

## APPENDIX – 13

### OFFICE ACCOMMODATION, EQUIPMENT AND PERSONNEL

- 1 Accommodation for the Employer & Engineer (earmarked separately) with sufficient natural light & ventilation with the layouts, designs, materials, appliances, personnel etc. shall be approved by Engineer / Employer.
- 1.1 The contractor shall provide the following offices within the time limits specified (Refer Annexure 1C for details of Liquidated Damages, in case of delay beyond the limits):
  - 1.1.1 Project office accommodation of at least 300 sqm (Engineer 150 sqm and Employer 150 sqm), with at least **50%** of specific area should be air-conditioned) for the Employer & Engineer with air-conditioned cabins for senior officials of Employer and Engineer and conference halls, as per the approved drawings. Each Project Office shall have separate areas/buildings ear marked for Employer & Engineer.
  - 1.1.2 Site office accommodation of at least 100 sqm (50 sqm for Engineer and 50 sqm for Employer), with at least 50% of specific area should be air-conditioned) spread across 02 Site Offices for the Employer & Engineer with cabins, as per the approved drawings. Each Site Office shall have separate areas ear marked for Employer & Engineer.
- 1.2 In addition to the above area, covered parking facility shall be provided exclusively for the cars of Employer & Engineer for at least (five) 5 Cars at each Project Office and for at least (two) 2 Cars at each Site Office. There shall be a portico or a basement (basically, a covered area from the location of getting off the car to the entrance of the office), so that officials do not get drenched during heavy rain, while entering the offices.
- 1.3 Deleted.
- 1.4 Small or eensy-weensy, cramped, grungy, shabby, dribbling, shoddy sheds/cabins with temporary/inferior materials / furnishings will not be allowed as project/site offices, even temporarily.
- 1.5 The following specifications shall be followed for various items of the Project / Site office earmarked for Employer/Engineer. All the requirements mentioned above and below are minimum requirements and shall be complied with. These are not exhaustive and any associated specification for any other relevant item can be specified by the Engineer / Employer. Superior specifications / materials than those specified can be used with the approval of Engineer / Employer.
  - I False Ceiling
    - a) GI-powder coated (T & L) grid system and high-density fiber reinforced Cement board of approved brand, texture, colour & quality of size (1200 x 1200) mm, 6mm thick are having density of 1250 Kg / m<sup>3</sup> conforming to ASTM-E84, ISI 14862-2004, respectively.
  - II Doors:
    - a) 2.1 m X 1.2 m Teak wood door - (Main Door); Brass Fittings; PVC Doors or any other approved doors for toilets.
    - b) Doors of approved material shall be provided for the cabins of various senior officials of Employer & Engineer and for the conference hall.
  - III Windows:

- a) UPVC / Aluminum windows 3 track Sliding windows with M.S grill; frames with metal mosquito nets (gap-less) in one track.

IV Tiles:

- a) Vitrified tiles (Scratch Proof) / Wooden flooring of approved brand & quality for office cabins & common rooms; Antiskid tiles of approved brand & quality for the floors of bath rooms.

V Toilets, Plumbing & Sanitary ware:

- a) CPVC pipes for internal work and PVC pipes for outer walls (2.5" PVC pipes).

All Fittings shall be of ISI standard. Ceramic Fittings of approved brand & quality shall be provided for all sanitary ware of washrooms & washbasins. All plumbing fittings, doors, handles etc., shall be of approved brand & quality.

Attached washrooms with one wash basin with pedestal (or wall mounted) and a platform and one wall mounted EWC shall be provided for at least four cabins and for conference hall in each Project Office and for at least two cabins in each Site Office. In addition, at least one common toilet each with at least four urinals for men and at least two EWCs shall be provided near the common area in each Project Office. In addition, one exclusive toilet with one washbasin and one EWC shall be provided for Female staff in each Project Office / Site office. At least one attached washroom with one wash basin and one EWC shall be provided in one cabin in each Site office. At least one common toilet with at least two urinals and at least two EWCs shall be provided in each Site Office. In addition, one separate toilet (outside the building) with one washbasin and at least one IWC shall be provided in each Project Office and each Site Office for assistants, office boys / site attendants, drivers, mechanics, cleaning staff etc. By all means, uninterrupted clean water supply shall be ensured in all these toilets for all the 24 hours till the end of DLP. Hand wash of approved quality shall be available on all wash basins and it shall be recouped as and when required. Hand towels of approved quality and colour shall be available on a towel rod / hanger near all wash basins and the same shall be got washed once in every 2-3 days, depending on the need. They shall be replaced as and when necessary.

