

BILL OF QUANTITIES FOR
CONSTRUCTION OF RENOVATION
OF HALL OF RESIDENCE - 3
FOR
NATIONAL INSTITUTE OF TECHNOLOGY.
ROURKELA.

CONSULTANT.

M/S Design Techno

PLOT NO-N-6 /515, Jyadev bihar

Bhubaneswar-12

**SECTION - I
EARTHWORK IN EXCAVATION**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Surface dressing of the ground including, removing vegetation and inequalities not exceeding 15cm depth and disposal of rubbish , lead up to 50mtr & lift up to 1.5 mtr.In all kinds of soil.	50.00	100Sqm		
2	Earth work in excavation in all type of soil , morrum, hard, compacted or soft rock, mica schist quartz etc. in foundation of structure, sewer line, drain pits, etc. to required level and grade and dressing complete as per the specification and direction of the engineers, in both dry and wet condition including necessary pumping, bailing out of water, slush removal etc. and transporting the excavated material to soil dump /fill area/ excavated pit with a lead of 200mtr. at all heights and descent including dozing, leveling at site of filing all as directed by the engineer, all tools, plants, and labour complete, Authorised working space benching and sick slope for the excavation will be measured and paid under this items up to 3mtr depth below finished Ground Level.				
i)	All kind of soil.	80.00	Cum		
3	Earth work in excavation in foundation trenches in Ordinary rocks i.e. Disintegrated rock (blasting prohibited) by crowbar, pick axe etc. within initial lift 3.00 mtr , rough dressing to the sides of trench , getting out the excavated rock & disposal of surplus excavated material within 200 mtr of lead including cost of dewatering, shoring, labour T & P tax etc complete in all respect as per the direction of the Engineer -in-charge.	20.00	Cum		
4	Extra for disposal of earth for a lead of 100mt or part there of.	20.00	Cum		
5	Back filling in all positions and height and descent in foundation pits, pipe trench sewer line around foundation and structure in plinth etc. with approved excavated material obtained from a lead of 200mtr including reclaiming from spoils heaps at all height or reclaiming from dumps at all depth cost includes transporting, depositing, filling in layers of 200mm thick dressing watering and ramming complete with tools , plant & labour.	70.00	Cum		
6	Plinth filling in layers of 150mm thick good quality river sand including watering and consolidating by mechanical means as per direction of engineer.	60.00	Cum		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
7	Providing and injecting Chemical emulsion chloropyrophos 20% E.C. for pre-constructional anti-termite treatment and creating chemical barriers as per I.S. 6313 Part-C (of latest edition) in wall trenches, foundation, top surface of plinth, filling, junction of walls and floors along the external perimeter of the building, surrounding of pipes etc complete . The work shall be execute through approved agency/agencies and with guarantee of 10 years. The rate shall be as per plinth area including as directed below.				
	a) Using Chemical Emulsion @ 7.5 Ltr/sqm for				
	i. Back filling immediate contact with masonry foundation. masonry foundation.				
	ii. Junction of walls and floors.				
	iii External perimeter of building.				
	b) Using Chemical Emulsion @ 5.0 Ltr/sqm				
	i. Bottom of side trenches.				
	ii. Top surface plinth filling.	50.00	Sqm		
8	Providing and injecting Chemical emulsion chloropyrophos 20% E.C. for post-constructional anti-termite treatment and creating chemical barriers as per I.S. 6313 Part-C (of latest edition) in wall trenches, foundation, top surface of plinth, filling, junction of walls and floors along the external perimeter of the building, surrounding of pipes etc complete . The work shall be execute through approved agency/agencies and with guarantee of 10 years. The rate shall be as per plinth area .	2300.00	Sqm		
	a) using chemical emulsion @2.25 liters along external wall below concrete or masonry apron including drilling and plugging holes.				
	b) using chemical emulsion @1 liter/hole 300mm c/c below existing floor or masonry apron including drilling 12mm diameter hole and plugging holes.				
	c) using chemical emulsion @1 liter/hole 300mm c/c below existing masonry including drilling 12mm diameter holes at 45degree and plugging holes full depth with cement mortar (1:2)				
	d) using chemical emulsion in kerosene) @0.5 liter/hole 150mm c/c at 45 degree downward angle below existing masonry including drilling 6mm diameter holes at points of contact of wood work and plugging holes full depth with cement mortar (1:2)				
			TOTAL		

SECTION - II
PLAIN/REINFORCED CEMENT CONCRETE WORK

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Supplying, laying and compacting plain cement concrete of following graded aggregate in all foundation, floor, roof screening etc. and at all heights and depth above and below finished ground level to required levels, slope etc. including curing but excluding the cost of shuttering all as per drawing and direction of engineer, with all material, tools plant and labour.				
a	Below finished ground level 1:4:8 with 40mm down graded aggregate.	5.00	Cum		
b	Above finished ground level 1:2:4 with 20mm down graded aggregate.	80.00	Cum		
2	Plinth protection:-Providing and making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement :3 part sand : 6 part 40mm down size aggregate) over 75mm thick bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	5.00	Sqm		
3	Providing, laying in position nominal mix(1:1.25:2.5) cement concrete for reinforced cement concrete work including carrying of concrete to site of laying but excluding cost of centering, shuttering , reinforcement , including admixtures in setting of concrete , improve workability without impairing strength and durability as per the direction of Engineer in charge. M20 grade reinforced cement concrete by using 410kg of cement per cum of concrete all work up to floor V level.				
	R.C.C work as defined by the latest IS 456 in all members like foundation, superstructure, slab, column, beam, lintel,chajja,shelves,windows sills, facia, floor/roof slab, fins, stair, footing, drains, encasing of pipe line etc. including curing but excluding form work and reinforcement. All as per drawing and direction of engineer, all materials ,tools plant and labour complete, in plumb line & level with plastering in cement mortar 1 cement : 3 coarse sand at no extra cost as required.				
a	Below finished ground level (1:1.25:2.5) concrete with 20mm down graded aggregate.	10.00	Cum		
b	Above finished ground level (1:1.25:2.5) concrete with 20mm down graded aggregate.	50.00	Cum		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
4	Supplying and fixing ply and or steel shuttering for all type of R.C.C work at any location in provision with necessary centering, bracing ,propping staging (if required) etc. and striking including curved shuttering fine and facia for all plain & reinforced cement concrete works including all chamfer splays, filler keys, wedges proof, mails bracing bracket, cutting holes for embedment etc. and applying shuttering oil on shuttering surface in contact with concrete all as per drawing and direction of engineer, all tools plant and labour complete. Rate including providing and laying plastic sheet to make water tight shuttering and removing the same for all type of R.C.C work.				
a	At all depth & any location below finished Ground Level .	100.00	Sqm		
b	At all heights & any location above finished Ground Level .	600.00	Sqm		
5	Supplying , loading , unloading transporting , straightening, decoiling, cutting, bending cranking tack welding as necessary placing and fixing in position steel reinforcement including angle /pins provided for approved welded joints at all level above and below finished G.L. for R.C.C and Precast R.C.C work including supplying approved 20 SW annealed black binding wire, cover block etc. including all as per drg. and direction of engineer , all material, tools plants and labour complete. High yield strength deformed bars of Grade Fe 500 of all diameters of cold twisted steel / T.M.T of TATA/ SAIL	6.00	M.TON		
6	Providing precast cement concrete slab1:2:4(1Cement:2Sand:4Coarse aggregate 6mm nominal size)reinforced with 6mm dia mild steel including cenetring and shuttering roughening and cleaning fixing and finishing in cement motar 1:3(1Cement:3Sand)etc complete excluding plastering of jambssill and soffits				
a	50mm thick precast slab.	100.00	Sqm		
b	25mm thick precast slab	60.00	Sqm		
			TOTAL		

**SECTION-III
BRICK WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Supplying and construction brick work at any location using best quality locally available bricks of compressive strength not less than 75 Kg/ sqcm as defined in IS 1077 in cement sand mortar (1:6) in foundation, superstructure , main hole duct drain etc. including fiar cutting, wastage, bounding, plumbing line level, flushing , racking joint, scaffolding and curing all as per drg. and as per direction of the engineer, with all material tools plant, labour complete. all up to floor V level.				
a	At and all depth below finished ground level.	50.00	Cum		
b	At and all heights above finished ground level	30.00	Cum		
2	Brick work at any location in 1:4 cement mortar in half brick masonry with locally available bricks of compressive strength not less than 75 Kg/ sqcm as defined in IS 1077 at any location including supplying and placing in position 2nos 6mm dia m.s bar at every third layer.	1500.00	Sqm		
3	Extra over item No. 1 above for forming circular hole in wall for fixing exhaust fans including cement plaster 1:4 to inner faces (approximately 300mm dia to 375mm. dia) at all level and heights.	10.00	Nos		
4	Providing and laying 75mm thick brick work in cement mortar 1:3(1 cement: 3 coarse sand) in plain or curved wall etc complete in all respects including laying 1 no 6 mm bar at every alternate layers in all floors and heights as per drawing and specification complete. Reinforcement cost included.)	10.00	Sqm		
			TOTAL		

