

## **B. TECHNICAL SPECIFICATIONS**

### **1. VITRIFIED TILE FLOORING / SKIRTING:**

#### **1.1 MATERIALS :**

- a) **Vitrified Tiles:** The tiles shall be of approved make and shall generally conform to the approved standards. They shall be flat and true to shape, free from cracks, crazing spots, chipped edges and corners. Unless otherwise specified, the nominal sizes of tiles shall be as under:
- b) The tiles shall be square or rectangular of nominal sizes such as: 600 x 600 mm; 900 x 900 mm or as per tender schedule / drawings or as directed by the Engineer-in-Charge. Thickness shall be as per recommendations of the approved manufacturers. The tiles shall conform to the relevant standards in all respects. Samples of tiles shall be got approved from the Engineer-in-charge before bulk procurement for incorporation in the work
- c) Sub grade concrete or RCC slab or side brick wall / or plastered surfaces on which tiles are to be laid shall be cleaned, wetted and mopped as specified for terrazzo tile flooring.
- d) **Mortar and bedding:** Cement mortar for bedding shall be prepared of mix 1:4 or as specified in the schedule of items, to a consistent paste and shall conform to the specification for materials; preparations etc. as specified under cement mortar. The amount of water added while preparing mortar shall be the minimum necessary to give sufficient plasticity for laying. Care shall be taken in preparation of the mortar to ensure that there are no hard lumps that would interfere with even bedding of the tiles. Before spreading the mortar bed the base shall be cleaned off all dirt, scum or laitance and loose materials and well wetted without forming any pools of water on the surface. The mortar of specified proportion and thickness shall then be evenly and smoothly spread over the base by use of screed battens to proper level or slope.
- e) Once the mix is prepared, no further water be added and the same shall be used within one hour of adding water. Apply on an average 20 mm thick bedding of mortar over an area of 1 sqm. at a time over surface of the area for laying tiles, in proper level and allowed to harden sufficiently to offer a fairly good cushion for the tiles to set.

#### **1.2 LAYING OF TILES FOR FLOORING :**

- f) The tiling work shall be done as per the pattern shown in the drawing or as directed by the Engineer-in-Charge. As a general practice laying of tiles shall be commenced from the centre of the area and advanced towards the walls. Cut tiles, if any, shall be laid along wall with necessary border pattern as shown / directed by the Engineer-in-Charge. Tiling work shall be completed by pressing tiles firmly into place along the wall / floor. A white cement slurry to the back of the tile to be applied to ensure proper and full bedding. The tiles shall be laid on the bedding mortar when it is still plastic but has become sufficiently stiff to offer a fairly firm cushion for the tiles. Tiles, which are fixed on the flooring adjoining the wall, shall be so arranged that the surface on the round edge tiles shall correspond to the skirting or dado. Press gently the tile with wooden mallet for even adherence at the back of the tile. Do not use an iron hammer or some heavy material to press the tile.
- g) The edges of the tiles shall be smeared with neat white cement slurry and fixed in this grout one after the other, each tile being well pressed and gently tapped with a wooden mallet till it is properly bedded and in level with the adjoining tiles. There shall be no hollows in bed or joints. The joints shall be kept as close as possible and in straight line. Unless otherwise specified, joint-less tiling shall be done butting the tiles with each other. If joint is specified, the same shall not exceed 1.00 mm. in width. The joint shall be grouted with white / matching colour cement slurry. After fixing the tiles, finally in an even plane or slope, the flooring shall be covered with wet sand and allowed undisturbed for 14 days.

### 1.3 GROUTING OF JOINTS IN FLOOR / SKIRTING / DADO:

- h) The joints, if specified, shall be cleaned off and all dust and loose particles removed. Joints shall then be filled with approved adhesive grouts. After finishing the grouting process, after 15 minute, wipe off excess grout with a damp sponge and polish the tiles with a soft & dry cloth for a clean surface. The Finished work shall not sound hollow when tapped with a wooden mallet.

### 1.4 MODE OF MEASUREMENT AND RATE:

- i) Dado / flooring / skirting shall be measured in sqm correct to two places of decimal. Length and breadth shall be measured correct to 1 cm. between the exposed surfaces of skirting or dado. No deductions shall be made nor extra paid for any opening of area upto 0.1 sqm. The rate shall include all the cost of labour and materials involved.

## 2.0 BRICK WORKS:

### 2.1 BRICKS

- a. The bricks shall be locally available kiln burnt bricks of generally regular and uniform size, shape & colour, uniformly well burn but not over burnt. The bricks shall be free from cracks, chips, flaws, stones or lumps of any kind and the rating of efflorescence shall not be more than "moderate", when tested as per I.S. 3495 of latest edition. They shall not have any part sunburn. They shall not break even after being dropped on the ground on their flat face in a standard condition from a height of 60 cms.
- b. The size of brick shall normally 250 mm x 125 mm x 75 mm or 230 mm x 115 mm x 65 mm. Bricks of one standard size shall be used on one work unless specially permitted by the Bank/Consultant.
- c. After immersion in water, absorption by weight shall not be exceeding 20% of dry weight of the brick when tested according to IS 1077 of latest edition. Unless otherwise specified the load to crush the brick when tested according to IS 1077 of latest edition shall not be less than 75 Kg/Sq.cm.
- d. Prior approval of Bank/Consultant shall be obtained for the brands of bricks to be used in the work after compliance with the above specifications/tests.

### 2.2 MORTAR

Unless otherwise specified, mortar for brick work shall be composed of 1 part of cement to 6 parts of approved sand for walls of one brick thick (25 cm) and over and one part of cement to 4 parts of approved sand for half brick thick and brick on edge walls.

