



# UNIVERSITY OF THE PHILIPPINES BAGUIO

Iskolar ng Bayan Bldg., University of the Philippines Baguio, Baguio City 2600 Philippines

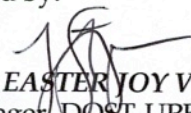
## TECHNICAL SPECIFICATIONS

REQUIRED SPECIFICATIONS	OFFERED SPECIFICATIONS (Please write down detailed offered specifications)	REFERENCES (include supporting documents) (attached brochure / technical data, etc.)
1. Supply, installation, delivery, testing and commissioning of one (1) new branded air-conditioning unit for DOST-UPB SILBI TBI office, Himnasyo Amianan, HKP Building, UP Baguio		
<input type="checkbox"/> Wall mounted Split-Type-Inverter Unit		
<input type="checkbox"/> Rated cooling capacity at least <b>10,550 kj/h.</b>		
<input type="checkbox"/> Noise level indoor unit – not exceeded 40dB(A) at low cool		
<input type="checkbox"/> COP at least 2.5W/W		
<input type="checkbox"/> Refrigerant – R32, R410A or other zero depleting Oxone refrigerant		
<input type="checkbox"/> Indoor Units electronically or remotely controlled of power switch and temperature		
<input type="checkbox"/> Outdoor Unites Power requirements 380V, 60Hz, three-phase. Utilize existing PVC drain pipes and pressure flush when necessary. Provide new drain when existing are completely blocked.		
<input type="checkbox"/> Replacement of existing industrial circuit breaker enclosed in NEMA 4X. All wires must be PVC pipe enclosed.		
2. Supply, installation, delivery, testing and commissioning of two (2) new branded air-conditioning unit for DOST-UPB SILBI TBI two classrooms, Himnasyo Amianan, HKP Building, UP Baguio		
<input type="checkbox"/> Wall mounted Split-Type-Inverter Unit		
<input type="checkbox"/> Rated cooling capacity at least <b>33,550 kj/h</b>		
<input type="checkbox"/> Noise level indoor unit – not exceeded 40dB(A) at low cool		
<input type="checkbox"/> COP at least 2.5W/W		
<input type="checkbox"/> Refrigerant – R32, R410A or other zero depleting Oxone refrigerant		
<input type="checkbox"/> Indoor Units electronically or remotely controlled of power switch and temperature		
<input type="checkbox"/> Outdoor Units Power requirements 380V, 60Hz, three-phase. Utilize existing PVC drain pipes and pressure flush when necessary. Provide new drain when existing are completely blocked.		



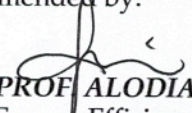
<input type="checkbox"/> Replacement of existing industrial circuit breaker enclosed in NEMA 4X. All wires must be PVC pipe enclosed.		
3. Brand of equipment to be offered must be at least 15 years in the Philippine market. Submit proof of existence.		
4. The supplier or its installer must have/be valid air-conditioner installer license and to submit on bidding day the photo of its license.		
5. Use swellable clay water proofing compound that swells upon contact with water for the refrigerant pipe sleeves.		
6. Use only PVC pipe for all electrical layout between indoor and outdoor units.		
7. Use only at least 0.28mm thick type L (hard drawn) copper tube.		
8. Use at least 3/4" rubber insulation for suction and discharge copper tube and provide also at least 1/2" rubber insulation for drain line.		
9. The winning bidder is responsible for the installation of all outdoor and indoor wirings.		
10. Complete installation including insulations, clamps and required installation between indoor and outdoor units. Clamps are to be installed at least every 1.5 meters intervals.		
11. Chipping selections works and restoration of walls, windows, etc. to its original conditions and finish including painting.		
12. Provide separate notarized Memorandum of Undertaking for five (5) years for compressor warranty to commence on the date of acceptance.		
13. Warranty: One (1) year on parts and service; Five years (5) years on compressor.		
<input type="checkbox"/> Delivery Requirement: within 45 calendar days upon receipt of Purchase Order		
<input type="checkbox"/> Place of Delivery: HKP Building		
<input type="checkbox"/> Prototype/Demo Unit Sample/Site Inspection: none required / not applicable		

Requested by:

  
**DR. MA. EASTER JOY V. SAJO**  
 TBI Manager, DOST-UPB SILBI TBI

\* ~~GENERALLY~~ LOOK FOR AC UNIT WITH ~~EEC~~ OF 8.5 AND ABOVE

Recommended by:

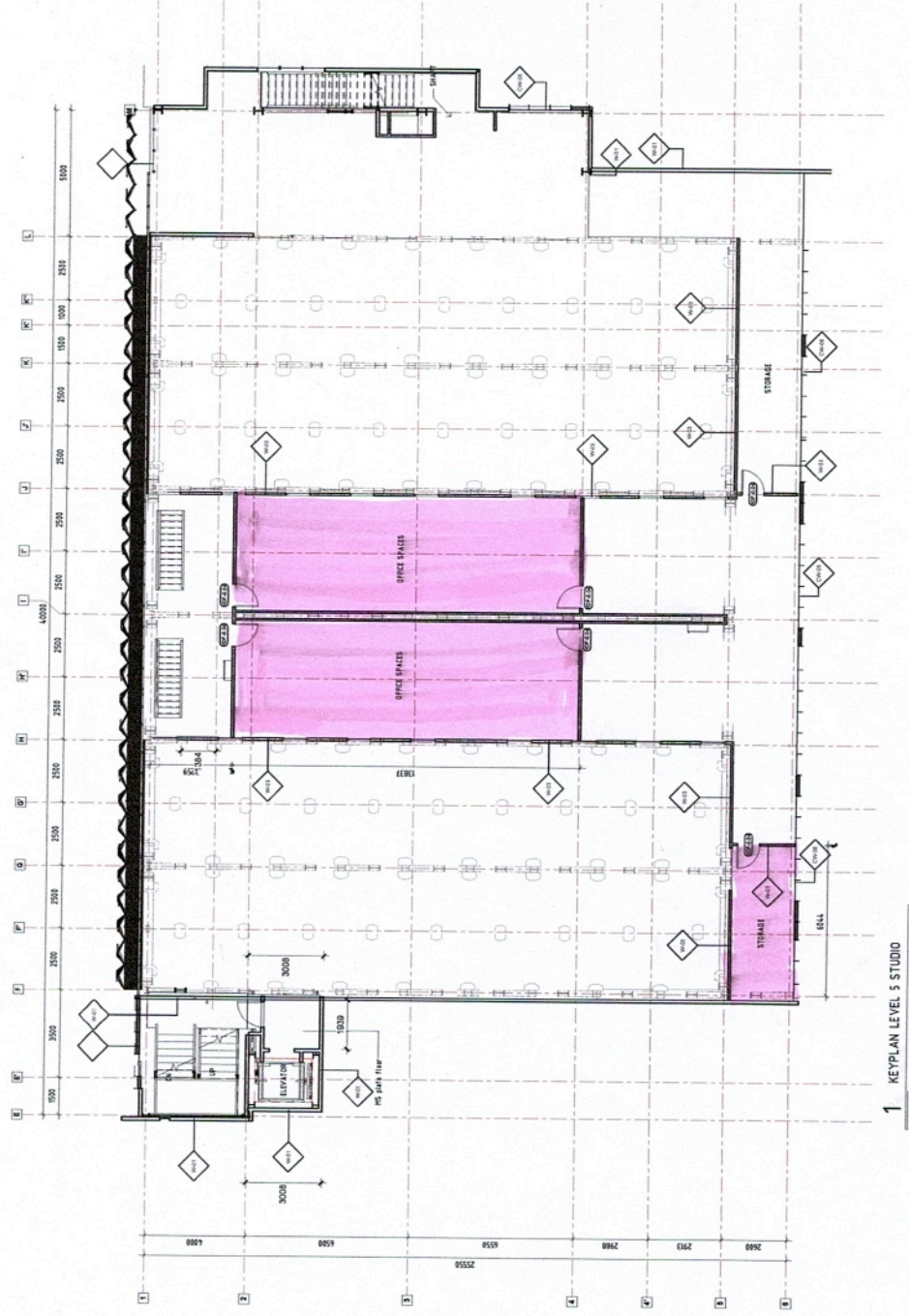
  
**ASST. PROF. ALODIA REI B. LEUNG**  
 Head, Energy Efficiency and Conservation (EEC)  
 University of the Philippines Baguio



SPECIFICS	LECTURE ROOM	SILBI OFFICE
Measurement	Length - 14.55 m Width - 5.00 m	Length - 6.044 m Width - 2.600 m
Area (sq.m)	<b>72.75 sq.m</b>  Initially falls on 72 sq.m with 35,872 kj/h and estimated HP rating of 3.0	<b>15.7144 sq.m</b>  Initially falls on 17 sq.m with 8,440 kj/h and estimated HP rating of 3/4
Considerations	<input type="checkbox"/> If the room is heavily shaded, reduce capacity by 10 %.  $35,872 \text{ kj/h} \times 0.10 = 3,587.20 \text{ kj/h}$  $35,872 \text{ kj/h} - 3,587.20 = \mathbf{32,284.80 \text{ kj/h}}$  <input type="checkbox"/> If more than two (2) people regularly occupy the room, add 633 kilojoules for each additional person  Additional 2 person: $633 \times 2 = 1,266$  $32,284.80 \text{ kj/h} + 1,266 = \mathbf{33,550 \text{ kj/h}}$	<input type="checkbox"/> If the room is very sunny, increase capacity by 10 %.  $8,440 \text{ kj/h} \times 0.10 = 844 \text{ kj/h}$  $8,440 \text{ kj/h} + 844 \text{ kj/h} = \mathbf{9,284 \text{ kj/h}}$  <input type="checkbox"/> If more than two (2) people regularly occupy the room, add 633 kilojoules for each additional person  Additional 2 person: $633 \times 2 = 1,266$  $\mathbf{9,284 \text{ kj/h} + 1,266 = 10,550 \text{ kj/h}}$
Recommended HP Rating	<b>3.0 HP</b>	<b>1.0 HP</b>



# DOST-UPB SILBI TBI SPACE - FLOOR PLAN



SILBI Room Area: 5m x 1.5m  
 Classroom Area: 2.5m x 1.6m

FOR CONSTRUCTION