All project offices / site offices and their premises and all the toilets (attached, common and outside) shall be maintained in a clean and hygienic condition by deploying dedicated staff for this purpose. The cleaning of all the toilets shall be done frequently (common toilets - once in about 2-3 hours). The exact frequency of cleaning of each toilet will be specified by the Employer based on the need in each Project office / Site office and the same shall be meticulously followed.

All the toilets shall be provided with mosquito nets and efficient & noise-less exhaust fans. The nets shall be periodically checked for any gaps, holes etc., through which mosquitoes can enter and the nets shall be always maintained hole-free and gap-free. The exhaust fans shall be always maintained in proper working condition.

The dimensions of toilets and disposition of openings and fittings shall be at least in accordance with the anthropometric data as per the relevant IS code(s).

VI Electrical Wiring:

- a) Concealed wiring with fire proof cables of IS standard, as directed, with approved materials.

VII Electrical Fittings & Appliances:

- a) Switches, fans, Split type air conditioners of required tonnage (to suit the cabin concerned or the conference hall) and fluorescent ceiling lamps (LED / CFL) of sufficient lumen of approved brand, lumen & quality.
- b) The outer units of split type air conditioners shall be sufficiently away from the cabins or conference halls, as approved by the Employer, so that the noise is not audible to the officials.

VIII Painting

- a) Inside: primer one coat + 2 coats of emulsion paint of approved brand and colour. Outside: 1coat primer + 2 coats of weather proof paint of approved brand and colour.

IX Others:

- a) Overhead water tanks with sufficient Head of water to ensure the required velocity for water supply; Septic tanks / authorised connection to public sewerage system.

X Networking:

- a) Wiring with CAT6E cable or superior, with switches and router connector point as per the approved Plan.

XI Intercom:

A system of intercom telephones, as specified and approved

1.6 The contractor shall provide at least the following furniture / facilities in each project office and site office for the use of Employer and Engineer:

- a) Manager's Premium table approved brand, colour, texture, height & quality: size at least 5'x3' L-table with side cadenza complete with laminate finish - at least 4 nos. in project office and at least 01 no. in each site office.
- b) Executive Tables of approved brand, colour, texture, height & quality: size at least 4'x3' table with side cadenza complete with laminate finish - in least 6 nos. project office and 02 nos. in each Site office.
- c) Conference Tables (20' x 6' approx.) of approved brand, colour, texture, height & quality with conference chairs: for 20 - person seating - 01 no. (in project office).
- d) Workstations of approved brand, colour, texture & quality with partitions up to the approved height: size 4'x 5'. Modular workstations green ply make with merino Laminate and storage cabinets - in least 6 nos. in project office and at least 3 nos. in each site office.
- e) Workstations of approved brand, colour, texture & quality with partitions up to the approved height: Modular size 4'x3' straight workstation with partition and storage. Cabinets under the working counter as per the approved plan-10 nos. (10 nos. in project office).
- f) High back High quality revolving Executive chairs of approved brand, colour, texture & quality with tiltable neck rest and adjustable hand rests (adjustable in 3 dimensions) and with fabric finish - at least 5 nos. in each project office (one for each cabin and one for each conference hall) and at least 01 no. in each site office.
- g) Medium back revolving chairs with hand rests of approved brand, colour & texture and quality with FRP finish- at least 20 nos. in project office and at least 5 nos. in each site office (these include visitor's chairs).
- h) Low back revolving chairs of approved brand and quality with FRP finish - 20 nos. (in Project office).
- i) White magnetic boards and pin boards in each room / work stations, white board with stand & 4 white board markers of approved colours (to be recouped as and when needed) and
- j) one LED TV of approved 65 inch size, brand and quality for projecting the presentations for conference room (for Project Office).
- k) Racks & shelves as per the requirement in all chambers and common area, as approved.
- l) Supplying, erection, testing and commissioning of Off-Line UPS system suitable for operation with all accessories on sufficient power back up (with minimum backup time of 2 hours) including 12 V DC, AH Batteries in polypropylene container for UPS low maintenance tubular batteries, to meet the power load in case of power disruption (for project office). The system should be able to feed the power to all the desktop computers, printers etc. for at least 4 hours continuously.
- m) Split type air-conditioners of approved make and quality - 1.0 Tonne capacity - at least 03 nos. (at least 02 nos. in each project office and at least 01 no. in each Site Office); 1.5 Tonne capacity - at least 04 nos. in each project office for cabins; 2 air conditioners of 1.5 Tonne or required capacity for each Conference hall in each project office.