### 2.3 CONSTRUCTION DETAILS

- a) **Soaking:** All brick shall be immersed in water for 24 hours before being put into work so that they will be saturated and will not absorb water from the mortar.
- b) **Bats:** No bats or cut bricks shall be used in the work unless absolutely necessary around irregular openings or for adjusting the dimensions of different course and for closers, in which case, full bricks shall be laid at corners, the bats being placed on the middle of the courses.
- c) **Laying:** The bricks shall be laid in mortar to line, level and shapes shown on the plan, slightly pressed and thoroughly bedded in mortar and all joints shall be properly flushed and packed with mortar so that they will be completely filled with mortar and no hollows left any where. Bricks shall be handled carefully so as not to damage their edges. They should not also be thrown from any height to the ground T.S. Civil-26 but should be put down gently. All course shall be laid truly horizontal and all vertical joints made truly vertical. Vertical joints on one course and the next below should not come over one another and shall not normally be nearer than quarter of a brick length. For battered faces beading shall be at right angles to the face. Fixtures, plugs, frames etc. if any, shall be built in at place shown in the plans while laying the courses only and not later by

removal of bricks already laid. The top layer of bricks of one or more thick wall coming in contact with R.C.C beam, slab and at window sill level etc shall be laid on edge as per direction.

- d) Care shall be taken during construction to see that edges of bricks at quoins, sills, heads etc. are not damaged
- e) The verticality of the walls and horizontality of the courses shall be checked very often with plumb bob and spirit level respectively. All external wall should have fair face on exterior surface.
- f) **Bond: Unless** otherwise specified, brick work shall be done in English Bond. All walls, coming in contact with reinforced concrete columns, beams etc. should be properly bonded by inserting reinforcements. Extra labour shall be included in the rates (reinforcements will be measured and paid separately against reinforcement item provided in the Schedule of Quantities.
- g) **Joints** shall not exceed 10 mm (about 3/8") in thickness and this thickness shall be uniform through out. The joints shall be raked out not less than 10mm (about 3/18") deep when the mortar is green where pointing is to be done. When the brick surface are to be plastered, the joints shall be raked to a depth of 5 mm when the mortar is green, so as to provide good key to plaster

## 2.4 SCAFFOLDING

The scaffolding must be of approved type strong and rigid stiffened with necessary cross bearers and safe to prevent injury to persons or materials. The contractor shall have to allow other trades to make reasonable use of his scaffolding as directed by the Owner/ Architects. If for the interest of work the contractor have to erect scaffolding in the other properties including local bodies or Corporation, the arrangement for the same including the cost of licensing fees etc. shall have to be borne by the contractor and the Owner should be kept free from any liability on this account. Put log holes shall be made good by bricks to match the face work when put logs are removed after ensuring that the holes behind are solidly filled in with 1:4:8 cement

## 2.5 CURING

All brick works shall be kept well watered for 14 days after laying. While pozzalana cement is used for mortar the curing shall be extended by one week at contractors expense.

## 2.6 HALF BRICK/BRICK ON EDGE WORK

- j) Half brick thick and brick on edge walls, shall be provided H.B. wire netting of approved quality as reinforcements. For half brick thick wall and brick on edge wall H.B. wire netting reinforcements of approved quality shall be provided at every third course and in alternate course respectively according to standard practice.

## 2.7 RATES TO INCLUDE:

Apart from other factors mentioned elsewhere in this contract, the rates for items of brick work shall include for the following:

- a) All labour, materials, use of tools, equipment and other items incidental to the satisfactory completion of brick masonry at all heights and levels.
- b) Erecting and removing of all scaffolding, ladders and plant required for the execution of the work to the height and depths and shapes as shown on the plan or as ordered by the Bank/Consultant including extra labour and materials for using cut bricks in the construction of wall of varying thickness other than one brick, one and half brick, half brick and brick on edge walls as per drawings.
- c) Constructing brick work to lines, levels, batters, pillars, curve, projection, cutting, toothing etc. in strict conformity with the drawings and to any position or shape, to any heights or levels including raking out joints and housing frames, fixtures etc.

- d) Necessary charges of outside scaffolding work for construction of external brickwork from outside to have fair face on exterior surface.
- e) Curing brick work.
- f) Extra labour for bonding brick work to R.C. works as specified.
- g) Removing of all stains and adhering mortar lumps on the brick work surface.
- h) Cost of reinforcement in half brick walls and brick on edge walls.
- i) Raking out joints for receiving plaster as specified.

## 2.8 MEASUREMENTS:

- a) Half brick thick and brick on edge walls shall be measured nett in sq.m unless otherwise mentioned.
- b) One brick wall and thicker walls shall be measured in cum. Brick walls up to and including 3 brick in thickness should be measured in multiples of half bricks which shall be deemed to be inclusive of mortar joints. Widths of more than three bricks in walls will be measured actually and limited to the width specified.

## 3.0 CEMENT PLASTER:

- a) **Preparation of Surface:** The walls to be plastered to have all joints raked out to a depth of 10 mm, if not already done. R.C.C surface shall be properly hacked to get good key to the plaster. All dust and oily matter, if any, shall be brushed and cleaned and surface to be plastered shall be kept wet for 6 hours before plastering is commenced.
- b) **Proportion of Mortar:** The plaster in walls, lintels, columns, ceiling, ceiling beams, projected slabs, rails, chajja, marquise, domes etc. shall be done with sand cement mortar in the proportion as described in the Schedule of Quantities). No more cement mortar shall be prepared than that can be used within half an hours.
- c) **Application of Plaster:** The mortar shall be applied evenly with force on the surface to be plastered. The mortar surface shall be finished at once by being rubbed over with a trowel till the cement appears on the surface. All corners, angles and junctions shall be truly vertical and horizontal as the case may be, carefully and neatly finished. Rounding of corners and junctions where required shall be done without extra charge. The mortar shall adhere to the surface intimately when set and there should be no hollow sound when struck.
- d) When neat cement finish is specified over the plaster surface, a coat of pure Portland cement slurry, 1.5 mm thick shall be applied and well rubbed to the plaster surface while the plaster surface is still fresh.
- e) When no finish is specified, the plastered surface shall be rubbed well to an even plane with a wooden float for external surface and finished smooth with a steel trowel for internal surface.
- f) **Rates to include :** Apart from other factors mentioned elsewhere in the contract rates for the item of plaster shall include for the following :-
  - a) Erecting, dismantling and removing the scaffolding.
  - b) Preparing the surface to receive the plaster.
  - c) Providing cement plaster of the specified average thickness.
  - d) All labour, materials, use of tools and equipment to complete the plastering as per specification.
  - e) Curing for 7 days.

