

**Name of work: S.R. to Various category (B, C, D, D-1, E, E-1 & E-2 Type) quarters and Govt. Bungalows at Shahibaug and Meghaninagar, Ahmedabad under City (R&B) Division, Ahmedabad. (Repairing and Renovation works of Quarters and bungalows by plaster work, Door - window Work, Toilet repairing work, Colour work, Fabrication Work, Paver Block & other misc. work)**

## **SPECIFICATION**

**ITEM No.1 Removing and scrapping of old deteriorated plaster of any thickness from masonry / R.C.C member including stacking of serviceable material and disposal of unserviceable from site of work with all lead and lift.**

Removing and scrapping of old deteriorated, damaged, loose, bulged or defective plaster of any thickness from masonry surfaces, reinforced cement concrete members, ceilings, walls, columns, beams and other structural components shall be carried out carefully by manual means or approved mechanical tools without causing damage to the underlying surface. The exposed masonry or concrete surface shall be thoroughly cleaned of all loose mortar, dust, dirt and debris after removal of plaster. Serviceable materials obtained during the operation shall be stacked neatly at locations directed by the Engineer-in-Charge, while all unserviceable materials, rubbish and debris shall be collected, loaded, transported and disposed of outside the site at approved locations. The item shall include all labour, tools and plants, scaffolding, staging, safety precautions, loading, unloading, transportation, leads and lifts, and all incidental charges required for complete execution of the work. The rate shall be deemed to include making good the surface ready for subsequent repair or replastering work, complete as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of plaster surface actually removed.

**ITEM No.8 Dismantling sanitary fittings like wash-basin W.C. pan Indian and european type, flushing tank etc. incl. stacking the materials with all lead and lift.**

Dismantling of existing sanitary fittings such as wash basins, water closet (W.C.) pans of Indian or European type, flushing cisterns/tanks, urinals, sinks and other sanitary fixtures shall be carried out carefully without causing damage to the fittings intended for reuse and without affecting adjacent structures, finishes or services. The work shall include disconnecting all necessary water supply and waste connections, removing fixing accessories, brackets, supports and associated fittings wherever required. Serviceable materials obtained from dismantling shall be carefully cleaned and stacked at locations as directed by the Engineer-in-Charge, while unserviceable materials and debris shall be removed from the site and disposed of as approved. The item shall include all labour, tools and plants, scaffolding, loading, unloading, stacking, transportation, and disposal of dismantled materials with all leads and lifts complete, as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.)

**ITEM No.11 Cleaning grass and removal of the rubbish upto a distance of 50 m out side the periphery of the area cleared.**

Cleaning of the site by cutting, uprooting and removing grass, weeds, shrubs and other unwanted vegetation from the specified area shall be carried out thoroughly to obtain a clean and neat surface. The work shall include collection of all grass, roots, rubbish, refuse, debris and other waste

materials arising from the cleaning operation and their removal to a distance not exceeding 50 metres outside the periphery of the area cleared, or to a location as directed by the Engineer-in-Charge. The item shall include all labour, tools and equipment required for cutting, uprooting, gathering, loading, transporting, unloading and disposal of the removed materials, complete in all respects and as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of area cleaned.

**ITEM No.16 Providing and laying concrete 1:2:4 ( 1 cement :2 coarse Sand: 4 Graded Stone Aggregate 20 mm nominal size) in proper gradient on terrace slab as directed by Engineer-in-charge to have proper slope for draining rain water including finishing top with floating coat of neat cement**

Providing and laying cement concrete in proportion 1:2:4 (one part cement, two parts coarse sand and four parts graded stone aggregate of 20 mm nominal size) on terrace slabs to the required thickness and in proper line, level and gradient so as to provide an effective slope for drainage of rainwater. The work shall include preparation and cleaning of the existing surface, laying, compacting, ramming, curing and finishing the concrete complete. The top surface shall be finished smooth with a floating coat of neat cement to obtain an even and dense finish. The concrete shall be laid to the required falls, ensuring proper flow of rainwater towards rainwater outlets and spouts, complete in all respects and as directed by the Engineer-in-Charge. The rate shall include the cost of all materials, labour, tools and plants, scaffolding, curing and all incidental works necessary for satisfactory completion of the item.

**Unit of Measurement:** Cubic Metre (m<sup>3</sup>)

**ITEM No.18 Providing and filling of non structural cracks by exposing the line of crack as per actual requirements at site and removing all the loose material , dirt etc. from the crack by brush. The crack shall be made moist by applying water in the groove by brush. The same groove shall be filled with ready mixed paste" POLYFILL-AR" of Sunanda Speciality Coatings Pvt. Ltd. crack-X of Dr.Fixit or Equivalent and making good the walls as per manufacturer specification and as required by the Engineer-in-charge.**

Providing and filling non-structural cracks in masonry, plastered surfaces or concrete members by exposing and opening the cracks to the required width and depth as per actual site conditions. The work shall include removal of all loose, damaged and unsound material, dust, dirt and foreign matter from the crack by brushing, scraping and cleaning to obtain a sound surface. The prepared crack groove shall be thoroughly wetted with clean water using a brush and allowed to reach a surface saturated condition. The groove shall then be filled with ready-mixed crack filling compound such as "POLYFILL-AR" of Sunanda Speciality Coatings Pvt. Ltd., "Crack-X" of Dr. Fixit or other approved equivalent product, strictly in accordance with the manufacturer's specifications and recommendations. The filling material shall be properly pressed into the crack to ensure complete filling and good adhesion, and the surface shall be finished flush with the adjoining area to provide a uniform appearance. The item shall include all materials, labour, tools and plants, surface preparation, cleaning, application, curing wherever required, and making good the repaired surfaces complete in all respects as directed and approved by the Engineer-in-Charge.

**Unit of Measurement:** Running Metre (Rm) for cracks

**ITEM No.19 CHIPPING EXIST CONC.FROM RCC MEMBER Surface of member should be checked for sounding using hammer. The damaged/ delaminated portion will sound hollow. The same should be marked to regular geometrical shapes. The edges should be grooved using slim and powerful 850W (230V) corded angle grinder about 25 mm deep.**

**Grinder to have no load speed of 11500 rpm with on / off side switch and for use of cutting disc upto 100 mm. Concrete within the grooved area should be removed using High performance chipper hammer featuring low weight & low vibration having single impact energy of 7.5 J, full hammering frequency of 3180 impacts/minute, maximum chiselling performance of 900 cm<sup>3</sup>/min, weighted emission sound pressure level of 94 dB (A) according to EN 60745, Triaxial vibration for chiseling in concrete 12.1m/s<sup>2</sup> according to 60745-2-6 and having weight according to EPTA procedure 01/2003 of 5.6 Kgs.**

Chipping and removal of damaged, loose, deteriorated or delaminated concrete from reinforced cement concrete (R.C.C.) members such as beams, columns, slabs, chajjas and other structural elements shall be carried out after identifying the unsound concrete by sounding the surface with a hammer. Areas exhibiting hollow sound indicative of delamination or distress shall be marked and cut into regular geometrical shapes to facilitate proper repair. The perimeter of the marked area shall be grooved to a depth of approximately 25 mm using a suitable angle grinder or equivalent approved equipment to obtain neat and straight edges. The defective concrete within the grooved area shall then be carefully removed by chipping with approved light-weight chipping hammers or equivalent mechanical tools, ensuring that sound concrete is not damaged and that existing reinforcement bars remain intact. Chipping shall continue until sound, dense and hard concrete is exposed throughout the repair area. All loose material, dust and debris generated during the operation shall be removed and the exposed surface thoroughly cleaned and prepared for subsequent repair works. The item shall include all labour, tools and plants, equipment, power consumption, scaffolding, safety measures, collection and disposal of debris, and all incidental operations necessary for completion of the work as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of concrete surface chipped and prepared

**ITEM No.20 P/A STEEL PROTECTIVE COATING : Providing and Applying Steel protective coating: The exposed and cleaned reinforcement bars shall be applied with a single component cementitious corrosion inhibiting primer which shall be applied on the surface using suitable brush. Product: Mucis Protozione Ferro Mono of Thermax (Area of Concrete treated with polymer modified mortar shall be measured for payment please)**

Providing and applying steel protective coating to exposed reinforcement bars after completion of concrete chipping and thorough cleaning of the steel surface. The reinforcement shall be cleaned of all rust, mill scale, corrosion products, dust, oil, grease and other deleterious materials by approved mechanical means to expose bright metal surface. The cleaned reinforcement bars shall then be coated with a single-component cementitious corrosion-inhibiting primer such as “Mucis Protozione Ferro Mono” of Thermax or approved equivalent, applied uniformly by brush in accordance with the manufacturer’s specifications and recommendations. The coating shall completely cover the exposed surface of reinforcement bars and shall be allowed to cure and dry adequately before application of repair mortar. The work shall include surface preparation, cleaning, supply and application of primer, labour, tools, plants, scaffolding, safety measures and all incidental operations necessary for satisfactory completion of the work as directed by the Engineer-in-Charge. Measurement for payment shall be based on the area of concrete surface subsequently treated with polymer modified repair mortar and not on the actual surface area of reinforcement coated.

**Unit of Measurement:** Square Metre (m<sup>2</sup>)

**ITEM No.21 P/A ANTI CORROSIVE RUST REMOVER ON REINFORCEMENT :** Providing and applying anti corrosive rust remover "Rusticide" of M/S Sunanda speciality coating pvt Ltd or equivalent approved including cleaning the reinforcement bars with wire brush or air blowing including removing of all loose particle with applying rust remover thoroughly on reinforcement bars by using cotton waste swab etc. comp. with all the required tools, tackles, labourers as required and as directed by the Engineer in charge. (Area of Concrete treated with poymer modified mortar shall be measured for payment please)

Providing and applying anti-corrosive rust remover treatment to exposed reinforcement bars of reinforced cement concrete members after completion of chipping and cleaning operations. The reinforcement bars shall be thoroughly cleaned by wire brushing, scraping, air blowing or other approved mechanical methods to remove loose rust, scale, dust and other foreign matter. An approved rust remover such as "Rusticide" of Sunanda Speciality Coatings Pvt. Ltd. or equivalent approved product shall then be applied uniformly over the exposed reinforcement bars using cotton waste swabs, brushes or other suitable means in accordance with the manufacturer's specifications and recommendations. The treatment shall be carried out to ensure effective removal and neutralization of corrosion products and preparation of the steel surface for subsequent application of protective coatings and repair mortars. The item shall include all materials, labour, tools, tackles, equipment, scaffolding, safety measures and incidental operations required for satisfactory completion of the work as directed by the Engineer-in-Charge. Measurement for payment shall be based on the area of concrete surface subsequently treated with polymer modified repair mortar and not on the actual surface area of reinforcement bars treated.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of concrete surface treated with polymer modified repair mortar.

**ITEM No.22 Bonding Coat:-** Providing and applying bond coat on the prepared surface to receive new polymer mortar / polymer modified concrete, with application of bonding coat of slurry made of Polyalk EP of M/S Sunanda Speciality Coating Private Ltd or of equivalent approved brand and manufacture in the weight proportion of 1 :2 (1 cement : 2 Polyalk EP) or / Lanco 751 of Parex Chemicals or Krishna Conchem as per manufactures specification over the cleaned and dried old concrete surface in one full coat. Laying of reinforcement polymer mortar or micro concrete shall be completed within the overlay time of bonding coat. This coat act as bonding agent between old and new concrete and also acts as 'barrier coat' to the migration of chloride ions from host concrete. Item rate is inclusive of the materials all labour, scaffolding, supervision, tools and tackles and transportation etc. complete as per specification and as directed. To ensure proper bonding between old and new concrete application of bonding coat of slurry made of Polyalk EP of M/S Sunanda Speciality Coating Private Ltd or of equivalent approved brand and manufacture in the weight proportion of 1 :2 (1 Cement : 2 Polyalk EP ) or Lanco 751 of Parex Chemical as per manufactures specification over the cleaned and dried old concrete surface .

Providing and applying a bonding coat on the prepared and cleaned concrete surface prior to application of polymer modified repair mortar, polymer mortar or micro-concrete. The existing concrete surface shall be thoroughly cleaned and dried, free from dust, laitance, loose particles, oil, grease and other deleterious materials. The bonding coat shall consist of a slurry prepared using Polyalk EP of Sunanda Speciality Coatings Pvt. Ltd., Lanco 751 of Parex Chemicals,

Krishna Conchem product, or other approved equivalent, mixed with cement in the proportion recommended by the manufacturer, generally in the weight ratio of 1 part cement to 2 parts polymer. The slurry shall be mixed to a uniform consistency and applied evenly over the prepared concrete surface in one continuous coat using brushes or other approved methods strictly in accordance with the manufacturer's specifications. Application of polymer modified repair mortar, polymer mortar or micro-concrete shall be carried out while the bonding coat remains tacky and within the permissible overlay time recommended by the manufacturer to ensure monolithic bonding between old and new concrete. The bonding coat shall act as an effective bonding agent and barrier coat against the migration of chloride ions from the host concrete. The item shall include all materials, labour, mixing, application, scaffolding, supervision, tools, tackles, transportation and all incidental operations necessary for complete execution of the work as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of surface treated with bonding coat.

**ITEM No.23 P&A POLYMER MODIFIED CEMENT MORTAR : Applying Corrosion Resistance single Component, polymer modified cement mortar to patch up the damaged concrete section in planks of upto 25mm thickness. Providing and applying Corrosion Resistance Single Component, polymer modified, fiber reinforced cementitious repair mortar having water powder ratio in the range of 0.16 and the mixed density of around 2.05 - 2.20 Gms/cc. The repair mortar shall achieve a minimum compressive strength of 45 MPa @ 28 days when tested as per ASTM C-109 and a flexural strength of 7 MPa when tested as per ASTM C 348. It shall achieve a minimum Adhesion Bond Strength of 2 MPa when tested on Standard Elcometer as per ASTM D 4541 - 85. The modulus of Elasticity shall be a minimum of 28 kN/mm<sup>2</sup> when tested as per BS 1881. Product: corrosion resistance single Component, polymer modified, fibre reinforced cementitious of M/s. Fosroc (Renderoc SP-40), Parex (Lanko-731).**

Providing and applying corrosion-resistant single component, polymer modified, fibre reinforced cementitious repair mortar to repair and rebuild damaged or deteriorated concrete sections in patches of up to 25 mm thickness. The work shall be carried out on properly prepared surfaces, which shall be cleaned, free from dust, laitance, oil, grease, loose particles and all deleterious materials, and shall be treated with an approved bonding coat prior to application of repair mortar.

