



LANDBANK

SERVING THE NATION



BAGONG PILIPINAS

**SUPPLEMENTAL/BID BULLETIN NO. 2
For LBP-GIBAC-ITB-GS-20240201-04**

PROJECT : **Forty Nine (49) Units Brand New 30TR Capacity Water-Cooled Scroll-Type Package Air Handling Units for LANDBANK Plaza**

IMPLEMENTOR : **Bids and Awards Committee for Goods and Infrastructure (GI-BAC)**

DATE : **April 4, 2024**

This Supplemental/Bid Bulletin is issued to modify, amend and/or clarify certain items in the Bid Documents. This shall form an integral part of the Bid Documents.

Modifications, amendments and/or clarifications:

- 1) The bidder/s are encouraged to use the Bid Securing Declaration as Bid Security.
- 2) The Terms of Reference (Annex D-1 to D-15), Special Conditions of Contract (SCC Clauses 1 and 2.2), Technical Specifications (Section VII), Bid Form (Form No. 1) and Checklist of Bidding Documents (Item No. 12 of Technical Documents) have been revised. Please see attached revised Annexes D-1 to D-15 and specific sections of the bidding documents.
- 3) As provided under Item 9.2 of Appendix 3 of the Implementing Rules and Regulations (IRR) of Republic Act (RA) 9184 – "In case of other forms of bid security, the on-line bidder shall prepare and submit a scanned copy of the bid security together with the electronic bid. However, the original bid security must be submitted to the BAC concerned before the end of business hours **on the day of bid submission**, a failure of which shall automatically render the bid submission as non-compliant".
- 4) Responses to bidder's queries/clarifications per attached Annexes G-1 to G-3.

By the authority of the GI-BAC:


ATTY. HONORIO T. DIAZ, JR.
Head, GI-BAC Secretariat

RESPONSES TO BIDDER'S QUERIES AND/OR SUGGESTIONS

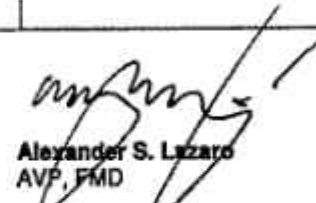
DATE:	March 27, 2024		
PROJECT IDENTIFICATION NO.	GIBAC-ITB-GS-20240201-04		
PROJECT NAME	GIBAC-ITB-GS-20240201-04 – FORTY-NINE (49) UNITS BRAND NEW 30TR CAPACITY WATER-COOLED SCROLL-TYPE PACKAGE AIR HANDLING UNITS FOR LANDBANK PLAZA		
PROPONENT UNIT/TECHNICAL WORKING GROUP	Electro-Mechanical Team, Facilities Service Unit - Facilities Management Department		
ITEM NO.	PORTION OF BIDDING DOCUMENTS	QUERIES AND/OR SUGGESTIONS	LANDBANK'S RESPONSES
1.	CHECKLIST OF BIDDING DOCS. Other Documents to Support Compliance (Eligibility and Technical Component) <ul style="list-style-type: none"> Valid Philippine Contractors Accreditation Board (PCAB) license: Medium A, Category B in Air-Conditioning. 	<p>May we kindly inquire if you could take into consideration the PCAB LICENSE, specifically noting that the Principal Classification and Category falls under Specialty-Mechanical Work category D, while the Kinds of Project and Respective Size Ranges for Mechanical Work are classified as Small B.</p>	<p>Per PCAB Categorization Board resolution No. 201, series of 2017</p> <p>Medium A - Category B Single Largest Project : P 15M to 75M Allowable Ranges of Contract Cost : up to 150M</p> <p>Small B - Category C & D Single Largest Project : P ≤15M Allowable Ranges of Contract Cost : up to 30M</p> <p>Therefore, FMD considers Medium A, Category B.</p>
2.	CHECKLIST OF BIDDING DOCS. Other Documents to Support Compliance (Eligibility and Technical Component) <ul style="list-style-type: none"> List of five (5) completed projects with corresponding Purchase Orders (PO), contracts or any related documents from previous clients with completed institutional and industrial building projects (e.g., high 	<p>Based on the highlighted year, may we inquire whether it is still possible for our company to join, even though it was registered with the SEC in 2016?</p>	<p>FMD retains the requirements covering from year 2014 to present since the prospective contractor/supplier shall be in the industry for at least 10 years in installation of AHUs in institutional and industrial building projects.</p>

ANNEX G-1

	rise buildings, malls, hospitals, government building offices, cold storage facilities, data centers, manufacturing plants, etc.) from the prospective ACU contractor with contact persons and numbers from 2014 to present.		
3.	<p>CHECKLIST OF BIDDING DOCS. Other Documents to Support Compliance (Eligibility and Technical Component)</p> <ul style="list-style-type: none"> Copies of five (5) Certificates of Satisfactory Performance issued by at least five (5) different clients which are institutional and industrial building projects (e.g., high rise buildings, malls, hospitals, government building offices, cold storage facilities, data centers, manufacturing plants, etc.) of the prospective ACU contractor from 2014 to present. 	Based on the highlighted year, may we inquire whether it is still possible for our company to join, even though it was registered with the SEC in 2016?	FMD retains the requirements covering from year 2014 to present since the prospective contractor/supplier shall be in the industry for at least 10 years in installation of AHUs in institutional and industrial building projects.