- f) Any molding work if shown on the drawings or as specified unless separately provided in the tender
  - g) Labour for plastering the surface in two operations when thickness of plaster is more than 12 mm thick.
  - h) Plaster work in bends, arises, rounded angles, fair edges, narrow returns, quirks 'V' joints, splays, drip mouldings, making good to metal frame junctions with skirting of dados narrow width and small quantities, making good round pipes, conduits, timbers, sills, brackets, railings, etc and making good after all the sub-contractors or nominated sub-contractors have done their work
  - i) Neat cement finish when specified in the item.
- g) Mode of Measurement** Plaster shall be measured nett in square metre. The measurement of wall plastering shall be not taken between the walls or partitions (the dimensions before plastering shall be taken) for the length and from the top of floor or skirting depending upon the situation to the ceiling for the height after making deductions for openings.

#### 4. PAINTING:

- a) Material:** Ready mixed oil paints and primer, in general shall be of approved quality, color and shall manufactured by ICI, Berger Paints (India) Ltd, Asian Paints Ltd. These materials shall be in sealed tins and shall be opened in the presence of the Bank/Consultant at site.
- b) Preparation of Surface**
  - i) Iron and Steel works:** Surface to be painted shall be thoroughly cleaned, sand papered and/or rubbed with emery cloth, if necessary, to remove grease, mortar or any other foreign materials. In case of rusted surface, it shall be first cleaned with wire brushes till the corroded rust is removed. the prepared surface shall be shiny and free from brush marks, patches, blisters and other irregularities. The surface thus finished shall be got approved for painting.
  - ii) Wood Work:** All surfaces to be painted shall be thoroughly cleaned sand papered and removed of all foreign materials. In case of surfaces having knotted and nail holes, this shall be filled with knotting and stopping materials. The knotting materials shall consist of pure shellac dissolved in methylated spirit. Stopping materials shall consist of putty. The surface thus treated shall be allowed to dry and then sand papered smooth.
- c) Application** After preparing the surface, a primer coat shall be applied. The primer coat shall be ready mix of approved make and manufacturer. After the primer coat is applied and perfectly dried, all holes, cracks, etc. which shall remain, shall be T.S. Civil-41 filled in with putty and the surface sand papered smooth. Then a second coat of paint of approved shade and manufacturers shall be evenly applied and allowed to dry. The third coat shall be carefully applied to achieve smooth and even surface after the previous coat has dried up. Minimum 3 coats of paint shall be applied inclusive of a primer coat. If a proper and even surface is not obtained to the satisfaction of the Bank/Consultant in 3 coats, contractor shall carry out additional coats of painting to approval, at contractor's expenses. Care shall be taken that dust or other foreign materials do not settle or otherwise disfigure the various coats.
- d) Rates to include :** Apart from other factors mentioned elsewhere in this contract, the rate for the item of painting shall include for the following :-
  - 1) All labour, materials equipment necessary to carry out the work.
  - 2) Supplying the approved paint for priming and finishing coats.
  - 3) Preparing the surface including knotting and stopping for receiving the priming and finishing coats.
  - 4) Scaffolding including its erection and dismantling.
  - 5) Application of atleast one primer coat and two coats of finishing for wood work and atleast two finishing coats for steel work unless otherwise specified. If a proper and even surface is not obtained to the satisfaction of the Bank/Consultant, contractor shall carryout additional coats of painting to approval at contractor's expense.
  - 6) Protection to painted surface till dried and handed over.

e) **Mode of Measurement**

Painting to wood work and steel shall be measured separately In SqMtr as prescribed in IS codes.

## 5. R.C.C Work: As per IS 456-2000

### I) Specification Guide for Execution of Interior Work

1. **MODULAR GRID CEILING:** Providing & Fixing of modular grid ceiling at all heights of 600X600X15 mm of Armstrong Mineral Fibre Acoustical Suspended Ceiling System/Any equivalent Make with (MICRO LOOK) EDGE TILES PRODUCT CODE H-1893M WITH ARMSTRONG SILHOUETTE B/R (black Reveal) EXPOSED GRID.

The tiles should have Humidity Resistance (RH) of 99%, NRC 0.50, Light Reflectance >85%, Thermal Conductivity  $k = 0.052-0.057w/mK$ , Colour White, Fire Performance Class 0/Class 1 (BS - 476) in module size of 600mm x 600mm x 15mm with Bio Block coating on the face of the tile, suitable for Green Building application, with Recycled content of 58%.

The tile shall be laid on Armstrong Silhouette profile grid system with 15mm white flanges incorporating a 6mm central reveal in black colour and with a web height of 38mm and a load carrying capacity of minimum 15 Kgs/M<sup>2</sup>. Silhouette, Main Runners & Cross Tees to have mitred ends & "birdsmouth" notches to provide mitred cruciform junctions. The T Sections have a Galvanizing of 120 grams per M<sup>2</sup> & passed through 500 hrs of Salt test.

The Tile & Grid system used together should carry a 15 year warrantee.

**INSTALLATION:** To comprise main runner spaced at 1200mm centre securely fixed to the structural soffit using Armstrong suspension system (specifications below) at 1200mm maximum centre & not more than 150mm from spliced joints. The First/Last Armstrong suspension system at the end of each main runner should not be greater than 600mm from the adjacent wall.

1200mm long cross tees to be interlocked between main runners at 600mm centre to form 1200 x 600 mm module. Cut cross tees longer than 600mm require independent support. 600 x 600mm modules to be formed by fitting 600mm long cross tees centrally between the 1200 mm cross tees. The 1200mm cross tees to have central "birdsmouth" notches to facilitate fitting of 600mm cross tees. Perimeter trim to be Armstrong shadow wall molding (dimensions: 19x7x7x14mm), secured to walls at 450 mm maximum centers.