In addition, the contractor shall provide the following for each Project/Site Office:

- a) Telephones, intercom & High-speed Broad band Connection - 2 Land line connections + 10- line intercom with instruments & Broad Band Connection.
- b) Digital color Photocopy Machine (Up to A3 size)- 01 no. of approved brand & quality.
- c) Refrigerator (290 Litre capacity) - 01 no. of approved brand & quality.
- d) Microwave oven - 01 nos. of approved brand & quality.
- e) Drinking Water Dispenser (Hot, Cold & Normal) - 01 no. of approved brand & quality.
- f) Tea / Coffee Dispenser - 01 no. of approved brand & quality.
- g) Standby DG Power - As required, to run and maintain the office for at least 6 hours.
- h) Safety Helmets, Boots, and any other safety device - as per Requirement to be specified by the Employer / Engineer.

**NOTES:** Though the above requirement of furniture and others is mentioned for each office, Employer may redistribute the total requirement as per the need of each quarter or earlier. Transporting the same from / to each project / site office each quarter or earlier, based on need, forms a part of the scope of the work. The sizes of a few tables, side racks etc. may be more or a little different from the sizes mentioned above, to suit the layout.

In addition to the above, the following furniture, appliances, equipment, and tools are required combined for all the project offices (This is additional requirement for all the offices. The Engineer / Employer may alter the specifications depending on market availability, requirement and other site considerations etc.

- I Filing cabinet (36 lockers unit) - 15 nos
  - II Lockers cabinet (36 lockers unit) - 12 nos.
  - III Steel Cupboard - 12 nos.
  - IV Crockery including cups and saucers - 50 sets.
- 1.7 The contractor is required to maintain the offices till the end of DLP and to provide the following (but not limited to).
- I Timely pay all electricity / phone / water / high-speed Broad band charges (A nominated staff member of the contractor shall take care of timely payment without being reminded).
  - II Timely provide all stationery items and consumables for office use and keep a reserve, as approved (A nominated staff member of the contractor shall take care of them and sure reserve supplies).
  - III Carry out all necessary repairs to office, equipment, appliances, toilet fittings immediately, as and when required, without any delay (A nominated staff member of the contractor shall daily inspect all of them and identify any problem and undertake repairs, even without being told).
  - IV Provide mineral water bottles as per the daily consumption of the staff (A nominated staff member of the contractor shall take care of them and ensure reserve supplies).
  - V Provide tea, coffee, snacks, sanitizers, tissue papers etc., as per the requirement and advice, during meetings/discussions and during late evening/early morning/night working etc. (A nominated staff member of the contractor shall take care of them, without any delay).
  - VI Arrange proper and safe conveyance (through four wheelers engaged for this purpose) to female staff working for Employer/Engineer, whenever the work gets delayed and whenever the situation warrants (as decided by the Engineer/Employer) - (A nominated staff member of the contractor shall take care of them).

- 1.8 Fire extinguishers shall be provided as per the recommendations of the Bengaluru City Fire Brigade
- 1.9 To facilitate coordination for site activities, testing, inspections, liaison with other concerned agencies etc., the contractor shall provide two vehicles of approved (Swift/Etios) make, model and quality along with drivers till the end of the contract period incl extended contract period for the project office and One each for Site office to the Employer.
- 1.10 The contractor shall provide, erect, and maintain appropriate name boards, as specified, with approved materials, for each of the offices and cabins. The material of each name board, font size, font type, spellings etc. on each name board and their locations shall be as approved by the Engineer/ Employer before they are erected.
- 1.11 The contractor shall supply the following personnel within 30 days from the date of issue of LOA for the use of the Engineer/Employer, till the end of DLP (50 % for Engineer and 50% for Employer in proportion)
  - a) Watchmen: Round the clock at Project and Site offices.
  - b) Office Assistant / Secretary: 04 nos.
  - c) CAD Operator / Technical Assistant: 02 nos.
  - d) Computer Programming Assistant: 02 nos.
  - e) Office boy cum Site attendant: 06 nos.

The candidature of all the above personnel shall be as personally approved by the Employer. Any inefficient / problematic personnel shall be replaced forthwith. The qualifications, expertise, allotment of work, working time, shifts, overlap time, grouping, seating arrangement and any other related matter will be as decided by the Engineer/Employer. Proper approved safety equipment shall be provided for the site attendants.

