

## TERMS OF REFERENCE

### PREVENTIVE MAINTENANCE OF TWO (2) UNITS OF BAGGAGE X-RAY MACHINE (XRC 5030) LOCATED AT THE AYUNTAMIENTO BUILDING FOR C.Y. 2023

BRIEF DESCRIPTION	:	Quarterly Preventive Maintenance of the Two (2) units of XRC 5030 Baggage X-ray Machine located at the ground floor lobby entrance and basement lobby entrance/exit of the Ayuntamiento Building.
DURATION OF CONTRACT	:	July to December 2023 Quarterly Preventive Maintenance
APPROVED BUDGET FOR THE CONTRACT (ABC)	:	Forty Thousand Pesos (PhP40,000.00) (Inclusive of all applicable government taxes)

#### I. SCOPE OF WORK AND SERVICES

##### 1. General Inspection of the X-ray Machine Components and Accessories

###### 1.1. Perform a visual inspection of X-ray Machine components such as:

- 1.1.1. External Uninterruptible Power Supply (UPS),
- 1.1.2. Conveyor Belt,
- 1.1.3. Operation Key Switch,
- 1.1.4. Monitors, Mouse, Keyboard,
- 1.1.5. Advanced Operator Control Panel (if applicable),
- 1.1.6. Indicator Lights, and Emergency Stop Buttons,
- 1.1.7. Entry and Exit Curtains, Entry and exit rollers.

###### 1.2. Conduct Physical Inspection on machine peripherals the

- 1.2.1. Personal Computer,
- 1.2.2. Power Supplies,
- 1.2.3. Internal UPS,
- 1.2.4. Programmable Logic Controller (PLC),
- 1.2.5. Generator Control Switch,
- 1.2.6. X-ray Generator,
- 1.2.7. AOCP Board (if applicable),
- 1.2.8. Internal Sensors,
- 1.2.9. Interlock Switches,
- 1.2.10. Connectors and Cords.

##### 2. Checking of Power Supplies

- 2.1. Measurement of internal and external UPS Voltage Output
- 2.2. Measurement of Power Supply Voltage Input and Voltage Outputs

##### 3. Cleaning and Functional Testing of the following:

- 3.1. Operator Key Switch
- 3.2. Monitor, Mouse, Keyboard and AOCP
- 3.3. Indicator Lights and Emergency Stop Buttons

##### 4. Functional Testing of Programmable Logic Controller (PLC)

4.1. Verification of PLC Output

**5. Cleaning and Functional Testing of Personal Computer (PC)**

5.1. Functional testing of all hardware components, temperature capabilities, XIS Program Version and the image interpretation.

**6. Function Testing and Tuning of X-ray Generator and Linear X-ray Detector Array**

6.1. Adjustment of the KV and mA rating and LXDA alignment if the excitation of the diodes or are weak.

**7. Belt Adjustment**

7.1. Belt adjustments for proper belt tracking.

**8. Overall Cleaning**

**II. PROJECT STANDARDS AND REQUIREMENTS**

- i. The contractor shall not make any changes or alterations to the existing software program, mechanical equipment, circuits, circuit wiring, or sequencing, nor alter the original circuit or wiring design without the prior consent of BTr.
- ii. The Contractor shall ensure that its service technician wears their proper company working uniform equipped with appropriate Personal Protective Equipment (PPE) and identification cards while performing service maintenance and repair works inside the premises of the Ayuntamiento Building.
- iii. The Contractor shall see to it that the area is clean and in its original condition after service maintenance has been made. Any damage/s caused by the Contractor's assigned technician or personnel shall be restored by the Contractor at no additional cost to the BTr.

**III. OTHER RESPONSIBILITIES OF THE SUPPLIER/CONTRACTOR**

- a. The Contractor shall submit the following requirements:
  1. DTI/SEC registration certificate
  2. Mayor's Permit
  3. PhilGEPS Registration Certificate
  4. The Contractor shall submit a written undertaking that they will exercise sufficient supervision and that they have qualified service technician personnel, equipment, and materials to address all of BTr's issues/concerns effectively. Documents indicating the name and designation of their technician shall be submitted to BTr.

**IV. RESERVATION CLAUSE**

The BTr reserves the right to reject documents that do not comply with the requirements, waive any formalities of documents or consider any submission of documents as substantial compliance reject any and all bids; declare a failure of bidding, annul the bidding process, or not to award the contract, without thereby incurring any liability to the affected bidder or bidders or if the funds/allotment for the program/project/activity has been withheld or reduced through no fault of the BTr.

The BTr assumes no responsibility whatsoever to compensate or indemnify bidders for any expenses incurred in the preparation of the bid.

Prepared by:

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