Enrico V. Del Rosario
 Engineer, EMT-FSU, FMD

Name and signature of Assigned Point Person


Alexander S. Lazaro
 AVP, FMD

Name and Signature of Head, Proponent Unit/
 TWG Lead

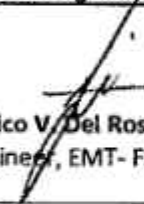
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ANNEX G-2

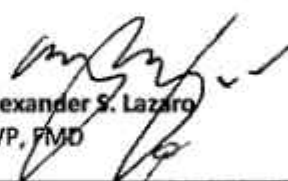
RESPONSES TO BIDDER'S QUERIES AND/OR SUGGESTIONS

DATE	March 27, 2024
PROJECT IDENTIFICATION NO.	GIBAC-ITB-GS-20240201-04
PROJECT NAME	Forty Nine (49) Units Brand New 30TR Capacity Water-Cooled Scroll-Type Package Air Handling Units for LANDBANK Plaza
PROPONENT UNIT/TECHNICAL WORKING GROUP	Electro-Mechanical Team , Facilities Service Unit – Facilities Management Department

ITEM NO.	PORTION OF BIDDING DOCUMENTS	QUERIES AND/OR SUGGESTIONS	LANDBANK's RESPONSES
1.	I. Project Description a. Soft starter compressor scroll type using Refrigerant with Zero Ozone Depleting Potential (ODP)	No restriction for Global Warming Potential of Refrigerant (GWP)?	GWP not included, As per verification with Mr. Aristotle P. Tambalque (LBP Pollution Control Officer), Zero Ozone Depleting Potential (ODP) is the requirement.
2.	IV. 2 Scope of the Project c. 3. Disposal of recovered R22 refrigerant in accordance with DENR guidelines	Since it is stated in the TOR that the disposal of recovered R22 refrigerant must be in accordance with guidelines, the winning bidder should have a Certificate of Registration of Service Providers of ODS-using Equipment and HCFC-using Equipment in accordance with DAO 2013-25 Section 10 and DAO 2021-31 Section 10.	FMD will retain the statement on the TOR since the prospective contractor will comply in accordance with the DENR guidelines in recovering R22 refrigerant.
3.	IV.3 Terms and Conditions: n. Respond all emergency repairs and trouble calls immediately necessary during warranty period.	Response time in hours not indicated	Please see attached revised Terms of Reference IV.3 Terms and Conditions letter n. on page 4.
4.	VI. Manner of Payment b. Progress billing	Can we increase the 1 st billing to 15%?	Yes, please see attached revised Terms of Reference on pages 7 to 8.


Enrico V. Del Rosario
Engineer, EMT- FSU, FMD

Name and Signature of Assigned
Point Person


Alexander S. Lazaro
AVP, FMD

Name and Signature of Head, PropONENT Unit/
TWG Lead

ANNEX G-3

TERMS OF REFERENCE

I. Project Description:

One (1) lot Supply, Delivery, Installation Testing and Commissioning of brand new Forty-Nine (49) units 30TR Capacity Water-cooled Package Air Handling Units (AHUs) with the following requirements, to wit;

- a. Soft starter compressor scroll type using Refrigerant with Zero Ozone Depleting Potential (ODP)
- b. Dismantling and modification of air – duct, distribution pipeline of cooling tower water supply and return
- c. Installation of its accessories/appurtenances to make the system operational
- d. Recovery and disposal of refrigerant taken from old Air Handling Units (AHUs)
- e. Hauling of dismantled old Forty-Nine (49) AHUs to LANDBANK Antipolo Warehouse

II. Background:

- a. The existing AHUs for the Centralized Air-conditioning System at LANDBANK Plaza consists of Forty Nine (49) water cooled package type AHUs. Each AHU has a capacity of 30TR which are composed of three (3) - 10TR hermetic sealed type – reciprocating compressor using R-22 refrigerant.
- b. The Centralized Air-conditioning at LANDBANK Plaza has been used for almost 23 years since its operation in 2002. Maintenance of the system is being handled by Facilities Management Department (FMD) Air-con technicians.

III. Objectives:

- a. To replace the existing deteriorated AHUs at 3rd, 10th, 11th, 12th floors and 14th to 34th floors of LANDBANK Plaza
- b. To maintain and comply with recommended standard conditions for “human comfort” of room temperature and relative humidity
- c. To reduce energy/power consumption by replacing the AHUs with more efficient equipment.
- d. To comply with the DENR standard on refrigerants

IV. Project Details:

IV.1 Technical Specifications:

Machinery/Equipment	Specifications:
Brand new forty-nine (49) Air Handling Units (AHUs) with powder coated galvanized steel housing	<ol style="list-style-type: none"> a. Capacity: At least 30TR at minimum, either two (2) or three (3) set at equal balance per compressor per unit, scroll type soft starter compressor b. Water-cooled (shell and tube) condenser, manufacturer's design, cleanable using tube cleaner and by descaling c. Refrigerant: Zero Ozone Depleting Potential d. Power Input: 25kW to 26 kW, 13.8 to 14.4 Energy Efficiency Ratio (EER)

(Replacement of Air-Handling Units at LANDBANK Plaza – Phase 2) Page 1 of 15

Annex - D-1
(Revised 04-03-24)

