m <sup>3</sup>		
b.	Structural Excavation - common earth		6.74	m <sup>3</sup>		
c.	Embankment from Structure Excavation		8.46	m <sup>3</sup>		
<b>II.</b>	<b>REINFORCED CONCRETE WORKS</b>					
a.	Gravel Bedding		1.57	m <sup>3</sup>		
b.	Steel Works		500.59	kgs.		
c.	Formworks and falsework		22.96	m <sup>2</sup>		
d.	Concrete Works		3.32	m <sup>3</sup>		
e.	Structural Steel Framing		61.68	kgs		
<b>III.</b>	<b>ROOFING WORKS</b>					
a.	Structural Steel Roof Framing		105.36	kgs.		
b.	Roof Sheeting and Accessories		15.05	m <sup>2</sup>		
<b>IV.</b>	<b>MASONRY WORKS</b>					
a.	CHB Laying		23.40	m <sup>2</sup>		
b.	Plastering		46.80	m <sup>2</sup>		
<b>V.</b>	<b>ELECTRICAL WORKS</b>					
a.	Conduits and boxes		5.00	pcs.		
b.	Wires and Wiring Devices		6.00	sets		
c.	Electrical Fixtures		1.00	set		
d.	Panel Board/ Boxes/breakers		3.00	sets		
<b>VI.</b>	<b>ARCHITECTURAL FINISHINGS</b>					
a.	Ceiling - 1/4" Plyboard on metal frame		15.05	m <sup>2</sup>		
b.	Painting Works		65.57	m <sup>2</sup>		
c.	Tile Works (Unglazed )		9.61	m <sup>2</sup>		
d.	Aluminum Windows		2.40	m <sup>2</sup>		
<b>E.</b>	<b>AC 208 LABORATORY OF CA</b>					
<b>I.</b>	<b>SITE WORKS</b>					
a.	Clearing and Grubbing		112.34	m <sup>3</sup>		
<b>II.</b>	<b>ELECTRICAL WORKS</b>					
a.	Conduits, Boxes, and Fittings		135.00	lm.		
b.	Wires and Wiring Devices		350.00	lm.		
c.	Electrical Fixtures		8.00	sets		
d.	Panel Board/ Boxes/ Breaker		7.00	sets		
<b>III.</b>	<b>PLUMBING WORKS</b>					
a.	Plumbing Fixtures		1.00	unit		
<b>IV.</b>	<b>ARCHITECTURAL FINISHINGS</b>					
a.	Ceiling Works		101.76	m <sup>2</sup>		
b.	Vinyl Tileworks		101.76	m <sup>2</sup>		
c.	Dry Wall Partition		75.24	m <sup>2</sup>		
d.	Aluminum Window		3.20	m <sup>2</sup>		
e.	Hollow Core Flush Door		11.25	m <sup>2</sup>		
f.	Fabricated Foldable Partition with Sound Proofing		9.57	m <sup>2</sup>		
g.	Painting Works		186.57	m <sup>2</sup>		
h.	Pantry Sink w/ cabinetry (including counter)		6.48	m <sup>2</sup>		
<b>TOTAL ESTIMATED PROJECT COST</b>						
<b>BREAKDOWN OF ESTIMATED PROJECT COST</b>						<b>TOTAL COST</b>
<b>A.</b>	<b>DIRECT COST</b>					
	EQUIPMENT					
	LABOR					
	MATERIALS					
<b>B.</b>	<b>INDIRECT COST</b>					
	OCM					
	CONTRACTOR'S PROFIT					
	TAXES					
<b>C.</b>	<b>PROJECT COST(TOTAL A+B)</b>					
<b>ESTIMATED PROJECT COST (EPC) in words</b>						
I hereby submit the foregoing bid; and that I understood the terms and conditions of the contract						
<p>_____  Name of Bidder (Signature over printed Name)  Name of Firm  Date  _____</p>						



Republic of the Philippines  
**BENGUET STATE UNIVERSITY**  
La Trinidad, Benguet  
Tel No. (074) 661-1839



## CERTIFICATE OF SITE INSPECTION REPORT

This is to certify that \_\_\_\_\_  
*(Name of Bidder or Technical Representative)*

of \_\_\_\_\_  
*(Name of Entity)*

with office address at \_\_\_\_\_

\_\_\_\_\_ had inspected the site/location for  
**the project:** \_\_\_\_\_

**located at** \_\_\_\_\_

This certification is issued to Mr /Ms \_\_\_\_\_  
*(Name of Bidder or Representative)*

as a part of his/her Technical Proposal.

Issued this \_\_\_\_\_ of \_\_\_\_\_, 2024.

*Note: to be signed by the authorized representative from Project Management Unit (PMU)*

## CONTRACTOR'S LETTERHEAD

**Project** REPAIR AND UPGRADING OF VARIOUS ACADEMIC LABORATORIES  
**Owner** Benguet State University

### BILL OF MATERIALS AND QUANTITIES

#### A. GENERAL REQUIREMENTS

a. Mobilization/Demobilization	1	lot					
1 labor	no.		daily rate		amount		
2 equipment (rental based on ACEL rates)	unit		daily rental	no of days	amount		-
	output rate			days to complete			
3 material & description	1	unit			amount		
Truck (2-5 MT)	1	unit			-		
	quantity		unit cost		amount		
4 Total Direct Cost (1 + 2 + 3)					-		
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			of item 4		-		
6 Contractor's Profit			of item 4		-		
7 Tax			0% of item 4 + 5 + 6		-		
8 Total Unit Cost (4 + 5 + 6 + 7)			Php		-		cost per item
b. Project Billboard	1	lot					
1 labor	no.		daily rate	no of days	amount		-
***compliant to COA billboard requirement	production rate			days to complete			
skilled labor			/day		-		
unskilled labor			/day		-		
2 equipment (rental based on ACEL rates)	unit		daily rental	no of days	amount		-
	output rate			days to complete			
minor tools (10% of Labor Cost)					-		
3 material & description	quantity		unit cost		amount		
Printed Tarpulin (8ft x 8ft)	5.76	sq.m.	/sq.m.		-		
Ordinary Plywood	2	pcs	/pc		-		
Good lumber	40.5	bd.ft	/bd.ft		-		
Assorted CWN	1	kg	/kg		-		
4 Total Direct Cost (1 + 2 + 3)					-		
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-		
6 Contractor's Profit			0% of item 4		-		
7 Tax			0% of item 4 + 5 + 6		-		
8 Total Unit Cost (4 + 5 + 6 + 7)			Php		-		cost per item
c. Safety and Health	1	lot					
1 labor	no.		daily rate	no of days	amount		-
Safety Officer (Part Time)	1		/day		-		
2 equipment (rental based on ACEL rates)	unit		daily rental	no of days	amount		-
	output rate			days to complete			
minor tools (10% of Labor Cost)					-		
3 material & description	quantity		unit cost		amount		
assorted warning and safety signages	1	lot	/lot		-		
canvass (for jobsite perimeter enclosure/fencing)	4	roll	/roll		-		
vest	6	pcs.	/pc.		-		
safety shoe/ boots	6	pcs.	/pc.		-		
safety gloves	6	pcs.	/pc.		-		
skull guard/ hard hat	6	pcs.	/pc.		-		
safety harness	1	pcs.	/pc.		-		
first aid kit	1	unit	/unit		-		
4 Total Direct Cost (1 + 2 + 3)					-		
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-		
6 Contractor's Profit			0% of item 4		-		
7 Tax			0% of item 4 + 5 + 6		-		
8 Total Unit Cost (4 + 5 + 6 + 7)			Php		-		cost per item

**TOTAL AMOUNT** -

#### B. CRAC LABORATORY OF CF

I. SITEWORKS							
a. Clearing, Grubbing and Cleaning	33.56	m <sup>2</sup>					
1 labor	no.		daily rate	no of days	amount		-
***removal of existing partition	production rate		m <sup>2</sup> /manhour	days to complete			
lead man			/day		-		
unskilled labor			/day		-		
2 equipment (rental based on ACEL rates)	unit		daily rental	no of days	amount		-
	output rate		m <sup>2</sup> /manhour	days to complete			
Truck (2-5 MT)	1	unit			-		
minor tools (10% of Labor Cost)					-		
3 material & description	quantity		unit cost		amount		
4 Total Direct Cost (1 + 2 + 3)					-		
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-		
6 Contractor's Profit			0% of item 4		-		
7 Tax			0% of item 4 + 5 + 6		-		
8 Total Unit Cost (4 + 5 + 6 + 7)			Php		-		cost per item
II. MASONRY WORKS							
a. CHB Laying	21.27	m <sup>2</sup>					

1 labor	no.	daily rate	no of days	amount	
	production rate	m <sup>2</sup> /manhour	days to complete		
leadman		/day			
skilled labor		/day			
unskilled labor		/day			
2 equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount	
	output rate	unit/manhour	days to complete		
minor tools (10% of Labor Cost)		/day			
3 material & description	quantity	unit cost		amount	
100mm thk. CHB	266 pcs.	/pc.			
cement	11 bags	/bag			
sand	0.94 m <sup>3</sup>	/m <sup>3</sup>			
10mm dia reinforcing steel	68.90 kgs.	/kgs.			
#16 G.I. tie wire	1.06 kgs.	/kgs.			
4 Total Direct Cost (1 + 2 + 3)					
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4			
6 Contractor's Profit		0% of item 4			
7 Tax		0% of item 4 + 5 + 6			
8 Total Unit Cost (4 + 5 + 6 + 7)		Php			cost per item
<b>b. Plastering and topping</b>	<b>28.27</b>	<b>m<sup>2</sup></b>			
1 labor	no.	daily rate	no of days	amount	
	production rate	m <sup>2</sup> /manhour	days to complete		
leadman		/day			
skilled labor		/day			
unskilled labor		/day			
2 equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount	
	output rate	unit/manhour	days to complete		
minor tools (10% of Labor Cost)		/day			
3 material & description	quantity	unit cost		amount	
cement	6 bags	/bag			
sand	0.41 m <sup>3</sup>	/m <sup>3</sup>			
4 Total Direct Cost (1 + 2 + 3)					
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4			
6 Contractor's Profit		0% of item 4			
7 Tax		0% of item 4 + 5 + 6			
8 Total Unit Cost (4 + 5 + 6 + 7)		Php			cost per item
<b>III. ELECTRICAL WORKS</b>					
<b>a. Conduits and boxes</b>	<b>11</b>	<b>pcs.</b>			
1 labor	no.	daily rate	no of days	amount	
***Installation of PVC Conduit pipe	36				
	production rate	lm/manhour	days to complete		
leadman		/day			
skilled labor		/day			
unskilled labor		/day			
***Installation of boxes	11				
	production rate	pc/manhour	days to complete		
leadman		/day			
skilled labor		/day			
unskilled labor		/day			
2 equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount	
	output rate	unit/manhour	days to complete		
H-Frame	2	/day			
minor tools (10% of Labor Cost)		/day			
3 material & description	quantity	unit cost		amount	
20mmØ x 3 m PVC Conduit Pipe	7 pcs.	/pc.			
25mmØ x 3 m PVC Conduit Pipe	5 pcs.	/pc.			
Utility Box, pvc, deep type	7 pcs.	/pc.			
Junction box, pvc deep type	4 pcs.	/pc.			
Conduit connectors/fittings	1 lot	/pc			
4 Total Direct Cost (1 + 2 + 3)					
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4			
6 Contractor's Profit		0% of item 4			
7 Tax		0% of item 4 + 5 + 6			
8 Total Unit Cost (4 + 5 + 6 + 7)		Php			cost per item
<b>b. Wires and Wiring Devices</b>	<b>7</b>	<b>sets</b>			
1 labor	no.	daily rate	no of days	amount	
***Installation of wires					
	production rate	lm/manhour	days to complete		
leadman		/day			
skilled labor		/day			
unskilled labor		/day			
***Installation of switches	3				
	production rate	set/manhour	days to complete		
leadman		/day			
skilled labor		/day			
unskilled labor		/day			
2 equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount	
	output rate	unit/manhour	days to complete		
H-Frame	2	/day			
minor tools (10% of Labor Cost)		/day			
3 material & description	quantity	unit cost		amount	
# 14 THHN Stranded Wire	40 lm	/lm			
# 12 THHN Stranded Wire	25 lm	/lm			
1-gang switch element	2 pcs	/pc			
2-gang switch element	1 pcs	/pc			
Duplex Convenience Outlet, Heavy Duty	4 pcs	/pc			

	Circuit Breaker, 15 AMP	4	pcs	/pc	-
	Circuit Breaker, 20 AMP	3	pcs	/pc	-
	Circuit Breaker, 30 AMP	1	pc	/pc	-
	Electrical tape (big)	3	roll	/roll	-
4	<b>Total Direct Cost (1 + 2 + 3)</b>				
5	<b>OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b> 0% of item 4				
6	<b>Contractor's Profit</b> 0% of item 4				
7	<b>Tax</b> 0% of item 4 + 5 + 6				
8	<b>Total Unit Cost (4 + 5 + 6 + 7)</b> Php -				
c.	<b>Electrical Fixtures</b>	<b>4</b>	<b>sets</b>		<b>cost per item</b>
1	<b>labor</b>	<b>no.</b>	<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
		<i>production rate</i>	<i>set/manhour</i>		<i>days to complete</i>
	leadman		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	<b>equipment (rental based on ACEL rates)</b>	<b>unit</b>	<b>daily rental</b>	<b>no of days</b>	<b>amount</b>
		<i>output rate</i>	<i>unit/manhour</i>		<i>days to complete</i>
	H-Frame	2	/day		-
	minor tools (10% of Labor Cost)		/day		-
3	<b>material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>
	2 x 36 watts T8 LED tubes with housing and diffuser	2	sets	/set	-
	LED Light, Surface type, 6" Ø	2	sets	/set	-
	consumables (3% of Material Cost)				-
4	<b>Total Direct Cost (1 + 2 + 3)</b>				
5	<b>OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b> 0% of item 4				
6	<b>Contractor's Profit</b> 0% of item 4				
7	<b>Tax</b> 0% of item 4 + 5 + 6				
8	<b>Total Unit Cost (4 + 5 + 6 + 7)</b> Php -				
IV.	<b>PLUMBING WORKS</b>				
a.	<b>Pipe Lines</b>	<b>21</b>	<b>lm</b>		
1	<b>labor</b>	<b>no.</b>	<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
		<i>production rate</i>	<i>unit/manhour</i>		<i>days to complete</i>
	leadman		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	<b>equipment (rental based on ACEL rates)</b>	<b>unit</b>	<b>daily rental</b>	<b>no of days</b>	<b>amount</b>
		<i>output rate</i>	<i>unit/manhour</i>		<i>days to complete</i>
	minor tools (10% of Labor Cost)		/day		-
3	<b>material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>
	100mm Ø PVC pipe, S-1000	1	pc.	/pc	-
	50mm Ø PVC pipe, S-1000	2	pcs	/pc	-
	100mm Ø PVC elbow	2	pcs	/pc	-
	50 mm Ø PVC elbow	4	pcs	/pc	-
	PVC4x 2" wye reducer	3	pc	/pc	-
	PVC 4" tee	1	pc	/pc	-
	PVC solvent cement	2	cans	/pc	-
	12.7mm dia. x 6m G.I. Pipe, sched. 40	2	pcs	/pc	-
	Cleanout Set	1	set	/pc	-
	12.7mm dia. G.I. elbow	10	pcs	/pc	-
	12.7mm dia. G.I. coupling	5	pcs	/pc	-
	12.7mm dia. G.I. tee	5	pcs	/pc	-
	12.7mm dia. G.I. Union	4	pcs	/pc	-
	consumables (5%)				-
4	<b>Total Direct Cost (1 + 2 + 3)</b>				
5	<b>OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b> 0% of item 4				
6	<b>Contractor's Profit</b> 0% of item 4				
7	<b>Tax</b> 0% of item 4 + 5 + 6				
8	<b>Total Unit Cost (4 + 5 + 6 + 7)</b> Php -				
b.	<b>Plumbing Fixtures</b>	<b>5</b>	<b>units</b>		<b>cost per item</b>
1	<b>labor</b>	<b>no.</b>	<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
		<i>production rate</i>	<i>unit/manhour</i>		<i>days to complete</i>
	leadman		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	<b>equipment (rental based on ACEL rates)</b>	<b>unit</b>	<b>daily rental</b>	<b>no of days</b>	<b>amount</b>
		<i>output rate</i>	<i>unit/manhour</i>		<i>days to complete</i>
	minor tools (10% of Labor Cost)		/day		-
3	<b>material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>
	Elongated Water Closet, HGC American standard or equivalent with necessary fittings and accessories (one piece)	1	set	/set	-
	Wall hung Lavatory, HGC American Standard or equivalent with faucet, necessary fittings and accessories	2	sets	/set	-
	Urinal, HGC American Standard or equivalent with complete accessories	1	set	/set	-
	Tankless Electric Instant Water Heater-Single point	1	set	/set	-
4	<b>Total Direct Cost (1 + 2 + 3)</b>				
5	<b>OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b> 0% of item 4				
6	<b>Contractor's Profit</b> 0% of item 4				
7	<b>Tax</b> 0% of item 4 + 5 + 6				
8	<b>Total Unit Cost (4 + 5 + 6 + 7)</b> Php -				
V.	<b>ARCHITECTURAL FINISHINGS</b>				



a.	Tile Works (Un-glazed Tiles)	4.05	m <sup>2</sup>					
	***CR Floor							
1	labor	no.		daily rate	no of days	amount		
		production rate		m <sup>2</sup> /manhour		days to complete		
	leadman			/day		-		
	skilled labor			/day		-		
	unskilled labor			/day		-		
2	equipment (rental based on ACEL rates)	unit		daily rental	no of days	amount		
		output rate		m <sup>2</sup> /manhour		days to complete		
	minor tools (10% of Labor Cost)			/day		-		
3	material & description	quantity		unit cost		amount		
	0.30 m x 0.30m unglazed tiles	45	pcs	/pc		-		
	Portland Cement	1	bag	/bag		-		
	Sand	0.12	cu.m.	/cu.m.		-		
	Tile Adhesive	1	bag	/bag		-		
	Tile Grout (25 kgs)	1	bag	/bag		-		
4	Total Direct Cost (1 + 2 + 3)					-		
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-		
6	Contractor's Profit			0% of item 4		-		
7	Tax			0% of item 4 + 5 + 6		-		
8	Total Unit Cost (4 + 5 + 6 + 7)			Php		-		cost per item
b.	Tile Works (Glazed Tiles)	11.70	m <sup>2</sup>					
	***CR Wall							
1	labor	no.		daily rate	no of days	amount		
		production rate		m <sup>2</sup> /manhour		days to complete		
	leadman			/day		-		
	skilled labor			/day		-		
	unskilled labor			/day		-		
2	equipment (rental based on ACEL rates)	unit		daily rental	no of days	amount		
		output rate		m <sup>2</sup> /manhour		days to complete		
	minor tools (10% of Labor Cost)			/day		-		
3	material & description	quantity		unit cost		amount		
	0.30 m x 0.30m glazed tiles	130	pcs	/pc		-		
	Portland Cement	3	bag	/bag		-		
	Sand	0.013	cu.m.	/cu.m.		-		
	Tile Adhesive	1	bag	/bag		-		
	Tile Grout (25 kgs)	1	bag	/bag		-		
4	Total Direct Cost (1 + 2 + 3)					-		
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-		
6	Contractor's Profit			0% of item 4		-		
7	Tax			0% of item 4 + 5 + 6		-		
8	Total Unit Cost (4 + 5 + 6 + 7)			Php		-		cost per item
c.	Painting Works	22.98	m <sup>2</sup>					
1	labor	no.		daily rate	no of days	amount		
	*** surface preparation and paint application	production rate		m <sup>2</sup> /manhour		days to complete		
	leadman			/day		-		
	skilled labor			/day		-		
	unskilled labor			/day		-		
2	equipment (rental based on ACEL rates)	unit		daily rental	no of days	amount		
		output rate		m <sup>2</sup> /manhour		days to complete		
	H-Frame	4		/day		-		
	minor tools (10% of Labor Cost)			/day		-		
3	material & description	quantity		unit cost		amount		
	Putty (Spot)	1	gal.	/gal		-		
	Primer (Flatwall Enamel)	1	gal.	/gal		-		
	Semi-gloss Latex top coat (Permacoat)	1	gal.	/gal		-		
	Red oxide primer paint	2	liters	/lit		-		
	QDE, choco brown	2	liters	/lit		-		
	Putty Knife "Paleta"	2	pcs	/pc.		-		
	Semi-gloss Enamel(Top coat)	1	gal.	/gal		-		
	Paint Thinner	1	liter	/lit		-		
	9" roller handle with pan	2	sets	/set		-		
	9" roller foam	2	pcs	/pc.		-		
	4" Paint brush	2	pcs.	/pc.		-		
	1 1/2" Paint brush	4	pcs.	/pc.		-		
	# 100 sand paper	20	pcs	/pc.		-		
	# 120 sand paper	30	pcs	/pc.		-		
4	Total Direct Cost (1 + 2 + 3)					-		
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-		
6	Contractor's Profit			0% of item 4		-		
7	Tax			0% of item 4 + 5 + 6		-		
8	Total Unit Cost (4 + 5 + 6 + 7)			Php		-		cost per item
d.	Hollow Core Flush Door	4.2	m <sup>2</sup>					
1	labor	no.		daily rate	no of days	amount		
		production rate		m <sup>2</sup> /manhour		days to complete		
	leadman			/day		-		
	skilled labor			/day		-		
	unskilled labor			/day		-		
2	equipment (rental based on ACEL rates)	unit		daily rental	no of days	amount		
		output rate		m <sup>2</sup> /manhour		days to complete		
	minor tools (10% of Labor Cost)			/day		-		
3	material & description	quantity		unit cost		amount		
	2.10m x 1.00m;Hollow Core Flush Door with jamb; complete hardwares and accessories	2	sets	/set		-		

0.70m x 2.10m,PVC Flush Doors with jamb,  
complete hardwares and accessories  
consumables (5% of material cost)

2 sets /set  
lot /lot

4 Total Direct Cost (1 + 2 + 3)	-	-	-	-
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)	0%	of item 4	-	-
6 Contractor's Profit	0%	of item 4	-	-
7 Tax	0%	of item 4 + 5 + 6	-	-
8 Total Unit Cost (4 + 5 + 6 + 7)	Php	-	-	cost per item

**e. Aluminum Windows 3.54 m<sup>2</sup>**

1 labor	no.	daily rate	no of days	amount
	production rate	m <sup>2</sup> /manhour		days to complete
leadman	1	/day	-	-
skilled labor	1	/day	-	-
unskilled labor	2	/day	-	-
2 equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
	output rate	m <sup>2</sup> /manhour		days to complete
minor tools (10% of Labor Cost)		/day	-	-
3 material & description	quantity	unit cost		amount
W1, 1.20m x 2.70m White Powder Coated Aluminum Framed Window with 6mm thick glass	1	set /set	-	-
W2, 0.50m x 0.60m White Powder Coated Aluminum Framed Window with 6mm thick glass	1	set /set	-	-
consumables (5% of material cost)		lot /lot	-	-
4 Total Direct Cost (1 + 2 + 3)	-	-	-	-
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)	0%	of item 4	-	-
6 Contractor's Profit	0%	of item 4	-	-
7 Tax	0%	of item 4 + 5 + 6	-	-
8 Total Unit Cost (4 + 5 + 6 + 7)	Php	-	-	cost per item

**f. Drywall Partition 32.48 m<sup>2</sup>**

1 labor	no.	daily rate	no of days	amount
	production rate	m <sup>2</sup> /manhour		days to complete
leadman		/day	-	-
skilled labor		/day	-	-
unskilled labor		/day	-	-
2 equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
	output rate	m <sup>2</sup> /manhour		days to complete
H-Frame	4	/day	-	-
minor tools (10% of Labor Cost)		/day	-	-
3 material & description	quantity	unit cost		amount
1/2" x 4' x 8' Marine plywood	23	pcs /pcs	-	-
2" x 4" x 8", s4s Lumber	42	pcs /pcs	-	-
Assorted CWN	10	kgs. /kg	-	-
4 Total Direct Cost (1 + 2 + 3)	-	-	-	-
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)	0%	of item 4	-	-
6 Contractor's Profit	0%	of item 4	-	-
7 Tax	0%	of item 4 + 5 + 6	-	-
8 Total Unit Cost (4 + 5 + 6 + 7)	Php	-	-	cost per item

**g. Steel Gate 2.92 m<sup>2</sup>**

1 labor	no.	daily rate	no of days	amount
	production rate	m <sup>2</sup> /manhour		days to complete
***fabrication				
leadman		/day	-	-
skilled labor		/day	-	-
unskilled labor		/day	-	-
***installation				
leadman		/day	-	-
skilled labor		/day	-	-
unskilled labor		/day	-	-
2 equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
	output rate	m <sup>2</sup> /manhour		days to complete
H-Frame	4	/day	-	-
Welding Machine	1	/day	-	-
minor tools (10% of Labor Cost)		/day	-	-
3 material & description	quantity	unit cost		amount
1.2mm x 2" x 2" x 6m Tubular	4	pcs /pcs	-	-
1.2mm x 1" x 1" x 6m Tubular	1	pcs /pcs	-	-
Welding rod	20	kgs /kgs	-	-
2.5mm x 34mm x 6m Steel Door Track	2	pcs /pcs	-	-
Steel, double wheel HD, rollers	4	pcs /pcs	-	-
Latch- Gate door barrel	1	pcs /pcs	-	-
consumables (5% of material cost)		lot /lot	-	-
4 Total Direct Cost (1 + 2 + 3)	-	-	-	-
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)	0%	of item 4	-	-
6 Contractor's Profit	0%	of item 4	-	-
7 Tax	0%	of item 4 + 5 + 6	-	-
8 Total Unit Cost (4 + 5 + 6 + 7)	Php	-	-	cost per item

**TOTAL AMOUNT**

**C. SENSORY LABORATORY OF CHET**

**i. MASONRY WORKS**

a. CHB Laying	1.5	m <sup>2</sup>
***Preparation room sink	1.5	m <sup>2</sup>

1	labor	no.	daily rate	no of days	amount	-
		production rate	m <sup>2</sup> /manhour	days to complete		
	leadman		/day		-	
	Skilled laborer		/day		-	
	Unskilled laborer		/day		-	
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount	-
		output rate	kgs/unit/hour	days to complete		
	minor tools (10% of Labor Cost)					
3	material & description	quantity	unit cost		amount	-
	100mm thk. CHB	19 pcs.	/pc.		-	
	cement	1 bags	/bag		-	
	washed sand	0.10 m <sup>3</sup>	/m <sup>3</sup>		-	
	10mm diameter x 6m reinforcing steel (grade 40)	5.00 kgs.	/kgs.		-	
	#16 G.I. tie wire	1.00 kgs.	/kgs.		-	
4	Total Direct Cost (1 + 2 + 3)				-	
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4		-	
6	Contractor's Profit		0% of item 4		-	
7	Tax		0% of item 4 + 5 + 6		-	
8	Total Cost (4 + 5 + 6 + 7)		Php		-	cost per item
b.	Cement Plaster Finish	2	m <sup>2</sup>			
	***Preparation room sink					
1	labor	no.	daily rate	no of days	amount	-
		production rate	m <sup>2</sup> /manhour	days to complete		
	leadman		/day		-	
	Skilled laborer		/day		-	
	Unskilled laborer		/day		-	
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount	-
		output rate	m <sup>2</sup> /unit/hour	days to complete		
	minor tools (10% of Labor Cost)					
3	material & description	quantity	unit cost		amount	-
	cement	1.00 bags	/bag		-	
	sand	0.10 m <sup>3</sup>	/m <sup>3</sup>		-	
4	Total Direct Cost (1 + 2 + 3)				-	
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4		-	
6	Contractor's Profit		0% of item 4		-	
7	Tax		0% of item 4 + 5 + 6		-	
8	Total Cost (4 + 5 + 6 + 7)		Php		-	cost per item
II.	<b>ELECTRICAL WORKS</b>					
a.	Conduits, Boxes, and Fittings	110	lm.			
1	labor	no.	daily rate	no of days	amount	-
		production rate	lm/manhour	days to complete		
	leadman		/day		-	
	Skilled laborer		/day		-	
	Unskilled laborer		/day		-	
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount	-
		output rate	lm/manhour	days to complete		
	minor tools (10% of Labor Cost)					
3	material & description	quantity	unit cost		amount	-
	20mm x 3000m PVC wall mounted conduit pipe	45 pcs.	/pc.		-	
	junction box	10 pcs.	/pc.		-	
	deep utility box	20 pcs.	/pc.		-	
	conduit fittings	1 lot	/lot		-	
	consumables (5% of material cost)	1 lot	/lot		-	
4	Total Direct Cost (1 + 2 + 3)				-	
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4		-	
6	Contractor's Profit		0% of item 4		-	
7	Tax		0% of item 4 + 5 + 6		-	
8	Total Cost (4 + 5 + 6 + 7)		Php		-	cost per item
b.	Wires and Wiring Devices	110	lm.			
1	labor	no.	daily rate	no of days	amount	-
		production rate	lm/manhour	days to complete		
	leadman	1	/day		-	
	Skilled laborer	1	/day		-	
	Unskilled laborer	1	/day		-	
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount	-
		output rate	unit/manhour	days to complete		
	minor tools (10% of Labor Cost)					
3	material & description	quantity	unit cost		amount	-
	3.5 mm <sup>2</sup> dia. THHN wire	40 l.m.	/l.m.		-	
	2.0mm <sup>2</sup> dia. THHN wire	70 l.m.	/l.m.		-	
	consumables (5% of material cost)	1 lot	/lot		-	
4	Total Direct Cost (1 + 2 + 3)				-	
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		of item 4		-	
6	Contractor's Profit		of item 4		-	
7	Tax		of item 4 + 5 + 6		-	
8	Total Cost (4 + 5 + 6 + 7)		Php		-	
c.	Electrical Fixtures	23	sets			
1	labor	no.	daily rate	no of days	amount	-
		production rate	set/manhour	days to complete		
	leadman		/day		-	
	Skilled laborer		/day		-	
	Unskilled laborer		/day		-	
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount	-
		output rate	unit/manhour	days to complete		
	minor tools (10% of Labor Cost)					
3	material & description	quantity	unit cost		amount	-
	One-gang switch, flush type, 10A, 230V	6 set	/set		-	

Two-gang switch, flush type, 10A, 230V	2	set	/set	-
Duplex universal convenience outlet, flush type, 10A, 230V	13	set	/set	-
2-T-8 LED lights with open type	2	set	/set	-
5-watt round LED Pin light (recessed)	3	set	/set	-
5-watt round LED colored bulb (red/blue/green)	5	set	/set	-
consumables (5% of material cost)	1	lot	lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Unit Cost (4 + 5 + 6 + 7)</b>			Php	cost per item
<b>d. Panel Board/ Boxes/ Breaker</b>	<b>8</b>	<b>set</b>		
<b>1 labor</b>	<b>no.</b>		<b>daily rate</b>	<b>no of days</b>
5.50hrs/ panel board	<i>production rate</i>		<i>circuit/manhour</i>	<i>days to complete</i>
leadman			/day	0.00
Skilled laborer			/day	0.00
Unskilled laborer			/day	0.00
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>		<b>daily rental</b>	<b>no of days</b>
minor tools (10% of Labor Cost)	<i>output rate</i>		<i>unit/manhour</i>	<i>days to complete</i>
			/day	-
<b>3 material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>
Panel Board with Main Breaker and 6 Branches 2 poles	1	set	/set	-
Circuit Breaker, plug-in, 60A/230V (main)	1	set	/set	-
Circuit Breaker, plug-in, 20A/230V	3	set	/set	-
Circuit Breaker, plug-in, 30A/230V	3	set	/set	-
consumables (5% of material cost)	1	lot	lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php	cost per item
<b>III. PLUMBING WORKS</b>				
<b>a. Pipe Lines</b>	<b>25</b>	<b>lm.</b>		
<b>1 labor (cut, fabricate, installation)</b>	<b>no.</b>		<b>daily rate</b>	<b>no of days</b>
	<i>production rate</i>		<i>lm/manhour</i>	<i>days to complete</i>
leadman			/day	-
Skilled laborer			/day	-
Unskilled laborer			/day	-
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>		<b>daily rental</b>	<b>no of days</b>
minor tools (10% of Labor Cost)	<i>output rate</i>		<i>lm/manhour</i>	<i>days to complete</i>
			/day	-
<b>3 material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>
(2")-50mm dia. X 2500mm PVC pipe, s-1000	5	pcs.	/pc.	-
(1/2")-20mm dia. X 3000mm PPR pipe, PN20	8	pcs.	/pc.	-
assorted fittings	1	lot	/lot	-
consumables (5% of material cost)	1	lot	/lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php	cost per item
<b>b. Plumbing Fixtures</b>	<b>1</b>	<b>set</b>		
<b>1 labor</b>	<b>no.</b>		<b>daily rate</b>	<b>no of days</b>
	<i>production rate</i>		<i>unit/manhour</i>	<i>days to complete</i>
leadman			/day	-
Skilled laborer			/day	-
Unskilled laborer			/day	-
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>		<b>daily rental</b>	<b>no of days</b>
minor tools (10% of Labor Cost)	<i>output rate</i>	1	<i>unit/manhour</i>	<i>days to complete</i>
			/day	-
<b>3 material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>
single tub stainless kitchen sink ss-304 with complete accessories and fittings (550 mm x 450 mm) best quality	1	set	/set	-
consumables (5% of material cost)	1	lot	/lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php	cost per item
<b>c. HVAC (Heating, Ventilation and Air-Conditioning)</b>	<b>3</b>	<b>sets</b>		
<b>1 labor</b>	<b>no.</b>		<b>daily rate</b>	<b>no of days</b>
	<i>production rate</i>		<i>unit/manhour</i>	<i>days to complete</i>
leadman			/day	-
Skilled laborer			/day	-
Unskilled laborer			/day	-
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>		<b>daily rental</b>	<b>no of days</b>
minor tools (10% of Labor Cost)	<i>output rate</i>		<i>unit/manhour</i>	<i>days to complete</i>
			/day	-
<b>3 material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>
60cm rangehood exhaust, best quality	1	set	/set	-

split type wall mounted inverter aircon (with capacity of 1.5 HP; 21,000 Micro holes for wind-free cooling; Digital 8-pole inverter Compressor), best quality	1	set	/set	-
300mm dia. vent pipe with vent cap consumables (5% of material cost)	1	set	/set	-
	1	lot	/lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php	-
				cost per item
<b>IV. ARCHITECTURAL FINISHINGS</b>				
<b>a. Dry Wall Partition</b>	<b>14.31</b>	<b>m<sup>2</sup></b>		
wall A	7.8	m <sup>2</sup>		
wall B	6.51	m <sup>2</sup>		
<b>1 labor</b>	<b>no.</b>		<b>daily rate</b>	<b>no of days</b>
	<b>production rate</b>		<b>m<sup>2</sup>/manhour</b>	<b>days to complete</b>
			<b>/day</b>	
			<b>/day</b>	
			<b>/day</b>	
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>		<b>daily rental</b>	<b>no of days</b>
	<b>output rate</b>		<b>kgs/unithour</b>	<b>days to complete</b>
			<b>/day</b>	
minor tools (10% of Labor Cost)				
<b>3 material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>
4.5 mm thick Fiber Cement Board	6	pcs.	/pc.	-
.4mm thick x 50mm x 75mm x 3m metal track	12	pcs.	/pc.	-
.4mm thick x 50mm x 75mm x 3m metal stud	14	pcs.	/pc.	-
consumables (5% of material cost)	1	lot	/lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php	-
				cost per item
<b>b. Granite works</b>	<b>2.00</b>	<b>m<sup>2</sup></b>		
Kitchenette Counter top plus back splash	2.00	m <sup>2</sup>		
<b>1 labor</b>	<b>no.</b>		<b>daily rate</b>	<b>no of days</b>
	<b>production rate</b>		<b>m<sup>2</sup>/manhour</b>	<b>days to complete</b>
			<b>/day</b>	
			<b>/day</b>	
			<b>/day</b>	
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>		<b>daily rental</b>	<b>no of days</b>
	<b>output rate</b>		<b>kgs/unithour</b>	<b>days to complete</b>
		1.365	<b>/day</b>	
minor tools (10% of Labor Cost)				
<b>3 material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>
Granite slab (black galaxy or equivalent)	2.10	m <sup>2</sup>	/m <sup>2</sup>	-
cement	0.10	bags	/bag	-
washed sand	0.10	m <sup>3</sup>	/m <sup>3</sup>	-
tile grout	1.00	bags	/bag	-
Consumables(5% of Material Cost)	1.00	lot		-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php	-
				cost per item
<b>c. Aluminum Windows</b>	<b>2.6</b>	<b>m<sup>2</sup></b>		
<b>1 labor</b>	<b>no.</b>		<b>daily rate</b>	<b>no of days</b>
	<b>production rate</b>		<b>m<sup>2</sup>/manhour</b>	<b>days to complete</b>
			<b>/day</b>	
			<b>/day</b>	
			<b>/day</b>	
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>		<b>daily rental</b>	<b>amount</b>
	<b>output rate</b>		<b>m<sup>2</sup>/manhour</b>	<b>days to complete</b>
		0.36	<b>/day</b>	
minor tools (10% of Labor Cost)				
<b>3 material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>
W40-400mm x 2600mm Powder coated aluminum window, awning-fixed type (1.04 sqm)	1	set	/set	-
W78-780mm x 50mm, Powder coated aluminum window, fixed type (.39 sq. m.)	4	sets	/set	-
consumables (5% of material cost)	1	lot	lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Unit Cost (4 + 5 + 6 + 7)</b>			Php	-
				cost per item
<b>d. Aluminum Glass Doors</b>	<b>5.98</b>	<b>m<sup>2</sup></b>		
<b>1 labor</b>	<b>no.</b>		<b>daily rate</b>	<b>no of days</b>
	<b>production rate</b>		<b>m<sup>2</sup>/manhour</b>	<b>days to complete</b>
			<b>/day</b>	
			<b>/day</b>	
			<b>/day</b>	
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>		<b>daily rental</b>	<b>amount</b>
	<b>output rate</b>		<b>m<sup>2</sup>/manhour</b>	<b>days to complete</b>
			<b>/day</b>	
minor tools (10% of Labor Cost)				
<b>3 material &amp; description</b>	<b>quantity</b>		<b>unit cost</b>	<b>amount</b>