**SECTION-IV
WOOD WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Providing & fixing in position at any location well dressed naturally well seasoned sal wood of finished cross section (65mm x 125mm), rebated frame to door including 2 coats of hot bitumen applied to rear of frame in contact of masonry / concrete surface complete in all respects as per the direction of Engineer.	6.00	Cum		
2	Providing and fixing 35 mm thick flush door shutter , ISI marked non decorative type solid block board construction with frame of first class hard wood and well matched 3ply commercial veneering with vertical or cross bands on both faces of shutter finished as per specifications mentioned in drawing . (Excluding the cost of fittings.) .	225.00	Sqm		
3	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete. second class teak wood 50x20 mm.	525.00	Rmt		
4	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15 cm 1:3:6mix(1 cement: 3 coarse sand:6 graded stone aggregate 20mm nominal size) .	200.00	Each		
5	Providing and fixing S.S butt hinges with necessary screws etc Complete 125 x 65 x 2.5 mm (heavy type) IS 12817 marked welded to door frame where required.	725.00	Each		
6	Providing and fixing 50 mm bright finished stainless steel cup board or ward robe knob with necessary screws (best make of approved quality).	10.00	Each		
7	Providing and fixing stainless steel handles 150 mm x16 mm conforming to IS: 4992 with necessary screws. etc complete.	1500.00	Nos		
8	Providing and fixing 75mm special quality bright finished stainless steel cupboard or wardrobe locks with four levers including necessary screws etc. complete (best make of approved quality.)	6.00	Each		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
9	Providing and fixing bright finished alluminium hanging type floor double door stopper with necessary screws etc. Complete	200.00	Each		
10	Providing and fixing IS3564 marked Aluminium die cast body /extruded section body tubular type universal hydraulic door closer with necessary accessories and screws etc complete.	3.00	Each		
11	Providing and fixing stainless steel tower bolt with necessary screws etc. complete				
a	150 x 10 mm	1400.00	Each		
b	300 x 10 mm	400.00	Each		
12	Providing and fixing bright finished brass 100mm Mortise latch and lock with six levers and a pair of lever handles with necessary screws etc complete (Best make of approved quality)	2.00	Each		
13	40mm dia. Rubber buffer fixed to wall with M.S. Screws.	200.00	Each		
14	Providing and fixing curtain rod 20 mm dia of 1.25 mm thick made of chromium plated brass pipe with chrome plated brass brackets(2nos) wall with stainless steel screw all complete.	400.00	Mtr		
15	Providing and fixing factory made UPVC door made of UPVC extruded, section having an overall dimension,as below (tolerence ± 1 mm) with all thickness 2mm ± 0.2 mm .Corners of the door frame to be jointed with galvanized brackets and stainless steel screws, jointed and mitred and plastic wilded.The hinge side vertical of the frame reinforced by galvanised M.S tube of size 19mmx19mm and 1mm ± 0.1 mm wall thickness and 3 nos stainless steel hinges fixed to the frame complete as per manufacture specification and direction of Engineer in charge.				
	Extruded section profile size 42x50mm	250.00	Mtr		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
16	30mm thick factory made panel PVC door shutter consisting of frame made out of M.S tubes of 19gauge thickness and size of 19mmx19mm for styles and 15mmx15mm for top and bottom rail,M.S frame shall have a coat of steel primers of approved make and manufacture .M.S frame covered with 5mm thick head moulded PVC 'C' channel of size 30mm thickness,70mm width out of which 50mm shall be flat and 20mm shall be tapered in 45degree angle on either side forming styles and 5mm thick,95mm wide PVC sheet out of which 75mm shall be flat and 20mm shall be tapered in 45degree on the inner side to form top and bottom rail and 115mm wide PVCsheet on both sides to form lock rail,top,bottom and lock rail shall be provided either side of the panel.10mm (5mmx2mm)thick, 20mm wide cross PVC sheet be provided as gap insert for top rail and bottom rail ,panelling of 5mm thick both side PVC sheet be provided as gap insert for top rail and bottom rail ,panelling of 5mm thick both side PVC sheet to be fitted in the M.S. frame welded/sealed to the				
	styles and rail with 7mm (5mm+2mm) thickx15mm wide PVC sheet beading on inner side ,and joined together with solvent cement adhesive. An additional 5mm thick PVC strip of 20mm width is to be stuck on the interior side of the 'C' channel using PVC solvent adhesive etc.complete as per direction of Engineer-in-charge. Manufacturer's specification and drawing (for W.C and bathroom door shutter.)	90.00	Sqm		
17	Renewing 4.0mm float glass in wooden Windows and Ventilaters as per drawing and designing complete to satisfaction of Engineer-in-Charge/Architect.Rate include cost of glass ,glass fixing putty,nails etc.	382.00	Sqm		
18	Providing and fixing wooden panelling for doors , windows & clerestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured). Panelling for paneled shutters 25 mm thick , kiln seasoned chemically treated second class hard (kasi , trenta , piasal) wood .	50.00	Sqm		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
19a	Removal of existing sal wood chaukatha for repairing and refixing (excluding cost of repair, holdfasts) complete including making good the wall cuttings complete. (door / Window ventilator) complete to satisfaction of Engineer-in-Charge / Architects .				
i	Doors with ventilaters	55.00	Each		
ii	Windows with ventilaters	50.00	Each		
b	Removal of existing sal wood chaukatha including making good the wall cuttings complete.(doors, windows & ventilaters) handing over to department to satisfaction of engineer in charge/Architect.	40.00	Each		
20	Removal of existing wooden shutter for repairing and refixing ,excluding cost of repair but including cost of screws necessary complete to satisfaction of Engineer - in -Charge / Architects .				
i	door shutters	160.00	Each		
ii	window shutters	330.00	Each		
iii	ventilaters	100.00	Each		
21	Providing all material and labour for repairing of panelled or panelled and glazed shutterers for doors, windows and clerestorey windows using kiln seasoned and chemically treated second class hard (Kasi, Tenra piasal) wood 40mm thick shutter frame .(panelling will be paid for separately)	3.00	Cum		
22	Providing and fixing stainless door (Aldrop) 300mm x 150mm x 16mm	192.00	Each		
23	Providing all material and labour for repairing existing door, window chaukatha by removing the damaged members and replacing suitable member from existing chaukatha after minor repairing complete fixing in position including two coats of wood preservative to rear of frame in contact with masonry & concrete surface (IS 12896 : 1990)	55.00	Each		
			TOTAL		

**SECTION-V
STEEL WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Providing & fixing pressed steel door frames conforming to 4351 manufactured from commercial mild steel sheet of 1.25mm thickness including hinges ,jambs,lock jamb,bead and if required angle threshold of mild steel angle section of 50x25mm or base tie of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means adjustable lugs with split end tail to each jamb including steel butt hinges 2.5mm thick with motar guards ,lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer in charge.				
i	Profile ' B' Confirming IS 4351	600.00	Rmt		
2	Providing and fixing ISI marked steel glazed doors, Windows and ventilators of standard rolled steel section as per IS 1038 with Z or L section joints mitred and welded with 15x3mm lugs, 10 cm. Long, embedded in cement concrete blocks 15 x 10 x 10 cm Of 1:3:6 (1cement : 3 coarse sand : 6 graded aggregate 20mm nominal size) or with wooden plugs and screws or rawl plug and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of 4mm thick glass panes plain/pin headed with glazing clips & special metal sash putty of approved make complete , including two point nose handle of approved pattern with applying priming coat of approved steel primer, and also including oxidized M.S casement stays (straight peg type) with necessary screws etc(300mm weighing not less than 200 gms.)all complete as per direction of engineer in charge Windows- side hung.	20.00	Sqm		
3	Providing and fixing M.S grill of required pattern in frames of windows etc.with M.S flat ,square or round bars etc,all complete.				
	Fixed to steel windows by welding .	650.00	Kg		
	Fixed to openings with rawl plugs screw etc.	350.00	Kg		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
4	Supplying, fitting and fixing of Stainless steel of 316 grade in hand railing using 50mm dia of 2mm thick circular pipe with Balustrade of size 32mm x 32mm solidsquare bar @ 0.90mtr. C/C and square bar bracing of size 32mm x 32mm in stair case as per approved design and specification, buffing, polishing etc with cost, conveyance, taxes of all materials, labour, T&P etc. required for the complete in all respect. (Cost includes S.S. railing only ,cost of balustrads will be paid extra) only length of railing will be taken for payment.	40.00	Mtr		
5	Providing & fixing in position collapsible steel shutters with vertical channels 20x10x2mm and braced with flat iron diagonals 20 x 5 mm size with top and bottom rail of T-iron 40 x 40 x 6mm with 40mm dia. Steel pulleys complete with bolts, nuts locking arrangement, stoppers handles, including applying a priming coat of approved steel primer.	5.00	Sqm		
6	Providing & fixing openable and foldable grill gates / shutter for entrances made of flats, square or round with M.S. handle, locking system (sliding bolt and floor bolt), necessary screws and hinges, fixed to walls by welding with 15x3mm lugs, 10cms long in P.C.C.1:3:6(1 cement:3 coarse sand : 6 graded stone aggregate20 mm nominal size), necessary nuts & M.S. parliament hinge or pivots as required complete including applying priming coat of approved steel primer.	600.00	Kg		

**SECTION-VI
FLOORING**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	cement concrete flooring 1:2:4 (1 cement:2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement slurry, but excluding the cost of nosing of steps and cost of glass strip fixing , complete 40mm thick with 20 mm nominal size stone aggregate.	20.00	Sqm		
2	Cement plaster skirting (up to 30 cm height) with cement mortar 1:4 (1 cement: 4 coarse sand) finished with a floating coat of neat cement (18 mm thick).	5.00	Sqm		
3	Supplying, laying and fixing anti-skid tiles (300mm x 300mm) size first quality confirming to IS 15622 in toilet floor heights, to floor surface conforming to drawings and designs set in 20mm thick cement mortar of proportion 1:4 to proper line and slope including cutting to required size and shape and fixing at corners etc. and the joints are to be properly finished with epoxy grout of matching colour and curing complete with cost of all labour, materials, taxes, T&P, conveyance etc. as directed by the Engineer. (all colours)Minimum Basic cost of tile Rs.400/sqm.	325.00	Sqm		
4	Providing & fixing ceramic glazed tile (300x200mm) size first quality confirming to IS :15622 of approved shade & quality to dado at all heights over a base course of 12mm thick cement mortar (1cement : 3 coarse sand) jointing with grey cement slurry @3.3kg per sqm. joints filled with epoxy grouting of matching colour and approved manufacture etc. as specified & directed laid to proper line and plumb, cutting in required size to corners, cost includes all labours, materials, T & P, lead, royalty, tax, curing etc. complete in all respects as per direction of Engineer(any colour excluding bottlegreen, burgund&black colour). Minimum Basic cost of tile =Rs 35.00/ sft	615.00	Sqm		
5 a)	Kota stone slab flooring over 25 mm thick C.M. 1:4 (1 Cement : 4 Coarse sand) base and jointed with grey cement slurry mixed with pigment to match the including rubbing and polishing complete 20 mm minimum thick. (550 mm x 550 mm x 25mm minimum thick.	650.00	Sqm		
b)	Kota stone in skirting/dado over 12mm C.M.(1:3)	100.00	Sqm		
6	Kota stone slabs 25mm thick in risers and treads of steps on 20mm (average) thick cement mortar 1: 3 (1cement : 3coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing & polishing complete Single piece of size 1800mm x 300mm and 1800 mm x 150mm or less).	107.00	Sqm		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
7	Supplying & Fixing concrete designer's tile of ultra make polka shade over 20mm thick cement mortar (1 cement : 4 coarse sand) including pointing the joints with white cement and matched pigment in ratio (1:1) complete in all respect including all material, labour, tool plant, tax, lead etc. as per the direction of Engineer in charge.	10.00	Sqm		
8	Providing and fixing 40 mm wide and 4 mm thick plain glass strips in joints of flooring with cement mortar 1:3 complete in all respects as per drawing.	10.00	Mtr		
9	Providing & laying minim. 16 to 18mm thick plain marble strip border of approved design & quality laid in conjunction with kota stone flooring over a bed of 20mm(minimum) thick sand cement mortar 1:4 (1 cement: 4coarse sand) including pointing with white cement mortar 1:2(1cement : 2marble dust) / (adding pigment where required) rubbing & polishing complete as per pattern shown in drawings and direction complete in all respects. .Approx 50mm to 100mm wide border.				
a)	Rajnagar white plain marble	65.00	Sqm		
10	Supplying , fixing vitrified tile in flooring of size 600mm x600mm, 10mm thick water absorption less than 0.08% confirming to IS :15622 of approved colour & make at all heights laid over cement mortar 20mm thick of proportion (1 cement : 4 coarse sand). The joints shall be filled with grout matching the colour of tile .Cost includes all labour, material, Tools plants, curing etc. complete in all respects as per direction of Engineer.(glossy/mat finish)	3000.00	Sqm		
11	Supplying fixing vitrified tile in skirting / dado using 600mm x 600mm, 10mm thick tile, water absorption less than 0.08% confirming to IS :15622 of approved colour & make at all heights laid over cement mortar 12mm thick of proportion (1 cement : 3 coarse sand). The joints shall be filled with grout of matching colour of tile .Cost includes all labour, material, Tools plants ,curing etc. complete in all respects as per direction of Engineer.(glossy/mat finish)	450.00	Sqm		
12	Extra for prefinished nosing in tread of steps	500.00	Sqm		
			TOTAL		