The repair mortar shall be a factory pre-packed, single component, polymer modified, fibre reinforced cementitious material such as “Renderoc SP-40” of M/s Fosroc, “Lanko 731” of Parex, or other approved equivalent, mixed with clean water in the recommended water–powder ratio (typically around 0.16) to achieve a workable consistency. The material shall have a mixed density of approximately 2.05–2.20 g/cc and shall conform to the following minimum performance requirements: compressive strength of 45 MPa at 28 days as per ASTM C109, flexural strength of 7 MPa as per ASTM C348, adhesion bond strength of minimum 2 MPa as per ASTM D4541, and modulus of elasticity not less than 28 kN/mm<sup>2</sup> as per BS 1881.

The mortar shall be applied in layers or patches not exceeding 25 mm thickness per application, ensuring proper compaction and full contact with the prepared substrate. Subsequent layers, if required, shall be applied after initial setting of the previous layer as per manufacturer’s recommendations. The surface shall be finished to match the surrounding profile and cured properly to ensure durability and performance.

The item shall include all materials, labour, mixing, surface preparation, bonding coat application, application of repair mortar, finishing, curing, scaffolding, tools, tackles, supervision,

transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of repaired concrete surface.

**ITEM No.24 Extra for additional thickness of Polymer Modified Mortar over and above 25 mm thickness upto 50mm thickness (A) Additional thickness of 15 mm or part thereof.**

Extra for providing and applying additional thickness of polymer modified cement mortar over and above the base thickness of 25 mm and up to 50 mm thickness, in patches as required at site and as directed by the Engineer-in-Charge. The additional work shall be carried out using the same approved corrosion-resistant, single component, polymer modified, fibre reinforced cementitious repair mortar as specified in the base item, applied over properly prepared and bonded substrate surface treated with approved bonding coat. The additional mortar shall be applied in successive layers if required, ensuring proper compaction, bonding, and integration with the previously applied layer without any cold joints or discontinuity. Each additional layer shall be applied only after adequate setting of the previous layer in accordance with manufacturer's recommendations. The work shall include all materials, labour, tools and plants, surface preparation, application of bonding coat wherever required, mixing, placing, finishing, curing, scaffolding and all incidental operations necessary for proper execution and durability of the repair. Payment for additional thickness shall be made for every additional 15 mm thickness or part thereof over and above 25 mm, as specified in the BOQ.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) for each additional 15 mm thickness or part thereof.

**ITEM No.25 Drilling hole of required diameter and depth as directed for fixing of Rebars using hammer drill.Cleaning the hole using mechanical air blower, water jetting etc.Providing & fixing rebar in the drilled hole using approved make Chemical grout and sealant with necessary scaffolding , staging, labour , tools , and equipments etc. complete and the work shall be carried out by the technical workmens/agency approved by the manufacturer and under technical supervision of Manufacturer of Injection grout.etc. complete as directed by Engineer-in-charge. 8 & 10 mm. dia.bar -Depth 100 mm**

Drilling holes of required diameter and specified depth in reinforced cement concrete or masonry members for fixing reinforcement bars shall be carried out using approved hammer drill machines without causing damage to the surrounding concrete. For 8 mm and 10 mm diameter reinforcement bars, holes shall be drilled to a depth of 100 mm or as directed by the Engineer-in-Charge. The drilled holes shall then be thoroughly cleaned using mechanical air blowers, water jetting or other approved methods to remove all dust, loose particles, drilling slurry and foreign matter to ensure proper bonding.

Reinforcement bars of specified diameter shall then be inserted and fixed in the cleaned holes using approved make chemical grout/anchoring adhesive system as per manufacturer's specifications. The chemical grout shall be injected or applied in the drilled hole to ensure complete filling and proper bonding between the reinforcement bar and the parent concrete. The work shall be executed by trained and experienced workmen or agency approved by the manufacturer, under the technical supervision of the manufacturer of the injection grout system, wherever required.

The item shall include all materials, labour, drilling equipment, air compressors, cleaning arrangements, chemical grout, sealants, scaffolding, staging, tools, tackles, transportation and all incidental operations necessary for proper completion of the work as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of drilled and fixed rebar as per specified diameter and depth.

**ITEM No.27 Providing and executing injection / pressure grouting in cracks in the parent concrete/brick work or in honeycomb area by fixing-up PVC or metallic grout-nozzles on line of crack in concrete/ masonry at a distance not exceeding 300mm injecting with the help of grout-pump working at a pressure of 3.00 kg/cm<sup>2</sup>, Pressure grouting to be done using low viscous 2 component epoxy grout injection material " Lanco 721 " of Parexgroup, "Conbextra EP 10 ( M )" of Fosroc, " Concreseive 1315" of BASF or equivalent make shall be done in a sequence starting from lowest grout-hole and proceeding to the next upper one, sealing the grout nozzles temporarily, on the next day repeating the grout sequence once more before cutting and sealing the nozzles permanently. Finally patching up the plaster with cement mortar (1: 3).**

Providing and executing injection / pressure grouting in cracks of parent concrete, brickwork or honeycombed areas by fixing PVC or metallic grout nipples/nozzles along the line of cracks at spacing not exceeding 300 mm, or as directed by the Engineer-in-Charge. The surface shall be prepared by cleaning, sealing and fixing of grout nipples using approved sealing compound to ensure leak-proof injection points.

Grouting shall be carried out using a low-viscosity, two-component epoxy crack injection material such as "Lanco 721" of Parexgroup, "Conbextra EP 10 (M)" of Fosroc, "Concreseive 1315" of BASF, or other approved equivalent, injected with the help of a mechanical grout pump operating at a pressure of approximately 3.00 kg/cm<sup>2</sup> or as directed at site. The grouting shall be carried out in a systematic sequence starting from the lowest injection point and progressing upwards to ensure complete filling of cracks and voids. After initial injection, the grout nipples shall be temporarily sealed and the injection sequence shall be repeated on the following day to ensure full penetration and effectiveness of grouting.

Upon completion of grouting, the nipples/nozzles shall be cut and sealed permanently, and the surface shall be made good with cement mortar in proportion 1:3, including finishing to match the surrounding surface. The item shall include all materials, labour, tools and plants, injection equipment, scaffolding, sealing compounds, cleaning arrangements, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Running Metre (Rm) of crack treated or as specified in the BOQ.

**ITEM No.28 Providing and fixing temporary engineered steel tubular standard double scaffolding system on the exterior side for the height upto 15.00 metre and maintaining it in a serviceable condition for the required duration as approved and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connection with the building etc with suitable working platform at required locations with essential safety features for the workmen etc, complete as per direction and approval of Engineer-in-charge. For the vertical surface treatment elevational area of the scaffolding shall be measured and for horizontal surface plan area of scaffolding shall be measured for payment purpose .**

Providing, erecting and fixing temporary engineered steel tubular double scaffolding system on the exterior side of building structures for heights up to 15.00 metres, including all necessary standards, ledgers, bracings, runners, couplers and connections with the building to ensure adequate rigidity, stability and safety. The scaffolding shall be properly stiffened and secured to the structure at suitable intervals and shall include provision of safe working platforms at required

locations with planks, guard rails, toe boards and all essential safety features for workmen as per statutory safety requirements and directions of the Engineer-in-Charge. The scaffolding shall be maintained in a serviceable and safe condition for the entire duration of use and shall be dismantled and removed from the site upon completion of work. The item shall include all materials, labour, transportation, erection, maintenance, shifting, dismantling and all incidental works complete as directed by the Engineer-in-Charge. Measurement for payment shall be made on the basis of elevation area of scaffolding for vertical surfaces and plan area for horizontal surfaces, as specified in the BOQ.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of scaffolding area (elevation or plan as applicable).

**ITEM No.29 Providing and fixing chicken wiremesh jali on brick, concrete wall as directed and instructed by Engineer-in charge**

Providing and fixing chicken wire mesh (galvanized wire mesh/jali) on brick masonry, concrete surfaces or RCC members as required at site and as directed by the Engineer-in-Charge. The surface shall be properly cleaned, free from dust, loose particles, oil and grease before fixing the mesh. The chicken mesh shall be cut to required size, stretched properly and fixed firmly to the surface using approved fasteners such as nails, screws, GI binding wire, washers or suitable anchoring system, ensuring uniform tightness without sagging or wrinkles. Overlapping of mesh joints shall be provided where necessary and properly tied to ensure continuity. The work shall include all materials, labour, scaffolding, tools and plants, fixing accessories, wastage, transportation and all incidental works required for proper execution of the item as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of chicken wire mesh fixed.

**ITEM No.30 Excavation for foundation up to 1.5 m depth including sorting out and stacking of useful materials and disposing off the excavated stuff upto 50 Meter lead.(A) Loose or soft soil**

Excavation for foundation up to 1.50 m depth in loose or soft soil, including setting out of works, clearing of site, and excavation to the required lines, levels, widths and depths as shown in drawings or as directed by the Engineer-in-Charge. The work shall include trimming and dressing of sides and bottom of excavation, and removal of all excavated material. Useful or serviceable materials obtained during excavation, if any, shall be properly sorted out and stacked at designated locations as directed. Unserviceable excavated material shall be disposed of within a lead of 50 metres or as specified, including loading, unloading, transportation and leveling of disposal site. The item shall include all labour, tools and plants, dewatering if required, shoring, strutting, safety measures and all incidental operations necessary for complete execution of the work as directed by the Engineer-in-Charge.

**Unit of Measurement:** Cubic Metre (m<sup>3</sup>) of excavated volume.

**ITEM No.37 Providing and fixing granite slab of 18mm thickness for stone jamb on wall, framing etc. on the base of cement mortar 1:3 (1-cement : 3-sand) on new surface or fixing on existing location by adhesive material including dismantling of existing location and jointed with color cement slurry including finished with flush pointing & cleaning the surface etc. To be laid or fixed as per the direction of the Engineer-in-Charge**

Providing and fixing machine cut and polished granite slab of 18 mm thickness for stone jambs on walls, framing and other locations as required, including cutting to required size and shape, edge finishing, and fixing in position on cement mortar bedding of proportion 1:3 (1 cement : 3 sand) on new surfaces or by using approved adhesive on existing surfaces. The work shall also include dismantling of existing stone/finish where required, proper surface preparation, levelling and

alignment, and fixing the granite slabs true to line, level and plumb as per drawings or as directed by the Engineer-in-Charge. Joints shall be properly filled with matching coloured cement slurry and finished with flush pointing to provide a neat and uniform appearance. The surface shall be thoroughly cleaned after completion of work. The item shall include all materials, labour, tools and plants, scaffolding, cutting, polishing, transportation, wastage, adhesive, cement mortar, pointing, curing and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of granite slab fixed.

**ITEM No.39 Three Track Window: Providing and fixing Domal Series Three Track aluminium window system, partly fixed and partly sliding type, fabricated from colour anodized aluminium sections comprising outer frame section of size 82.5 × 35 × 1.7 mm, three-track top and bottom section of size 80 × 45 × 1.5 mm and sliding shutter section of size 65 × 27 × 1.5 mm complete with provision of sliding mosquito mesh shutter using powder coated aluminium frame and fibre/glass mesh. The glazing shall consist of ordinary quality 6 mm thick glass fixed with EPDM/rubber gaskets, glazing clips and interlocking clips of approved size. The item includes rollers, bearings, locks, handles, nylon wheels, screws, sealant and all hardware accessories complete with fabrication, installation, alignment, sealing and finishing in true line and level as approved by Engineer-in-Charge.**

Providing and fixing Domal series three-track aluminium window system of approved make, comprising partly fixed and partly sliding shutters, fabricated from colour anodized aluminium extruded sections conforming to specified design requirements. The outer frame shall be of size 82.5 × 35 × 1.7 mm, three-track top and bottom sections shall be of size 80 × 45 × 1.5 mm, and sliding shutter sections shall be of size 65 × 27 × 1.5 mm, or equivalent approved sections, including necessary strengthening and assembly.

The system shall include provision for sliding mosquito mesh shutter fabricated from powder coated aluminium frame with fibre/glass mesh of approved quality, operating smoothly in independent tracks. Glazing shall be provided with 6 mm thick ordinary quality glass fixed using EPDM/rubber gaskets, glazing beads, clips and interlocking arrangements of approved size to ensure proper sealing and weather tightness. The work shall include all necessary hardware such as rollers, nylon wheels, bearings, locks, handles, screws, sealants and other accessories required for smooth and durable operation.

The item shall include fabrication, transportation, hoisting, installation, alignment, levelling, fixing in position, sealing, finishing and cleaning, ensuring proper workmanship, smooth sliding operation and weather resistance as per manufacturer's specifications and as directed by the Engineer-in-Charge. All labour, materials, tools and plants, wastage, scaffolding and incidental works required for complete execution shall be included in the rate.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of window area (overall frame size).

**ITEM No.40 Providing and fixing 25 mm th. Shutters for windows & cleastory window inc. Indian teak wood frames 12 cm x 7 cm, size incl. anodised alluminium fixtures and fastenings iel. primer coat of approved quality & two couets of painting etc. complete (II) Fully Glazed.**

Providing and fixing 25 mm thick fully glazed shutters for windows and clerestory windows, including well-seasoned Indian teak wood frame members of size 12 cm × 7 cm, accurately cut, jointed and assembled to form rigid and true shutters as per required size and design. The work shall include providing and fixing anodized aluminium fixtures and fastenings of approved quality such as hinges, tower bolts, handles, screws and other necessary hardware for smooth operation and durability. The shutters shall be properly glazed with glass of approved quality, fixed securely with beading and glazing materials to ensure tight and weather-resistant installation. The woodwork shall be treated with a primer coat of approved quality and finished with two coats of approved paint of specified shade, properly sanded between coats to achieve a smooth and uniform

finish. The item shall include all materials, labour, tools and plants, fabrication, glazing, fixing, finishing, transportation, scaffolding and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of shutter area.

**ITEM No.42 Providing and fixing PPGL Profile sheet having minimum thickness of 0.45 mm and having traditional naliya type design with fixing base MS Plate having minimum 1 mm thickness as per instruction and fixing on fabricated structure (Generally chajjas) with bolts or screws as per situation with necessary washer in given size and slope incl covering joints and ridge line with overlapping etc complete at any height or level.**

Providing and fixing PPGL profiled sheet roofing of minimum 0.45 mm thickness, having traditional naliya type profile design of approved make and colour, fixed over suitable supporting structure such as chajjas, trusses or fabricated frames as directed by the Engineer-in-Charge. The sheets shall be fixed on MS base plates of minimum 1 mm thickness or as required, including necessary drilling, cutting and shaping of sheets and plates to suit site conditions. Fixing shall be carried out using approved self-drilling screws/bolts with EPDM washers and suitable fasteners to ensure proper anchorage, water tightness and durability.