**ARMSTRONG/ Equivalent SUSPENSION SYSTEM** accessories manufactured and supplied by Armstrong World Industries consisting of M6 Anchor Fasteners with Vertical Hangers made of Galvanised steel of size 26 x 26 x 25 x 1.2mm with a Galvanised Thickness of 80gsm, A pre Straightened Hanger wire of dia – 2.68 mm of 1.83 m length., thickness of 80gsm and a tensile strength of 344-413 MPa, along with Adjustable hook clips of 0.8mm thick, galvanised spring steel for 2.68 mm with a minimum pull strength of 110 kg. The adjustable clip also consists of a 3.5 mm aquiline wire to be used with the main runner.

**RATE:** Rate shall be include all the items mentioned above/elsewhere in the contract including all labour, material, equipments & the hardware as required in complete all respect as per drawing as directed. The area of the ceiling where full tile size light fixture are installed, will not be deducted from the total quantity executed , however the cost of tiles where the full tile size



fitting are installed will be deducted as per the market rate.

**The work shall be executed through authorized applicator of Approved Make. The contractor has to submit the certificate from the company for the use of Approved Make Sections & boards along with the final bill**

**Plain Gypsum board false ceiling:**

2. **Basic Frame Work:** Providing and fixing in position dropped ceiling in two levels including vertical surfaces in between two level of ceiling surface by using standard company sections (Gypsteel Ultra) which includes providing & fixing g.i. perimeter channels of size 0.5 mm thick having one flange of 20 mm & another flange of nylon sleeves & screws , at 610 mm centers, then suspending g.i. intermediate channels of size 45 mm ,0.9 mm thick with two flanges of 15 mm each from soffit at 1220 mm centers with ceiling angle of width 25mm X10 mm X 0.5 mm thick fixed to the soffit with g.i. cleat & steel expansion fastener ceiling section of 0.5 mm thickness having knurled web of 51.5 mm & two flanges of 26 mm each with lips of 10.5 mm area then fixed to the intermediate channel with the help of connecting clips & in direction perpendicular to the intermediate channel at 457 mm c/c.

**Finished:** 12.5 mm tapered edged gyp board ( confirming to IS-2095-2011) is then screw fix to ceiling section with 25 mm drywall screws at 230 mm centers, screw fixing done mechanically either with screwdriver or drilling machine with suitable attachment .

Standard company manufactured sections (Gypsteel Ultra) should be used for the entire framework .Finally the board of size 6'X4' are to be jointed and finished so as to have a flush look which includes filling and finishing the tapered and square edges of the boards with jointing compound, paper tape only as per recommended practices of **Saint-Gobin Gyproc India Ltd.**

**General Note for the Item Rate Include:** the job include applying two or more coats of acrylic emulsion paint in the standard procedure of the painting job as per the shade & finished suggested by the EIC. The cutouts for variety of light fixture & other equipments etc & the same have to be made with the frame of perimeter channels of size 20 mm X 27 mm X 30 mm X 0.5 mm thick supported suitably, no extra will be paid for this . Edge bid has to be used to protect the exposed gypsum core i.e. cut edges of opening for light fixtures. The square edge joint shall be filled with jointing compound & paper tape, additional g.i. or c.p. teak wood support shall be provided for fixing of variety of light fixtures, a.c. continues grill ,diffusers etc.

All section visible from a.c grill shall be painted in black colour. The final visible plan & elevation area will be considered for the measurement purposed. The work shall be executed through authorized applicator of **Saint-Gobin Gyproc India Ltd.**

**The contractor has to submit the certificate from the Gypsum India for the use of company sections (all) & boards along with the final bill. The contractor must get the worked checked from the company's representative – on one completion of the ceiling & second on completion of boarding before putting top coat. The work includes to the shape areas & also the coves as per the lay out & shall be measured in Sqmtr. only.**

**S.W.O CASH/TELLER COUNTER:**

**Basic Structure:** Made out of 19mm thk. ISI marked phenol bonded BWP b/board on vertical sides as well as horizontal top surfaces having work top 900mm deep, 750mm height from FFL. Each counter unit is approximately of 1500mm long divided with vertical separator having 1 no.

3. drawer unit. The work top is to be fabricated out of 19 mm thick BWP block board up to 700 mm depth to the front, and thereafter, a **double layer of flexi-ply (12 mm + 6 mm thick)**, curved downwards with a turning radius of 75 mm & stiffened properly to the front modesty panel with appropriate wooden sections, is to be fixed with necessary fittings to the block board in order to have a projection of 200 mm towards customer side beyond the front glass. The front modesty panel is to be made out of 19 mm BWP block board. Also, a 25 mm X 25 mm groove at a height of 375 mm from FFL along the length of the front modesty panel is to be provided to facilitate fixing of LED light. **DETAIL As per Drawing below.**

**Drawer unit:** Below the Working Counter there shall be a pedestal unit made up of 12 mm ply from sides & 6 mm ply from base which **consisting of one tea tray & two drawers, the top would be of 200 mm depth & the other of remaining depth. All drawers are to be fitted with sliding telescopic channels, where the slides are to be fitted with multi-latch of approved make. The drawers are to be provided with auto locks of approved make & powder-coated "D" handles. Also, the bottom of the drawer unit is to be fixed to a 75 mm X 37.5 mm teak wood framework with polished finishing. Inside surface of the drawers is to be painted with synthetic enamel paint of approved make up to matt finishing.**

**General:** Each counter shall be provided with one keyboard M S tray provided with telescopic channel, CPU Trolley of InnoFit or any other approved make, PVC wire manager system with necessary cut outs in the structure & A full length foot rest made up of hard wood 3"X1.5" section shall be provided at 4" above F.L.

**Finishes:** The entire work station shall be **1 mm bi-colour laminate** Finish on horizontal & vertical surfaces in two colour combination of **Approved Make** on all open external sides. It will be in balancing laminate on internal surfaces including drawers. All Non laminate surface of counter, pedestal is finished with smooth matching melamine polish. All free edges of block board and ply duly finished with teak wood beading / lipping as directed.