**SECTION-VII
PLASTERING**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Inside plaster:-Providing 20mm thick cement plaster at any location in cement sand mortar proportion (1 cement: 6 coarse sand) after racking out of joints, roughening the concrete surface, filling portrayed surface, fixing wire mesh 200mm wide in case of concrete & brick work joints such that half on each surface fixed by help of nails cost includes of all materials, labour, lead, royalty, T & P, scaffolding, curing etc. complete in all respect as per the direction of Engineer.	4000.00	Sqm		
2	External plaster:-Cement plaster in two coats-18mm CP in two coats under layer 12mm CP 1:5 (1 cement: 5 coarse sand) & top layer 6mm thick CP (1:3) (1cement : 3 coarse sand) at any location finished rough with sponge after racking out joints, roughening the concrete surface, filling portrayed surface, fixing wire mesh 200mm wide in case of concrete & brick work joints such that half on each surface fixed by help of nails cost includes of all materials, labour lead royalty T & P scaffolding labour, lead, royalty, T & P, scaffolding, curing, etc. complete in all respect as per the direction of Engineer . (Recron 3S @ 125gm / 50Kg of cement to be added for preparing cement mortar) Payment will be made after producing invoice of the polyester construction fiber.	350.00	Sqm		
3	Providing 10mm thick plaster at any location cement plaster in cement sand mortar in proportion (1 cement : 4 fine sand) to ceiling of roof, beams, columns , chajja, soffit of stair case etc. after roughening the surface by proper chiseling ,surface preparation, filling portrayed surface etc. cost includes of all materials, labour, lead, royalty, T & P, scaffolding, curing etc. complete in all respect as per the direction of Engineer .(Recron 3S @ 125gm / 50Kg of cement to be added for preparing cement mortar) Payment will be made after producing invoice of the polyester construction fiber.	525.00	Sqm		
4	Providing and forming drip course of 30 mm wide x 12 mm. Projection in plaster to soffit of projected slab like chajja etc. in all floors at edges with cement mortar 1 : 3 complete as directed for completion of work .	100.00	Rmt		
5	Providing & mixing integral water proofing compound confirming to IS -2645 to the cement plaster work as per manufacturers Specification. (payment will be made after producing invoice of materials).	90.00	Per bag of 50kg cement used in the mix		
			TOTAL		

**SECTION-VIII
ALLUMINIUM WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Providing and fixing powder coated (50micron thick mat /satin finish) aluminum windows, ventilators of required colour using extruded sections of 34 series conforming to IS : 733 and IS : 1285, fixed with rawl plugs and screws etc. at all levels including the cost of coupling members between windows and necessary fittings viz. Aluminum handles friction hinges etc .including providing and fixing 5mm. thick clear /obscured float glass panes gaskets, glazing beads and sealing joints all-round on both faces between work / lintel and windows with silicon sealants of approved make provision for fixing glass panes from inside and EPDM / Neoprene weather seats etc all as per drawing at all levels and heights.				
	i) Fixed (Overall portion treated as fixed.)	5.00	Sqm		
	ii) Extra over above for (extra rate admissible for the openable portion only) : side hung shutters	20.00	Sqm		
2	Providing and fixing twin style door complete with fixed glazed portion manufactured from Bronze or any other approved colour anodised(50 micron thickness) extruded aluminum alloy section complete with 5 mm thick clear float glass for fixed portions, Neoprene dry set glazing gasket , snap in beveled metal glazing strips on both sides, top and bottom styles of extruded aluminum alloy sections of special design for twin style door, 12 mm thick plate glass for doors, necessary hardware fixtures viz. double action floor spring , mortise lock flush bolt, chromium plated brass tubular handle as per drawing on both faces all complete at all levels and heights.				
	i) Fixed portion	10.00	Sqm		
	ii) Openable portion	10.00	Sqm		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
3	<p>Providing and Fixing Structural Glazing with provision for opening (top hung) as per detailed drawing at any location fabricated from roll formed sections made of galvanized steel colour coated/power coated (Base Steel as per IS 513 'D' quality coated (Base Steel as per IS 513 D quality galvanized thickness of 0.72mm. The Glass holding section made of 304 grade stainless steel of 0.6mm thick. CRCA sections with Polyurethane Coating are to be used as stiffeners inside the CCS section as per the design requirement. Paint Specifications : Coated Sections should be with Primer Coat of Epoxy Primer of 5-7 microns thick, finish painted with a Polyester Paint of 12-16 microns thick and back coated with Alkyd backer of 5-7 microns, or Powder Coated with pure Polyester Powder up to 50-60 microns thick. Dimensions of Sections :The sections are to be of 33x58 mm or 50x100 mm for frame verticals, 33x59 mm for frame horizontals, section for reinforcement should be of 31x55 mm / 48x98 mm (CRCA).</p>				
	<p>Glass holding section should be of 32.5x37 mm for top and bottom grids, in between should be of 32.5 x 18mm Fixing Details : The sections are to be cut to length, joined by means of powder coated CRCA brackets. The above Frame should be fixed to brick/ concrete masonry by using Nylon self-expanding caps and driving MS electroplated 80mm long screws into the caps through frames. Glazing: Glass of 6mm thick one side reflective of approved make & colour to be fixed with the help of sealant. (Only finished area will be taken in account for payment)</p>	10.00	Sqm		
			TOTAL		

**SECTION-IX
FINISHING**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Providing and laying white cement based wall putty of 1.5mm thickness over a plastered surface to prepare the surface even and smooth complete (Birla, JK, Sika).	3180.00	Sqm		
2	White washing with lime to give an even shade (two coats) mixed with approved adhesive complete to the satisfaction of engineer-in-charge	11100.00	Sqm		
3	Painting two and more coats at any location with Acrylic distemper of Asian/ Nerolac , of approved shade to get an even shade over plastered wall & ceilings over one coat of primer as per manufacturers specification at any location cost includes all material ,repairing cracks, scaffolding , lead, T&P etc. complete in all respect as per the direction of the Engineer , at all heights and any location of new work.	4200.00	Sqm		
4	Applying one coat of cement primer of approved quality and manufacture on wall surface.	5300.00	Sqm		
5	Finishing walls with water proofing cement paint of approved brand & manufacture and of required make to give an even shade new work (three coats) @ 3.84 Kg /10 Sqm(snowcem plus or equivalent complete up to the satisfaction of Engineer-in-charge.	50.00	Sqm		
6	Applying priming coat with ready mixed zinc chromate yellow primer of proved brand and manufacture on steel / galvanised steel works.	350.00	Sqm		
7	Applying ready mixed pink or grey primer of approved and manufacture on wood work (hard and soft wood)	350.00	Sqm		
8	Painting with ready mixed synthetic enamel paint of approved brand manufacture in all shades to give an even shade. All complete up to the satisfaction of engineer in charge.				
a)	steel work two coats)	350.00	Sqm		
b)	wall surface two coats)	1200.00	Sqm		
c)	wood work(two coats)	690.00	Sqm		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
9	Providing and applying two coats of premium quality exterior acrylic emulsion paint 'weather shield max' of ICI India Ltd./Apex Ultima or equivalent of approved shade over a coat of approved primer of same manufacturer at all levels including sand papering, cleaning and preparation of surface.	4060.00	Sqm		
10	Providing and applying Acrylic emulsion paint (two coats complete to satisfaction of engineer in-charge) of approved brand and manufacturer over a coat of primer as required to wall ceiling etc. all complete in all floors and heights complete.	500.00	Sqm		
11	Painting (two or more coats) on rain water soil and vent pipes and fittings with Synthetic enamel paints of approved brand and manufacture and required colour over a priming coat approved steel primer on new work.				
	100mm dia.pipe	270.00	Rm		
				TOTAL	

**SECTION-X
WATERPROOFING**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1a	Providing and applying SIKA TOP SEAL107 hi (priming coat with 0.01kg/sqm & two coats using 2.5kg/sqm using glass fiber as intermediate layer between two coats) in terrace and after making the surface free from loose particles, oil, grease, or any other contaminants by using wire brush, acid wash and water jetting. The whole treatment must be continued upto a height of 300mm of parapet wall from roof slab.	2300.00	Sqm		
1b)	Providing and laying screed concrete on the top of the roof in 1 : 2 : 4 (1 cement:2 sand :4 stone chips 10mm down grade) with water proofing admixture Conforming to IS:2645, and crack resistance fiber like RECRON 3S equivalent with slope of 1: 100 and necessary hollering as per direction of Engineer- in - charge. (minimum thickness of 75mm) up to 300mm height of parapet wall.	2300.00	Sqm		
2	Providing and Filling the Expansion joint with joint sealing compound of polyurethane based or equivalent including a backup material like Thermocole/Celatex board inside the groove of expansion joints. The width to depth ratio of sealant should be 2:1	100.0	Rmt		
3	Providing and applying SIKA TOP SEAL109 hi (priming coat with 0.01kg/sqm & two coats using 2.5kg/sqm using glass fiber as intermediate layer between two coats.) in over R.C.C sunken slab of toilet immediately when concrete is still green (after two days of casting of roof) covered with 12mm thick cement plaster (1:4) admixed with integral water proofing liquid sika plastocrete super conforming to IS 2645. The hole treatment should continue up to height of 600mm above toilet floor level.	325.00	Sqm		
	Notes-All the water proofing work should be carried out through specialised application agency of sika or equivalent)				

**SECTION-XI
DISMANTLING WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Dismantling of existing plinth protection/AS flooring in all floors including costs of all labour T.P complete with removal of debris from site up to a lead of 100mtr & stacking the necessary materials as per instruction of site Engineer-in-charge/Architect.	1200.00	Sqm.		
2	Dismantling of existing R.C.C work at all height in all floors including cost of all labour T & P complete with removal of debris from site up to lead of 100mtr and stacking the necessary materials as per instruction of site Engineer-in-charge/Architect..	10.00	Cum.		
3	Dismanting of existing plaster, raking out the joints in all floors including cost of all scaffolding T & P complete with removal of debris from site up to a lead of 100mtr and stacking the necessary materials.	1750.00	Sqm.		
4	Dismantling of existing brick work in all floors including costs of all labour T.P complete with removal of debris from site up to a lead of 100mtr & stacking the necessary materials as per instruction of site Engineer-in-charge/Architect.	10.00	Cum.		
5	Transportations of earth debris construction materials by mechanical means including loading unloading & leveling at specific location up to lead 5Km beyond initial lead.	200.00	Cum.		
6	Dismantling of existing P.C.C (1:4:8) in all floors including cost of all scaffolding & labour T & P complete with removal of debris from site up to lead of 100 mtr and stacking the necessary materials as per instruction of site Engineer/Architect.	18.00	Cum.		
7	Removal of old paints/flakes of paint from the surface with wire brush for application of new paint complete to the satisfaction of engineer-in-charge/Architect	18420	Sqm.		

