

CONSTRUCTION OF NEW DINING FACILITY IN KRISHNA HOSTEL (GROUND + 1 FLOOR) AT IIT MADRAS

SCHEDULE - A - CIVIL WORKS -TENDER NO:46/2012-13/CIVIL - FINANCIAL BID - VOLUME II - BILL OF QUANTITY

SECTION - A

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
1.00	EARTH WORK				
1.01	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead upto 50 m and lift upto 1.5 m.				
1.01.1	All kinds of soil	Sqm	2,024.00		
1.02	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30cm in depth 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be leveled and neatly dressed.				
1.02.1	All kinds of soil	Cum	3,689.00		
1.03	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	3,480.00		
1.04	Extra for Excavating every additional lift of 1.5 m or part thereof in excavation/ banking excavated or stacked materials.				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS	AMOUNT
1.04.1	All kind of soil				
1.04.1.1	1.5m to 3.0m Excavation	Cum	1,812.00		
1.04.1.2	3.0m to 4.5m Excavation	Cum	259.00		
1.05	Disposal of surplus excavated earth/ordinary rock including loading, unloading & stacking upto a lead as mentioned below, within the site premises				
1.05.1	Earth upto a lead of 3 Kms	Cum	210.00		
1.06	Supplying and filling in plinth with stone dust under floors in layers not exceeding 20 cm thickness including watering, ramming, consolidating and dressing complete.	Cum	304.00		
2.00	<u>SUB HEAD 2.00 : CONCRETE WORK</u>				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
2.01	Providing and laying in position ready mixed plain cement concrete, with cement content as per approved design mix and 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 plain cement concrete work, including pumping of R.M.C. from transit mixer to site of laying and curing, excluding the cost of centering, shuttering and finishing, including cost of curing, 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.				
	Note : 1) Excess/less cement used than specified in this item is payable/ recoverable separately.				
2.01.1	All works upto plinth level :				
2.01.1.1	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	Cum	80.00		
2.01.2	All works above plinth and upto floor V level :				
2.01.2.1	M-10 grade plain cement concrete (cement content considered @ 220 kg/cum)	Cum	94.00		
2.02	Damp Proofing Course				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
2.02.1	Providing and laying Damp proof Course 50mm thick with cement concrete 1:2:4 (1 Cement: 2 Coarse sand :4 Graded stone aggregate 20mm nominal size)	Sqm	102.00		
2.02.2	Extra for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	Per 50 KG Cement	19.00		
2.02.3	Applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7 kg per square metre on damp proof course after cleaning the surface with brushes & finally with a piece of cloth lightly soaked in kerosene oil.	Sqm	19.00		
2.03	Making plinth protection 50mm thick of 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.	Sqm	129.00		
2.04	Providing and laying in position brick jelly concrete 1:3:6 (1cement: 3 coarse sand: 6 brick jelly concrete 20mm nominal size) in sunken floor including the cost of centering and shuttering at all heights after entire completion of laying pipes, sanitary fittings etc., Rate shall include for preparatin of surface, protecting the laid pipes and sanitary fittings, finishing the surface smooth to receive the top coat of water proofing application etc., complete and all as directed by the Engineer-in-charge.				
2.04.1	Above plinth and upto floor V level.	Cum.	332.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
3.0	<u>SUB HEAD 3.00 : REINFORCED CEMENT CONCRETE WORK</u>				
3.01	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade excluding the cost of centering & shuttering, finishing including 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 Engineer-in-Charge M20 grade concrete by using not less than 300 kg of cement per cum of concrete with 20mm nominal size of stone aggregate.				
3.01.1	Above plinth level and up to floor V level	Cum	23.00		
3.02	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade / RMC for reinforced cement concrete structural elements, excluding the cost of centring, shuttering, finishing and reinforcement but including admixture etc for M35 grade concrete with required slump 120mm at site. The maximum allowable flyash content in the concrete is 15%. No claim will be entertained for additional cement content used for obtaining M35 grade concrete. Approval of the concrete mix composition shall be obtained from IIT Madras before use. Third-party testing shall be carried out as per IS standards through a laboratory approved by IIT Madras.				
	(Note: Cement content considered in this item is @ 350 kg/ cum. Excess/ less cement used as per design mix is payable/ recoverable separately).				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
3.02.1	All works upto plinth level	Cum	503.00		
3.02.2	All works above plinth level upto floor V level	Cum	1,068.00		
3.03	Deduct for using less cement than the quantity as provided in the item of batch mix concrete/RMC as arrived as per mix design.	Kg of cement	15,705.00		
3.04	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				
3.04.1	Thermo-Mechanically Treated bars (Fe500D)	Kg.	70,403.00		
3.05	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
3.05.1	Thermo-Mechanically Treated bars (Fe500D)	Kg.	204,296.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
3.06	Centering and shuttering for getting neat exposed concrete finish (no external plastering will be allowed for RCC work) for all RCC/PCC works with film coated plywood shuttering board or using steel wall form work including strutting, propping etc., and removing for all RCC works. The contractor shall obtain approval from Engineer-in-Charge for the form work design & methodology proposed to be adopted in the work.				
3.06.1	Foundations, footings, bases of columns etc., for mass concrete	sqm	474.00		
3.06.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	Sqm	466.00		
3.06.3	Suspended floors, roofs, landings, balconies, and access platforms	Sqm	2,728.00		
3.06.4	Shelves (Cast in situ)	Sqm	41.00		
3.06.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	3,576.00		
3.06.6	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	2,853.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
3.06.7	Stairs (waist slab & folded plates), (excluding landings) except spiral-staircases.	Sqm	354.00		
3.06.8	Edges of slabs and breaks in floors and walls				
3.06.8.1	Under 20 cm wide	Mts	100.00		
3.06.8.2	Above 20 cm wide	Sqm	268.00		
4.0	SUB HEAD 4.00 : MASONRY WORK				
4.01	Masonry work with fly ash solid concrete block M10 grade in foundation & plinth in all shapes & sizes in cement mortar specified. using C.M. 1:6.				