The work shall include proper alignment, laying to required slope, overlapping of sheets at side laps, end laps and ridge portions as per manufacturer's recommendations to ensure leak-proof roofing. All joints, ridges and junctions shall be properly sealed and covered to prevent ingress of water. The item shall be executed at any height or level including necessary scaffolding, lifting arrangements, tools and plants, wastage, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of profiled sheet roofing area.

**ITEM No.43 Flush Door - Providing and fixing 35 mm thick shutters for Doors with Both side Laminate including Indian teak Wood Frame 100mm X 75mm including black enamelled iron oxidized fixtures and fastenings and necessary hardware such as hinges, door stopper, handle on both side etc, complete.**

Providing and fixing 35 mm thick flush door shutters for doors with both sides decorative laminate finish of approved shade and quality, including providing and fixing well-seasoned Indian teak wood frame of size 100 mm × 75 mm, properly jointed, planed and fixed in position true to line, level and plumb. The work shall include providing and fixing black enamelled iron/oxidized fittings and fixtures of approved quality such as hinges, door handles on both sides, door stopper, locks where required, screws and other necessary hardware for smooth operation and durability.

The flush door shutter shall be factory made and shall be properly cut and adjusted to suit the frame, ensuring smooth opening and closing without obstruction. All exposed surfaces shall be finished neatly with laminate on both faces, properly bonded and pressed to ensure long-lasting adhesion and uniform finish. The item shall include all materials, labour, tools and plants, transportation, fixing, alignment, finishing, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>)

**ITEM No.44 Flush Door - Providing and fixing 35 mm thick shutters for Doors with Both side Laminate including black enamelled iron oxidized fixtures and fastenings and necessary hardware such as hinges, door stopper, handle on both side etc, complete.**

Providing and fixing 35 mm thick flush door shutters for doors with both sides laminate finish of approved shade and quality, including cutting, fitting and fixing in position to the existing or newly prepared door frames true to line, level and plumb. The work shall include providing and fixing black enamelled iron/oxidized fixtures and fastenings of approved quality such as hinges, handles on both sides, door stopper, screws and other necessary hardware required for smooth and proper functioning of the door.

The flush door shutter shall be factory manufactured, properly seasoned and finished, and shall be adjusted at site to ensure smooth operation without gaps, warping or misalignment. Both faces shall be finished with laminate properly bonded under pressure to ensure durability, uniform appearance and resistance to wear. The item shall include all materials, labour, tools and plants, transportation, fixing, alignment, finishing, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of door shutter area.

**ITEM No.45 Providing and fixing FRP frame size 100x50 mm and 28mm thick FRP depress panel shutter having extra reinforcement on sides & edges in Gel coat finish. The core of the shutter & frame is to be filled up with injected fire retardant grade polyurethane foam done in situ along with embedded wooden pieces for stiffening & also taking hinges & fixtures. The whole FRP frame & shutter is to be waterproof, weather proof, termite proof & resistance to mild acid / alkali. Rates are to be inclusive of S.S hinges with necessary screws & aluminium fixtures & fastenings & fastener sleeve.**

Providing and fixing factory-made FRP door system comprising FRP frame of size 100 × 50 mm and 28 mm thick FRP depressed panel shutter of approved design and finish, having additional reinforcement at sides and edges and finished with high quality gel coat surface. The core of the shutter and frame shall be filled in situ with injected fire-retardant grade polyurethane foam, along with embedded seasoned wooden inserts at required locations to provide adequate stiffness and to facilitate fixing of hinges, locks and other hardware.

The complete FRP frame and shutter system shall be waterproof, weatherproof, termite resistant and resistant to mild acids and alkalis. The item shall include providing and fixing stainless steel hinges with necessary screws, aluminium fixtures and fastenings, fastener sleeves and all required accessories for proper installation and smooth operation. The work shall include fabrication, transportation, hoisting, fixing in position, alignment, sealing, finishing and all incidental works complete as directed by the Engineer-in-Charge.

All materials, labour, tools and plants, wastage, scaffolding, handling and other incidental charges required for complete execution of the work shall be deemed to be included in the rate.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of door shutter area.

**ITEM No.46 Repairing Existing TW Panelled Doors Shutters by Replacing of Old Rusted / Missing wood members, Hardware making Good, Replacing Frame members if required in position making Tounge /Groove joint &making good & Refixing Shutters in position as Directed by Engineer in Charge.**

Repairing existing timber (T.W.) panelled door shutters by removing and replacing damaged, decayed, warped, broken or missing wood members and making good all defective portions to restore proper functionality and appearance. The work shall include dismantling of shutters where necessary, replacement of defective frame and shutter members with seasoned timber of matching species and size, and re-fixing using proper tongue and groove joints or other approved joinery methods to ensure structural stability.

The item shall also include repairing, replacing or refixing existing hardware such as hinges, handles, locks, bolts and other fittings, and making the shutters operational in smooth working condition. All joints shall be properly glued, nailed or screwed as required and finished neatly. The shutters shall be reinstalled in position after repair, properly aligned, adjusted and fixed to ensure smooth opening and closing without binding or sagging.

The work shall include all materials, labour, tools and plants, dismantling, carpentry work, hardware replacement, refixing, alignment, finishing, transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Nos of Door repaired.

**ITEM No.47 Repairing Existing TW Fully / Partly glazed windows by Replacing of Old Rusted / Missing wood members, Sheet Glass, Hardware making Good, Replacing Frame members if required in position making Tounge /Groove joint & making good & Refixing Shutters in position as Directed by Engineer in Charge.**

Repairing existing timber (T.W.) fully or partly glazed window shutters by removing and replacing damaged, decayed, warped or missing wood members, glazing components and defective hardware to restore the window to proper working condition. The work shall include dismantling of shutters wherever required, replacement of defective frame and shutter members with seasoned timber of matching size and species, and reassembly using proper tongue and groove joints or other approved joinery methods to ensure strength and durability.

The work shall further include replacing broken or damaged sheet glass with new glass of approved quality and thickness, refixing glazing beads, putty or rubber gaskets as required, and making good all glazing work to ensure proper sealing and finish. Existing hardware such as hinges, handles, stays, tower bolts, fasteners and other fittings shall be repaired, adjusted or replaced as necessary to ensure smooth and functional operation of the shutters.

After completion of repair work, the shutters shall be reinstalled in position, properly aligned, adjusted and fixed to ensure smooth opening and closing without any defects. The item shall include all materials, labour, carpentry work, glazing, hardware replacement, tools and plants, dismantling, refixing, transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Nos of window repaired.

**ITEM No.48 Repairing Existing Alluminum extruded Fully / Partly glazed sliding windows by Replacing of Old Rusted rollers, replacing mosquitonet, glass, hardware as per requirement & making good & Refixing Shutters in position as Directed by Engineer in Charge.**

Repairing existing aluminium extruded fully or partly glazed sliding windows by removing defective, worn out or rusted components and restoring the windows to smooth and functional working condition. The work shall include dismantling of sliding shutters wherever required, replacement of faulty rollers, worn-out nylon wheels, damaged or broken glass panes with new glass of approved quality and thickness, and replacement/refixing of mosquito mesh with new fibre/glass mesh or aluminium mesh as required.

The item shall also include repair or replacement of necessary hardware accessories such as handles, locks, stoppers, screws, channels and other fittings to ensure smooth sliding operation and proper locking arrangement. All sliding tracks shall be cleaned, adjusted and made functional for easy movement of shutters without noise or obstruction.

After completion of repair works, shutters shall be refixed in position, properly aligned, adjusted and tested for smooth operation, water tightness and proper functioning. The item shall include all materials, labour, tools and plants, dismantling, repair works, replacement components, transportation, scaffolding, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of window shutter area repaired.

**ITEM No.50 Providing and fixing fly proof S.S. wire guage of I.S. desination S.S.G. with wire of dia 0.56 mm to windows & clarestorey windows including baten patti.**

Providing and fixing fly proof stainless steel wire gauge of IS designation SSG made of stainless steel wire of 0.56 mm diameter to windows and clerestory windows, including cutting to required

size, stretching properly and fixing in position with suitable teak wood or aluminium batten patti and necessary screws, nails or fasteners. The wire mesh shall be fixed taut and uniformly without sagging, ensuring proper alignment and fly-proofing of openings.

The work shall include preparation of frames, fixing of battens, overlap at joints where required and proper finishing to ensure a neat and durable installation. The item shall include all materials, labour, tools and plants, wastage, scaffolding, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of wire gauze fixed.

**ITEM No.52 Providing 2 mm th FRP sheet as per instruction and fixing on fabricated shade with bolts or screws as per situation with necessary washer in given size and slope incl covering joints and ridge line with overlapping etc complete.**

Providing and fixing 2 mm thick FRP (Fibre Reinforced Plastic) sheet of approved quality and make, as per direction of the Engineer-in-Charge, on fabricated shade, canopy or supporting structure at any height or level. The FRP sheets shall be of uniform thickness, weather resistant, UV stabilized and suitable for external exposure. The sheets shall be properly cut, shaped and laid to required slope ensuring effective drainage.

Fixing shall be carried out using approved bolts or self-tapping screws with suitable GI/SS washers and rubber/neoprene gaskets wherever required to ensure watertight and secure fastening. The work shall include proper alignment, lapping of sheets at side and end overlaps as per manufacturer's specifications, and sealing of joints and ridge lines to make the surface leak-proof. The item shall include all materials, labour, tools and plants, scaffolding, lifting arrangements, wastage, transportation and all incidental works required for complete execution of the work as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of FRP sheet area fixed.

**ITEM No.54 Providing and Laying double charged 600 x 1200 mm size (Thickness to be specified by the manufacturer) vitrified tile flooring over 20 mm (average) base of cement mortar 1:6 ( 1 cement : 6 coarse sand) on new surface, and jointed with color cement slurry including finised with flush pointing & cleaning the surface etc. complete for light shade.**

Providing and laying double charged vitrified tiles of size 600 × 1200 mm (thickness as specified by the manufacturer) of approved light shade and quality for flooring on a prepared surface. The tiles shall be laid over a 20 mm (average) thick base of cement mortar in proportion 1:6 (1 cement : 6 coarse sand) or as directed by the Engineer-in-Charge, properly spread, levelled and compacted to achieve a smooth and even bedding.

The vitrified tiles shall be carefully laid to line, level and pattern as approved, ensuring proper alignment and uniform joints. The joints shall be filled with matching coloured cement slurry or approved jointing material and finished with flush pointing to provide a neat and uniform surface. After laying, the surface shall be thoroughly cleaned to remove all stains, excess mortar and slurry. The work shall include all materials, labour, tools and plants, cutting of tiles wherever required, wastage, curing, scaffolding, transportation and all incidental works necessary for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished flooring area.

**ITEM No.55 P & L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 ( 1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantaling of existing flooring and jointed with color cement slurry including finised with flush pointing & cleaning the surface etc. complete for light shade**

Providing and laying 24" × 24" size vitrified tiles of 8 mm thickness of approved make, quality and light shade for flooring on new or existing surfaces. The work shall include preparation of

base by providing and laying 20 mm (average) thick cement mortar bedding in proportion 1:6 (1 cement : 6 coarse sand) on new surfaces, or fixing over existing flooring using approved tile adhesive as directed by the Engineer-in-Charge. Wherever required, existing flooring shall be dismantled, removed and the surface shall be properly cleaned, levelled and prepared to receive new tiles.

The vitrified tiles shall be laid carefully to line, level and pattern, ensuring uniform joints and proper bonding. Joints shall be filled with matching coloured cement slurry or approved jointing compound and finished with flush pointing to obtain a smooth and even surface. The finished flooring shall be properly cleaned to remove all stains, mortar and debris.

The item shall include all materials, labour, tools and plants, cutting of tiles, wastage, adhesive, cement mortar bedding, dismantling of existing flooring where required, curing, scaffolding, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished flooring area.

**ITEM No.56 P & L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 ( 1 cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantling of existing flooring and jointed with color cement slurry including finished with flush pointing & cleaning the surface etc. complete for antiskit**

Providing and laying 24" × 24" size vitrified anti-skid tiles of 8 mm thickness of approved make, quality and shade for flooring on new or existing surfaces. The work shall include preparation of base by providing and laying 20 mm (average) thick cement mortar bedding in proportion 1:6 (1 cement : 6 coarse sand) on new surfaces, or fixing over existing flooring using approved tile adhesive as directed by the Engineer-in-Charge. Wherever required, existing flooring shall be dismantled and removed, and the surface shall be properly cleaned, levelled and prepared to receive new tiles.

The anti-skid vitrified tiles shall be laid carefully to line, level and required pattern, ensuring proper alignment and uniform joints. The joints shall be filled with matching coloured cement slurry or approved jointing material and finished with flush pointing to achieve a neat, even and slip-resistant surface. After laying, the flooring shall be thoroughly cleaned to remove all stains, excess mortar and debris.

The item shall include all materials, labour, tools and plants, cutting of tiles wherever required, wastage, adhesive, cement mortar bedding, dismantling of existing flooring where required, curing, scaffolding, transportation and all incidental works necessary for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished flooring area.

**ITEM No.57 Providing and filling epoxy grout of " Ardex Endura, Dr. Fixit, MAPAI, Kerakoll " or equivalent make in Parking tile flooring of size 800 x 800 mm and having joint width 5 mm and average joint depth 5 mm including providing masking tape 25 mm wide at both side of vitrified tile cleaning the joint upto 5 mm average depth by using wire brush, air blower and finishing the joint etc. complete as per direction of Engineer-in-charge.**

Providing and filling epoxy grout of approved make such as Ardex Endura, Dr. Fixit, Mapei, Kerakoll or equivalent, in parking tile flooring of size 800 × 800 mm having joints of approximately 5 mm width and 5 mm average depth. The work shall include masking both sides of tile joints with 25 mm wide masking tape to protect tile surface, cleaning the joints to the required depth using wire brush, mechanical tools and air blower to ensure removal of dust, debris and loose particles, and preparing the surface to receive epoxy grout.

The epoxy grout shall then be mixed and applied strictly as per manufacturer's specifications, ensuring complete filling of joints without voids or gaps. The grout shall be finished neatly, excess material shall be removed, and the surface shall be cleaned to achieve a uniform and durable joint finish. After curing, masking tape shall be removed carefully without damaging the tile surface. The item shall include all materials, labour, tools and plants, masking tape, cleaning equipment, scaffolding, wastage, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Running Metre (RM) of tile joint grouted.