CLASS D

	<p>Note : based on Philippine Green Building Code</p> <p>e. Voltage: 440-480 Volts, 3-phase, 60hertz</p> <p>f. Dimensions (minimum to maximum) Height = 1.6 to 1.8m Width = 1.0 to 1.2m Length =1.8 to 2.0m</p> <p>g. Weight, max: 1,450 kgs at maximum</p> <p>h. With differential-pressure lubrication system</p> <p>i. Evaporator fan: forward-curve, multi blade centrifugal type, certified.</p> <p>j. Programmable to the Bank's Building Management System (BMS) remote control and monitoring, Building Automation and Control Network (BACNet)</p> <p>k. 80dB to 90dB noise 1 meter within the radius from AHU inside under closed door condition</p> <p>l. 40dB min to 50dB max noise outside AHU</p> <p>m. Low vibration (use vibrometer) 0.16 in/sec or 2.8 mm/sec (rms) at maximum for allowable machine vibration per ISO 20813-1:2016</p> <p>n. Machine foundation concrete pad</p> <p>o. Compressor must have a protection but not limited to the following:</p> <ul style="list-style-type: none">• reverse protection relay• three - phase quick responsive over-current relay• dual pressure switch to protect the unit against power surge or fluctuations. <p>p. Have built-in thermostat (digital)</p> <p>q. Filters: Minimum Efficiency Rating Value 13 (MERV13) per DOLE Guidelines Department Order No. 224 series of 2021 refer at letter B. Airconditioned space for workplace area</p>
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IV.2 Scope of the Project:

- a. Supply, delivery, installation, start-up and commissioning of the air-conditioning equipment and its accessories and furnishing of all the required consumables and other accessories not provided but necessary for proper operation of the system including equipment rooms and concrete foundation.
- b. Dismantling of old AHUs and recovery of R22 refrigerant
 - b.1. Dismantling of existing/old air-handling units and related piping, ducting and electrical accessories.
 - b.2. Recovery of R22 from old dismantled AHUs using recovery and recycling machine. Recovered refrigerants must be stored in R22 cylinders.
 - b.3. Disposal of recovered R22 refrigerant in accordance with DENR guidelines
- c. Installation of new Air Handling Units (AHUs)

D-2
(Revised 04-03-24)

CLASS D

- c.1. Pull-out of dismantled old AHUs, ducting, piping and electrical accessories and transport the same to Antipolo Warehouse to facilitate the installation of new AHUs
 - c.2. Service cargo elevator shall be used as the main platform in transporting the new AHUs to the floor on which it will be installed
 - c.3. Set-up and install the brand-new AHUs including its appurtenances to make the system operational.
 - c.4. Supply and installation of Black Iron (BI) pipes and fittings, water valves, instrumentation, support and hangers for the modification of the supply of cooling water supply and its return
 - c.5. Air duct connection between each of the new water-cooled screw type packaged AHU and existing ducting including the supply and installation of new materials such as G.I. plain sheets, polyethylene insulation with aluminum backing, dampers, support and hangers.
 - c.6. Electrical and motor control system requirement of the new air-conditioning equipment including the supply and installation of new materials such as local control panels, circuit breakers and motor starters, conduits and fittings, wires, support and hangers.
- d. Testing and Commissioning

IV.3 Terms and conditions:

- a. LANDBANK shall conduct assessment or evaluation of the performance of the service provider based on the set performance criteria see attached Annex I
- b. R22 shall be recovered and transported to storage facility accredited by DENR
- c. Winning Supplier/Contractor shall supply and install new air ducting to connect the new 30TR water-cooled packaged air-conditioning unit (PACU) and the existing supply air ducts.
- d. Contractor shall leak test all completed Piping works (see attached Annex II on methodology on leak test) and submit Piping As-built Plan signed and sealed by a duly licensed Professional Mechanical Engineer.
- e. Contractor shall leak test all completed Ducting works (see attached Annex III on methodology on leak test for ducting) and submit Ducting As-built Plan signed by a duly licensed Professional Mechanical Engineer.
- f. If any has been omitted in any item of work or materials which are necessary for the completion of work as outlined herein, then such item must be and hereby included in the scope of work.
- g. The Contractor/Supplier shall prepare all plans, application permits, and shall complete all test forms required by all rules and regulations of all government authorities having jurisdiction over the project. The required documents shall be completed by qualified personnel, Professional Engineers in particular.
- h. Contractor shall supply and layout Intermediate Metal Conduit (IMC) and Thermoplastic High Heat-resistant Nylon-coated (THHN) electrical wires from existing individual Motor Control Center (MCC) to each new package AHU.
- i. Contractor shall test all the completed works and submit an Electrical As-built Plan signed and sealed by a duly licensed Professional Electrical Engineer.

CLASS D

- j. All piping interconnections that will require water draining of the system or portions thereof shall be well coordinated with FMD and shall be done without any interruptions to the Bank's operations during office hours.
- k. All materials that will be supplied shall be new and approved products of reputable manufactures. No existing/old materials shall be re-used.
- l. Modification/ replacement of water pipelines, rubber joints, butterfly valves, balancing vales, wye strainers and other appurtenances to make the system operational.
- m. Provide competent / qualified service engineer and technician during special service and Quarterly Preventive Maintenance Schedule.
- n. Respond all emergency repairs and trouble calls immediately or within 30 mins to 1 hour maximum response time during warranty period.**
- o. All electrical wires and components shall be passed the insulation test or any appropriate test.
- p. Conform to the provisions (latest edition) of Philippine Mechanical and Electrical code and other applicable laws and regulations.
- q. The winning contractor must conduct seminar/training for Engineers and Technicians with corresponding certificates for the proper maintenance of brand new AHU

IV.4 Project duration:

- a. Three Hundred Sixty (360) Calendar Days upon receipt of Notice to Proceed (NTP).
- b. Implementation of project should be done only from (start) 8PM on Fridays to (end) 12NN on Sundays to avoid disruption of Bank's Operation.
- c. Installed brand new AHUs should be operational and usable by Monday morning when installed on weekend.