**Rate:** Rate shall be include all the items mentioned above/elsewhere in the contract including all labour, material, equipments & the hardware as required in complete all respect as per drawing as directed.

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FURNITURE 1. Table top, side credenza top, storage top, ledge for laptop top 18mm plywood, 6mm MDF above plywood finished with minimum 6mm thick Polyurethane coating. The curve to be 1"X 1" corner moulding of CP teakwood. Make- Asian Paints/Berger or approved equivalent. 2. Table, side credenza, storage front, back & sides 1mm thick White Pure Core laminate- Suede finish. Reference image Blue colour matching SBI's logo colour Model no.G324/1324- Super White PC- Aica STEPS OF PU COATING 1. Sanding of 18mm thk. plywood and applying epoxy on the surface. 2. After epoxy coating, Sand silicate has to be applied and then apply filler coat on the surface. 3. After applying the filler, use the sanding machine for proper base preparation and then 1st coat of Polyurethane has to spray. 4. After 1st coat, touch ups have to be done wherever required and then apply second coat with spray. 5. After touch ups Final coat of PU with spray has to be applied on the surface with proper line cutting and finishing. Table top detail

**BRANCH MANAGER TABLE/STAFF TABLE, LOW HT PARTITION AND WALL PANELLING WITH Laminate Finish. DRAWING OF 3D IMAGE SHALL BE PROVIDED WITH SPEC . VENDOR HAS TO STRICTLY COMPLY AND EXECUTE THE SAME .**



4.

**5.FREE STANDING TABLE: ( In case of Carpentry Work)**

**Basic Structure:** Fabricated out of 19mm BWP b/board with Tea Tray & drawer unit on one side & Side credenza on the other side of the table. The Table shall be made of 19mm BWP grade b/board front top sides & front modesty panel with dove-tail jointed junctions. The modesty panel is to be fixed to the bottom of work top block board 150 mm behind the front edge. A glazing is to be done on the modesty panel fascia with 12 mm thick machine polished transparent toughened glass, fixed with continuous polished white beech wood beading as per design. The glass is to be set in the modesty panel from a height of 200 mm up to 650 mm from FFL. **DETAIL AS PER ABOVE DRAWING.**

**Drawer unit:** Each table shall be provided with a drawer unit of 21" deep 16" wide comprising of 1 no. tea tray, **2 numbers of sliding drawers each of 150 mm depth and one deep drawer of remaining depth after leaving 3 inch skirting from bottom floor level fitted with full panel telescopic drawer slides of Approved Make with** individual locking system, powder coated "D" handle. A wooden member of size of 2 ½"X3/4" shall be fixed between each drawer. Inside surface of drawer unit should be painted with matt finished synthetic enamel paint.

**General:** Each counter shall be provided with one keyboard M S tray provided with telescopic channel, CPU Trolley of Innofit or any other approved make, PVC wire manager system with necessary cut outs in the structure & A full length foot rest made up of hard wood 3"X1.5" section shall be provided at 4" above floor level.

**Finishes:** The work top is to be finished with [12 mm thick solid surface material], or, [1.5 mm thick high gloss laminate], or, [4 mm thick teak wood veneer with high gloss Polyurethane coating] of approved shade & make on the surface, as directed. It will be in balancing laminate on internal surfaces including drawers. All Non laminate surface of counter, pedestal is finished with smooth matching melamine polish. All free edges of block board and ply duly finished with teak wood beading / lipping as directed.

**Rate:** Rate shall be include all the items mentioned above/elsewhere in the contract including all labour, material, equipments & the hardware as required in complete all respect as per drawing as directed.

**Full height solid/glazed partition (64mm thickness):**

**Basic Structure:** It shall be made from internal frame of size 50mm x 50 mm x 1.6 mm hollow aluminum square tube placed 600mm c/c both vertically and horizontally, fixed by means of aluminum angle of 25x25X25 mm size for proper fixity. The Entire Aluminum frame work shall be covered with 6 mm thick ply on both sides. All open sides of the frame work shall be covered with 12mm thick ply to cover the entire thickness of partition. The upper portion of the partitions will have 6/8 mm thick clear glass required as per size of glass, fixed with 10 mm thick (F.S) wooden molding with suggested grooves to cover the full thickness of partition .The lower

portion of partition up to 3ft will have internal frame work as detail in above. The same shall be then covered by 6 mm thick ply panels to get flush type partition. A wooden beading of 2 ½"X1/2" shall be provided as all open thickness of the partition for door opening & fixing of glass. The hinge side aluminum frame shall be fixed with wooden section. In case of solid partition, the entire surface will be finished with opaque finished with play & laminate excluding the glass with same section as mentioned here.

**General:** All the gaps either vertical or horizontal shall be filled properly with ideal material. All the vertical members of the partitions shall be carefully inserted/fixing in the floor (without damaging the floors) & also shall be fixed to the structural ceiling for proper strength. Necessary provision shall be made in the partition for Electrical Conduits, switch boards, ac drain lines & ac's etc as required. The common member of partition & frame of door will be consider in the item of partitions .**Only below the ceiling area will be consider for measurement purpose, however the partitions shall be raised 3" above the false ceiling level for fixity for the ceiling & also all vertical member shall be taken up to the slab/beam bottom.**

**Finishes:** All the external ply wood components shall be finished with 1 mm thick laminate in two color combination laminate finish of approved shade on both sides & also thickness of the partition. All external wooden members shall be melamine matt polish finish.

**Rate:** Rate shall be include all the items mentioned above/elsewhere in the contract including all labour, material, equipments & the hardware as required in complete all respect as per drawing as directed.

