



CORRIGENDUM-I

**RATE CONTRACT FOR CIVIL WORK FOR CRITICAL
STATIONS RENOVATION**

Dated: 27.06.2023

TENDER DOCUMENT NO. IGL/ET2/CP/CC17523

Sl No	Description	Tender Page No.	Clause / Para / Section / Item No.	Amendment / Addition / Modification / Deletion	
1	Technical Specification			Addition	Annexure-I

Technical Specification		Annexure - I	
S No	Activity / Description	Technical Specifications	UOM
1	P & L PAVER BLOCKS 80MM THICK & M40 GRADE WITH PROPER SAND BED	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge. Material to lay - 80 mm thick C.C. paver block of M-40 grade of desired color design and pattern as per directed by EIC or his representative. Strength test certificate shall be submitted as per direction of EIC or his representative.	sqm
2	STRUCTURAL STEEL WORKS (WITH MATERIAL)	Supplying, fabricating, joining, erecting & fixing in position in true line and level, structural steel work including splicing, welding, riveting, bolting, fixing in position, hoisting, machining of rough surfaces with all plant machinery tools & tackles including preparation of shop floor drawings (if required) all consumables like welding rods, nut/bolts, electricity (for fabrication in vendors workshop), etc complete including applying one coat of red oxide primer and two coats of synthetic enamel paint in rolled BIS stds. steel sections like R.S.J., angles, Tees, channels, ISMBs, ISMCs, and plain/ chequered plates etc. Work to be done for fabrication of staircases, crash guards, ladders, sheds, trench covers, manhole covers, gratings, railings, gates, cascade frames/platforms, walkways, doors, windows, canopy members etc. Rates to include material, labour, transportation, hinges, handles, towerbolts, painting & scaffolding etc complete in all respects necessary for completion of work. Recommended Make: TISCO/ Jindal/ SAIL.	kg
3	PROV & LAYING-BRICK MASONRY 1:4	Supplying and laying in position Brick masonry, using designate 100 brick (Having Minium Compressive Strength of 100 kg/cm2 and also test certificate required) in cement mortar 1:4 as approved by site incharge including scaffolding, shuttering, mixing mortar, raking out joints, curing, etc. with all materials complete as per direction of EIC or his representative. At all depths & at all heights.	cum
4	PROVIDING & FIXING WALL TILES	Providing and fixing 1st quality ceramic wall tiles conforming to IS: 15622, in all colours, of any size as directed by Engineer-in-Charge or his representative, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete. Recommended Make: kajaria / Somany / Nitco / Simpolo / Varmora / Cera / HR Johnson	M2
5	PROVIDING & LAYING -RCC M25 GRADE (1:1:2)	Providing and laying in position specified grade of reinforced cement concrete, including the cost of centering, shuttering, finishing and excluding the cost of reinforcement, all work for all heights & depths 1:1:2 (1 cement : 1 coarse sand : 2 graded stone aggregate 20 mm nominal size). NOTES: The rates of the above items are inclusive of the cost of labor, material & curing etc. complete. The construction material like cement, sand, coarse and fine aggregate, steel, bricks, water etc. should conform to the quality as per concerning IS codes. The contractors to arrange slump, cube test for cement concrete work as per standard at their cost. For bigger areas like forecourt etc-RCC M-25 can be used. Specifications will be - Ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads, having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work, including pumping of R.M.C. from transit mixer to site of laying, including the cost of centering, shuttering finishing and excluding the cost of reinforcement, including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge or his representative to be used in big pours. Cement Recommended Make: ACC/Jk Cement / Ultra tech/ Shree Cement.	cum
6	PROVIDING, LAYING, SPREADING AND COMPACTING GRADED STONE AGGREGATE (SIZE RANGE 53 MM TO 0.075 MM) TO WET MIX MACADAM (WMM) AT OMC.	Providing, laying, spreading and compacting graded stone aggregate (size range 53 mm to 0.075 mm) to wet mix macadam (WMM) specification including premixing the material with water at OMC in for all leads & lifts, laying in uniform layers with mechanical paverfinisher in sub- base / base course on well prepared surface and compacting with vibratory roller of 8 to 10 tonne capacity to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.	cum
7	PROV & APPLYING-PLASTER 12 MM- 20 MM THICK	Providing 12 mm - 20 mm thick average cement plaster in cement mortar 1:3 (1 cement : 3 sand) , cement used to be of Grade OPC43 and above on brick wall / pitching or on concrete surfaces for manholes, valve-pits, culverts, wing walls etc including cleaning and preparation of the surface by hacking the concrete surface and raking out the joints of brickwork, scaffolding, curing etc. for all depths and heights complete as per drawings, specifications and directions of Engineer-in-Charge with all tools, material, labour, scaffolding and curing etc. complete as per specifications and direction. Cement Recommended Make: ACC/Jk Cement / Ultra tech/ Shree Cement	M2
8	Prov & Fix Faux/ Natural WOODEN BLINDS	Providing & Fixing Faux/ Natural Wooden Blinds of desired shade, colour, patter, texture etc with all necessary Hardware including all incidentals, channels, supports, hooks, string to complete the work in direction of Horizontal/ Vertical and any colour to the satisfaction of Engineer-in-Charge or his representative. Recommended Make: Vista/ Deck / D'Decor/ Sun Ban Blinds and Interiors/ Matts Corner/ Livin/ Lourline/ Walkart/ Prexa / 3M	M2
9	Supplying & Laying FRP TRENCH COVER	Supplying & Laying FRP Trench Cover having load capacity 40 ton. Colour, logo and design as per direction of EIC. Work to be complete in all respect as per direction of EIC or his representative. Recommended Make: Ashoo Model Arts/ Selected Product Co./ Fibreways Technology/ Everlast	M2
10	Supp & Installation of Electronic digital Lock/ contactless Video door phone	Supplying & Installation of Digital Lock with 4 in 1 access, as this electronic lock enables the door access through Password, Biometric access that has 360 degree Fingerprint Recognition and Mechanical Key. Armed with advanced, pro-safety features. Shape, Size, Pattern and design as per direction of EIC. Work to be complete in all respect as per direction of EIC or his representative. Item should come with brand warranty for min. 1 year. or Supply & Installation of contactless Video door phone with screen of size min. 7 inch having resolution of min. 1024*600 pixel, Wifi enabled and having intergration with door lock, Motion detection & night vision feature, 2 way audio enabled, angle of capture min. 120 degrees, with memory card having storage capacity of 2 weeks, power rating 150V- 240V. Video door phone to be complete in all respect with mounting supports and brackets, Shape, Size, Pattern & Design as per the direction of EIC. Work to be complete in all respect as per direction of EIC or his representative. Item should come with brand warranty for min. 1 year. Recommended Make: Godrej/Vale/Hogar	NO
11	Supplying & Laying FRP GULLY GRATING COVER FOR DRAIN	Supplying & Laying FRP Gully Grating Cover having load capacity 40 ton, colour, logo and design as per direction of EIC. Work complete in all respect as per direction of EIC or his representative. Recommended Make: Ashoo Model Arts/ Selected Product Co./ Fibreways Technology/ Everlast	M2
12	Supplying & Laying FRP 'Y' ANGLE FOR FRAME	Supplying & Laying FRP 'Y' ANGLE For Frame having size upto 65 x 65 or as per FRP trench cover thickness & dimensions having load capacity 40 ton including hole pass for grouting. Colour, logo and design as per direction of EIC or his representative.. Work complete in all respect as per direction EIC or his representative. Recommended Make: Ashoo Model Arts/, Selected Product Co./ Fibreways Technology/ Everlast	M