IV. 5 Submittals:

Item	Description	Submission Date
a. Product Brochure	Detailed technical specifications and features of AHU Printout Homepage of the manufacturer's website showing URL (web address)	Upon submission of bid proposal
b. Manufacturer certificate	Copy of manufacturer certificate certified by ISO 9001:2015 - Quality Management System	Upon submission of bid proposal
c. Factory and Acceptance Test Certification	Actual activities undertaken in the performance of Factory Witness & Acceptance Test based on standard procedure	Before the delivery of the units. Subject for verification/inspection by FMD personnel/ representative

CLASS D

d. Gantt Chart	Schedule of project activities with corresponding duration of 360 calendar days	One week before start of project implementation
e. Detailed drawing plans and layout	Copies of plans and layout must be in blue print and approved by FMD	One week before start of project implementation
f. Warranty Certificate	One (1) year against factory and manufacturing defects and faulty workmanship to commence from acceptance and turn-over Five (5) years on compressor	Upon turn-over and acceptance
g. Guarantee Certificate	Winning contractor/supplier shall submit a Guarantee Certificate to LBP – FMD indicating that the spare parts and components including after sales services/support that may be requires by the Bank to ensure the continues and normal operation of the equipment shall be available in the next twenty (10) years from date of commissioning	Upon turn-over and acceptance
h. Quarterly Preventive Maintenance Schedule	Quarterly Preventive Maintenance during the warranty period	Upon turn-over and acceptance
i. Operation and Maintenance Manual	Operation and maintenance manual of the air-conditioning unit	Upon turn-over and acceptance
f. As - built plan	Four (4) set Piping As-built plan and Ducting As-built plan signed and sealed by Professional Mechanical Engineer (PME) Electrical As-built plan signed and sealed by Professional Electrical Engineer	Upon turn-over and acceptance
g. Certificate of Working Life Guarantee	Supplier/Contractor must submit certification that the unit & model installed can last for 20 years	Upon turn-over and acceptance

V. Supplier Qualification Requirements:

Qualification	Documentary Requirement/s
1. Interested Contractor/Supplier shall be in the industry for at least 10 years and have experience in installation of AHUs	<ul style="list-style-type: none"> • Copy at least five (5) previous Purchase Orders (PO), contracts or any other documents issued

D-5
(Revised 04-03-24)

<p>in institutional and industrial building projects</p> <p>2. Offered brand must be in the Philippine market for a minimum of ten (10) years</p> <p>3. The contractor/supplier shall be an authorized manufacturer or its local representative of the air-conditioning equipment authorizing the contractor to sell, install and service their products</p> <p>4. The contractor/supplier shall have a valid Philippine Contractors Accreditation Board (PCAB) license</p> <p>5. The contractor/supplier shall have at least five (5) highly trained aircon technicians involved during the entire implementation of the project</p> <p>6. Certificate from principal that the assigned Project Engineer (Mechanical)</p>	<p>from 2014 to present</p> <ul style="list-style-type: none"> • List of five (5) completed previous projects, with institutional and industrial clients such as high-rise buildings, malls, hospitals, cold storage facilities, data centers, manufacturing plants, etc. to the prospective ACU contractor with contact persons and numbers covering from 2014 to present • Copy of Satisfactory Performance issued by five (5) different clients with institutional and industrial clients such as high-rise buildings, malls, hospitals, cold storage facilities, data centers, manufacturing plants, etc. to the prospective ACU contractor with contact persons and numbers covering from 2014 to present <p>• Copy of PO, contract or any other documents to prove that the offered brand/model has been in the Philippine market for a minimum of ten (10) years</p> <p>• Certification from principal/manufacturer that the interested supplier/contractor is authorized to sell, install and service their products.</p> <p>• Copy of PCAB license: Medium A, Category B in Air-conditioning</p> <p>• Resume of aircon technicians and copy of their respective TESDA NCH Certificate on Domestic Refrigeration and Air-conditioning (DOMRAC)</p> <p>• Certification from the principal/manufacturer that the</p>
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D-6
(Revised 04-03-24)

CLASS D

<p>are trained on the offered product</p> <p>7. The offered product or its manufacturer must be authorized and certified by approving / governing body for compressors</p> <p>8. Certificate of inspection</p>	<p>assigned Project Engineer with PRC Registered Mechanical Engineer license is trained on the installation and knowledgeable in the preventive maintenance on the offered product.</p> <ul style="list-style-type: none"> • Certification from the principal/manufacture that the offered product is under of any of the following: <ul style="list-style-type: none"> ➢ Underwriter Laboratories (UL) ➢ Conformity European (CE) • Prior to the bidding proper, interested contractors must conduct inspection, verification, and overall project assessment. A corresponding Certificate of Inspection (CI) shall be issued by the LANDBANK - FMD which shall form part of the bidding requirements/submittals. Non-inspection/submission of CI will result to outright disqualification of the bid.
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VI. Manner of Payment:

1. Payment upon complete submission of the following:
 - a. Sales Invoice/Billing Statement
 - b. Progress billing

Billing	Particulars	Percentage (%)
1 st billing	Mobilization of tools, materials and equipment <small>Note: Per annex "F" of the Implementing Rules and Regulations (IRR) of Republic Act 9184</small>	15
2 nd billing	After installation and commissioning of AHUs at 8 floors randomly per floor	26
3 rd billing	After installation and commissioning of AHUs at 8 floors randomly per floor	26
4 th and final billing	After installation and commissioning of AHUs at 9 floors randomly per floor	30
Retention Fee – After the warranty period of one (1) year		3
TOTAL		100