**ITEM No.60 Providing and laying coloured glazed tiles of the size 300 mm x 200 mm x 8 mm / 300 mm x 450 mm x 8 mm in skirting, risers of steps and dado on 10 mm. thick cement plaster 1:3 (1 cement : 3 coarse sand) & jointed with white cement slurry.**

Providing and laying coloured glazed tiles of size 300 mm × 200 mm × 8 mm or 300 mm × 450 mm × 8 mm of approved shade and quality in skirting, risers of steps and dado (deco) work, fixed over 10 mm thick cement plaster in proportion 1:3 (1 cement : 3 coarse sand) on prepared and properly cured surface as directed by the Engineer-in-Charge. The tiles shall be laid true to line, level and plumb, with proper alignment and uniform joints.

The joints shall be filled with white cement slurry or approved jointing material to match the tile finish and shall be neatly finished flush to provide a smooth and uniform surface. After completion of laying work, the surface shall be thoroughly cleaned to remove stains, excess mortar and debris. The work shall include all cutting, wastage, finishing, curing, scaffolding and all incidental operations required for proper execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of tiled skirting/dado/risers area.

**ITEM No.63 Providing and laying waterproofing tiles of approved size & 8 to 12mm thick on terrace laid on a bed of 12mm thick cement mortar 1:3 (1-cement : 3- coarse sand ) or tile adhesive with providing spacing of required size between tiles as directed & filled with epoxy tile grout of approved quality.**

Providing and laying waterproofing terrace tiles of approved make, size and thickness 8 to 12 mm on roof terrace, laid over a bedding of 12 mm thick cement mortar in proportion 1:3 (1 cement : 3 coarse sand) or with approved tile adhesive as per site requirements and manufacturer's specifications. The tiles shall be laid to required slope to ensure proper drainage of rainwater, with uniform alignment, level and pattern as directed by the Engineer-in-Charge.

Adequate spacing between tiles shall be maintained using spacers of required size to ensure uniform joints. After laying and proper setting, the joints shall be cleaned and filled with approved quality epoxy tile grout to provide a durable, water-resistant and chemically resistant finish. The surface shall be neatly finished and thoroughly cleaned to remove excess grout and stains.

The work shall include all materials, labour, tools and plants, cutting of tiles, wastage, curing, scaffolding, adhesive or mortar bedding, epoxy grout, cleaning, transportation and all incidental works required for complete execution of waterproof terrace tiling as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished tiled terrace area.

**ITEM No.64 Applying two coats of putty & two coats of primer of approved brand And Wall painting (two coats) with plastic emulsion paint as approved by the Engineer - in - charge over lapi putty and priming coat of approved brand primer on undecorated wall surface to give an even shade incl. thoroughly brushing the surface from mortar dropping & other foreign matter & sand papered smooth.**

Applying two coats of wall putty and two coats of primer of approved brand on undecorated internal or external wall surfaces, including preparation of surface by thoroughly brushing and cleaning to remove all mortar droppings, dust, grease and other foreign matter, and sanding the

surface to a smooth and even finish. The prepared surface shall then be applied with wall putty in two coats to fill undulations and achieve a smooth level surface, followed by application of two coats of primer of approved brand and manufacturer as directed by the Engineer-in-Charge.

After proper drying and surface preparation, two coats of plastic emulsion paint of approved shade and quality shall be applied to provide an even, smooth and uniform finish. Each coat shall be applied only after the previous coat has completely dried and shall be properly sanded where required to ensure a fine finish. The work shall include all materials, labour, tools and plants, scaffolding, surface preparation, putty, primer, paint, sanding, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of painted wall surface.

**ITEM No.65 Finishing wall with weather proof exterior emulsion paint on wall surface (two coats) to give an required shape even shade after thoroughly brushing the surface to remove all dirt, and remains of loose powdered materials etc. complete.**

Finishing exterior wall surfaces with weatherproof exterior emulsion paint of approved make, shade and quality, applied in two coats to provide a uniform, durable and aesthetically pleasing finish. The work shall include thorough surface preparation by brushing, cleaning and removing all dirt, dust, loose particles, efflorescence, algae, moss and other foreign matter to ensure proper adhesion of paint. Cracks, holes and surface imperfections shall be suitably repaired and made good prior to application of paint.

The paint shall be applied evenly in two coats over the prepared surface, ensuring proper coverage, uniform shade and smooth finish. Each coat shall be applied only after the previous coat has fully dried and as per manufacturer's specifications. The work shall include all materials, labour, tools and plants, scaffolding, surface preparation, minor repairs, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished painted surface.

**ITEM No.66 Applying two coats of putty & two coats of primer of approved brand And Wall painting (two coats) with Royal plastic emulsion paint as approved by the Engineer - in - charge over lapi putty and priming coat of approved brand primer on undecorated wall surface to give an even shade incl. thoroughly brushing the surface from mortar dropping & other foreign matter & sand papered smooth.**

Applying two coats of wall putty and two coats of primer of approved brand on undecorated internal or external wall surfaces, including thorough surface preparation by brushing, cleaning and removal of all mortar droppings, dust, grease, loose particles and other foreign matter, followed by sand papering to obtain a smooth, even and uniform surface. The wall putty shall be applied in two coats to fill undulations and provide a level surface, ensuring proper drying and sanding between coats as required.

After completion of surface preparation, two coats of Royal plastic emulsion paint of approved brand, shade and quality as directed by the Engineer-in-Charge shall be applied to achieve a smooth, uniform and aesthetic finish. Each coat shall be applied only after the previous coat has fully dried and shall be finished to give an even shade without brush marks or patches. The work shall include all materials, labour, tools and plants, scaffolding, surface preparation, putty, primer, paint, sanding, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of painted wall surface.

**ITEM No.71 Polishing with liquar polish over new wood and wood based surfaces to give even surface including cleaning oil, grease, dirt and sand papered smooth and including a coat of wood filler.**

Polishing wooden and wood-based surfaces with lacquer polish on new work to achieve a smooth, uniform and glossy finish as directed by the Engineer-in-Charge. The surface shall be properly

prepared by cleaning to remove all oil, grease, dirt, dust and other foreign matter, followed by thorough sanding with suitable grade sandpaper to obtain a smooth and even surface. A coat of approved wood filler shall then be applied to fill pores, cracks and surface imperfections and allowed to dry, after which the surface shall be again lightly sanded to ensure uniformity.

Lacquer polish shall then be applied in uniform coats over the prepared surface to achieve the desired finish, ensuring even spreading without streaks, patches or brush marks. The polishing shall be carried out to provide a smooth, durable and aesthetically pleasing finish as per approved shade and specifications. The item shall include all materials, labour, tools and plants, sanding, filling, polishing, cleaning, scaffolding and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of polished wooden surface.

**ITEM No.72 Applying Texture paint on wall surface after scrapping the old paint and preparing the surface and then applying water proof lapi and primer coat and applying two coat of Royal play paint base coat and then applying Asian Royal play texture paint as directed including all materials, tools and labour etc. complete.**

Applying decorative texture finish on wall surfaces of approved design and shade, including complete surface preparation by scrapping and removing all old paint, loose material, dust, grease and foreign matter to obtain a sound and clean base. The prepared surface shall be treated with waterproof lapi/putty and primer coat of approved brand to ensure proper adhesion and smoothness.

Thereafter, two coats of Royal Play paint base coat shall be applied uniformly over the prepared surface as per manufacturer's specifications. Finally, Asian Paints Royal Play texture paint or equivalent approved material shall be applied in the required pattern, design and finish as directed by the Engineer-in-Charge to achieve the desired aesthetic texture effect.

The work shall include all materials, labour, tools and plants, scaffolding, surface preparation, scraping, filling, primer, base coats, texture application, transportation and all incidental works required for complete execution and satisfactory finish of the textured surface.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished textured wall surface.

**ITEM No.73 Applying Asian paint Stucco marble royal play Texture paint on wall surface after scrapping the old paint and preparing the surface and then applying water proof lapi and primer coat and applying three coat of Royal play stucco marble texture paint using trowel & scrapper in shade as approved by Engineer incharge as directed including all materials, tools and labour etc. complete.**

Applying Asian Paints Stucco Marble Royal Play texture finish on wall surfaces of approved shade and design, including complete surface preparation by scrapping and removing all existing paint, loose material, dust, grease and other foreign matter to obtain a sound, clean and uniform base. The prepared surface shall be treated with waterproof lapi/putty and primer coat of approved make and brand to ensure proper bonding and smoothness.

Thereafter, three coats of Royal Play Stucco Marble texture paint shall be applied using trowel and scrapper in the approved pattern, texture and shade as directed by the Engineer-in-Charge to achieve the desired marble-like decorative finish. Each coat shall be applied uniformly and allowed to dry properly before application of the next coat to ensure durability, adhesion and aesthetic appearance.

The work shall include all materials, labour, tools and plants, scaffolding, surface preparation, scrapping, filling, lapi, primer, texture application, finishing, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished textured wall surface.

**ITEM No.74 Applying Acrylic exterior Floor paint of Indigo, Berger, Asian or equivalent brand on existing paver block, cement tiles & other suitable flooring surface two coats of**

**paint including priming coat over surface including preparing the surface by thoroughly cleaning oil, grease dirt and other foreign matter & scoured with sand papers etc. completed with required colour finish as per direction of Engineer-in-charge.**

Applying acrylic exterior floor paint of approved make such as Indigo, Berger, Asian Paints or equivalent on existing paver blocks, cement tiles and other suitable floor surfaces, including one priming coat and two finishing coats of paint of approved shade and colour as directed by the Engineer-in-Charge. The work shall include complete surface preparation by thoroughly cleaning the surface to remove oil, grease, dirt, dust, algae and other foreign matter, followed by scrubbing and sanding with suitable sand paper to obtain a clean, sound and slightly roughened surface for proper adhesion.

The priming coat shall be applied uniformly over the prepared surface, followed by two coats of acrylic exterior floor paint applied evenly to achieve a smooth, durable and weather-resistant finish. Each coat shall be allowed to dry completely before application of the next coat. The finished surface shall be neat, uniform in shade and free from patches, brush marks or defects.

The item shall include all materials, labour, tools and plants, surface preparation, cleaning, priming, painting, sanding, scaffolding, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of painted floor surface.

**ITEM No.75 Providing and fixing at all height on all floors , false ceiling of 12.5 mm thick tapered edge gypsum board conforming to IS :2095 including providing and fixing of frame work made of special sections and consisting of angle cleats of size 25mm wide x 1.6mm thick with flanges of 22mm and 37mm at 1200mm centre to centre one flange fixed to the ceiling with dash fastener with 6mm dia bolts to the angle hangers of required length, and other end of angle hanger being fixed with nut and bolts to G.I. channels running at the rate of 1200mm centre to centre to which the ceiling section 0.5mm thick bottom wedge of 80mm with tapered flanges of 26mm each having clips of 10.5mm at 450mm centre to centre shall be fixed in a direction perpendicular to G.I. channel with connecting clips G.I. wire at every junction including fixing the gypsum board with ceiling section and perimeter channels 0.5mm thick As per the site condition size can vary, the entire job is to be carried out as per the instruction and satisfaction of engg in charge complete in all aspects.**

Providing and fixing suspended false ceiling at all heights and all floors using 12.5 mm thick tapered edge gypsum boards conforming to IS: 2095 of approved make, including a complete suspended framework of galvanized iron sections as specified. The framework shall consist of angle cleats of size 25 mm wide × 1.6 mm thick with flanges of 22 mm and 37 mm fixed at 1200 mm centre to centre, one flange fixed to the ceiling slab using dash fasteners with 6 mm dia bolts and the other end connected to angle hangers of required length secured with nuts and bolts.

GI channels running at 1200 mm centre to centre shall be provided and properly suspended, to which ceiling sections of 0.5 mm thick bottom wedge type, 80 mm width with tapered flanges of 26 mm each having clips of 10.5 mm at 450 mm centre to centre shall be fixed perpendicular to the GI channels using approved connecting clips. GI wire shall be provided at all junctions for additional support and alignment.

The gypsum boards shall then be fixed to the frame work using suitable screws at proper spacing, including provision of perimeter channels of 0.5 mm thickness for proper edge finishing. The ceiling shall be installed true to line, level and plane, including necessary cutting, fitting around openings, lights, ducts and other services as required at site conditions.

The entire work shall include all materials, labour, tools and plants, scaffolding, lifting, fixing accessories, fasteners, wastage, finishing and all incidental works required for complete execution of false ceiling as per drawings, specifications and as directed by the Engineer-in-Charge to his full satisfaction.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished false ceiling area.

**ITEM No.76 Providing and fixing eco-friendly light weight calcium silicate false ceiling tiles having Tegular edge & 15 mm Thick Densified edges on the Tile Periphery for Extra Strength The Light weight calcium silicate ceiling tiles shall have , light reflection 85% non-combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity 0.043° w/m KC. for the best thermal Insulation . The Light weight calcium Silicate tile shall be of approved texture Fine fissured/ Spintone/Cosmos having NRC value of 0.5 & Globe having NRC value of 0.75 NRC or equivalent of size 595 X 595 mm to be laid on true horizontal level suspended inter locking metal grid of hot dipped galvanized steel sections (galvanizing @120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and size of 24X38mm made from 0.30 mm thick (minimum) sheet, 1200mm centre to centre, and cross 'T' of size 24X28mm made out of 0.33mm (Minimum) sheet spaced 1200mm along spaced between main 'T' at 600mm centre to centre to form a grid of 1200X600mm and secondary cross 'T' of length 600mm and size 24x28mm made of 0.30 mm thick (Minimum) sheet to be interlocked at middle of the 1200X600mm panel to form grid of size 600X600mm resting.**

Providing and fixing eco-friendly lightweight calcium silicate false ceiling tiles of approved make, texture and finish, having tegular edges with 15 mm thick densified edges on the tile periphery for extra strength. The tiles shall be non-combustible as per BS 476 Part IV, with light reflectance of approximately 85%, humidity resistance up to 100%, and thermal conductivity of about 0.043 W/mK for effective thermal insulation. The tiles shall be of size 595 × 595 mm with approved surface finish such as Fine Fissured / Spintone / Cosmos or equivalent, having NRC value of 0.5 or 0.75 as specified.

The tiles shall be laid true to horizontal level on a suspended interlocking metal grid system of hot dipped galvanized steel sections (galvanizing @ 120 grams per sqm both sides). The grid shall consist of main 'T' runners of size 24 × 38 mm made from minimum 0.30 mm thick GI sheet, spaced at 1200 mm centre to centre, supported with cross 'T' sections of size 24 × 28 mm made from minimum 0.33 mm thick GI sheet at 600 mm centre to centre to form a grid of 1200 × 600 mm. Secondary cross 'T' members of length 600 mm and size 24 × 28 mm made from minimum 0.30 mm thick sheet shall be interlocked at the middle of 1200 × 600 mm panels to form a final grid of 600 × 600 mm.