4.01.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	80.00		
4.02	Masonry work with fly ash solid concrete block M10 grade for superstructure above plinth and up to floor V level using C.M. 1:6.				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
4.02.1	Above plinth Level upto floor V Level	Cum	719.00		
4.03	Half Brick masonry with fly ash solid concrete blocks of M10 grade in all levels using Cement mortar 1:4 (1 Cement : 4 Coarse sand)				
4.03.1	Above plinth Level upto floor V Level	Sqm	507.00		
4.04	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	Sqm	507.00		
5.00	SUB HEAD 5.00 : FLOORING WORK				
5.01	Kota stone slab flooring over 20 mm (avg) thick base laid over & jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing & polishing complete with base of cement mortar 1:4 (1 cement :4 coarse sand)				
5.01.1	25 mm thick Kota stone	Sqm	947.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
5.02	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	51.00		
5.03	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, color and texture laid over 20 mm thick base cement mortar 1:4 (1 cement :4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels				
5.03.1	Granite of any color and shade				
5.03.1.1	Area of slab above 0.50 sqm in flooring (Jet Black colour Granite)	Sqm	747.00		
5.03.1.2	Granite skirting (Jet Black colour Granite)	Rmt	378.00		
5.03.1.3	Granite in Lift Facia (Ruby Red colour Granite)	Sqm	238.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
5.03.1.4	Extra for flaming of granite with oxy-acetylene torch	Sqm	208.00		
5.03.1.5	Extra for providing SS 304 strip in steps of size 25 mm wide & 2 mm thick including cutting of granite & embedding steel strip inside, fixed with jointing compound etc all complete.	Rmt	563.00		
5.04	Providing edge moulding to 18 mm thick Granite counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.				
5.04.1	Granite work	metre	563.00		
5.05	Extra for fixing marble/ granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	metre	49.00		
5.06	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	Each	16.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
5.07	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS:15622 (thickness to be specified by the manufacturer), of approved make, in all colors, shades except burgundy, bottle green, black of size:300*450 mm or as approved by Engineer-in-Charge, 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.	Sqm	504.00		
5.08	Providing and laying anti skid Ceramic floor tiles 300 x 300mm of (thickness to be specified by the manufacturer) of 1st quality of approved make in all colors, shades as approved laid on 20mm thick cement mortar 1:4 (1 cement:4 coarse sand) fixed with "+" shaped 2 mm wide plastic spacers at corners (to be removed before jointing) to achieve a perfectly straight joint line, and jointed with Laticrete or approved equivalent jointing compound of matching shade complete as per direction.	Sqm	217.00		
5.09	Providing and laying Industrial floor tiles of size as mentioned below (15 mm thickness as specified by the manufacturer) with water absorption less than 0.5% and conforming to IS-4457:2007, flexural strength not less than 38N/sqmm & Breaking strength not less than 4000N, of approved make, in all colors and shades, laid on 20mm thick cement mortar 1:4 (1 cement :4 coarse sand), including using "+" shaped 2 mm wide plastic spacers at corners (to be removed before jointing) during fixing of tile in floor to achieve a perfectly straight joint line, and jointed with Laticrete or approved equivalent jointing compound of matching shade in place of white cement with matching pigment all complete as per direction., complete.				
5.09.1	Size of Tile 300mmx300mmx15mm thick	Sqm	677.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
5.10	Providing & laying Industrial wall tiles of size as mentioned below (12 mm thickness as specified by manufacturer), with water absorption less than 0.5% and conforming to IS-4457:2007, flexural strength not less than 38N/sqmm & Breaking strength not less than 2500N, of approved make, in all colors & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1cement: 3 coarse sand), including using "+" shaped 2 mm wide plastic spacers at corners (to be removed before jointing) during fixing of tile in floor to achieve a perfectly straight joint line, and jointed with Laticrete or approved equivalent jointing compound of matching shade in place of white cement with matching pigment all complete as per direction.. complete.				
5.10.1	Size of Tile 300mmx300mmx12mm thick	Sqm	147.00		
6.00	<u>SUB HEAD 6.00 : FINISHING WORK</u>				
6.01	12 mm cement plaster of mix (with fine sand):				
6.01.1	1:4 (1 cement: 4 fine sand)	Sqm	3,613.00		
6.02	15 mm cement plaster on the rough side of single or half brick wall of mix : (with fine sand):				
6.02.1	1:4 (1 cement: 4 fine sand)	Sqm	413.00		
6.03	15 mm cement plaster on rough side of single or half brick wall of mix : (with coarse sand):				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
6.03.1	1:4 (1 cement : 4 coarse sand)	Sqm	507.00		
6.04	6 mm cement plaster of mix for celing:				
6.04.1	1:3 (1 cement : 3 fine sand)	Sqm	2,301.00		
6.05	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement :5 coarse sand) and a top layer 6 mm thick cement plaster 1:3 (1 cement :3 coarse sand) finished rough with sponge.	Sqm	3,094.00		
6.06	Extra over & above respective items for following:				
6.06.1	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	Sqm	1,255.00		
6.07	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	6,327.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
6.08	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and color.				
6.08.1	Two or more coats on new work	Sqm	5,751.00		
6.09	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.				
6.09.2	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	Sqm	5,751.00		
6.10	Finishing walls with textured exterior paint of required shade:				
6.10.1	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm	Sqm	3,094.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
6.11	<p>Providing & fixing Dry Cladding with GRC panel of 60mm thickness (Unistone/ Terra Firma or approved equivalent), fixed to the structural steel frame work with the help of cramps, pins etc. & sealing the joints with approved weather sealant as per Architectural drawing. (The steel frame work, stainless steel cramps & pins etc. shall be paid separately). Work be done by specialized vendor in strict supervision of the manufacturer's engineer & as per the instruction of engineer-in-charge. (GRC to be fixed upto all heights & nothing extra shall be payable)</p>	Sqm	40.00		
6.12	<p>Providing and Fixing 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture spintone/cosmos / Hexa or equivalent of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main "T" runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main"T" at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to from grid of size 600x600 mm, resting on periphery walls /</p>				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
	<p>partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calicum silicate ceiling tiles of approved texture (Spintone / Cosmos/hexa) in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all T-sections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawings and as directed by engineer-in-charge.</p> <p>Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs) having area less than 0.30 sqm.The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum), light reflection > 85%, non - combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/m 0 KC.</p>	Sqm	210.00		
6.13	<p>Providing & applying Spray Painting with suitable machinery over the ceiling using polyurethane paint of MRF brand (Aqua fresh, coverage 150 sq.ft litre for one coat) of two or more coat. Rate inclusive of necessary primer as per manufacture's specification, including scrapping the existing surface etc complete to revive the paint.</p>	Sqm	576.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.00	<u>SUB HEAD 7.00 : WOOD & ALUMINIUM WORK</u>				
7.01	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).				
7.01.1	First class Red Padauk (Wood without any traces of sapwood and dead knots)	Cum	5.00		
7.02	Providing and fixing ISI marked flush door shutters conforming to IS:2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.				