- c. Reports and other pertinent documents

D-7
(Revised 04-03-24)

CLASS D

2. All payments shall be subject to LANDBANK's standard accounting and auditing rules and regulations
3. The winning contractor are required to maintain a deposit account with LANDBANK Cash department or any of its branches. The directive is pursuant to Malacanang Executive Order No. 170- Adoption of Digital Payments for Government Disbursements and Collections, directing all government agencies to utilize safe and efficient digital disbursement in the payment of goods, services, and other disbursements.
4. Payment shall be through credit the winning supplier's/contractor deposit account with LANDBANK
5. The supplier shall be paid within sixty (60) calendar days after submission of billing or claim, and complete documentary requirements

VII. Liquidated Damages

LANDBANK need not to prove that it has incurred actual damages to be entitled to liquidated damages. Such amount shall be deducted from any money due or which may become due to the Supplier. In case the total sum of liquidated damages reaches ten percent (10%) of the total contract price, LANDBANK may rescind the contract and impose appropriate sanctions over and above the liquidated damages to be paid.

VIII. Pre-termination/Termination of the Contract

1. Pre-termination/Termination of Contract shall be governed by the Guidelines on Termination of Contracts per Annex "I" of the 2016 Revised Implementing Rules and Regulations.
2. In addition to the grounds under said the Guidelines for Contract Termination the following are also grounds for pre-termination/termination:
 - a. Failure by the service provider to perform its obligation thereon;
 - b. Unsatisfactory Performance by the service provider with the contract duration.

IX. Other Terms and Conditions:

1. The winning contractor/supplier/service provider shall:
 - a. Coordinate with FMD for schedules and project briefing. Work authorization permit must be secured from FMD prior to any mobilization.
 - b. Deploy competent technicians/workers with vast experience and expertise in the entire undertaking and implementation of the project.
 - c. Provide its workers with the required personal protective equipment and appropriate tools in the implementation of the project.
 - d. Supplier shall secure Work Authorization Permit from FMD prior start of the project.
 - e. Be liable and solely responsible for any harm, damage and injury that may be incurred or suffered by its own crew/workers or any other person in the implementation of the project and to any damage to the Bank's property arising from the acts whether partial, contributory or due entirely to the fault, negligence and/or dishonesty of its workers in the course of their duties.
 - f. Maintain cleanliness at all times. It shall be responsible for the collection and proper disposal - outside of the Bank premises, of all waste materials resulting from any activity

CLASS D

related to the implementation of the project, in compliance with the Bank's Environmental Management System (EMS) Program

g. Be bounded by and shall strictly observe the Bank's existing rules and regulations with regards to the standard security policies and procedures while in the premises.

2. The winning service provider/ contractor must submit the copy of Comprehensive General Liability Insurance (CGLI) and Personal Insurance to be submitted to LBP upon issuance of Notice to Proceed/Purchase Order (PO) and prior to the start of the project.

X . Contact Persons:

For further information, you may get in touch with any of the undersigned at Tel. Nos. (02) 8551-2200 and 8405-7360

Prepared by:

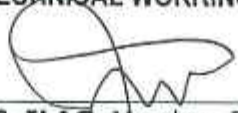

ENRICO V. DEL ROSARIO

Engineer/ EMT-FSU


Cp. No. 09666433306

Recommended for Approval by:

THE TECHNICAL WORKING GROUP



JULIUS C. ILAG, Member, DC-EMT



RODRIGO P. OLBES JR., Member, ADM- FSU



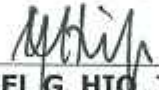
ROEL EUGENE C. ELAZEGUI, Member, PMED



ENRICO D.J. SAMNIEGO, Member, PMED



ALEXANDER S. LAZARO, Co-Lead, AVP, FMD



EMMANUEL G. HIO, JR., Lead, FVP, FESG

MECHANICAL WORKS**METHODOLOGY FOR LEAK TESTING OF CONDENSER PIPING SYSTEM****I. INTRODUCTION**

This method statement outlined the procedure for **Leak Testing of Condenser Water Piping System at LANDBANK Plaza** regarding installation of new Air-Handling Units (AHUs) in accordance with project specifications and approved drawings.

II. METHOD TREATMENT**A. Materials**

- Test Manifold
- Pressure Washer
- Pressure Gauges
- Hose

III. LEAK TESTING PROCEDURE

- Determine/identify test limits according to the mark-up drawing.
- Care shall be taken to all the pipes being tested. All examinations and stress relieving activities must complete before testing. In addition, ensure pipeline is installed in accordance with the approved drawing.
- Ensure temporary blank flanges are anchored firmly in a way to accommodate all developed end trust. All pipe support includes U-bolt are securely fastened and in place in accordance with the approved drawing.
- The piping system shall be tested closed by plugging all openings in the system in a proper way and filled slowly with water.
- Ensure water is reached to the entire system by releasing plugs temporarily. The entire system must be free from trapped air and the air vent must function properly on the highest point of the network.
- Pressure shall be applied to the condenser water piping system by means of pressure washer drawing from a water container. The pump discharge shall be connected to the system through a globe valve and calibrated pressure gauge of suitable range to have the test pressure range in the middle of the range.
- Subject the Condenser Water piping to hydro test at 110psi for at least two (2) hours.
- Ensure Test pressure is same at highest point of the system with the pressure reading on the manifold. Pressure deviation varies also with the outside temperature.
- If the pressure drops during the test, it has a possible leaks or defects in the piping system, locate those leaks and defects by inspecting the welded pipes and fittings, rectify or repair it, then repeat the test until satisfactory results are obtained.
- Raise Request for Inspection of hydro testing to witness the same by a FMD Representative. Consultant's QC Inspector/Engineer-in-Charge shall monitor the testing process and verify that there is no leakage.