The framework shall be properly suspended, levelled and fixed to the structural soffit using suitable hangers, clips and accessories to ensure stability and alignment. The ceiling tiles shall be laid neatly into the grid, properly cut and fitted at edges, corners, openings for light fittings, ducts and other services as required at site.

The item shall include all materials, labour, tools and plants, scaffolding, suspension system, wastage, cutting, fixing accessories, transportation and all incidental works required for complete execution of false ceiling as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished false ceiling area.

**ITEM No.77 Providing, removing & refixing 60 mm thick high density homogeneous interlocking or non interlocking grey or colour base paver block including providing new one as per requirement of paver block of homogeneous grey or colour smooth finish having grade minimum M 200 or higher of approved shape with good finishing and 75mm (avg) thick sand layer including consolidation of the same etc. complete in pattern and design or sample approved by Engineer in charge etc complete.**

Providing, removing and refixing of 60 mm thick high density homogeneous interlocking or non-interlocking grey or coloured base paver blocks, including supply of new paver blocks wherever required to replace damaged, broken or unserviceable units. The paver blocks shall be of minimum M-200 grade or higher, machine made, of approved shape, size, colour and finish with smooth surface and good edge finish, conforming to relevant specifications and as approved by the Engineer-in-Charge.

The work shall include careful dismantling and removal of existing paver blocks without causing damage to reusable units, stacking of serviceable materials, disposal of unserviceable debris, and preparation of the sub-base. A sand bedding layer of approximately 75 mm (average) thickness shall be provided, spread, levelled and properly consolidated to achieve uniform surface and proper line, level and slope.

The paver blocks shall then be laid in the approved pattern and design, ensuring proper interlocking, alignment and compaction. Joint filling and final compaction shall be carried out using suitable plate compactor to achieve a stable and even surface. Any gaps, unevenness or settlement shall be corrected to ensure a durable and uniform finish.

The item shall include all materials, labour, tools and plants, transportation, dismantling, refixing, new paver blocks, sand bedding, compaction, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of paver block surface area.

**ITEM No.78 Providing and fixing pre-cast Rubber Dye / steel Dye inter locking concrete block 60mm thick with grade of concrete M300 pneumatic compressed / vibrated mechanically and as per approved design Confirming to IS 15658 : 2006 including 35 mm Sand layer for levelling and filling the joint with sand in proper line and level as per guidelines of IRC : SP 63-2018 etc. Complete.**

Providing and fixing precast interlocking concrete paver blocks of 60 mm thickness manufactured using Rubber Die / Steel Die moulds with M-300 grade concrete, pneumatically compressed or mechanically vibrated, conforming to IS 15658:2006 and of approved shape, size, colour and design as per drawings and directions of the Engineer-in-Charge. The blocks shall be sound, dense, uniform in texture and free from cracks, honeycombing and other defects.

The work shall include preparation of sub-base and providing a 35 mm thick sand bedding layer for levelling, dressing and compaction to required line, level and slope. The paver blocks shall then be laid in the approved pattern ensuring proper interlocking, alignment and uniform surface finish as per guidelines of IRC: SP 63-2018 or latest specifications. After laying, joints shall be filled with clean sand and the surface shall be compacted using suitable mechanical plate compactor to achieve a stable, even and tight interlocked surface.

The item shall include all materials, labour, tools and plants, transportation, laying, cutting, filling, compaction, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished paver block surface.

**ITEM No.79 Providing and fixing pre-cast concrete kerb stone of gray cement based concrete block 30cm length,30cm height and 15cm thick of M250 grade concret as per approved design and including excavation for fixing in proper line and level,filling the joint with C:M 1:3 (1cement:3fine sand) etc complete.**

Providing and fixing precast cement concrete kerb stones of grey cement based concrete of size 30 cm length, 30 cm height and 15 cm thickness made of M-250 grade concrete, manufactured as per approved design, shape and finish and conforming to the requirements of the Engineer-in-Charge. The kerb stones shall be sound, dense and free from cracks, honeycombing and other defects.

The work shall include excavation of trench for laying and fixing the kerb stones in proper line, level and gradient as required at site, including dressing and preparation of the bed. The kerb stones shall be placed in position firmly and aligned properly. The joints between adjacent kerb stones shall be filled and pointed with cement mortar in proportion 1:3 (1 cement : 3 fine sand) and finished neatly to ensure stability and uniform appearance.

The item shall include all materials, labour, tools and plants, excavation, transportation, laying, jointing, pointing, curing, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Running Metre (RM) of kerb stone laid and fixed.

**ITEM No.80 Providing and fixing chain link jali using 1.50 mm (10 GGI) wire as per drawing using MS Angle post of size 40mm x 40mm x 5mm fixed at 2 meter Center /Center on existing compound wall including cutting , welding as directed and one coat of primer and two coat of oil paint etc complete.**

Providing and fixing chain link fencing (jali) of approved quality made from 1.50 mm (10 GGI) wire as per approved drawing and direction of the Engineer-in-Charge. The chain link mesh shall be cut to required size, stretched properly and fixed securely to MS angle posts of size 40 mm × 40 mm × 5 mm, fixed at 2.0 metre centre-to-centre on existing compound wall or as directed at site. The MS posts shall be properly embedded/anchored to ensure stability, and all cutting, welding and fabrication work required for fixing shall be included in the item.

The MS angle posts and accessories shall be provided with one coat of approved primer and two coats of oil paint of approved shade and quality to ensure corrosion protection and durability. The chain link mesh shall be fixed firmly with necessary binding wire, clamps or welding where required, ensuring proper tension without sagging.

The item shall include all materials, labour, tools and plants, excavation (if required for fixing posts), welding, fabrication, painting, transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of chain link fencing area.

**ITEM No.82 Providing and Fixing 6 mm thick Lexan Polycarbonate multi wall roofing sheet fixed with hilti screw and rubber silicon sealer and alluminium strip of size 50 x 3 mm etc complete as directed by Engineer in charge.**

Providing and fixing 6 mm thick Lexan polycarbonate multi-wall roofing sheets of approved make and quality for roofing/canopy works at all heights and levels, as directed by the Engineer-in-Charge. The sheets shall be UV resistant, weatherproof, light transmitting and impact resistant, and shall be cut and laid to required size, shape and slope as per site requirements.

The sheets shall be fixed to the supporting structure using approved Hilti screws with EPDM/rubber washers to ensure proper anchorage and watertight fixing. Joints, overlaps and edges shall be sealed properly using approved silicone sealant to prevent leakage and ingress of water. Aluminium strips of size 50 × 3 mm shall be provided at joints, edges and ridge portions for proper clamping, finishing and additional support.

The work shall include all materials, labour, tools and plants, cutting, fitting, sealing, fixing accessories, scaffolding, lifting, wastage, transportation and all incidental works required for complete execution of roofing system as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of roofing area fixed.

**ITEM No.83 Carrying out plinth treatment to post construction / existing structure by spraying chemical solution for termite control treatment including labour and material consistment with I.S.I specification. Using Chlordene and Chiorpurfiles 20 EC. As Per 6131\_paret-II Consentration Weight one percent is recommended i.e one litre 20 EC chemical emulsion with 19 liter give 1 % concnecration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical / Sqm of surface is recommended as per I.S.**

Carrying out plinth treatment for post construction or existing structure by spraying and injecting approved chemical solution for termite control treatment in accordance with IS specifications. The work shall be executed using Chlorpyrifos 20 EC or equivalent approved chemical such as Chlordane / Chlorpyrifos formulation, prepared in a 1% concentration emulsion by mixing one litre of 20 EC chemical with 19 litres of water, or as per manufacturer's recommendations and IS guidelines.

The chemical treatment shall be applied uniformly over the plinth area, including floors, junctions, wall–floor interfaces, cracks, crevices and all vulnerable points to ensure effective termite control. The solution shall be applied at an approximate rate of 5 litres per square metre of surface area or as directed by the Engineer-in-Charge, ensuring complete saturation and uniform coverage.

The work shall include all materials, labour, tools and plants, preparation of chemical solution, spraying equipment, application, safety precautions and all incidental works required for complete execution of termite treatment as per IS: 6313 (Part II) and as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of treated area.

**ITEM No.84 Providing and fixing in position Storage unit of any height and depth (450/600 mm), fabricated from 18/19 mm BWR grade calibrated plywood of approved make, with shutters made from 12 mm plywood or 6 mm thick glass shutters (as specified), complete with openable arrangement. All external and internal surfaces shall be finished with 1 mm laminate, with batten patti on exposed edges finished in PU polish and 2 mm PVC edge banding. The unit shall include soft-close concealed hinges, soft-close drawer channels (35 kg capacity), locks, and all necessary hardware, complete as per approved drawings and instructions of Engineer-in-Charge/Architect.**

Providing and fixing in position storage unit of required height and depth (450 mm / 600 mm or as specified), fabricated using 18/19 mm BWR grade calibrated plywood of approved make and quality, conforming to approved drawings and instructions of the Engineer-in-Charge/Architect. The unit shall be rigidly constructed with proper internal supports, shelves and partitions as required, ensuring stability and durability.

Shutters shall be provided either in 12 mm plywood or 6 mm thick glass (as specified in the item/BOQ), with openable arrangement. All exposed and internal surfaces of the storage unit shall be finished with 1 mm thick laminate of approved shade and make, properly bonded and pressed for a smooth and uniform finish. Exposed edges shall be provided with batten patti finished in PU polish, and all plywood edges shall be sealed with 2 mm thick PVC edge banding to prevent moisture ingress and improve durability.

The unit shall be complete with high-quality hardware fittings including soft-close concealed hinges, soft-close drawer channels of 35 kg capacity, locks, handles and all other necessary accessories for smooth operation. All fittings shall be of approved make and installed properly to ensure ease of use and long service life.

The work shall include all materials, labour, tools and plants, fabrication, cutting, finishing, assembly, transportation, installation, alignment, hardware fixing and all incidental works required for complete execution as per approved drawings and as directed by the Engineer-in-Charge/Architect.

**Unit of Measurement:** Square Metre (m<sup>2</sup>)

**ITEM No.85 Providing and fixing 8mm thick AC4 wooden laminated flooring of size 1285mm x 186mm x 8mm thick moisture, heat, wear resistant specially formulated particle board/HDF board of approved pattern with core density more than 850 gsm/ sq.mt. This flooring shall be comprising of surface guard coating for extra durable layer and a solid armour. The boards shall consist moisture resistant,high density core composed of different layers, comprressed under extremely high pressure and temperature to a homogeneous composite. Joint mechanism between the boards shall be geometrically shaped tounge and groove construction. Floor boards shall be laid on polymer sheet and joints shall be fixed including providing final finishing.**

Providing and fixing 8 mm thick AC4 grade wooden laminated flooring planks of size 1285 mm × 186 mm × 8 mm, of approved make, pattern and shade, designed for heavy-duty residential/commercial use. The flooring shall be moisture, heat and wear resistant, manufactured from specially formulated high-density fibreboard (HDF) / particle board having core density more

than 850 kg/m<sup>3</sup>, composed of multiple compressed layers under high pressure and temperature to form a homogeneous and stable core.

The surface shall have a factory-applied protective wear layer with surface guard coating for enhanced durability and resistance against abrasion, stains and impacts. The planks shall be provided with precision-engineered tongue and groove locking system for tight, seamless and durable jointing between boards.

The flooring shall be laid over approved polymer underlay sheet on a properly prepared base, ensuring smooth, clean and level surface. The boards shall be installed in accordance with manufacturer's specifications, ensuring proper alignment, interlocking, and expansion gaps where required. Joints shall be properly locked without gaps, and final finishing shall be carried out to ensure uniform appearance and smooth surface.

The item shall include all materials, labour, tools and plants, underlay sheet, cutting, wastage, installation, finishing, cleaning, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished laminated flooring area.

**ITEM No.86 Providing and fixing sandwich platform counter comprising bottom layer of 25mm thick Kota stone and top layer of 18mm thick mirror polished granite of approved shade and pattern, fixed with 25mm thick cement mortar bed/approved adhesive complete with cutting, moulded 3" fascia, nosing, chamfered edges, sink/wash basin cutouts, joint filling with matching pigment, polishing, finishing, debris disposal and all accessories complete as per approved drawings, samples and instructions of Architect/EIC.**

Providing and fixing sandwich platform counter consisting of a bottom layer of 25 mm thick Kota stone and a top layer of 18 mm thick mirror polished granite of approved shade, colour and pattern, fixed in position over 25 mm thick cement mortar bedding in proportion 1:4 (or with approved adhesive) on a properly prepared surface as per drawings and direction of the Engineer-in-Charge/Architect. The work shall include cutting, shaping and fixing of stone slabs to required sizes and profiles, providing moulded 3" fascia, nosing, chamfered edges and making necessary cutouts for sinks, wash basins or other fixtures as required at site.

The granite surface shall be machine polished to a mirror finish and joints shall be filled with matching pigment/epoxy grout to achieve a uniform and seamless appearance. The complete platform shall be properly leveled, aligned and fixed to ensure stability and durability. All exposed edges shall be finished neatly and polished as per approved samples.

The item shall include all materials, labour, tools and plants, cutting, polishing, adhesive or mortar, wastage, finishing, joint filling, transportation, debris disposal and all incidental works required for complete execution as per approved drawings and as directed by the Architect/Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished counter area.

**ITEM No.88 Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.**

Providing and laying broken china mosaic waterproof flooring on terrace using 12 mm to 20 mm broken pieces of glazed tiles of approved quality, laid over cement mortar in proportion 1:3 (1 cement : 3 coarse sand) on a properly prepared plain or sloped surface as directed by the Engineer-in-Charge. The mortar shall be spread uniformly and the broken tile pieces shall be embedded properly and tamped/tempered to ensure that cement paste rises to the surface, forming a dense and well-bonded mosaic layer.

After initial setting, the surface shall be finished using white cement slurry to fill voids and achieve a smooth, uniform and waterproof finish. The flooring shall be properly cured and cleaned, including washing with water and oxalic acid solution to remove stains and achieve the desired

finish. Junctions at wall and floor shall be carefully rounded off and the flooring shall be taken up to 15 cm height along the wall to form a skirting/dado for effective waterproofing.

The item shall include all materials, labour, tools and plants, cutting, laying, tamping, finishing, curing, chemical cleaning, scaffolding, wastage, transportation and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished mosaic flooring area.