7.02.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	57.00		
7.03	Providing and fixing PVC rigid foam sheet 1 mm thick on existing door shutters (bathroom and W.C. doors) using synthetic rubber based adhesive.	Sqm	30.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.04	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	Sqm	57.00		
7.05	French spirit polishing :				
7.05.1	Two or more coats on new works including a coat of wood filler	Sqm	57.00		
7.05.2	Extra over & above the French spirit polish item for apply melamine matt coating with machine.	Sqm	57.00		
7.06	Wooden Flush door Fittings & Accessories.				
	Supply & Fixing of following door fittings as per selection of the Architects or Engineer-in-charge:				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.06.1	Providing and fixing bright finished brass door latch with necessary screws etc. complete:				
7.06.1.1	300*16*5 mm	Each	27.00		
7.06.1.2	250*16*5 mm	Each	6.00		
7.06.2	Providing and fixing chromium plated brass night latch of approved quality including necessary screws etc. complete.	Each	4.00		
7.06.3	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete:				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.06.3.1	250x10 mm	Each	47.00		
7.06.3.2	200x10 mm	Each	47.00		
7.06.4	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	Each	47.00		
7.06.5	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement :3 coarse sand :6 graded stone aggregate 20mm nominal size).	Each	456.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.07	Providing and fixing aluminum work for doors, windows, ventilators & partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS:733 and IS:1285, fixing with dash fasteners of required dia & size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminum sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminum snap beading for glazing/ paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately):				
7.07.1	For fixed portion				
7.07.1.1	Anodized aluminum (anodized transparent or dyed to required shade according to IS:1868, Minimum anodic coating of grade AC 15)	Kgs	4,547.00		
7.07.2	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 (Fittings shall be paid for separately)				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.07.2.1	Anodized aluminum (anodized transparent or dyed to required shade according to IS:1868, Minimum anodic coating of grade AC 15)	Kgs	777.00		
	Fire doors & Fire Accessories				
7.08	Providing & fixing of hollow metal fire door at all levels fully flush type of 48 mm thick pressed galvanised steel single/ double leaf to any size and shape with 2 hour fire rating (FD-series) of "SAKTHI flush doors" confirming to IS 3614/ Equivalent BS of "Guardian" or equivalent make which consists of frame, shutter, infill & finish as detailed below and confirming to TS 277. Door frame shall be double rebate profile of size: 143x57 mm with bending radius of 1.40 mm having having 1.6 mm thick galvanised steel sheet (16 gauge) with steel door shutter of 48 mm thick fully flush, double skin door shall be manufactured from 1.25 mm thick galvanised steel sheet (18 gauge). The infill material shall be resin bonded honey comb paper with thermal insulation. Door frames & shutters shall be finished with etched primer coating, stoved zink phosphate primer and thermosetting polyurethane aliphatic grade paint (35 micron DFT) of approved color and the quoted rate shall include following:				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
	<p>a) Grouting the frame with cement slurry including providing necessary HILTI make elastic fire stop sealant code no: CP601 and 6019 at the joints between wall and frame to the required thickness and to be applied by using dispensator tool CS 201 P1 as per manufacturers specification etc. complete and as directed.</p>				
	<p>b) Base plate of 3 mm thick for all joints of frames with provision of anchor bolt fixing to wall/ RC surface, reinforcement pad for fixing of door closer, factory finished pre-punched cuts to receive hardware and iron fixtures and card associated devices.</p> <p>c) Hinge plates- 3 mm thick (102mm x 89 mm x 3mm) predrilled to receive hinges of acro mounted fixing, stainless steel satin finished double ball bearing butt hinges size: 100x75x3 mm thick- with model no: SS551B from DORMA or approved equivalent make stainless steel confirming to SS 304 grade BS 7352</p> <p>d) Mortice latch sash lock stainless steel sation finish 5 pin tubular brass cylinder 70 mm thick with internal thumb/ knob operation and external key provision nob, lever lock and handles doorsel of make or model No:ST8100SS- type 1 with 752 lock formed with strike plate of DORMA make stainless steel confirming to SS 304 grade to BS 7352 and strike plate shall be provided to suit the type of door specified. (ie. single/ double leaf) master key floorwise or block wise and grand master key for all the doors shall be supplied with Heavy duty automatic door closer model no: TS 83/ TS 71 of DORMA or approved equivalent make . (Door closer shall be provided to suit the type of door specified. i.e Double or single.</p>				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.08.1	Single leaf/ Double leaf (equal/ unequal)	Sqm	10.00		
7.09	Providing and fixing paneling or paneling and glazing in paneled or paneled and glazed shutters for doors, windows and clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Paneling for paneled or paneled and glazed shutters 25 mm to 40 mm thick:				
7.09.1	Float glass panes				
7.09.1.2	5.5 mm thick glass panes	Sqm	126.00		
7.11	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete.				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.11.1	With 12 mm mild steel U beading	Sqm	13.00		
7.12	Providing and fixing 12 mm thick paneling or paneling and glazing in paneled or paneled and glazed shutters for doors, windows and clerestory windows (area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Paneling for paneled or paneled and glazed shutters 25 mm to 40 mm thick.				
7.12.1	Marine plywood conforming to IS: 710	Sqm	126.00		
7.13	Providing & Fixing 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 of approved quality.				
7.13.1	1.5 mm thick	Sqm	252.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.14	Filling the gap in between aluminum frame & adjacent RCC/ Brick/Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings & direction of Engineer-in-charge complete.				
7.14.1	Upto 5mm depth and 5 mm width	metre	100.00		
7.15	Providing and fixing pressed steel door frames conforming to IS: 4351, manufactured from commercial mild steel sheet of 1.60 mm thickness, including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25 mm, or base ties of 1.60 mm, pressed mild steel welded or rigidly fixed together by mechanical means, including M.S. pressed butt hinges 2.5 mm thick with mortar guards, lock strike plate and shock absorbers as specified & applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge:				
7.15.1	Profile B				
7.15.1.1	Fixing with adjustable lugs with split end tail to each jamb	meter	31.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.16	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer.				
7.16.1	Using M.S. angels 40x40x6 mm for diagonal braces	Sqm	12.00		
7.17	Providing and fixing steel roller for wooden sliding door with necessary screws etc. complete.	Each	4.00		
8.00	<u>SUB HEAD 8.00 : STEEL WORK</u>				
8.01	Steel work welded in built up sections/ framed work including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc as required.				
8.01.1	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works.	Kgs	1,500.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
8.01.2	In gratings and similar works using SS Grade 304 for wet area.	Kgs	750.00		
8.02	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.				