#### **Low height solid/glazed partition (64mm thickness):**

**Basic Structure:** It shall be made from internal frame of size 50mm x 25 mm x 1.6 mm hollow aluminum square tube placed 600mm c/c both vertically and horizontally, fixed by means of aluminum angle of 25x25X25 mm size for proper fixity. The Entire Aluminum frame work shall be covered with 6 mm thick ply on both sides. All open sides of the frame work shall be covered with 12mm thick ply to cover the entire thickness of partition. The upper portion of the partitions above 3' level have 12 mm thick clear glass with all open edge polished & necessary cutouts as directed, fixed with glass bracket. In case of solid partition, the entire surface will be finished with opaque finished with play & laminate excluding the glass with same section as mentioned here.

**General:** All the gaps either vertical or horizontal shall be filled properly with ideal material. All the vertical members of the partitions shall be carefully inserted/fixing in the floor (without damaging the floors) for proper strength. Necessary provision shall be made in the partition for Electrical Conduits, switch boards, ac drain lines & ac's etc as required. The common member of partition & frame of door will be considered in the item of partitions. To the shape on site measurement will be considered. The partitions will have a cutout in glass for tray for voucher movement between counter.

**Finishes:** All the external ply wood components shall be finished with 1 mm thick laminate in two color combination laminate finish of approved shade on both sides & also thickness of the partition. All external wooden members shall be melamine matt polish finish.

**Rate:** Rate shall be include all the items mentioned above/elsewhere in the contract including all labour, material, equipments & the hardware as required in complete all respect as per drawing as directed.

#### **8.Storage Cabinets/credenza: General Purpose of Various sizes & heights as directed**

**a) Filling cabinets With Sliding Shutter:** It shall be made of 19 mm thick board on all five sides while back surface shall be made of 6 mm ply. The storage space will be separated by 19 mm

block board at suitable location so that each block will be 500 to 750 mm equal parts. The sliding shutter shall be provided with Godrej lock, Ebco/Hettich to be fitted for bottom running sliding doors side line 56 without silent system assembly & handle of standard quality to be flush with ply/blockboard. The exposed surface shall be laminate with 1 mm thick laminate of approved colour. The inside surface shall be finished with putty & enamel paint over a coat of primer. The bottom of the cabinet is to be fixed to a 3" x 1.5" teak wood framework polish finished & free edges of block board shall have polished teak wood half round moulds out of 20X20 mm section.

**Rate:** Quoted rates shall include cost of all material, labour & necessary hardware viz. handles, locks with key in duplicate, approved sliding channel of Ebco make/Equivalent etc complete in all respects.

**b) Filling cabinets With openable shutter : Low height/Full height as per drawing:**

Providing and placing in position Storage units fabricated out of 19mm thick BWP block board on all sides, backing and separators will be of 6mm thick BWP ply, shelves will be of 19mm thick BWP solid ply. There will be 19mm thk. Ply shutters of full length with powder coating louvers matching with the color of the laminate for air circulation fixed with Auto- hinges at approx. 3ft. The top, sides, shutter front and back sides (if exposed) to be finished with 1mm thick bi-colour laminate with necessary grooves and the exposed edges of block board should be finished with 6mm t.w. lipping. There should also be a 75 x 12 mm t.w. skirting with grooves as per design polished in matching tone. Inside of the unit will be painted with putty & synthetic enamel paint over a coat of approved primer.

**Rate:** Quoted rates shall include cost of all material, labour & necessary hardware viz. handles, Multipurpose locks with key in duplicate, S.S hinges, magnetic catches, D" type steel matt finish metal handles etc complete in all respects.

**9. Column/Wall Paneling: Basic Structure:** Providing & Fixing of wall paneling/column encasing for all heights by putting Aluminum Frame work of size 37.5X25X1.2 mm thick at suggested interval ,fixed with 1"X1"X1" Al. angle for proper fixity (not more than 2ft on both direction, covered with 6mm thick ply fixed on entire frame work .the paneling should have necessary cutouts for electrical conduit/switch boards/boxes. The entire paneling shall be constructed in complete line & level by putting necessary packing as per the site condition.

**6. For Wall/Column veneer** paneling with 37.5 mm x 25 mm x 1.5mm hollow aluminum square tube frame work placed at 450mm / 600 mm c/c as per site condition screwed to the wall and finished with 4mm veneer of approved shade & brand duly polished over 12 mm BWR ply complete.

**Finishes:** All the external plywood components of entire paneling shall be finished with 1mm thick 2 color combination laminate finish. Skirting of 100mm high x 12 mm thick polished Teak wood or steam beech wood skirting with NC lacquer in Matt finish. For veneer paneling

**Rates:** Quoted rates shall include all necessary materials, accessories and labour and also allow provisions for electrical/telephone/computer wiring conduits & switch boxes etc. complete with necessary jacking /thickening of panels to accommodate conduits/ switch box etc as directed.

**10. System Table In Server Room:** The unit will be a running table made of 19mm thick block board/plywood of sides & top, back out of 6mm BWP ply having width 750 mm (w) x750mm (h). At each 1000 to 1200mm length, the unit shall have one tea tray & one drawer and one cupboard provided with telescopic channel. Measurement shall be in running meter length. Necessary vertical support (19mm block board/ply) shall be provided for drawers as specified

elsewhere in the tender.

**General/Finishes:** There should be provision for 2 numbers keyboard & cable manager system with necessary cutouts in top surface. The entire counter type workstation shall be 1 mm thick laminate finish of 2 color combination on external sides & in balancing laminate finish on internal surface including the drawers. All free edges should be beaded properly & members shall be melamine matt polish finish.

**Rate:** Rate shall include all the items mentioned above/elsewhere in the contract including all labour, material, equipments & the hardware as required in complete all respect as per drawing as directed.

**11.Side unit/credenza:**

The side unit shall be made of 19mm thick BWP grade block board for sides, top, bottom, divider shelf back with 6 mm BWR ply. The unit is having the size of 400mm x 750mm & approximate length of 1 mtr. Consisting of 1 no. of drawer & cupboard of length 21" & rest will be made as shelf with an intermediate 19 mm block board at center. All exposed portions like top, side & shutter to be finished with 1mm thick decorative laminate & inner surface with mat finished enamel paint. The rate also inclusive of all approved fittings like lock, handle, hinges & telescopic channels etc complete in all respects as directed.