SD90- 900mm x 2600mm, powder coated Aluminum swing /door with 6mm thick clear glass plate panel	1	set	/set	-
SD140- 1400mm x 2600mm, powder coated Aluminum swing door with 6mm thick clear glass plate panel	1	set	/set	-
consumables (3% of material cost)	1	lot	lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php	-
<b>e. Painting Works</b>	<b>14.31</b>	<b>m<sup>2</sup></b>		<b>cost per item</b>
<b>1 labor</b>	<b>no.</b>	<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
	<i>production rate</i>	<i>m<sup>2</sup>/manhour</i>	<i>days to complete</i>	
leadman		/day		-
unskilled laborer		/day		-
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>	<b>daily rental</b>	<b>no of days</b>	<b>amount</b>
	<i>output rate</i>	<i>12.60 m<sup>2</sup>/manhour</i>	<i>days to complete</i>	
minor tools (10% of Labor Cost)		/day		-
<b>3 material &amp; description</b>	<b>quantity</b>	<b>unit cost</b>	<b>amount</b>	
***Dry wall A and B primer/sealer	14.31	sqm		-
Semi-gloss latex (two coats only)	1	gal.	/gal.	-
Glazing Putty (Dry wall)	2	gal.	/gal.	-
consumables (5% of material cost)	1	gal.	/gal.	-
consumables (5% of material cost)	1	lot	/lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php	-
<b>f. Modular Cabinets and Furnitures</b>	<b>17</b>	<b>units</b>		<b>cost per item</b>
<b>1 labor</b>	<b>no.</b>	<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
	<i>production rate</i>	<i>unit/manhour</i>	<i>days to complete</i>	
leadman		/day		-
Skilled laborer		/day		-
Unskilled laborer		/day		-
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>	<b>daily rental</b>	<b>no of days</b>	<b>amount</b>
	<i>output rate</i>	<i>lm/manhour</i>	<i>days to complete</i>	
minor tools (10% of Labor Cost)		/day		-
<b>3 material &amp; description</b>	<b>quantity</b>	<b>unit cost</b>	<b>amount</b>	
modular kitchen cupboard( see drawing details for specifications)	1	units	/unit	-
Testing booths (laminated marine plywood)	1	unit	/unit	-
stainless kitchen island counter (see drawing details)	2	unit	/unit	-
stainless preparation table (see drawing details)	1	unit	/unit	-
60cm four-burner commercial gas range with oven, best quality	1	unit	/unit	-
6 seater dining table (wood)	1	unit	/unit	-
swivel mesh office chair	10	unit	/unit	-
consumables (5% of material cost)	1	lot	/lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php	-
<b>VI. FIRE SAFETY</b>	<b>2.00</b>	<b>units</b>		<b>cost per item</b>
<b>1 labor</b>	<b>no.</b>	<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
	<i>production rate</i>	<i>unit/manhour</i>	<i>days to complete</i>	
leadman		/day		-
Unskilled Laborer		/day		-
<b>2 equipment (rental based on ACEL rates)</b>	<b>unit</b>	<b>daily rental</b>	<b>no of days</b>	<b>amount</b>
	<i>output rate</i>	<i>m<sup>2</sup>/manhour</i>	<i>days to complete</i>	
minor tools (10% of Labor Cost)		/day		-
<b>3 material &amp; description</b>	<b>quantity</b>	<b>unit cost</b>	<b>amount</b>	
Emergency light, Best Quality	2	units	/unit	-
20lbs ABC Fire Extinguisher with hanging cabinet	2	units	/unit	-
consumables (5% of material cost)	1	lot	/lot	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>				-
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0% of item 4	-
<b>6 Contractor's Profit</b>			0% of item 4	-
<b>7 Tax</b>			0% of item 4 + 5 + 6	-
<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php	-
<b>TOTAL AMOUNT</b>				<b>-</b>
<b>D. FLORICULTURE BIOTECHNOLOGY LABORATORY OF CA</b>				
<b>I. SITE WORKS</b>				
<b>a. Clearing and Grubbing</b>	<b>8.96</b>	<b>m<sup>2</sup></b>		
<b>1 labor</b>	<b>no.</b>	<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
	<i>production rate</i>	<i>m<sup>2</sup>/manhour</i>	<i>days to complete</i>	
***demolition of masonry wall, hauling of debris		/day		-
lead man		/day		-

	skilled labor		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
	Truck (2-5 MT)	1	unit	0.00	-
	minor tools (10% of Labor Cost)				-
3	material & description	quantity	unit cost		amount
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4		-
6	Contractor's Profit		0% of item 4		-
7	Tax		0% of item 4 + 5 + 6		-
8	Total Unit Cost (4 + 5 + 6 + 7)		Php		cost per item
b.	Structural Excavation - common earth	6.736	m <sup>3</sup>		
1	labor	no.	daily rate	no of days	amount
		production rate	m <sup>3</sup> /manhour		days to complete
	lead man		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	m <sup>3</sup> /manhour		days to complete
	minor tools (10% of Labor Cost)				-
3	material & description	quantity	unit cost		amount
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4		-
6	Contractor's Profit		0% of item 4		-
7	Tax		0% of item 4 + 5 + 6		-
8	Total Unit Cost (4 + 5 + 6 + 7)		Php		cost per item
c.	Embankment from Structure Excavation	8.458	m <sup>3</sup>		
1	labor	no.	daily rate	no of days	amount
		production rate	m <sup>3</sup> /manhour		days to complete
	lead man		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	m <sup>3</sup> /manhour		days to complete
	minor tools (10% of Labor Cost)				-
3	material & description	quantity	unit cost		amount
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4		-
6	Contractor's Profit		0% of item 4		-
7	Tax		0% of item 4 + 5 + 6		-
8	Total Unit Cost (4 + 5 + 6 + 7)		Php		cost per item
II.	<b>REINFORCED CONCRETE WORKS</b>				
a.	Gravel Bedding	1.57	m <sup>3</sup>		
1	labor - place	no.	daily rate	no of days	amount
		production rate	m <sup>3</sup> /manhour		days to complete
	lead man		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	m <sup>3</sup> /manhour		days to complete
	plate compactor (0.50hr / 1.20m <sup>3</sup> )	1	unit		-
	minor tools (10% of Labor Cost)				-
3	material & description	quantity	unit cost		amount
	Gravel Bedding - G1	1.57	m <sup>3</sup>		-
	(1.05m <sup>3</sup> per m <sup>2</sup> w/ 5% shrinkage)				-
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4		-
6	Contractor's Profit		0% of item 4		-
7	Tax		0% of item 4 + 5 + 6		-
8	Total Unit Cost (4 + 5 + 6 + 7)		Php		cost per item
b.	Steel Works	500.59	kgs.		
1	labor - cut, bend & place up to 5 storeys	no.	daily rate	no of days	amount
		production rate	kgs/manhour		days to complete
	lead man		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	kgs/unit/hour		days to complete
	bar cutter	1	unit		-
	bar bender	1	unit		-
	minor tools (10% of Labor Cost)				-
3	material & description	quantity	unit cost		amount
	16mm dia RSB, grade 40	198.22	kgs.		-
	12mm dia RSB, grade 40	189.31	kgs.		-
	10mm dia, RSB grade 33	113.06	kgs.		-
	#16 Galvanized Iron Wire	25.03	kgs.		-
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0% of item 4		-
6	Contractor's Profit		0% of item 4		-
7	Tax		0% of item 4 + 5 + 6		-
8	Total Unit Cost (4 + 5 + 6 + 7)		Php		cost per item
c.	Formworks and falsework	22.96	m <sup>2</sup>		
1	labor - fabricate, install & strip up to 5 storeys	no.	daily rate	no of days	amount

		production rate	m <sup>2</sup> /manhour	days to complete	
install	lead man		/day	-	
	skilled labor		/day	-	
	unskilled labor		/day	-	
stripping	lead man		/day	-	
	unskilled labor		/day	-	
2 equipment (rental based on ACEL rates)		unit	daily rental	no of days	amount
		output rate	m <sup>2</sup> /14days		days to complete
	minor tools (10% of Labor Cost)				-
3 material & description		quantity	unit cost		amount
	19mm x 1.2m x 2.4m Phenolic Board (5 uses)	8	/pc		-
	Good Lumber (3 uses)	108.46	/bd.ft.		-
	consumables (5% of Material Cost)				-
4 Total Direct Cost (1 + 2 + 3)					-
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-
6 Contractor's Profit			0% of item 4		-
7 Tax			0% of item 4 + 5 + 6		-
8 Total Unit Cost (4 + 5 + 6 + 7)			Php		cost per item
d. Concrete Works		3.32	m <sup>3</sup>		
1 labor - mix, place & cure		no.	daily rate	no of days	amount
	footing and slab on fill class A, 3000psi @ 28days	production rate	m <sup>3</sup> /manhour		days to complete
	FTB, SS, Column and Beam/ Girder class A, 3000psi @ 28days	production rate	m <sup>3</sup> /manhour		days to complete
	lead man		/day	-	
	skilled labor		/day	-	
	unskilled labor		/day	-	
2 equipment (rental based on ACEL rates)		unit	daily rental	no of days	amount
		output rate	m <sup>3</sup> /unithour		days to complete
	One bagger mixer	1	/day		-
	Concrete Vibrator	1	/day		-
	minor tools (10% of Labor Cost)				-
3 material & description		quantity	unit cost		amount
	(structural concrete Class AA, 3000psi @ 28days)				-
	Cement	30	bags	/bag	-
	Sand	1.83	cu.m.	/cu.m.	-
	3/4" gravel	3.66	cu.m.	/cu.m.	-
4 Total Direct Cost (1 + 2 + 3)					-
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-
6 Contractor's Profit			0% of item 4		-
7 Tax			0% of item 4 + 5 + 6		-
8 Total Unit Cost (4 + 5 + 6 + 7)			Php		cost per item
e. Structural Steel Framing		61.68	kgs		
1 labor - Erection and installation		no.	daily rate	no of days	amount
		production rate	kgs/manhour		days to complete
	lead man		/day	-	
	skilled labor		/day	-	
	unskilled labor		/day	-	
	***Metal Structure Accessories (Anchor Bolt)	16			-
		production rate	pc/manhour		days to complete
	leadman		/day	-	
	skilled labor		/day	-	
	unskilled labor		/day	-	
	***Metal Structure Accessories (Steel plates)	114.92			-
		production rate	kgs/manhour		days to complete
	leadman		/day	-	
	skilled labor		/day	-	
	unskilled labor		/day	-	
2 equipment (rental based on ACEL rates)		unit	daily rental	no of days	amount
		output rate	m <sup>3</sup> /unithour		days to complete
	Cutting outfit	1	/day		-
	minor tools (10% of Labor Cost)				-
3 material & description		quantity	unit cost		amount
	4" Ø G.I. pipe, schedule 40	2	pcs	/pc	-
	M16x 130mm Anchor Bolts, nuts and washers,	16	pcs	/pc	-
	Milled Steel plate, 300mm x 300mm x 10mm thick	6	pcs	/pc	-
	consumables (5% of Material Cost)				-
4 Total Direct Cost (1 + 2 + 3)					-
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-
6 Contractor's Profit			0% of item 4		-
7 Tax			0% of item 4 + 5 + 6		-
8 Total Unit Cost (4 + 5 + 6 + 7)			Php		cost per item
III. ROOFING WORKS					
a. Structural Steel Roof Framing		105.36	kgs.		
1 labor - fabrication, assembly & erection		no.	daily rate	no of days	amount
	***Structural Steel Roof framing	105.36			-
		production rate	kgs/manhour		days to complete
	fabrication and assembly				
	leadman		/day	-	
	skilled labor		/day	-	
	unskilled labor		/day	-	
	erection and installation	2	self/manhour		-



	skilled labor		/day	-	
	unskilled labor		/day	-	
<b>*** Metal Structure Accessories (Turnbuckle)</b>					
	leadman	production rate	pc/manhour	days to complete	-
	skilled labor		/day	-	
	unskilled labor		/day	-	
<b>*** Metal Structure Accessories (Crossbracing)</b>					
	leadman	2			-
	skilled labor	production rate	kg/manhour	days to complete	-
	unskilled labor		/day	-	
<b>*** Structural Steel Purins</b>					
	leadman	44			-
	skilled labor	production rate	kg/manhour	days to complete	-
	unskilled labor		/day	-	
<b>2 equipment (rental based on ACEL rates)</b>					
	welding machine	unit	daily rental	no of days	amount
	Cutting outfit	output rate	kgs/unit/hour	days to complete	-
	minor tools (10% of Labor Cost)	1	/day	-	
		1	/day	-	
			lot	-	
<b>3 material &amp; description</b>					
	1.2mm thick x 50mm x 75mm C-Purins	quantity	unit cost	amount	-
	1.5mm thick x 50 mm x 150 mm x 6m, Tubular Steel	5	pcs	/pc	-
	16mm dia. turnbuckle	2	pcs	/pc	-
	16mm dia. plain bar cross bracing	4	pcs	/pc	-
	16mm dia. plain bar sag rod	2	pcs	/pc	-
	acetylene	1	pcs	/pc	-
	oxygen	1.16	kgs.	/kgs.	-
	welding rod	2.32	kgs.	/kgs.	-
	consumables (5% of Material Cost)	1.16	kgs.	/kgs.	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>					
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>					
<b>6 Contractor's Profit</b>					
<b>7 Tax</b>					
<b>8 Total Unit Cost (4 + 5 + 6 + 7)</b>					
<b>b. Roof Sheeting and Accessories</b>					
<b>1 labor (cut, installation)</b>					
		15.05	m <sup>2</sup>		
	leadman	production rate	m <sup>2</sup> /manhour	days to complete	-
	skilled labor		/day	-	
	unskilled labor		/day	-	
<b>*** Fabricated Metal Accessories (Ridge Roll)</b>					
	leadman	15			-
	skilled labor	production rate	m/manhour	days to complete	-
	unskilled labor		/day	-	
<b>2 equipment (rental based on ACEL rates)</b>					
	H-Frame 1.7m x 1.2m, set	unit	daily rental	no of days	amount
	power tools (10% of Labor Cost)	output rate	m <sup>2</sup> /unit/hour	days to complete	-
	minor tools (10% of Labor Cost)	20	/day	-	
		1	/day	-	
		1	/day	-	
<b>3 material &amp; description</b>					
	U.40mm x 1m x 12";Pre-painted Rib-type Roofing	quantity	unit cost	amount	-
	0.40mm x 12"x 8";Pre-painted wall flashing	4	pcs.	/pc.	-
	0.40mm x 12"x 8";Pre-painted end flashing	2	pcs.	/pc.	-
	12" x 8" fascia board	5	pcs.	/pc.	-
	10mm Insulation foam, (single foil)	5	pcs.	/pc.	-
	1"x4"x1mm galvanized Chicken wire mesh (hexagonal)	15	lm	/lm	-
	1-1/2" Tex screw	15	lm	/lm	-
	3/4" Blind Rivets	50	pcs.	/pc.	-
	consumables (5% of Material Cost)	2	boxes	/box	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>					
<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>					
<b>6 Contractor's Profit</b>					
<b>7 Tax</b>					
<b>8 Total Unit Cost (4 + 5 + 6 + 7)</b>					
<b>IV. MASONRY WORKS</b>					
<b>a. CHB Laying</b>					
<b>1 labor</b>					
		23.40	m <sup>2</sup>		
	leadman	production rate	m <sup>2</sup> /manhour	days to complete	-
	skilled labor		/day	-	
	unskilled labor		/day	-	
<b>2 equipment (rental based on ACEL rates)</b>					
	minor tools (10% of Labor Cost)	unit	daily rental	no of days	amount
		output rate	kgs/unit/hour	days to complete	-
<b>3 material &amp; description</b>					
	100mm thk. CHB	quantity	unit cost	amount	-
	cement	293	pcs.	/pc.	-
	sand	13	bags	/bag	-
	10mm dia reinforcing steel	0.94	m <sup>3</sup>	/m <sup>3</sup>	-
	#16 G.I. tie wire	74.88	kgs.	/kgs.	-
		1.17	kgs.	/kgs.	-
<b>4 Total Direct Cost (1 + 2 + 3)</b>					

5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)	0%	of item 4	-	
6	Contractor's Profit	0%	of item 4	-	
7	Tax	0%	of item 4 + 5 + 6	-	
8	<b>Total Unit Cost (4+5+6+7)</b>		Php	-	cost per item
b.	Plastering	46.80	m <sup>2</sup>		
1	labor	no.	daily rate	no of days	amount
		production rate	m <sup>2</sup> /manhour	days to complete	
	leadman		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	m <sup>2</sup> /unithour	days to complete	
	H-Frame 1.7m x 1.2m, set	1	/day		-
	minor tools (10% of Labor Cost)		/day		-
3	material & description	quantity	unit cost	amount	
	cement	14	/bag	-	
	sand	1.17	/m <sup>3</sup>	-	
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)	0%	of item 4	-	
6	Contractor's Profit	0%	of item 4	-	
7	Tax	0%	of item 4 + 5 + 6	-	
8	<b>Total Unit Cost (4+5+6+7)</b>		Php	-	cost per item
V.	<b>ELECTRICAL WORKS</b>				
a.	Conduits and boxes	5	pcs.		
1	labor	no.	daily rate	no of days	amount
	***Installation of PVC Conduit pipe	production rate	lm/manhour	days to complete	
	leadman		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
	***Installation of boxes	3			
		production rate	pc/manhour	days to complete	
	leadman		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	unit/manhour	days to complete	
	minor tools (10% of Labor Cost)		/day		-
3	material & description	quantity	unit cost	amount	
	20mmØ x 3 m PVC Conduit Pipe	3	pcs.	/pc.	-
	25mmØ x 3 m PVC Conduit Pipe	2	pcs.	/pc.	-
	Utility Box, deep type	2	pcs.	/pc.	-
	Junction box, pvc deep type	1	pcs.	/pc.	-
	Conduit connectors/fittings	1	lot	/pc	-
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)	0%	of item 4	-	
6	Contractor's Profit	0%	of item 4	-	
7	Tax	0%	of item 4 + 5 + 6	-	
8	<b>Total Unit Cost (4+5+6+7)</b>		Php	-	cost per item
b.	Wires and Wiring Devices	6	sets		
1	labor	no.	daily rate	no of days	amount
	***Installation of wires	8			
		production rate	lm/manhour	days to complete	
	leadman		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
	***Installation of switches	1			
		production rate	set/manhour	days to complete	
	leadman		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	unit/manhour	days to complete	
	minor tools (10% of Labor Cost)		/day		-
3	material & description	quantity	unit cost	amount	
	# 14 THHN Stranded Wire	5	lm	/lm	-
	# 12 THHN Stranded Wire	3	lm	/lm	-
	1-gang switch element	1	pcs	/pc	-
	Duplex Convenience Outlet, Heavy Duty	2	pcs	/pc	-
	Electrical tape (big)	2	roll	/roll	-
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)	0%	of item 4	-	
6	Contractor's Profit	0%	of item 4	-	
7	Tax	0%	of item 4 + 5 + 6	-	
8	<b>Total Unit Cost (4+5+6+7)</b>		Php	-	cost per item
c.	Electrical Fixtures	1	set		
1	labor	no.	daily rate	no of days	amount
		production rate	set/manhour	days to complete	
	leadman		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	unit/manhour	days to complete	
	minor tools (10% of Labor Cost)		/day		-
3	material & description	quantity	unit cost	amount	
	2 - T8 LED tubes with housing and diffuser consumables (3% of Material Cost)	1	sets	/set	-

4	Total Direct Cost (1 + 2 + 3)								
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0%	of item 4					
6	Contractor's Profit		0%	of item 4					
7	Tax		0%	of item 4 + 5 + 6					
8	Total Unit Cost (4 + 5 + 6 + 7)								cost per item
d.	Panel Board/ Boxes/breakers	3		sets					
1	labor	no.		daily rate		no of days		amount	
		production rate		set/manhour		days to complete			
	leadman			/day					
	skilled labor			/day					
	unskilled labor			/day					
2	equipment (rental based on ACEL rates)	unit		daily rental		no of days		amount	
	minor tools (10% of Labor Cost)	output rate		unit/manhour		days to complete		0.00	
				/day					
3	material & description	quantity		unit cost		amount			
	Circuit breakers element (20 amp, best quality)	2	pcs	/unit					
	Circuit breaker element (15 amp, best quality)	1	pcs	/unit					
	consumables (3% of material cost)		lot						
4	Total Direct Cost (1 + 2 + 3)								
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0%	of item 4					
6	Contractor's Profit		0%	of item 4					
7	Tax		0%	of item 4 + 5 + 6					
8	Total Unit Cost (4 + 5 + 6 + 7)								cost per item
VI.	ARCHITECTURAL FINISHINGS								
a.	Ceiling - 1/4" Plyboard on metal frame	15.05		m <sup>2</sup>					
1	labor	no.		daily rate		no of days		amount	
		production rate		m <sup>2</sup> /manhour		days to complete			
	leadman			/day					
	skilled labor			/day					
	unskilled labor			/day					
2	equipment (rental based on ACEL rates)	unit		daily rental		no of days		amount	
	minor tools (10% of Labor Cost)	output rate		m <sup>2</sup> /manhour		days to complete			
	H-Frame 1.7m x 1.2m, set	6		/day					
				/day					
3	material & description	quantity		unit cost		amount			
	1/4" thick x 4' x 8', Marine Plywood	5	pc	/pc					
	12 mm x 38 mm x 5 m x 0.8 mm thick, Carrying Channel	6	pc	/pc					
	19 mm x 50 mm x 5 m x 0.5 mm thick, Double Furring	7	pc	/pc					
	Double furring clip	15	pcs	/pc					
	consumables (5% of material cost)		lot	/lot					
4	Total Direct Cost (1 + 2 + 3)								
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0%	of item 4					
6	Contractor's Profit		0%	of item 4					
7	Tax		0%	of item 4 + 5 + 6					
8	Total Unit Cost (4 + 5 + 6 + 7)								cost per item
b.	Painting Works	65.57		m <sup>2</sup>					
1	labor	no.		daily rate		no of days		amount	
	*** surface preparation and paint application	production rate		m <sup>2</sup> /manhour		days to complete			
	leadman			/day					
	skilled labor			/day					
	unskilled labor			/day					
2	equipment (rental based on ACEL rates)	unit		daily rental		no of days		amount	
	minor tools (10% of Labor Cost)	output rate		m <sup>2</sup> /manhour		days to complete			
	H-Frame 1.7m x 1.2m, set	4		/day					
				/day					
3	material & description	quantity		unit cost		amount			
	Acrylic Skimcoat	5	gals.	/gal					
	Primer (Flat Latex)	3	gals.	/gal					
	Putty (Spot)	2	gals.	/gal					
	Topcoat (Semi-gloss Latex)	5	gals.	/gal					
	Thinning Solvent for putty	1	liter	/liter					
	Red Oxide Primer	2	liters	/liter					
	Paint thinner	1	gals.	/gal					
	4" paint brush	4	pcs	/pc					
	9" roller handle with pan	4	pcs	/pc					
	9" roller foam	4	pcs	/pc					
	#100 sand paper	30	pcs	/pc					
	#120 sand paper	60	pcs	/pc					
4	Total Direct Cost (1 + 2 + 3)								
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)		0%	of item 4					
6	Contractor's Profit		0%	of item 4					
7	Tax		0%	of item 4 + 5 + 6					
8	Total Unit Cost (4 + 5 + 6 + 7)								cost per item
c.	Tile Works (Unglazed)	9.61		m <sup>2</sup>					
1	labor	no.		daily rate		no of days		amount	
		production rate		m <sup>2</sup> /manhour		days to complete			
	leadman			/day					
	skilled labor			/day					
	unskilled labor			/day					
2	equipment (rental based on ACEL rates)	unit		daily rental		no of days		amount	
	minor tools (10% of Labor Cost)	output rate		m <sup>2</sup> /manhour		days to complete			
				/day					
3	material & description	quantity		unit cost		amount			
	*** Flooring								

	0.40mx 0.40m (unglazed)	60	pcs	/pc	-
	cement	3	bags	/bag	-
	sand	0.25	m <sup>3</sup>	/m <sup>3</sup>	-
	tile grout	1.00	bag	/bag	-
	Tile Adhesive (25kg)	1	bag	/bag	-
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4	-
6	Contractor's Profit			0% of item 4	-
7	Tax			0% of item 4 + 5 + 6	-
8	Total Unit Cost (4 + 5 + 6 + 7)			Php	-
d.	Aluminum Windows	2.40	m <sup>2</sup>		cost per item
1	labor	no.	daily rate	no of days	amount
		production rate	m <sup>2</sup> /manhour		days to complete
	leadman		/day		-
	skilled labor		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	m <sup>2</sup> /manhour		days to complete
	minor tools (10% of Labor Cost)		/day		-
3	material & description	quantity	unit cost		amount
	W1, 1.00m x 1.20 m White Powder Coated Aluminum Framed Window with 6mm thick glass	2	sets	/set	-
	consumables (5% of material cost)		lot	/lot	-
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4	-
6	Contractor's Profit			0% of item 4	-
7	Tax			0% of item 4 + 5 + 6	-
8	Total Unit Cost (4 + 5 + 6 + 7)			Php	cost per item
<b>TOTAL AMOUNT</b>					
<b>E. AC 208 LABORATORY OF CA</b>					
<b>I. SITE WORKS</b>					
a.	Clearing and Grubbing	112.34	m <sup>3</sup>		
1	labor	no.	daily rate	no of days	amount
		production rate	m <sup>3</sup> /manhour		days to complete
	removal of drywall, acoustical panel, vinyl & ceramic tiles		/day		-
	lead man		/day		-
	unskilled labor		/day		-
	hauling of debris		m <sup>3</sup> /manhour		days to complete
	lead man		/day		-
	unskilled labor		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	m <sup>3</sup> /manhour		days to complete
	Truck (2-5 MT)	1	unit		-
	minor tools (10% of Labor Cost)				-
3	material & description	quantity	unit cost		amount
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4	-
6	Contractor's Profit			0% of item 4	-
7	Tax			0% of item 4 + 5 + 6	-
8	Total Unit Cost (4 + 5 + 6 + 7)			Php	cost per item
<b>II. ELECTRICAL WORKS</b>					
a.	Conduits, Boxes, and Fittings	135	lm.		
1	labor	no.	daily rate	no of days	amount
		production rate	lm/manhour		days to complete
	leadman		/day		-
	Skilled laborer		/day		-
	Unskilled laborer		/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	3.825 lm/manhour		days to complete
	minor tools (10% of Labor Cost)		/day		-
3	material & description	quantity	unit cost		amount
	25mm x 4' PVC wire moulding	30	pcs.	/pc.	-
	20mm x 3m PVC conduit pipe	15	pcs.	/pc.	-
	25mm x 3 m PVC conduit pipe	15	pcs.	/pc.	-
	Junction box, deep type	10	pcs.	/pc.	-
	PVC utility box, deep type	11	pcs.	/pc.	-
	PVC Utility Box, Surface type	11	pcs.	/pc.	-
	conduit fittings	1	lot	/lot	-
	consumables (5% of material cost)	1	lot	/lot	-
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4	-
6	Contractor's Profit			0% of item 4	-
7	Tax			0% of item 4 + 5 + 6	-
8	Total Cost (4 + 5 + 6 + 7)			Php	cost per item
b.	Wires and Wiring Devices	350	lm.		
1	labor	no.	daily rate	no of days	amount
		production rate	lm/manhour		days to complete
	leadman	1	/day		-
	Skilled laborer	1	/day		-
	Unskilled laborer	1	/day		-
2	equipment (rental based on ACEL rates)	unit	daily rental	no of days	amount
		output rate	unit/manhour		days to complete
	minor tools (10% of Labor Cost)		/day		-
3	material & description	quantity	unit cost		amount

	#14THHN Stranded Wire	200		l.m.	/ln.m.	-
	#12THHN Stranded Wire	150		l.m.	/ln.m.	-
	One-gang switch, surface type, 10A, 230V	8		set	/set	-
	Duplex universal convenience outlet, flush type, 10A, 230V	16		set	/set	-
	consumables (5% of material cost)	1		lot	/lot	-
	<b>4 Total Direct Cost (1 + 2 + 3)</b>					-
	<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0%	of item 4	-
	<b>6 Contractor's Profit</b>			0%	of item 4	-
	<b>7 Tax</b>			0%	of item 4 + 5 + 6	-
	<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php		-
<b>c.</b>	<b>Electrical Fixtures</b>	<b>8</b>		<b>sets</b>		
<b>1 labor</b>		<b>no.</b>		<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
		<i>production rate</i>		<i>1set /manhour</i>		<i>days to complete</i>
	leadman			/day		-
	Skilled laborer			/day		-
	Unskilled laborer			/day		-
<b>2 equipment (rental based on ACEL rates)</b>		<b>unit</b>		<b>daily rental</b>	<b>no of days</b>	<b>amount</b>
		<i>output rate</i>	<b>1</b>	<i>unit/manhour</i>		<i>days to complete</i>
	minor tools (10% of Labor Cost)			/day		-
<b>3 material &amp; description</b>		<b>quantity</b>		<b>unit cost</b>		<b>amount</b>
	2-T8 LED tubes with housing and diffuser	8	sets	/set		-
	consumables (5% of material cost)	1	lot	lot		-
	<b>4 Total Direct Cost (1 + 2 + 3)</b>					-
	<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0%	of item 4	-
	<b>6 Contractor's Profit</b>			0%	of item 4	-
	<b>7 Tax</b>			0%	of item 4 + 5 + 6	-
	<b>8 Total Unit Cost (4 + 5 + 6 + 7)</b>			Php		-
						cost per item
<b>d.</b>	<b>Panel Board/ Boxes/ Breaker</b>	<b>7</b>		<b>sets</b>		
<b>1 labor</b>		<b>no.</b>		<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
	5.50hrs/ panel board	<i>production rate</i>		<i>circuit/manhour</i>		<i>days to complete</i>
	leadman	1		/day		-
	Skilled laborer	1		/day		-
	Unskilled laborer	1		/day		-
<b>2 equipment (rental based on ACEL rates)</b>		<b>unit</b>		<b>daily rental</b>	<b>no of days</b>	<b>amount</b>
		<i>output rate</i>	<b>1</b>	<i>unit/manhour</i>		<i>days to complete</i>
	minor tools (10% of Labor Cost)			/day		-
<b>3 material &amp; description</b>		<b>quantity</b>		<b>unit cost</b>		<b>amount</b>
	Panel Box with Main Breaker 8 holes and 6 Branches ,2 poles	1	set	/set		-
	Circuit Breaker, plug-in, 60A/230V (main)	1	set	/set		-
	Circuit Breaker, plug-in, 15A/230V	1	set	/set		-
	Circuit Breaker, plug-in, 20A/230V	4	set	/set		-
	consumables (5% of material cost)	1	lot	lot		-
	<b>4 Total Direct Cost (1 + 2 + 3)</b>					-
	<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0%	of item 4	-
	<b>6 Contractor's Profit</b>			0%	of item 4	-
	<b>7 Tax</b>			0%	of item 4 + 5 + 6	-
	<b>8 Total Cost (4 + 5 + 6 + 7)</b>			Php		-
						cost per item
<b>III.</b>	<b>PLUMBING WORKS</b>					
<b>a.</b>	<b>Plumbing Fixtures</b>	<b>1</b>		<b>unit</b>		
<b>1 labor</b>		<b>no.</b>		<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
		<i>production rate</i>		<i>unit/manhour</i>		<i>days to complete</i>
	leadman			/day		-
	skilled labor			/day		-
	unskilled labor			/day		-
<b>2 equipment (rental based on ACEL rates)</b>		<b>unit</b>		<b>daily rental</b>	<b>no of days</b>	<b>amount</b>
		<i>output rate</i>	<b>1</b>	<i>unit/manhour</i>	<b>0.13</b>	<i>days to complete</i>
	minor tools (10% of Labor Cost)			/day		-
<b>3 material &amp; description</b>		<b>quantity</b>		<b>unit cost</b>		<b>amount</b>
	0.45m x 0.55m Stainless steel Pantry sink with faucet and complete accessories	1	set	/set		-
	<b>4 Total Direct Cost (1 + 2 + 3)</b>					-
	<b>5 OCM (OVERHEAD, CONTINGENCIES &amp; MISCELLANEOUS EXPENSES)</b>			0%	of item 4	-
	<b>6 Contractor's Profit</b>			0%	of item 4	-
	<b>7 Tax</b>			0%	of item 4 + 5 + 6	-
	<b>8 Total Unit Cost (4 + 5 + 6 + 7)</b>			Php		-
						cost per item
<b>IV.</b>	<b>ARCHITECTURAL FINISHINGS</b>					
<b>a.</b>	<b>Ceiling Works</b>	<b>101.76</b>		<b>m<sup>2</sup></b>		
<b>1 labor</b>		<b>no.</b>		<b>daily rate</b>	<b>no of days</b>	<b>amount</b>
	****Hauling of Materials	<i>production rate</i>		<i>m<sup>2</sup>/manhour</i>		<i>days to complete</i>
	Unskilled laborer			/day		-
	****Installation	<i>production rate</i>		<i>m<sup>2</sup>/manhour</i>		<i>days to complete</i>
	leadman			/day		-
	skilled laborer			/day		-
	Unskilled laborer			/day		-
<b>2 equipment (rental based on ACEL rates)</b>		<b>unit</b>		<b>daily rental</b>	<b>no of days</b>	<b>amount</b>
		<i>output rate</i>	<b>1.965</b>	<i>m<sup>2</sup>/unit/hour</i>		<i>days to complete</i>
	minor tools (10% of Labor Cost)			/day		-
<b>3 material &amp; description</b>		<b>quantity</b>		<b>unit cost</b>		<b>amount</b>
	4.5 mm thick Fiber Cement Board	37	pcs.	/pc.		-
	25mm x 3000mm x .5 mm thick Wall Angle	32	pcs.	/pc.		-
	12mm x 38mm x 5000mm x .6mm thick Carrying Channel	42	pcs.	/pc.		-

19mm x 50mm x 5000mm x .42mm thick Double Metal Furring	42	pcs.	/pc.	-
pre formed wire clip	408	pcs.	/pc.	-
Rod suspension hanger with adjustment spring	204	pcs.	/pc.	-
consumables (5% of material cost) (hardwares-expansion bolts and others)	1	lot	/lot	-

4 Total Direct Cost (1 + 2 + 3)				-
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4	-
6 Contractor's Profit			0% of item 4	-
7 Tax			0% of item 4 + 5 + 6	-
8 Total Cost (4 + 5 + 6 + 7)			Php	-

**b. Vinyl Tileworks 101.76 m<sup>2</sup> cost per item**

1 labor	no.	production rate	daily rate	no of days	amount	days to complete
****Hauling of Materials			m <sup>2</sup> /manhour			
Unskilled laborer			/day			
****Installation			m <sup>2</sup> /manhour			days to complete
leadman			/day			
skilled laborer			/day			
Unskilled Laborer			/day			
2 equipment (rental based on ACEL rates)	unit	output rate	daily rental	no of days	amount	days to complete
minor tools (10% of Labor Cost)			kgs/unitour			
3 material & description	quantity		unit cost		amount	
910mm x 150mm waterproof, best quality, vinyl planks	746	pcs.	/pc.		-	
Vinyl Tile Adhesive for vinyls	4.20	gal.	/gal.		-	
Consumables(5% of Material Cost)	1	lot			-	
4 Total Direct Cost (1 + 2 + 3)					-	
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-	
6 Contractor's Profit			0% of item 4		-	
7 Tax			0% of item 4 + 5 + 6		-	
8 Total Cost (4 + 5 + 6 + 7)			Php		-	