13	Prov & Fix. FRP Fencing	Providing & Fixing Precast FRP Fencing prepared using the combination of square/circular pipe, rectangular/circular rod, square/circular ring, sphere ring etc as per colour, design, logo and specification provided by ig/CPWD preferred design including cost of necessary hardware and cement concrete / mortar for grouting complete in all respects as per direction of EIC or his representative. The free space / gap in the fence should be such that no unauthorised or non recommended activity / hazard can pass through the fencing. It should have quality specification as per ASTM D 3917-96. The weight of FRP should be minimum of 2000 kg/cm2. Area will be measured above ground for billing. It should be suitable for minimum ambient temperature of 50 degree celcius and wind pressure 150 kg/cm2. Fencing shall be manufactured using component made in accordance with IS-6746 & IS-13410. Recommended Make: Ashoo Model Arts/ Selected Product Co./ Fibreways Technology/ Everlast	M2

14	P&F PARTLY GLAZED PARTITION	Providing and fixing partition in position as per design with 2" x 2" Maranti section finished frame work @ 2'0" c/c (2 feet centre to centre) both ways screwed to the floor, upto required height, mounted with 10mm toughened glass with the help of hard wood beading on to and ceiling .The measurement will be taken upto the ceiling visible height in case of full height partition.The frame work will be clad with 6 mm thick commercial ply both sides and to be finished with approved 1 mm laminate with adhesive having color , pattern and design as per IGL requirement. 3" high laminated skirting to be fixed bottom side of the partition. Extra frame work to be fixed for fixing glass. In the glazed partition 10mm thick, Etched glass with sand blasting/granular blasting to be provided duly fixed with wooden lipping 37mm x 19 mm all complete duly polished. The work to be completed as per design directed by IGL or his representative. The work to be completed in all respects including tools, tackles, hardware, manpower etc.	FT2
15	P&L -CEMENT CONCRETE (1:2:4)	Providing and laying in position cement concrete 1:2:4 (1 Cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including the cost of centering and shuttering - All work up to any level in retaining walls, return walls, walls (any thickness) including attached columns, pillars, parapets, coping, bed blocks, forecourts, trenches, foundations, sunken floor,etc., including the cost of centering, shuttering and finishing.	cum
16	P&F BLOCKED PARTITION	Providing and fixing partition in position as per design with 2" x 2" Maranti section finished frame work @ 2'0" c/c (2 feet centre to centre) both ways screwed to the floor and ceiling with M.S. Cleats and to be treated with anti termite oil .The measurement will be taken upto the ceiling visible height in case of full height partition.The frame work will be clad with 6 mm thick commercial ply both sides and to be finished with approved 1 mm laminate with adhesive having color , pattern and design as per IGL requirement. 3" high laminated skirting to be fixed bottom side of the partition. Extra frame work to be fixed for fixing glass. In the glazed partition 10mm thick Etched glass with sand blasting/granular blasting to be provided duly fixed with wooden lipping 37mm x 19 mm all complete duly polished. The work to be completed as per design directed by IGL or his representative. The work to be completed in all respects including tools, tackles, hardware, manpower etc.	FT2
17	S & I uPVC sound proof partition	Providing and fixing factory made uPVC white colour casement/casement cum fixed glazed windows comprising of uPVC multi-chambered frame, sash and mullion (where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thick galvanized mild steel section made from roll forming process of required length (shape & size according to uPVC profile), uPVC extruded glazing beads of appropriate dimension, EPDM gasket, stainless steel (SS 304 grade) friction hinges, zinc alloy (white powder coated) casement handles, G.I fasteners 100 x 8 mm size for fixing frame to finished wall, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame & sash shall be mitred cut and fusion welded at all corners, mullion (if required) shall be also fusion welded including drilling of holes for fixing hardware's and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of required size and of approved quality, all complete as per approved drawing & direction of Engineer-in-Charge. (Single / double glass panes and silicon sealant included). Variation in profile dimension in higher side shall be accepted but no extra payment on this account shall be made.Casement window double panels with S.S. friction hinges (350 x 19 x 1.9 mm) made of (big series) frame 67 x 60 mm & sash / mullion 67 x 80 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead/ double glazing bead of appropriate dimension. Providing, assembling and supplying vision glass panels (IGUs comprising of hermetically-sealed 6-12-6 mm insulated glass (double glazed) vision panel units of size and shape as required and specified, comprising of an outer heat strengthened float glass 6mm thick, of approved colour and shade with reflective soft coating on surface of approved colour and shade, an inner Heat strengthened clear float glass 6mm thick, spacer tube 12mm wide, dessicants, including primary seal and secondary seal (structural silicone sealant) etc. all complete for the required performances, as per drawings/ shop drawings, as specified and as directed by the Engineer-in-Charge. The IGUs shall be assembled in the factory/ workshop of the glass processor. Coloured tinted float glass 6mm thick substrate with reflective soft coating on face # 2, + 12mm Airgap + 6mm Heat Strengthened clear Glass of approved Recommended Make having properties as visible Light transmittance (VLT) of 25 to 35 %, Light reflection internal 10 to 15%, light reflection external 10 to 20 %, shading coefficient (0.25- 0.28) and U value of 3.0 to 3.3 W/ m2 degree K etc. The properties of performance glass shall be decided by technical sanctioning authority as per the site requirement.	M2
18	PROVIDING & LAYING PREMIUM VITRIFIED TILE	Providing and laying vitrified floor tiles in different sizes (upto 4'x6') and thickness (10mm to 16 mm) with water absorption less than 0.08% and conforming to IS : 15622, of kajaria / Somany / Nitco / Simpolo / Varmora / Cera / HR Johnson Make, in all colours, pattern and shades, laid on 12 to 20 mm thick cement mortar 1:3 (1 cement : 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/sqm including grouting the joints with white cement and matching pigments etc., complete. Recommended Make: kajaria / Somany / Nitco / Simpolo / Varmora / Cera / HR Johnson	M2
19	SUPL&FIXING-DEFORM STEEL BARS REINFORCE	Supplying and placing in position HIGH STRENGTH DEFORMED STEEL BARS REINFORCEMENT (Conforming to IS:1786, Grade Fe 415 or above) for RCC work including transporting, straightening, cleaning, de-colling, cutting & binding to required shapes and lengths as per details, it also includes binding with 16SWG black soft annealed binding wire at every intersection, supplying and placing with proper cover blocks, supports, chairs, overlaps, welding, spacers, fan hooks etc. for all heights and depths etc. complete as directed by EIC or his representative. IT ALSO INCLUDES ALL MATERIALS, MANPOWER, TOOLS & TACKLES ETC AND WORK TO BE COMPLETED IN ALL RESPECTS. Recommended Make: TATA/RINL/SAIL/TISCO/JINDAL/ESSAR/JSW	kg
20	Prov & Fix Al Frame Work	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved Recommended Make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws, all complete as per drawings and the directions of Engineer-in-charge. (Glazing, panelling and dash fasteners included) : For fixed portion & For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket Required powder coated aluminium (minimum thickness of powder coating 50 micron) Recommended Make: Jindal/Hindalco/Indogo/ Indo- Alusys/ Vedanta/NALCO/BALCO/MALCO	Kg