8.02.1	M.S. tube	Kgs	1,000.00		
8.03	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)	Kgs	4,489.00		
8.04	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
8.04.1	Fixed to openings /wooden frames with rawl plugs screws etc.	Kgs	6,719.00		
	Structural Steel frame work for fixing GRC panels				
8.05	Providing and fixing structural steel frame (for dry cladding with 30 mm thick gang saw cut with machine cut edges sand stone) on walls at all heights using M.S. square/ rectangular tube in the required pattern as per architectural drawing, including cost of cutting, bending, welding etc. The frame work shall be fixed to the wall with the help of MS brackets/ lugs of angle iron/ flats etc. which shall be welded to the frame & embedded in brick wall with cement concrete block 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size) of size 300x230x300 mm, including cost of necessary centering and shuttering and with approved expansion hold fasteners on CC/RCC surface, including drilling necessary holes.				
	Approved cramps/ pins etc. shall be welded to the frame work to support stone cladding, the steel work will be given a priming coat of Zinc primer as approved by Engineer-in- charge and painted with two or more coats of epoxy paint (Shop drawings shall be submitted by the contractor to the Engineer-in-charge for approval before execution). The frame work shall be fixed in true horizontal & vertical lines/ planes. (Only structural steel frame work shall be measured for the purpose of payment, stainless steel cramps shall be paid for separately and nothing extra shall be paid).	Kgs	688.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
8.06	Providing and fixing adjustable stainless steel cramps of approved quality, required shape and size, adjustable with stainless steel nuts, bolts and washer (total weight not less than 260 gms), for dry stone cladding fixed on frame work at suitable location, including making necessary recesses in stone slab, drilling required holes etc complete as per direction of the Engineer-in-charge.	Each	272.00		
8.07	Extra over and above the respective item for Galvanizing (Hot dip) MS frame work as per the specifications & details of the manufacturer.	Kgs	688.00		
8.08	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.				
8.08.1	80x1.25 mm M.S. laths with 1.25 mm thick top cover	Sqm	13.00		
8.09	Providing and fixing ball bearing for rolling shutters.	Each	4.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
8.10	Extra for providing mechanical device chain and crank operation for operating rolling shutters.				
8.10.1	Exceeding 10.00 sqm and upto 16.80 sqm in the area	Sqm	13.00		
9.00	SUB HEAD 9.00 : WATER PROOFING WORK				
	<p>Note: All waterproofing work shall be executed only through approved agencies & a ten year guarantee is to be submitted to the Owner on approved proforma.</p>				
9.01	Providing and Placing in position suitable PVC water stops (self Expandable) conforming to IS:12200 for construction/ expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete:				
9.01.1	Serrated with central bulb (225 mm wide, 8-11 mm thick)	meter	32.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
9.02	<p>Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:</p> <p>First layer : Supply and application of liquid applied PU Modified elastomeric membrane (HLM 5000 / Elastiment 645 / Sikalastic 450 or equivalent) to form minimum thickness of 1.25 mm thickness , and the product confirming ASTM C836. The product should have minimum elongation of 600% and 100% recovery @350% elongation. Second layer : Fixing thermal insulation layer of 50mm extruded polystyrene Slab (XPS) having density of 32- 35 Kg /cum and compressive strength 3 Kg/sqcm laid over the cured PU Coating. A layer of geo textile of 200 gsm is laid over the XPS layer.</p> <p>The product should have minimum elongation of 600% and 100% recovery @350% elongation. Second layer : Fixing thermal insulation layer of 50mm extruded polystyrene Slab (XPS) having density of 32- 35 Kg /cum and compressive strength 3 Kg/sqcm laid over the cured PU Coating. A layer of geo textile of 200 gsm is laid over the XPS layer. Treatment to walls - Providing polymer modified mortar of CM 1:4 (1 cement :4 coarse sand) of 20 mm thick admixed with Nitobond SBR or rheomix 131 of BASF @ 5lts per bag of cement including applying a polymer based bonding agent Nitoband SBR of Fosroc or rheomix 131 of BASF@ 1:1:4 ratio on the plastered surface (one part of Nito bond SBR one part of water and four part of cement) and poly propylene fibres at 125 grams per bag of cement. (For parapet walls in terrace).</p>	Sqm	493.00		
9.03	Extra on respective item above for providing and mixing water proofing material in cement concrete work in doses by weight of cement as per manufacturer's specification.	Per 50 Kg Cement	55.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
9.04	<p>Providing and laying integral cement based water proofing treatment including preparation of suitable as required for treatment of roofs, balconies, terraces etc. consisting of following operations.</p> <p>First layer : Supply and application of liquid applied PU Modified elastomeric membrane (HLM 5000 / Elastiment 645 / Sikalastic 450 or equivalent) to form minimum thickness of 1.25 mm thickness, and the product confirming ASTM C836.</p> <p>The product should have minimum elongation of 600% and 100% recovery @350% elongation.Second layer : Fixing thermal insulation layer of 50mm extruded polystyrene Slab (XPS) having density of 32- 35 Kg /cum and compressive strength 3 Kg/sqcm laid over the cured PU Coating . A layer of geo textile of 200 gsm is laid over the XPS layer. The rate inclusive of Laying of screed concrete of 1:2: 4</p> <p>(1 cement :2 sand :4 10mm down graded store aggregate) for an average thickness of 75mm mixed with integral water proofing compound over the geo textile layer in panels of 3m X 3m and sealing the jointing with PU sealant.</p> <p>The top surface should be finished with pressed clay tile of 18mm thick (Saint antony or equivalent) laid over the cement mortar 1:3 admixed with integral water proofing compound. The rate inclusive of pointing the tile joints with SBR modified mortar (SBR dosage 5lit per 50kg of cement). The rate inclusive of treating the floor and wall joints, Khuras / Koba etc complete as per the standards.</p>				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
	Treatment to walls - Providing polymer modified mortar of CM 1:4 (1 cement :4 coarse sand) of 20 mm thick admixed with Nitobond SBR or rheomix 131 of BASF @ 5lts per bag of cement including applying a polymer based bonding agent Nitoband SBR of Fosroc or rheomix 131 of BASF@ 1:1:4 ratio on the plastered surface (one part of Nito bond SBR one part of water and four part of cement) and poly propelene fibres at 125 grams per bag of cement. (For parapet walls in terrace).				