**c. Dry Wall Partition 75.24 m<sup>2</sup> cost per item**

1 labor	no.	production rate	daily rate	no of days	amount	days to complete
****hauling of materials			m <sup>2</sup> /manhour			
Unskilled laborer			/day			
****Installation			m <sup>2</sup> /manhour			days to complete
leadman			/day			
skilled laborer			/day			
Unskilled laborer			/day			
2 equipment (rental based on ACEL rates)	unit	output rate	daily rental	no of days	amount	days to complete
minor tools (10% of Labor Cost)			m <sup>2</sup> /manhour			
3 material & description	quantity		unit cost		amount	
4.5 mm thick Fiber Cement Board	52	pcs.	/pc.		-	
0.8mm thick x 2" x 3" x 3m metal track	20	pcs.	/pc.		-	
0.5mm thick x 2" x 3" x 3m metal stud	150	pcs.	/pc.		-	
consumables (5% of material cost) (hardwares-	1	lot	/lot		-	
4 Total Direct Cost (1 + 2 + 3)					-	
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-	
6 Contractor's Profit			0% of item 4		-	
7 Tax			0% of item 4 + 5 + 6		-	
8 Total Cost (4 + 5 + 6 + 7)			Php		-	

**d. Aluminum Window 3.2 m<sup>2</sup> cost per item**

1 labor	no.	production rate	daily rate	no of days	amount	days to complete
****hauling of materials			m <sup>2</sup> /manhour			
unskilled laborer			/day			
****fabricated and installation			m <sup>2</sup> /manhour			days to complete
leadman			/day			
skilled laborer			/day			
unskilled laborer			/day			
2 equipment (rental based on ACEL rates)	unit	output rate	daily rental	no of days	amount	days to complete
minor tools (10% of Labor Cost)			m <sup>2</sup> /manhour			
3 material & description	quantity		unit cost		amount	
W1-1.60m x 2.0 m White Powder Coated Aluminum Framed Window with 6mm glass (3.2 sqm)	1	set	/set		-	
consumables (5% of material cost)	1	lot	lot		-	
4 Total Direct Cost (1 + 2 + 3)					-	
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)			0% of item 4		-	
6 Contractor's Profit			0% of item 4		-	
7 Tax			0% of item 4 + 5 + 6		-	
8 Total Unit Cost (4 + 5 + 6 + 7)			Php		-	

**e. Hollow Core Flush Door 11.25 m<sup>2</sup> cost per item**

1 labor	no.	production rate	daily rate	no of days	amount	days to complete
****Hauling of materials			m <sup>2</sup> /manhour			
unskilled laborer			/day			
****Installation			m <sup>2</sup> /manhour			days to complete
leadman			/day			
skilled laborer			/day			

unskilled laborer				/day			
2 equipment (rental based on ACEL rates)	unit			daily rental	no of days	amount	
minor tools (10% of Labor Cost)		output rate		m <sup>2</sup> /manhour		days to complete	
3 material & description	quantity				unit cost	amount	
D90- 0.90m x 2.10m Hollow Core Flush door with 6mm thick clear glass plate view panel and 0.40m x 0.90m transom (including jamb, frame, accessories and lockset)	5	sets		/set		-	
consumables (5% of material cost)		1	lot		lot		-
4 Total Direct Cost (1 + 2 + 3)						-	
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)				0% of item 4		-	
6 Contractor's Profit				0% of item 4		-	
7 Tax				0% of item 4 + 5 + 6		-	
8 Total Cost (4 + 5 + 6 + 7)				Php		-	
f. Fabricated Foldable Partition with Sound Proofir		9.57 m <sup>2</sup>				cost per item	
1 labor	no.			daily rate	no of days	amount	
***hauling of materials		production rate		m <sup>2</sup> /manhour		days to complete	
Unskilled laborer				/day		-	
***installation		production rate		m <sup>2</sup> /manhour		days to complete	
leadman				/day		-	
skilled laborer				/day		-	
material & description				/day		-	
2 equipment (rental based on ACEL rates)	unit			daily rental	no of days	amount	
minor tools (10% of Labor Cost)		output rate		m <sup>2</sup> /manhour		days to complete	
3 material & description	quantity				unit cost	amount	
4.5 mm thick Marine Plywood	8	pcs.		/pc.		-	
2" x 2" x 10' (3000mm) s4s Lumber	14	pcs.		/pc.		-	
600mm x 1.2mm x 50mm thick Mineral wool insulation (board type)	14	pcs.		/pc.		-	
27mm x 2000mm Aluminum Door track for heavy duty rollers	2	pcs.		/pc.		-	
Sliding door roller set with stopper and guides	8	set		/set		-	
consumables (5% of material cost)		1	lot		/lot		-
4 Total Direct Cost (1 + 2 + 3)						-	
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)				0% of item 4		-	
6 Contractor's Profit				0% of item 4		-	
7 Tax				0% of item 4 + 5 + 6		-	
8 Total Cost (4 + 5 + 6 + 7)				Php		-	
g. Painting Works		186.57 m <sup>2</sup>				cost per item	
***Ceiling		101.76	sqm				
**Dry wall		75.24	sqm				
***Foldable Partition		9.57	sqm				
1 labor	no.			daily rate	no of days	amount	
***hauling of materials		production rate		m <sup>2</sup> /manhour		days to complete	
unskilled laborer				/day		-	
***surface preparation and paint application		production rate		m <sup>2</sup> /manhour		days to complete	
leadman				/day		-	
skilled laborer				/day		-	
unskilled laborer				/day		-	
2 equipment (rental based on ACEL rates)	unit			daily rental	no of days	amount	
H-Frame 1.7m x 1.2m, set		output rate		m <sup>2</sup> /manhour		days to complete	
minor tools (10% of Labor Cost)		4		/day		-	
3 material & description	quantity				unit cost	amount	
Primer (Flat Latex)	8	gal.		/gal.		-	
Semi-gloss latex (two coats only)	12	gal.		/gal.		-	
Glazing Putty (Dry wall)	4	gal.		/gal.		-	
consumables (5% of material cost)		1	lot		/lot		-
4 Total Direct Cost (1 + 2 + 3)						-	
5 OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)				0% of item 4		-	
6 Contractor's Profit				0% of item 4		-	
7 Tax				0% of item 4 + 5 + 6		-	
8 Total Cost (4 + 5 + 6 + 7)				Php		-	
h. Pantry Sink w/ cabinetry (including counter)		6.48 m <sup>2</sup>				cost per item	
1 labor	no.			daily rate	no of days	amount	
***hauling of materials		production rate		m <sup>2</sup> /manhour		days to complete	
unskilled laborer				/day		-	
***installation		production rate		m <sup>2</sup> /manhour		days to complete	
leadman				/day		0.00	-
skilled laborer				/day		0.00	-
unskilled laborer				/day		0.00	-
2 equipment (rental based on ACEL rates)	unit			daily rental	no of days	amount	
minor tools (10% of Labor Cost)		output rate		m <sup>2</sup> /manhour		days to complete	
3 material & description	quantity				unit cost	amount	
12mm thick Fiber Cement Board	3	pcs.		/pc.		-	
1 1/2" x 1 1/2" x 1/4" thick Angle bar	4	pcs.		/pc.		-	
600mm x 600mm granite tiles	4	pcs.		/pc.		-	
tile adhesive (20kg)	3	bags		/bag		-	
tile grout (5kg)	1	bags		/bag		-	

	Welding rod	2	kgs	/kg	-
	Hardwares, accessories and Handles	1	lot	/lot	-
	consumables (5% of material cost)	1	lot	lot	-
4	Total Direct Cost (1 + 2 + 3)				-
5	OCM (OVERHEAD, CONTINGENCIES & MISCELLANEOUS EXPENSES)				0% of item 4
6	Contractor's Profit				0% of item 4
7	Tax				0% of item 4 + 5 + 6
8	Total Cost (4 + 5 + 6 + 7)				Php - cost per item
					<b>TOTAL AMOUNT</b>
					<b>TOTAL ESTIMATED PROJECT COST</b>

Prepared by:

**CONTRACTOR**  
COMPANY, SIGNATURE AND DATE



## Omnibus Sworn Statement

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REPUBLIC OF THE PHILIPPINES            )  
CITY/MUNICIPALITY OF \_\_\_\_\_    ) S.S.

### AFFIDAVIT

I, *[Name of Affiant]*, of legal age, *[Civil Status]*, *[Nationality]*, and residing at *[Address of Affiant]*, after having been duly sworn in accordance with law, do hereby depose and state that:

1. **Select one, delete the other:**

*If a sole proprietorship:* I am the sole proprietor or authorized representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

*If a partnership, corporation, cooperative, or joint venture:* I am the duly authorized and designated representative of *[Name of Bidder]* with office address at *[address of Bidder]*;

2. **Select one, delete the other:**

*[If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;*

*[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable)];*

3. *[Name of Bidder]* is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, **by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;**

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

5. *[Name of Bidder]* is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;

6. **Select one, delete the rest:**

*If a sole proprietorship:* The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

*If a partnership or cooperative:* None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

*If a corporation or joint venture:* None of the officers, directors, and controlling stockholders of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

7. [Name of Bidder] complies with existing labor laws and standards; and
8. [Name of Bidder] is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
  - a) Carefully examining all of the Bidding Documents;
  - b) Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
  - c) Making an estimate of the facilities available and needed for the contract to be bid, if any; and
  - d) Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].
9. [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the government in relation to any procurement project or activity.
10. **In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.**

IN WITNESS WHEREOF, I have hereunto set my hand this \_\_\_ day of \_\_\_, 20\_\_ at \_\_\_\_\_, Philippines.

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]

[Insert signatory's legal capacity] Affiant

**[Jurat]**

[Format shall be based on the latest Rules on Notarial Practice]



Republic of the Philippines  
**BENGUET STATE UNIVERSITY**

La Trinidad, 2601, Benguet Province  
Tel (074) 422-2401 TeleFax (074) 422-2176  
[www.bsu.edu.ph](http://www.bsu.edu.ph)

## **TECHNICAL SPECIFICATIONS**

### **"REPAIR AND UPGRADING OF VARIOUS ACADEMIC LABORATORIES"**

At  
BENGUET STATE UNIVERSITY, LA TRINIDAD, BENGUET  
NOVEMBER 2023

#### **GENERAL PROVISIONS AND REQUIREMENTS**

##### **SECTION 1 - SPECIFIC**

###### **1. SCOPE OF WORK**

- a. The work covered under this contract shall include the construction of the building including supervision, labor and the supply of materials, equipment and services necessary to properly conduct and produce the desired work product. Included herein are mobilization, civil works, concrete and masonry works, carpentry, tinsmith, doors and windows, electrical works, plumbing works and painting works. General cleaning/demobilization of all temporary works and structures for an efficient, smooth and up to date completion of the contract.

###### **2. CONTRACT DRAWINGS**

- a. Details and extent of work are shown on the drawings accompanying these specifications.
- b. Sketches and other details not shown in plans shall be furnished by the Benguet State University architect or engineer during the pace of construction.

###### **3. PARTS OF THE SPECIFICATIONS**

- a. These specification shall include the following parts whose applicable provisions are binding in the contract:

Section I	-	Specific
Section II	-	General Conditions
Section III	-	Mobilization
Section IV	-	Concrete and Masonry
Section V	-	Carpentry and Lumber
Section VI	-	Tinsmith Works
Section VII	-	Doors and Windows
Section VIII	-	Painting Works
Section IX	-	Plumbing and Water Service System
Section X	-	Electrical Works
Section XI	-	General Cleaning and Demobilization

- b. Works performed under any of the following parts of the Specifications shall not be paid separately, but the cost thereof shall be considered as having been included in the lump sum contract price.
- c. These specifications are intended to supplement the provisions of PD 1096 otherwise known as the National Building Code of the Philippines and its IRR in order to provide the proper design and construction. In case of discrepancies between plans and specifications, these specifications shall prevail. It is the duty of the Contractor to examine both carefully, compare and verify dimensions and data furnished by BSU in case of discrepancies between figures and drawings, the matter should be brought immediately to the BSU architect or engineer before any adjustments shall be made by the Contractor.

## SECTION II - GENERAL CONDITIONS

### 1. WORKMANSHIP

- a. All operations required under any and all parts of the Specifications shall be undertaken in a neat, workmanlike manner. Only skilled personnel with sufficient experience in similar operations shall be allowed to undertake the same.

### 2. CLEARING, GRUBBING, GRADING AND FILLING

- a. The contractor shall clear, grub, and grade the location of the proposed repair of academic laboratories four (4) meters in all directions outside the building line without extra compensation. Provided, however, that he shall not be required to clear beyond existing street lines, should the said street line be nearer than those of the four (4) meters to any building line.

### 3. EXCAVATION AND BACKFILL

- a. The contractor shall make the necessary excavation of whatever materials maybe encountered, for all foundations to the extent required and the grade indicated on the drawings, without extra compensation.

### 4. ELECTRICITY AND WATER SUPPLY

- a. The contractor shall provide at his own expense electricity and ample supply of fresh water, sufficient for all construction purposes.

### 5. INSPECTION OF THE SITE

- a. The tender may deem to have been based on data, regarding physical conditions of the site. The contractor acknowledges and warrants that he has inspected and examined the site and the surroundings and has satisfied himself by submission of his bid as to the nature of the work and materials necessary for the completion of the project, the means of access to the site, the accommodation he may require, and that he has obtained for himself, all the necessary information as to risks, contingencies and other circumstances which may have influenced or affected his bid. NO increase in cost or extension of time will be considered for the failure to inspect and examine the site condition.

### 6. CHANGES

- a. The BSU architect or engineer reserves the right to make slight changes in details of work or materials as he may deem advisable. These changes may include revision or modifications of shapes or dimensions of elements that may involve additional expenses to the contractor shall be covered by appropriate adjustment of the contract price.

### 7. CONFLICT BETWEEN PLANS, SPECIFICATIONS AND BILL OF MATERIALS & ESTIMATES

- a. Should there be any conflict between indications on drawings, provisions in specifications, bill of materials and estimates shall be referred to the BSU architect or engineer for his/her decisions on the matter and whose opinion shall be final.
- b. Any omission in the specifications of work or works to be undertaken but necessary for the completion of work, shall be undertaken by the contractor as if indicated on the drawings, without extra compensation. Such works shall be done in the usual manner as required as to quality of both materials and workmanship.

### 8. REJECTIONS

- a. Materials or workmanship not in reasonable conformance with the provisions of these specifications shall be rejected at any time during the progress of the work. The contractor shall receive copies of reports of rejection of materials and workmanship made by the authorized technical representative of BSU. Any part of the work that he has been done and is not of the quality required by reasonable interpretation of the plans and specifications shall be torn down or removed immediately and rebuilt or otherwise remedy such work in accordance with the requirements of the plans and specifications.

## 9. VARIATION ORDER / CHANGE ORDER / EXTRA WORK ORDER

- a. Any changes or deviations made on plans, specifications, bill of materials and estimates should be referred and reported to the BSU architect or engineer for proper documentation prior to implementation.
- b. All IRR of RA 9184 regarding Variation Order, Change Order or Extra Work Order should be strictly followed.

## 10. ESTABLISHED GRADE LINE AND PREPARATION OF SITE

- a. The contractor shall inspect and examine the individual site conditions. No increase in cost or extension of time will be considered for failure to examine site condition.
- b. Care shall be taken to protect and maintain adjacent properties, trees, materials and such other facilities such as conduits, drains sewers, pipes and other wires that are to remain in the property. Restore without cost to BSU all properties may be affected during the performance of work.
- c. All unusable materials and debris resulting from the performance of work shall be removed from the premises and salvageable material shall be hauled and stacked neatly by the contractor to BSU storehouse.
- d. Remove all earth and sub-grade materials unsuitable for the preparation of the sub-grade for the items of construction. Clear and remove shrubs, stumps, roots and other vegetation from the site.

## SECTION III - MOBILIZATION

### 1. SCOPE

- a. The work shall include mobilization of equipment, manpower, hauling of materials, and necessary tools needed for the proper and smooth completion of the project.

## SECTION IV - CONCRETE AND MASONRY WORK

### 1. SCOPE

- a. The work includes the furnishing of labor, equipment and materials, and the performing of all necessary operations in connection with the concrete and masonry works for the rehabilitation of the building.

### 2. MATERIALS

- a. Concrete hollow blocks (CHB) shall be of superior and approved quality of size 4"x 8"x 16", sound and free from cracks and other imperfections.
- b. Sand and gravel shall be well graded and free from any deleterious materials.
- c. Cement and aggregates shall be stored in a manner as to prevent their deterioration or the intrusion of foreign matter that will deteriorate the quality or which has been damaged shall be tested by standard mortar test to determine its suitability for use.
- d. Mortar shall be workable, cement-sand mixture and attaining a 28-day compressive strength of 1500 psi.
- e. Concrete Aggregates shall conform to the "Specifications for Aggregates" (ASTM G33 latest revision). The maximum size of the aggregates shall not be larger than one-fifth 1/5 of the narrowest dimension between side of the forms of the member of which concrete is to be used, not larger than three-fourths (3/4) of the minimum clear spacing between individual reinforcing bars in no case larger than two (2) inches in diameter.
- f. Reinforcing steel bars for columns, beams, footing, pedestal walls, etc., shall be a structural grade deformed bars. Ties and stirrups of beams and columns as well as slab reinforcements may be plain bars unless noted in the plans or specified herein.

- g. Forms shall conform to the shape, lines and dimensions of the members as called for on plans, and shall be substantial and sufficiently tight to prevent leakage of mortar. They shall be properly braced or tied so as to maintain position and shape.
- h. Plywood, metal, plastic materials or surfaced lumber forms shall be used where it will be best give the most advantage in the specific concrete work involved.
- i. Unless otherwise ordered, forms and shoring shall not be disturbed and shall remain in place for minimum period of 24-hours.

**3. CONCRETE AND MASONRY WORK**

- a. Before placing reinforcement and before pouring concrete, remove all loose rusts, mill, oil or other adhering materials which tend to reduce or destroy bond between concrete and reinforcement.
- b. Reinforcing steel bars shall be cut, bent, lapped or splice as recommended by the ACI codes. Splices where permitted, shall provide sufficient lap (not less than 60 times the diameter of the bars to be deformed) to transfer the stress between bars by bond and shear, and shall be secured in place by the use of tie wires not smaller than No.16 gauge. Splices in adjacent bars shall be staggered.
- c. Reinforcing steel bars shall be placed accurately and secured in place by use of concrete or metal supports, spacers or ties to firmly hold them in their proper positions during pouring and setting of concrete.
- d. Reinforcing steel bars shall not be bent or straightened in any manner that will injure the materials. Bars with kinks or bends shall not be used.
- e. Reinforcing steel bars shall have protective covering not less than three-fourths (3/4) inches of concrete in slabs that are not exposed to the ground; not less than one and a half inches (1-1/2"), in beam, girders, and columns, and not less than (3") for footing on soil.
- f. All horizontal and vertical bars as the case maybe shall be anchored 20 bar diameters into the concrete footing, columns and beams.
- g. All horizontal the reinforcement shall be tied to the vertical reinforcement at every intersection with no. 16 G.I. tie wire.

**Concrete:**

Design working stresses for concrete based on the following 28 days of ultimate compressive strength:

- |                                    |           |
|------------------------------------|-----------|
| 1. Footing, Columns, Bearing Walls | 3,000 psi |
| 2. Slab of fill                    | 2,500 psi |

**Reinforcement:**

- 1. All mild reinforcement steel shall be of new Billet Structural Grade (fy=33,000 psi) deformed bars conforming to ASTM A-615.
- 2. All detailing, fabrication and installation of reinforcing bars must follow the ACI Manual Standard Practices for Detailing Reinforced Concrete Structures (ACI 315.65).
- 3. All reinforcement shall be continuous with a minimum length of laps for splices as per corresponding notes in ACI Detailing Manual.

**Walls:**

- 1. See Architectural Drawings for concrete and masonry walls not shown on the structural drawings.
- 2. Wall reinforcement shall be wired together and double curtain braced apart.

**Clearances:**

Minimum concrete cover shall be as follows:

- |            |               |
|------------|---------------|
| 1. Footing | 0.076 m clear |
| 2. Columns | 0.038 m clear |
| 3. Walls   | 0.019 m clear |
| 4. Beams   | 0.038 m clear |
| 5. Slabs   | 0.019 m clear |

**Dowels:**

Provide dowels for walls starting on beams.

**Foundation:**

1. Except otherwise shown, excavations shall be made as near as possible to the neat lines required by the size and shape of the structure.
2. Backfill shall be placed in layers not exceeding 0.15m in depth. Each layer must be moisten as directed and thoroughly compacted before placing the next layer.

**Pouring Schedule and Removal of Forms:**

1. The Contractor shall submit for in the approval schedule of concrete pouring and location of construction joints to the architect or engineer of the institution at least four (3) days prior to pouring.
2. All chases and openings on slabs and walls shall be approved by the architect or engineer of the institution.
3. The Contractor shall furnish and maintain adequate forms and shoring until the concrete members have attained its curing period.

**Work Item**

**Description**

- |                        |  |
|------------------------|--|
| 1. <b>Foundation</b>   | Reinforced Concrete ("Class AA" mixture, Ready mix concrete 3000 psi, 21MPA); with the necessary reinforcing bars as indicated in the structural plan.   |
| 2. <b>Columns</b>      | Reinforced Concrete ("Class A" mixture, Ready mix concrete 4000 psi, 27.58MPA); with the necessary reinforcing bars as indicated in the structural plan.   |
| 3. <b>Beams</b>        | Reinforced Concrete ("Class A" mixture, Ready mix concrete 4000 psi, 27.58MPA); with The necessary reinforcing bars as indicated in the structural plan.   |
| 4. <b>Floor Slabs</b>  |  |
| 4.1 All Floor Slab     | Reinforced Concrete ("Class B" mixture, Ready mix concrete 3000 psi, 21MPA); with the necessary reinforcing bars as indicated in the structural plan.  |
| 4.1.a Finishing        | Granite Floor Tiles  |
| 5. <b>Walls</b>        |  |
| 5.1 Exterior Walls     | 4" Hollow Concrete Blocks (CHB) with concrete mix in the hollow core and with reinforcing bars as indicated in the Structural Plan. Plain Cement Plaster finished on both side unless otherwise specified. |
| 5.1.a Finishing        | Semi-Gloss Latex by Boysen/Davies or equivalent  |
| 5.2 Interior Walls     | Plain Cement Plaster in Paint coat finish by Boysen/Davies or equivalent   |
| 5.2.a Finishing        | Paint Cement Plaster finish  |
| 5.2.b Divisions        |  |
| 5.3 Molding            | Plain Cement Plaster finish  |
| 5.3 Facade Accessories | N/A  |

**4. CONCRETE PROPORTION AND CONSISTENCY**

- a. The unit of measurement shall be cubic foot. One bag of cement shall be considered as one cubic foot. Water shall be measured as to ensure the desired quantity of successive batches.
- b. The re-tempering of concrete, i.e. mixing with additional cement, aggregate or water shall not be permitted.
- c. Water shall be removed from excavation before concrete is deposited. Any continuous flow of water into the excavation shall be directed through side drains to a slump or be removed by other approved methods to avoid washing the freshly deposited concrete and forms shall be thoroughly wetted.
- d. Concrete shall be conveyed to forms as rapidly as practicable, by methods which shall prevent segregation or loss of ingredients. There shall be no free vertical drop greater than 1.5 meters. Approval of BSU shall be obtained before starting any concrete pour. Concrete shall be worked readily into the corners and angles of the forms around all reinforcement and embedded items by depositing the concrete as close as possible to its final position in the forms.
- e. If possible, concreting shall be done continuous until section is completed. When stoppage of concrete operations occurs, construction joints shall be placed either horizontal or vertically as indicated by BSU and provided with shear keys or dowels to develop bond.
- f. Pouring of concrete for foundations shall be done after BSU has verified the actual soil conditions at the site and approved the start of concreting. No footing shall rest on fill.
- g. The contractor shall not pour any concrete until BSU inspects and approves the conditions of forms, reinforcement and embedment's.
- h. For reduction or additions, on the contract sum due to deletion or extra involved, cast-in-place concrete shall be measured in cubic meter and payment shall be based on the actual volume using the unit prices on the proposal form.

#### 5. CURING

All concrete shall be moist in an approved method of combination applicable to local conditions. Surface of the concrete shall be kept continuously wet by covering with water, by continuously spraying, or by covering with water, by continuously spraying, or by covering with burlap or other approved materials thoroughly saturated with water and keeping the covering wet by spraying or intermittent hosing. Water for curing shall be free from any elements which might cause objectionable staining or discoloration of the concrete.

#### 6. REPAIR OF CONCRETE

- a. Imperfections shall be repaired and shall be completed within 24 hours after removal of forms.
- b. Fins shall be nearly removed from exposed surfaces.
- c. Damaged or honeycomb concrete must be removed to reach sound concrete and should be replaced with dry pack, rich mortar or concrete with pea gravel.
- d. Voids which appear upon the removal of forms shall be drenched with water and immediately filled with materials of the same composition as that used in the surface and smooth with a wood spatula or float.
- e. Large bulges and abrupt irregularities that protrude shall be removed by brushing, hammering and grinding.
- f. All materials, procedures and operations used in the repair of concrete shall be approved by BSU.
- g. The cost of materials, labor and equipment used in the repair shall be the sole responsibility of the contractor.

#### 7. CONCRETE SLAB ON FILL

All concrete shall be moist in an approved method of combination applicable to local conditions. Surface of the concrete shall be kept continuously wet by covering with water, by continuously spraying, or by covering with water, by continuously spraying, or by covering with burlap or other approved materials thoroughly saturated with water and keeping



the covering wet by spraying or intermittent hosing. Water for curing shall be free from any elements which might cause objectionable staining or discoloration of the concrete.

#### 8. CONCRETE SLAB ON FILL

- a. Concrete slab on fill shall be laid on a prepared foundation. Sub-grade shall be rolled, rammed, or tamped layer by layered to a thoroughly compacted foundation.

#### 9. CEMENT FINISH FOR CONCRETE AND CHB SURFACES

- a. All concrete surfaces including those indicated as "Cement Plaster" on drawings shall be given a fine finish.
- b. The cement surface shall be kept wet for four (4) hours before the required finish is applied.

#### 10. INSPECTION

- a. Concrete shall be proportional, mixed, and placed in the presence of BSU representative, ample notice shall be given before mixing is recommenced.

#### 11. CONCRETE HOLLOW BLOCKS

- a. Concrete hollow blocks shall be thoroughly wetted with water and embedded-in and cemented together with mortar. All blocks shall be laid plumb, true to line with level and accurately spaced courses breaking joints with the course below. Horizontal and vertical mortar joints shall be 3/8" thick with full mortar average on the face shells and the webs surrounding the cells to be completely filled. All blocks joints shall be struck flush to smooth even surface. Provide reinforcements as shown or specified and completely fill the cell with mortar to completely encase the reinforcement.
- b. Vertical and horizontal reinforcements shall be provided and hollow comes where such reinforcements run through shall be full filled with class "A" concrete. Unless otherwise indicated in the drawings, reinforcements shall consists of 10mm diameter vertical and horizontal bars spaced at 600mm on centers securely anchored to columns of frames and to the existing walls
- c. Mortar for joints and finishing plasters shall consist of one (1) part cement, (2) parts of sand, and minimum amount of water. Mortar joints shall be neatly trowelled and scraped of excess mortar.
- d. Prior to laying, blocks shall be uniformly moistened but not soaked; joints shall be neatly trowelled and scraped of excess mortar.

### SECTION V- CARPENTRY WORKS AND LUMBER

#### 1. SCOPE

- a. The contractor shall furnish all labor, materials, tools, and services necessary to complete all rough and finish carpentry work shown on the drawings or herein specified.

#### 2. GENERAL

- a. Lumber shall be well seasoned, dry and free from large, loose and unsound knots, spas, shakes or other imperfections that may impair its strengths, durability or appearance. All exposed wood work shall be smoothly dressed and well sand-papered.
- b. All moldings shall be mitered at corners and capped at angles. Factory made doors, transoms, and windows, completely assembled with sash fitted in place, shall be used upon approval.

#### 3. PLYWOOD BOARDS

- a. All plywood boards shall be of superior quality and thickness as indicated on plans.

#### 4. FRAMES

- a. All framing doors and windows shall be done, as much as possible with carefully fitted mortise and tendon joints. Frames shall be rabbeted and cut with under cuts for water drips.

## 5. WALLS AND PARTITIONS

- a. Partitions shall be ½" thick plywood on 2" x 3" HORIZONTAL AND VERTICAL STUDS AT 500 mm O.C. both ways. All walls shall be doubled (unless otherwise specified), shall be kiln-dried on 2"x 3" superior quality framing.

## 6. MISCELLANEOUS WOODWORK

- a. All other items of wood work not mentioned in the specifications not included in those items specifically excluded from the building construction, and needed to complete woodwork, shall be done in accordance with shop drawings and to be furnished later.

## 7. CEILING

- a. Interior exterior ceiling shall be ½" thick plywood on 2"x 2" ceiling joist spaced at 600mm O.C. both ways or as specified on plans.

## 8. ROOF FRAMING

- a. Lumber shall be well seasoned, dry and free from large, loose and unsound knots, saps, shakes or other imperfections that may impair its strength, durability or appearance.
- b. No part of the roof frame shall be exposed to weather especially moist and rain.

## 9. HARDWARES

- a. The contractor shall likewise furnish and install necessary hardware to leave the work complete, although not specifically mentioned herein. All such hardware shall conform in superior quality and finish to the rest of the hardware specified. Sample shall be approved by the BSU Architect or Engineer before installing.
- b. All door locksets shall be KW 400, Kwikset.
- c. All entrance doors for toilets shall be provided with door knobs and specified locks.
- d. 3½" x 3½" STANLEY. All flush doors with a width not more than 90cm. shall have three hinges, and four hinges, and four hinges for more than 90cm.

## SECTION VI - TINSMITHRY WORKS

### 1. SCOPE OF WORK

- a. The work consists of furnishing all labor, tools, equipment and materials needed in the performance of operations relative to the fabrication, delivery to site, and installation, completion as required and specified.

### 2. MATERIALS

- a. Use .4mm pre-painted long span, rib type, dark green metal roofing.
- b. Sheet shall be laid with end laps as indicated on the drawings, the minimum end lap shall be 30mm and the minimum side lap shall be 2 ½" rib wide. Steel sheets shall be fastened to the purlins at every alternate corrugation.
- c. Ridges, valleys, and hips shall be pre-painted with minimum thickness of 0.4mm.
- d. Ridge rolls shall lap at least 30cm over the roofing sheets. The ridge roll shall be fastened to the roofing sheets at every alternate corrugation.
- e. Valley rolls shall lap at least 30cm over the roofing sheets. The ridge roll shall be fastened to the roofing sheets at every fourth corrugation.
- f. Flashing shall be pre-painted with minimum thickness of 0.5mm. For corrugated sheets whose corrugations run parallel to the walls, one wing of the flashing sheets shall be corrugated to match the corrugations of the roofing sheets and shall be wide enough to cover at least 3 corrugations. All fascia boards shall be installed with flashings.

## SECTION VII - DOORS AND WINDOWS

### 1. SCOPE OF WORK

- a. The contractor shall furnish all materials, labor, equipment, tools and services necessary to complete all work specified and shown on drawings. This work shall include the installation of powder coated aluminum windows.

### 2. ALUMINUM WINDOWS

- a. The type of window shall be in accordance with the schedule of window indicated and as reflected on plans.
- b. Hardware and Operation. All hardware and other attachments necessary to ensure proper operations of ventilators shall be as per manufacturer's specifications.
- c. Window glass shall be of 3/4" thick designed for glazing from the outside.

### 3. DOORS

- a. The type of doors shall be in accordance with the schedule of doors indicated and as reflected on plans.
- b. Roll-up door shall be made of superior quality materials.
- c. Wooden doors shall be composed of materials as specified in the door schedule where lumbers should be well seasoned, dry and free from large, loose and unsound knots, saps, shakes or other imperfections that may impair its strengths, durability or appearance. All exposed wood work shall be smoothly dressed and well sanded.

### 4. DIMENSION TO BE VERIFIED

- a. All dimensions of openings as shown on drawings must be verified by the contractor.

## SECTION VIII - PAINTING WORKS

### 1. GENERAL

- a. The manufacture's painting specification for Davies paints shall be considered part of these specifications.

### 2. SCOPE OF WORK

- a. The contractor shall furnish all labor, equipment, materials and services required to complete the entire painting work herein called for. Painting work shall include the painting of all interior and exterior masonry work, wood work, metal work, wallboards, etc., as specified herein after the required there to.
- b. The contractor shall be furnish all tools, brushes, spraying equipment, tackles, scaffolding, ladders, pails, pans and other equipment required to complete the entire painting work.

### 3. WORKMANSHIP

- a. All work shall be done by skilled painters in a workman like manner by being brushed or sprayed on the surfaces. All paints etc., shall evenly applied so as to be free from sags, runs, crawls, or other paint defects. All coats shall be of minimum brush marks. All brushes shall be clean and in good condition, heavy brushes are preferred.
- b. All paints shall be thoroughly stirred so as to keep the pigment evenly in suspension when paint is being applied.
- c. No paintings shall be done under conditions that are unsuitable for the production of good results. No oil painting shall be done on damp weather.
- d. All coats shall be thoroughly dry before the succeeding coat is applied. Allow at least twenty-four (24) hours between coats unless otherwise specified by the manufacturer.
- e. Painting coats are specified and intended to cover surfaces perfectly, if surfaces are not fully covered, further coats shall be applied to attain the desired evenness of the paint application.
- f. All parts of the molding shall be left clean and true to details. All findings shall be uniform as to sheen, color, and texture except when glazing is required.

#### 4. MATERIALS

- a. All paints and painting materials shall be as manufactured by Davies Paints Philippines Inc.
- b. All paint materials shall be delivered at the site in their original containers, with labels intact and seals unbroken.
- c. With the exception of ready-mixed materials in original containers all mixing shall be done at the jobsite. No materials are to be reduced or changed except as specified by the manufacturer of the said materials. The use of white zinc (lithopone) will not be allowed.
- d. A place will be designated by the BSU architect or engineer for the storage of paint materials and tools. Whenever it may be necessary to change the location of his storage space, the contractor shall promptly move to the newly designated place. The storage space floor shall be adequately protected from damage and from paint. Paints shall be kept covered at all times and safeguarded to prevent fire.

#### 5. COLORS

- a. All colors of paint and varnishes shall be in accordance with color scheme as approved by BSU.

#### 6. PROTECTION

- a. Protect all electrical plates, surface hardware, etc. during the painting operations.
- b. All floors, other surfaces and equipment shall be protected during the painting operations by any method acceptable and approved by the BSU Architect or Engineer.

#### 7. PREPARATION OF SURFACES

- a. Before applying paint finish, all surfaces must be thoroughly dry, clean and free from dust, grease, and dirt and properly prepared to receive finish. Boysen/ Davies paint or equivalent and Varnish Remover shall be used.
- b. No painting shall be done at any time unless the surface to be treated is thoroughly dry. The contractor shall inspect all surfaces to be painted and shall report all defects therein to the BSU architect or engineer prior to painting. The architect or engineer will cause these defects to be remedied. The commencing to the work by the contractor indicates his acceptance of the surface to be painted.
- c. Wood surface shall be sand papered to a smooth and even surface duster. Blemishes on surfaces to be varnished shall be corrected. After primer stain coat all cracks and nail holes shall be filled with putty. Putty used in stained work shall batch the stained wood.
- d. Brick, stucco, and concrete surfaces shall be free from excess mortar. Treat surfaces with Davies Masonry Neutralizer brushing the surface free of loose crystals when dry. New plaster must be allowed to dry thoroughly. Places in walls must be repaired with plastic patch-deep holes with matching plaster.
- e. Metal surfaces shall be cleaned, free of mill scale, rust and foreign matter by scrapping flame cleaning, sand blasting or wire brushing. Loosed and scaling point shall be scraped and fire-brushed to sound metal surface.
- f. Manufacture's requirements for preparation of surfaces shall be considered apart of these specifications.

#### 8. PAINTING SCHEDULE

##### a. Wood (ceiling)

- Primer : Boysen/Davies Flat Wall Enamel or equivalent
- Second Coat : Boysen/Davies Flat Latex, White or equivalent
- Third Coat : Boysen/Davies Semi-gloss, Latex, White or equivalent

##### b. Exterior Wall

- Cementitious Waterproofing: Boysen /Davies or equivalent
- Skim Coat : Boysen /Davies or equivalent
- Primer : Boysen /Davies Acrytex Cast B\_5715 or equivalent
- Second Coat : Boysen /Davies Wallguard, Semi-gloss Latex or equivalent
- Third Coat : Boysen /Davies Wallguard, Semi-gloss Latex or equivalent

##### c. Interior Wall

- Cementitious Waterproofing: Boysen /Davies or equivalent

- Skim Coat : Boysen /Davies or equivalent
- Primer : Boysen /Davies Flat Latex or equivalent
- Second Coat : Boysen /Davies Semi-gloss Latex, White or equivalent
- Third Coat : Boysen /Davies Semi-gloss Latex, White or equivalent

d. Steel Window

- Primer : Boysen /Davies Red Oxide or equivalent
- Second Coat : Boysen /Davies Permacoat Gloss Latex Paint or equivalent

e. Other Wood Surfaces

- Baseboard : Boysen /Davies Chocolate Brown or equivalent
- Door Jamb : Boysen Raw Siena

## SECTION IX - PLUMBING AND WATER SERVICE SYSTEM

### 1. SCOPE OF WORK

a. The works shall include the following;

- Supply and the installation of pipes and fittings for all sanitary lines and water line.
- Supply and installation of all plumbing fixture shown in the drawings and described in this specification.
- Installing a system of drain, soil, vent, waste and building sewer.
- Connecting building sewer to the constructed septic tank.

