#### **TERMS OF REFERENCE**

#### I. PROJECT TITLE

SUPPLY OF LABOR AND MATERIALS FOR THE REPLACEMENT OF WORN-OUT WATER PUMP AND UNSERVICEABLE COMPRESSOR OF AIR CONDITIONING SYSTEM SERVICING SECOND (2nd) FLOOR QUADRANT B OF PALACIO DEL GOBERNADOR BUILDING.

## II. APPROVED BUDGET FOR THE CONTRACT (ABC)

One Million Pesos (Php 1,000,000.00)

Inclusive of all applicable tax

### III. SCOPE OF SERVICES

- 1. Mobilization of manpower, tools, and equipment.
- 2. Dismantling of the existing dilapidated pump assembly.
- 3. Retrofitting of suction and discharge pipe.
- 4. Retrofitting of a common base frame.
- 5. Installation of a rubber coupling.
- 6. Balancing of the existing motor and the newly installed pump.
- 7. Trimming of pump impeller based on its required Capacity and Total Dynamic Head.
  - Positioning and engineering work of new pump assembly rated 7.5Hp, 440V, 1750 rpm, 3 Phase.
  - Concreting of pump pedestal.
  - Parameter setting of Variable Frequency Drive (Brand: DELTA) Controller to the newly installed pump assembly.
- 8. Dismantling of defective 20TR compressor
  - : SEMI-HERMETIC Compressor "Carrier"

Model: 06E2250311 Serial No: 1979J00027

20Tr, 230/460V, 60Hz, 3 Phase, R22

- Installation of Two (2) new 20Tr Compressor, 460V, 3Ø, 60hz
- Installation and Integration of high and low-pressure switch to VFD Controller
- Flushing of System
- Leak Testing
- Charging of Freon
- Integration of the electrical components for the compressor to the existing Variable Frequency Drives

Brand: Delta

Model: VFD055C43A-21

- 9. Testing and Commissioning.
- 10. Demobilization of tools and equipment.
- 11. Clearing of the working area.
- 12. Contractor to submit Waste Material Report and Warranty Certificate.

## IV. MATERIAL SPECIFICATION

<u>QTY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>
1	Assy	Southern Cross "Sovereign" Centrifugal Pump (Made in Australia conforming to ISO 2858 standard)  Model 80 x 50-200, size 3" x 2" suction and discharge flange ports, end suction, single stage, cast iron enclosed impeller, mechanical seal, stainless steel 431 shaft, grease lubricated ball bearings, all iron construction.
		Capacity       : 200 GPM         Head       : 75 ft         Pump Efficiency       : 72%         Impeller Diameter       : 8.97"         Power Rating       : 7.5HP, 1750 RPM         Suction & Discharge       : 3" x 2"         MODEL       : 80 x 50-200
2	Units	SEMI-HERMETIC Compressor "Carrier"
		Capacity : 20 Tr Voltage : 460 V, 3 Phase Frequency : 60 Hz Refrigerant : R22
2	Units	Emerson Expansion Valve
2	Units	Crankcase oil heater
2	Units	Activated core
2	Units	Filter core
2	Tanks	Flushing Agent 141B Refrigerant
8	Tanks	Freon R22
1	Set	Oxy-fuel (Oxyacetylene) Welding and Cutting
1	Lot	Descaling of 2 units wye Strainers
1	Lot	System Reprocess
1	Lot	Integration of new compressor to its VFD controller including parameter setup and fine tuning

## V. CONTRACT DURATION

The project must be completed within fifteen (15) calendar days from the Purchase Order issuance.

# VI. PROJECT WARRANTY

One (1) year against material defects and faulty workmanship.

# VII. OTHER RESPONSIBILITIES OF THE SUPPLIER/CONTRACTOR

The contractor must have the Certificate of Dealership for the Southern Cross Sovereign Pump and offered Compressor.

### VIII. 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.

Submitted by:

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Chief Treasury Operations Officer II
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