**Annex 4 – Goods and services specification**

**Scope of Work**

The contractor shall make relocate existing HVAC system, construct generator shed, install generator and carryout electrical works for generator to provide back up to the building. The generator is to be located inside the British Embassy compound. The detail BOQ of works are provided below and supporting drawings for same is provided in Annex 5.

The contractor should fabricate all required items in their workshop to minimize disturbance in the British embassy compound.

All works should be carried out following the standards of Nepal Building Code, health and safety standards and COVID-19 protocols of the Government of Nepal.

**Detail of the generator**

Generator Manufacturer: Hokuetsu Industries Co., Ltd.

Model No.: SDG150S-3A6

Generator Output: 124/150 kVA

Voltage: 200/400/220/440 V

Frequency: 50/60 Hz

Net Dry Mass: 2180 kg

Operating: 2430 kg

Current Location: British Embassy Compound

**Brand of Makes/ Manufactures**

The following Brands of the Electrical equipment/Accessories/Materials shall be used under this Project, But the Client/Consultant reserve the rights to approve for all brands with their equivalents (brands/products) as per condition without dominating the intended design concept and calculation. However, items which are not specified in this document should be as per Consultant’s recommendations only.

**SWITCH/SOCKET/RECEPTACLES**

3 pin 13A/3 pin 16 A/Gang Switches SCHNEIDER, CLIPSAL, ABB

RG 6/ RJ 11/RJ 45 outlet SCHNEIDER, CLIPSAL, ABB

Outdoor type weatherproof plugs/sockets SCHNEIDER, LEGRAND

**PANEL BOARD/ DISTRIBUTION BOARD** ABB, Himalaya ENG, Hyonjan

**CIRCUIT BREAKERS** LEGRAND, SCHNEIDER, ABB

**CABLE/WIRE**

U/A, ARM PIONEER, TRISHAKTI, JANTA

Wire (FRLS Multistrand) PIONEER, LITMUS, JANTA

**PVC CONDUIT/ DUCT BOTTOM**

PVC Rigid Conduit LIUTONG/ LEGRAND

PVC Duct Bottom LEGRAND/ PRECISION

Compartmental DLP Trunking LEGRAND/ MK

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Bill of Quantity for Generator Shed** | | | | |
| **Of British Council, Lainchaur, Kathmandu** | | | | |
| **S. No.** | **Description** | **Units** | **Quantity** | **Remarks** | |
| **a. AC and Air Purifier Relocation** | |  |  |  | |
| 1 | Relocation of AC outdoor Unit all works complete including additional pipes and accessories as required | Job | 2.00 |  | |
| 2 | Relocation of Generator to the site | Job | 1.00 | Method statement be submitted and approved prior to work | |
| 3 | Relocation of Air Purifier with additional Duct Pipe all works complete including additional pipes and accessories as required | Job | 1.00 |  | |
| **b. Site mobilisation and temporary works.** | |  |  |  | |
| 1 | Site preparation, secure temporary fencing and safety signs as per specification and instruction of British Council manager | Job | 1.00 |  | |
| **c. Construction of Generator Shed** | |  |  |  | |
| 1 | Excavation Work for Foundation as per Drawing | Cu.Mtr | 5.28 |  | |
| 2 | Providing and Laying Flat Brick Soiling as per Drawing | Cu. Mtr | 1.84 |  | |
| 3 | PCC concrete (1:2:4) Work as per Drawing | Cu. Mtr | 1.83 |  | |
| 4 | Providing and Laying DPC membrane 500 Gauge | Sq. Mtr | 19.38 |  | |
| 5 | Formwork Shuttering for footings and slabs as per drawing | Sq. Mtr | 8.87 |  | |
| 6 | Providing and Laying 12mm Rebar as per Drawing for Slab | Kgs | 190.10 |  | |
| 7 | Providing and Laying 12 mm main Bars for Foundation | Kgs | 40.54 |  | |