### 2. GENERAL

- a. Piping shall be standard G.I. Pipe schedule 40 of size as indicated On the drawing or as specified herein. The main service line shall connect to the water tank.
- b. Minimum fairly constant, service pressure at a point outlet discharge shall not be less than 8 psi for all fixtures except for direct flush valves, for which it shall not be less than 15 psi and except where special equipment is used requiring higher pressure.
- c. Piping for sanitary lines shall be standard PVC pipe. Water closets, urinals, lavatories, sink and floor drain pipes shall connect water directly to soil pipes leading to the septic tank. Every water closet and lavatory shall be provided with individual shut-off. Every plumbing fixture shall be separately provided with vented vitae sealed trap placed close to the fixtures. The open end of the vent pipes shall be entirely covered with no.16 mesh copper wire. Floor drains shall be nicked plated.
- d. The body of clean-out ferrules shall conform the thickness of the required pipe and fittings of the same material, and shall extend not less than one quarter inch (1/4") above the hub. The Clean-out plug shall be provided with raised nut of recessed socket from removal, in accordance with the American Standard Tapered Pipe Threads.
- e. Clean-out shall be of the same nominal size as the pipes up to four (4") inches and not less than four (4") inches for larger pipes.

### 3. PERFORMANCE TEST

- a. It shall be the responsibility of the contractor to test all the system of the entire plumbing installation for proper operational condition. The test shall be conducted in the presence of the BSU Project Architect or Engineer.

### 4. MATERIALS

- a. All plumbing fixtures shall be within the American Standard or equivalent.

### 5. PLUMBING FIXTURES AND ACCESSORIES

- a. Water Closet and Lavatory and Fittings - American Standard or equivalent
- b. Stainless Single Tub Kitchen sink (complete w/ fittings)

### 6. INSTALLATION

- a. All fixtures shall be installed firmly and carefully to avoid injury to the item. They shall be installed with high quality workmanship to the satisfaction of BSU.

## **SECTION X - ELECTRICAL WORK**

### **1. SCOPE OF WORK**

- a. Work covered by this specification shall include furnishing all labor, materials, equipment and services required to construct and install the complete electrical system shown on accompanying plans and specified herein. All work shall be in accordance with the governing codes and regulation and with the specifications, except when the same shall conflict with such codes, etc., in which case the latter shall then govern.
- b. Under this section of the specifications, the contractor shall provide all materials and equipment and perform all the work necessary for the drawings as herein specified; except as otherwise excluded, as which without excluding the generality of the foregoing, shall include but not limited to the following principal items of work.
  - A complete wiring for the exterior and interior lighting and power system, including all feeders, branch circuit and connections to all lighting power outlets.
  - All general lighting fixtures and lamps
  - Grounding system of all electrical equipment
  - Optional items of work
  - If anything has been omitted in any items of work on materials usually furnished, which are necessary for the completion of the electrical works as outlined herein before, such must be hereby included in this section of the work.

### **2. CODES, REGULATIONS AND ORDINANCES**

- a. The electrical items under this contract is to be installed according to the requirements of the latest Philippine Electrical Code, the rules and regulations of the Authority concerned and the requirements of the Power Company. Nothing contained in these specifications or shown on the drawings shall be construed as to the conflict with the National and Local Ordinances or laws governing the installation of electrical work, and all laws and ordinances are hereby made part of these specifications, the contractor is required to meet the requirements thereof.

### **3. PLANS AND DRAWINGS**

- a. The contract drawing, which constitutes an integral part of this contract, shall serve as working drawings. They indicate the general layout of the complete electrical system and show arrangements of feeders, circuits, outlets, switches, control panel board, fixture and other works.
- b. The Contractor shall follow all plans to avoid possible installation conflicts. Should drastic changes from the original plan be necessary to resolve such conflicts, the contractor shall notify the BSU Architect or Engineer and shall secure from him written approval and agreement concerning necessary changes and adjustments before alteration of the installation work will commence.

### **4. MINOR MODIFICATIONS**

- a. The plans as drawn are based upon architectural plans and details and show conditions as accurately as possible to indicate them in scale. The plans are diagrammatical and do not necessarily show all fittings, etc., necessary to fit the conditions. The locations of lighting fixtures, convenience outlets, and switches shown on plan are approximate.

### **5. MATERIAL STANDARDS**

- a. All materials shall be new and shall conform with standard specified in the Philippines Electrical Codes and other such as IEEE for every case where such a standard has been established for the particular type of materials in questions.

- b. All materials on all systems shall comply with the following specifications, unless specifically accepted, and all materials where not specified shall be of the best of their respective kind.
- c. Sample of all materials shall be submitted for approval as required by BSU.
- d. All electrical materials shall be new and shall meet the requirements and shall bear the inspection label, wherever standards have been established.
- e. The entire installation shall be free from improper ground and from short circuits.
- f. It shall be the responsibility of the contractor to test all the systems of the entire electrical installations for proper operational condition.
- g. The contractor shall do all the cutting and fitting required for the installation of the electrical items and coordinate with the work of other trades, in accordance with the drawings and in the manner satisfactory to BSU.

## **6. WIRE AND CABLE**

- a. All wires shall be copper, soft-drawn and annealed, shall be of 98% conductivity shall be smooth and fine of a cylindrical form and shall within the actual size called for.
- b. All wires and cables shall comply with the requirements as to the particular usage.
- c. All wires and cables for lighting and power system shall be moisture and heat resistant rubber or thermoplastic insulate.
- d. No wire smaller than # 12 shall be used for convenience outlet.
- e. All wires and cables shall be as manufactured by PHELPS DODGE.

## **7. PIPES**

- a. Wiring shall be done in RSC and CPC pipe, for steel conduit, it shall be of standard weight mild steel hot galvanized, with an interior coating.
- b. Wiring running on walls shall be in a 20mm PVC molding.
- c. No wire shall be pulled into any conduit until the conduit system is completely in all details and in the case of concealed work.
- d. The end of all conduits shall be tightly plugged to exclude plaster, dust and moisture while the building is in the process of construction. All conduit ends shall be reamed to remove all burrs.

## **8. OUTLETS BOXES AND FITTINGS**

- a. All outlets of whatever kind for all system there shall be provided suitable fitting, which shall be either a box or other device especially designed to receive the type of fittings to be mounted thereon.

## **9. JUNCTION AND PULL BOXES**

- a. Junction and pull boxes (PVC) shall be provided as indicated or as required for facilitating and pulling of wires and cables. Junction and pull boxes in finished places shall be located and installed with the permission and to the satisfaction of the BSU Architect and Engineer.

## **10. WALL SWITCHES**

- a. Wall switches shall be rated at 15 amperes, 240 volts, one way or as required.

## **11. INDIVIDUAL BREAKER AND SWITCHES**

- a. Provide individual circuit breakers, safety switches and disconnect switches as where indicated. Voltage ratings shall be suitable in each case of service application.
- b. Enclosure shall be in General Purpose and shall be almost all the requirements and specifications of the Philippine Electrical Code.
- c. Breakers shall be capable of being closed and operated by hand without employing any other source of power.
- d. Safety and disconnected switches shall be fusible and non-fusible as required end of sizes as indicated in plans.

## **12. LIGHTING SYSTEM**

- a. The lighting system shall be complete in every respect, all indicated on the plan or specified.
- b. All works for the lighting system inside the ceiling shall be done utilizing knob and tube work and lighting circuits shall be balanced at panels
- c. Mounting heights of devices shall be as follows;
  - Local switches 4' to 5'
  - Convenience outlet 12" above the floor or above the counters, or as directed by the BSU Engineer / Architect.
- d. Install all lighting fixtures and lamps as specified or at the locations shown in plans or as directed by BSU engineer or architect. All lighting fixtures to be installed shall be LED or CLF.
- e. Submit samples of each fixture to the BSU architect for approval prior to installation.

## **SECTION XI - GENERAL CLEANING AND DEMOBILIZATION**

### **1. SCOPE OF WORK**

- a. Upon the completion, the contractor shall remove from the building all the materials and debris created by him, and leave his part of the work in a clean and finished condition acceptable to the owner. Washing and polishing of window glass and all other glazing works shall be done by him.

### **SPECIAL PROVISIONS**

#### **1. START AND COMPLETION OF WORK**

The contractor shall start the work within five (5) calendar days after specified date in the notice to proceed given to by BSU and he shall complete the work within the agreed number of calendar days.

All salvage materials shall be turned over to the BSU main campus storehouse.

#### **2. CONSTRUCTION MEN IDENTIFICATION**

The contractor shall provide all his men working in the project with identification cards at the project site that BSU required.

#### **3. ACCIDENT**

The contractor shall provide, at the site, such medical facilities which are necessary to supply the first aid of anyone who may be injured in connection with the work. The contractor must promptly report in writing to BSU all accidents whatsoever arising out of or in connection with the performance of the work, whether on, or adjacent to the site, which cause death, personal injury, or property damages giving full details and statement of witnesses.

#### **4. COST AND FIGURE DISCREPANCIES**

In case of discrepancies between costs and total bid cost, the latter shall govern. In case of error between price in words and figures occurs, the price in figures shall be considered as the bid.

#### **5. PROTECTION**

The contractor shall protect the work of all other trades against damage or injury by his employee, or by his material, tools or utensils used in connection with this contract. Any damage done by him or his employees shall be repaired at his own expense, without any additional compensation beyond the contract price.



The contractor shall be held responsible for the repairs to have own or other made necessary by the defective workmanship or careless of other crafts.

Any damage to any part or part of the structure of the structure of the building caused by the contractor shall be repaired at his own expense.

#### 6. WARRANTY AND GUARANTEES

The contractor shall guarantee all works specified are free from the defective workmanship and materials, and will remain so far for a period of 1 year from the date of acceptance of the work. Any defects, appearing within the aforesaid period, shall be remedied by the contractor at his own expense.

#### 7. WORKMANSHIP

The work throughout shall be executed in the best and most thorough manner under the redirection of and to the satisfaction of the BSU Engineer and Architect and shall have the power to reject any works and materials which, in his judgment, are not in full accordance therewith.

#### 8. MANNER OF PAYMENT

The contractor shall be paid through progress billing and shall submit a request for the payment corresponding to the percentage of work accomplished with statement of work accomplishment and the project photos before and after each activity as attachment. Such request shall be verified by the monitoring and inspection committee or its duly appointed representative. Benguet State University shall have the right to deduct from the contractor's progress billing such amount as may be necessary to cover the third party's liabilities, as well as the uncorrected defects in the projects.

The payment shall be subjected to retention of ten percent (10%) referred to as the "retention money" in accordance with pertinent provisions of RA 9184.

Prepared by:



ARCH. HAZELINE N. TIBANGAY  
Architect III  
PRC Reg. No. 028540

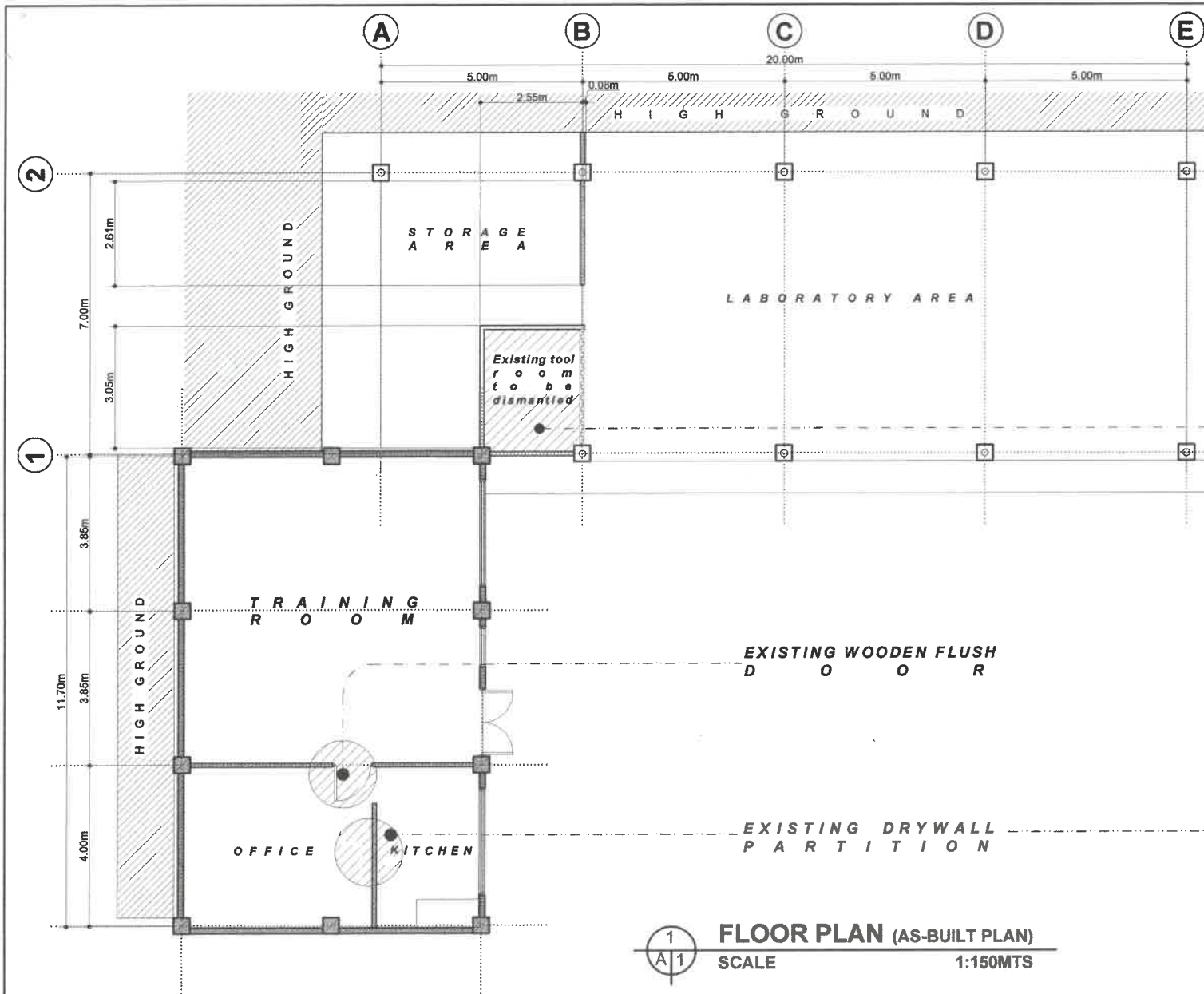


PHOTO OF EXISTING TOOL ROOM



**HAZELINE N. TIBANGAY**  
 UNIVERSITY ARCHITECT

PRC LIC. No. 028540  
 PTR No. \_\_\_\_\_

VALIDITY:  
 ISSUED: \_\_\_\_\_

PRC LIC. No. \_\_\_\_\_  
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VALIDITY:  
 ISSUED: \_\_\_\_\_

REPAIR OF THE  
 COLLEGE OF  
 FORESTRY OPEN  
 LABORATORY  
 BSUJCM4 BSU COMPOUND  
 LA TRINIDAD, BENGUET

PROJECT / LOCATION



**BENGUET STATE UNIVERSITY**  
 LA TRINIDAD, BENGUET

OWNER

**KENNETH A. LARUAN**

END-USER

**SAMUEL S. POLIDEN**

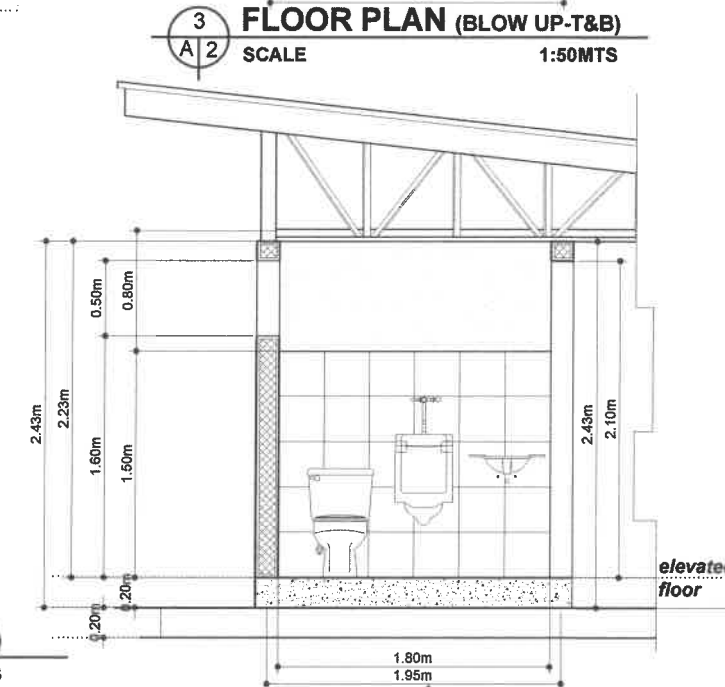
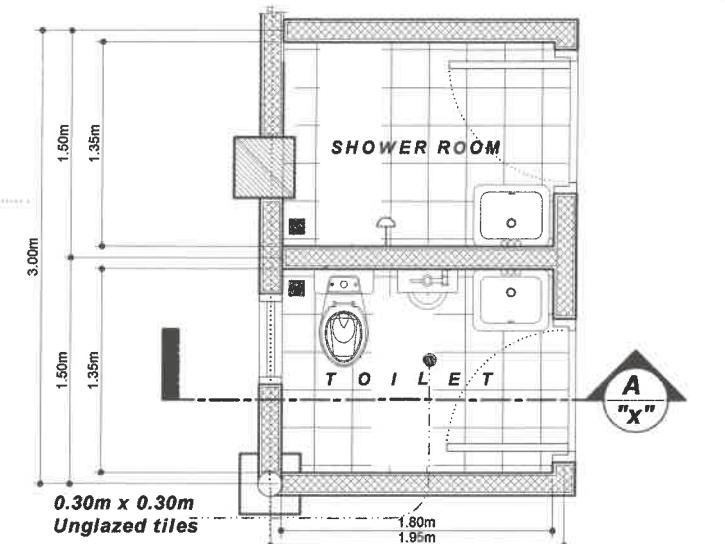
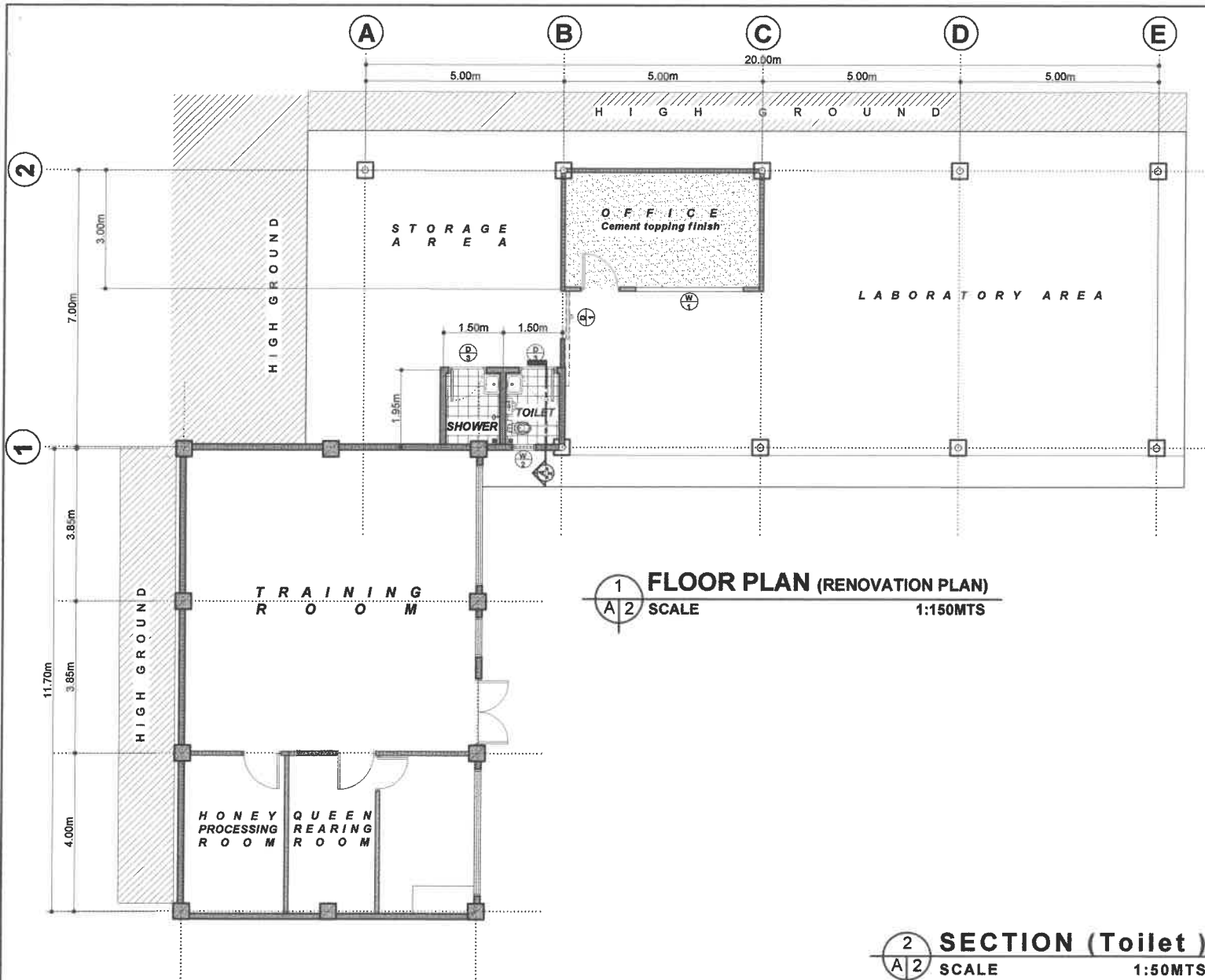
VP FOR ACADEMIC AFFAIRS

**FELIPE SALANG COMILA**

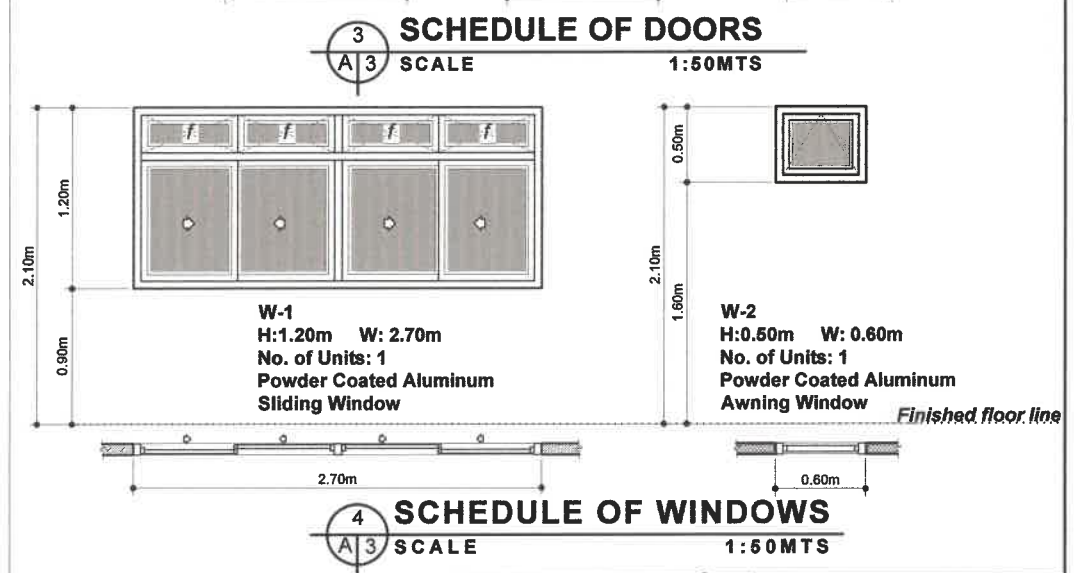
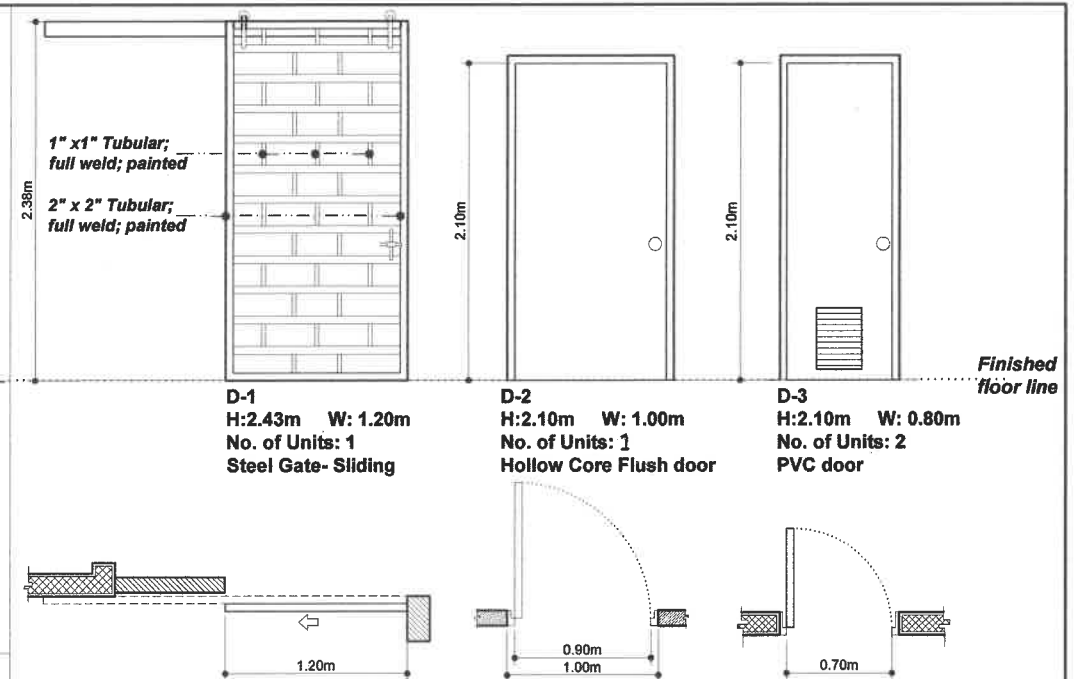
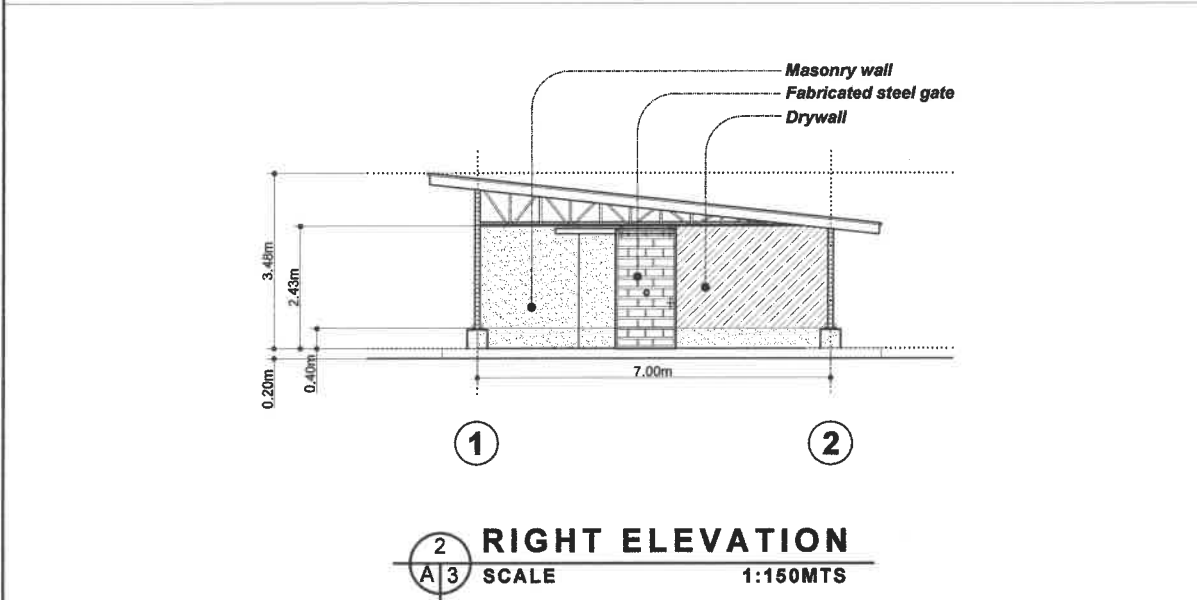
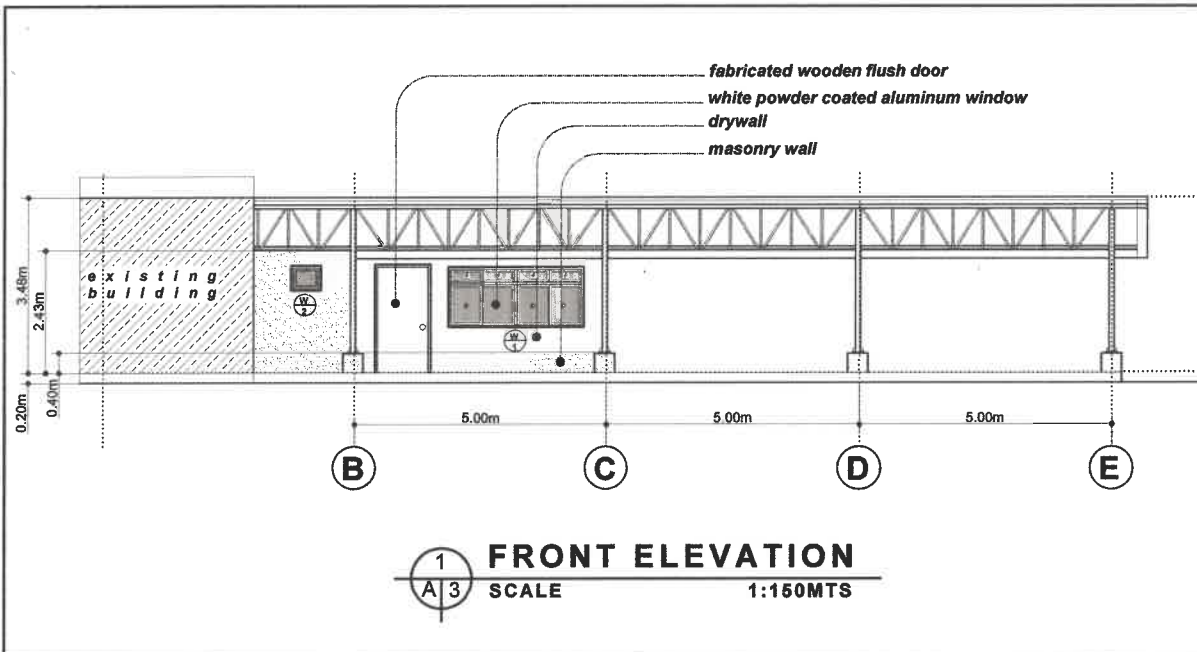
PRESIDENT

SHEET CONTENT  
**AS SHOWN**  
 REVISION DATE:  
 REVISION NO.:

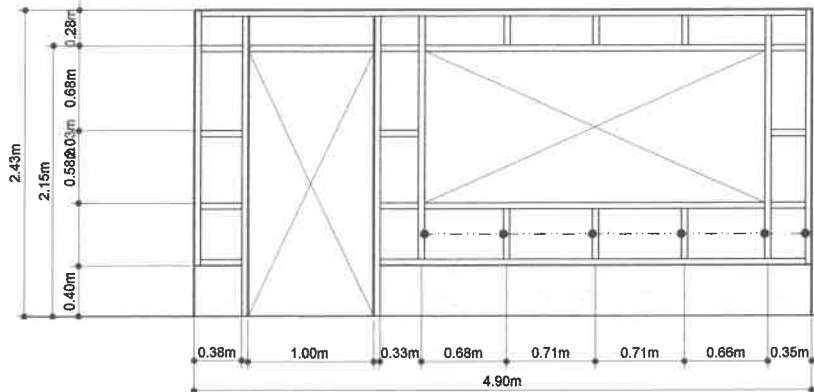
SHEET NO.  
**A-1**  
**16**



 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT	VALIDITY: ISSUED:	PRC LIC. No. _____ PTR No. _____	VALIDITY: ISSUED:	CAD BY: EMS - JULY 2022	 <b>REPAIR OF THE COLLEGE OF FORESTRY OPEN LABORATORY</b> BSUJKM6 BSU COMPOUND LA TRINIDAD, BENUE	 <b>BENUE STATE UNIVERSITY</b> LA TRINIDAD, BENUE	 <b>KENNETH A. LARUAN</b> END-USER	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALAING COMILA</b> PRESIDENT	SHEET CONTENT AS SHOWN	SHEET NO. <b>A-2</b>
										REVISION DATE:	REVISION NO.: <b>2 / 6</b>



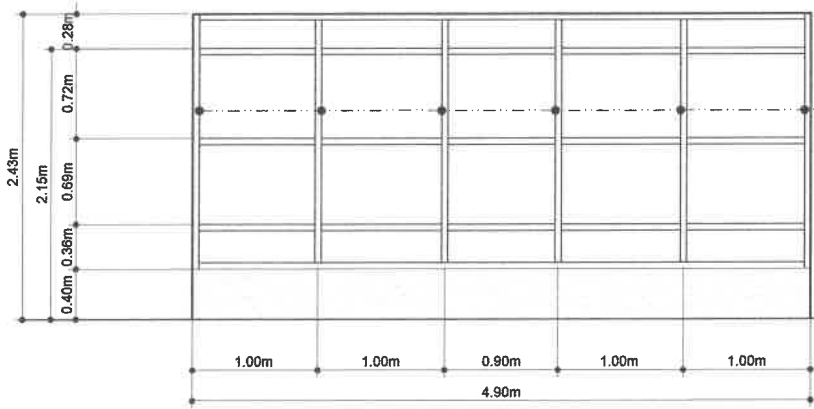
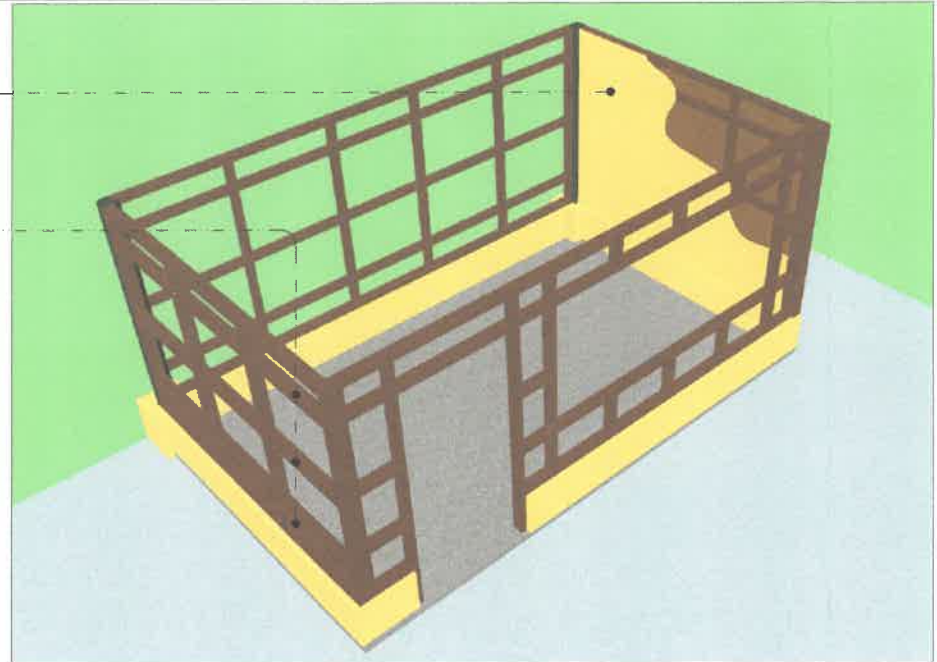
 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	CAD BY: EMS- JULY 2022	 <b>BENUE STATE UNIVERSITY</b> LA TRINIDAD, BENUE	OWNER	 <b>KENNETH A. LARUAN</b> END-USER	 <b>SAMUEL S. POLIDEN</b> Vp. Academic Affairs	 <b>FEMEPE SALAING COMILA</b> PRESIDENT	SHEET CONTENT <b>AS SHOWN</b>	SHEET NO. <b>A-3</b> 3/6
											REVISION DATE:	