**7. Flush Door:**

It shall be made from 35 mm thick factory made shutter of Century/Mayor / Mars /approved ISI consisting of solid core block of board bonded with phenol phormaldehyde synthetic resin conforming to IS: 848 and finished on both faces with teakwood veneering of 3.5 mm thick, including providing and fixing 'T' type second class teakwood perimeter beading fixed by means of approved quality neoprene based adhesive and nailing @ 300 mm max.

In case of Glazed Door, the same will be made of with above specification with 8 mm thick float glass from 3ft finished floor level up to 6" below the door pasted with etching as per design & finished with 1.0mm thk. Approved Colour laminate sheet of approved make on both sides.

General: the door shall be fixed with all necessary hardware fittings such as 125mm long S.S. butt hinges [for each shutter] (vertical spacing not exceeding 600mm), door stopper, 6lever Godrej Mortise door lock finishing etc. all conforming to IS : 2202. All free edges shall be duly polished with 3 coats of lacquer melamine and fixed to the partition frame.

**Rate:** Rate shall include all the items mentioned above/elsewhere in the contract including all labour, material, equipments & the hardware as required in complete all respect as per drawing as directed.

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**I) List of Approved Brand and/or Manufacturer for Interior Furnishing Work.**

SR. NO.	Description	Name of the manufacturer
1	a) Locks b) Floor Spring, patch Fittings c) door closer/stoper	<b>Godrej</b> /Ebco/Hettich EVERITE,, Dorma/ Godrej/ Door set/ebco/Ozone SS mat finished-push type only
2.	Night Latch	Godrej/Doorset of S.S brush Finished
3.	Glazing	TATA, Modi Guard or Saintgobain
4.	Ply wood /B. Board All <b>BWP/BWR</b> Grade Confirming	<b>Century/ Green or equivalent as</b> approved by Bank's engineer.
5	Laminate-1/1.25mm thickness	Century/Formica/Greenlam Any Eq. As approved.
6.	Flush Door (B.W.P.)	Mayur/Green/Century
6.	<b>Teak Wood Veneer (Natural)</b>	Century/ Green/Any Equivalent As Approved by EIC
7.	Mineral fiber board ceiling	<b>Armstrong /USG</b>
8.	Gyp board False ceiling	<b>India Gypsum Ltd./USG</b>
9	Handles, tower bolts, Drawer slide channels Telescopic,	Ebco/Hettich /Innofit
10	M S Key board tray without mouse	Ebco/Hettich/Innofit /Featherlite
11	Vertical blinds	Vista/Mac
12	CPU Trolley	Ebco/hettich/Innofit/Featherlite
13	Modular items like chairs, storage units, drawer units	Featherlite/Godrej/Wipro
14.	Chemical Adhesive	Pidlite/Quickfix/ Latticrete
15.	Motorized/ Manually Operated Blind	Vista Levolor/ MAC/ Hunter Douglass
16.	Aluminum Composite Panel	Aludecor /Alex /Alubond or Alstrong
17.	Adhesive	Fevicol / Aralditeicol / Araldite.
18.	Vinyl Flooring	Regent Winner/Armstrong
19.	Aluminum Tubular Section:	Minimum 1.5 mm thick of Jindal/Hindalco/Indal(2"X1"/1"X1")
20.	Melamine	Asian Paint, Shalimar, ICI
<b>21.</b>	<b>Solid Surface ( 100 % Acrylic)</b>	<b>Corian ( M/S Dupont)/ Equivalent as approved by EIC.</b>

**ii) List of Approved Brand and/or Manufacturer Civil Work.**

1	GI Pipes	TATA( Medium)
2.a	Oil & cement paints All type	Berger /Asian /Dulox /ICICI
b	Wall Putty	Birla White/ J.K white
3.	Glazing	TATA, Modi Guard or Saintgobain

4	Cement	JK. Ultratecg, Acc/Lafarge
5	Sand/aggregates	Locally available good quality sand & hard aggregates approved by EIC
6	Ceramic tiles	Johnson / Somany/ Nitco
7	<b>Double glazed vitrified tiles</b>	<b>Kajaria/ somany/Nitco</b>
8.	Texture Paint	Berger /Asian /Dulox/Nerolac
9.	Vertical Blinds	Vista Levolor/ MAC
10	Reinforcement	SAIL/TATA/Jindal Steel

**Bidders are advised to quote their rates after due consideration of the following pertinent:**

- Bank reserve the right to **insist on selection of material**, workmanship, detailing & finishes, which they consider as appropriate & suitable for intended use. The contractor is not eligible for extra on this account.
- Bank will require the contractor to **produce samples of all materials**, accessories & finished prior to use in the site. There by submitting the list of selected material approved by Bank's Engineer from the sample & then after the material can brought to site for carry out the work. Failure to comply with these instructions will result in rejection of work. Whenever decorative ply wood veneer/ Laminate are specified, it must be ensured that the specified veneer or laminate shall be matching veneer/laminate as directed. The grains of veneer & the colors of laminate are as per the approved shade. Bank have right to reject if above specification is not adhered to. Whenever polishing is specified, it should be high quality melamine finished sprayed or hand applied to high gloss or matt as directed at site & strictly be carried out as per Manufactured specification
- The dimensions provided in the drawing as well as in schedule are likely vary slightly according to the size available in the premise are where they are to provided or placed. Bank has the right to slightly modify the dimensions of items to suit the site & no claim therefore shall be made by the contractor.
- In all cases of measurement will be made on net items as supplied & installed in site. Wherever areas are furnished in square meter for items, such as carpet, vertical blinds, curtains etc, payment will be made on actual area laid to suit the shape & size of the room. The tenderer should note that all cutting wastages ,stitching ,jointing & several special features such as pleats ,overlap ,hem etc shall be absorbed by them within the quoted rates & no separate payment will be made for above & similar items. The partitions will be measured in visible area (below false ceiling portion) however the supported frame should be provided & anchored in to the ceiling. The frames shall be covered with 6 mm thick plywood above false ceiling within the quoted rate.