## 2 **Equipment for the use of Engineer and Employer:** Employer will decide the allocation of these equipments.

### 2.1 **The contractor shall provide the following new equipment and software at the Project office as listed and maintain them for the exclusive use of the Employer and the Engineer till the end of DLP. (50 % for Engineer and 50% for Employer in proportion)**

- a) **Desktop Computers / laptops - 06 nos.** of approved brand & quality with cordless keyboards and cordless mice. The computers shall be Intel core i7 or its latest generic descendent or higher, running at the specified and approved clock rate (Hyper technology) with no wait state, If the Central Processing Unit has no floating-point arithmetic capabilities, a math-coprocessor shall be installed.

A minimum of 256 megabytes with software configurable into extended memory and expanded memory. The expanded memory shall be one combo drive (DVD, R / CD RW), (7200 RPM); 22" colour monitor - 04 nos. and 18" colour monitor - 02 nos.

#### b) **Deleted.**

The desktop shall at least have the following specifications:

1. Processor: Intel core i7 or higher, 5.0 GHz (hyper technology) with in-built LAN, Modem, AGP card, Audio Card, and Wi-Fi Internet Card.
  - I Cache Memory: 512 KB L2 cache
  - II Memory: 16GB DDR RAM Expandable up to 32GB

III Hard Disk: 1 TB or at least 500 GB - preferably SSD

IV At least 1920 X 1080 resolution, S3 VIRGE MX 3D Graphics Controller Chip, 64 Bit Graphics Accelerator, Bit BLT hardware.

2. At least 1920 X 1080 resolution, S3 VIRGE MX 3D Graphics Controller Chip, 64 Bit Graphics Accelerator, Bit BLT hardware.
3. Pointing Device: 102 multimedia Keyboard Acu-point Point Device
4. Ports: 1 Parallel, 1 Serial, at least 2 USB Ports, PS / 2 Mouse / Keyboard, SVGA Video Port, Line in Jack, Headphone & External Microphone Jack, 1 Serial Infrared Port, USB port with Wi-Fi LAN.
5. Card Bus: 2 x PCMC1A Slots (Type II) or 1 x PCMC1A Slot (Type III) Card Bus ready.
6. Battery / Power: AC Adaptor / Li-Ion rechargeable battery with built in battery charger & Software Power Management.
7. OS / Software: Pre-installed Windows 11 professional or Mac OS as approved, latest version of MS office, Windows Utilities, Mediamatics Arcade Pak, Diagnostic Utilities, Ring Central, MS Internet Explorer, Norton Anti-Virus, Speech activated typing software, latest version of MS Project / Primavera (as approved), TILOS Linear Scheduling Software.
8. Communication: 56 Kbps Integrated Fax / data Modem with V.90 support; Speakers
9. Application Software:

NOTE: Recoupment of batteries of cordless keyboards and mice, as per the requirement, are included in the scope.

- c) Printers - 06 nos. (A4 size - 04 nos. and A3 size - 02 nos.)

Two printer of A3 & four printers of A4 size shall be Color; Timely replacement of Toners / Cartridges with original ones, as per the consumption pattern.

#### Application software

- I Microsoft office, latest release
  - II A database management package.
  - III Latest licensed version of AUTOCAD Civil 3-D, for 02 users.
  - IV Primavera V. P6-2 licenses (1 Core Module and 1 Web based Module), as approved.
  - V Design software
  - VI Multimedia as approved.
  - VII MIDAS Design software (2Nos)
  - VIII PDF Editor Software (2 Nos)
- d) UPS system with sufficient power backup (with minimum backup time of 2 hrs.) to meet the power load in case of power disruption.
  - e) Surge Protection Devices (one for each computer and printer as given above) Power supply for the systems is to be AC 240 volts, 50 Hz from normal building wiring circuit mains, Power regulator, stabilizer or transformer should be supplied by the contractor for the computer systems such that the systems can function efficiently.
  - f) Four mice with cord (not cordless) for standby purpose.

### 3 Documentation

- 3.1 A complete set of documentation will be supplied with each System. The documentation should be self-tutorial in nature and be readily understood by non-computer personnel.

The following manuals shall be supplied with the system

- a) Manual on how to operate the equipment; and
- b) Manual on how to use the facilities and software provided by the supplier (including languages and utilities).

**4 Auto CAD/BIM Operator/Engineer:**

The contractor shall provide one sufficiently experienced Auto CAD operator/BIM,Engineer with a separate desk top computer, 22" monitor, computer table, computer chair, keyboard, mouse and all other relevant items and software including licensed version of latest Auto CAD/BIM software exclusively for the Project Office till the date of completion of contract or extended completion of contract. This is in addition to the requirement of CAD/BIM operators specified earlier.