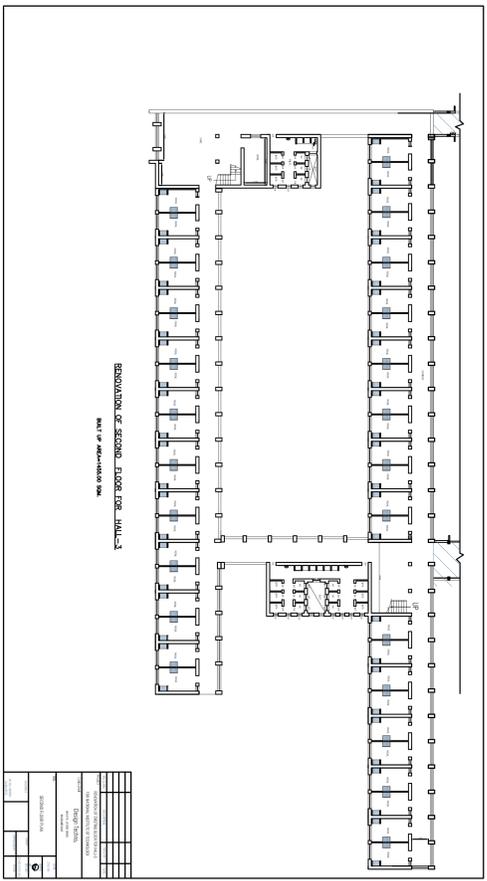
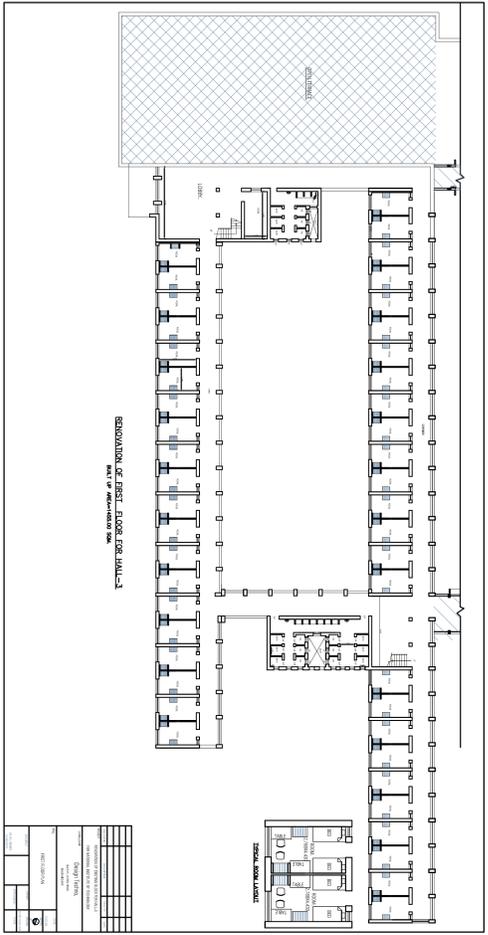
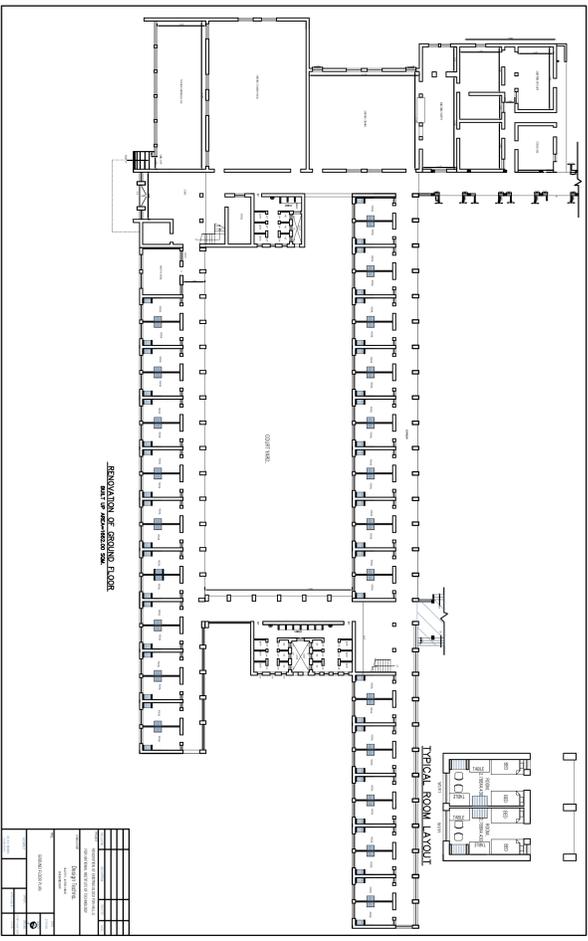
Approved List Manufacturers/ Brand for Civil Works

Approved List to be used in works shall conform to Indian Standards Specification as published from time to time (and in the absence thereof as approved by Engineer – in –charge) in general the mode of measurement of Civil engineering works shall be guided by I.S. I CODE No- 1964 (Revised) for Indian standard Method of measurement of building work.

SL.NO	DESCRIPTION	I.S CODE	APPROVED MAKE
1	Cement : Ordinary port land cement 43 grade	269 :1967	ACL
2	Steel :		
	a) mild steel :	432 (Part 1) 1982	TATA/SAIL
	b) High strength deformed steel:	1786: 1985	TATA/SAIL
3	Sand:	383: 193 or 515 (Revised)	
4	Coarse Aggregate	383.00	
5	Lime:	792 :1973	
6	Brick: common burnt building bricks.	1077:1992 (Fifth Revision)	
7	Light Gauge structural steel section	811:1987	
8	Collapsible gate:	10521 :1983	
9	Marble:Block,slab,and tile	1130:1969	
10	Ceramic tile/Glazed tile:		Euro/Kajaria/ Nitco/Somany/Regency
11	Vitrified porcelain tile		Euro/Kajaria/ Nitco/Somany/RAK
12	Vinyl flooring		Tuskar/polyfloor Armstrong
13	Aluminum section : For door window	1984 : 1961	Indal/Beco/OEL
14	Wooden Flush door:	2202 (part2): 1983	Greenply/Century/Aeon
15	Cement based paint:		Snowcemplus/Durocem
16	Acrylic Emulsion		ICI/Berger/Asian Paints
17	Distemper		ICI/Berger/Asian Paints
18	Synthetic Enamel		ICI/Berger/Asian Paints
19	Water proofing Admixture	2645 and 9103	Sika/Chowksy/Laticrete
20	Glass/Glazing glass		Modiguard/saintgobain
21	Designer concrete tile.		Ultra / Multiwyn /Eurocon

Specification of Materials

1	Sanitary Fitting : Hindware/ParryWare
2	CI pipe & fitting :3989 of Jayaswals/NECO Ltd/Similar approved
3	C.P fitting :Jaquar/ESSESS/GEM brand
4	G.I Pipes:Tata make (medium quality)
5	G.i. Fittings "R"/HB/KS brand with ISI marked
6	G.M Valves : Leader/zoloto brand
7	SW pipes :Sonall/Hind brand
8	CI Cover &frame: Local brand /Asian Paint
9	CI Cover &frame: Local brand /Asian Paint
10	Kitchen Sink: Nirali or similar approved.
11	Mirror: Golden flush or similar approved.
12	Sluice Valve: Upadhya or similar approved.
13	Specification for Materials, Measurement & Workmanship as per CPWD & BSI



BILL OF QUANTITIES FOR
CONSTRUCTION OF PROPOSED
DINNING BLOCKS FOR HALL NO - 2 - 3
FOR
NATIONAL INSTITUTE OF TECHNOLOGY.
ROURKELA.

CONSULTANT.
Design Techno
PLOT NO-N-6 /515, Jyadev bihar
Bhubaneswar-12

ABSTRACT

SL.NO		ESTIMATE COST
SECTION-I EARTHWORK IN EXCAVATION	Rs.	
SECTION-II PLAIN/REINFORCED CEMENT CONCRETE WORK	Rs.	
SECTION-III BRICK WORK	Rs.	
SECTION-IV WOOD WORK	Rs.	
SECTION-V STEEL WORK	Rs.	
SECTION-VI FLOORING	Rs.	
SECTION-VII PLASTERING	Rs.	
SECTION-VIII ALLUMINIUM WORK	Rs.	
SECTION-IX FINISHING	Rs.	
SECTION-X WATER PROOFING	Rs.	
SANITARY & PLUMBING ,WATER SUPPLY		
SECTION-I SANITARY & PLUMBING WORK	Rs.	
SECTION-II WATER SUPPLY	Rs.	
SECTION-III DRAINAGE	Rs.	
TOTAL	Rs.	
SAY	Rs.	