**ITEM No.89 Providing & Laying Synroof Hi Build 2 mm thick elastomeric, premium quality acrylic coating as a water proofing membrane finished which consists a coat of Bitumen primer & 80 GSM membrane on terrace with ultra violet resistance and working upto any height arresting water leakages including removing and scrapping terrace surface having water proofing treatment, if any etc. and thoroughly brushing the surface to remove all dirt, and remains of loose powdered materials. etc complete as per detail specification & as directed by Engineer-in-charge.**

Providing and laying Synroof Hi-Build 2 mm thick elastomeric premium quality acrylic waterproofing membrane system on terrace surface, including all preparatory and finishing works as per manufacturer's specifications and direction of the Engineer-in-Charge. The work shall include removal and scrapping of any existing waterproofing treatment, loose material, laitance, dirt, algae and other foreign matter from the terrace surface, followed by thorough cleaning and brushing to obtain a sound, clean and dry substrate suitable for treatment.

The system shall consist of application of a coat of bitumen primer over the prepared surface, followed by laying of 80 GSM reinforcement membrane and subsequent application of Synroof Hi-Build acrylic coating to achieve a uniform 2 mm thick seamless waterproofing layer. The coating shall be UV resistant, elastomeric, and suitable for arresting water leakage and providing long-lasting protection to the terrace slab.

The work shall be executed at any height, including necessary scaffolding, lifting arrangements and safety precautions. All overlaps, junctions, cracks, parapet walls and critical areas shall be properly treated to ensure complete waterproofing continuity and durability.

The item shall include all materials, labour, tools and plants, surface preparation, scrapping, primer, membrane, acrylic coating, scaffolding, transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of treated terrace waterproofed area.

**ITEM No.90 Providing and applying two coats of high performance and Ultra flexible polymer modified elastomeric water proofing membrane, having two components, Brushbond UltraFlex of Fosroc or approved equivalent for water proofing of RCC water tanks. Cleaning the RCC/Plaster surface of tank thoroughly, complete all as per direction of Engineer in charge.**

Providing and applying two coats of high performance ultra-flexible polymer modified elastomeric waterproofing membrane, two-component system such as Brushbond UltraFlex of Fosroc or approved equivalent, for waterproofing of RCC water tanks. The work shall include thorough cleaning and preparation of RCC or plastered tank surfaces by removing all laitance, dirt, loose particles, oil, grease, algae and other foreign matter to obtain a sound, clean and durable substrate suitable for treatment.

The waterproofing membrane shall be mixed and applied strictly as per manufacturer's specifications in two uniform coats using brush or approved application tools, ensuring complete coverage without pinholes, gaps or discontinuities. Each coat shall be allowed to cure properly before application of the subsequent coat to achieve a seamless, flexible and impermeable waterproof lining capable of withstanding water pressure and structural movement.

The work shall include all materials, labour, tools and plants, surface preparation, cleaning, mixing, application of waterproofing system, curing, scaffolding, testing, transportation and all

incidental works required for complete execution of waterproofing treatment of RCC water tanks as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of treated waterproofed surface area.

**ITEM No.91 Cement Vata : Providing cement vata (10cm. x 10 cm. size) quarter round in cement mortar 1:1 including neat cement finishing, watering etc. complete at all floors / all levels / all heights**

Providing and constructing cement vata (concrete fillet) of size 10 cm × 10 cm in quarter-round profile at junctions of horizontal and vertical surfaces, such as floor and wall junctions, as directed by the Engineer-in-Charge. The vata shall be formed in cement mortar proportion 1:1 (1 cement : 1 fine sand) and finished neatly to achieve a smooth, dense and uniform quarter-round profile without honeycombing or irregularities.

The work shall include proper surface preparation, application of mortar, shaping to required radius/profile, and finishing with neat cement rendering to achieve a smooth and durable surface. The vata shall be properly cured by watering to ensure adequate strength and durability.

The item shall include all materials, labour, tools and plants, scaffolding, mixing, finishing, curing, transportation and all incidental works required for complete execution at all floors, levels and heights as directed by the Engineer-in-Charge.

**Unit of Measurement:** Running Metre (RM) of cement vata executed.

**ITEM No.92 Providing and fixing in position Storage unit shutter of any height fabricated from 18/19 mm BWR grade calibrated plywood of approved make, (as specified), All external and internal surfaces shall be finished with 1 mm laminate, with batten patti on exposed edges finished in PU polish and 2 mm PVC edge banding. The unit shall include soft- close concealed hinges, locks, and all necessary hardware, complete as per approved drawings and instructions of Engineer-in-Charge/Architect.**

Providing and fixing in position storage unit shutters of required height fabricated from 18/19 mm BWR grade calibrated plywood of approved make and quality, as per approved drawings and instructions of the Engineer-in-Charge/Architect. The shutters shall be accurately cut, assembled and fixed to ensure proper alignment, smooth operation and durability.

All external and internal surfaces of the shutters shall be finished with 1 mm thick laminate of approved shade and make, properly bonded and pressed to achieve a smooth, uniform and durable finish. Exposed edges shall be provided with batten patti finished in PU polish, and all plywood edges shall be sealed with 2 mm thick PVC edge banding to prevent moisture ingress and ensure long service life.

The shutters shall be complete with high-quality hardware fittings including soft-close concealed hinges, locks and all necessary accessories for smooth and silent operation. All fittings shall be properly fixed, aligned and adjusted for proper functioning as per site requirements.

The item shall include all materials, labour, tools and plants, fabrication, cutting, finishing, hardware, fixing, transportation, wastage and all incidental works required for complete execution as per approved drawings and as directed by the Engineer-in-Charge/Architect.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of shutter area.

**ITEM No.93 Providing & Applying two coat of Dr. Fixit / Sika / Fosroc Waterproofing treatment including thoroughly brushing the surface free from mortar dropping and other foreign matter & masonry surface fully cured & dried before application.**

Providing and applying two coats of approved waterproofing treatment such as Dr. Fixit, Sika or Fosroc equivalent on masonry or concrete surfaces, including complete surface preparation by thoroughly cleaning and brushing to remove all mortar droppings, dust, loose particles, algae, oil, grease and other foreign matter to obtain a sound, clean and properly prepared substrate. The masonry/concrete surface shall be fully cured and dried before application of the waterproofing system.

The waterproofing material shall be applied uniformly in two coats using brush, roller or approved method strictly in accordance with the manufacturer's specifications and recommendations, ensuring complete coverage without pinholes, gaps or discontinuity. Each coat shall be allowed to dry properly before applying the subsequent coat to achieve an effective waterproofing barrier.

The work shall include all materials, labour, tools and plants, surface preparation, cleaning, application, curing, scaffolding, transportation and all incidental works required for complete execution of waterproofing treatment as directed by the Engineer-in-Charge.

Unit of Measurement: Square Metre (m<sup>2</sup>) of treated surface area.

**ITEM No.94 Providing and fixing FRP (1.80 mm Thick) weather shed with 1" X 1" square M.S. Pipe (Wt 1.219kg/m). Applying read lead priming coat and two coat enamel paint and fixing on GF+F.F+S.F. window incl. the cost of all materials labour and scaffolding etc. complete.**

Providing and fixing FRP weather shed (chajja) of 1.80 mm thickness of approved quality and make, fabricated and fixed over 1" × 1" square M.S. pipe frame having weight of 1.219 kg/m, properly designed and fixed in position over ground floor, first floor and second floor windows or at any other level as directed by the Engineer-in-Charge. The M.S. pipe frame shall be properly cut, welded, aligned and rigidly fixed to the structure to ensure stability and durability.

The M.S. frame shall be provided with one coat of red oxide primer and finished with two coats of synthetic enamel paint of approved shade and quality to protect against corrosion. The FRP sheet shall be fixed securely to the frame using suitable fasteners, screws, washers and sealant to ensure proper bonding, leak-proofing and weather resistance.

The work shall include all materials, labour, tools and plants, fabrication, welding, cutting, painting, fixing accessories, scaffolding, transportation, wastage and all incidental works required for complete execution of FRP weather shed as directed by the Engineer-in-Charge.

Unit of Measurement: Square Metre (m<sup>2</sup>) of FRP weather shed area fixed.

**ITEM No.95 Providing and fixing 25 mm thick polished kotah stone shelf in existing brick colla using cement mortar 1:3 (1 cement : 3 coarse sand) including rubbing polishing and making the edges roun and making the wall finished including all labour and materials etc.**

Providing and fixing 25 mm thick machine cut and polished Kota stone shelf in existing brick masonry chajja/ledge as directed by the Engineer-in-Charge, using cement mortar in proportion 1:3 (1 cement : 3 coarse sand) for bedding and fixing. The Kota stone shall be of approved quality, properly cut to required size and shape, and fixed in position true to line, level and slope.

The work shall include making proper bearing in brick masonry wherever required, bedding the stone in cement mortar, and ensuring firm and stable fixing. The exposed surface shall be properly rubbed and mirror polished to obtain a smooth and uniform finish. The edges shall be rounded (bull nosed) and finished neatly to provide a safe and aesthetic appearance. The junction between shelf and wall shall be properly finished and made good to match the surrounding surface.

The item shall include all materials, labour, tools and plants, cutting, fixing, polishing, pointing, finishing, curing, scaffolding, transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

Unit of Measurement: Square Metre (m<sup>2</sup>) of Kota stone shelf area fixed.

**ITEM No.96 Providing and fixing 10 to 12mm thick clear toughened glass partition including SS fittings, silicone sealant, cutting, fixing and finishing complete as directed by Engineer-in-Charge.**

Providing and fixing 10 to 12 mm thick clear toughened (tempered) glass partition of approved make and quality, including cutting to required sizes, edge polishing and fixing in position as per approved drawings and instructions of the Engineer-in-Charge. The glass shall be fixed using

suitable stainless steel (SS) fittings, clamps, patch fittings, floor springs or other approved hardware as required for rigid and safe installation.

All joints between glass panels, floor, ceiling and adjoining members shall be properly sealed using high-quality silicone sealant to ensure water tightness, stability and neat finishing. The work shall include proper alignment, leveling and installation to achieve a straight, plumb and secure glass partition system.

The item shall include all materials, labour, tools and plants, SS fittings, silicone sealant, cutting, edge finishing, fixing accessories, scaffolding, transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of glass partition area.

**ITEM No.97 Providing and fixing modular kitchen cup board below plate form and on kitchen wall using 18 mm thick plywood with both side laminated including S.S. basket jali ,drawers, cutlery box,cup saucer drawer, thali plate drawer, fixed with Telescopik channel and neseccery S.S. fixtures and fastening as directed by engineer-in-charge etc. complete.**

Providing and fixing modular kitchen cupboards (base and wall units) below platform and on kitchen wall using 18 mm thick BWR grade plywood of approved make, finished with laminate on both sides, as per approved drawings and as directed by the Engineer-in-Charge. The work shall include fabrication of carcass, shutters, internal partitions, shelves and all necessary internal arrangements to form functional storage units.

The kitchen units shall be provided with stainless steel (S.S.) baskets/jali, drawers, cutlery trays, cup-saucer drawers, thali/plate drawers and other modular storage accessories as required. All drawers shall be fitted with telescopic channels of approved make for smooth sliding operation. Shutters and drawers shall be provided with necessary S.S. fixtures and fasteners including handles, hinges, screws, locks and other hardware fittings of approved quality.

All exposed edges shall be properly finished, and units shall be fixed in position rigidly, levelled and aligned properly to ensure neat appearance and smooth operation. The work shall include all materials, labour, tools and plants, fabrication, cutting, finishing, hardware, installation, transportation, wastage and all incidental works required for complete execution of modular kitchen units as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of finished modular kitchen cupboard area.

**ITEM No.108 Providing and fixing wall hung/Floor mounted or as equivalent as approved by engineer incharge European WC P or S trap of make cera, Jaquar, Parryware or Equivalent , chair Bracket completeset with required all internal fitting for flushing system etc. complete.**

Providing and fixing wall hung or floor mounted European type Water Closet (W.C.) with P-trap or S-trap as required at site, of approved make such as Cera, Jaquar, Parryware or equivalent, including all necessary accessories, fittings and fixtures for complete installation as directed by the Engineer-in-Charge. The W.C. shall be properly fixed in position with suitable brackets, fasteners and supports ensuring firm and stable installation.

The work shall include providing and fixing chair brackets complete set, concealed or exposed flushing system connections, inlet and outlet fittings, flushing mechanism components, and all internal fittings required for proper functioning of the W.C. unit. All joints shall be properly sealed to ensure leak-proof connections.

The item shall include all materials, labour, tools and plants, cutting, fixing, plumbing connections, sealing, testing, scaffolding, transportation, wastage and all incidental works required for complete execution of sanitary installation as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of WC unit installed.

**ITEM No.109 Providing and fixing Hand shower (Health Faucet) 1 meter PVC Tube with wall hook of Jaquare , Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge .**

Providing and fixing hand shower (health faucet) set of approved make such as Jaquar, Plumber or equivalent, complete with 1 metre long PVC flexible tube, wall hook, and necessary fittings and accessories as required for proper installation and functioning. The health faucet shall be fixed at the required location with suitable screws, clamps and fasteners, ensuring firm and leak-proof connection to the water supply line.

The work shall include making necessary connections to existing plumbing lines, sealing of joints, testing for proper functioning, and ensuring smooth operation without leakage. All consumables such as sealing materials, Teflon tape and minor fittings shall be included in the scope.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of health faucet installed.

**ITEM No.110 Providing and fixing Angular stop cock with wall flange of Jaquare , Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge .**

Providing and fixing angular stop cock with wall flange of approved make such as Jaquar, Plumber or equivalent, including necessary fittings, accessories and wall flange for proper installation as directed by the Engineer-in-Charge. The stop cock shall be of standard quality suitable for hot and cold water supply lines and shall be fixed in position at the required location on wall or concealed plumbing line.

The work shall include making proper connection to existing water supply lines, ensuring leak-proof joints using suitable sealing materials such as Teflon tape or approved compounds, and testing the installation for smooth operation and watertight performance. All necessary consumables, minor fittings and hardware required for complete installation shall be included.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of angular stop cock installed.

**ITEM No.112 Providing and fixing Tabale top type basin of Cera , Jaquar, Parryware or Equivalent with cunter CI / MS / SS clamps or fastener including of fitting and brackets cutting and makeing good the walls wherever required including S.S. bracket.**

Providing and fixing table top type wash basin of approved make such as Cera, Jaquar, Parryware or equivalent, including all necessary fittings, fixtures and accessories required for proper installation as directed by the Engineer-in-Charge. The basin shall be fixed in position on existing or newly provided counter/ledge using suitable CI/MS/SS clamps, fasteners and brackets to ensure firm and stable support.