21	Prov & Fix Particle Board	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per drawings and directions of engineer in-charge or his representative. Pre-laminated particle board with decorative lamination on both sides Recommended Make: Century / Duro/ Greenply/Action Tesa/ Merino/ Archid Ply	M2
22	PROVIDING & FIXING MOSSAIC TILES	Providing and fixing mosaic tiles on finished plain wall surface of size 20 mm x 20 mm x 4 mm in all colour, design , fixing in customize design/ prints as per direction of Engineer-in- Charge. The mosaic tiles to be fixed on the wall surface with the help of adhesive applied at the rate of 2.5 kg per sqm and grouting of the same. The rate is inclusive of all operation, material and required panelling as directed by Engineer-in-Charge or his representative: Tile Recommended Make: kajaria / Somany / Nitco / Simpolo / Varmora / Cera / HR Johnson Adhesive Recommended Make: Pidlilite/ Roff / Dr. Fixit/ Mapei/ Dulux/ Fosroc India /Fevicol /BASF/ Tigonis	M2
23	DEMOLISHING RCC WORK	Demolishing RCC work (taking all necessary safety precautions) for all heights above & below plinth level including supply of all tools & tackles, necessary scaffolding, propping, underpinning etc., cutting, straightening, scraping & cleaning of reinforcement bars, stacking of serviceable material, disposal of unserviceable material outside the IGL boundary limits keeping IGL indemnified of any liabilities from statutory / local bodies, all complete as specified & directed by EIC or his representative.	cum
24	Removal & Refixing of Paver Blocks	Removal & Refixing of paver blocks including labour, sand, leveling & compaction etc complete in all respects. Settled floor to be dismantled, repaired & pavers to be laid again in the required level. PCC/RCC if required to be paid separately. Including 50 mm thick compacted bed of coarse sand, filling the joint with sand.	sqm
25	Supp & Fix Digital Screen	Supply ,Installation ,Testing & Commissioning of Digital Screen/ Video Wall of minium size 1920 x 1344 MM with maximum P4.8 outdoor LED module. Data Wall and Controller shall be with BIS certificate and must be IP66 protection/rated.Including MS Frame/Structure for Display with wall/ground mounted stand complete in all respects as per direction of EIC or his representative. It also includes 3 years warranty with all spares, manpower, tools & tackles etc. (Any physical damaged shall be in IGL scope.) Digital screen shall consist SPD (Surge Protection Device) with low voltage and high voltage protection. Recommended Make: PSU's Recommended Make	EA

26	Supp & Fix GI Sheet	Supplying, fabricating, joining, erecting & fixing in position in true line and level, GI Sheet 0.8 mm thick conforming to IS 277:1992 work including splicing, welding, riveting, bolting, fixing in position, hoisting, machining of rough surfaces with all plant machinery tools & tackles including preparation of drawings (if required) all consumables like welding rods, nut/bolts, electricity (for fabrication in vendors workshop), etc. will be in vendor scope and to be completed in all respects. Work to be done for fabrication of sheds, frames/platforms, walkways, doors, windows, canopy members etc. Rates to include material, labour, transportation, hinges, handles, towerbolts, painting & scaffolding etc complete in all respects necessary for completion of work. Recommended Make: SAIL/ TATA / Jindal	KG
27	Supplying & Fixing Toilet Cabin 8 x 4 ft	Supplying and fixing toilet cabin of minimum size 8 x 4 ft or upto 24 sq ft, 18 SWG MS Sheet on walls and roof with ISI mark, heavy duty MS material for frame, flooring and roof structure, using 50 mm thick glaswool/thermocol for heat insulation purpose, it also includes water closet, washbasin, urinal, pillar cock, exhaust fan, lights, wiring and all plumbing & electrical accessories etc for washroom complete in all respect as per direction of engineer-in-charge or his representative	Nos
28	Supplying & Fixing Toilet Cabin 4 x 4 ft	Supplying and fixing toilet cabin of minimum size 4 x 4 ft or upto 16 sq ft, 18 SWG MS Sheet on walls and roof with ISI mark, heavy duty MS material for frame, flooring and roof structure, using 50 mm thick glaswool/thermocol for heat insulation purpose, it also includes water closet, washbasin, urinal, pillar cock, exhaust fan, lights, wiring and all plumbing & electrical accessories etc for washroom complete in all respect as per direction of engineer-in-charge or his representative	Nos
29	PROV&LAYING- MARBLE	Supplying, laying, grinding, polishing 18 to 20 mm thick Machine cut Marble stone, as per sample of marble recommended by IGL, for flooring, dispenser island and any other location of required shape including 20 mm bedding cement mortar 1:4 along with adhesive admixture for better adhesion and jointed with white/grey cement slurry or jointed with epoxy tile joint filler of required colour. All the work to be completed in all respect and as per direction of IGL. Recommended Make of adhesive: Ferrous Crete/ Ardex Endure (Goldstar)/ Pidilite (Fevimate XI)/ MYK Latitcrete	sqm
30	P&F Wooden Door	Providing and fixing solid core minimum 38 mm solid core flush door (size 7'x3'6" or upto 24.5 sq ft) finished with lippings in all side with necessary door hinges, cylindrical locks, door closer, door stoppers, etc with a frame work of Teak Wood/Beech wood size minimum 75mm x 62.5mm with necessary hold fast fixed to the wall/partition. 1 mm laminate to be fixed on both sides duly finished, edges to be finished with wooden lippings. A wooden moulding size 1.5"x2'8" to be provided all along the periferi of the frame work in the both sides. All the wooden area to be duly polished as per specification as directed by IGL Representative. In case of Partly glazed door 10 mm thick etched or plain glass with granular blasting/sand blasting as per design directed by IGL representative to be fixed with necessary mouldings. Recommended Make of Wood & Laminates : Century/ Greenply/ Action Tesa/ Sumail(Spacewood)/ Orion/ Duro Recommended Make of lock: Godrej/ Ozone/ Doorset/ Yale	NO
31	P & F Cup Board Shutter	Providing and fixing cup board shutters 25 mm thick, with Pre-laminated flat pressed three layer particle board or graded wood particle board IS: 12823 marked, medium/high density fibre board with surface finish having texture/ glossy of colour as per direction EIC, having exterior grade (Grade I Type II), having one side decorative lamination and other side balancing lamination, including lnd class teak wood lipping of 25 mm wide x12 mm thick with necessary screws and bright finished stainless steel piano hinges, complete as per direction of the Engineer-in-Charge. Recommended Make: Century/, Greenlam/ Marino/ Northern laminates/ Sundek/ Duro/ Merino	M2
32	Prov & Fix European Water Closet	Providing and fixing floor mounted, vitreous china single piece, double trap, symphonc water closet of desired shape, size, pattern and colour including integrated vitreous china cistern of capacity minimum 10 litres with dual flushing system, including all fittings and fixtures with seat cover, cistern fitting, nut bolts and gasket etc including making connection with P/S trap complete in all respect as per EIC. Cutting and making good the walls and floors wherever required is included Recommended Make : Jaquar/ Hindware/Kohler/Cera /TOTO.	EA