**SECTION - I
EARTHWORK IN EXCAVATION**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Surface dressing of the ground including, removing vegetation and inequalities not exceeding 15cm depth and disposal of rubbish , lead upto 50mtr & lift upto 1.5 mtr.In all kinds of soil.	2000.00	100Sqm		
2	Earth work in excavation by mechanical means(Hydraulic excavator)/manual means over areas (Exceedeing 30Cm in depth 1.5m in width as well as 10sq.M on plan)including disposal of excavted earth lead upto 50m and lift upto 1.5m disposed earth to be levelled and neatly dressed(All kind of soil.)	2200.00	Cum		
3	Earth work in excavation in foundation trenches in Ordinary rocks i.e. Disintegrated rock (blasting prohibited) by crowbar, pick axe etc. within initial lift 1.50 mtr , rough dressing to the sides of trench , getting out the excavated rock & disposal of surplus excavated material within 50 mtr of lead including cost of dewatering, shoring, labour T & P tax etc complete in all respect as per the direction of the Engineer -in-charge.	900.00	Cum		
4(a)	Extra for disposal of earth for a lead of 50mtr or part there of.	15.00	Cum		
b	Beyond 50mtr and upto 100mtr.	15.00	Cum		
5	Extra for every additional lift of 1.5m or part there of.				
a	All kind of soil.	390.00	Cum		
b	Ordinary or hard soil.	300.00	Cum		
5	Back filling in all positions and height and descent in foundation pits, pipe trench sewer line around foundation and structure in plinth etc. with approved excavated material obtained from a lead of 50mtr & lift 1.5mtr.including reclaiming from spoils heaps at all height or reclaiming from dumps at all depth cost includes transporting, depositing, filling, in layers of 200mm thick dressing watering and ramming complete with tools , plant & labour.	1300.00	Cum		
6	Plinth filling in layers of 150mm thick good quality river sand including watering and consolidating by mechanical means as per direction of engineer.	1170.00	Cum		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
7	Providing and injecting Chemical emulsion chloropyrophos 20% E.C./Biflex for pre-constructional anti-termite treatment and creating chemical barriers as per I.S. 6313 Part-C (of latest edition) in wall trenches, foundation, top surface of plinth, filling, junction of walls and floors along the external perimeter of the building, surrounding of pipes etc complete . The work shall be execute through approved agency/agencies and with guarantee of 10 years. The rate shall be as per plinth area including as directed below.				
	a) Using Chemical Emulsion @ 7.5 Ltr/sqm for				
	i. Back filling immediate contact with masonry foundation.				
	ii. Junction of walls and floors.				
	iii External perimeter of building.				
	b) Using Chemical Emulsion @ 5.0 Ltr/sqm				
	i. Bottom of side trenches.				
	ii. Top surface plinth filling.	2850.00	Sqm		
			TOTAL		

**SECTION - II
PLAIN/REINFORCED CEMENT CONCRETE WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Supplying, laying and compacting plain cement concrete of following graded aggregate in all foundation, floor, roof screening etc. and at all heights and depth above and below finished plinth level to required levels, slope etc. including curing but excluding the cost of shuttering all as per drawing and direction of engineer, with all material, tools plant and labour.				
a	Below finished plinth level 1:4:8 with 40mm down graded aggregate.	410.00	Cum		
b	Above finished plinth level 1:2:4 with 20mm down graded aggregate.	5.00	Cum		
2	Plinth protection:-Providing and making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement :3 part sand : 6 part 40mm down size aggregate) over 75mm thick bed of dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	350.00	Sqm		
3	Providing, laying in position nominal mix(1:1.25:2.5) cement concrete for reinforced cement concrete work including carrying of concrete to site of laying but excluding cost of centering, shuttering , reinforcement , including admixtures in setting of concrete , improve workability without impairing strength and durability as per the direction of Engineer in charge,for all work up to floor V level.				
	R.C.C work as defined by the latest IS 456 in all members like foundation, superstructure, slab, column, beam, lintel,chajja,shelves,windows sills, facia, floor/roof slab, fins, stair, footing, drains, encasing of pipe line etc. including curing but excluding form work and reinforcement. All as per drawing and direction of engineer, all materials ,tools plant and labour complete, in plumb line & level with plastering in cement mortar 1 cement : 3 coarse sand at no extra cost as required.				
a	Below finished plinth level (1:1.25:2.5) concrete with 20mm down graded aggregate.	350.00	Cum		
b	Above finished plinth level (1:1.25:2.5) grade concrete with 20mm down graded aggregate.	1100.00	Cum		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
4	Supplying and fixing ply and or steel shuttering for all type of R.C.C work at any location in provision with necessary centering, bracing propping staging (if required) etc. and striking including curved shuttering fin and facia for all plain & reinforced cement concrete works including all chamfer splays, filler keys, wedges proof, mails bracing bracket, cutting holes for embedment etc. and applying shuttering oil on shuttering surface in contact with concrete all as per drawing and direction of engineer, all tools plant and labour complete. Rate including providing and laying plastic sheet to make water tight shuttering and removing the same for all type of R.C.C work.				
a	At all depth & any location below finished plinth Level .	2600.00	Sqm		
b	At all heights & any location above finished plinth Level .(with 12mm water proof ply.)	12000.00	Sqm		
5	Providing Precast cement concrete slab with 1:2:4(1cement :2 coarsesand :4 graded stone aggregate 6mm nominal size.)reinforced with 6mm dia mild steel including centering and shuttering ,roughening and cleaning ,fixing and finishing in cement mortar 1:3(1cement : 3coarse sand) etc complete excluding plastering of jambs sills and soffits.				
i)	50mm thick before finishing .	100.00	Sqm		
ii)	25mm thick before finishing .	25.00	Sqm		
6	Supplying , loading , unloading transporting , straightening, decoiling, cutting, bending cranking tack welding as necessary placing and fixing in position steel reinforcement including angle /pins provided for approved welded joints at all level above and below finished G.L. for R.C.C and precast R.C.C work including supplying approved 20 SW annealed black binding wire, cover block etc. including all as per drawing and direction of engineer , all material,tools, plants and labour complete.High yield strength deformed bars of Grade Fe 500 of all diameters of cold twisted steel / TMT of TATA/ SAIL	140.00	M.T		
			TOTAL		

**SECTION - III
BRICK WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Supplying and construction brick work at any location using best quality locally available bricks of compressive strength not less than 75 Kg/ sqcm as defined in IS 1077 in cement sand mortar (1:6) in foundation, superstructure , main hole, duct, drain etc. including fiar cutting, wastage, bounding, plumbing line level, flushing , racking joint, scaffolding and curing all as per drg. and as per direction of the engineer, with all material, tools, plant, labour complete. all upto floor V level.				
a	At and all depth below finished plinth level.	300.00	Cum		
b	At and all heights above finished plinth level	1100.00	Cum		
2	Brick work at any location in 1:4 cement mortar in 115mm thick wall with locally available bricks of compressive strength not less than 75 Kg/ sqcm as defined in IS 1077 at any location including supplying and placing of two Nos. 6mm dia.M.S. bar at every third layer .	100.00	Sqm		
3	Extra over item No. 1 above for forming circular hole in wall for fixing exhaust fans including cement plaster 1:4 to inner faces (approximately 300mm dia to 375mm. dia) at all level and heights.	10.00	Nos		
4	Providing and laying 75mm thick brick work in cement motar 1:3(1 cement: 3 coarse sand) in plain or curved wall etc complete in all respects including laying 1 no 6 mm bar at every alternate layers in all floors and heights as per drawing and specification complete.(Reinforcement cost included.)	50.00	Sqm		
			TOTAL		

**SECTION-IV
WOOD WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Providing & fixing in position at any location well dressed naturally well seasoned sal wood of finished cross section (65mm x 125mm), rebated frame to door including 2 coats of hot bitumen applied to rear of frame in contact of masonry / concrete surface, all materials, labour, lead, royalty, T & P etc. complete in all respect as per the direction of Engineer.	0.20	Cum		
2	Providing and fixing 35 mm thick flush door shutter , ISI marked non decorative type solid block board construction with frame of first class hard wood and well matched 3ply commercial veneering with vertical grains or cross bands on both faces of shutter finished as per specifications mentioned in drawing. (Excluding the cost of fittings.)	60.00	Sqm		
3	Providing and fixing wooden moulded beading to door and window frames with iron screws, plugs and priming coat on unexposed surface etc. complete. second class teak wood 50x20 mm.	100.00	Rmt		
4	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embeddings in cement concrete block 30x10x15 cm 1:3: 6mix(1 cement: 3 coarse sand: 6 graded stone aggregate 20mm nominal size).	150.00	Each		
5	Providing and fixing bright finished IS 12817 marked S.S butt hinges with necessary screws etc Complete 125 x 64 x 2.5 mm (heavy type) welded to door frame where required (approved make and quality)	80.00	Each		
6	Providing and fixing 50 mm bright finished stainless steel cup board or ward robe knob with necessary screws (approved make and quality).	10.00	Each		
7	Providing and fixing stainless steel handles 150 mm x16 mm conforming to IS: 4992 with necessary screws. etc complete.	50.00	Nos		
8	Providing and fixing 75mm special quality bright finished stainless steel cupboard or wardrobe locks with four levers including necessary screws etc. complete	10.00	Each		
9	Providing and fixing bright finished alluminium hanging type floor double door stopper with necessary screws etc. Complete	20.00	Each		
10	Providing and fixing bright finished Brass hydraulic door closer (Best make of approved quality) with necessary accessories and screws etc. Complete	10.00	Each		
11	Providing and fixing stainless steel tower bolt with necessary screws etc. complete				
a	150 x10 mm	20.00	Each		
b	300 x 10 mm	50.00	Each		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
12	Providing and fixing bright finished stainless steel 100mm Mortise latch and lock with six levers and a pair of anodised (anodic coating) not less than grade AC10 as per IS : 1868 aluminum lever handles with necessary screws etc complete (Best make of approved quality)	4.00	Each		
13	40mm dia. Rubber buffer fixed to wall with m.s. Screws.	50.00	Each		
14	Providing and fixing curtain rod 20 mm dia of 1.25 mm thick made of chromium plated stainless steel plate with wooden brackets fixed to the wall with stainless steel screw all complete.	300.00	Mtr		
15	Providing and fixing factory made UPVC door made of UPVC extruded, section having an overall dimension,as below (tolerance \pm 1mm) with all thickness 2mm \pm 0.2mm .Corners of the door frame to be jointed with galvanized brackets and stainless steel screws, jointed and mitred and plastic wilded.The hinge side vertical of the frame reinforced by galvanised M.S tube of size 19mmx19mm and 1mm \pm 0.1mm wall thickness and 3 nos stainless steel hinges fixed to the frame complete as per manufacture specification and direction of Engineer in charge.(Extruded section profile size 42x50mm)	40.00	Mtr		
16	Providing and fixing 30mm thick factory made panel PVC door shutter made of styles and rails of a UPVC hollow section of size 30x60mm and thickness 2mm \pm 0.2mm with inbuilt edging on both sides.The styles and rails mitred and jointed at the corners by means of M.S galvanised/plastic brackets of size 75x220mm having wall thickness 1.0mm and stainless steel screws.The styles of the shutter reinforced by inserting galvanised M.S tubes of size 20x20mm and 1mm \pm 0.1mm wall thickness.The lock rail made up of H section, a UPVC hollow section of size 100x30mm and 2mm \pm 0.2mm wall thickness fixed to the shutter styles by means of plastic /galvanised M.S.U cleats.				
	The shutter frame filled with UPVC multichambered single panel of size not less than 620mm ,having over all thickness of 20mm and 1mm \pm 0.1mm wall thickness with 20mm panel beading of suitable size/glass(4mm thick)/louver section ,louver frame of the suitable size.the panels filled vertically and tie bar at two places by inserting horizontally 6mm galvanised M.S.rod and fastened with nutsand washers complete as per manufacture's specification and direction of Engineer in charge.	20.00	Sqm		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
17	Providing and fixing double action hydraulic floor spring of approved brand and manufacture IS 6315 marked for doors including cost of cutting floors as required embedding in floors and cover plates with brass pivots and single piece M.S Sheet outer box with side plate etc.complete as per direction of Engineer in charge.with S.S cover plate	5.00	Each		
18	Providing and fixing 10mm. thick polycarbonate twin wall sheet fixed to M.S. frame work (for pyramidal atrium) at terrace floor excluding cost of M.S. frame work but including cost of M.S.fixing hooks, bolts,nuts,washers T&P complete in all respect as per drawing & design.	100.00	Sqm		
19	Providing and fixing stainsteel aldrops of size 250x 16mm fixed to wooden/pvc doors with necessary nuts and screws etc complete	20.00	Each		
20	Providing and fixing 5.5mm plain glass fixed to wooden/steel windows with necessary clip ,glass putty scaffolding etc complete	20.00	Sqm		

