SUMMARY OF ESTIMATES

Yash Shah Scheme House

Sr. No.	Description of Item	Amount (Rs.)
1	Site Preparation and Cleaning	53,350.00
'	Site Freparation and Cleaning	55,550.00
2	Civil Work	6,661,882.32
3	Carpentry and Built in Furniture	-
4	Miscellaneous Items	5,000.00
5	Electrical	1,850,000.00
6	Plumbing	538,900.00
7	Landscaping and Gardening	-
	TOTAL	9,109,132.32
	Contingencies @ 10%	910,913.23
	Grand Total	10,020,045.55

NB: ALL WORKS SHALL BE CARRIED OUT AS PER ARCHITECT'S SPECIFICATIONS.

ALL WORKS SHALL BE CARRIED OUT AS PER APPROVED DRAWINGS ONLY

	Bill of Quantities, Measu	ıreme	nts &	Spec	ificati	ions			
	Note: 1) The items given below shall be as per Section A " "Earthwork, Metal Packing & Subsurface Drainage" of the specifications. 2) Rate for excavation shall include dewatering during the excavation including shoring, strutting etc and keeping it dry during excavation and construction. 3) All earthwork shall be carried out as per Architect's instructions and safety norms as per relevant IS code. The rate shall include all scaffolding and measures for cordoning off areas during dismantling, providing sign boards etc. 4) All debris and scrap materials from earthwork shall be contractors property other than that which is reused for back-filling etc. and this debris and scrap materials shall be removed away from site immediately on his own. The contractor give rebate in rates against materials and scrap / debris from such dismantled work which shall be contractor's property. 5) For all earthwork items, the contractor should carefully stack all excavated material at site as per the instructions of the Architect. All debris associated with the earthwork should however be disposed off by the Contractor. 6) The measurement of excavation shall be taken in cu.m. as per rectangular trench of bottom width of concrete multiplied by vertical depth of foundation from ground even though contractor might have excavated with sloping side/full length trench for his conviency.								
Sr. No.	Description	PLine Area / Perimeter	Height / Width	No.	Total Quantity	Unit	Rate (Rs.)	Amount (Rs.)	REMARKS
	For all Items in all Sections : Rate shall include transportation, loading/unloa on site. Rate shall also include all taxes such as VAT, excise, sales tax, octro		/supplying/l	aying/fixing/	installing/ fa	abricating/te	esting/ commis	sioning etc	
SE	CTION - I: Site Preparation & Cleaning								
a1	Cleaning and clearing the site of all rocks, boulders, brick-bats, stone,								
a2	bushes, shrubs, etc complete, as directed by the architect for start of construction activity. Demolishing of existing structures and pathways on the playground, as						LUMP SUM	25000	
az	directed by the architect. TOTAL OF SECTION - I	135.00	3.00		405.00		LUMP SUM	28350 53350.00	7 rs. per sq. foot
								2000.00	
SE	CTION - II: CIVIL WORK								
Α	EARTHWORK AND METAL PACKING								
a1	Surface excavation and excavation for retaining walls, basement, water tanks, effluent treatment tanks, etc. including backfilling of approved excavated materials in foundations, & behind retaining walls after completion of waterproofing etc. watering and consolidating, carting away surplus earth, including preparing the surface. (Note: All backfilling & spreading of earth shall be carried out in layers not exceeding 200mm and compacted to 90% ordinary proctor dry density.)	354.73	1.95		691.72	Cu.m.	286	197832.921	EXCAVATION PIT DIMENSIONS
	Eilling in aliath and in other places with a server of								
a2	Filling in plinth and in other places with approved murum brought from outside, including watering consolidating in layers not exceeding 200mm by 8-10 tonnes road roller or other approved mechanical equipment etc. complete as directed.	247.75	0.20		49.55	Cu.m.	780	38649	PLINTH PROFILE BEYOND RAFT
а3	Anti-termite Preconstruction Treatment for Foundation: (As per IS: 6313 Part-III) (Note: Anti-termite treatment shall be carried out through specialised agency reputed in Pest Control treatment and approved by the Architect. The contractor to give 10 years guarantee on a suitable bond)	195.50		10.00	195.50	Sq.m.	195	38122.5	RAFT WALL/ ISOLATED FOOTING SURFACE AREA
a4	Providing post-constructional anti-termite treatment by drilling in holes at the junctions of walls and flooring and injecting chemical emulsion, wall spray and door frames to be drilled and sprayed complete using approved chemicals at the rate of 5 liters of emulsion concentrate of one percent concentration of CHLORPYRIFOC 2.0% EC, ISI approved conforming (IS 8944), Including treatment of wood for termites, borers, wet rots and dry rots. Covered floor area shall be measured for payment. (Ground Floor + First Floor)	428.25			428.25	Sq.m.	195	83508.75	COVERED FLOOR AREA (GROUND + FIRST WITHOUT TERRACE)
а5	Providing, chasing, inserting/ laying Damp proof course 50 mm thick M-20 cement concrete layer and bitumen using cement with approved water proofing compound at the rate of 1Kg per 50 kg of cement etc. complete.				58.00	Sq.m.	364	21112	PLINTH BEAM LENGTH / LOAD BEARING FOUNDATION
	TOTAL OF SUB SECTION - A							379225.171	
В	CONCRETE-PLAIN & REINFORCED (PCC & RCC)								
	Note: 1) The items given below shall be as per Section B" Concrete-Plain & Reinforced" of the specifications. 2) For small concrete on approval of Architect, weigh batched concrete as per design mix, in manually or mechanical type operated weigh batcher dial								
	type or mechanical type of minimum capacity 650 Kgs shall be used. Weigh batcher shall be calibrated regularly.								