33	P & F PLY & GYPSUM BOARD Partition/False Ceiling	Providing and fixing partition upto ceiling height consisting of G.I. frame and required board & Gypsum board false ceiling at all height, including providing and fixing of frame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm(both side inclusive). Description of partition work : It consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacturer's specification and direction of engineer in charge all complete. 75 mm overall thickness partition with 12.5 mm thick double skin fire rated Glass Reinforced Gypsum (GRG) plaster board conforming to IS: 2095: part 3 (Board with BIS certification marks). Necessary wooden members at specified heights to support doors, glass/ softboards, whiteboard, indoor unit of split Ac etc. must be provided. cost includes making cutouts for ac duct/ grills/ switch boards/ sockets etc. Description of false ceiling frame work: It consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound, jointing tapes, finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with Fully Perforated Gypsum Plaster Board of size 1200 x2400x12.5 mm having approx. 15 % perforated area with perforation size and pattern as approved by the Engineer in-charge and as per manufacturer's specification, with all 4 side tapered and backed by acoustical tissue with NRC value not less than 0.60 Recommended Make: St. Gobain/ Gyproc Gypsum/ Boral/ Everest/ Branco Gypsum/ Polo/ Gyptech.	M2
34	Supplying & Installation of Porta Cabin	Supplying and fixing porta cabin of minimum size 10 x 10 ft or upto 100 sq ft with minimum 10 ft height ceiling from inside floor, 18 SWG MS Sheet on walls and roof with ISI mark, heavy duty MS material for frame, flooring and roof structure, using 50 mm thick glaswool/thermocol for heat insulation purpose, it also includes suitable number of aluminium windows for ventilation, gate with lock, handle, stopper, exhaust fan, LED lights, fans, socket, switches, wiring and all electrical accessories, painting etc complete in all respect as per direction of engineer-in-charge or his representative. All the electrical wiring should be properly conducted with PVC or suitable material.	Nos
35	Providing & Fixing GLASS DOOR	PROVIDING AND FIXING 12 mm toughened glass door with 18" long SS handles, floor spring, locking arrangement with minimum two keys of C.P. brass Recommended Make at top/bottom in patch fitting. In the glass door 12mm thick, Etched glass with sand blasting/granular blasting to be provided duly fixed with fixing of strip vision film, logo and frame as required to complete in all respect. Recommended Make: Modi Float/ Saint Gobain/ Asahi/ Atul/ Borosil/ La Opala/HNGLI.	FT2
36	PROV & FIXING CONCERTINA COIL	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron "Y" shaped placed 2.4 m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/ metre (Cost of Y angle shall be paid separately)	M
37	P & F -KERB STONE BLOCK	Providing and laying kerb stone block having width 30 cm with desirable length and thickness. Kerb stone laid and fixed by using 50 mm thick cement concrete 1:3:6 (1 cement: 3 coarse sand:6 graded stone aggregate 20 mm nominal size) over 75mm bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including finishing the top smooth etc. complete and as per direction of Engineer-in-charge. Rate to include all labour, tools, tackles, shuttering, transportation, water charges, earth work if any, PCC etc complete Recommended Make : NITCO/ KK/ Konkrete/ Terra Firma/ Dalal/ Advent.	M2
38	P&F-SOUND PROOF MATERIALS IN HOARDING	Providing and Fixing sound proof material of sound proof Hoarding including GI sheet 18G, perforated GI sheet, Glass Wool min 50mm, Thermocol min 12mm, Tissue paper, etc., complete in all respects as per direction of EIC or his representative. Sound proof material shall reduce impact noise by 40-45 Db. Thickness and number of layers of sound proofing material to vary as per requirement to achieve target noise reduction for various sites. Analysis and Design for the target structure of board included under this item.	M2
39	P & F URINAL WITH AUTOMATIC FLUSHING SYSTEM	Providing and fixing desired colour vitreous china flat back urinal with 5 litre PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required. It also includes all necessary fittings to Recommended Make it operational as required. Recommended Make : Jaquar/ Hindware/Kohler/Cera/TOTO	NO
40	HIRING-SERVICES OF CARPENTER	HIRING OF Carpenter 1st Class.	MND

41	P & F SENSOR Faucet	Providing & fixing of anti microbial finished chrome plated brass faucet. It shall be battery/ electricity/ dual(electricity and battery) operated based on infra-red sensor having foam flow technology. It shall have minimum sensor range/each of 100 mm with minimum 1 year warranty. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Shape, size, colour, texture, pattern as per direction of EIC or his representative. It shall be table or wall mounted. Recommended Make : Jaquar/ Hindware/Kohler/Cera/TOTO	EA
42	P & F Blockout LED Board	Providing & Fixing Blockout LED Board in proper line & level with minimum 10 mm thickness consisting led light and adapter with 3 years complete product warranty. Print to be done over acrylic sheet. All tools & tackles, labour, transportation, hardware etc includes in it.	Sqft
43	S & F AUTOMATIC HAND DRYER	Supply and installation of AUTOMATIC JET HAND DRYER with stainless steel material having sensor range 12 cm to 15 cm and brush/ brushless AC type motor of min 22,000 rpm with one year warranty. Minimum air speed should be 80 m/s2 having IPX1 waterproof. All tools & tackles, labour, transportation, hardware etc includes in it. Recommended Make: Euronics/ Dolphy	NO
44	P & F SUNMICA	Providing & Fixing 1.5 mm thick decorative high pressure laminated sheet of plain /wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Century / Duro/ Merino/ Greenlam/ Archid Ply.	M2
45	Providing & Fixing PLY BOARD - 25 MM	Providing & Fixing 25 mm thick block board with commercial ply veneering on both side. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Century / Duro/ Merino/ Greenlam/ Archid Ply.	M2
46	SUPL & FIXING-PLAIN/ FROSTED GLASS 8 MM	Providing and fixing Plain/Frosted/Glazing glass panes of 8 mm thickness (weight not less than 20 kg/sqm) in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per directions of engineer-in-charge . Cost of aluminium snap beading is included. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Modi Float/ Saint Gobain	M2
47	SUPL&FIXING-PLAIN/ FROSTED GLASS 12 MM	Providing and fixing Plain/Frosted/Glazing glass panes of 12 mm thickness (weight not less than 25 kg/sqm) in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per directions of engineer-in-charge . Cost of aluminium snap beading is included. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Modi Float/ Saint Gobain	M2
48	PROV & FIXING-PLUMBING ACCESSORIES	PROV & FIXING-Plumbing Accessories in washroom, water supply system, borewell, drainage etc. . It includes metals/plastic accessories like Urinal spreader/ PVC Connection pipe / Tap Joints/ Tap Connection/ Tees/ Union or similar plumbing accessories as instructed by EIC or his representative. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc.	NO
49	PROV & LAYING -CPVC PIPE- 15 MM	Providing and Laying Chlorinated Polyvinyl Chloride (CPVC) 15 mm nominal outer dia pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Supereme/ astral/ Ashirvad/ Prakash/ Finolex	M
50	Providing & Fixing PLY BOARD - 18 MM	Providing & Fixing 18 mm thick block board with commercial ply veneering on both side. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Century / Duro/ Merino/ Greenlam/ Archid Ply.	M2
51	PROV & FIXING WASH BASIN	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard/desirable pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: Desirable Colour Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap Recommended Make : Jaquar/ Hindware/Kohler/Cera/TOTO.	NO
52	Prov & Fix PRINT SUNBOARD	Providing & Fixing SUNBOARD in proper line & level with minimum 3 mm thickness with vinyl printing as directed by IGL Representative. All tools & tackles, labour, transportation, hardware etc includes in it.	Sqft