**SECTION-V
STEEL WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Providing & fixing pressed steel door frames conforming to 4351 manufactured from commercial mild steel sheet of 1.25mm thickness including hinges ,jambs,lock jamb,bead and if required angle threshold of mild steel angle section of 50x25mm or base tie of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means adjustable lugs with split end tail to each jamb including steel butt hinges 2.5mm thick with motar gards ,lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer in charge.				
i	Profile ' B' Confirming IS 4351	150.00	Rmt		
2	Providing and fixing ISI marked steel glazed doors, Windows and ventilators of standard rolled steel section(as per IS 1038 with Z or L section) joints mitred and welded with 15x3mm lugs, 10 cm. Long, embedded in cement concrete blocks 15 x 10 x 10 cm of cement concrete 1:3:6 (1cement : 3 coarse sand : 6 graded aggregate20mm nominal size) or with wooden plugs and screws or rawl plug and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of 4mm thick glass panes plain/pin headed with glazing clips & special metal sash putty of approved make complete , including two point nose handle of approved pattern with applying priming coat of approved steel primer, and also including oxidized m.s casement stays (straight peg type) with necessary screws etc(300mm weighing not less than 200 gms.)all complete excluding cost of metal beaing as per direction of engineer in charge(Windows- side hung).	300.00	Sqm		
3	Providing and fixing M.S grill of required pattern in frames of windows etc.with M.S flat ,square or round bars etc,all complete.				
	Fixed to steel windows by welding .	600.00	Kg		
	Fixed to openings with rawl plugs screw etc.	400.00	Kg		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
4	Supplying, fitting and fixing of Stainless steel of 316 grade in hand railing using 50mm dia of 2mm thick circular pipe with Balustrade of size 32mm x 32mm solidsquare bar @ 0.90mtr. C/C and square bar bracing of size 32mm x 32mm in stair case as per approved design and specification, buffing, polishing etc with cost, conveyance, taxes of all materials, labour, T&P etc. required for the complete in all respect. (Cost includes S.S. railing only ,cost of balustrads will be paid extra) only length of railing will be taken for payment.	70.00	Mtr		
5	Providing & fixing in position collapsible steel shutters with vertical channels 20x10x2mm and braced with flat iron diagonals 20 x 5 mm size with top and bottom rail of T-iron 40 x 40 x 6mm with 40mm dia. Steel pulleys complete with bolts, nuts locking arrangement, stoppers handles, including applying a priming coat of approved steel primer.	10.00	Sqm		
6	Providing & fixing openable and foldable grill gates / shutter for entrances made of flats, square or round with m.s. handle, locking system (sliding bolt and floor bolt), necessary screws and hinges, fixed to walls by welding with 15x3mm lugs, 10cms long in P.C.C.1:3:6(1 cement:3 coarse sand : 6 graded stone aggregate20 mm nominal size), necessary nuts & m.s. parliament hinge or pivots as required complete including applying priming coat of approved steel primer.	600.00	Kg		
7	Supplying & fixing M.S. structural frame at any location made of M.S. tubes as per detailed drawing & design cleaning with sand paper,removing the iron bubbles, complete in all respects with all labour, material ,fabrication charge, cost of concrete, including applying priming coat of steel primer as per direction of Engineer.	2000.00	Kg		

SECTION-VI FLOORING					
SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	cement concrete flooring 1:2:4 (1 cement:2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement slurry, but excluding the cost of nosing of steps and cost of glass strip fixing , complete 40mm thick with 20 mm nominal size stone aggregate.	1250.00	Sqm		
2	Cement plaster skirting (up to 30 cm height) with cement mortar 1:4 (1 cement: 4 coarse sand) finished with a floating coat of neat cement (18 mm thick).	65.00	Sqm		
3	Supplying, laying and fixing anti-skid tiles (300mm x 300mm) size first quality confirming to IS15622 in toilet floors at all heights, to floor surface conforming to drawings and designs set in 20mm thick cement mortar of proportion 1:4 to proper line and slope including cutting to required size and shape and fixing at corners etc. and the joints are to be properly finished with epoxy grout of matching colour and curing complete with cost of all labour, materials, taxes, T&P, conveyance etc. as directed by the Engineer.(All Colour) Basic cost of tile minimum Rs 400.00/ sqm.	60.00	Sqm		
4	Providing & fixing ceramic glazed tile (300x200mm) size of Kajaria make , confirming to IS :15622 of approved shade & quality to dado at all heights over a base course of 12mm thick cement mortar (1cement : 3 coarse sand) jointing with grey cement slurry @3.3kg per sqm,pointing with epoxy grout of matching colour and approved manufacture etc. as specified & directed, laid to proper line and plumb, cutting in required size to corners, cost includes all labours, materials, T & P, lead, royalty, tax, curing etc. complete in all respects as per direction of Engineer . (Any colour excluding bottlegreen,burgundy,black)Basic cost of tile minimum Rs 389.00/ sqm.	900.00	Sqm		
5 a)	Kota stone slab flooring over 25 mm thick C.M. 1:4 (1 Cement : 4 Coarse sand) base and jointed with grey cement slurry mixed with pigment to match the including rubbing and polishing complete25 mm minimum thick. (550 mm x 550 mmx25mm minimum thick, as per design & direction of architect.	1100.00	Sqm		
b)	Kota stone in skirting/dado over 12mm C.M.(1:3)	55.00	Sqm		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
6a)	Kota stone slabs 25mm thick in risers and treads of steps on 20mm (average) thick cement mortar 1: 3(1cement : 3coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing & polishing complete(Single piece of size1800mm x 300mm and 1800 mm x150mm).	100.00	Sqm		
6b)	Extra for pre finished nosing in treads of steps.	250.00	Mtr		
7	Supplying & Fixing concrete designer's tile of ultra make polka shade over 20mm thick cement mortar (1 cement : 4 coarse sand) including pointing the joints with white cement and matched pigment in ratio (1:1) complete in all respect including all material, labour, tool plant, tax, lead etc. as per the direction of Engineer in charge.	50.00	Sqm		
8	Providing and fixing 40 mm wide and 4 mm thick plain glass strips in joints of flooring with cement mortar 1:3 complete in all respects as per drawing.	1000.00	Mtr		
9	Providing & laying minim. 16 to 18mm thick plain marble strip border of approved design & quality laid in conjunction with kota stone flooring over a bed of 20mm(minimum) thick sand cement mortar 1:4 (1 cement: 4coarse sand) including pointing with white cement mortar 1:2(1cement : 2marble dust) / (adding pigment where required) rubbing & polishing complete as per pattern shown in drawings and direction complete in all respects. .Approx 50mm to 100mm wide border.				
a)	Rajnagar white plain marble	100.00	Sqm		
10	Supplying , fixing vitrified tile in flooring of size 600mm x600mm, 10mm thick water absorption less than 0.08% confirming to IS :15622 of approved colour & make (RAK/Naveen/Kajaria) at all heights laid over cement mortar 20mm thick of proportion (1 cement : 4 coarse sand). The joints shall be filled with grout matching the colour of tile .Cost includes all labour, material, Tools plants, curing etc. complete in all respects as per direction of Engineer. (Recron 3S @ 125gm to be added 50Kg of cement) Payment will be made after producing invoice of the polyester construction fibre. Basic cost of tile= minimum Rs 79.00/sft (Glossy/ mattfinish).	1200.00	Sqm		

SECTION-VII PLASTERING					
SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Inside plaster:-Providing 20mm thick cement plaster at any location in cement sand mortar proportion (1 cement: 6 coarse sand) after racking out of joints, roughening the concrete surface, filling porturated surface, fixing wire mesh 200mm wide in case of concrete & brick work joints such that half on each surface fixed by help of nails cost includes of all materials, labour, lead, royalty, T & P, scaffolding, curing etc. complete in all respect as per the direction of Engineer.	3000.00	Sqm		
2	External plaster:-Cement plaster in two coats-18mm CP in two coats under layer 12mm CP 1:5 (1 cement: 5 coarse sand) & top layer 6mm thick CP (1:3) (1cement : 3 coarse sand) at any location finished rough with sponge after racking out joints, roughening the concrete surface, filling porturated surface, fixing wire mesh 200mm wide in case of concrete & brick work joints such that half on each surface fixed by help of nails cost includes of all materials, labour lead royalty T & P scaffolding labour, lead, royalty, T & P, scaffolding, curing, etc. complete in all respect as per the direction of Engineer . (Recron 3S @ 125gm / 50Kg of cement to be added for preparing cement mortar) Payment will be made after producing invoice of the polyester construction fibre.	2580.00	Sqm		
3	Providing 12mm thick plaster at any location cement plaster in cement sand mortar in proportion (1 cement : 4 fine sand) to ceiling of roof, beams, columns , chajja, soffit of stair case etc. after roughening the surface by proper chiseling ,surface preparation, filling porturated surface etc. cost includes of all materials, labour, lead, royalty, T & P, scaffolding, curing etc. complete in all respect as per the direction of Engineer .	3516.00	Sqm		
4	Providing and forming dripcourse of 30 mm wide x 12 mm. Projection in plaster to soffit of projected slab like chajja etc. in all floors at edges with cement mortar 1 : 3 complete as directed for completion of work .	360.00	Rmt		
5	Providing & mixing integral water proofing compound confirming to IS -2645 to the cement plaster work as per manufacturers Specification. (payment will be made after producing invoice of materials).	1000.00	Per bag of 50kg cement used in the mix		
			TOTAL		