9.04.1	With average thickness of 120mm and minimum thickness at khurra as 65mm.	Sqm	1,151.00		
9.06	Making khurras 45cm x 45cm with average minimum thickness of 5cm cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate of 20mm nominal size) over PVC sheet 1mx1mx400 micron finished with 12mm cement plaster 1:3 (1 cement: 3coarse sand) and a coat of neat cement rounding the edges and making and finishing the outlet complete.	Each	24.00		
9.07	Supplying and fixing SFRC cover with frame for manholes:				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
9.07.1	SFRC Cover and frame (heavy duty HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)	Nos	4.00		
9.08	Providing orange color safety foot rest of minimum 6 mm thick plastic encapsulated as per IS:10910, on 12 mm dia steel bar conforming to IS:1786, having minimum cross section as 23mmx25mm and over all minimum length 263mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary & adequate anchoring projections on tail length on 138 mm as per standard drawing & suitable to with stand the bend test & chemical resistance test as per specifications & having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement :3 coarse sand :6 graded stone aggregate 20 mm nominal size) complete as per design.	Nos	32.00		
10.00	<u>SUB HEAD 10.00 : ROAD WORK</u>				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
10.01	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an avg of 22.5 cm depth, dressing to camber & consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	sqm	1,395.00		
10.02	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.				
10.02.1	With material conforming to Grade-I (size range 75 mm to 0.075 mm) having CBR Value-30	cum	105.00		
10.02.2	With material conforming to Grade-II (size range 53 mm to 0.075 mm) having CBR Value-25	cum	70.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
10.02.3	With material conforming to Grade-III (size range 26.5 mm to 0.075 mm) having CBR Value-20	cum	70.00		
10.03	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required color and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	sqm	1,454.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
10.04	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not be more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	cum	32.00		
10.05	Providing, laying and making kerb channel 30 cm wide and 50 mm thick with 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.	sqm	144.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
11.00	<u>SUB HEAD 11.00 : MISC. WORK</u>				
11.01	Dismantling of existing Krishna mess (GF) and 36 student rooms (Ground + 3 floors) building including roof structure, all temporary sheds, sumps, water tank, pipe lines up to foundation level for facilitating the new construction. The rate quoted shall be inclusive of disposal of debris and all materials generated from dismantling of above mentioned existing building premises. The contractor shall obtain necessary approval from the local authorities for disposal of the debris outside the IIT Madras campus. The quoted amount will be deducted from the contractor's first running account bill.	LS	1.00		
11.02	Hire charges for providing temporary barricading around the site, material and barbending yard using GI corrugated sheet to a height of 6m. The GI corrugated /plain sheets of 0.35mm thick shall be fixed to the framework made out of 50mm dia MS pipe for vertical strut placed at about 3m centre to centre with required bracing using 40mm dia MS pipe placed about 2m centre to centre and fixing diagonal middle braces using 25mm dia MS pipe forming a rigid frame work as per the architectural drawing and direction of Engineer-in-charge. The barricade shall remain in the same location till the completion of the new work construction project. No additional charges shall be paid for the extended period of contract. The rate quoted shall be including cost of conveyance of all required materials to work site, erecting, removing and disposing the same after completion of work, cost of J bolts washers, cement concrete bed 45cm x 45cm x 75cm in CC 1:2:4 and labour charges etc., complete as per direction of Engineer-in-charge.	Sqm	1,000.00		
				SUB-TOTAL SECTION A=	

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
SECTION - B					
A.	SANITARY FIXTURES				
1.00	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required :				
1.10	White Vitreous china Orissa pattern W.C. pan of size 580x440mm with integral type foot rests.	Each	8.00		
2.00	Providing and fixing white vitreous china pedestal type water closet(European type WC pan) with seat and lid, 10 liter lo level white PVC flushing cistern, including flush pipe, with manually controlled device(handle lever) conforming to IS:7231 with all fitting and fixture complete, including cutting and making good the walls and floors wherever required:				
2.10	WC pan with ISI marked white solid plastic seat and lid.	Each	6.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
3.00	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS : 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :				
3.10	Kitchen sink without drain board				
3.1.1	610 x 510 mm bowl depth 200mm	Each	32.00		
4.00	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :				
4.10	15mm nominal bore	Each	8.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
5.00	Providing and fixing PVC waste pipe for sink or wash basin including PVC waste fitting complete.				
5.10	Flexible pipe				
5.1.1	40mm dia.	Each	32.00		
6.00	Providing & fixing 600x450mm beveled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washer complete.	Each	50.00		
7.00	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm nominal bore				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.10	15mm nominal bore	Each	96.00		
8.00	Providing and fixing uplasticised PVC connection pipe with brass unions (Kohinoor or equivalent) :				
8.10	30 cm length				
8.1.1	15 mm nominal bore	each	110.00		
B.	SOIL, WASTE, VENT & RAIN WATER PIPES				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
1.00	Providing, fixing, jointing and testing in position the SWR PVC pipe for soil, installation conforming to I.S. : 13592:92 (Type-B) (6 kgf/cm ²) cut to required lengths including all necessary fittings and specials such as Bends, junctions, offsets, access pieces (plain or door) & vent cowl. Fixing at wall/floor level etc. Making proper connection with dripsal joint of required depth including cutting, chases/holes in floors /walls/ slab etc and making good the same after pipe have been duly laid and testing complete.				
1.10	110 mm dia (For Toilet Internal)	Metre	850.00		
2.00	Providing, fixing, jointing and testing in position the SWR PVC pipe for soil, installation conforming to I.S. : 13592:92 (Type-A) (4 kgf/cm ²) cut to required lengths including all necessary fittings and specials such as P/S/Floor traps,W.C.connectors,Bends, junctions, offsets, access pieces (plain or door) & vent cowl. Fixing at wall/floor level etc. Making proper connection with dripsal joint of required depth including cutting, chases/holes in floors /walls/ slab etc and making good the same after pipe have been duly laid and testing complete.				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
2.10	75 mm dia	Metre	50.00		
3.00	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/cast iron (spun) pipe embedded in and including cement concrete blocks 10x10x10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including cost of cutting holes and making good the walls etc.				
3.10	For 100 mm dia pipe	Each	50.00		
3.20	For 75 mm dia pipe	Each	15.00		
4.00	Providing and fixing M.S stays and clamps for uPVC pipes of diameter.				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
4.10	100 mm	Each	50.00		
4.20	75 mm	Each	20.00		
5.00	Providing & fixing in position PVC Floor trap with cockroach trap only in kitchen . Making proper connection with solvent joints, cutting chase / hole in floors /slabs and bringing the same in proper condition and shape after placing the trap in right position complete as required.				
5.10	100 mm inlet 100 mm outlet	Each	100.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
5.20	100 mm inlet 75 mm outlet	Each	45.00		
C.	INTERNAL / EXTERNAL WATER SUPPLY				
1.00	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00 M spacing. This include jointing of pipes & fitting with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in charge.				