53	Prov & Applying Melamine Polish	Providing and applying melamine polish in high gloss/matt finish melamine clear polish on wood work in required color/wooden shade texture with following process in the sequence as detailed below: 1. The surface to be polished is rubbed with sand paper 80/120 no. and then with sand paper of 160/180 nos. 2. Applying two coats of sealer with spray gun and allowing sufficient drying time for 1st coat and 2nd coat is allowed to dry for 8 to 12 hrs. 3. On drying of sealer coat, wet rubbing with emery cloth of finer grading with ample water to remove excess sealer layer and Recommended Make the surface further smooth after this wet rubbing, then surface is applied with special grade melamine fillers to fill all the small and big holes/grooves etc. Filler coat to be allowed to dry for 4 to 6 hrs on which again a light wet rubbing is done this surface is further allowed to dry for 12 hrs. 4. On this, 1st coat of melamine polish is applied with spray gun using melamine clear polish and melamine thinner in required proportion. This 1st coat is allowed to dry for 24 hrs then this dry surface is again fine wet rubbed smooth, which is further allowed to dry for 12 hrs. The final melamine polish is applied with compressor pressure spray gun using melamine clear polish and melamine thinner mixed in required proportion complete as per direction of Engineer-in-Charge. (Final coat to be done in 1 or 2 layers without gap of time.) Recommended Make: Asian Paints/ Pidilite/ Dulux/ Wembley / Berger/Nerolac /SIRCA.	M2
54	P & F GRANITE SLAB/ STONE	Providing and laying non water absorbent flamed finish Granite stone/ slab for kitchen platforms, vanity counters, window sills , facias or desired locations in required size, design, shade, colour, texture and patterns, in linear as well as curvilinear portions all complete as per direction of IGL representative with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade, epoxy touch ups, including rubbing, curing and polishing to edges to give high gloss finish etc. all complete at all levels as specified and as directed by the Engineer-in-Charge .	M2
55	PROV & FIXING - URINAL WALL MOUNTED	Providing and fixing desired colour vitreous china flat back or wall corner type lipped front Urinal basin wall mounted type complete as per direction of IGL Representative. Plumbing accessories shall be paid separately. Recommended Make: Jaquar/Hindware/ Kohler/ Cera/ TOTO.	NO
56	Prov & Fix FRP DOOR	Providing and fixing FRP Door to existing door frames , 30 mm thick Fiberglass Reinforced Plastic (F.R.P.) flush door shutter in different plain and wood finish made with fire retardant grade unsaturated polyester resin, moulded to 3 mm thick FRP laminate all around, with suitable wooden blocks inside at required places for fixing of fittings and polyurethane foam (PUF)/Polystyrene foam to be used as filler material throughout the hollow panel, casted monolithically with testing parameters of F.R.P. laminate conforming to table - 3 of IS: 14856, complete as per direction of Engineer-in-charge. Recommended Make: Ashoo Model Arts/ Selected Product Co./ Fibreways Technology/ Everlast.	M2
57	Prov & Fix FRP FRAME	Providing and fixing Fiber Glass Reinforced plastic (FRP) Door Frames of cross-section 90 mm x 45 mm having single rebate of 32 mm x 15 mm to receive shutter of 30 mm thickness. The laminate shall be moulded with fire resistant grade unsaturated polyester resin and chopped mat. Door frame laminate shall be 2mm thick and shall be filled with suitable wooden block in all the three legs. The frame shall be covered with fiber glass from all sides. M.S. stay shall be provided at the bottom to steady the frame. Recommended Make: Ashoo Model Arts/ Selected Product Co./ Fibreways Technology/ Everlast.	M
58	S&I Business/ Commercial LED TV	Supplying, Installation & Commissioning minimum 50" Business/Commercial 4k Smart LED TV with 3 years complete product warranty in all aspects as per direction of EIC or his representative. Recommended Make: Samsung/ LG/ Sony .	EA
59	Prov & Fix CPVC Pipe - 50MM	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) of 50 MM nominal dia pipes having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge or his representative.Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Supereme/ astral/ Ashirvad/ Prakash/ Finolex.	M
60	Prov & Fix VERTICAL FABRIC BLINDS	Providing and fixing vertical fabric blinds of desired shade, colour, texture and pattern with all necessary hardware including all incidentals, channels, supports, hooks, string to complete the work as per direction of EIC or his representative. The rate shall include necessary fabric water shield treatment on both sides. The overlapping should be uniform and adequate.Necessary operative arrangements,frames to be provided. Recommended Make: Vista/ Deck / D'Decor/ Sun Ban Blinds and Interiors/ Matts Corner/ Livin/ Lourline/ Walkart/ Prexa	FT2
61	Prov & Fix CPVC Pipe - 25 MM	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) of 25 MM nominal dia pipes having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge or his representative.Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Supereme/ astral/ Ashirvad/ Prakash/ Finolex.	M
62	PROV & FIXING- CP Brass - Pillar Cock	Providing & Fixing CP Brass Pillar Cock (Heavy duty) with single or mixer type as desired. It has foam type flow. The Pillar Cock is to be wall mounted or table mounted as directed by EIC or his representative. It includes dismantling of old or damaged and installation new material. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make : Jaquar/ Hindware/Kohler/Cera/TOTO.	NO
63	P & F Wooden Work Accessories	Providing & Fixing wooden work CP Brass accessories like butt hinges, piano hinges, lock, handles etc complete in all aspects as per direction of EIC or his representative. Payment shall be done per accessory basis. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc.	NO

64	Prov & Fix CPVC Pipe - 20 MM	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) of 20 MM nominal dia pipes having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge or his representative. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Supereme/ astral/ Ashirvad/ Prakash/ Finolex.	M
65	P & F Sandwich Board	Providing & Fixing Sandwich Board in proper line & level. The premium sandwich acrylic board having around 5mm+3mm premium transparent sheet with 4 CP stud. It includes printing and fixing of desired logo, letters, graphics etc in sandwich board as per directed by EIC or his representative, complete in all respects. All tools & tackles, labour, transportation, hardware etc includes in it.	Sqft
66	P & F RBT REINFORCED BARBED WIRE	Supplying & Fixing RBT Wire in position along with all clips, screws, fasteners, welding works, etc. as per instruction of EIC or his representative. All tools & tackles, labour, transportation, hardware etc includes in it.	M
67	PROV&FIXING Premium WASH BASIN	Providing & Fixing premium ceramic vitreous china wash basin over the counter/ wall hung/ under counter with over flow hole cap, anti germ glaze of suitable size, shape, colour, design, pattern glazed including all necessary fittings of heavy duty required for complete connection as per direction of EIC or his representative. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. (Rate of tap will be paid separately). Recommended Make : Jaquar/ Hindware/Kohler/Cera/TOTO.	NO
68	PROV & FIXING-SUN FILM	Providing & Fixing of Sun film to glass panes at all heights and all locations, reflective type @ 25microns including the cost of material, labour, transportation etc complete in all respect as per direction of EIC or his representative. Recommended Make: 3M/ Lumar/ Wurth/ Garware	M2
69	PROV & FIXING-WATER STORAGE TANK	Providing and fixing poly ethylene water storage tank with cover and suitable locking arrangement including inlet / outlet/ overflow connections, float ball etc. complete in all respects. Rates to include material, manpower, transportation, tools & tackles etc. Recommended Make: Sintex / Sheetal/ SPL.	L