CLASS D

- After approval of inspection of hydro testing, release the water gradually and protect the piping installation, and end cap the pipe.

IV. Quality Control/Inspection Plan

1. It shall be responsibility of the Contractor's Quality Control Engineer to routinely inspect the physical areas under their control in pipe welding works. This inspection shall include determining if pipes, supports, scaffolds and ladders are appropriately installed and/or use, and if the job site is cleaned up after the day's work.
2. All materials and apparatus required for the work, except as specifically specified otherwise, shall be new, of first-class quality, and shall be furnished, delivered, erected, connected, and finished in every detail, and shall be so selected and arranged as to fit properly into the building spaces. When no specific kind or quality of materials are given, a first-class standard article as approved by the LBP - FMD shall be furnished.
3. Contractor shall furnish the services of an experienced Engineer, who shall be constantly in charge of the installation of the work, together with all skilled workmen, fitters, metal workers, welders, helpers, and labor required to unload, transfer, erect, install, connect-up, adjust, start, operate, and test each system.
4. Unless otherwise specifically indicated on the plans or specifications, all equipment and materials shall be installed with the approval of FMD and the TWG, with the recommendations of the manufacturer. This included the performance of such tests as the manufacturer recommends.
5. Contractor shall give full cooperation to other trades and shall furnish in writing to the Owner, with copies to the Construction Manager, any information necessary to permit the work of all trades to be installed satisfactory and with the least possible interference of delay.
6. Where our work will be installed near, or will interfere with work of other trades, we shall assist in working out space conditions to make satisfactory adjustment. If so, directed by the Owner, we shall prepare composite working drawings and sections at a suitable scale not less than 1:50 M, clearly indicating how our work will be installed in relation to the work of other trades.
7. We shall furnish to other trades, as required, all necessary templates, patterns, setting plans, and shop details for the proper installation of work and for the purpose of coordinating adjacent work.
8. We shall protect all work and material from damages by our workmen and our own work process and shall be liable for all damages thus caused.

V. LIGHTING AND POWER

Sufficient lighting and power will be provided by FMD during the day and night activities to avoid accident and can work properly.

(Replacement of Air-Handling Units at LANDBANK Plaza – Phase 2) Page 11 of 15

D-11
(Revised 04-03-24)

VI. ACCESS AND EGRESS

1. Access to work area: The provision of safe means of access to work is responsibility of the General Contractor.
2. Site Access
 - Entrance and exit of all persons and vehicles must only be at the main entrance gate which is subjected to check by the assigned security guard.
 - Suppliers are permitted on site for presentation and/or site inspection. Deliveries will be checked first by the assigned security and the FMD representative at the receiving area prior to the acceptance of the contractor.

D-12
(Revised 04-03-24)

MECHANICAL WORKS
METHODOLOGY FOR LEAK TESTING OF DUCTING SYSTEM

I. INTRODUCTION

This method statement outlined the procedure for **Light Testing of Ducting System at LANDBANK Plaza Building** regarding installation of new Air-Handling Units (AHUs) in accordance with project specifications and approved drawings.

II. METHOD TREATMENT**A. Materials/Equipment**

- Flood LED Light (500W/1000W)

B. Initial Procedure

- Before commencing any activity on site, LBP – Facilities Management Department (FMD) must be notified.
- All the related documents, shop drawings, method of statements, material approvals, subcontractor's approvals and test certificates etc. must be approved and readily available.
- All employees regardless of position will be responsible for their own personal safety and that of their fellow workers. This will be reinforced through the induction process and toolbox talks with FMD Project Engineer or Representative.
 - Understand the LBP - FMD safety policy and appreciate individual responsibility towards safety for themselves, for their co-workers and for the company.
 - Use the correct tools and equipment for the job. Use the protective clothing and equipment provided.
 - Keep tools and equipment in good condition. Inspect tools/equipment for defects before use and report defects immediately to the direct supervisor.
 - Report any accident, near miss or hazardous condition to immediate supervisor for correction purposes.
 - Obey all posted warning signs.
 - Follow instructions from Contractor's Supervisors and LBP – FMD assigned Project Engineer or representative. If in doubt, ask questions.
 - Cooperate with safety personnel.

III. LEAK TEST PROCEDURE USING LIGHT

- Close all the openings in the rigid ducting and provide only access connections where the lighting equipment can be inserted. Provide small opening of each end of branch and at the main duct, where applicable.

CLASS D

- The light inside the area where testing to be carried out shall be switched off at the time of the test. Turn ON the spotlight and place it inside the ducting system. As much as possible the place or the area is shallow dark to easily see the light come from the leak.
- Scaffolding will be provided to access the rigid ducting.
- Total darkness shall be maintained at the test area during the test.
- Check at every connection - the light should not be visible outside. Observe if the light across the duct system or each end of duct
- If any defects found, the point should be marked and then rectified/sealed after finishing the test.
- All leaks must be applied seal and allow repaired seals to cure.
- Retest if there is leak on rigid ducting.
- Complete test report and obtain witness's signature.
- Leak testing must be witnessed by a FMD Representative.