	Internal Work - Exposed on wall				
1.10	15 mm nominal outer dia Pipes	Metre	100.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
1.20	20 mm nominal outer dia Pipes	Metre	500.00		
1.30	25 mm nominal outer dia Pipes	Metre	300.00		
1.40	32 mm nominal outer dia Pipes	Metre	275.00		
1.50	40 mm nominal outer dia Pipes	Metre	375.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
1.60	50 mm nominal outer dia Pipes	Metre	200.00		
2.00	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00 M spacing. This include jointing of pipes & fitting with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in charge.				
	Concealed work , including cutting chases and making good the walls etc.				
2.10	15 mm nominal outer dia Pipes	Metre	100.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
2.20	20 mm nominal outer dia Pipes	Metre	500.00		
2.30	25 mm nominal outer dia Pipes	Metre	300.00		
2.40	32 mm nominal outer dia Pipes	Metre	275.00		
3.00	Providing and fixing G. I. pipes complete with G. I. fittings and clamps, including cutting and making good the walls etc.				
	Internal work - Exposed on wall				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
3.10	15 mm dia nominal bore	Metre	30.00		
3.20	20 mm dia nominal bore	Metre	45.00		
3.30	25 mm dia nominal bore	Metre	100.00		
3.40	32 mm dia nominal bore	Metre	30.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
3.50	40 mm dia nominal bore	Metre	60.00		
3.60	50 mm dia nominal bore	Metre	90.00		
4.00	Providing and fixing G. I. pipes complete with G. I. fittings including trenching and refilling etc.				
4.10	40 mm dia nominal bore	Metre	50.00		
4.20	50 mm dia nominal bore	Metre	50.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
4.30	65 mm dia nominal bore	Metre	165.00		
4.40	80 mm dia nominal bore	Metre	30.00		
5.00	Making connection of G. I. distribution branch with G. I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete				
5.10	25 to 40 mm dia nominal bore	Metre	10.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
5.20	50 to 80 mm dia nominal bore	Metre	10.00		
6.00	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :				
6.10	15 mm nominal bore	Each	4.00		
6.20	20 mm nominal bore	Each	4.00		
6.30	25 mm nominal bore	Each	4.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.00	Providing and fixing brass ferrule with C.I. mouth cover including boring and tapping the main :				
7.10	25 mm nominal bore	Each	3.00		
8.00	Providing and fixing uplasticised PVC connection pipe with brass unions :				
8.10	45 cm length				
8.1.1	20 mm nominal bore	Each	222.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
9.00	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve with C. I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement:3 coarse sand) 12mm thick finished with a floating coat of neat cement complete as per standard design :				
9.10	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	3.00		
10.00	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design:				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
10.10	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	3.00		
11.00	Providing and fixing C.I double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately):				
11.10	50 mm dia	Each	6.00		
12.00	Providing and fixing enclosed type water meter (bulk type) conforming to IS : 2373 and tested by Municipal Board complete with bolts, nuts, rubber insertions etc. (The tail pieces if required will be paid separately):				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
12.10	80 mm dia nominal bore	Each	3.00		
13.00	Providing and fixing brass stop cock of approved quality				
13.10	15 mm nominal bore	Each	6.00		
13.20	20 mm nominal bore	Each	10.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
14.00	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :				
14.10	15 mm dia nominal bore	Metre	20.00		
14.20	20 mm dia nominal bore	Metre	30.00		
14.30	25 mm dia nominal bore	Metre	25.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
14.40	32 mm dia nominal bore	Metre	40.00		
14.50	40 mm dia nominal bore	Metre	65.00		
14.60	50 mm dia nominal bore	Metre	75.00		
14.70	65 mm diameter pipe	Metre	45.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
14.80	80 mm diameter pipe	Metre	50.00		
15.00	Providing and filling sand of grading zone V or coarser grade all round the G.I. pipes in external work.				
15.10	32 mm dia nominal bore	Metre	10.00		
15.20	40 mm dia nominal bore	Metre	10.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
15.30	50 mm dia nominal bore	Metre	20.00		
15.40	65 mm diameter pipe	Metre	45.00		
15.50	80 mm diameter pipe	Metre	20.00		
D.	EXTERNAL SEWAGE SYSTEM				
1.00	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
1.10	All kinds of soil				
1.1.1	Pipes, cables etc, not exceeding 80 mm dia.	Meter	50.00		
1.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia.	Meter	100.00		
1.1.3	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm.	Meter	125.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
2.00	Extra for excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.5 m, but not exceeding 3 m. (Rate is over corresponding basic item for depth upto 1.5 metre).	Meter	50.00		
3.00	Providing and laying non pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement :2 fine sand) including testing of joints etc. complete :				
3.10	150 mm dia R.C.C. pipe	Metre	50.00		
3.20	200 mm dia R.C.C. pipe	Metre	150.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
3.30	250 mm dia R.C.C. pipe	Metre	160.00		
3.40	300 mm dia R.C.C. pipe	Metre	250.00		
3.50	450 mm dia R.C.C. pipe	Metre	50.00		
4.00	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. / PVC pipes including bed concrete as per standard design:				
4.10	150 mm diameter pipe	Metre	50.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
4.20	200 mm diameter pipe	Metre	150.00		
4.30	250 mm diameter pipe	Metre	10.00		
5.00	Providing and laying cement concrete 1:5:10 (1 cement :5 coarse sand: 10 graded stone aggregate 40 mm nominal size) upto haunches of PVC / RCC. pipes including bed concrete as per standard design :				
5.10	150 mm diameter RCC pipe	Metre	50.00		
5.20	200 mm diameter RCC pipe	Metre	150.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
5.30	250 mm diameter RCC pipe	Metre	160.00		
5.40	300 mm diameter RCC pipe	Metre	250.00		
6.00	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design :				
6.10	180x150 mm size P type				
6.20	With Sewer bricks conforming to IS : 4885	Each	10.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.00	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
7.10	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				
7.1.1	With Sewer bricks conforming to IS : 4885	Each	4.00		
8.00	Extra for depth for manholes				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
8.10	Size 90x80 cm				
8.1.1	With Sewer bricks conforming to IS : 4885	Each	1.00		
9.00	Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) finished with a floating coat at neat cement all complete as per standard design :				
9.10	0.91 m deep with S.F.R.C cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to IS. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand :4 graded stone aggregate 20 mm nominal size) including centering shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately).				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
9.1.1	With Sewer bricks conforming to IS : 4885	Each	2.00		
10.00	Extra depth for circular type manhole 0.9 m internal dia (at bottom) with beyond 0.91m to 1.67m				
10.10	With Sewer bricks conforming to IS : 4885	Metre	2.00		
11.00	Constructing brick masonry circular manhole 1.22m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement :4 coarse sand) inside cement plaster 12mm thick with cement mortar 1:3 (1 cement :3 coarse sand) finished with a floating coat of neat cement foundation concrete 1:3:6 (1 cement : 3 coarse sand: 6 graded stone aggregate 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design :				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