**1 WALL FRAMING PLAN (FRONT)**  
 SCALE 1:60 MTS

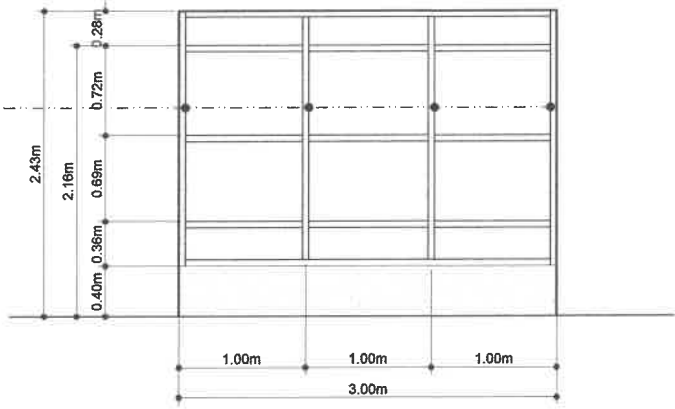
1/2" x 4'x8' MARINE PLYWOOD

2" x 4" LUMBER



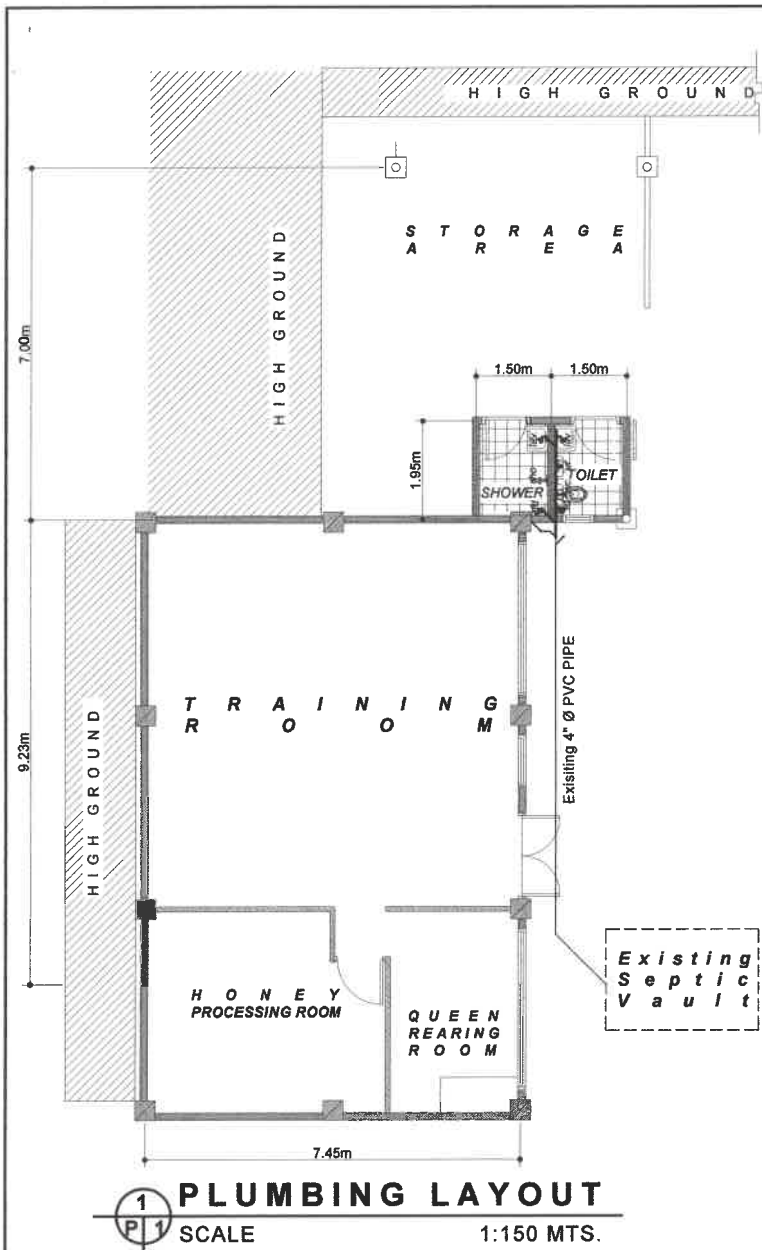
**2 WALL FRAMING PLAN (REAR)**  
 SCALE 1:60 MTS

2" x 4" LUMBER

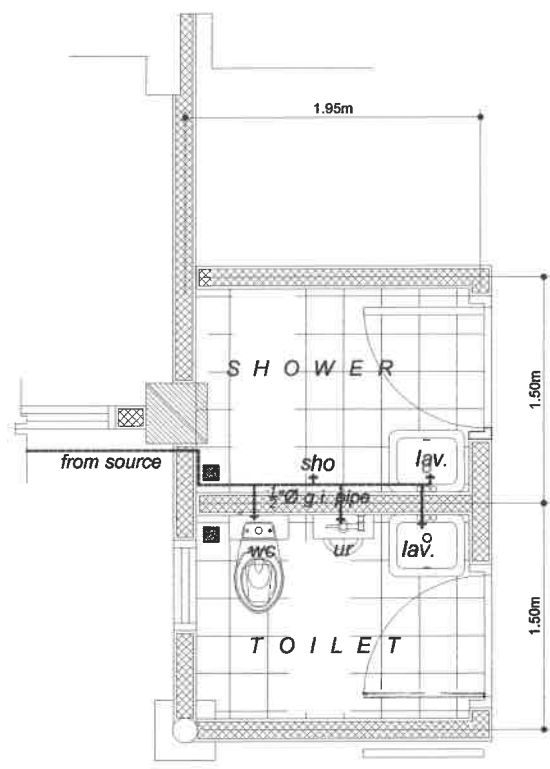


**3 WALL FRAMING PLAN (SIDE)**  
 SCALE 1:60 MTS

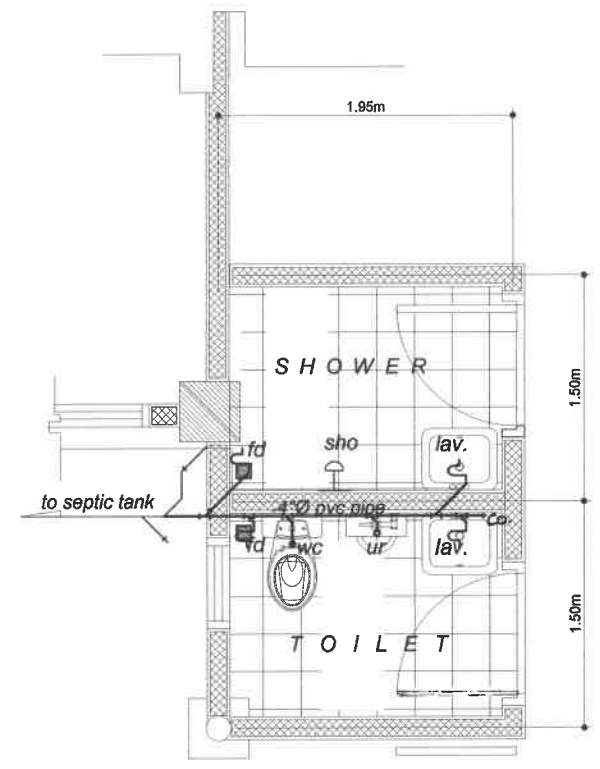
 <b>HAZELINE N. TIBANGAY</b> UNIVERS ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	CAD BY: EMS- JULY 2022	 <b>REPAIR OF THE COLLEGE OF FORESTRY OPEN LABORATORY</b> BSU, KM 6 BSU COMPOUND LA TRINIDAD, BENGUET	 <b>BENGUET STATE UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>KENNETH A. LARUAN</b> END- USER	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALANG COMILA</b> PRESIDENT	SHEET CONTENT	SHEET NO.
											AS SHOWN	A-4
											REVISION DATE:	4
											REVISION NO.:	6



**1 PLUMBING LAYOUT**  
SCALE 1:150 MTS.



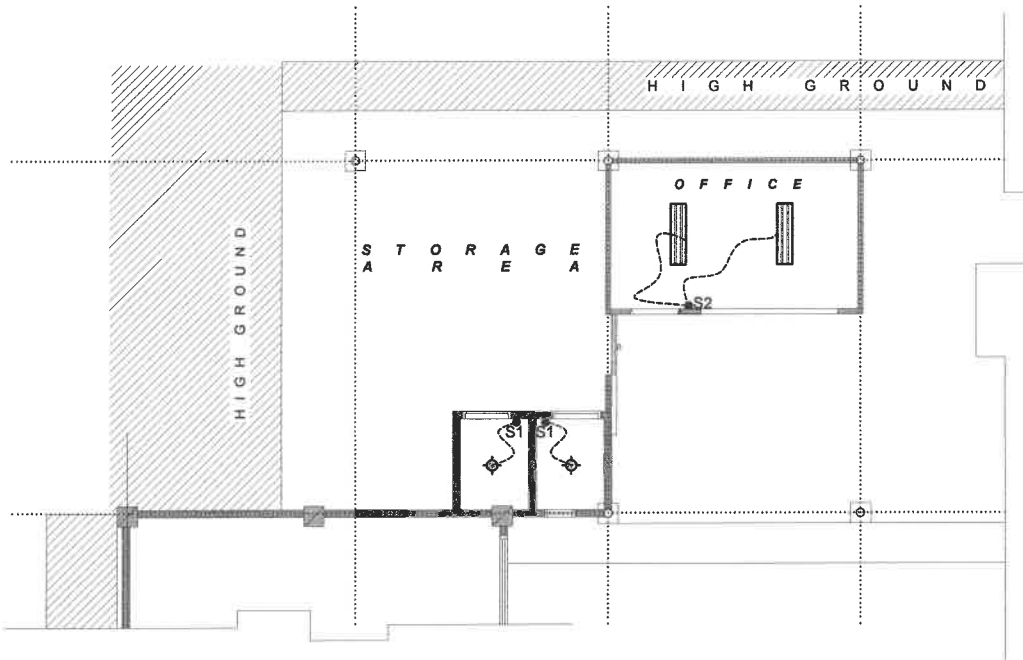
**2 WATERLINE LAYOUT (blow up)**  
SCALE 1:50 MTS.



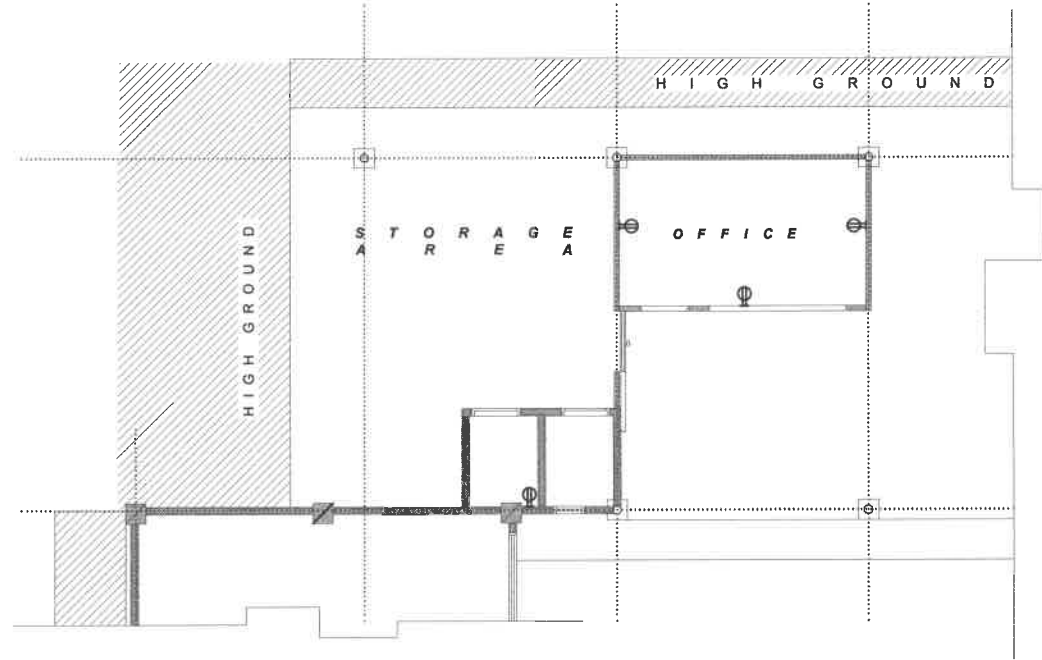
**3 SANITARY LINE LAYOUT (blow up)**  
SCALE 1:50 MTS.

 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT		PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	C/D BY: EMS - JULY 2022	<b>REPAIR OF THE COLLEGE OF FORESTRY OPEN LABORATORY</b> BSU, KM 6 BSU COMPOUND LA TRINIDAD, BENGUET	 <b>BENGUET STATE UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>KENNETH A. LARUAN</b> P-D-USER	 <b>SAMUEL S. POLIDREN</b> VP-ACADEMIC AFFAIRS	 <b>FELIPE SALANG COMILA</b> PRESIDENT	SHEET CONTENT AS SHOWN REVISION DATE: REVISION NO.:	SHEET NO.  P-1 6/6
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L E G E N D		QTY
	14" RECEPTACLE WITH LED BULB	2 SETS
	SINGLE SWITCH	2 PCS
	DUPLEX CONVENIENCE OUTLET	1 PC



**1 ELECTRICAL LIGHTING LAYOUT (RENOVATION)**  
 E 1 SCALE 1:50 MTS



**2 ELECTRICAL POWER LAYOUT (RENOVATION)**  
 E 1 SCALE 1:50 MTS

**HAZELINE N. TIBANGAY**  
 UNIVERSITY ARCHITECT

PRC LIC. No. 028540  
 PTR No. \_\_\_\_\_

VALIDITY: \_\_\_\_\_  
 ISSUED: \_\_\_\_\_

PRC LIC. No. \_\_\_\_\_  
 PTR No. \_\_\_\_\_

VALIDITY: \_\_\_\_\_  
 ISSUED: \_\_\_\_\_

CREATED BY:  
 EMS - JULY 2022

**REPAIR OF THE COLLEGE OF FORESTRY OPEN LABORATORY**  
 BSU, KM 6 BSU COMPOUND  
 LA TRINIDAD, BENGUET

PROJECT / LOCATION



**BENGUET STATE UNIVERSITY**  
 LA TRINIDAD, BENGUET

OWNER

**KENNETH H. A. LARUAN**  
 R-D- USER

**SAMUEL S. POLDEN**  
 VP - ACADEMIC AFFAIRS

**FILIBE SALANG COMILA**  
 PRESIDENT

SHEET CONTENT  
 AS SHOWN  
 REVISION DATE:  
 REVISION NO.:

SHEET NO.  
**E-1**  
 5 6

# S I T E



2 S I T E P H O T O  
A1 N O T T O S C A L E

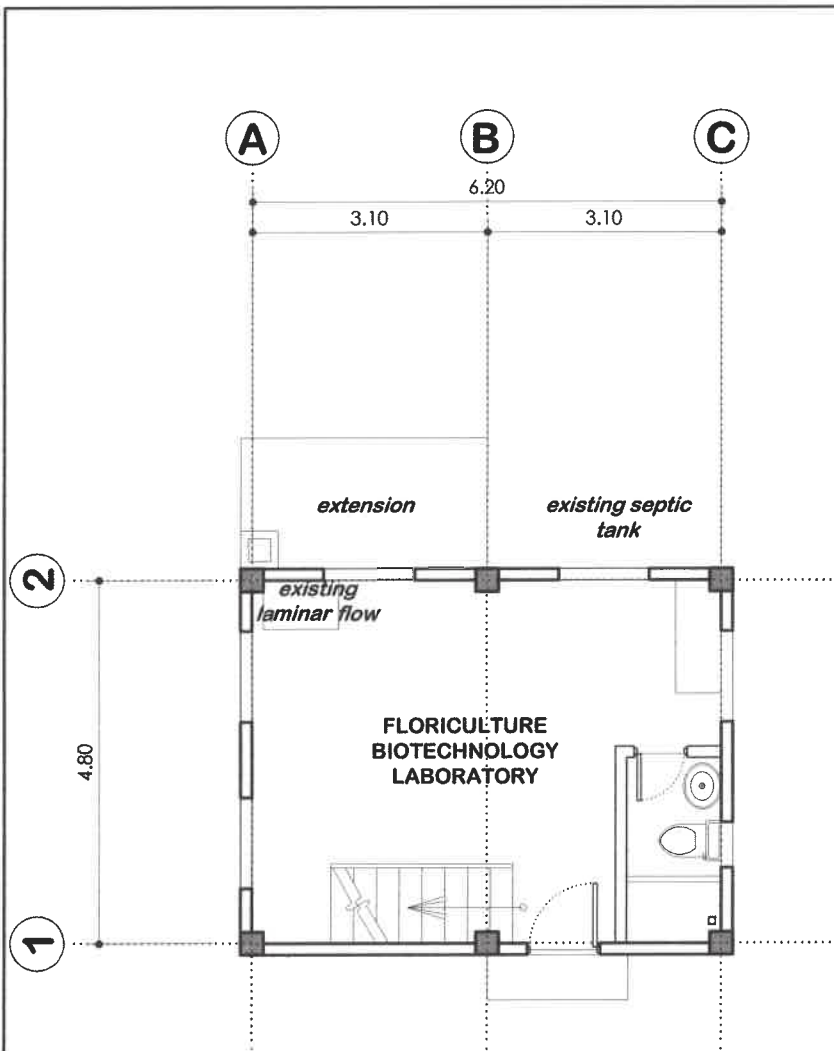


3 P E R S P E C T I V E S  
A1 N O T T O S C A L E

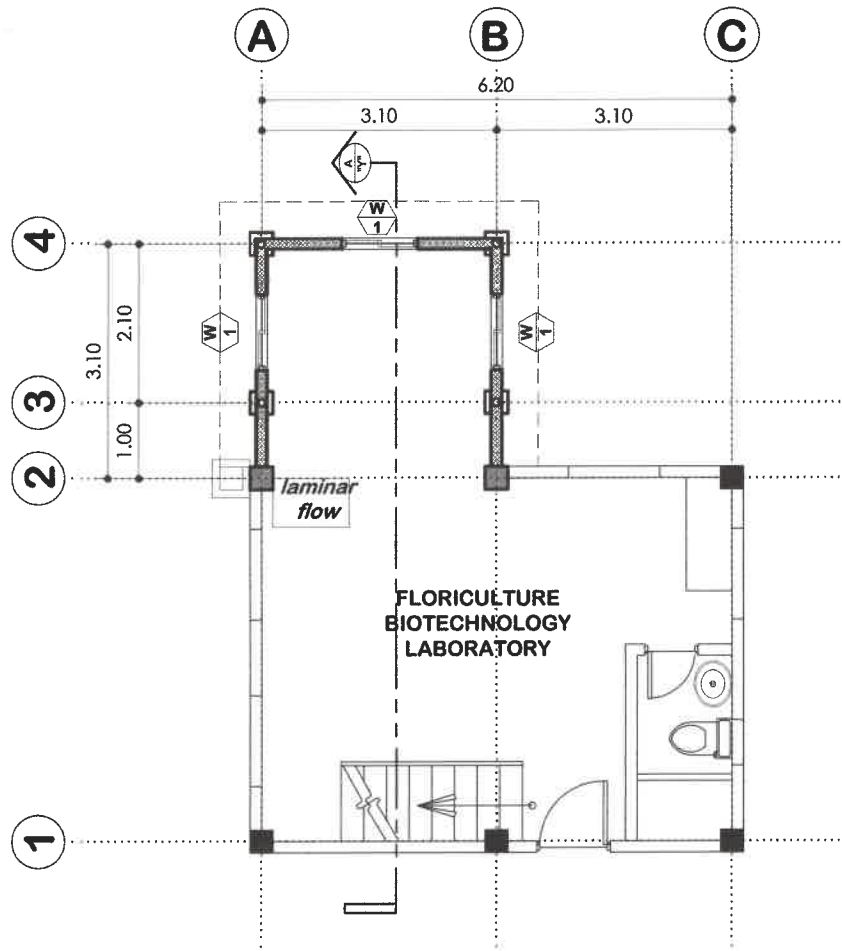
1 V I C I N I T Y M A P  
A1 N O T T O S C A L E

 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	CAD BY: ENR: NOVEMBER 2023 <b>REPAIR &amp; UPGRADING          OF FLORICULTURE          BIOTECHNOLOGY          LABORATORY OF CA</b> BSU, KM.6 BSU COMPOUND LA TRINIDAD, BENGUET	 <b>BENGUET          STATE          UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>LEILA R. AYBAN</b> BND- USER	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALANG COMILA</b> PRESIDENT	SHEET CONTENT	SHEET NO.
										AS SHOWN	A-1
										REVISION DATE:	17
										REVISION NO.:	

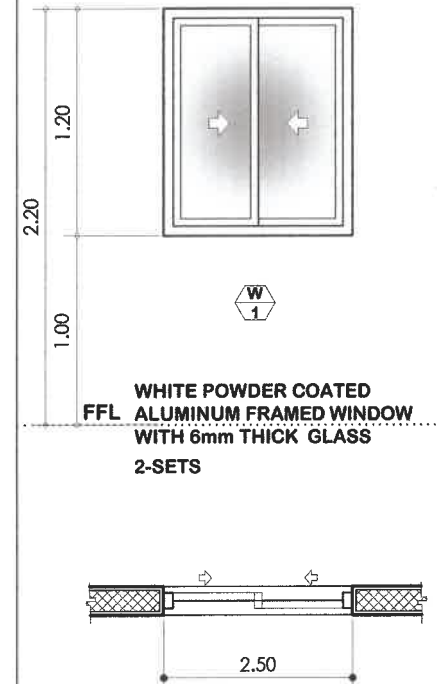




**1 FLOOR PLAN (AS-BUILT)**  
 SCALE 1:100MTS



**2 FLOOR PLAN (RENOVATION)**  
 SCALE 1:100MTS



**3 WINDOW SCHEDULE**  
 SCALE 1:40MTS

**HAZELINE N. TIBANGAY**  
 UNIVERSITY ARCHITECT

PRC LIC. No. 028540  
 VALIDITY:  
 PTR No. ISSUED:

DESIGNED BY:  
 ENR. NOVEMBER 2023  
**REPAIR & UPGRADING  
 OF FLORICULTURE  
 BIOTECHNOLOGY  
 LABORATORY OF CA**  
 BSU, KM.6 BSU COMPOUND  
 LA TRINIDAD, BENGUET



**BENGUET  
 STATE  
 UNIVERSITY**  
 LA TRINIDAD, BENGUET

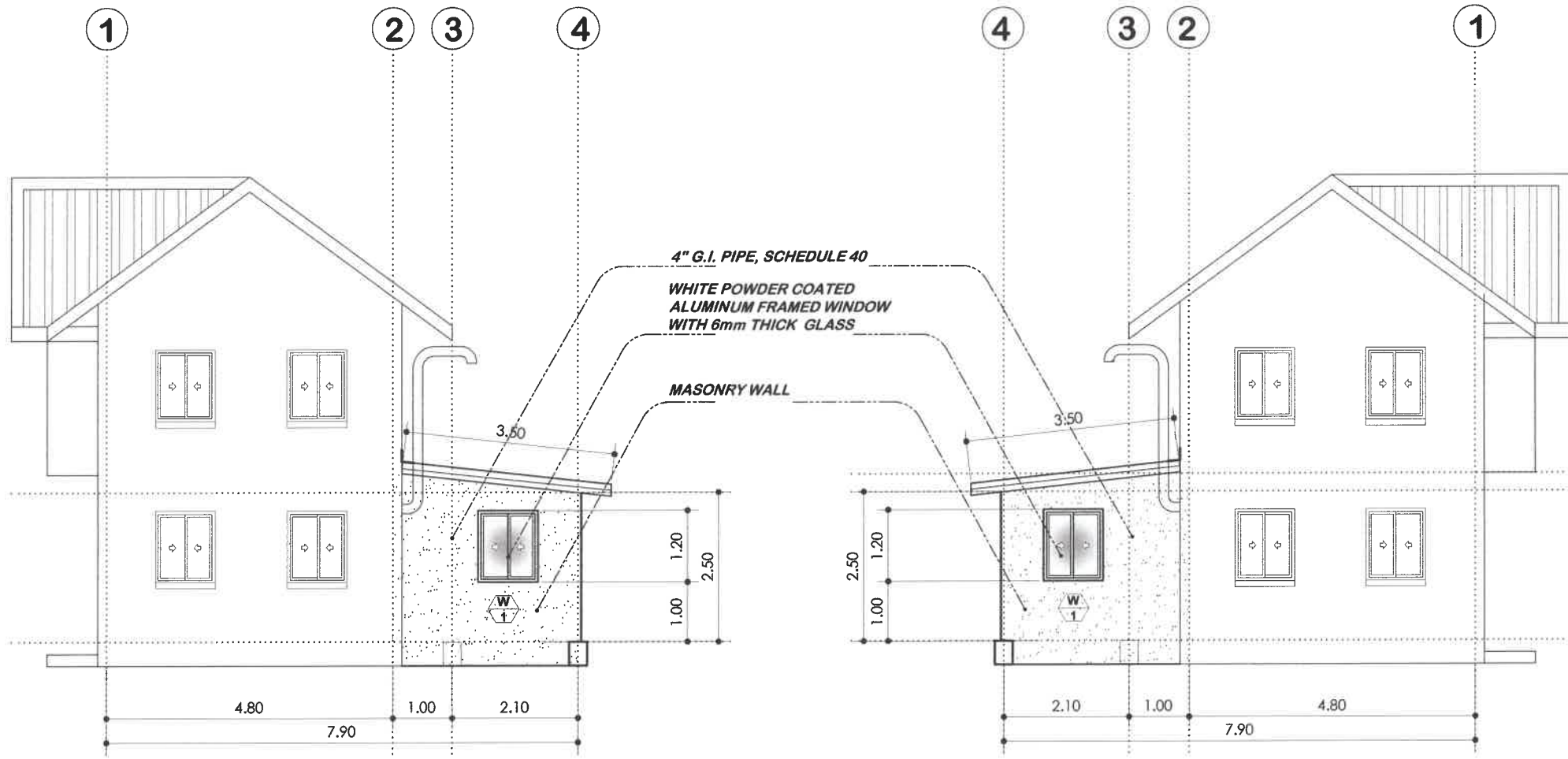
**LEILA B. AYBAN**  
 ENR. USER

**SAMUEL S. POLIDEN**  
 VP FOR ACADEMIC AFFAIRS

**FELIPE SALAING COMILA**  
 PRESIDENT

SHEET CONTENT  
 AS SHOWN  
 REVISION DATE:  
 REVISION NO.:

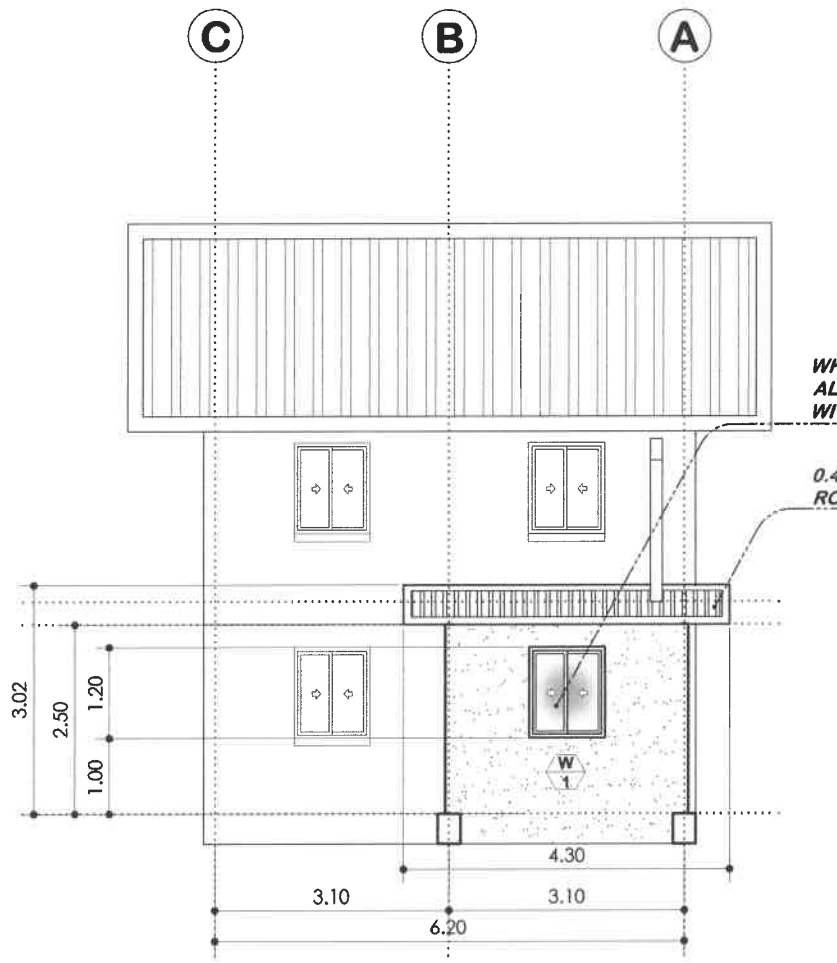
SHEET NO.  
**A-2**  
**27**



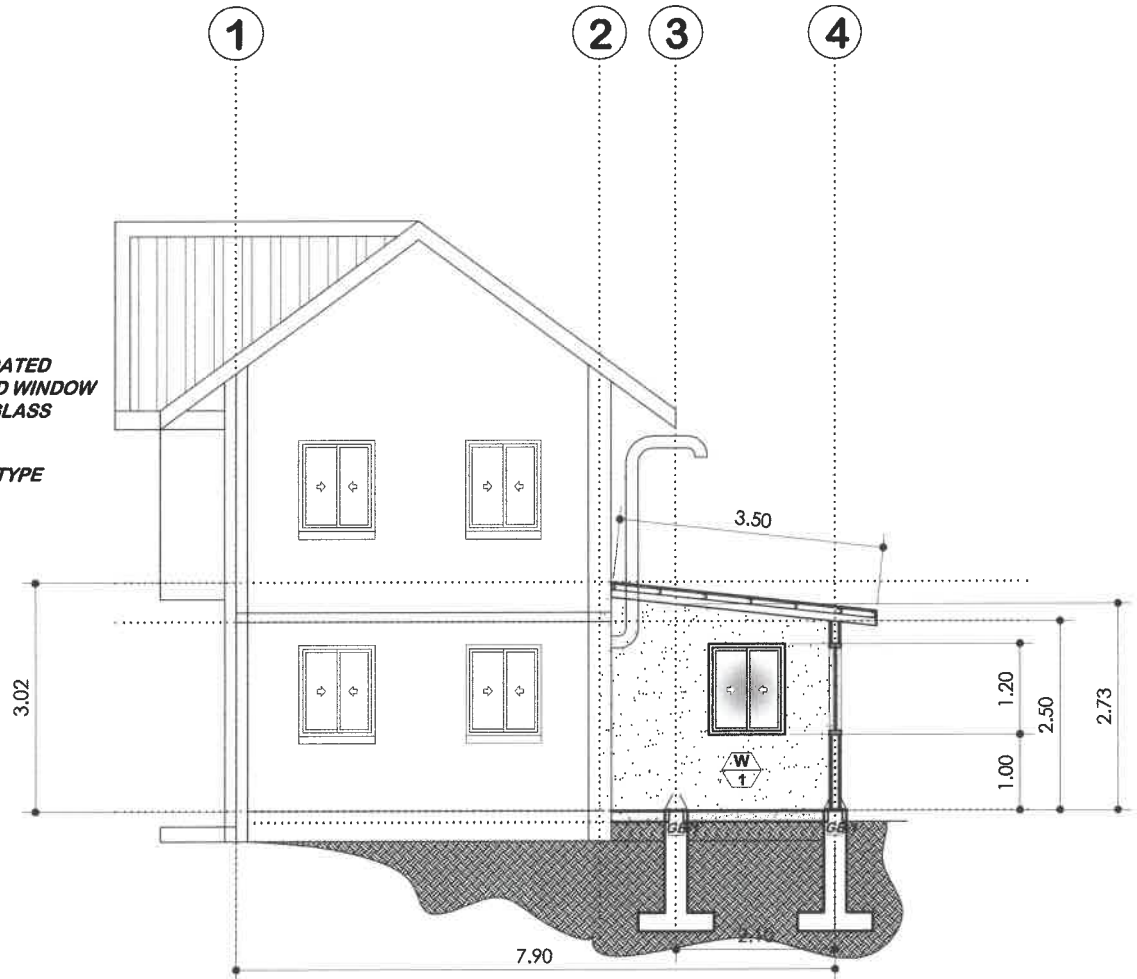
**1 RIGHT ELEVATION**  
**A2** SCALE 1:100M TS

**1 LEFT ELEVATION**  
**A2** SCALE 1:100M TS

 <b>HAZELINE N. TIRANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	DATE BY: <b>ENR - NOVEMBER 2023</b>	<b>REPAIR &amp; UPGRADING          OF FLORICULTURE          BIOTECHNOLOGY          LABORATORY OF CA</b> BSU, KM. 6 BSU COMPOUND LA TRINIDAD, BENGUET	 <b>BENGUET          STATE          UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>LEILA B. AYBAN</b> END-USER	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALANG COMILA</b> PRESIDENT	SHEET CONTENT	SHEET NO.
											AS SHOWN	A-3
											REVISION DATE:	
											REVISION NO.:	

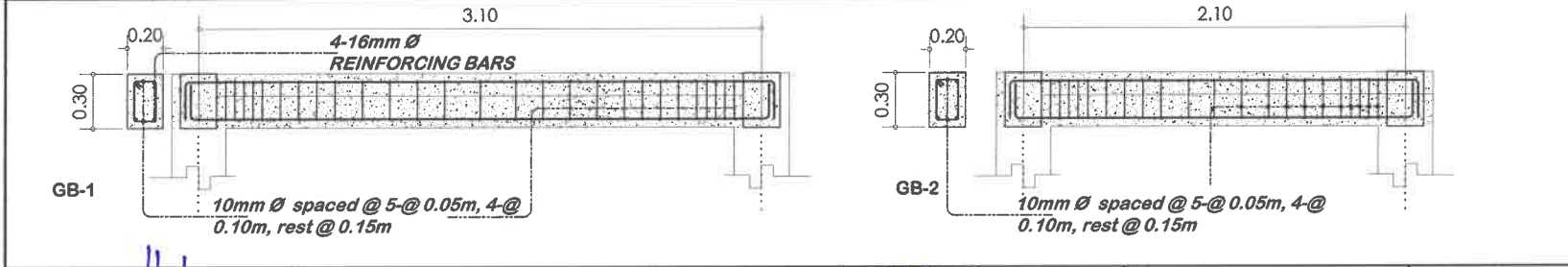
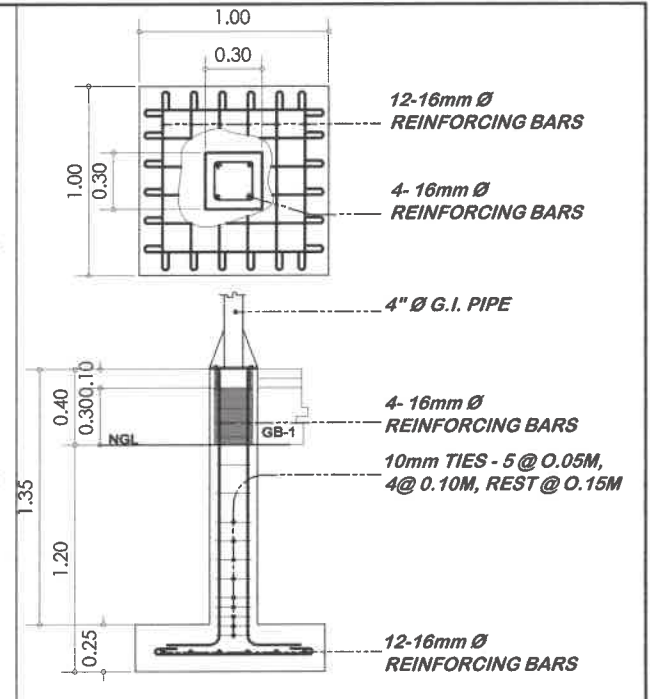
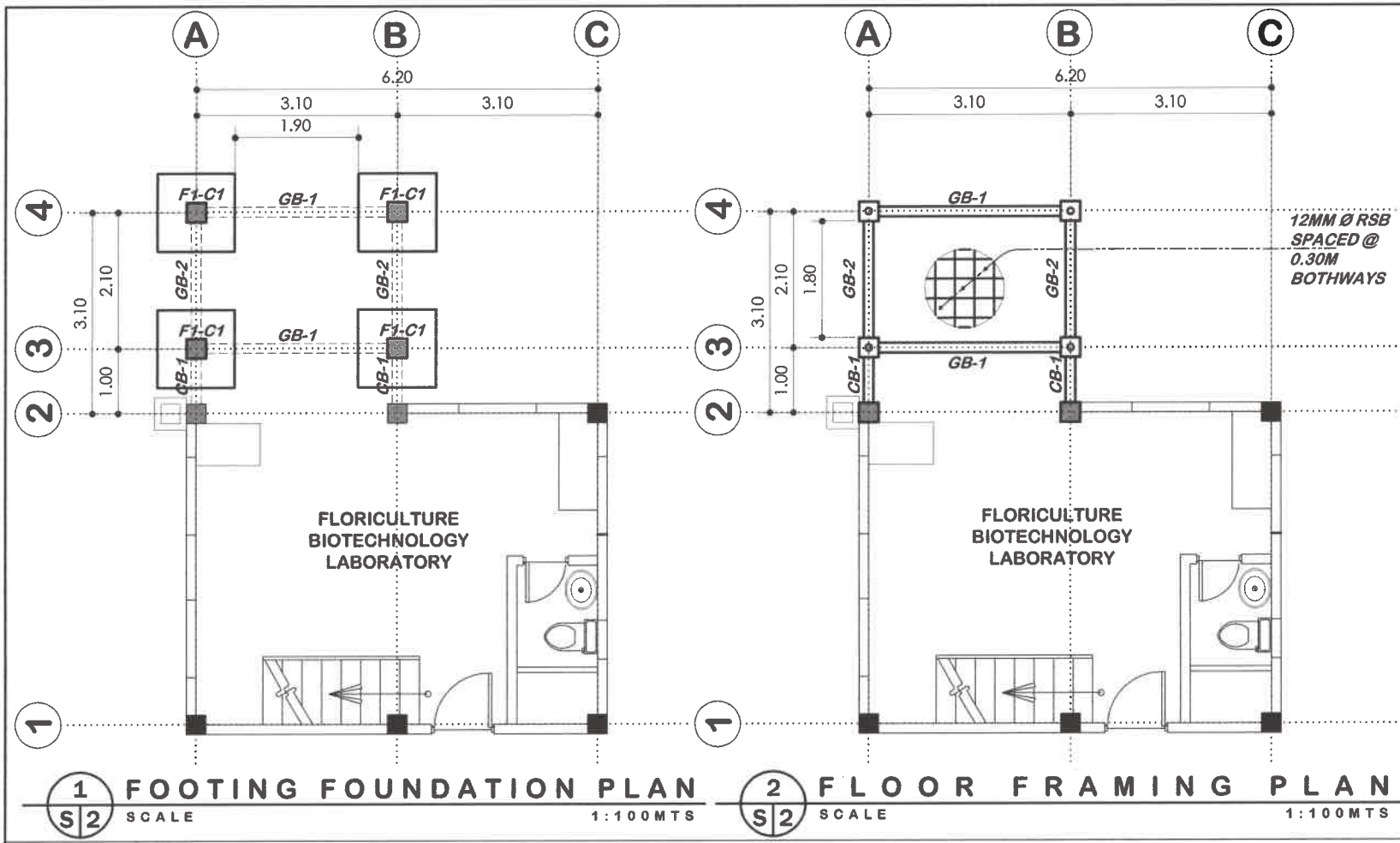