VI. QUALITY CONTROL/INSPECTION PLAN

1. It shall be responsibility of the Contractor's Quality Control Engineer to routinely inspect the physical areas under their control in ducting works. This inspection shall include determining if ducts, supports, scaffolds and ladders are appropriately installed and/or use, and if the job site is cleaned up after the day's work.
2. All materials and apparatus required for the work except as specifically specified otherwise, shall be new, of first-class quality, and shall be furnished, delivered, erected, connected, and finished in every detail, and shall be so selected and arranged as to fit properly into the building spaces. When no specific kind or quality of materials are given, a first-class standard article as approved by the Construction Manager shall be furnished.
3. We shall furnish the services of an experienced superintendent, who shall be constantly in charge of the installation of the work, together with all skilled workmen, fitters, metal workers, welders, helpers, and labor required to unload, transfer, erect, install, connect-up, adjust, start, operate, and test each system.
4. Unless otherwise specifically indicated on the plans or specifications, all equipment and materials shall be installed with the approval from LBP - FMD, the Construction Managers and the TWG, with the recommendations of the manufacturer. This included the performance of such tests as the manufacturer recommends.
5. Contractor shall give full cooperation to other trades and shall furnish in writing to LBP - FMD, with copies to the Construction Manager, any information necessary to permit the work of all trades to be installed satisfactory and with the least possible interference of delay.
6. Where the work will be installed near, or will interfere with work of other trades, Contractor shall assist in working out space conditions to make satisfactory adjustment. If so, directed by LBP - FMD, Contractor shall prepare composite working drawings and sections at a suitable scale not less than 1:50, clearly indicating how our work will be installed in relation to the work of other trades.
7. Contractor shall furnish to other trades, as required, all necessary templates, patterns, setting plans, and shop details for the proper installation of work and for the purpose of coordinating adjacent work.

CLASS D

8. Contractor shall protect all work and material from damages by their workmen and their own work process and shall be liable for all damages thus caused.

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Special Conditions of Contract

SCC Clause	
1	<p>Delivery and Documents –</p> <p>The procurement for Forty Nine (49) Units Brand New 30TR Capacity Water-Cooled Scroll-Type Package Air Handling Units for LANDBANK Plaza was acquired through Competitive Bidding with Approved Purchase Order No. _____ dated _____, with Notice of Award and Notice to Proceed issued by LANDBANK's authorized signatory.</p> <p>For purposes of the Contract, "EXW," "FOB," "FCA," "CIF," "CIP," "DDP" and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published by the International Chamber of Commerce, Paris. The Delivery terms of this Contract shall be as follows:</p> <p><i>For Goods supplied from abroad:</i> The delivery terms applicable to the Contract are DDP delivered in the address/es indicated in Section VI. Schedule of Requirements. In accordance with INCOTERMS.</p> <p><i>For Goods supplied from within the Philippines:</i> The delivery terms applicable to this Contract are delivered in the address/es indicated in Section VI. Schedule of Requirements. Risk and title will pass from the Supplier to the Procuring Entity upon receipt and final acceptance of the Goods at their final destination.</p> <p>Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI (Schedule of Requirements).</p> <p>For purposes of this Clause the Procuring Entity's Representative/s at the Project Site/s is/are indicated in Section VI. Schedule of Requirements.</p> <p>Incidental Services –</p> <p>The Supplier is required to provide all of the following services, including additional services, if any, specified in Section VI. Schedule of Requirements:</p> <ul style="list-style-type: none">• Performance or supervision of on-site assembly and/or start-up of the supplied Goods;• Furnishing of tools required for assembly and/or maintenance of the supplied Goods;• Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied Goods;

- Performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and
- Training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.

The Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

Spare Parts –

The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- a. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; and
- b. in the event of termination of production of the spare parts:
 - i. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements; and
 - ii. following such termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested.

The spare parts and other components required are listed in **Section VI (Schedule of Requirements)** and the cost thereof are included in the contract price.

The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Goods for a period *indicated* in Section VI. Schedule of Requirements.

Spare parts or components shall be supplied as promptly as possible, but in any case, within months indicated in the Technical Specifications.

Packaging –

The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit

and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified below, and in any subsequent instructions ordered by the Procuring Entity.

The outer packaging must be clearly marked on at least four (4) sides as follows:

Name of the Procuring Entity
Name of the Supplier
Contract Description
Final Destination
Gross weight
Any special lifting instructions
Any special handling instructions
Any relevant HAZCHEM classifications

A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.

Transportation –

Where the Supplier is required under Contract to deliver the Goods CIF, CIP, or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be specified in this Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.

Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available

	<p>but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be considered force majeure.</p> <p>The Procuring Entity accepts no liability for the damage of Goods during transit other than those prescribed by INCOTERMS for DDP deliveries. In the case of Goods supplied from within the Philippines or supplied by domestic Suppliers risk and title will not be deemed to have passed to the Procuring Entity until their receipt and final acceptance at the final destination.</p> <p>Intellectual Property Rights –</p> <p>The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof.</p>
2.2	<p>Pursuant to Malacañang Executive Order No. 170 (Re: Adoption of Digital Payments for Government Disbursements and Collections) issued on 12 May 2022, directing all government agencies to utilize safe and efficient digital disbursement in the payment of goods, services and other disbursements, all payments for this Contract shall be through direct credit to the supplier's deposit account with LANDBANK. Thus, the supplier shall maintain a deposit account with any LANDBANK Branch where the proceeds of its billings under this Contract shall be credited.</p> <p>Partial payment is allowed following the payment milestones as provided in Item VI Manner of Payment (Annex D-7) of the Revised TOR.</p> <p>The following documentary requirements for payment shall be submitted:</p> <ul style="list-style-type: none">• Sales Invoice/Billing Statement/Statement of Account.• Delivery Receipt with printed name and signature of LANDBANK employee who received the delivery and actual date of receipt of items.• Warranty Certificate specifying the period covered by the warranty. <p>The Supplier shall be paid within sixty (60) calendar days after submission of sales invoice or claim and complete documentary requirements.</p> <p>Supplier shall pay taxes in full and on time.</p> <p>Supplier is, likewise, required to regularly present, within the duration of the Contract, a tax clearance from the Bureau of Internal Revenue (BIR) as well as a copy of its income and business tax returns duly stamped and received by the BIR and duly validated with the tax payments made thereon.</p>