70	PROV&LAYING-HEAVY DUTY FLOOR HARDENER	Providing and laying heavy duty hardening compound over forecourt/floor to be laid in panels at all locations complete in all respects as per scope of work, technical specifications and directions of the Engineer-In-Charge or his representative. Rate to include all material, hardening compound, labour, tools, tackles, shuttering, transportation, etc. complete. Recommended Make: "Diamond Plate" of STP / "NITO FLOOR HARD TOP" of FOSROCK / "FloorTop ERIU" of CICO / "Floor Top Dura 999" of ROFF.	M2
71	Cleaning-Sewer System With Suction/ Blower	Cleaning of Sewer System with high pressure suction cum Jetting sewer cleaning machine fitted with pump minimum 4000 litre suction capacity including skilled operator, supervising engineer etc for cleaning of septic tank and its allied system and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line. Mobilising a machine, removing the materials to a unobjectionable area, demobilising the machine all complete and as per the directions of Engineer-in-Charge or his representative, complete in all respects.	NO
72	PROV&FIXING-STOP/BIB COCK	Providing & Fixing CP Brass Stop Cock/ Bib Cock(foam flow technology) having heavy duty conforming to BIS Std. as directed by EIC or his representative. It includes dismantling of old or damaged and installation new material. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make : Jaquar/ Hindware/Kohler/Cera/TOTO.	NO
73	SUPL&FIXING-WATER CLOSET ORISSAPAN	Supplying & fixing in position Indian type China vitreous Water Closet of size 580x440mm, suitable for sinking in to floor with raised foot treads complete with HCl/PVC 'P' trap with or without vent as required & all other necessary fittings complete. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Jaquar/Hindware/ Kohler/ Cera/ TOTO.	NO
74	Prov & Fabrication Stainless Steel (GRADE 304) Work	Providing and fabrication of stainless steel work (stopper, railing, shed, dustbin, etc) having grade 304 using Hollow tubes, channels, plates, sheets etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary accessories & stainless steel dash fasteners, nuts, bolts etc., of required size, with suitable arrangement as per direction of Engineer-in charge and his representative. Recommended Make: Tata Steel/ JSW/ SAI/ ESSAR/ Jindal/ RINL.	Kg
75	Prov & Fix Mirror-1500 X 450 MM	Providing and fixing mirror of superior glass and of required shape and size with plastic moulded/ wooden/ metal frame or without frame of desired shape, pattern, colour etc with 6 mm thick hard board backing. Size - 1500 x 450 mm or upto 0.675 sqm Rate includes manpower, transportation, tools & tackles etc	EA
76	Dismantling floor work	Dismantling tile work in floors, roofs etc laid in cement mortar including stacking/ disposing of material away from the site.	sqm
77	EXCAVATION EARTH WORK	Earth work excavation by mechanical means (hydraulic excavator)/ manual means in all kinds of soil except rock in any plan dimension including backfilling using serviceable earth/soil and disposal of excavated earth up to any lead in all conditions. Soil to be leveled and neatly dressed complete in all respect as per scope of work and directions of the Engineer-in-charge or his representative.	M3
78	Prov & Fix Mirror-600 X 450 MM	Providing and fixing mirror of superior glass and of required shape and size with plastic moulded/ wooden/ metal frame or without frame of desired shape, pattern, colour etc with 6 mm thick hard board backing. Size - 600 x 450 mm or upto 0.27 sqm Rate includes manpower, transportation, tools & tackles etc	EA
79	PROV. & FIXING- CPVC PIPES -100 MM	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) of 100 MM nominal dia pipes having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge or his representative. Rates to include material, necessary bonding material, manpower, transportation, tools & tackles etc. Recommended Make: Supereme/ astral/ Ashirvad/ Prakash/ Finolex.	M
80	PROVIDING & LAYING BRICKBATS	Providing & laying Brickbats including transportation in tractor trolley/ truck, labour & material etc complete. Mainly to be used in soak pits, potholes etc.	M3
81	HIRING-SERVICES OF PLUMBER	HIRING OF MANPOWER-Plumber	MND
82	HIRING-SERVICES OF SWEEPER	HIRING OF MANPOWER-Sweeper	MND
83	Prov & laying Water Proofing	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying: (a) after surface preparation, first layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. (b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm. (c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around. (d) fourth and final layer of brick tiling with cement mortar (which will be paid for separately.)	M2
84	Providing, Fabrication & Fixing Aluminium Composite Material	Providing, fixing, cutting, fabrication, routing in required shape, colour, pattern, design, logo & size and erecting aluminium composite material sheets of thickness upto 3 mm (Desired Colour & PVDF coated) for igl equipments, offices, facilities, buildings, column cladding, dirction posts, igl's retail visual identity etc. erecting/fixing the vinyl film of Ig Recommended Make (manufactured through casting process) in shape, size, alphabet, digit, colour, for cutting in shape various logos on the acm as per direction eic or his representative. supplied items to include cost of material, labour and hardware complete. acm sheets to be fixed with screws, rivets, etc in the required shape/profile on steel frame, square, hollow sections, building, ms structure of monolith/high mast/air tower & bin etc. rate to include material, transportation, labour, cost of acm, nut bolts, screw and other hardware. removal/dismantling of older/existing acm included in this item. Recommended Make: Aludcore/Alstone/Alstrong/Virgo/TimeX/Alex.	M2
85	Providing & Applying Sand Stone	Providing & Applying high quality acrylic modified resin based texture of Dholpur/Red sand stone Pattern with anti algae and UV resistance properties to be applied as intermediate finish in desired pattern @ 43.04 kgs/10 sqm to form film of 1-1.5 mm thickness after scraping and properly cleaning the surface to remove loose particles from the plaster surface, followed by top coating with Premium Acrylic Smooth exterior paint with Silicone additives of required shade by two or more coats @ 1.43 litres/10 sqm, complete as the direction of Engineer -in-Charge.	M2
86	Supply & Fix High Back chrome base leather/premium chair	Providing and placing High Back Premium / Leather chairs with padded head rest, padded arm rest, cushioned seat, tilt tension control, strong chrome base, superior 55mm castors. It should have stain and fade resistant breathable upholstery, top grain leather/ premium breathable upholstery, pneumatic height adjustment, synchro multi locking mechanism, leather / premium breathable upholstery should have high fixing endurance and superior tear strength and colour fastness, premium high density foam seatand back for comfortable seating, high stability chair with no tip over, clearing drop test of 100 kg :- seat made up of insert moulded Polyurethane Foam, back adjustable lumbar support for achieving comfortable seating posture. Base: steel chrome plates base with nylon castors. Chair should be of 360 degree swivel Posture Control with multi pointer locking and synchro tilt mechanism and hydraulic gas lift gas lift to allows 90-100 mm of height , Seat width of min 530 mm, Seat Height of minimum 420 mm with hydraulic height adjustability of 90-100mm. Sub assembly back size minimum 550 mm height. Effective back height from Seat minimum 570mm, polyurethane foam for seat having density 65-70 kg/m3. Twin wheel castors injection moulded in Nylon etc. all complete as per manufacturers specification and direction of Engineer-in-Charge. All the above items should be as per specifications & direction of engineer-in-charge or his representative. Recommended Make: Spacewool(SOS)/ Godrej/ Feather lite/ Durian/ WIPRO/ Sleep company/ IDUS.	NO