**1 REAR ELEVATION**  
**A2** SCALE 1:100MTS

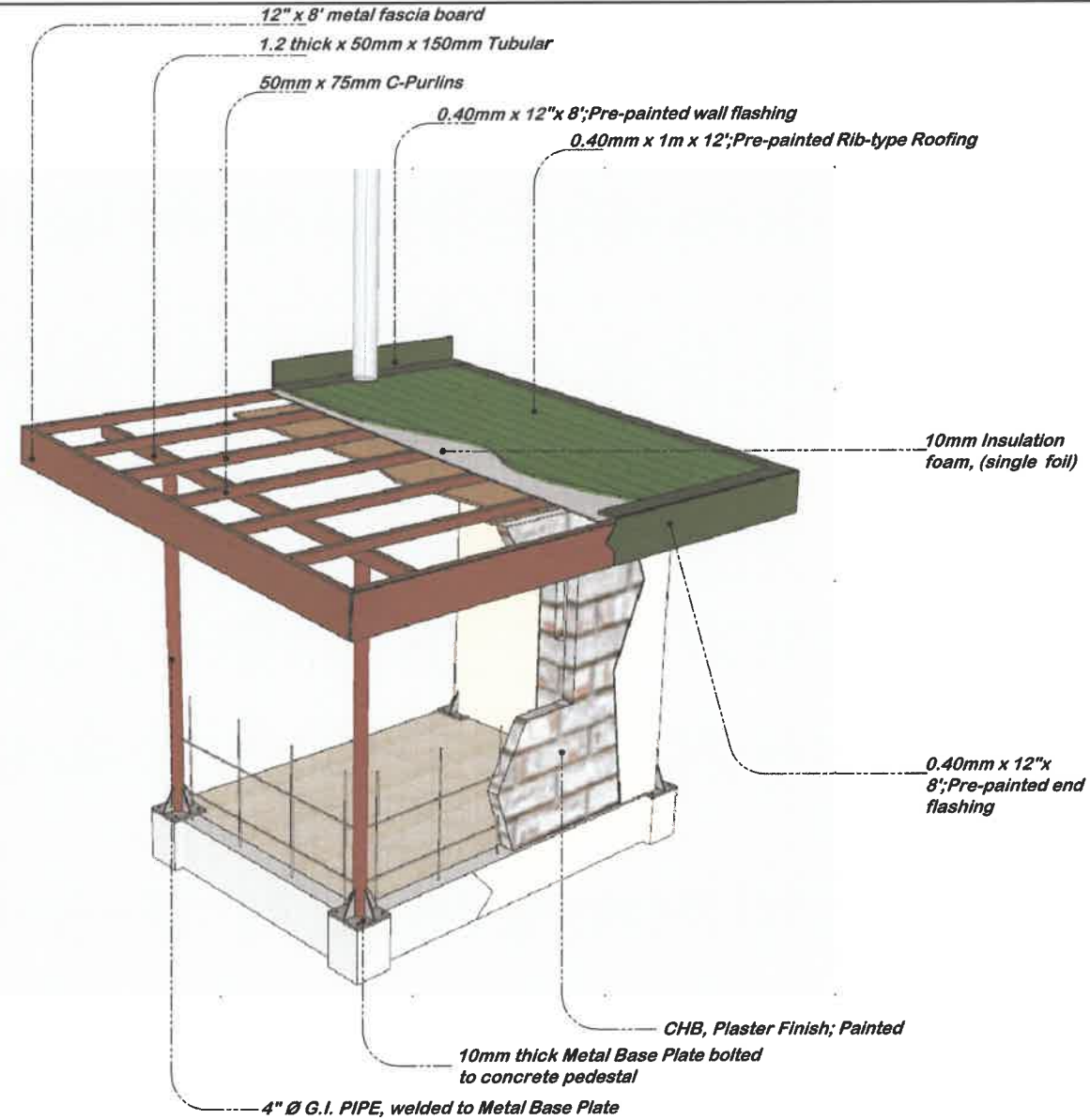
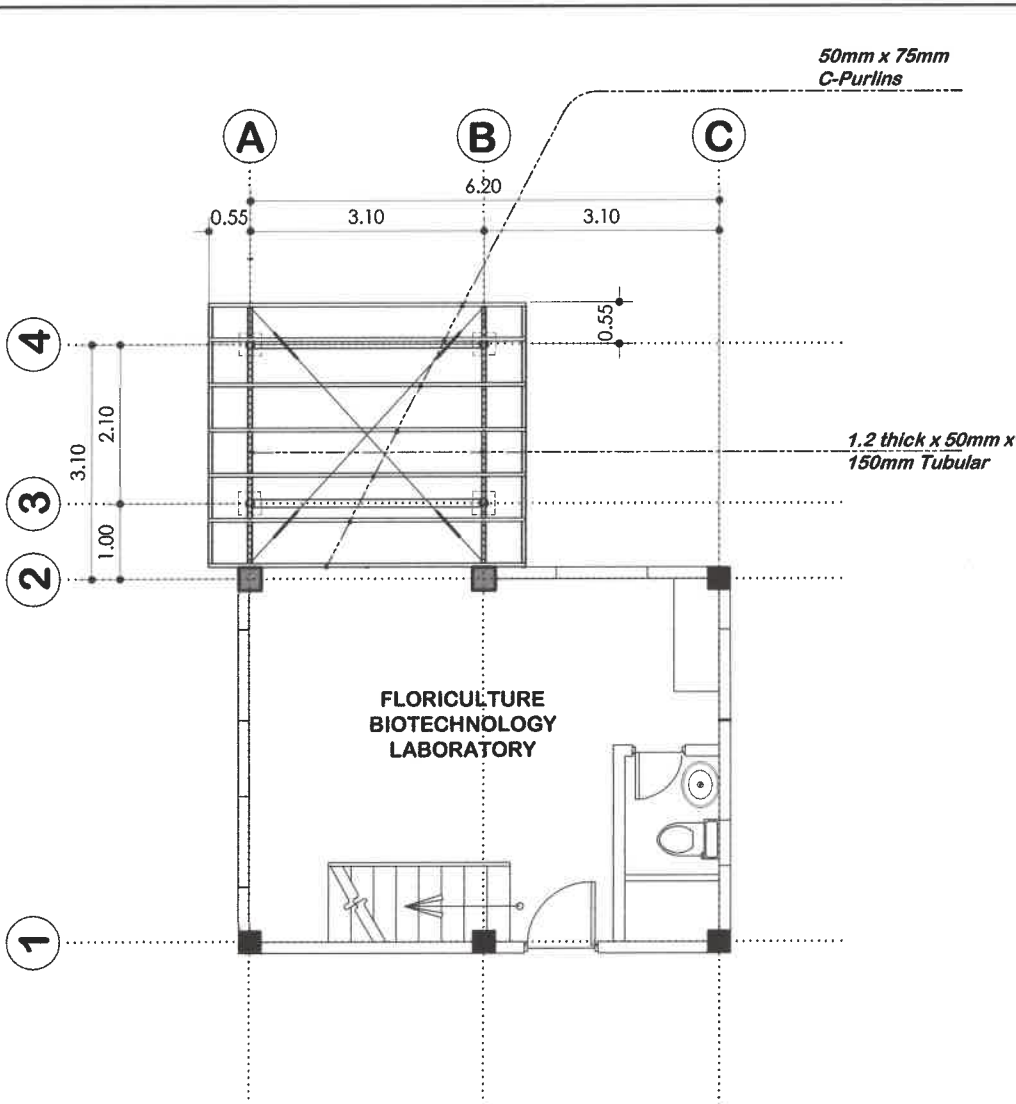


**1 SECTION THRU "Y"**  
**A2** SCALE 1:100MTS

 <b>HAZELINE N. TIRANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	DATE BY: <b>EMS - NOVEMBER 2023</b>	<b>REPAIR &amp; UPGRADING          OF FLORICULTURE          BIOTECHNOLOGY          LABORATORY OF CA</b> BSU, KM 4 BSU COMPOUND LA TRINIDAD, BENGUET	 <b>BENGUET STATE UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>LEILA E. AYBAN</b> END- USER	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALAING COMILA</b> PRESIDENT	SHEET CONTENT	SHEET NO.
											AS SHOWN	A-4
											REVISION DATE:	 4   7
											REVISION NO.:	



 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	 <b>BENGUET STATE UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>LEILA B. AYBAN</b> END- USER	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALAING COMILA</b> PRESIDENT	SHEET CONTENT	SHEET NO.
									AS SHOWN	S-1
REPAIR & UPGRADING OF FLORICULTURE BIOTECHNOLOGY LABORATORY OF CA BSU, KM4 BSU COMPOUND LA TRINIDAD, BENGUET									REVISION DATE:	
PROJECT / LOCATION									REVISION NO.:	

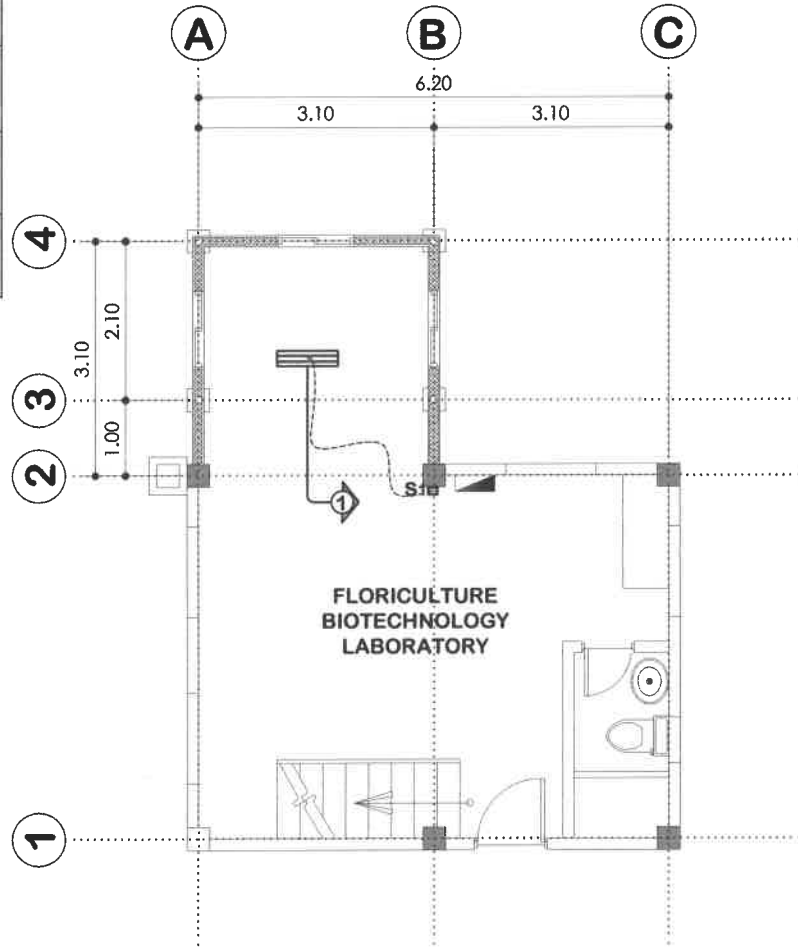


**1** ROOF FRAMING PLAN  
**S3** SCALE 1:100 MTS

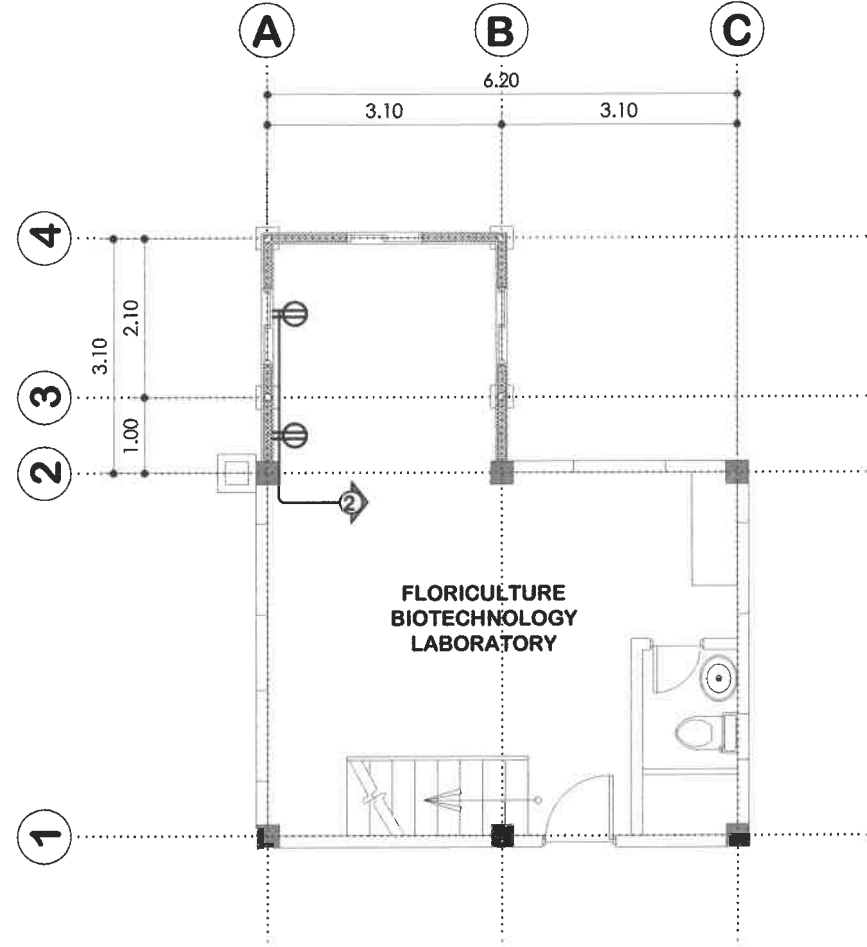
 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	CAD V. ENGS. NOVEMBER 2023	<b>REPAIR &amp; UPGRADING OF FLORICULTURE BIOTECHNOLOGY LABORATORY OF CA</b> BSU, KM. 6 BSU COMPOUND LA TRINIDAD, BENGUET	 <b>BENGUET STATE UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>LEILA B. AYBAN</b>	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALASING COMILA</b> PRESIDENT	SHEET CONTENT	SHEET NO.
											AS SHOWN	S-2
											REVISION DATE:	
											REVISION NO.:	

**L E G E N D**

	2-T8 LED LAMP WITH HOUSING AND DIFFUSER
	S1 SINGLE SWITCH
	CIRCUIT/HOMERUN
	DUPLEX CONVENIENCE OUTLET



**1 ELECTRICAL LIGHTING LAYOUT**  
 E1 SCALE 1:100 MTS



**2 ELECTRICAL POWER LAYOUT**  
 E1 SCALE 1:100 MTS

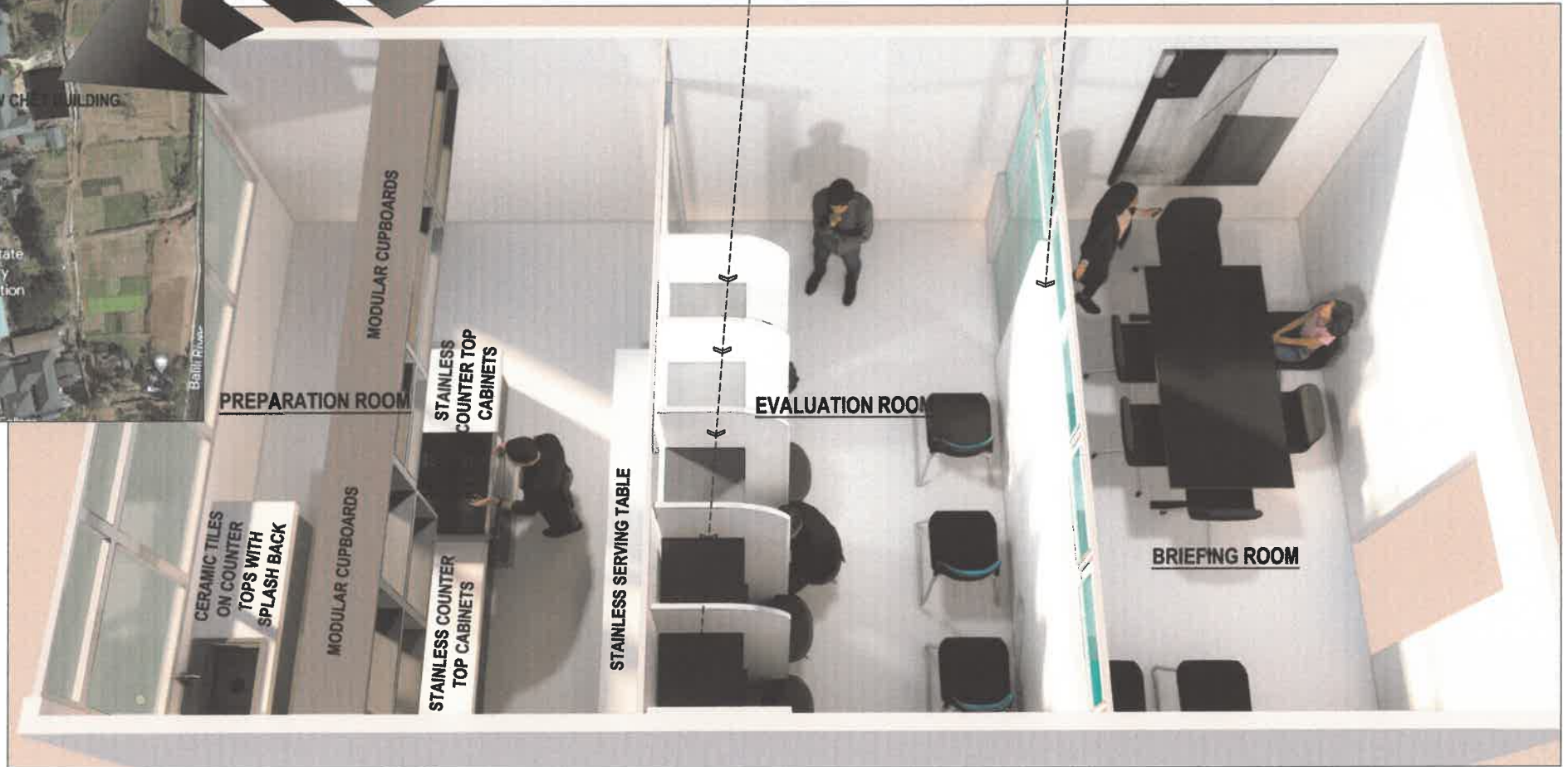
 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	DATE BY: ENR: NOVEMBER 2023	<b>REPAIR &amp; UPGRADING                  OF FLORICULTURE                  BIOTECHNOLOGY                  LABORATORY OF CA</b> BSU, KM. 6 BSU COMPOUND LA TRINIDAD, BENGUET	 <b>BENGUET                  STATE                  UNIVERSITY</b> LA TRINIDAD, BENGUET	OWNER	 <b>LEILA B. AYBAN</b> END- USER	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALAING COMILA</b> PRESIDENT	SHEET CONTENT <b>AS SHOWN</b>	SHEET NO. <b>E-1</b>
												REVISION DATE:	REVISION NO.:



# THIS SITE

MARINE LAMINATED FINISH  
TESTING BOOTHS WITH  
SEPARATE TASK LIGHTING AND  
POWER OUTLETS

POWDER COATED  
ALUMINUM WINDOWS  
AND DOORS ON DRY  
WALL



**A1** PERSPECTIVE and LOCATION MAP  
01 - 02 **SCALE** not to scale

 <b>HAZELINE N. TBANGAY</b> PRC LIC. NO. 028540 ARCHITECT III - PROJECT MANAGEMENT UNIT	ENGINEER	DRAWN BY: M.A.D.V. NOVEMBER 21, 2023 	OWNER: <b>BENGUET STATE UNIVERSITY</b> PROJECT TITLE / LOCATION: <b>"PROPOSED SENSORY EVALUATION ROOM AT NEW CHET BUILDING"</b> KM.5, BSU COMPOUND, LA TRINIDAD, BENGUET	COMFORME:  <b>JAO JAO A. SOMAYDEN</b> DEAN, COLLEGE OF HOME ECONOMICS & TECHNOLOGY/ENR-USER	RECOMMENDING APPROVAL:  <b>SAMUEL S. POLIDEN</b> VICE PRESIDENT FOR ACADEMIC AFFAIRS	APPROVED:  <b>FELIPE SALAING COMILA</b> BENGUET STATE UNIVERSITY PRESIDENT	REVISION REVISION DATE	SHEET NO. <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="text-align: center;"> <b>A1</b>  <b>6</b> </div> </div>
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**BRIEFING ROOM**








**PREPARATION ROOM**

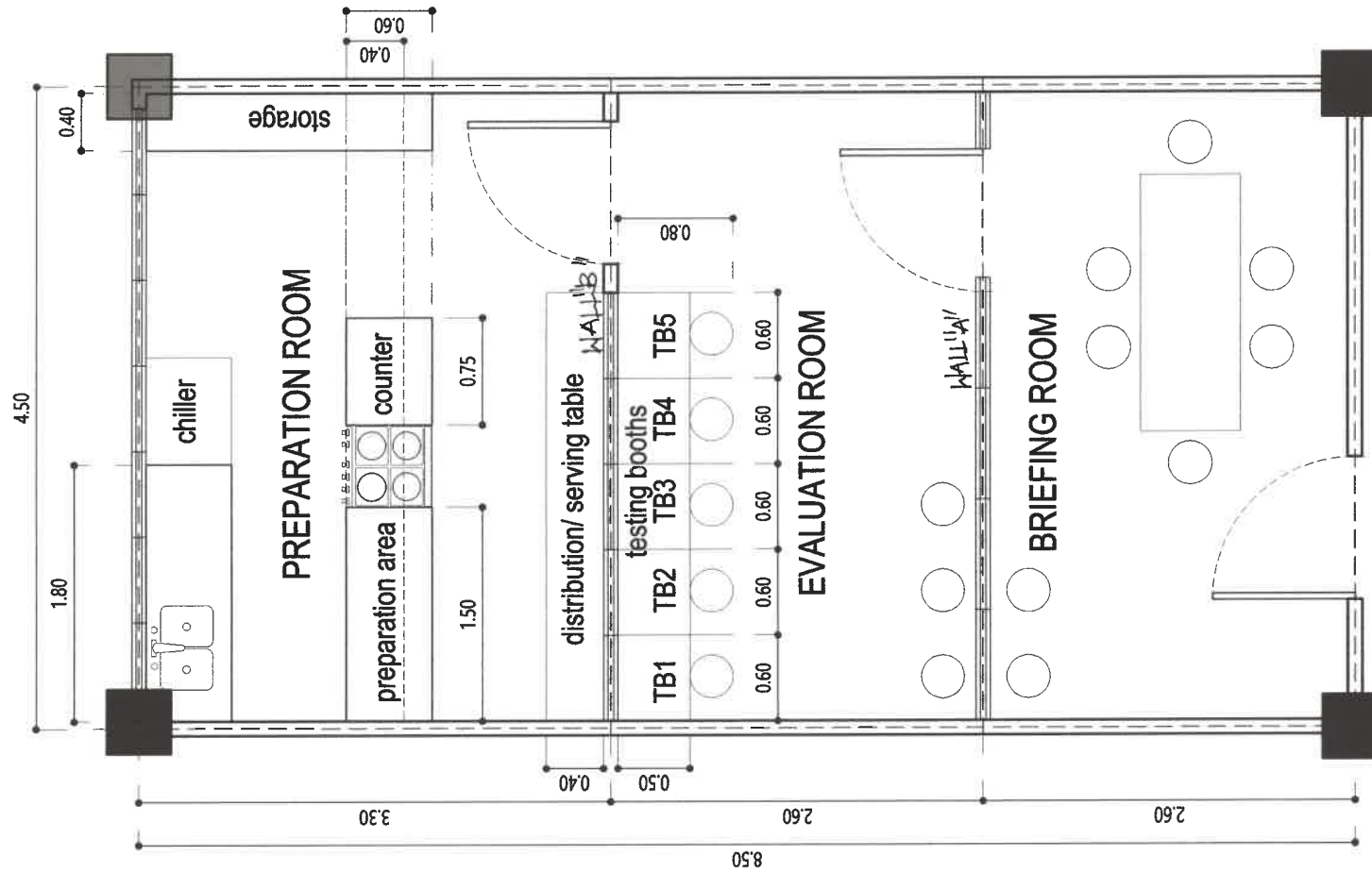


**EVALUATION ROOM**

A1 P E R S P E C T I V E S  
 01 - 02 **SCALE** not to scale

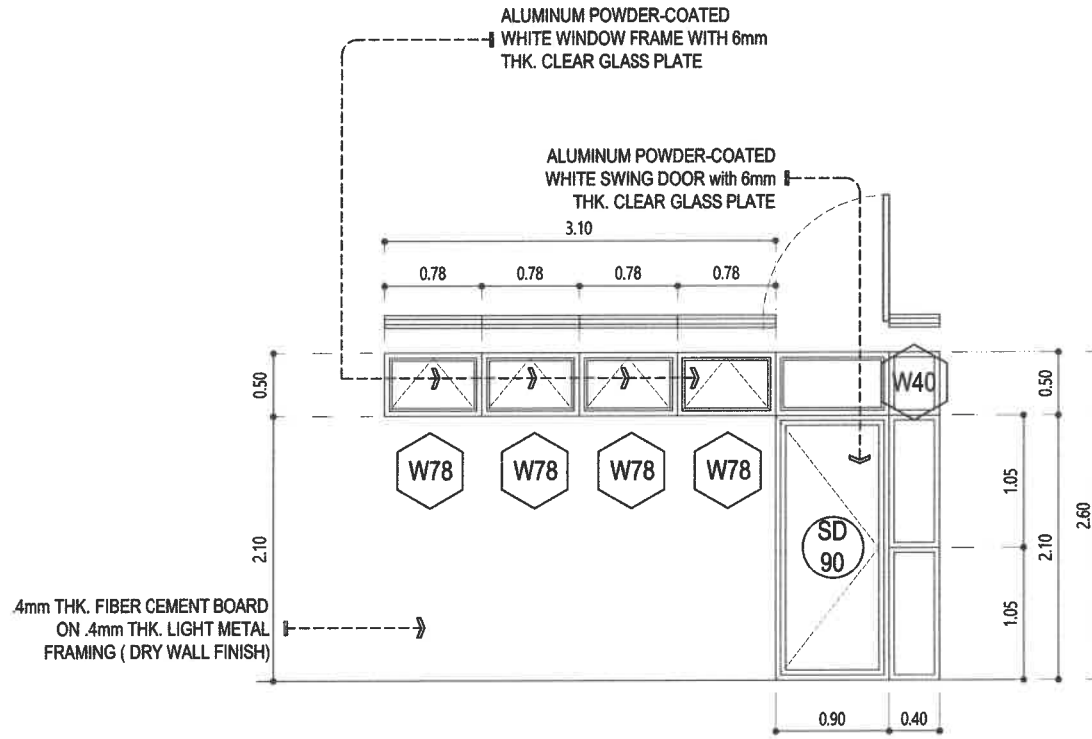
 <b>HAZELINE N. TIBANGAY</b> <small>PRC LIC. NO. 028540</small>		<small>OWNER:</small> 	<small>PROJECT TITLE / LOCATION:</small> <b>"PROPOSED SENSORY EVALUATION ROOM AT NEW CHET BUILDING"</b> <small>KM.5, BSU COMPOUND, LA TRINIDAD, BENGUET</small>	<small>COMFORME:</small>  <b>JAO-JAO A. SOMAYDEN</b> <small>DEAN, COLLEGE OF HOME ECONOMICS &amp; TECHNOLOGY/END USER</small>	<small>RECOMMENDING APPROVAL:</small>  <b>SAMUEL S. POLDEN</b> <small>VICE PRESIDENT FOR ACADEMIC AFFAIRS</small>	<small>APPROVED:</small>  <b>FELIPE SALAING COMILA</b> <small>BENGUET STATE UNIVERSITY PRESIDENT</small>	<small>REVISION</small>  <small>REVISION DATE</small>	<small>SHEET NO.</small> <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <span style="font-size: 24px; font-weight: bold;">A2</span>  <span style="font-size: 24px; font-weight: bold;">6</span> </div>
<small>ARCHITECT III - PROJECT MANAGEMENT UNIT</small>	<small>ENGINEER</small>	<small>DRAWN BY: M.A.D.V. NOVEMBER 21, 2023</small>						



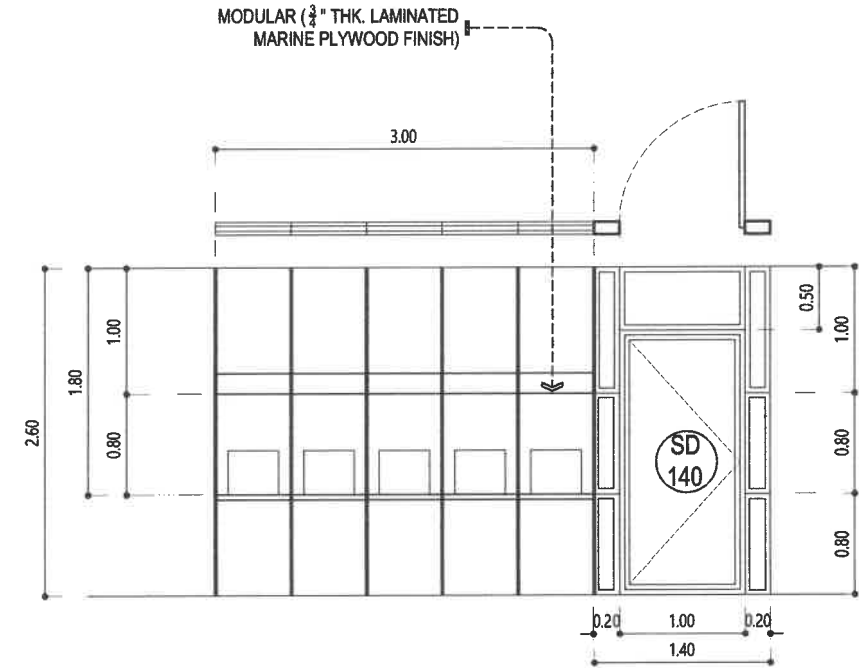


**A1 FLOOR PLAN**  
 01 - 02  
**SCALE** 1:50 meters

 <b>HAZELINE N. TIBANGAY</b> PRC LIC. NO. 028540 ARCHITECT III - PROJECT MANAGEMENT UNIT	ENGINEER	DRAWN BY: M.A.D.V. NOVEMBER 21, 2023  OWNER:	PROJECT TITLE / LOCATION: <b>"PROPOSED SENSORY EVALUATION ROOM AT NEW CHET BUILDING"</b> KM.5, BSU COMPOUND, LA TRINIDAD, BENGUET	COMFORME:  <b>JAO JAO A. SOMAYDEN</b> DEAN, COLLEGE OF HOME ECONOMICS & TECHNOLOGY/END USER	RECOMMENDING APPROVAL:  <b>SAMUEL S. POLIDEN</b> VICE PRESIDENT FOR ACADEMIC AFFAIRS	APPROVED:  <b>FELIPE SALAING COMILA</b> BENGUET STATE UNIVERSITY PRESIDENT	REVISION REVISION DATE	SHEET NO. 
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WALL A

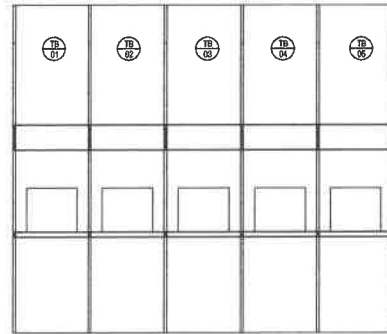
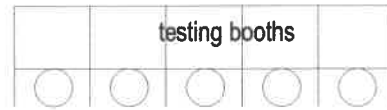
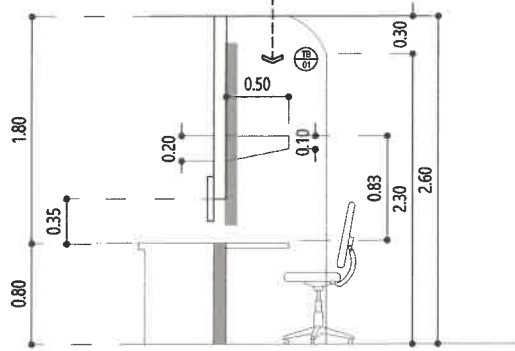


WALL B

**A1** DOORS, WINDOWS AND PARTITION DETAILS  
**01 - 01** SCALE 1:60m

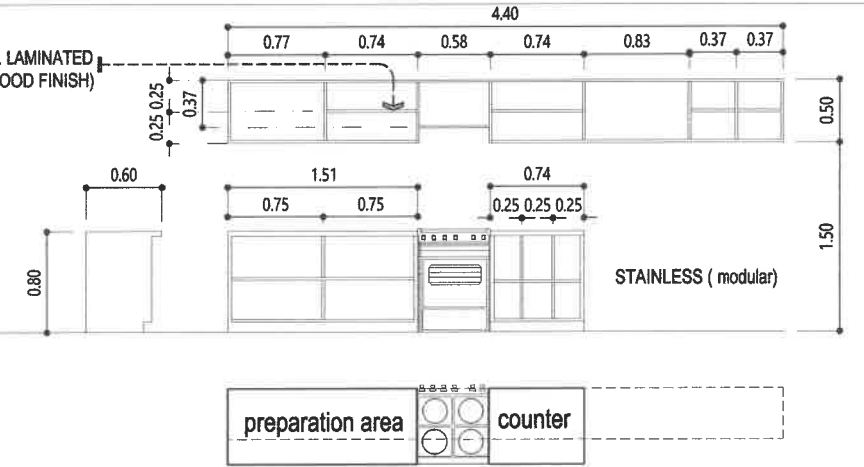
 <b>HAZELINE N. TIBANGAY</b> PRC LIC. NO. 028540 ARCHITECT III - PROJECT MANAGEMENT UNIT	ENGINEER	DRAWN BY: M.A.D. VFW NOVEMBER 21, 2023 	OWNER: <b>BENGUET STATE UNIVERSITY</b> PROJECT TITLE / LOCATION: <b>"PROPOSED SENSORY EVALUATION ROOM AT NEW CHET BUILDING"</b> KM.5, BSU COMPOUND, LA TRINIDAD, BENGUET	COMFORME:  <b>JAO JAO A. SOMAYDEN</b> DEAN, COLLEGE OF HOME ECONOMICS & TECHNOLOGY/ END-USER	RECOMMENDING APPROVAL:  <b>SAMUEL S. POLDEN</b> VICE PRESIDENT FOR ACADEMIC AFFAIRS	APPROVED:  <b>FELIPE SALANG COMILA</b> BENGUET STATE UNIVERSITY PRESIDENT	REVISION REVISION DATE	SHEET NO. 
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MODULAR (3/4" THK. LAMINATED MARINE PLYWOOD FINISH)



**TESTING BOOTHS**

MODULAR (3/4" THK. LAMINATED MARINE PLYWOOD FINISH)