**SECTION-VIII
ALLUMINIUM WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Providing and fixing powder coated (50micron thick mat /satin finish) aluminum windows, ventilators of required colour using extruded sections of 34 series conforming to IS : 733 and IS : 1285, fixed with rawl plugs and screws etc. at all levels including the cost of coupling members between windows and necessary fittings viz. Aluminum handles friction hinges etc .including providing and fixing 5mm. thick clear /obscured float glass panes gaskets, glazing beads and sealing joints all-round on both faces between work / lintel and windows with silicon sealants of approved make provision for fixing glass panes from inside and EPDM / Neoprine weather seats etc all as per drawing at all levels and heights.				
	i) Fixed (Overall portion treated as fixed.)	50.00	Sqm		
	ii) Extra over above for (extra rate admissible for the openable portion only) : side hung shutters	50.00	Sqm		
2	Providing and fixing twin style door complete with fixed glazed portion manufactured from Bronze or any other approved colour anodised(50 micron thickness) extruded aluminum alloy section complete with 5 mm thick clear float glass for fixed portions, Neoprene dry set glazing gasket , snap in beveled metal glazing strips on both sides, top and bottom styles of extruded aluminum alloy sections of special design for twin style door, 12 mm thick plate glass for doors, necessary hardware fixtures viz. double action floor spring , mortice lock flush bolt, chromium plated brass tubular handle as per drawing on both faces all complete at all levels and heights.				
	i) Fixed portion	20.00	Sqm		
	ii) Openable portion	20.00	Sqm		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
3	<p>Providing and Fixing Structural Glazing with provision for opening (top hung) as per detailed drawing at any location fabricated from roll formed sections made of galvanized steel colour coated/power coated (Base Steel as per IS 513 'D' qualitycoated (Base Steel as per IS 513 D quality galvanized thickness of 0.72mm. The Glass holding section made of 304 grade stainless steel of 0.6mm thick. CRCA sections with Polyurethane Coating are to be used as stiffeners inside the CCS section as per the design requirement. Paint Specifications : Coated Sections should be with Primer Coat of Epoxy Primer of 5-7 microns thick, finish painted with a Polyester Paint of 12-16 microns thick and back coated with Alkyd backer of 5-7 microns, or Powder Coated with pure Polyester Powder up to 50-60 microns thick. Dimensions of Sections :The sections are to be of 33x58 mm or 50x100 mm for frame verticals, 33x59 mm for frame horizontals, section for reinforcement should be of 31x55 mm / 48x98 mm (CRCA).</p>				
	<p>Glass holding section should be of 32.5x37 mm for top and bottom grids, in between should be of 32.5 x 18mm Fixing Details : The sections are to be cut to length, joined by means of powder coated CRCA brackets. The above Frame should be fixed to brick/ concrete masonry by using Nylon self-expanding caps and driving MS electroplated 80mm long screws into the caps through frames. Glazing: Glass of 6mm thick one side reflective of approved make & colour to be fixed with the help of sealant. (Only finished area will be taken in account for payment)</p>	200.00	Sqm		
			TOTAL		

SECTION-IX FINISHING					
SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Providing and laying white cement based wall putty of 1.5mm thickness over a plastered surface to prepare the surface even and smooth complete (Birla, JK, Sika).	2022.00	Sqm		
2	White washing with lime to give an even shade Old / New work (three or more coats) mixed with approved adhesive complete to the satisfaction of engineer-in-charge	7000.00	Sqm		
3	Painting two and more coats at any location with Acrylic distemper of Asian/ Nerolac , of approved shade to get an even shade over plastered wall & ceilings over one coat of primer (cost excluded) as per manufacturers specification at any location cost includes all material ,repairing cracks, scaffolding , lead, T&P etc. complete in all respect as per the direction of the Engineer , at all heights and any location of new work.	2750.00	Sqm		
4	Applying one coat of cement primer of approved quality and manufacture on wall surface.	2750.00	Sqm		
5	Finishing walls with water proofing cement paint of approved brand & manufacture and of required make to give an even shade new work (three coats) @ 3.84 Kg /10 Sqm(snowcem plus or equivalent complete up to the satisfaction of Engineer-in-charge.	5000.00	Sqm		
6	Applying priming coat with ready mixed zinc chromate yellow primer of proved brand and manufacture on steel / galvanized steel works.	1200.00	Sqm		
7	Applying ready mixed pink or grey primer of approved and manufacture on wood work (hard and soft wood)	300.00	Sqm		
8	Painting with ready mixed synthetic enamel paint of approved brand manufacture in all shades to give an even shade. All complete up to the satisfaction of engineer in charge.				
a)	steel work(two coats)	1200.00	Sqm		
b)	wood work(two coats)	250.00	Sqm		
c)	Over wall	200.00	Sqm		
9	Providing and applying two coats of premium quality exterior acrylic emulsion paint 'weather shield max' of ICI India Ltd./Apex Ultima or equivalent of approved shade over a coat of approved primer of same manufacturer at all levels including sand papering, cleaning and preparation of surface.	3200.00	Sqm		
10	Providing and applying Acrylic emulsion paint (two coats complete to satisfaction of engineer in-charge) of approved brand and manufacturer over a coat of primer as required to wall ceiling etc. all complete in all floors and heights complete.	500.00	Sqm		

**SECTION-I
SANITARY & PLUMBING WORK**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	Providing, Supplying & Fixing Indian type water closet I.S.I. Marked (confirming to IS : 7231) at all heights of (Parryware/ Cera) make with integral foot rest white vitreous ware with P / S trap (PVC) with 10.0 Ltr capacity low level flushing cistern in white plastic manually controlled device (handle lever) of approved make /shade with all internal fittings etc. & fixtures including making good the damages, cost of all materials, labour, tax, T&P, lead, royalty etc. complete in all respects as per direction of Engineer. White vitreous china Orissa pattern WC pan size (580x440mm) with integral type footrest, 32mm dia flush pipe Eqv. to-Cat no-2092 Orissa pan of Cera. & Prima, cat no 2690 , Flushing Cistern of Cera.				
i)	White Vitreous china Long pan pattern W.C pan of size 580 mm. .	1.00	Each		
2	Providing, Supplying & Fixing European type water closet (EWC) I.S.I. Marked (confirming to IS : 7231) at all heights of Parryware/ Cera make with seat & cover with P / S trap (PVC) with 10.0 Ltr capacity low level flushing cistern in white plastic manually controlled device (handle lever) of approved make /shade with all internal fitting. etc. with all fittings & fixtures including making good the damages , cost of all materials, labour, tax, T&P, lead, royalty etc. complete in all respects as per direction of Engineer. with 32mm dia flush pipe. (Eqv.. to Cat no~2080, Camellia EWC with "P" of Cera)				
i)	W.C. Pan with ISI marked black solid plastic seat and lid.	1.00	Each		
3	Providing and fixing white vitreous china wash basin of approved make with C.I. /M.S. brackets, 15 mm CP.brass pillar cock ,C.P brass chain with rubber plug of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required				
i)	Flat back wash basin size 630x450 mm .	10.00	Each		
ii)	Providing and fixing of counter top wash basin.(540X500)	5.00	Each		
4	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 / 340x410x265mm sizes respectively with 15mm dia CP.push cock with standard P.V.C. connection pipe and PTMT spreaders with brass unions and G.I. clamps complete, (as per design and drawing) including painting of fittings and brackets, cutting and making good the walls and floors wherever required.	6.00	Each		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
5	Providing & fixing 6mm thick beveled edged sheet glass mirror of approved make with 6mm ply BWR grade ply backing & teak wood beading four sides ,CP mirror round clamps and making good the damages as per drawing including cost of all materials, labour, lead, T&P, tax, royalty etc.complete in all respects as per direction of Engineer.	10.00	Each		
6	Providing and fixing 300 x 300 mm, 18mm thick polished marble shelf as per drawing with edges rounded off and fixed to the wall finishing all complete.	4.00	Each		
7	Providing and fixing C.P brass Robe hook (heavy type)(3 in 1) with C.P. brass screws fixed to wooden door/brick wall all complete.	10.00	Each		
8	Providing and fixing of following CP.brass fixtures complete (fixed to wooden cleats with C.P brass screws.				
i)	600 x 20 mm towel rail complete with brackets with brass screw and wooden cleats with concealed arrangement .	6.00	Each		
ii)	Towel ring 200 mm dia with minimum distance of 37mm. from wall face with concealed fittings arrangement..	6.00	Each		
iii)	standard size toilet paper holder.	2.00	Each		
9	Supplying & laying of the PVC (SWR) and rigid PVC soil waste and vent pipes of Finolex /Prince/Supreme make of Selffit type/ring fit type as per requirement, on the wall surface and below ground and floor level. The rates includes fixing the pipes on wall surface with the PVC clips/clamps, all necessary fittings, including jointing with rubber ring, rubber lubricant, gasket for PVC (SWR) pipes / solvent cement for rigid PVC pipes to required length.				
	Testing as per the specifications of manufacturer,necessary earthwork in excavation and filling of the pipeline trenches, providing staging and scaffolding as per requirement at site all complete as per direction of Engineer-in-charge are all inclusive in the rate. The rate also includes all labour, material, transportation, lead, lift, ascent, descent, taxes, royalty etc excluding PCC below pipe & encasing etc if required & will be paid in separate item.				
i	150mm dia PVC (SWR) pipe class "A" (with wall thickness of 2.70mm to 3.20mm)	25.00	Mtr		
ii)	110 mm dia PVC (SWR) pipe Class 'A' (with wall thick of 2.20 mm to 2.70 mm)	100.00	Mtr		
iii)	75 mm dia PVC (SWR) Pipe Class 'A' (wall thickness of 1.8 mm to 2.20 mm).	100.00	Mtr		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
10	Providing and laying 150 mm thick cement concrete 1:4:8 (1 cement:4 fine sand:8 graded stone aggregate 40mm nominal size) around the PVC SWR pipes including 150 mm thick bed concrete as per approved design.				
i)	160mm dia	20.00	Mtr		
ii)	110 mm. dia .	50.00	Each		
11	Supplying and fixing of rigid PVC fittings of (Finolex / Prince/ Supreme make) in the pipe line both below and above wall/ground with all necessary fittings and earthwork in execution etc. complete as per manufacturer specification. The rate is inclusive of all labour, material, transportation lead, lift, ascent, descent, taxes, royalty etc.				
i)	Nahani trap with jali 110mm x 110mm PVC (SWR/Nabivi) trap as per requirement).	5.00	Each		
ii)	Nahani trap with jali 110mm x 75mm PVC (SWR/Nabivi trap as per requirement).	5.00	Each		
iii)	Multiple floor trap with jali 110mm	5.00	Each		
12	Providing and fixing on wall face unplasticised PVC moulded fittings and accessories along with on unplasticised PVC rain water pipes (Finolex/ Prince / Supreme) Class-A conforming to IS : 13592 (Type-A) including jointing with seal ring conforming to IS : 5382 leaving 10mm gap for thermal expansion.				
i)	100mm dia	10.00	Mtr		
ii)	Fittings for pipe.110mm dia	10.00	Each		
13	Providing & fixing Divisional Plate of Cat no-5011 of Cera size 700 x 340x 120mm at any location and at all heights of crystal white colour to be fixed in wall including making good the damages, cost of all materials, labour, lead, tax, royalty etc. complete in all respects as per direction of Engineer.	4.00	Each		
14	Cutting chases in brick masonry walls for following diameter UPVC pipes and making good the same with cement concrete1:3:6(1 cement : 3 coarse sand : 6 graded stone aggregate 12.5 mm nominal size) including necessary plaster and pointing in cement mortar1:4 (1cement : 4 coarse sand).				
i)	75 mm. dia.	50.00	Each		
ii)	110 mm. dia.	50.00	Each		
15	Providing and fixing P.T.M.T jali (grating) of approved quality with or without hole for waste pipe for floor.				
i)	100mm To 150mm dia.	10.00	Each		
16	Providing & fixing CP brass soap dish of approved make and manufacture as per Engineer in charge or Architect .	10.00	Each		
17	Providing & fixing PTMT waste coupling of approved make and manufacture 31mm.dia. 79 mm.long & 62mm breadth as per Engineer in charge or Architect .	14.00	Each		
			TOTAL		