11.10	1.68 m deep with SFRC Cover and frame (heavy duty HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 20mm nominal size) including centering shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :				
11.1.1	With Sewer bricks conforming to IS : 4885	Each	2.00		
12.00	Extra depth for circular type manhole 1.22m internal dia (at bottom) beyond 1.68 m to 2.29 m :				
12.10	With Sewer bricks conforming to IS : 4885	Metre	1.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
13.00	Constructing brick masonry circular manhole 1.52 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand) inside cement plaster 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design :				
13.10	2.30m deep with SFRC Cover and frame (heavy duty HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including centering shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :				
13.1.1	With Sewer bricks conforming to IS : 4885	Each	1.00		
14.00	Extra depth for circular type manhole 1.52 m internal dia (at bottom) beyond 2.30 m :				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
14.10	With Sewer bricks conforming to IS : 4885	Metre	1.00		
15.00	Providing orange colour safety foot rest of minimum 6mm thick plastic encapsulated as per IS: 10910 on 12 mm dia steel bar conforming to IS : 1786 having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring protections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specification & having manufacture's permanent identification mark to be visible even after fixing, including fixing in manhole with 30x20x15 cm cement concrete block 1:3:6 (1 cement: 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	Each	50.00		
16.00	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete: distribution branch with G. I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
16.10	For pipes 100 to 250 mm diameter	Each	1.00		
16.20	For pipes 250 to 300 mm diameter	Each	1.00		
16.30	For pipes 350 to 450 mm diameter	Each	1.00		
17.00	Constructing brick masonry road gully chamber 50x45x60 cm with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm precast RCC horizontal grating complete as per standard design.				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
17.10	With common burnt clay F.P.S(non modular) bricks of class designation 7.5	Each	10.00		
18.00	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 coarse sand) with pre-cast R.C.C. vertical grating complete as per standard design :				
18.10	With common burnt clay F.P.S(non modular) bricks of class designation 7.5	Each	10.00		
19.00	Providing and fixing on wall face unplasticised -PVC moulded fitting/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10mm gap for thermal expansion. (i) single socket pipes.				
19.10	110mm dia	Metre	150.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
20.00	Constructing the diaphragm chamber for protecting the entry of kitchen waste into main sewer line using standard specification and detailing as approved by the Engineer-in-charge - Size of chamber not less than 2.00m length x 1.00m width x 0.75m height.	Nos	2.00		
E.	SANITARY FIXTURES, WATER SUPPLY AND DRAINAGE				
1.00	Providing and fixing white vitreous china floor mounting European type water closed with CP bolts, nuts, CI chair or other hanging arrangement, with vitreous china watersaver dual flush 3/6 ltrs flushing cistern and internal fittings, white solid plastic / wooden / bakelite seat and cover with lid, CP brass hinge rubber buffers, with accessories, CI / MS brackets painted with two or more coats of enamel paint of approved shade over a coat of primer. C. P. brass screws and wooden cleats, including cutting and making good the wall and floors wherever required. (Hindware Model No. -SUPER CONSTELLATION Cat No-20032 & Cistern Cat No.-21020) or Equivalent as per direction of Engineer in Charge.	Each	6.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
2.00	Providing, Fixing, testing and commissioning of vitreous china white below counter oval wash basin/circular basin (Size 560 x 410 mm) with CP brass waste assembly, CP cast brass bottle trap with extension piece, wall flanges and rubber adapters for waste connection complete including CI/MS brackets duly painted, nuts, washers, cutting and making good the walls floors wherever required.(Hindware Model No. -OVAL Cat No-10017 & Bottle trap Jaquar (ALLIED) cat. no. ALD 769) or Equivalent as per direction of Engineer in Charge	Each	50.00		
3.00	Providing & Fixing of white colour vitreous china large flat back / half stall urinal size including CP brass waste with dome type grating, CP cast brass bottle trap built in sensor with extension piece, wall flanges complete as required.(Hindware Model No. - Senso Cat No-60007) or Equivalent as per direction of Engineer in Charge.	Each	14.00		
4.00	Providing, fixing, testing & commissioning of C.P. brass pillar tap. (Make: Metro or equivalent).	Each	50.00		
5.00	Providing and fixing G. I. floor drain consisting of 100x50 mm G. I. elbow (grating and G. I. pipe to be paid separately), complete as per instruction as per direction of Engineer in Charge.	Each	45.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
6.00	Providing and fixing 125 mm dia, 3 mm thick stainless steel grating with frame for floor traps or drains of required pattern including cutting and making good the floors complete as per direction of Engineer in Charge.				
6.10	125 mm dia	Each	45.00		
7.00	Providing and fixing cast brass clean out plug with suitable insert keys for opening, male threaded joint with G. I. socket lead caulked to soil pipe / waste pipe of C. I. and C. I. (LA) pipe as required complete as per direction of Engineer in Charge. (Make- Chilly, Model - Clean out round cat no. COR-05 & COR-08) or Equivalent as per direction of Engineer in Charge.				
7.10	100 mm dia	Each	20.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
7.20	150 mm dia	Each	2.00		
8.00	Providing, fixing, testing and commissioning of C.P. brass wall / counter mounted sink mixer with C.P. wall flange, overhead swinging spout complete as required and making good.(Make: Metro or equivalent)	Each	32.00		
9.00	Providing and fixing solid state, no touch operting, fully hygienic hand drier of approved shade with single blower, with time delay, summer & winter control, music while drying, volume ON/OFF controls including providing necessary brackets, cable from drier to Plug, Plug top key and lock etc, complete as required.(Make: Euranics or equivalent)	Each	8.00		
10.00	Providing & fixing S.S. Towel ring complete in all respect.	Each	14.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
11.00	Providing & fixing Recessed type S.S. toilet paper holder with PVC rawl plug & C.P. brass screw complete as required.	Each	14.00		
12.00	Providing and fixing push type liquid soap dispenser with PVC rawl plug & C.P. brass screw complete as required.	Each	14.00		
13.00	Providing & fixing S.S. brass twin coat hook with PVC rawl plug & C.P. brass screw complete as required.	Each	14.00		
14.00	Providing & fixing Recessed type S.S. soap dish with PVC rawl plug & C.P. brass screw complete as required.	Each	14.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
15.00	Fixing C.P. hand spray (health faucet for EWC) with push button control and flexible hose connection with C.P. holder for hand spray complete in all respects. (Hand spray, flexible hose and hook shall be supplied free of cost by the Owners) Make:Kingsten, Hindware or equivalent.	Each	6.00		
16.00	Providing and fixing on wall face unplasticised-Rigid PVC rain water pipes conforming to IS:13592 Type A including jointing with leaving 10 mm gap for thermal expansion (i) single socketed pipes along with all required fittings like tees, bends, crosses with or without access doors jointed with approved solvent cement as per manufacturer's recommendations, fixed to walls and ceilings with clamps complete including cutting and making good the floors and walls where required complete of outer diameter as per direction of Engineer in Charge. Make Supreme or Equivalent as per direction of Engineer in Charge.				