The work shall include providing and fixing stainless steel (S.S.) brackets of required size and strength, cutting of counter or supporting surface wherever required for proper seating of the basin, and making good the disturbed wall or surface to match the existing finish. All plumbing connections shall be properly executed to ensure leak-proof and functional installation.

The item shall include all materials, labour, tools and plants, fittings, brackets, cutting, making good, plumbing connections, fixing, sealing, testing, transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of wash basin installed.

**ITEM No.113 Providing and fixing Bib cock with wall flange of Jaquare , Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge .**

Providing and fixing bib cock with wall flange of approved make such as Jaquar, Plumber or equivalent brand, including necessary fittings, accessories and wall flange for proper installation as directed by the Engineer-in-Charge. The bib cock shall be of standard quality suitable for potable water supply and shall be fixed in position at the required location on wall or concealed plumbing line.

The work shall include making proper connection to existing water supply lines, ensuring leak-proof joints using suitable sealing materials such as PTFE tape or approved compounds, and testing the installation for smooth operation and watertight performance. All necessary consumables, minor fittings and hardware required for complete installation shall be included in the scope.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of bib cock installed.

**ITEM No.114 Providing and fixing Single Lever Basin Mixer foam flow with wall flange of Jaquar, Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge.**

Providing and fixing single lever basin mixer with foam flow aerator and wall flange of approved make such as Jaquar, Plumber or equivalent brand, including all necessary fittings, accessories and consumables required for proper installation as directed by the Engineer-in-Charge. The basin mixer shall be suitable for hot and cold water mixing operation and shall be of standard quality, corrosion resistant and durable in use.

The work shall include making proper connection to existing water supply lines, ensuring leak-proof joints using suitable sealing materials such as PTFE tape or approved compounds, and testing the installation for smooth and efficient operation. The fixture shall be fixed securely at the designated location with proper alignment and finish.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of basin mixer installed.

**ITEM No.116 Providing and fixing Single Lever Shower Mixer with 3-way diverter foam flow with wall flange including spout with provision Hand shower of Jaquar, Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge .**

Providing and fixing single lever shower mixer with 3-way diverter and foam flow aerator with wall flange, including spout with provision for hand shower, of approved make such as Jaquar, Plumber or equivalent brand, complete with all necessary fittings, accessories and consumables required for proper installation as directed by the Engineer-in-Charge. The shower mixer shall be suitable for hot and cold water mixing with smooth and precise operation of diverter for multiple outlets.

The work shall include making proper connections to existing water supply lines, fixing of concealed or surface-mounted components as required, ensuring leak-proof joints using suitable sealing materials such as PTFE tape or approved compounds, and testing the complete system for smooth and efficient operation. All fixtures shall be properly aligned, securely fixed and finished neatly.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of shower mixer set installed.

**ITEM No.117 Providing and fixing Overhead shower 240 mm dia. Or more of Jaquare , Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge .**

Providing and fixing overhead shower of minimum 240 mm diameter or more of approved make such as Jaquar, Plumber or equivalent brand, complete with all necessary fittings, accessories, and consumables required for proper installation as directed by the Engineer-in-Charge. The overhead shower shall be of standard quality, corrosion resistant, and suitable for uniform water distribution. The work shall include making proper connections to existing water supply line or shower arm, fixing with suitable wall/ceiling mounted arrangement as required, ensuring leak-proof joints using approved sealing materials such as PTFE tape or equivalent compounds, and testing the installation for proper functioning and uniform water flow. The fixture shall be installed in correct alignment, level and position as per site requirement.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of overhead shower installed.

**ITEM No.118 Providing and fixing Soap Dish of Jaquare, Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge.**

Providing and fixing soap dish of approved make such as Jaquar, Plumber or equivalent brand, including all necessary fittings, accessories, fasteners and consumables required for proper installation as directed by the Engineer-in-Charge. The soap dish shall be of standard quality, corrosion resistant and suitable for use in bathroom/toilet environments.

The work shall include fixing the soap dish at the required location on wall using suitable screws, wall plugs, adhesives or concealed mounting arrangements as per site conditions, ensuring firm and stable installation. Proper alignment, level and finishing shall be maintained for neat appearance.

The item shall include all materials, labour, tools and plants, installation, fixing accessories, drilling, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of soap dish installed.

**ITEM No.119 Providing and fixing Toilet Paper Holder of Jaquare , Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge .**

Providing and fixing toilet paper holder of approved make such as Jaquar, Plumber or equivalent brand, including all necessary fittings, fasteners, accessories and consumables required for proper installation as directed by the Engineer-in-Charge. The toilet paper holder shall be of standard quality, corrosion resistant and suitable for installation in toilet/bathroom areas.

The work shall include fixing the unit at the required location on wall using suitable screws, wall plugs or concealed mounting arrangements as per site conditions, ensuring firm and stable installation with proper alignment and level. The holder shall be installed neatly without damaging the surrounding surface finish.

The item shall include all materials, labour, tools and plants, installation, fixing accessories, drilling, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of toilet paper holder installed.

**ITEM No.120 Providing and fixing Corner Glass Shelf of Jaquare, Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge.**

Providing and fixing corner glass shelf of approved make such as Jaquar, Plumber or equivalent brand, including all necessary fittings, brackets, fasteners, accessories and consumables required for proper installation as directed by the Engineer-in-Charge. The glass shelf shall be of standard quality toughened glass of suitable thickness, with corrosion-resistant supports suitable for bathroom/toilet environment.

The work shall include fixing the shelf at the required corner location on wall using suitable stainless steel brackets or concealed fittings as per site conditions, ensuring firm, stable and safe installation. Proper alignment, level and finishing shall be maintained for neat appearance without damage to surrounding surface finish.

The item shall include all materials, labour, tools and plants, installation, fixing accessories, drilling, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of corner glass shelf installed.

**ITEM No.122 Providing and fixing Towel Rack 24" of Jaquar , Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge .**

Providing and fixing towel rack of size 24" of approved make such as Jaquar, Plumber or equivalent brand, including all necessary fittings, fasteners, accessories and consumables required for proper installation as directed by the Engineer-in-Charge. The towel rack shall be of standard quality, corrosion resistant and suitable for use in bathroom/toilet areas.

The work shall include fixing the towel rack at the required location on wall using suitable screws, wall plugs or concealed mounting arrangements as per site conditions, ensuring firm, stable and level installation. The rack shall be installed neatly without damaging the surrounding wall finish and shall provide adequate support for hanging towels.

The item shall include all materials, labour, tools and plants, installation, fixing accessories, drilling, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of towel rack installed.

**ITEM No.123 Providing and fixing Towel Ring of Jaquar , Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge .**

Providing and fixing towel ring of approved make such as Jaquar, Plumber or equivalent brand, including all necessary fittings, fasteners, accessories and consumables required for proper installation as directed by the Engineer-in-Charge. The towel ring shall be of standard quality, corrosion resistant and suitable for use in bathroom/toilet environments.

The work shall include fixing the towel ring at the required location on wall using suitable screws, wall plugs or concealed mounting arrangements as per site conditions, ensuring firm and stable installation with proper alignment and level. The item shall be installed neatly without damaging the surrounding surface finish.

The item shall include all materials, labour, tools and plants, installation, fixing accessories, drilling, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of towel ring installed.

**ITEM No.124 Providing erecting and fixing double coated ISI water tank of required capacity each with all necessary fittings and connection etc. complete on terrace.**

Providing, erecting and fixing double coated ISI marked water storage tank of approved make and required capacity on terrace or at designated location, complete with all necessary fittings, accessories and connections as directed by the Engineer-in-Charge. The tank shall be of food-grade quality, UV resistant, corrosion resistant and suitable for potable water storage, conforming to relevant ISI standards.

The work shall include proper handling, shifting, positioning and installation of the water tank on a prepared and levelled base/platform. Necessary inlet, outlet, overflow and drain connections shall be provided using approved quality fittings and pipes to ensure leak-proof and functional operation. All joints shall be properly sealed and tested for water tightness.

The item shall include all materials, labour, tools and plants, transportation, lifting to terrace, installation, plumbing connections, fittings, testing, scaffolding (if required), wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Liter of water tank installed.

**ITEM No.125 Providing and fixing Hand Shower 105mm Round Shape Single Flow of Jaquare , Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge**

Providing and fixing hand shower of 105 mm round shape single flow pattern of approved make such as Jaquar, Plumber or equivalent brand, including all necessary fittings, accessories, connectors and consumables required for proper installation as directed by the Engineer-in-Charge. The hand shower shall be of standard quality, corrosion resistant and suitable for uniform water flow performance in bathroom installations.

The work shall include fixing the hand shower to the existing shower system or wall outlet using suitable bracket/holder, flexible hose connection and compatible fittings, ensuring leak-proof joints using approved sealing materials such as PTFE tape or equivalent compounds. The installation shall be carried out in proper alignment and position for smooth and efficient operation. The item shall include all materials, labour, tools and plants, installation, plumbing connections, fixing accessories, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of hand shower installed.

**ITEM No.126 Providing and fixing Wall Mixer 3-in-1 System with Provision for both Hand Shower and Overhead Shower Complete with 115mm Long Bend Pipe, Connecting Legs & Wall Flange of Jaquare , Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge**

Providing and fixing wall mixer 3-in-1 system of approved make such as Jaquar, Plumber or equivalent brand, complete with provision for both hand shower and overhead shower, including 115 mm long bend pipe, connecting legs, wall flange and all necessary fittings, accessories and consumables required for proper installation as directed by the Engineer-in-Charge. The wall mixer shall be suitable for hot and cold water mixing with smooth and efficient operation and shall be of standard quality, corrosion resistant and durable.

The work shall include making proper connections to existing concealed or surface water supply lines, ensuring leak-proof joints using suitable sealing materials such as PTFE tape or approved compounds, and testing the complete system for proper functioning of all outlets including hand shower, overhead shower and mixer operations. The fixture shall be properly aligned, fixed securely and finished neatly as per site requirements.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of wall mixer set installed.

**ITEM No.127 Two Way Bib Cock: Providing ,fixing ,testing commissioning and keeping in good condition until project completion of 15mm dia two way bib cock of Plumber, Cera, Jaqure or Equivalent brand including with all fittings complete as per specification/drawings and details.**

Providing, fixing, testing, commissioning and maintaining in good working condition up to project completion of 15 mm dia two-way bib cock of approved make such as Plumber, Cera, Jaquar or

equivalent brand, including all necessary fittings, accessories and consumables required for proper installation as directed by the Engineer-in-Charge. The two-way bib cock shall be of standard quality, corrosion resistant and suitable for potable water supply applications.

The work shall include making proper connections to existing water supply lines, ensuring leak-proof joints using suitable sealing materials such as PTFE tape or approved compounds, and testing the installation for smooth and efficient operation of both outlets. The fixture shall be installed at the required location with proper alignment and finish as per approved drawings and site requirements.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, sealing, testing, commissioning, scaffolding (if required), transportation, wastage and all incidental works required for complete execution and maintenance till completion of the project as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of two-way bib cock installed.

**ITEM No.128 Providing and fixing Metropole of Jaquare , Plumber or equivalent brand including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge**

Providing and fixing metropole (concealed flushing cistern system) of approved make such as Jaquar, Plumber or equivalent brand, including all necessary fittings, accessories, internal components and consumables required for proper installation as directed by the Engineer-in-Charge. The metropole shall be of standard quality, suitable for wall hung or compatible WC systems, ensuring reliable flushing performance and durability.

The work shall include making proper concealed or surface connections to water supply and WC system, fixing the unit in correct position and alignment, and ensuring leak-proof joints using approved sealing materials. All internal flushing mechanisms, inlet/outlet connections and supporting accessories shall be properly installed and tested for smooth and efficient operation.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of metropole unit installed.

**ITEM No.129 Providing and fixing Brass ball Handle Valve of standard compny like Zoloto or equivalent and as per directed by engineer incharge. (A) 25mm dia.**

Providing and fixing brass ball handle valve of approved make such as Zoloto or equivalent, of 25 mm nominal diameter, conforming to standard specifications and as directed by the Engineer-in-Charge. The valve shall be suitable for potable water supply and shall be of robust construction, corrosion resistant, and capable of smooth on/off operation.

The work shall include providing and fixing the valve in position with proper alignment, making necessary connections to existing pipe lines, and ensuring leak-proof joints using suitable sealing materials such as PTFE tape or approved compounds. The installation shall be tested for proper functioning and watertight performance.

The item shall include all materials, labour, tools and plants, fittings, jointing materials, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of 25 mm dia brass ball valve installed.

**ITEM No.130 Providing and fixing Brass ball Handle Valve of standard compny like Zoloto or equivalent and as per directed by engineer incharge. (A) 50mm dia.**

Providing and fixing brass ball handle valve of approved make such as Zoloto or equivalent, of 50 mm nominal diameter, conforming to relevant standards and as directed by the Engineer-in-

Charge. The valve shall be suitable for water supply applications and shall be of robust construction, corrosion resistant, and designed for smooth operation and long service life.

The work shall include providing and fixing the valve in position with proper alignment, making necessary connections to existing pipe lines, and ensuring leak-proof joints using suitable sealing materials such as PTFE tape or approved compounds. The installation shall be properly tested for smooth functioning and watertight performance under working pressure.

The item shall include all materials, labour, tools and plants, fittings, jointing materials, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of 50 mm dia brass ball valve installed.

**ITEM No.134 Providing and fixing C.P. Angle stop cock of 15mm dia of approved quality including fixing in pipe line etc. as per Engineer in charge.**

Providing and fixing chromium plated (C.P.) angle stop cock of 15 mm nominal diameter of approved make and quality, suitable for water supply applications, as directed by the Engineer-in-Charge. The stop cock shall be of standard brass body with chromium plated finish, corrosion resistant and durable in operation.

The work shall include fixing the angle stop cock in the existing or new pipe line at the required location with proper alignment, making necessary threaded connections, and ensuring leak-proof joints using suitable sealing materials such as PTFE tape or approved compounds. The installation shall be tested for smooth operation and watertight performance.

The item shall include all materials, labour, tools and plants, fittings, jointing materials, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of 15 mm C.P. angle stop cock installed.

**ITEM No.135 Providing and fixing Brass ball valve of 25mm dia of approved quality including fixing in pipe line etc. as per Engineer in charge.**

Providing and fixing brass ball valve of 25 mm nominal diameter of approved make and quality, conforming to standard specifications and as directed by the Engineer-in-Charge. The valve shall be suitable for water supply lines, of robust construction, corrosion resistant, and designed for smooth quarter-turn operation ensuring reliable shut-off control.