87	Supply & Fix Medium back premium chair	Providing and placing Medium Back Premium chairs seat made up of insert moulded Polyurethane Foam upholstered with foam laminated mesh fabric, insert moulded foam assembled over a load bearing plastic seat cover, back is made up of two piece injection moulded frame, inner frame upholstered with mesh fabric and mounted on the main assembly, back adjustable lumbar support for achieving comfortable seating posture. Armrests should be adjustable with 120-160 mm adjustability with PU padded. Base: steel chrome plates base with nylon castors. Chair should be of 360 degree swivel Posture Control with multi pointer locking and synchro tilt mechanism and hydraulic gas lift gas lift to allows 90-100 mm. of height. Seat width of 530-550 mm Seat Height of 420-510mm with hydraulic height adjustability of 90-100mm. Sub assembly back size 550- 620 mm height. Effective back height from Seat - 570mm, polyurethane foam for seat having density 65-70 kg/m ³ . Pedestal made of nylon base fitted with 5 nos. twin wheel castors (castor wheel dia. 60-70 cm), base pedestal dia 60-70 mm and pitch center dia. 700-720mm with castors, twin wheel castors injection moulded in Nylon etc. all complete as per manufacturer's specification, approved sample and direction of Engineer-in-Charge. all complete as per manufacturer's specification and direction of Engineer-in-Charge. The manufacturer shall have membership from ISO-9001:2015, ISO-14001:2015, OHSAS, 18001:2007, FIRA, AOTTA, ISO-45001:2018, ISO-50001:2018, IGBC Green GOLD & Product should be BIFMA gold rated SCSGlobal certified for inhouse air quality. All the above Items should be as per specifications & direction of engineer-in-charge or his representative. Recommended Make: Spacewool(SOS)/ Godrej/ Feather lite/ Durian/ WIPRO/ Sleep company/ IDUS.	NO
88	Prov & Fix Wooden Flooring	Providing & Fixing 25 mm wooden planking, tongued and grooved in flooring of desired colour, pattern, texture, including fixing with iron screws complete with Second class teak wood as per direction of EIC or his representative. Recommended Make: Mikas(Greenlam Industries Ltd.)/ Pergo/ Parador/ Woodart.	M2
89	Prov & Fix FRP Sheet	Providing & Fixing UV stabilised 2 mm thick plain/corrugated FRP sheet complete in all respects as per direction of EIC or his representative. Recommended Make: Ashoo Model Arts/ Selected Product Co./ Fibreways Technology/ Everlast	M2
90	P & F MODERN PARTITIONS 4 FEET HIGH	Providing and fixing 75mm thick powder coated aluminium office/ cabin partitions with 50mm framing allowing for 25 mm continuous cavity for insulation and conduits. The partition should be 4 feet height made of 1.5mm thick Aluminium extrusions. The partition will be panel type partition clad with pre laminated board of desired shade/colour from both sides, with all frames duly powder coated. The pre laminated board should be fixed from both side of the partition. It should include providing and fixing of Notice board/Pin-up board, white board and electrical accessories i.e. min. 8 modular switch plate/ board with min 3 socket & 2 piano switch & 1 Ethernet/ lan modular plate with ethernet/lan socket as per the direction of EIC or his representative. Aluminium Section Recommended Make: Jindal/Hindalco/Indago/ Indo- Alusys.	FT2
91	Supplying, fabrication & fixing of GI pipe work upto dia 100 mm	Supplying, fabrication and fixing up to 100 mm dia G.I. pipe (C class) with base bracket for installation on studs and all should be painted with premium enamel paint of desired colour, suitable for pole light with removable light holding arms, pole brackets etc. in pole collar, foundation (wherever required) for cable entry including bending the pipe to the required shape complete as directed by EIC.(Erection /JB/Gland/Cable charges will be paid separately) Recommended Make: Jindal /TISCO/ SAIL / Tata/ Prakash Surya/ Zenith.	M
92	Erection of Metallic Pole including supply and installation of JB and gland	Erection of metallic pole of height up to 6.5 mtr in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required. Installation/fixing of pole to be done using studs min. 4 nos, concrete base to be prepared and foundation bolts (min. 4 nos) of required strength and height to be installed. It also includes supply & installation of 01 nos of Flame Proof & Weather Proof 4 Way Junction Boxes and up to 4 nos of suitable double compression cable gland of approved Recommended Make. JBS shall be provided with minimum 04 Nos. of cable entries points (Threaded) suitable for glanding up to 4C x 4 sq mm cable. The job shall be complete in all respects including the cost of all materials, structural supports, tools, labour, ladder, crane etc. Junction box Recommended Make: Sudhir Switchgear/Ex-Protecta /Prateek/FCG/Baliga/PESO approved for Zone 01 hazardous area Cable gland Recommended Make :Comet / Baliga / Ex-Protecta / FCG Flameproof Control gear/ Sudhir Switchgear/PESO approved for Zone 01 hazardous area	EA
93	Supplying & Laying of Metallic Pipe / Conduit upto dia 50 mm	Supply and laying of G.I./steel Conduits of sizes up to dia 50 mm along with accessories in surface /recess including painting in case of surface conduit, cutting the wall and making good the same in case of recessed conduit as required. The job shall be complete in all respects including the cost of all materials, tools, labour, etc. Recommended Make: Jindal /TISCO/ SAIL / Tata/ Prakash Surya/ Zenith.	M
94	Supplying & Laying of 4Cx2.5 sqmm cu cable	Supplying, drawing and laying of 4C x 2.5 sq mm FRLS PVC insulated copper conductor, multi core cable in existing surface/recessed steel/pvc conduit as required including excavation of surface (if required). Cable grade should be 1100V Grade and Armoured conforming to IS 1554.The job shall be complete in all respects including the cost of all materials, structural supports, tools, labour, etc. Recommended Make: KEI/Polycab/Finolex/universal/Havells/Gloster/CCI/NICCO.	M
95	Supplying & Laying of 4Cx4 sqmm cu cable	Supplying, drawing and laying of 4C x 4 sq mm FRLS PVC insulated copper conductor, multi core cable in existing surface/recessed steel/pvc conduit as required including excavation of surface (if required). Cable grade should be 1100V Grade and Armoured conforming to IS 1554.The job shall be complete in all respects including the cost of all materials, structural supports, tools, labour, etc. Recommended Make: KEI/Polycab/Finolex/universal/Havells/Gloster/CCI/NICCO.	M
96	Supplying & Laying of Metallic Pipe / Conduit upto dia 100 mm	Supply and laying of G.I./steel Conduits of sizes up to dia 100 mm along with accessories in surface /recess including painting in case of surface conduit, cutting the wall and making good the same in case of recessed conduit as required. The job shall be complete in all respects including the cost of all materials, tools, labour, etc. Recommended Make: Jindal /TISCO/ SAIL / Tata/ Prakash Surya/ Zenith.	M
97	Removal or laying of existing cable upto 35 sq.mm	Laying of PVC insulated and PVC sheathed / XLPE power cable up to 35 sq.mm in the existing RCC/ HUME/ METAL pipe/PVC conduit on the ground/recessed surface/ above the ground as required and directed by EIC or its representative.The job shall be complete in all respects including tools, labour, etc (Supply of cable is in IGL scope). Removal of existing cable and laying of existing cable will be paid separately	M