- The successful tenderer shall make cut-outs for tube light, spotlights, duct doors for specified size, grill etc in the false ceiling including providing additional supports around the cut-outs & also support from the support from the ceiling within the quoted price. Actual "seen" surface plan area & vertical will be measured & paid for. The cut-out area each more than 0.5 Sqmtr will be deducted from the actual "seen" plan area measurement.
- The successful tenderer shall provide brass oxidized hardware fittings of approved quality having ISI marked as listed above. Samples of all hardware fittings shall be got approved by Bank Engineer well in time, before procurement
- The successful tenderer should arrange labour accommodations outside the premises at his own cost
- The work has to be carried out in phases without disturbing in banking hall. Necessary barricading of the area of the work from the rest area shall have to arrange by the contractor at no extra cost. In addition to this necessary shifting of minor goods as required during progress of work such as table, almirah, files etc shall be taken care by the contractor within his quoted rates.
- At the time of handing over the site, if any scratches or decoration of above specified material as used is being observed, then Bank shall have the right to insist application of another coat or replacement of the material as required
- The challan of the materials or the invoice or the certificate from concerned companies will be required to be submitted if demanded by bank's engineer at the time of submission of the final bill. If the approved brands mentioned as mentioned in the item are not available or requisite shade/ quality is not available, other brand as approved by the Bank's Engineer only to be used for the work. Decision of bank's engineer shall be final and binding on the contract.

#### **Declaration**

I/We confirm that we shall certify the material from Bank's engineer/Architect prior to use in site as per the above list. I/we hereby accord our unqualified consent & agreement to the said conditions.

Place:

Date:

Signature of Contractor

#### **E.SPECIAL CONDITION OF CONTRACT**

1. **Setting out the work:** The contractor shall set out the work and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, and alignment of all parts thereof and get it approved by the consultant/ Bank's Engineer before proceeding with the work. If at any time any error in this respect shall appear during the progress



of the works, irrespective of the fact that the layout had been approved by the consultant/ Bank's Engineer the contractor shall be responsible for the same and shall at his own expenses rectify such error, if so, required to satisfaction of the SBI.

2. **Protection of works and property:** The contractor shall continuously maintain adequate protection, of all his work from damage and shall protect the SBI's properties from injury or loss arising in connection with contract. He shall make good any such damage, injury, loss due to his fault or negligence except which are due to causes beyond his control.
3. **Inspection of Work:** The Bank's Engineer/Consultant or their representatives shall at all reasonable time have free access to the work site and/or to the workshop, factories or other places where materials are lying or from where they are obtained and the contractor shall give every facility for inspection and examination and test of the materials and workmanship.
4. **Quality of Materials, Workmanship & Test:** All materials and workmanship shall be best of the respective kinds described in the contract and in accordance with Bank's Engineer/Consultant instructions and shall be subject from time to time to such tests as the Bank's Engineer/Consultant may direct at the place of manufacture or fabrication or on the site or an approved testing laboratory. The contractor shall provide such assistance, instruments, machinery, labour and materials as are normally required for examining measuring sampling and testing any material or part of the work before/after incorporation in the work for testing as may be selected and required by the Architect/Consultant.
5. **Obtaining Information related to execution of work:** No claim by the contractor for additional payment shall be entertained which is consequent upon failure on his part to obtain correct information as to any matter affecting the execution of the work nor any misunderstanding or the obtaining incorrect information or the failure to obtain correct information relieve him from any risks or from the entire responsibility for the fulfillment of contract.
6. **Works to be measured:** The Bank's Engineer/Consultant may from time to time intimate to the contractor that he required the work to be measured and the contractor shall forthwith attend or send a qualified representative to assist the them in taking such measurements and calculation and to furnish all particulars or to give all assistance required by any of them. The contractor or his authorized representative shall sign all the pages of the measurement book in which the measurements have been recorded in token of his acceptance All authorized extra work, omissions and all variations made shall be included in such measurements.
7. **Bill Submission Format:** The bill shall be as per tender specification as detailed below along with Detail Measurement Sheet. Bill will not be accepted if detail calculation sheet of the quantity executed at site is not being attached. If required then the contractor may be ask to submit the Manufacturing certificate in due course of bill checking period

Sl.N o	Description	Unit	Ted rate	Ten qty	Act qty (L/B/D)	Ted amount	Act amount

## **PREAMBLE TO BILL OF QUANTITIES**

Bidders are advised to quote their rates after due consideration of the following pertinent:

- Actual site conditions including working time that would be available to them as per standing rules
- Material access regulations of the building including permission of use of lifts and stairways
- Temporary storage provision of disposable materials arising out of the work
- Security measures and permissions required to be observed and obtained in consultation with the representatives of the landlords and act strictly according to the same.
- Traffic regulations of the City Police in order to organize trouble free access of materials
- The work has to be executed in close and effective co-ordination with other executing agencies who shall be working simultaneously
- Any other governing issue or issues likely to have impact on the productions rate and cost of work
- The variation or modification of the work or the addition or omission or substitution of any part of the works.
  
- All measurements shall be in metric system. All the works in progress shall be jointly measured by the authorized agent of Contractor & EIC. Such measurements shall be got recorded in the measurement book by the EIC or his authorized representative and signed in token of acceptance by the contractor or his authorized representative.
  
- No work will be paid for unless found satisfactory and carried out strictly in accordance with the Specifications by the Company and certified by the Engineer to such effect.
- The Contractor shall be solely and exclusively liable and responsible for compliance with all existing applicable safety laws, rules and regulations, the safety of workmen
- In the event that the Contractor's performance is found to be unsatisfactory, the company shall reserve the right to terminate the order merely by giving a minimum notice of 7 (seven) days. The assessment of the Company about the performance is final and is binding on both the parties. The Contractor shall also hand over to Company all documents & drawings pertaining to the project.