16.10	160 mm OD	Metre	44.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
16.20	200 mm OD	Metre	33.00		
17.00	Providing and fixing of GI pipe (Heavy duty) concealed in wall / floor including painting with anti corrosive bitumestic paint, cutting chases and making good the wall as per direction of Engineer in Charge Make Tata Steel Ltd..Jindal or Equivalent as per direction of Engineer in Charge.				
17.10	32 mm nominal outer dia Pipes	Metre	10.00		
17.20	40 mm nominal outer dia Pipes	Metre	50.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
17.30	50 mm nominal outer dia Pipes	Metre	90.00		
17.40	65 mm nominal outer dia Pipes	Metre	45.00		
17.50	80 mm nominal outer dia Pipes	Metre	10.00		
18.00	Providing and fixing thermal insulation over hot water pipes with 9 mm thick nitrile / polyolefin or approved equivalent thermal insulation tubing, a elastomeric flexible material having hermetic blister closed cell structure of expanded synthetic rubber having a thermal conductivity not exceeding 0.040 w/mk @ 40 deg. C over pipes with aluminium cladding / protective coating of FRP following sizes including all required accessories complete as per manufacture's specifications as per direction of Engineer in Charge.				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
18.10	15 mm nominal outer dia Pipes	Metre	45.00		
18.20	20 mm nominal outer dia Pipes	Metre	50.00		
18.30	25 mm nominal outer dia Pipes	Metre	55.00		
18.40	32 mm nominal outer dia Pipes	Metre	20.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
18.50	40 mm nominal outer dia Pipes	Metre	50.00		
18.60	50 mm nominal outer dia Pipes	Metre	40.00		
19.00	Providing & fixing brass ball valve with hard chrome plated ball inside PTFE (Teflon) seat & ring with chrome plated centre handle with female BSP threads complete in all respects as per direction of Engineer in Charge. Make - Zoloto or Equivalent as per direction of Engineer in Charge.				
19.10	15 mm nominal outer dia Pipes	Each	5.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
19.20	20 mm nominal outer dia Pipes	Each	5.00		
19.30	25 mm nominal outer dia Pipes	Each	5.00		
19.40	32 mm nominal outer dia Pipes	Each	6.00		
19.50	40 mm nominal outer dia Pipes	Each	6.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
19.60	50 mm nominal outer dia Pipes	Each	6.00		
19.70	65 mm nominal outer dia Pipes	Each	6.00		
20.00	Fixing, testing and commissioning of Extention peice of approved quality.	Each	40.00		
21.00	Providing & fixing PN 16 butterfly valve including rubber gasket, flanges, nuts, bolts, washers & painting complete as required as conforming to IS: 13095 as required. per direction of Engineer in Charge. Make : Advance or Equivalent as per direction of Engineer in Charge.				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
21.10	65 mm dia	No.	2.00		
21.20	80 mm dia	No.	4.00		
22.00	Providing and fixing Heavy class SS grating with Cockroach proof SS strainer of approved design including setting in floor with cement mortar to match with floor finish as per direction of Engineer-Incharge. Make Chilly or Equivalent as per direction of Engineer in Charge.				
22.10	Size 153 mm x 153 mm	No.	100.00		
F.	MISCELLANEOUS ITEMS				

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
1.00	Providing and fixing M.S. puddle flanges fabricated of 750 mm long pipe pieces to R.C.C. water tanks wall / slab. The entire fitting shall be hot dipped galvanised (Flanges shall confirm to BS10 Table E) .				
1.10	25 mm dia (Screwed ends MS plate 6 mm thick; 100 mm x 100 mm plus dia of pipe).	No.	20.00		
1.20	32 mm dia (Screwed ends MS plate 6 mm thick; 100 mm x 100 mm plus dia of pipe).	No.	10.00		
1.30	40 mm dia (Screwed ends MS plate 6 mm thick; 100 mm x 100 mm plus dia of pipe).	No.	10.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
1.40	50 mm dia (Screwed ends MS plate 6 mm thick; 100 mm x 100 mm plus dia of pipe).	No.	36.00		
1.50	65 mm dia (Flanged ends MS plate 6 mm thick; 100 mm x 100 mm plus dia of pipe).	No.	20.00		
1.60	80 mm dia (Flanged ends MS plate 6 mm thick; 100 mm x 100 mm plus dia of pipe).	No.	40.00		
1.70	100 mm dia (Flanged ends MS plate 6 mm thick; 250 mm x 250 mm plus dia of pipe).	No.	10.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
1.80	150 mm dia (Flanged ends MS plate 6 mm thick; 250 mm x 250 mm plus dia of pipe).	No.	10.00		
2.00	Since the RCC wall work of the tank is completely done at site, contractor shall ensure that the quoted rates are inclusive of providing and installing puddle flange in existing retaining wall as required including water proofing and making good.				
3.00	Providing and fixing in position GI vent with brass mosquito proof coupling and air filter including return bend, complete as required. The entire fitting shall be hot dip galvanised.				
3.10	100 mm dia	No.	40.00		

I. NO	ITEM DESCRIPTION	UNIT	QUANTITY	RATE (Rs IN FIGURES AND WORDS)	AMOUNT
4.00	Providing and fixing raised toilet seat with cover for handicap toilet (Make : Presalit – Commander)	No.	1.00		
5.00	Providing and fixing 2 Nos. support arms and backrest to mounted on the track (vertically and laterally) for handicap toilet complete as required. (Make : Presalit – Commander)	No.	2.00		
				SUB-TOTAL SECTION B=	

GRAND TOTAL (SECTION A + B) =

Total amount (Rs in words).....

Certified that the tender document as published in the website contains 94 pages.

Signature of the Contractor

Superintending Engineer