98	Removal or laying of existing cable above 35 & up to 185 sq.mm	Laying of PVC insulated and PVC sheathed / XLPE power cable above 35 & up to 185 sq.mm in the existing RCC/ HUME/ METAL pipe/PVC conduit on the ground/recessed surface/ above the ground as required and directed by EIC or its representative.The job shall be complete in all respects including tools, labour, etc (Supply of cable is in IGL scope). Removal of existing cable and laying of existing cable will be paid separately	M
99	Removal or laying of existing cable above 185 & up to 400 sq.mm	Laying of PVC insulated and PVC sheathed / XLPE power cable above 185 & up to 400 sq.mm in the existing RCC/ HUME/ METAL pipe/PVC conduit on the ground/recessed surface/ above the ground as required and directed by EIC or its representative.The job shall be complete in all respects including tools, labour, etc (Supply of cable is in IGL scope). Removal of existing cable and laying of existing cable will be paid separately	M
100	Termination of cable upto 120 sq. mm	Supplying and making end termination with brass double compression gland and aluminium lugs for PVC insulated and PVC sheathed / XLPE aluminium conductor cable of size up to 120sq.mm and 1.1 KV grade as required. Cable glands should be as per IS 2148. The job shall be complete in all respects including the cost of all materials, tools, labour, etc. Cable glands Recommended Make : Comet / Baliga / FCG / Ex-Protecta / CEAG Control gear/ Sudhir Switchgear. Lug Recommended Make: Dowells/HEX/Ancor/ETS.	EA
101	Termination of cable above 120 & up to 185 sq. mm	Supplying and making end termination with brass double compression gland and aluminium lugs for PVC insulated and PVC sheathed / XLPE aluminium conductor cable above 120 & up to 185 sq.mm and 1.1 KV grade as required. Cable glands should be as per IS 2148. The job shall be complete in all respects including the cost of all materials, tools, labour, etc. Cable glands Recommended Make : Comet / Baliga / FCG / Ex-Protecta / CEAG Control gear/ Sudhir Switchgear. Lug Recommended Make: Dowells/HEX/Ancor/ETS.	EA
102	Termination of cable above 185 & up to 300 sq. mm	Supplying and making end termination with brass double compression gland and aluminium lugs for PVC insulated and PVC sheathed / XLPE aluminium conductor cable above 185 & up to 300 sq.mm and 1.1 KV grade as required. Cable glands should be as per IS 2148. The job shall be complete in all respects including the cost of all materials, tools, labour, etc. Cable glands Recommended Make : Comet / Baliga / FCG / Ex-Protecta / CEAG Control gear/ Sudhir Switchgear. Lug Recommended Make: Dowells/HEX/Ancor/ETS.	EA
103	Supplying & Laying of PVC. Conduit dia 25 mm	Supply and laying of medium class PVC Conduits of size dia 25 mm along with accessories in surface /recess including cutting the wall and making good the same in case of recessed conduit as required. The job shall be complete in all respects including the cost of all materials, tools, labour, etc. Recommended Make: Polycab/Plasto/Finolex/supreme/Prince.	M
104	Supplying & Installation of FLP LED Light	Supply and installation of FLP 80-110 Watt LED light having system lumens efficiency >=100lm/W and suitable for operation on 1 Phase, 150-270 V, 50 Hz, AC supply and having installation arrangement for Pole or Wall mounted. It includes installation of light up to 6.5 mtr height or as directed by IGL. Light should have Power factor > 0.9 and have in-built electronic driver for power factor and THD<10%. Light fitting should have suitable arrangement for cable termination with gland opening of suitable size. Light fitting should be certified for group IIA/B, CCOE, LM 79/80 & must have minimum 2 years onsite warranty (2 years defect liability period). Job also consists of removal of existing light fitting and handing over to IGL. Light should be designed for IP66 protection.The job shall be complete in all respects including the cost of all materials, structural supports, tools, labour, man lifter, crane etc. Recommended Make: Baliga/Sudhir/FCG/CG/Philips/TATA/ Jaquar/Usha/Tisva.	NO

105	Supplying & Installation of Weather Proof LED Light	Supply and Installation of Weather proof 80-110 Watt LED light having system lumens efficiency $\geq 100\text{lm/W}$ and suitable for operation on 1 Phase, 150-270 V, 50 Hz, AC supply and having installation arrangement for Pole or Wall mounted. It includes installation of light up to 6.5 mtr height or as directed by IGL. Light should have Power factor > 0.9 and have In-built electronic driver for power factor and THD $<10\%$. Light fitting should have suitable arrangement for cable termination with gland opening of suitable size. Light fitting should be certified for group IIA/B, CCOE, LM 79/80 & must have minimum 2 years on site warranty (2 years defect liability period). Job also consists of removal of existing light fitting and handing over to IGL. Light should be designed for IP66 protection. The job shall be complete in all respects including the cost of all materials, structural supports, tools, labour, man lifter, crane etc. Recommended Make: Philips/GE/ Crompton Greaves/ Wipro/ Bajaj/Havells/ TATA/ Jaquar/Usha/Tisva	NO
106	Supply & Installation of LED Panel light upto 4sq.feet	Supply, Installation and fixing of LED panel light upto 4 sq.feet of desired shape, colour, size of and upto 42 Watt (as required by IGL) having system lumens greater than equal to 3000 lumens with minimum 2 years on site warranty (2 years defect liability period). Light should have Power factor > 0.9 and suitable for operation on 1 Phase, 220-240 V, 50 Hz, AC supply and having installation arrangement on ceiling/Wall/recessed/surface etc. It includes installation of light up to 3 mtr height or as directed by IGL. Job also consists of removal of existing light fitting and handing over to IGL. The job shall be complete in all respects including the cost of all materials, structural supports, tools, labour, ladder etc. Recommended Make: Philips/GE/ Crompton Greaves/ Wipro/ Bajaj/Havells/ TATA/ Jaquar/Usha/Tisva	NO
107	Supply & Installation of LED Bollard light minimum 9 Watt	Supply, Installation & fixing of minimum 9 watt LED bollard decorative light with 600-800mm pole length having polycarbonate diffuser that should be suitable for installation on IGL premises/facilities having operating voltage 220-240 V, 50 Hz, AC supply with minimum 3 years on site warranty (3 years defect liability period). Light Should have Power factor > 0.9 & it should designed for Ingress protection of IP65 (Outdoor purpose). Design, shape & colour of pole and lights should be per the direction of EIC, the job shall be complete in all respects including the cost of all materials, structural supports, tools, labour, etc. Recommended Make: Philips/GE/ Crompton Greaves/ Wipro/ Bajaj/Havells/ TATA/ Jaquar	NO
108	Supply & Installation of LED Post Top light upto 45 Watt	Supply, Installation & fixing of up to 45 Watt Post-top LED decorative light having suitable mounting arrangement for Poles/ Walls/ Table/Gates (as directed by IGL), for installation in IGL premises/ facilities having operating voltage 220-240 V, 50 Hz, AC supply with minimum 3 years on site warranty (3 years defect liability period). Light Should have Power factor > 0.9 & it should designed for Ingress protection of IP65 (Outdoor purpose). Design, shape & colour lights with structure should be per the direction of EIC, the job shall be complete in all respects including the cost of all materials, structural supports, tools, labour, ladder etc. Recommended Make: Philips/GE/ Crompton Greaves/ Wipro/ Bajaj/Havells/ TATA/ Jaquar/Usha/Tisva	NO
109	Hiring charges for 5 ton Maniffer Truck/Crane	It includes providing scissor lift/ man lift/ crane / boom lifter or similar arrangements having minimum 5 ton load capacity, for working at height upto 6.5 mtr for period of 08 hours per day as per direction of IGL engineer In-Charge. It should have adequate means of fall protection. It should have all the statutory test certificate and valid permits. Bidder has to comply with the work permit system & safety guideline of Fire & safety Dept.	Day