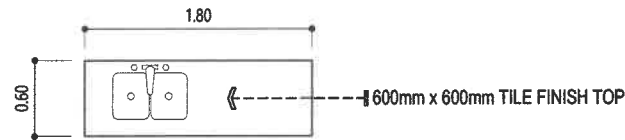


**KITCHEN CABINET AND CUPBOARD**

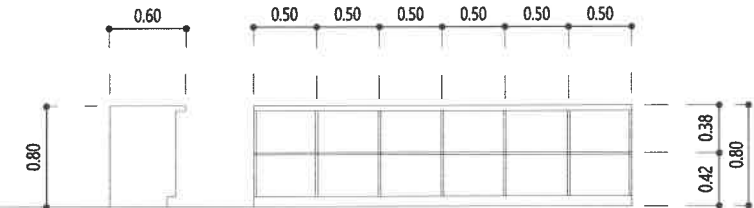
GRANITE TILE FINISH w/ 300mm BACKSLASH



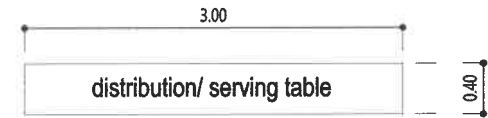
MODULAR (3/4" THK. LAMINATED MARINE PLYWOOD FINISH)



**COUNTER SINK**



STAINLESS ( modular)



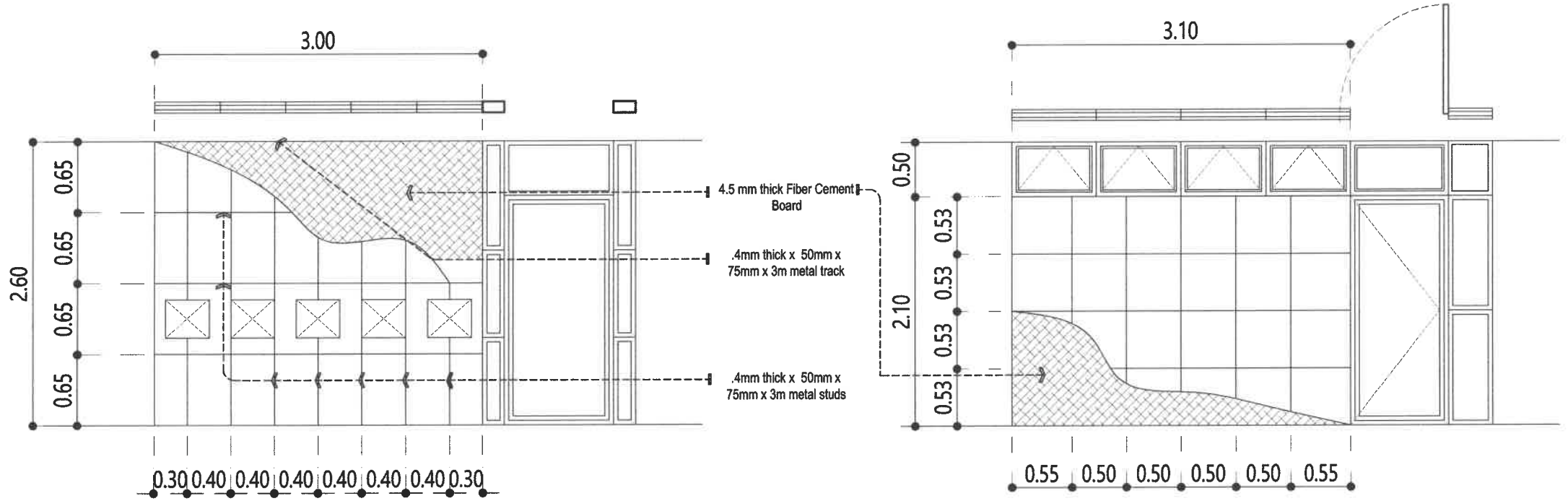
**SERVING TABLE**

**A1**  
01 - 01

**FURNITURE DETAILS**  
**SCALE**

1:60m

 <b>HAZELINE N. TIBANGAY</b> PRC LIC. NO. 028540 ARCHITECT III - PROJECT MANAGEMENT UNIT	ENGINEER	DRAWN BY: M.A.D.V. NOVEMBER 21, 2023 OWNER:	PROJECT TITLE / LOCATION: <b>"PROPOSED SENSORY EVALUATION ROOM AT NEW CHET BUILDING"</b> KM.5, BSU COMPOUND, LA TRINIDAD, BENGUET	COMFORME:  <b>JAC JAO A. SOMAYDEN</b> DEAN, COLLEGE OF HOME ECONOMICS & TECHNOLOGY/ END USER	RECOMMENDING APPROVAL:  <b>SAMUEL S. POLIDEN</b> VICE PRESIDENT FOR ACADEMIC AFFAIRS	APPROVED:  <b>FELIPE SALAING COMILA</b> BENGUET STATE UNIVERSITY PRESIDENT	REVISION REVISION DATE	SHEET NO. <b>A5</b> <b>6</b>
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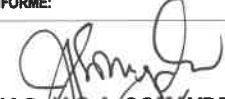





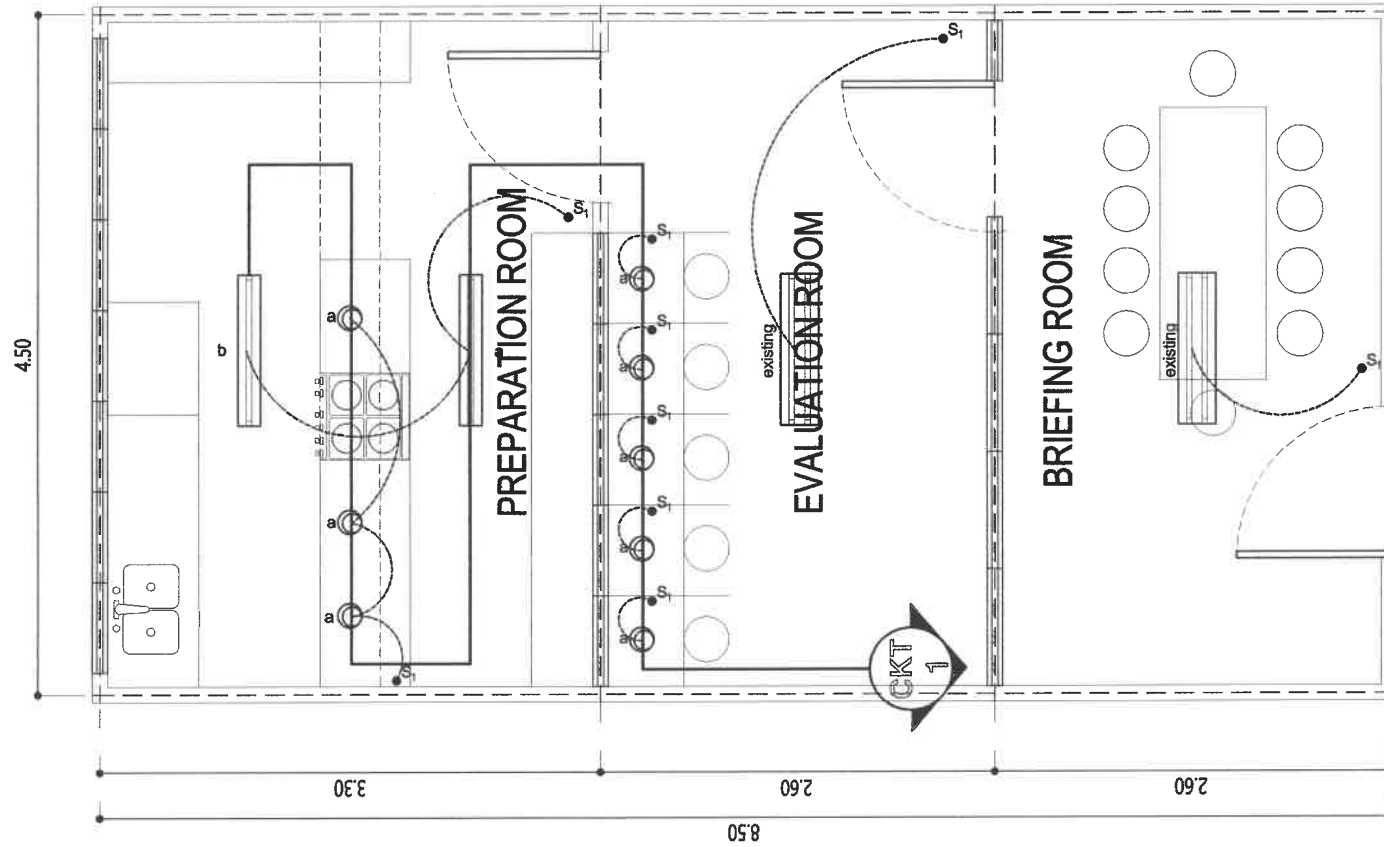
WALL A

WALL B







A1  
01 - 01

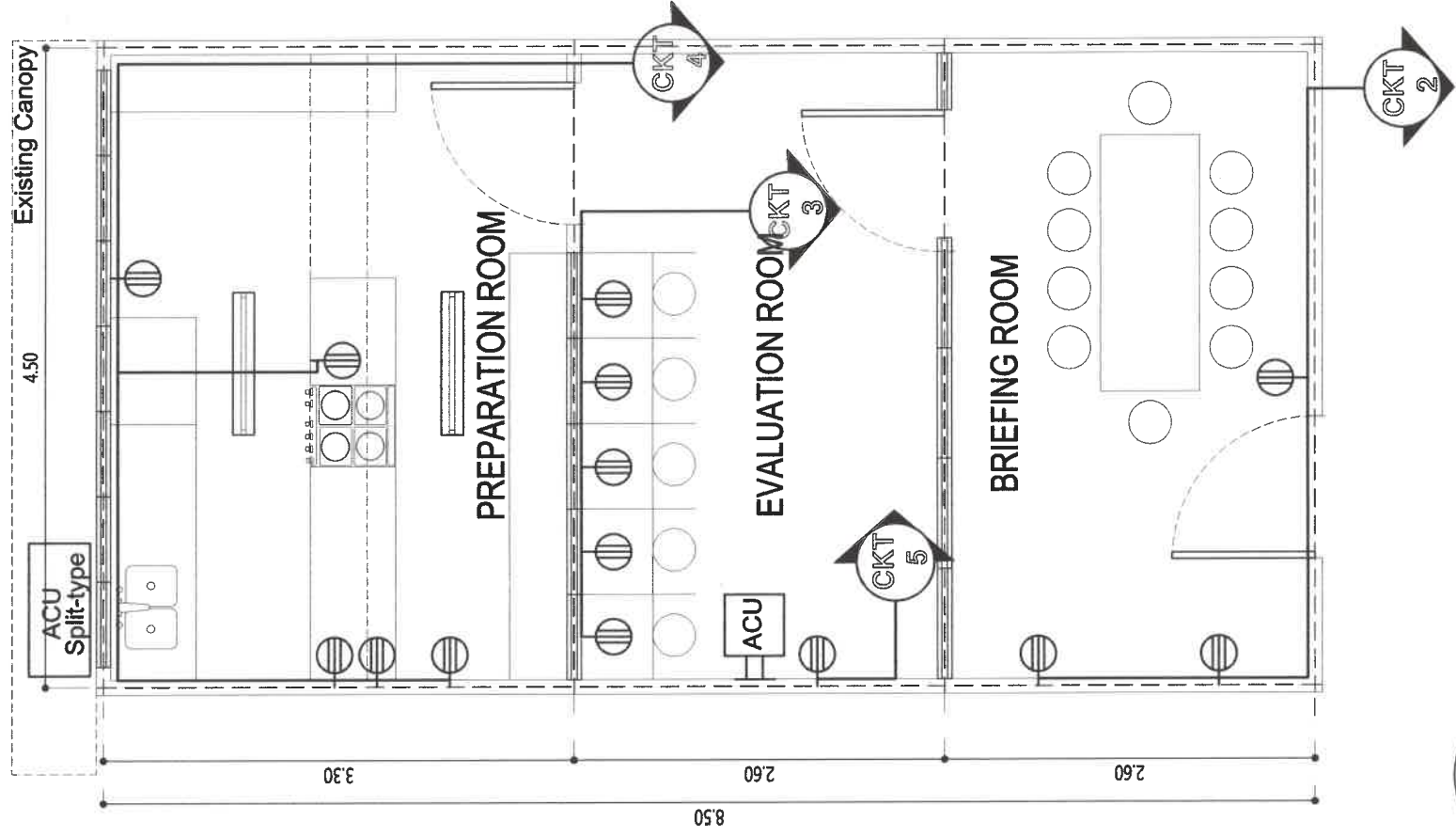
DRY WALL DETAILS  
SCALE 1:50m

 <b>HAZELINE N. TIBANGAY</b> PRC Lic. No. 028540 ARCHITECT III - PROJECT MANAGEMENT UNIT	ENGINEER	DRAWN BY: M.A.D.V. NOVEMBER 21, 2023 	OWNER: PROJECT TITLE / LOCATION: <b>"PROPOSED SENSORY EVALUATION ROOM AT NEW CHET BUILDING"</b> KM.5, BSU COMPOUND, LA TRINIDAD, BENGUET	COMFORME:  <b>JAO JAO A. SOMAYDEN</b> DEAN, COLLEGE OF HOME ECONOMICS & TECHNOLOGY/ END-USER	RECOMMENDING APPROVAL:  <b>SAMUEL S. POLIDEN</b> VICE PRESIDENT FOR ACADEMIC AFFAIRS	APPROVED:  <b>FELIPE SALAING COMILA</b> BENGUET STATE UNIVERSITY PRESIDENT	REVISION REVISION DATE	SHEET NO. 
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**E1** LIGHTING LAYOUT  
 01 - 02  
 SCALE 1:50 meters

 <b>HAZELINE N. TIBANGAY</b> PRC Lic. NO. 028540 ARCHITECT III - PROJECT MANAGEMENT UNIT	ENGINEER	OWNER:  BENGUET STATE UNIVERSITY 1916	PROJECT TITLE / LOCATION: <b>"PROPOSED SENSORY EVALUATION ROOM AT NEW CHET BUILDING"</b> KM.5, BSU COMPOUND, LA TRINIDAD, BENGUET	COMFORME:  <b>JAO JAO A. SOMKYDEN</b> DEAN, COLLEGE OF HOME ECONOMICS & TECHNOLOGY/END-USER	RECOMMENDING APPROVAL:  <b>SAMUEL S. POLIDEN</b> VICE PRESIDENT FOR ACADEMIC AFFAIRS	APPROVED:  <b>FELIPE SALANG COMILA</b> BENGUET STATE UNIVERSITY PRESIDENT	REVISION REVISION DATE	SHEET NO. 
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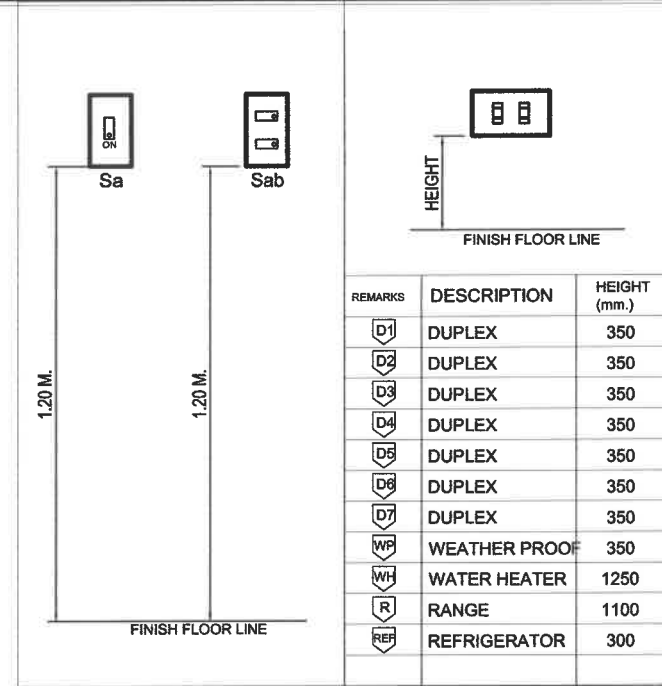
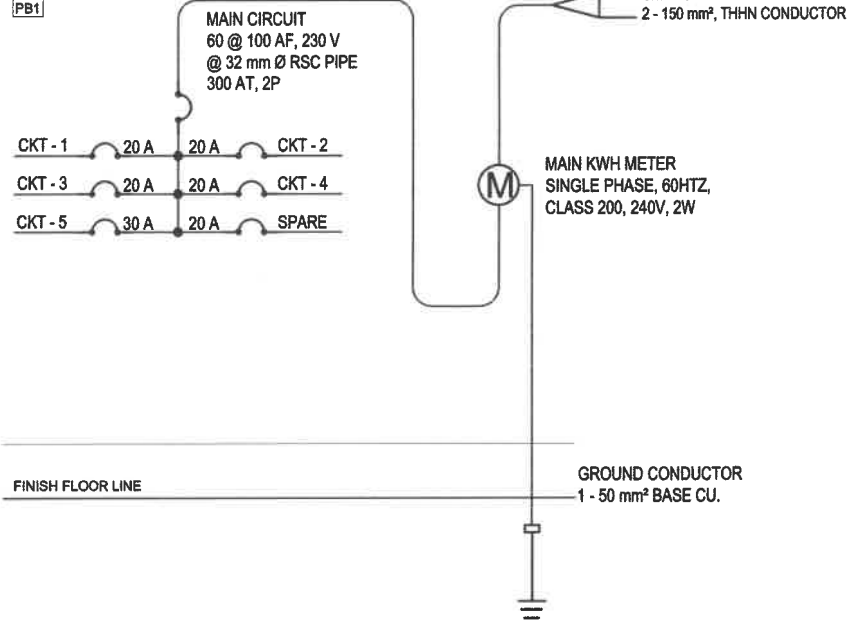


**E1 POWER AND AIR-CONDITIONING LAYOUT**

01 - 02 SCALE 1:50 meters

 <b>HAZELINE N. TIBANGAY</b> PRC LIC. NO. 028540 ARCHITECT III - PROJECT MANAGEMENT UNIT	ENGINEER	DRAWN BY: M.A.D.V. NOVEMBER 21, 2023 	OWNER: <b>"PROPOSED SENSORY EVALUATION ROOM AT NEW CHET BUILDING"</b> KM.5, BSU COMPOUND, LA TRINIDAD, BENGUET	COMFORME:  <b>JAO JAO A. SOMAYDEN</b> DEAN, COLLEGE OF HOME ECONOMICS & TECHNOLOGY, END-USER	RECOMMENDING APPROVAL:  <b>SAMUEL S. POLIDEN</b> VICE PRESIDENT FOR ACADEMIC AFFAIRS	APPROVED:  <b>FELIBE SALAING COMILA</b> BENGUET STATE UNIVERSITY PRESIDENT	REVISION REVISION DATE	SHEET NO. <div style="border: 1px solid black; border-radius: 50%; width: 30px; height: 30px; display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; border-radius: 50%; width: 15px; height: 15px; display: flex; align-items: center; justify-content: center;"> <b>E2</b> </div> <div style="border: 1px solid black; border-radius: 50%; width: 15px; height: 15px; display: flex; align-items: center; justify-content: center;"> <b>3</b> </div> </div>
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PB1



**E R I S E R D I A G R A M**

**M O U N T I N G H E I G H T S**

01-02 SCALE: NTS

**L O A D S C H E D U L E S**

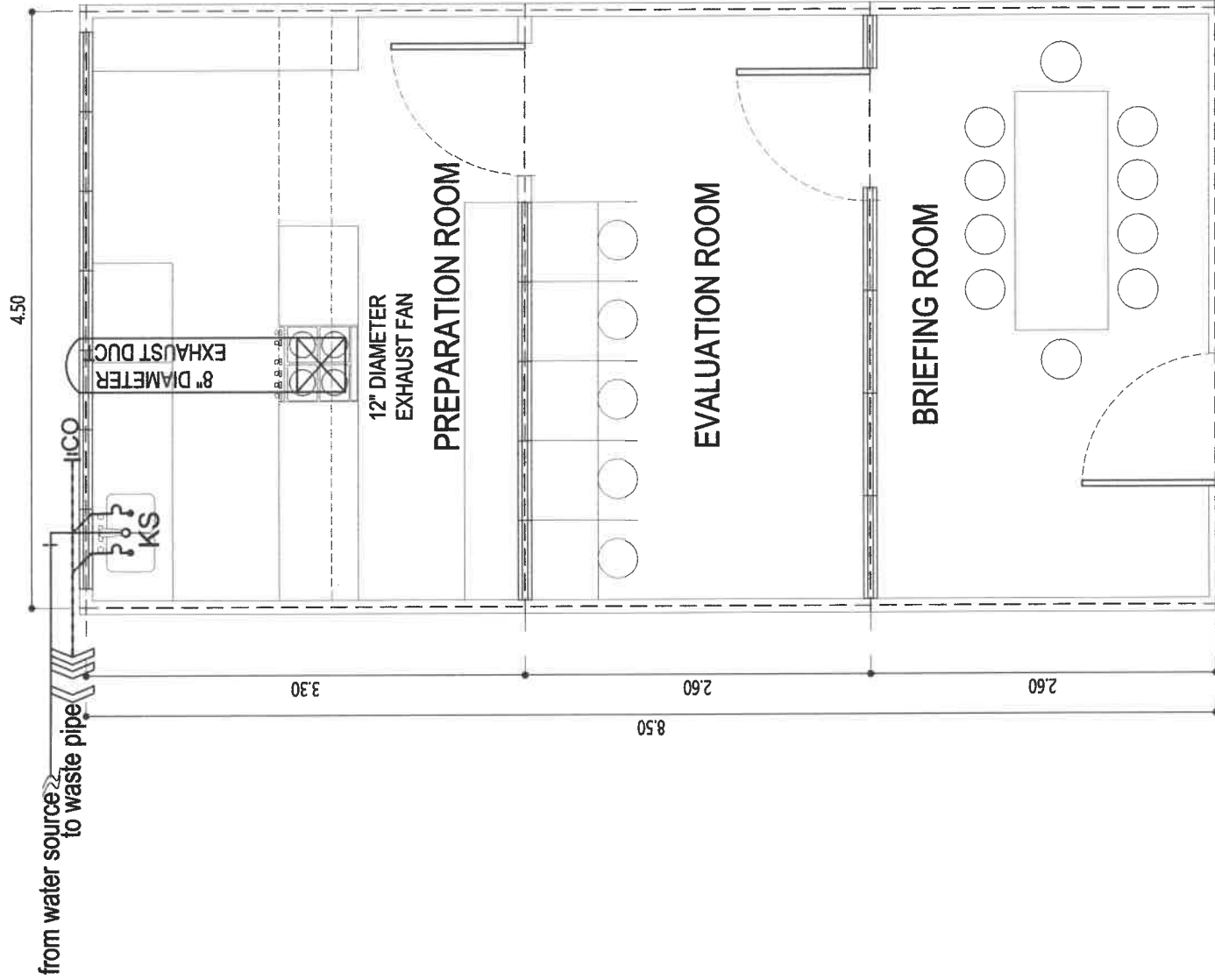
PB1 (GROUND FLOOR)									
CIRCUIT NO.	LIGHTING OUTLET	CONVENIENCE OUTLET	WATTS / OUTLET	WATTS / CIRCUIT	VOLTS	V.A.	FUSE RATING	WIRE SIZE	CONDUIT SIZE
CKT.-1	10		100	1000	230	4.34	20 A 2P	2 - 2.5 mm THHN	20 mm FLEXIBLE CONDUIT
CKT.-2		3	100	300	230	1.30	20 A 2P	2 - 2.5 mm THHN	20 mm FLEXIBLE CONDUIT
CKT.-3		6	100	600	230	2.61	20 A 2P	2 - 2.5 mm THHN	20 mm FLEXIBLE CONDUIT
CKT.-4		5	100	500	230	2.17	30 A 2P	2 - 3.5 mm THHN	20 mm FLEXIBLE CONDUIT
CKT.-5 (SPO)		1	740	740	230	3.22	30 A 2P	2 - 3.5 mm THHN	20 mm FLEXIBLE CONDUIT
SPARE			200	200	230	0.87	30 A 2P	2 - 3.5 mm THHN	20 mm FLEXIBLE CONDUIT
TOTAL				3340	230	14.51			

COMPUTED LOAD ANALYSIS :  
 PANEL BOX 1 = 3340W  
 $\frac{3340 \text{ W}}{230 \text{ VOLTS}} = 14.51 \text{ AMPERES}$   
 14.51AMP @ 80% DEMAND FACTOR = 11.608 AMP  
 USE 2- NO. 150 mm<sup>2</sup> THHN AWG IN 50 RIGID STEEL CONDUIT FOR MAIN  
 USE 60 A 2P FOR MAIN CIRCUIT BREAKER

**E1 ELECTRICAL LOAD COMPUTATIONS**

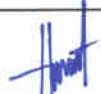

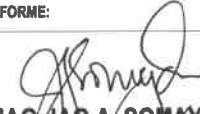



01 - 01 SCALE NTS

 <b>HAZELINE N. TIBANGAY</b> PRC LIC. NO. 028540 ARCHITECT III - PROJECT MANAGEMENT UNIT	ENGINEER	DRAWN BY: M.A.D.V. NOVEMBER 21, 2023 	OWNER:	PROJECT TITLE / LOCATION: "PROPOSED SENSORY EVALUATION ROOM AT NEW CHET BUILDING" KM.5, BSU COMPOUND, LA TRINIDAD, BENGUET	COMFORME:  <b>JAO JAO A. SOMAYDEN</b> DEAN, COLLEGE OF HOME ECONOMICS & TECHNOLOGY/ EMO-USER	RECOMMENDING APPROVAL:  <b>SAMUEL S. POLIDEN</b> VICE PRESIDENT FOR ACADEMIC AFFAIRS	APPROVED:  <b>FELIPE SALAING COMILA</b> BENGUET STATE UNIVERSITY PRESIDENT	REVISION	SHEET NO.
			REVISION DATE						

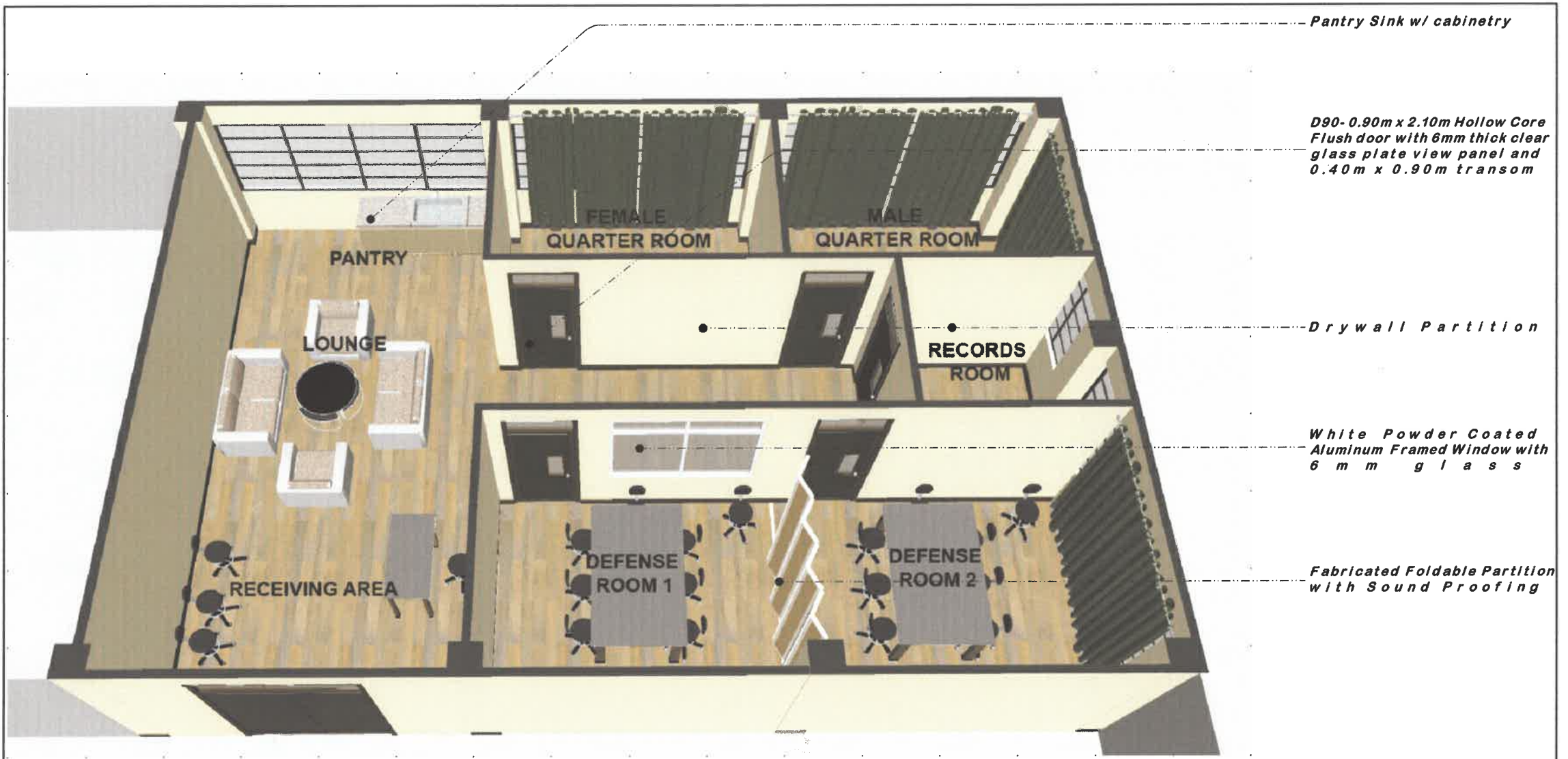


**P1** PLUMBING LAYOUT  
01 - 02

**SCALE** 1:50 meters

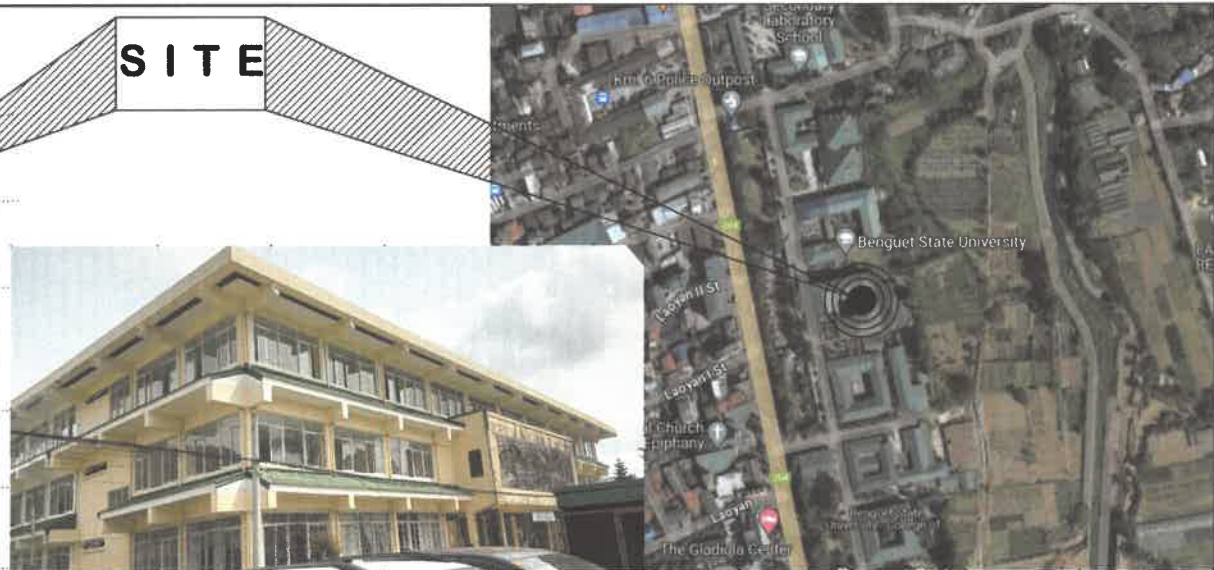
 <b>HAZELINE N. TIBANGAY</b> PRC LIC. NO. 028540 ARCHITECT III - PROJECT MANAGEMENT UNIT	ENGINEER	DRAWN BY: M.A.D.A. NOVEMBER 21, 2023 	OWNER: PROJECT TITLE / LOCATION: <b>"PROPOSED SENSORY EVALUATION ROOM AT NEW CHET BUILDING"</b> KM.5, BSU COMPOUND, LA TRINIDAD, BENGUET	COMFORME:  <b>JAO JAO A. SOMAYDEN</b> DEAN, COLLEGE OF HOME ECONOMICS & TECHNOLOGY/ END- USER	RECOMMENDING APPROVAL:  <b>SAMUEL S. POLIDEN</b> VICE PRESIDENT FOR ACADEMIC AFFAIRS	APPROVED:  <b>FELIPE SALANG COMILA</b> BENGUET STATE UNIVERSITY PRESIDENT	REVISION REVISION DATE	SHEET NO. 
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1
A1
**P E R S P E C T I V E**  
 N O T T O S C A L E

 <b>HAZELINE N. TIBANGAY</b> UNIVERSITI ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	DRAWN BY: EMS - NOV. 2023	<b>REPAIR &amp; UPGRADING OF AC 208 LABORATORY OF CA</b> BSU, KM. 6 BSU COMPOUND LA TRINIDAD, BENGUET	 <b>BENGUET STATE UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>CONSTANTINO T. SUDAYPAN SR.</b> <small>PRINCIPAL USER</small>	 <b>SAMUEL S. POLIDEN</b> <small>VP FOR ACADEMIC AFFAIRS</small>	 <b>FELIPE SALANG COMILA</b> <small>PRESIDENT</small>	SHEET CONTENT <b>AS SHOWN</b> REVISION DATE: REVISION NO.:	SHEET NO. <div style="border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="text-align: center;"> <b>A-1</b>  <hr style="width: 100%;"/> <b>110</b> </div> </div>
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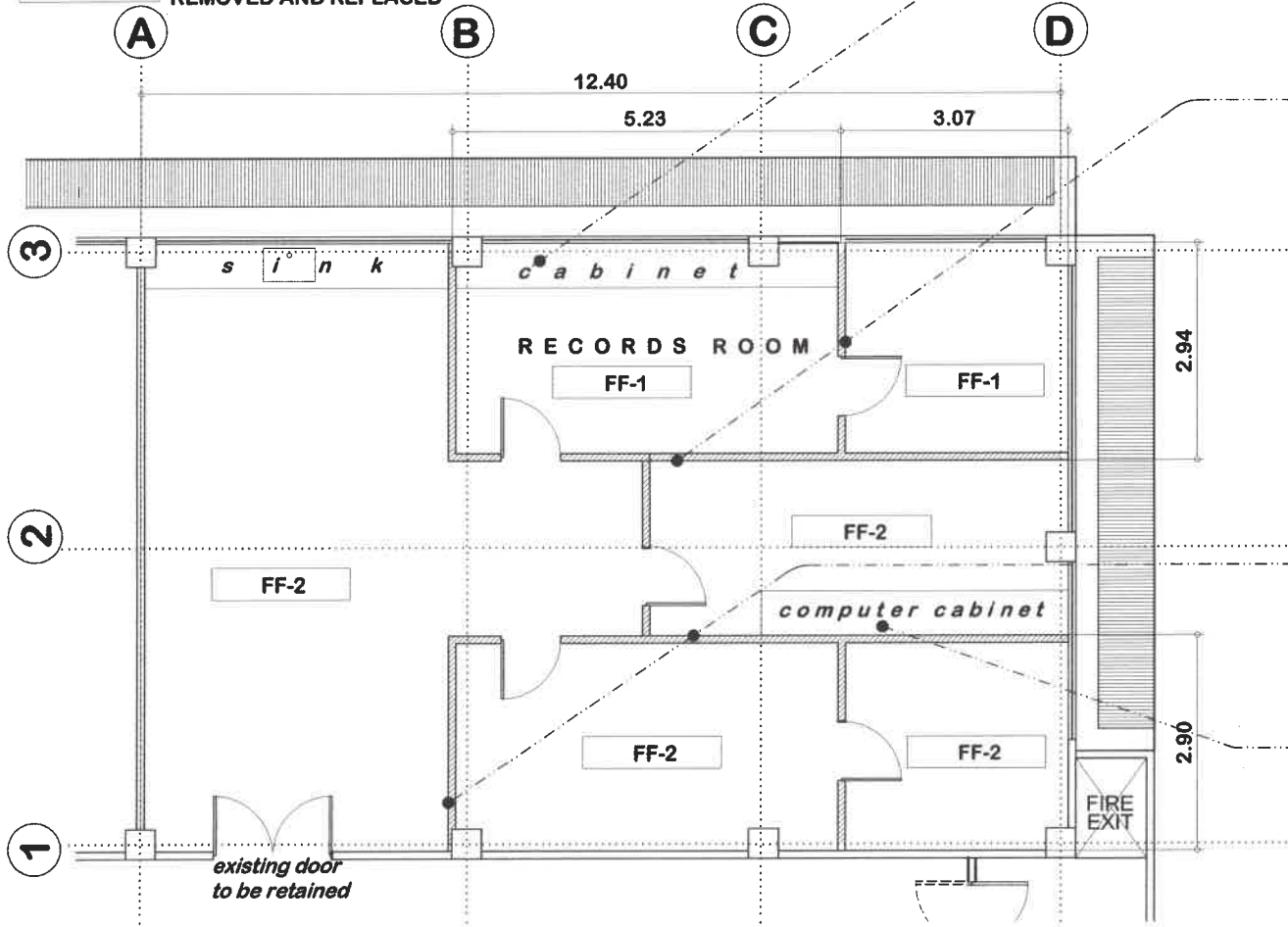
**1** **SCALE**  
**A2** **1:300 MTS**  
**SECOND FLOOR PLAN (COLLEGE OF AGRICULTURE BUILDING)**