**SECTION-II
WATER SUPPLY**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	PIPES (TATA MEDIUM) AND FITTINGS :-				
i)	Providing and fixing G.I. Pipes (TATA medium or equivalent) complete with G.I. Fittings in pumps, including cutting and making good the walls painting one coat of enamel paint over a coat of metal primer etc. (internal work). Exposed on wall.				
a)	25 mm. dia. Nominal bore.	50.00	Mtr		
b)	32 mm. dia. Nominal bore.	20.00	Mtr		
c)	40 mm. dia. Nominal bore.	8.00	Mtr		
d)	50 mm. dia. Nominal bore.	10.00	Mtr		
e)	65 mm. dia. Nominal bore.	5.00	Mtr		
f)	80 mm. dia.	5.00	Mtr		
ii)	Concealed pipe including painting with anticorrosive bit mastic paint, cutting chases and making good the wall.				
a)	15 mm. dia. Nominal bore.	100.00	Mtr		
b)	20 mm. dia. Nominal bore.	150.00	Mtr		
c)	25 mm. dia. Nominal bore.	100.00	Mtr		
	<u>BRASS FITTING :</u>				
2	Providing and fixing gun metal gate valve (with ISI mark) with C.I. Wheel of approved quality (screwed end). zolota brand				
i)	25 mm. dia. Nominal bore.	2.00	Each		
ii)	32 mm. dia. Nominal bore.	4.00	Each		
iii)	40 mm. dia. Nominal bore.	4.00	Each		
iv)	50 mm. dia. Nominal bore.	2.00	Each		
v)	65 mm. dia. Nominal bore.	2.00	Each		
vi)	80 mm. dia. Nominal bore.	2.00	Each		
3	Providing and fixing C.I. Sluice valves (with cap) complete with bolts, nuts, rubber insertions etc (the tail pieces if required will be paid separately).				
i)	80 mm. diameter.	1.00	Each		
4	Providing and fixing CP.brass bib cock (long body) of approved quality conforming to IS:8931				
i)	15 mm. dia. Nominal bore.bibcock	2.00	Each		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
5	Providing and fixing CP.brass angle stop cock for cistern, basin mixer and geyser points of approved quality conforming to IS:8931				
i)	15 mm. dia. Nominal bore.	24.00	Each		
6	Providing and fixing CP.brass extension nipple of (15mm dia)approved make.	8.00	Each		
7	Providing and fixing shower set comprising of 1 no. CP.brass rain shower(200mm square), 15mm dia.CP.brass wall mixer with L bend.etc complete.	2.00	Each		
8	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Semi rigid pipe.				
i)	32 mm. dia.	12.00	Each		
9	Providing and fixing P.V.C. connection pipe for sink, wash basin, cistern with c.p. brass nuts(15mm dia) complete.(45cm long)	12.00	Each		
10	Providing and fixing CP.brass.push cock 15mm nominal bore.	6.00	Each		
			TOTAL		

**SECTION-III
DRAINAGE**

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
1	STONE WARE PIPES AND FITTINGS				
	Providing laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement:1fine sand) including testing of joints etc. complete.				
i)	230 mm. dia.	50.00	Mtr		
ii)	150 mm. dia.	250.00	Mtr		
2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40mm nominal size) upto haunches of S.W. / P.V.C. pipes including bed concrete as per standard design.				
i)	230 mm. dia.	50.00	Mtr		
ii)	150 mm. dia.	250.00	Mtr		
3	Providing and fixing square-mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with bricks of class designation 75 and water tight C.I. cover with frame of (300mm x 300 mm) size 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 including necessary excavation, dewatering, refilling, watering, ramming and removing the surplus excavated material and making good the same complete as required.				
i)	180 x 150 mm size P type with class 75 bricks.	20.00	Each		
4	Constructing brick masonry inspection chamber of the following sizes in brick work of class 75 in cement mortar 1:4 (1 cement: 4course sand), R.C.C. top slab 150mm thick with 1:2:4 mix (1cement : 2 coarse sand : 4 graded stone aggregate 20mm. nominal size), foundation concrete 200mm thick 1:4:8 mix (1 cement : 4 coarse sand stone aggregate 40 mm nominal size), inside plastering 12mm thick 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement & making 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 , proper water proofing to ensure no ground water seepage in the manhole, PVC foot rests at 300 mm spacing, benching , including necessary centering and shuttering, reinforcement, excavation in all kinds of soil, back filling , dewatering, curing,watering, ramming and removing the surplus excavated earth, making good the same complete as required.				
i)	Inside size (90 x 80)cm and 45cm deep including C.I. cover with frame(light duty) 455 x 610 mm internal dimensions total weight of cover and frame to be not less than 38 Kg (weight of cover23kg & weight of frame15 kg).	4.00	Each		

SL.NO	DESCRIPTIONS OF ITEM	QTY	UNIT	RATE Rs.	AMOUNT Rs.
ii)	Inside size 120 x 90 cm and 90 cm deep including C.I. Cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg.	4.00	Each		
5	Construction of 200 users septic tank of size (8.9X2.7X2.2) inside with chlorinating chamber complete as per drawing including earthwork, brickwork, concrete work, R.C.C. slab, plaster with neat finish,150 mm dia stone ware Tee provision for 100mm vent pipe etc all complete.	2.00	Each		
6	Making soak pit 3.6 meter diameter 2.7 meter deep with (25 x 25) cm dry brick honey comb shaft with brick of class designation 75,150mm thick R.C.C slab of M25 grade and S.W. drain pipe 100 mm. diameter, 1.8 m long complete as per standard design.				
l)	With F.P.S. Bricks.(All dimensions are internal)	6.00	Each		
7	Extra for depth for manholes with F.P.S. brick class designation 75.				
i)	Size (80X90)cm	1.00	Mtr		
ii)	Size (120X90)cm	1.00	Mtr		
8	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.				
i)	250mm dia R.C.C pipe	150.00	Mtr		
9	Providing and fixing in position precast R.C.C.(1:1.25:2.5) manhole cover and frame of required shape and approved quality.				
i)	Circular shape 560 mm internal diameters.	15.00	Each		
10	Providing and constructing brick drain as per standard slope and design with a layer of 10cm thick and 75cm wide cement concrete 1:4:8 and K.B Brick work in cement motar (1:6),23cm width on either sied with depth 7.5cm to 30cm including cement plaster (1:6) with cement punning .(Section of Drain 250X300mm)etc complete in all respect as per direction of Engineer In charge.	350.00	Mtr		
11	Providing M.S footrests including fixing in manholes with 20x20x10cm cement concrete blocks 1:3:6 (1 cement : 3 sand : 6 coarse aggregate) as per standard design.	50.00	Nos.		
			TOTAL		

Approved List Manufacturers/ Brand for Civil Works

Approved List to be used in works shall conform to Indian Standards Specification as published from time to time (and in the absence thereof as approved by Engineer – in –charge) in general the mode of measurement of Civil engineering works shall be guided by I.S.I CODE No- 1964 (Revised) for Indian standard Method of measurement of building work.

SL.NO	DESCRIPTION	I.S CODE	MAKE
1	Cement : Ordinary port land cement 43 grade	269 :1967	ACL
2	Steel :		
	a) mild steel :	432 (Part 1) 1982	TATA/SAIL
	b) High strength deformed steel:	1786: 1985	TATA/SAIL
3	Sand:	383: 193 or 515 (Revised)	
4	Coarse Aggregate	383.00	
5	Lime:	792 :1973	
6	Brick: common burnt building bricks.	1077:1992 (Fifth Revision)	
7	Light Gauge structural steel section	811:1987	
8	Collapsible gate:	10521 :1983	
9	Marble:Block,slab,and tile	1130:1969	
10	Ceramic tile/Glazed tile:		Euro/Kajaria/ Nitco/Somany/Regency
11	Vitrified porcelain tile		Euro/Kajaria/ Nitco/Somany/RAK
12	Vinyl flooring		Tuskar/polyfloor Armstrong
13	Aluminum section : For door window	1984 : 1961	Indal/Beco/OEL
14	Wooden Flush door:	2202 (part2): 1983	Greenply/Century/Aeon
15	Cement based paint:		Snowcemplus/Durocem
16	Acrylic Emulsion		ICI/Berger/Asian Paints
17	Distemper		ICI/Berger/Asian Paints
18	Synthetic Enamel		ICI/Berger/Asian Paints
19	Water proofing Admixture	2645 and 9103	Sika/Chowksy/Laticrete
20	Glass/Glazing glass		Modiguard/saintgobain
21	Designer concrete tile.		Ultra / Multiwyn /Eurocon

Specification of Materials

1	Sanitary Fitting : Hindware/ParryWare/Cera.
2	CI pipe & fitting :3989 of Jayaswals/NECO Ltd/Similar approved
3	C.P fitting :Jaquar/ESSESS/GEM brand
4	G.I Pipes:Tata make (medium quality)
5	G.I. Fittings *R*/HB/KS brand with ISI marked
6	G.M Valves : Leader/zoloto brand
7	SW pipes :Sonall/Hind brand/Local brand.
8	CI Cover &frame: Susila/ Local brand.
9	Kitchen Sink: Nirall or similar approved.
10	Mirror: Golden fish or similar approved.
11	Sluice Valve: Upadhya or similar approved.
12	UPVC Pipe:Prince/Finolex/Supreme
13	PTMT fittings:Prayag
	Specification for Materials, Measurement & Workmanship as per CPWD & BSI