4	Maintain the GCC Clause.
5	One (1) year warranty for the unit and five (5) years warranty for compressor against factory/manufacturing defects on equipment, components and parts supplied and against faulty workmanship to commence upon receipt of final turn-over and acceptance documents.
6	<p>The Supplier has not made and will not make any offer, promise to pay or authorization of the payment of any money, gift or any other inducement to any official, political party, employee of Government or any other person, in contravention with applicable laws in connection with the execution of this Contract and performance of its obligations thereunder. Violation of this provision shall be a ground for immediate termination of this Contract.</p> <p>The Supplier shall not assign this Contract or sub-contract the performance of any portion of it, without the LBP's prior written consent. Prior to the assignment or subcontracting and the approval by LBP thereof, the Supplier must disclose to LBP the name of its assignee/s or subcontractor/s who/which should have a written agreement/s with the Supplier indicating: (i) that the assignee/s or subcontractor/s is aware of and shall abide with all the terms and conditions of this Agreement, as may be applicable; (ii) that the term of the assignment/sub-contract shall not exceed the term of this Agreement; (iii) the detailed terms of the assignment/sub-contract.</p> <p>The Supplier shall hold LBP free and harmless from any claims of third parties arising from a negligent or otherwise wrongful act, or omission by the Supplier or its employees or representatives. The Supplier shall ensure that the employees that will be deployed in LBP's premises shall faithfully observe and comply with all LBP rules and regulations.</p>

Technical Specifications

Specifications	Statement of Compliance						
<p style="text-align: center;">Forty Nine (49) Units Brand New 30TR Capacity Water-Cooled Air Handling Units for LANDBANK Plaza</p> <p>Specifications, drawings and other requirements are stated in the following annexes:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <tr> <td style="padding: 2px;">Annexes D-1 to D-15 (with Revised Annexes D-4 & D-7)</td> <td style="padding: 2px;">Terms of Reference</td> </tr> <tr> <td style="padding: 2px;">Annexes D-16 to D-18</td> <td style="padding: 2px;">Performance Assessment Report</td> </tr> <tr> <td style="padding: 2px;">Annexes E-1 & E-2</td> <td style="padding: 2px;">Bill of Quantities</td> </tr> </table> <p>The documentary requirements enumerated in Section VI (Supplier Qualification Requirements) of the Terms of Reference in Annexes D-6 & D-7 shall be submitted in support of the compliance of the Bid to the technical specifications and other requirements.</p> <p>Non-submission of the above documents may result in the post-disqualification of the bidder.</p>	Annexes D-1 to D-15 (with Revised Annexes D-4 & D-7)	Terms of Reference	Annexes D-16 to D-18	Performance Assessment Report	Annexes E-1 & E-2	Bill of Quantities	<p style="text-align: center;">Bidders must signify their compliance to the Technical Specifications/Terms of Reference by stating below either "Comply" or "Not Comply"</p> <p>Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.</p>
Annexes D-1 to D-15 (with Revised Annexes D-4 & D-7)	Terms of Reference						
Annexes D-16 to D-18	Performance Assessment Report						
Annexes E-1 & E-2	Bill of Quantities						

Conforme:

Name of Bidder

Signature over Printed Name of
Authorized Representative

Position

6. The prospective bidder's computation for its Net Financial Contracting Capacity (NFCC) following the sample form (Form No. 5), or in the case of Procurement of Goods, a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.
- o **Eligibility Documents – Class “B”**
7. Duly signed valid joint venture agreement (JVA), in case the joint venture is already in existence. In the absence of a JVA, duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful shall be included in the bid. Failure to enter into a joint venture in the event of a contract award shall be ground for the forfeiture of the bid security. Each partner of the joint venture shall submit its legal eligibility documents. The submission of technical and financial eligibility documents by any of the joint venture partners constitutes compliance, provided, that the partner responsible to submit the NFCC shall likewise submit the statement of all its ongoing contracts and Audited Financial Statements.
 8. For foreign bidders claiming by reason of their country's extension of reciprocal rights to Filipinos, Certification from the relevant government office of their country stating that Filipinos are allowed to participate in government procurement activities for the same item or product.
 9. Certification from the DTI if the Bidder claims preference as a Domestic Bidder.
- o **Technical Documents**
10. Bid Security (if in the form of a Surety Bond, submit also a certification issued by the Insurance Commission).
 11. Section VI – Schedule of Requirements with signature of bidder's authorized representative.
 12. **Revised Section VII – Specifications with response on compliance and signature of bidder's authorized representative.**
 13. Duly notarized Omnibus Sworn Statement (OSS) (sample form - Form No. 6).

Note: During the opening of the first bid envelope (Eligibility and Technical Component) only the above mentioned documents will be checked by the BAC if they are all present using a non-discretionary “pass/fail” criterion to determine each bidder's compliance with the documents required to be submitted for eligibility and the technical requirements.