**1** **S I T E P H O T O S**  
**A2** **N O T T O S C A L E**

 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	CAD FILE: EMS- NOV.2023 <b>REPAIR &amp; UPGRADING OF AC 208 LABORATORY OF CA</b> BSU, KM 6 BSU COMPOUND LA TRINIDAD, BENGUET PROJECT / LOCATION	 <b>BENGUET STATE UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>CONSTANTINO T. SUDNYPAN SR.</b> OWNER	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALANG COMILA</b> PRESIDENT	SHEET CONTENT <b>AS SHOWN</b>	SHEET NO. <b>A-2</b>
									REVISION DATE:	REVISION NO.: <b>210</b>

**LEGEND:**

- FF-1 CERAMIC TILES TO BE REMOVED AND REPLACED WITH VINYL TILES
- FF-2 EXISTING VINYL TILES TO BE REMOVED AND REPLACED



Existing cabinets to be dismantled

Existing drywall to be demolished

Existing drywall to be demolished

Existing computer cabinets to be dismantled

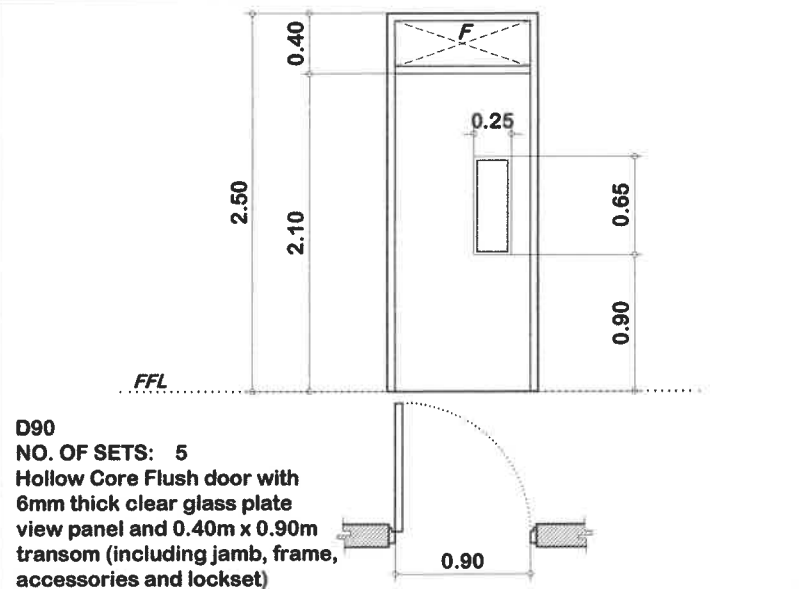
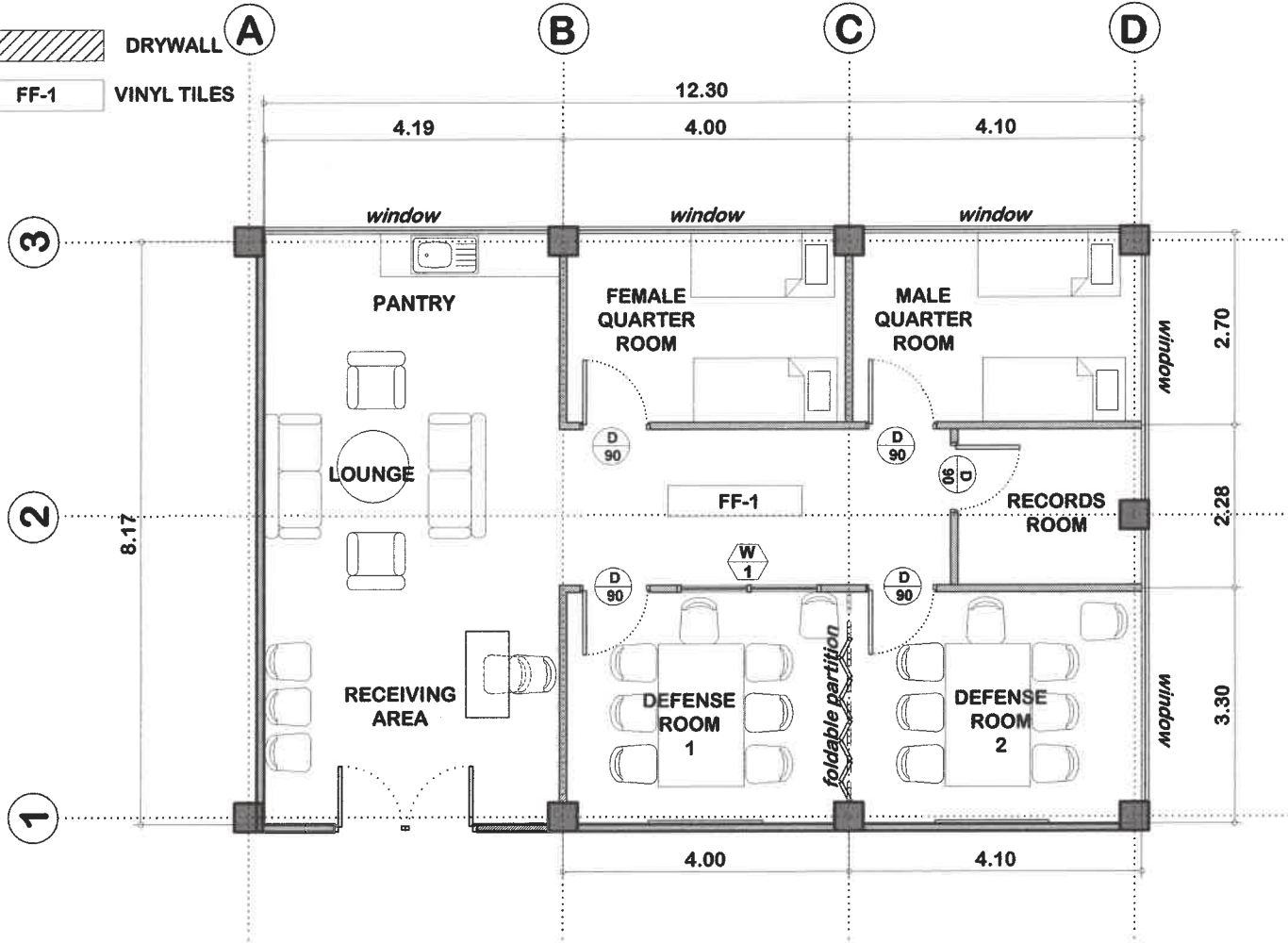







**1 FLOOR PLAN (AS-BUILT)**  
SCALE 1:100MTS

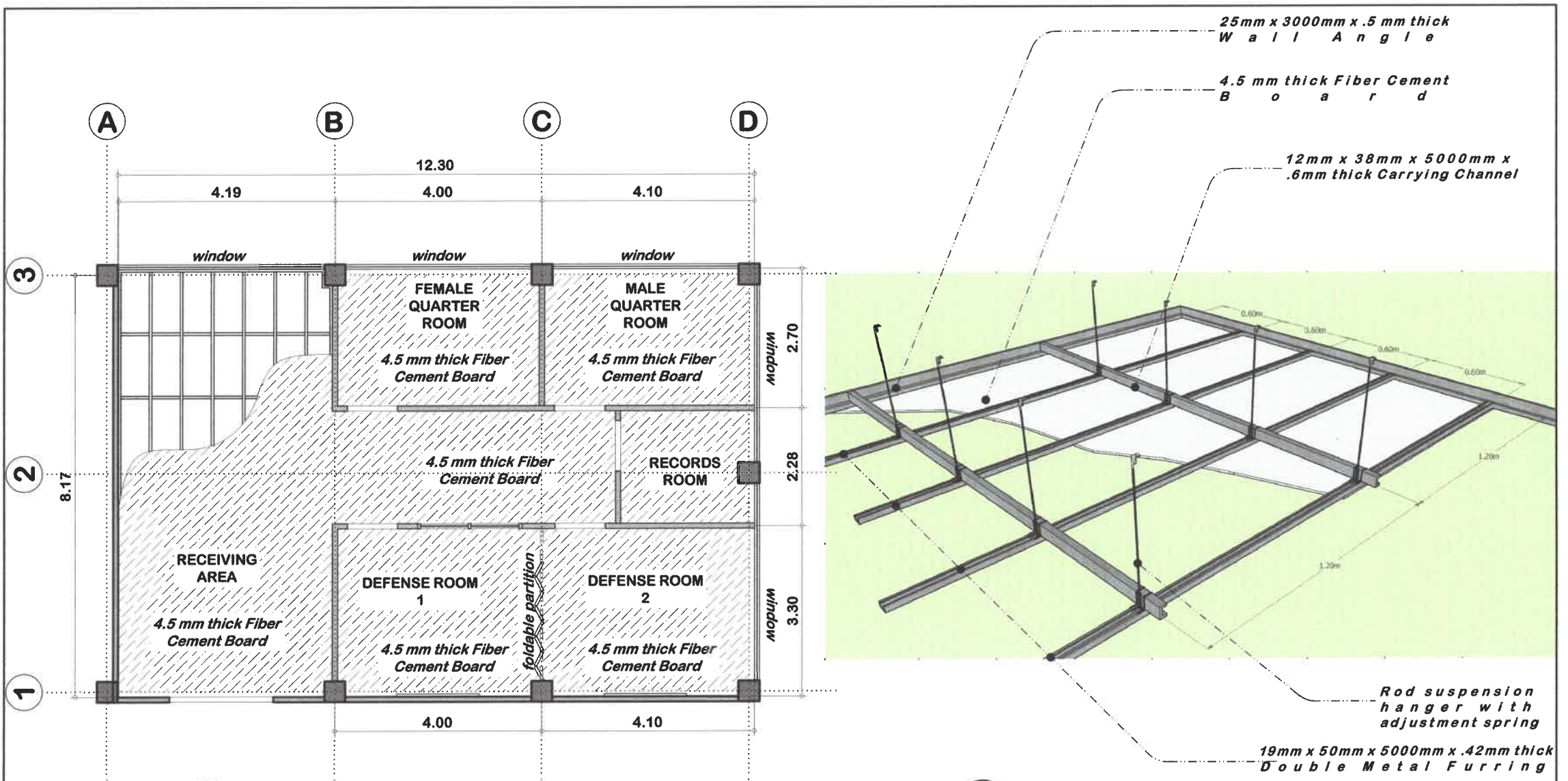
 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	CALL BY: EMS: NOV. 2023	<b>REPAIR &amp; UPGRADING OF AC 208 LABORATORY OF CA</b> BSU, KM 4 BSU COMPOUND LA TRINIDAD, BENGUET	 <b>BENGUET STATE UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>CONSTANTINO T. SUDAYPAN SR.</b> END USER	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALANG COMILA</b> PRESIDENT	SHEET CONTENT	SHEET NO.
											AS SHOWN	A-3
											REVISION DATE:	
											REVISION NO.:	

**LEGEND:**

-  DRYWALL
-  FF-1 VINYL TILES



 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	DATE BY: EMS- NOV.2023	REPAIR & UPGRADING OF AC 208 LABORATORY OF CA BSU, KM. 6 BSU COMPOUND LA TRINIDAD, BENGUET		BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET	 CONSTANTINO T. SULAYPAN SR. ENDRER	 SAMUEL S. POLIDEN VP FOR ACADEMIC AFFAIRS	 FELIPE SALANG COMILA PRESIDENT	SHEET CONTENT AS SHOWN	SHEET NO. A-4
												REVISION DATE:	REVISION NO.:

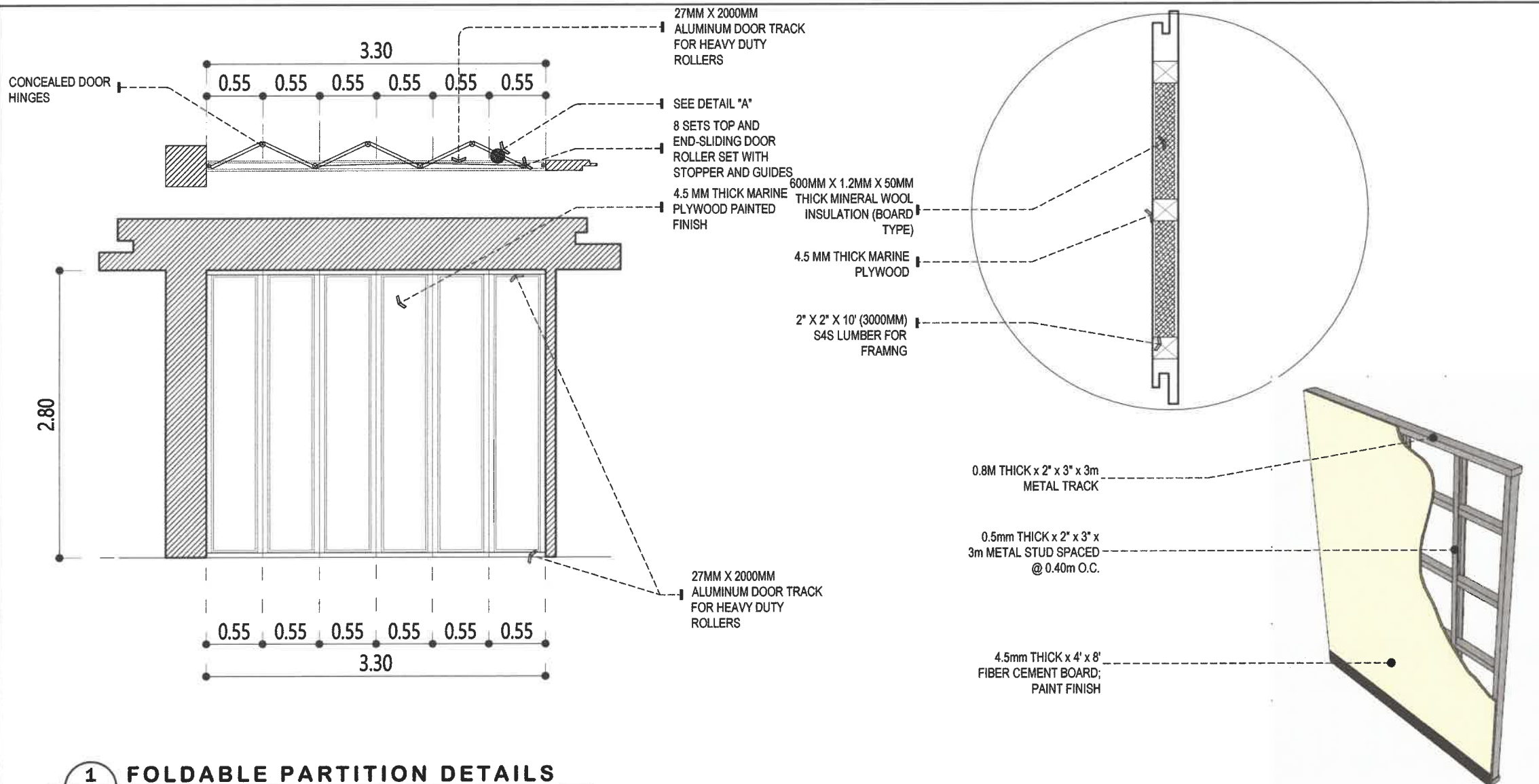


**1 FLOOR PLAN (RENOVATION)**  
 A/5 SCALE 1:100MTS

**2 CEILING FRAMING DETAIL**  
 A/5 NOT TO SCALE






 <b>HAZELINE N. TIBANGAY</b> ARCHITECT	PRC LIC. No. 028540 ISSUED:	VALIDITY: ISSUED:	CAD BY: EMS- NOV. 2023	 <b>BENGUET STATE UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>CONSTANTINO T. SUDAYPAN SR.</b> P.D.	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SALANG COMILA</b> PRESIDENT	SHEET CONTENT	SHEET NO.
								AS SHOWN	A-5
								REVISION DATE:	5/10
								REVISION NO.:	

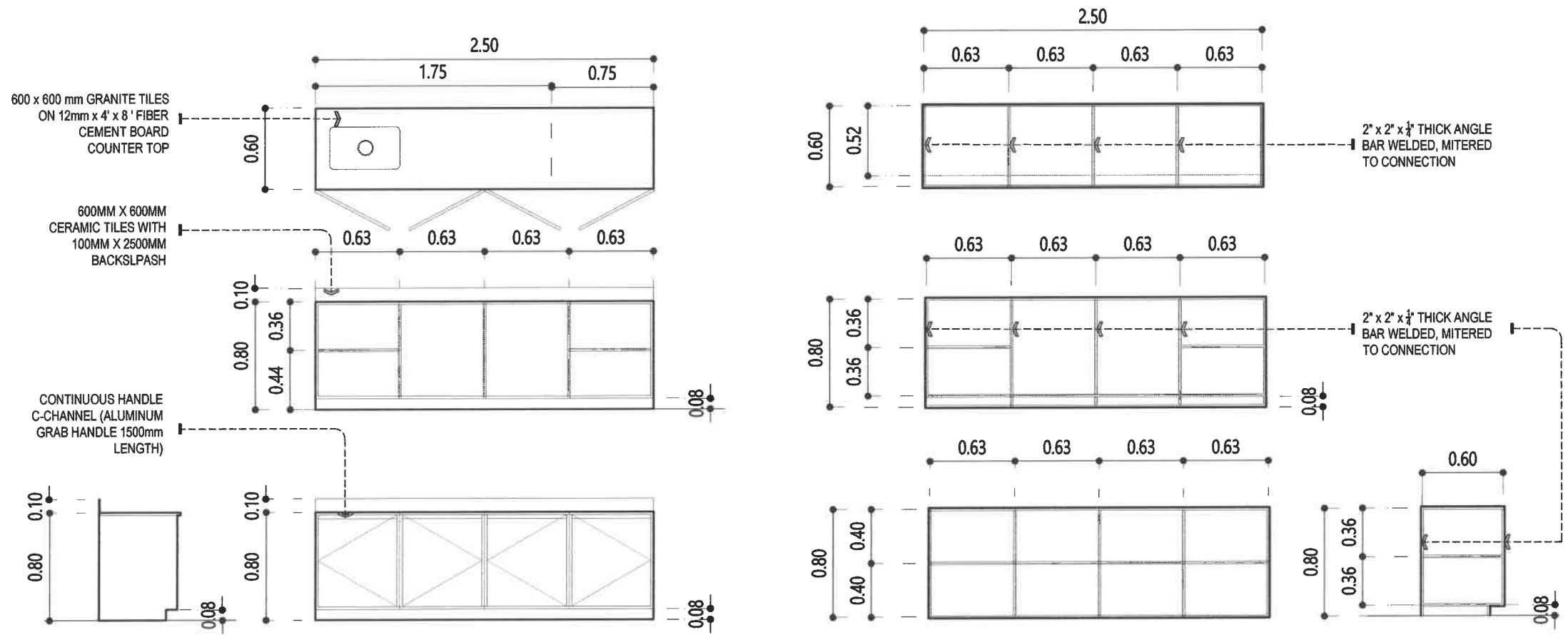
PROJECT / LOCATION: REPAIR & UPGRADING OF AC 208 LABORATORY OF CA, BSU, KM. 6 BSU COMPOUND LA TRINIDAD, BENGUET



**1 FOLDABLE PARTITION DETAILS**  
 SCALE 1:50MTS

**2 WALL FRAMING DETAIL**  
 NOT TO SCALE





 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	CAD BY: MADV - NOV 2023	<b>REPAIR &amp; UPGRADING OF AC 208 LABORATORY OF CA</b> BSU, KM. 6 BSU COMPOUND LA TRINIDAD, BENGUET		<b>BENGUET STATE UNIVERSITY</b> LA TRINIDAD, BENGUET	 <b>CONSTANTINO T. SUDAYPAN SR.</b> OWNER	 <b>SAMUEL S. POLIDEN</b> VP FOR ACADEMIC AFFAIRS	 <b>FELIPE SOLAIN COMILA</b> PRESIDENT	SHEET CONTENT AS SHOWN REVISION DATE: REVISION NO.:	SHEET NO. <b>A-6</b> <b>6/10</b>
	PROJECT / LOCATION:												

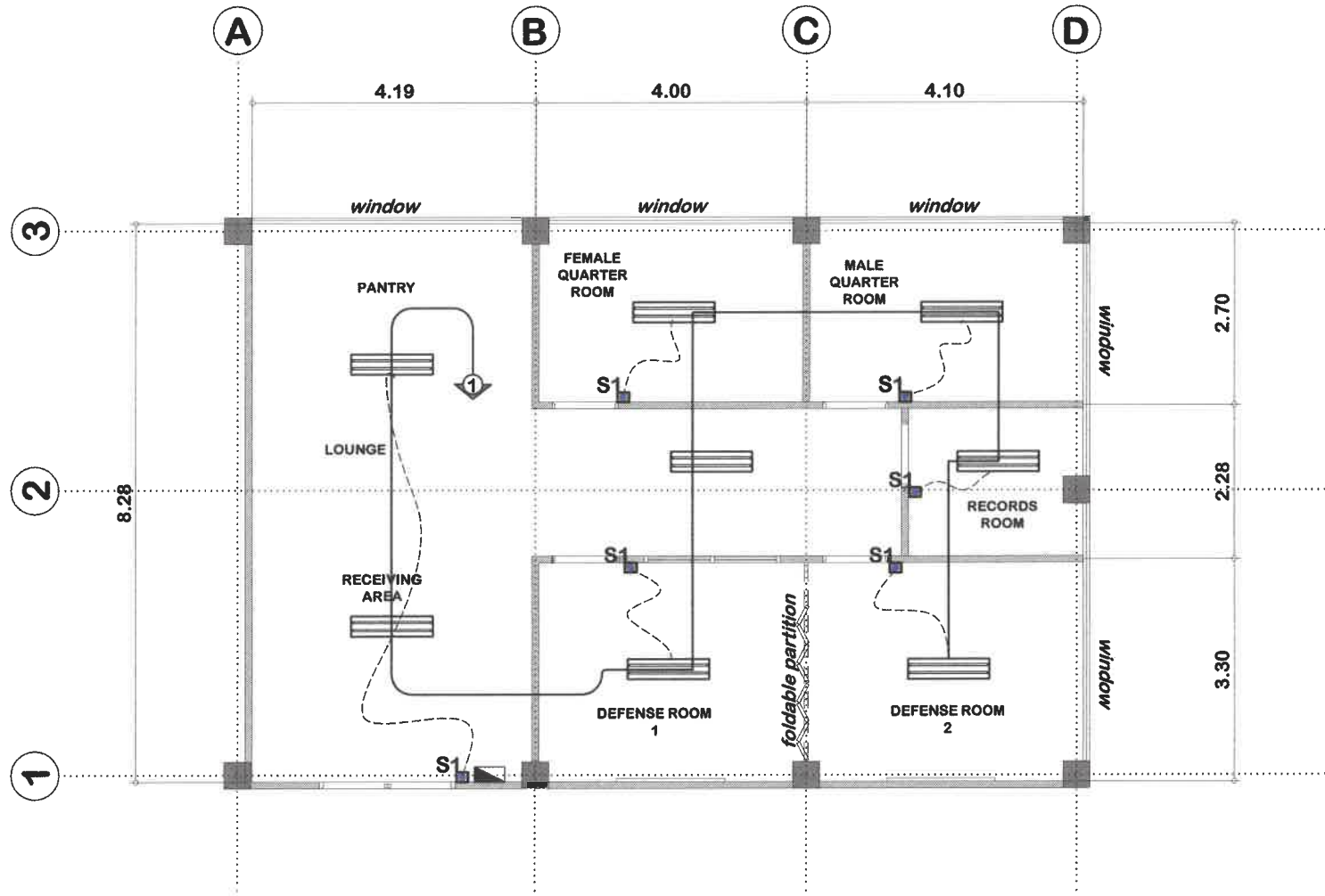


**1** **SINK COUNTER AND CABINERY DETAILS**  
**A/7** SCALE 1:40MTS





		<b>REPAIR &amp; UPGRADING OF AC 208 LABORATORY OF CA</b> BSU, KM.6 BSU COMPOUND LA TRINIDAD, BENGUET										SHEET CONTENT <b>AS SHOWN</b>	SHEET NO. <b>A-7</b>
PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	PROJECT / LOCATION	OWNER	DESIGNER	VP FOR ACADEMIC AFFAIRS	PRESIDENT	REVISION DATE:	REVISION NO.:			

**L E G E N D**



	2-T8 LED LAMP WITH HOUSING AND DIFFUSER
	S1 SINGLE SWITCH
	CIRCUIT/HOMERUN
	PANEL BOARD

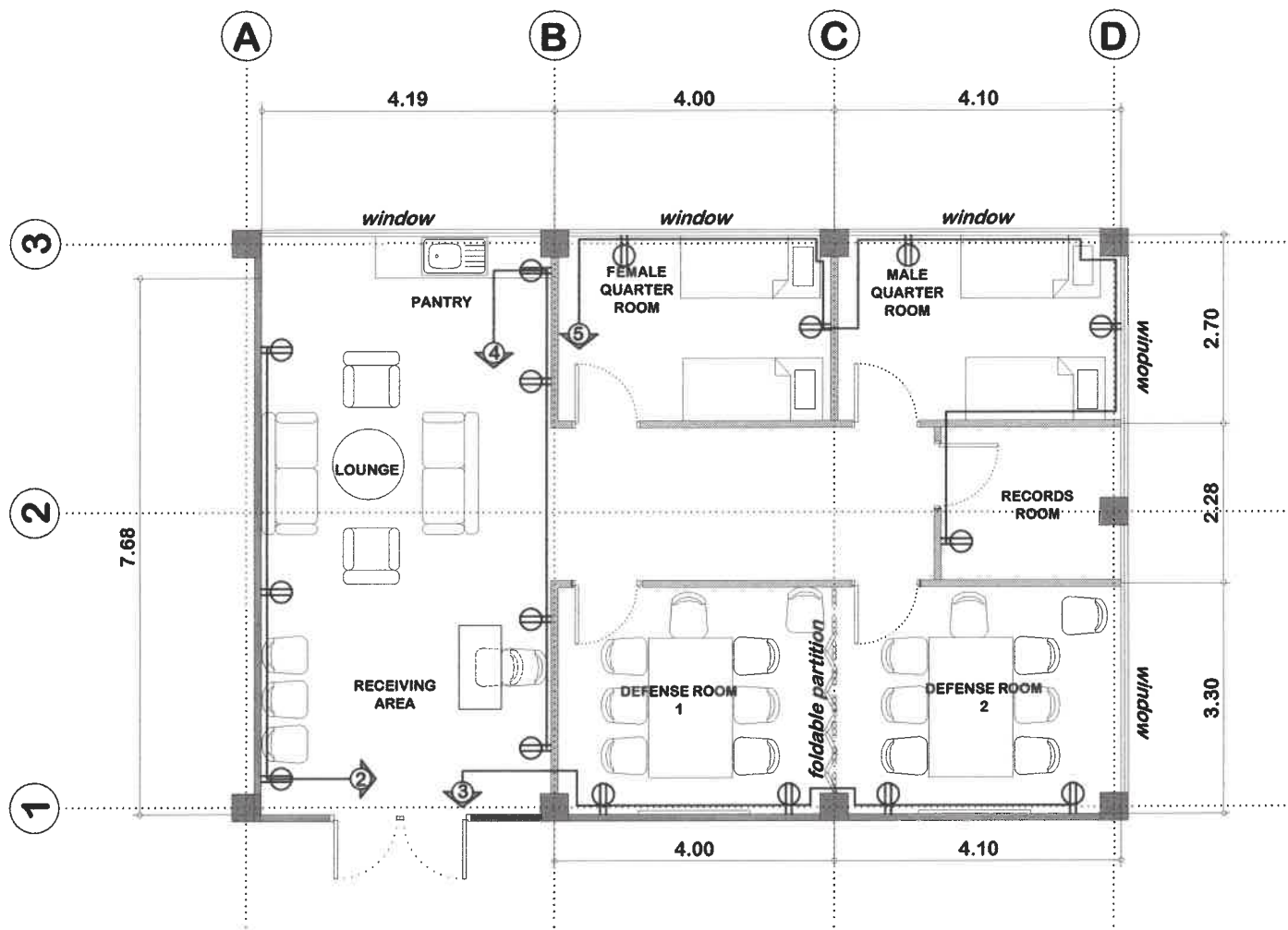


**1 ELECTRICAL LIGHTING LAYOUT**  
**E 1 SCALE 1:100MTS**






 HAZELINE N. TIBANGAY UNIVERSITY ARCHITECT	PRC LIC. No. 028540 PTR No.	VALIDITY: ISSUED:	PRC LIC. No. PTR No.	VALIDITY: ISSUED:	CAD BY: EMS- NOV. 2023	REPAIR & UPGRADING OF AC 208 LABORATORY OF CA BSU, KM. 6 BSU COMPOUND LA TRINIDAD, BENGUET	 BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET	OWNER CONSTANTINO T. SUDANRAN SR.	 VP FOR ACADEMIC AFFAIRS SAMUEL S. POLIDEN	 PRESIDENT FELIPE SALANG COMILA	SHEET CONTENT AS SHOWN	SHEET NO. E-1
											REVISION DATE:	REVISION NO.: 8/10



L E G E N D	
	CIRCUIT/HOMERUN
	DUPLEX CONVENIENCE OUTLET



**1** ELECTRICAL POWER LAYOUT  
**E 2** SCALE 1:100MTS

 <b>HAZELINE N. TIBANGAY</b> UNIVERSITY ARCHITECT	PRC LIC. No. 028540 VALIDITY: PTR No. ISSUED:	PRC LIC. No. _____ VALIDITY: PTR No. ISSUED:	GED BY: EMS- NOV.2023	REPAIR & UPGRADING OF AC 208 LABORATORY OF CA		BENGUET STATE UNIVERSITY LA TRINIDAD, BENGUET	 CONSTANTINO T. SUDARPAN SR. ENR. / ITR	 SAMUEL S. POLIDEN VP FOR ACADEMIC AFFAIRS	 FELIPE SALANG COMILA PRESIDENT	SHEET CONTENT AS SHOWN	SHEET NO. E-2
				BSU, KM.6 BSU COMPOUND LA TRINIDAD, BENGUET		PROJECT / LOCATION				OWNER	ENR. / ITR

TABULATED LOAD COMPUTATION											
CKT NO	DESCRIPTION	QUANTITY	WATTS/OUTLET	WATTS/CIRCUIT	VOLTS	AMPERAGE	AF	AT	P	SIZE OF WIRE AND CONDUIT	
PANEL BOX 1	1	LIGHTING FIXTURES	1	100	100	230	0.43	50	15	2	2-2.0mm <sup>2</sup> THHN in 20mm CONDUIT
	2	CONVENIENCE OUTLET	3	180	540	230	2.35	50	15	2	2-3.5mm <sup>2</sup> THHN in 20mm CONDUIT
	3	CONVENIENCE OUTLET	4	180	720	230	3.13	50	15	2	2-3.5mm <sup>2</sup> THHN in 20mm CONDUIT
	4	CONVENIENCE OUTLET	4	180	720	230	3.13	50	15	2	2-3.5mm <sup>2</sup> THHN in 20mm CONDUIT
	5	CONVENIENCE OUTLET	5	180	900	230	3.91	50	15	2	2-3.5mm <sup>2</sup> THHN in 20mm CONDUIT
<b>TOTAL</b>				2980	230	12.96					

**LOAD COMPUTATION**

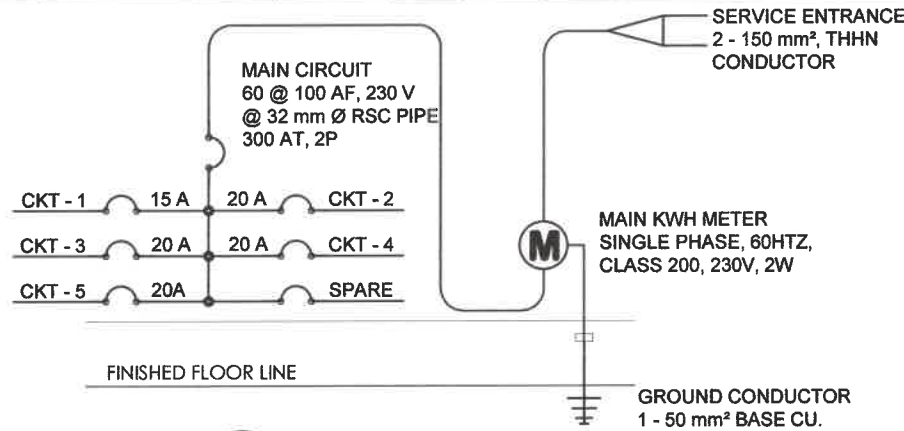
TOTAL CURRENT LOAD  
I = 2980 w

WORKING CURRENT  
I = w/v  
= 2980 / 230 w  
= 12.96 amps

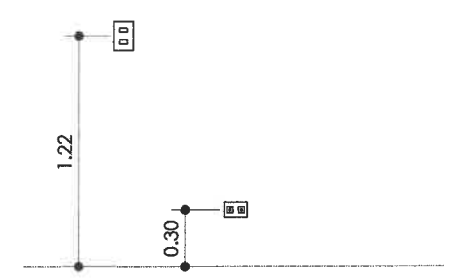
SAFETY DEMAND FACTOR  
12.96 amps x 80% = 23.328 amps

USE: 60 AMPS. MAIN SERVICE EQUIPMENT, 2 POLES, 230 VOLTS

2 - 150mm<sup>2</sup>, THHN FOR SERVICE ENTRANCE CONDUCTOR



**2 RISER DIAGRAM**  
E3 NOT TO SCALE



**1 MOUNTING HEIGHT**  
E3 NOT TO SCALE

**GENERAL ELECTRICAL NOTES**

- ALL ELECTRICAL WORKS AND INSTALLATION SHALL CONFORM WITH THE PROVISIONS OF THE PHILIPPINE ELECTRICAL CODE OF THE NATIONAL AND LOCAL AUTHORITIES CONCERNED IN THE ENFORCEMENT OF ELECTRICAL CODES WITH RULES AND REGULATIONS OF THE UTILITY COMPANIES.
- SERVICE UTILITY TO THE BUILDING SHALL BE 220 VOLTS, 60 HRTZ, SINGLE PHASE THREE WIRE SYSTEM.
- THE CONTRACTOR SHALL VERIFY AND ORIENT THE ACTUAL LOCATION OF THE CONCRETE TERMINAL POST FOR CONNECTION TO THE POWER SUPPLY AND OR THE TELEPHONE SERVICE.
- ALL INSTALLATIONS SHALL BE CONCEALED FROM VIEW. WIRING SHALL BE ENCASED IN POLYVINYL CHLORINE (PVC) PIPES SCHEDULED 40 FOR POWER SERVICE ENTRANCE CAP WHICH SHALL BE IN RIGID STEEL CONDUIT (RSC) UNLESS OTHERWISE SPECIFIED.
- MINIMUM CONDUIT WIRE SHALL BE NO. 12 AWG AND 1/2 DIAMETER PIPE RESPECTIVELY, UNLESS OTHERWISE SPECIFIED.
- MINIMUM WIRE AND CONDUIT SHALL BE PROVIDED EVEN IF NOT INDICATED IN THE DRAWINGS TO ACCOMMODATE NO. OF SPLICES OR WIRES.
- FLOUORESCENT LAMPS SHALL BE PROVIDED WITH POLYESTER FILLED PRE-HEATED THERMALLY PROTECTED HIGH POWER FACTOR BALLAST.
- ALL MATERIALS TO BE LISTED SHALL BE NEW AND OF APPROVED QUALITY FOR BOTH LOCATION AND INTENDED USE.
- LIGHT CONTROL SWITCHES SHALL BE RATED TO A, 250 VOLTS FOR ROUND SLOTS, 220 VOLTS AND PARALLEL SLOTS FOR SPECIAL PURPOSE OUTLETS SHALL BE RATED 15 AMPERE OR 20 AMPERE AS REQUIRED.
- DUPLEX RECEPTACLES SHALL BE RATED 10 AMPERE, 250 VOLTS (ROUND SLOTS) FOR A LOAD NOT GREATER THAN 5.0 AMPS. LIGHT SWITCHES SHALL BE INSTALLED FOR OPERATION WITH VERTICAL MOTION.
- ELECTRICAL INSTALLATION SHALL BE DONE UNDER THE DIRECT SUPERVISION OF A DULY LICENSED ELECTRICAL ENGINEER OR A REGISTERED MASTER ELECTRICIAN.
- ALL CHANGES IN PLANS AND SPECIFICATION SHALL BE DONE, UNLESS OTHERWISE APPROVED BY THE ARCHITECT.

L E G E N D	
	2-T8 LED LAMP WITH HOUSING AND DIFFUSER
	S1 SINGLE SWITCH
	CIRCUIT/HOMERUN
	DUPLEX CONVENIENCE OUTLET
	PANEL BOARD

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											REVISION DATE:	REVISION NO.: <b>10/10</b>