| 8 | Providing and Laying 8mm stirrups | Kgs | 35.80 |  | |
| 9 | Providing Binding Wires | Kgs | 3.47 |  | |
| 10 | Providing M20 Concrete (1:1.5:3 RCC slab for Generator base) | Cu. Mtr | 2.84 |  | |
| 11 | Backfilling | Cu. Mtr | 1.00 |  | |
| 12 | Providing and Fixing MS Base plate (200\*200\*8mm) for Post | Nos | 24.00 |  | |
| 13 | Providing and Fixing M20 Bolt For Base Plate | Nos | 24.00 |  | |
| 14 | Providing and Fixing MS SHS Post (75\*75\*3mm) | Kgs | 111.42 |  | |
| 15 | Providing and fixing 8mm Stiffener | Nos | 6.00 |  | |
| 16 | Providing and Fixing MS SHS Rafters(50\*50\*2mm) | Kgs | 36.96 |  | |
| 17 | Providing and Fixing M16 Bolts at Purlins and Cleat | Nos | 30.00 |  | |
| 18 | Providing and Fixing Cleat | Nos | 15.00 |  | |
| 19 | Providing and Fixing MS SHS Purlins(50\*50\*2mm) | Kgs | 92.40 |  | |
| 20 | Providing and Fixing MS SHS Frame (50\*50\*2) | Kgs | 314.16 |  | |
| 21 | Providing 3 mm thick uPVC profile sheet roofing **(*Color Blue or Red*)** as per drawing. | Sq. Mtr | 22.66 |  | |
| 22 | Providing and Installing 10mm Cement Board for Wall | Sq. Mtr | 95.14 |  | |
| 23 | Providing and Installing Glass Wool in between Cement Board 50mm | Sq. Mtr | 95.13 |  | |
| 24 | Providing and Installing Doors of Size (1000\*2100\*70mm) | Nos | 2.00 |  | |
| 25 | Providing and Fixing Windows | Nos | 4.00 |  | |
| 26 | Providing and fixing Flashing | RM | 6.00 |  | |
| 27 | Providing and Applying Polysulphide Sealant | Kgs | 3.00 |  | |
| 28 | Providing and Installing Acoustic False Ceiling | Sq. Mtr | 21.45 |  | |
| 29 | Supply and Install Duct for Exhaust Fan | Job | 1.00 | The exhaust should be raised to a height of 5 m from ground level and directed towards the main road | |
| 30 | Providing and Installing Facia Board 200\*19mm | RM | 12.87 |  | |
| **d. Painting** | |  |  |  | |
| 1 | Providing and Applying Non-Corrosive Paint on Post, Frames, Purlins and Rafters | RM | 282.00 |  | |
| 2 | Providing and applying Painting in Flashing | Sq. Mtr | 0.60 |  | |
| 3 | Providing and applying two coats of Paint with Primer in Cement Board Wall | Sq. Mtr | 61.23 |  | |
| 4 | Providing and applying two coats of Paint with Primer in facia Board | Sq. Mtr | 2.57 |  | |
| 5 | Providing and applying two coats of Paint with Primer in Doors | Sq. Mtr | 8.40 |  | |
| **e. Electrical works** | |  |  |  | |
| 1 | Supply and Installation of SDB-12 with 4\* 16A SP MCB, 1\* 20A RCBO | Nos | 1.00 | BREAKER: SCHNEIDER/ ABB/ LEGRAND | |
| 2 | Supply and Install 200mm Dia Exhaust Fan including switches | Nos | 2.00 |  | |
| 3 | Supply and Install 6/16 A Power Socket | Nos | 2.00 | Brand: Clipsal or equivalent | |
| 4 | IP 20, Indoor ceiling surface mounted with high transmittivity, 230-240V, 12W, 0.052A, 110 Lm/w, 3200-4000 K, 300x300mm including switches | Nos | 2.00 | Brand: PHI`LIPS/ WIPRO/ LEGERO | |
| 5 | Self-contained wall mounted with 1 W LED for non-maintained battery backup emergency lighting for 1 hours duration | Nos | 1.00 |  | |
| 6 | Repair and Install ATS BOX | Job | 1.00 |  | |
| 7 | Supply and Install Light | Nos | 2.00 |  | |
| 8 | Supply and Install Wire of different size and colour as per specification in drawing | Job | 1.00 |  | |
| 9 | Site Clearance dispose of rubbish | Job | 1.00 |  | |
| **f. Miscellaneous works** | |  |  |  | |
| 1 | Adjustment of the existing railing to allow access to the generator shed from British Council and construction of steps as required and as per site instructions. | Job | 1.00 |  | |