The work shall include fixing the valve in position with proper alignment, making necessary connections to existing pipe lines, and ensuring leak-proof joints using suitable sealing materials such as PTFE tape or approved compounds. The installation shall be properly tested for smooth functioning and watertight performance under working pressure.

The item shall include all materials, labour, tools and plants, fittings, jointing materials, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of 25 mm brass ball valve installed.

**ITEM No.136 Providing and fixing Brass ball valve of 40mm dia of approved quality including fixing in pipe line etc. as per Engineer in charge.**

Providing and fixing brass ball valve of 40 mm nominal diameter of approved make and quality, conforming to standard specifications and as directed by the Engineer-in-Charge. The valve shall be suitable for water supply lines, of robust construction, corrosion resistant, and designed for smooth quarter-turn operation ensuring reliable shut-off control.

The work shall include fixing the valve in position with proper alignment, making necessary connections to existing pipe lines, and ensuring leak-proof joints using suitable sealing materials such as PTFE tape or approved compounds. The installation shall be properly tested for smooth functioning and watertight performance under working pressure.

The item shall include all materials, labour, tools and plants, fittings, jointing materials, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of 40 mm brass ball valve installed.

**ITEM No.139 Providing and fixing PVC SWR Nahni trap IS 14735 for drain -75 mm diameter with jali of the following nominal diameter of self cleansing design with C.I screed down or hinged grating including the cost of cutting and making good the walls.**

Providing and fixing PVC SWR Nahni trap conforming to IS 14735 for floor drain, of 75 mm nominal diameter, of approved make and self-cleansing design with C.I. screwed down or hinged grating, complete as directed by the Engineer-in-Charge. The trap shall be suitable for efficient drainage of wastewater from bathrooms, wash areas and similar locations, and shall be of durable, leak-proof construction.

The work shall include fixing the Nahni trap in position with proper alignment and gradient, making necessary connections to the existing SWR pipe system, and ensuring watertight joints using approved solvent cement or sealing compounds. The item shall also include cutting of flooring/wall where required and making good the disturbed portions to match the existing finish. The work shall include all materials, labour, tools and plants, fittings, grating, jointing materials, cutting, making good, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of Nahni trap installed.

**ITEM No.142 Providing and fixing Hand shower (Health Faucet) 1 meter PVC Tube with including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge .**

Providing and fixing hand shower (health faucet) set of approved make and quality, complete with 1 metre long PVC flexible tube and all necessary fittings, accessories and consumables required for proper installation as directed by the Engineer-in-Charge. The health faucet shall be suitable for hygienic use in toilet areas and shall be corrosion resistant and durable in operation.

The work shall include fixing the hand shower at the required location with suitable bracket/holder, making proper connection to existing water supply line, and ensuring leak-proof joints using approved sealing materials such as PTFE tape or equivalent compounds. The installation shall be tested for smooth and efficient operation.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, fixing accessories, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of health faucet installed.

**ITEM No.144 Providing and fixing Lead connection pipe for washbasin and gyser with including necessary hardware and other consumable and labor etc complete. as approved by engg. in charge .**

Providing and fixing lead connection pipe for wash basin and geyser, of approved make and quality, complete with all necessary fittings, accessories, connectors and consumables required for proper installation as directed by the Engineer-in-Charge. The connection pipe shall be suitable for potable hot and cold water supply, corrosion resistant, flexible and durable in service.

The work shall include making proper connections to existing plumbing lines and fixtures, ensuring leak-proof joints using suitable sealing materials such as PTFE tape, rubber washers or approved compounds. The installation shall be tested for smooth flow and watertight performance without leakage.

The item shall include all materials, labour, tools and plants, installation, plumbing connections, fixing accessories, sealing, testing, scaffolding (if required), transportation, wastage and all incidental works required for complete execution as directed by the Engineer-in-Charge.

**Unit of Measurement:** Each (No.) of connection pipe installed.

**ITEM No.145 Providing and fixing standard extruded of aluminium section of size 63mm x 38.10mm x 1.2mm @ Wt. 0.643 Kg/mt with colour anodized aluminium frame for ventilation with 5 mm thick frosted glass as details etc complete for Ventilation**

Providing and fixing standard extruded aluminium section ventilator frame of size 63 mm × 38.10 mm × 1.2 mm weighing approximately 0.643 kg/m, with colour anodized finish, including fabrication, assembly and installation at the required location as directed by the Engineer-in-Charge. The aluminium frame shall be properly cut, joined and fixed true to line, level and plumb to ensure stability and proper alignment.

The ventilator shall be provided with 5 mm thick frosted glass of approved quality, fixed securely in the aluminium frame using suitable rubber gaskets, glazing beads, clips and sealant to ensure proper holding and air-tight/watertight performance as required. All joints shall be properly sealed and finished to avoid leakage and rattling.

The work shall include all materials, labour, tools and plants, cutting, fabrication, glazing, fixing accessories, sealant, transportation, wastage, scaffolding (if required) and all incidental works required for complete execution of aluminium ventilator as directed by the Engineer-in-Charge.

**Unit of Measurement:** Square Metre (m<sup>2</sup>) of ventilator area.

**ITEM No.146 Providing water based epoxy membrane/ barrier coating to existing wall surface to prevent rising damp, efflorescence and to withstands hydrostatic pressure by using two component water based epoxy of Ardex Endura make "WPM 300 " or equivalent make on cleaned wall surface as per manufacturer specification etc. all complete as per direction of Engineer-in-charge.**

Providing and applying two-component water-based epoxy membrane/barrier coating of approved make such as [ARDEX ENDURA WPM 300](#) or equivalent on existing wall surfaces for prevention of rising dampness, efflorescence and seepage under hydrostatic pressure. The work shall include thorough cleaning of the surface by removing all loose plaster, paint, dust, dirt, laitance, grease, salts, fungal growth and other foreign matter, repairing cracks, honeycombs and surface defects with suitable repair mortar, and preparing the substrate as per manufacturer's recommendations. The two components of the epoxy coating shall be mixed mechanically in the specified proportion and applied uniformly in two coats by brush, roller or spray application, with the second coat applied after the first coat has sufficiently dried, to achieve a continuous, pinhole-free waterproof barrier of the required film thickness. The coating shall possess excellent adhesion to damp masonry, concrete and plastered surfaces and shall be capable of resisting negative hydrostatic pressure while preventing moisture ingress and efflorescence. The item shall include all materials, labour, tools and tackles, scaffolding, surface preparation, mixing, application, curing, protection and all incidental operations necessary to complete the work in accordance with the manufacturer's specifications and as directed by the Engineer-in-Charge.

**Unit of Measurement:** Measurement shall be made on the actual treated surface area and the rate shall include all costs involved for complete execution of the work.

**ITEM No.147 Providing and fixing of R.C.C. Cover of size 34" x 34" for drainage chamber as approved by engineer in charge.**

Providing, casting, curing, transporting and fixing R.C.C. Drainage Chamber Cover of size 34" × 34" (850 mm × 850 mm approx.), constructed with M-25 grade reinforced cement concrete using approved quality cement, fine aggregate and graded coarse aggregate, reinforced with requisite TMT/MS steel reinforcement, including formwork, compaction by mechanical vibrator, finishing, curing, provision of lifting hooks/handles, loading, unloading, conveyance, placing in position over drainage chamber and all labour, materials, tools, plants and incidental charges complete in all respects as per approved specifications and directions of the Engineer-in-Charge.

**Unit of Measurement: Each (No.)**

**ITEM No.148 Providing and Fixing 12 mm thick moisture & fire resistant heavy duty Cement Fibre Board (High pressure steam cured) Confirming to ISO 4862-2000 in wall panels of one face of cold formed galvanised light gauge steel frame structure to form wall / partition as & Where directed by Engineer-in-Charge**

Providing and fixing 12 mm thick moisture resistant and fire resistant heavy-duty Cement Fibre Board, high-pressure steam cured and conforming to IS 14862:2000/ISO 8336 or equivalent approved standard, having minimum density as specified by the manufacturer, on one face of cold-formed galvanized light gauge steel frame structure to form wall/partition panels as and where directed by the Engineer-in-Charge. The board shall be fixed to galvanized steel studs and tracks with approved corrosion-resistant self-drilling/self-tapping screws at recommended spacing, including cutting, drilling, notching and making openings for services wherever required. The joints between boards shall be treated with approved jointing compound, fibre mesh tape and finished smooth to receive paint or other specified finish. The work shall include providing all necessary accessories, fasteners, sealants, edge treatment, backing supports, scaffolding, lifting, handling, wastage, labour, tools and plants required for complete installation. The finished surface shall be true to line, level and plumb, free from waviness, cracks or defects, and completed in accordance with the manufacturer's specifications and directions of the Engineer-in-Charge.

**Unit of Measurement: Square Metre (Sqm).**

**ITEM No.150 PLY WALL PANELING FINISH WITH VENEER FINISH : Providing & fixing 12mm thick IS 710 MR Grade ply fixed on frame work. The framework shall be fixed as per drawing vertically as per requirement. The framework shall be covered with approved make plywood (IS 710- 12 mm ply), adhesive ,tape, headless nails etc ,finished with Veneer ( veneer base 4 mm thick ply) with semiglossy PU polish & in pattern as shown in the drawing. Rate shall be inclusive grooves etc complete as per drawing or as directed by Employer's representative/ Employer.**

Providing and fixing wall panelling comprising approved quality 12 mm thick BWP Grade plywood conforming to IS:710, fixed over a framework of seasoned hardwood battens or approved framework system of required size and spacing, securely anchored to the wall surface as per approved drawings and site requirements. The plywood shall be cut, fitted and fixed true to line, level and plumb, including all necessary screws, adhesives, headless nails, cleats, inserts and accessories required for complete installation.

The exposed surface shall be finished with approved natural wood veneer bonded over 4 mm thick veneer-base plywood using approved adhesive and pressed to achieve a smooth and uniform finish. The veneer shall be laid in the approved pattern, grain direction and design as shown in the drawings, including matching, book-matching and continuation of grains wherever specified. Necessary grooves, shadow gaps, recesses, mouldings and decorative patterns shall be formed as per approved details and drawings.

The completed surface shall be carefully sanded and finished with approved wood filler/stain wherever required and coated with multiple coats of semi-gloss polyurethane (PU) polish to achieve a smooth, durable and uniform finish of approved shade and texture. The item shall include all materials, labour, scaffolding, cutting, wastage, edge finishing, groove formation, hardware, transportation, handling and all incidental works required to complete the panelling in accordance with the drawings, specifications and directions of the Employer/Engineer-in-Charge.

**Unit of Measurement: Square Metre (Sqm).**

**Item No. 151: Dismantel Credit Material**

**(1) Brass fitting like Bib cock, stop cock, pillar cock, shower etc.**

#### **MATERIAL :**

The old dismantled Brass fitting like Bib cock, stop cock, pillar cock, shower etc. of obtained from execution of such item shall removed by the contractor from site of work as per the instruction of the Engineer-in-charge. The credit value of Brass fitting like Bib cock, stop cock, pillar cock, shower etc. at the rate of Rs.250.00 Per Kg. shall be deducted from the respective bill of the contractor.

In no case of the contractor's shall be complain for the quality and quantities of dismantled materials obtained from the work shall be considered. In any case recovery for the quantity of item as per schedule – B shall be recovered irrespective of available useful or non useful materials. The contractor should take away all he dismantled materials from the site of work in any form. No clam shall be made for such deductions of credit of dismantled materials.

#### **(2) Old Damaged FRP Doors including frame, attachment etc comp**

The old dismantled FRP door of obtained from execution of such item shall removed by the contractor from site of work as per the instruction of the Engineer-in-charge. The credit value of FRP DOOR at the rate of Rs.600.00 Per No. shall be deducted from the respective bill of the contractor.

In no case of the contractor's shall be complain for the quality and quantities of dismantled materials obtained from the work shall be considered. In any case recovery for the quantity of item as per schedule – B shall be recovered irrespective of available useful or non useful materials. The contractor should take away all he dismantled materials from the site of work in any form. No clam shall be made for such deductions of credit of dismantled materials.

#### **(3) Old Damaged Doors including frame, attachment etc comp.**

#### **MATERIAL :**

The old dismantled Old rusted Door with frame of obtained from execution of such item shall removed by the contractor from site of work as per the instruction of the Engineer-in-charge. The credit value of Old rusted Door with frame at the rate of Rs.1200.00 Per No. shall be deducted from the respective bill of the contractor.

In no case of the contractor's shall be complain for the quality and quantities of dismantled materials obtained from the work shall be considered. In any case recovery for the quantity of item as per schedule – B shall be recovered irrespective of available useful or non useful materials. The contractor should take away all he dismantled materials from the site of work in any form. No clam shall be made for such deductions of credit of dismantled materials.

#### **(4) Old Damaged Windows including frame, attachment etc comp.**

#### **MATERIAL :**

The old dismantled Old rusted Window with frame of obtained from execution of such item shall removed by the contractor from site of work as per the instruction of the Engineer-in-charge. The credit value of Old rusted Window with frame at the rate of Rs.450.00 Per No. shall be deducted from the respective bill of the contractor.

In no case of the contractor's shall be complain for the quality and quantities of dismantled materials obtained from the work shall be considered. In any case recovery for the quantity of item as per schedule – B shall be recovered irrespective of available useful or non useful materials. The contractor should take away all he dismantled materials from the site of work in any form. No clam shall be made for such deductions of credit of dismantled materials.

#### **(5) Old Steel, grills, Pipes etc.**

#### **MATERIAL :**

The old dismantled Old Steel like M.S. Grill, Rusted G.I. Pipe, Rusted C.I. Pipe etc. of obtained from execution of such item shall removed by the contractor from site of work as per the instruction of the Engineer-in-charge. The credit value of Old Steel like M.S. Grill, Rusted G.I. Pipe, Rusted C.I. Pipe etc. at the rate of Rs.25.00 Per Kg. shall be deducted from the respective bill of the contractor.

In no case of the contractor's shall be complain for the quality and quantities of dismantled materials obtained from the work shall be considered. In any case recovery for the quantity of item as per schedule – B shall be recovered irrespective of available useful or non useful materials. The contractor should take away all he dismantled materials from the site of work in any form. No clam shall be made for such deductions of credit of dismantled materials.

**Dated Signature of the contractor**

**Deputy Executive Engineer  
Shahibaug (R&B) Sub Division  
Ahmedabad**

**Executive Engineer  
Ahmedabad city (R&B) Division  
Ahmedabad**