Bill of Quantities, Meas	urements &	Specificat	ions	
3) For all major concrete pours, Contractor shall use ready mixed concrete		Opcomou		
(RMC) of Unitech Prefab Ltd. or M/s. Larsen & Toubro Ltd. approved				
Agencies. Only 53 grade cement shall be used in RMC. Aggregate properties and grading design mix, quantity of super plasticiser, setting				
time, amount of slump at the pouring site shall be got approved before its				
use in each major concreting.				
4) Concrete mix proportion will be based on 50 kg. weight of cement bags delivered at the mixer.				
5) The Contractor is entirely responsible for the design of concrete mixes.				
The design is however, to be approved by the Architect.				
6) Concrete M-20/20 means concrete mixM-20 grade using maximum size of coarse aggregates 20mm.				
7) Shuttering, form work, centering shall not be paid separately and shall				
conform to Section-C.				
8) Curing compound may be permitted only for inaccessible locations.				
Only River Sand should be used. Washing of sand in rotary screw type washing machines is a must.				
10) Rates shall be inclusive of cost of Super plasticiser of approved quality				
and of approved dosage.				
11) Rates shall be inclusive of providing pockets, holes, inserts, pipes, etc.12) Mechanical vibrators, internal and/ or external to be used.				
13) All defective concrete if approved by Architect, shall be repaired by the				
contractor at his own cost, using approved epoxy mortar or Polymer				
modified mortar as per Manufacturer's specifications. 14) The rate shall include the cost of applying 2 coats of polymer bonding				
agent on all surface of old or new concrete at construction joint prior to				
concreting against the same.				
15) Use of fine sand with proper grading is a must. 16) Screening of metal -I and II for removing excessive flaky under and			<u> </u>	
over size material, stone dust etc. is a must.				
17) Only approved mould releasing agent should be used.				
18) Cleaning of shuttering plates by mechanical buffing after every use is a	1			
must. 19) All concrete surfaces shall be form finished.				
20) Where plastering is specified, concrete surfaces are required to be				
hacked immediately after the removal of form work as directed by the				
Architect wherever required. Additional rate shall not be paid to contractor for hacking.				
21) Contractor should make arrangement for table vibrator for casting the				1
cover blocks of required size and grade.				
22) Rate shall be inclusive of providing cover blocks. Cover blocks shall be made of the same grade of concrete of structural member in which the	•			
blocks are to be used.				
23) All joints in shuttering shall be sealed by use of 5mm thick				
compressible material gaskets and fixing agent. 24) Construction joint shall be minimum in numbers and their location shal				
be approved by the Consultant. Construction joints shall be treated properly				
with bonding coat of approved material to be applied at the old concrete	1			
before commencing the fresh concreting operations. 25) In form finish surfaces the patterns to be provided for the formwork				
shall be as per architects suggestions				
26) All sack-rubbed surface shall be sack rubbed with white cement of				
suggested proportion as per Architects approval. 27) All concealed items like conduits, junction boxes, fixtures etc. shall be				
located as per details and locations to be approved before casting.				
Notes for Formwork:				
Note: 1) The items given below shall be as per Section C: 'Formwork' of the specifications				
2) Contractor should submit for the Consultant's approval design and				
drawing for all formwork showing sizes of member including props and its				
foundation considering RMC by pumping 3) A mockup of formwork for columns, typical column-beam junction,				
beams should be made and only after obtaining approval of the mockup,				
the contractor will be allowed to proceed with the work.				
 All surfaces of concrete elements shall not be treated in any way unless otherwise instructed. 				
5) All concrete surfaces shall have smooth and even finish originally by				
themselves without any finishing or rendering. In case the Architect is not				
satisfied with the finish obtained, remedial measures for improving them shall be carried out by the Contractor at his cost.				
6) Rates quoted shall be inclusive of all formwork at all levels.				
7) Rate shall include use of 5mm thick compressible gasket materials,				
fixing agent, adhesive tape and mechanical buffing of shuttering plates.				
8) Only approved mould release agent should be used. 9) Manual/mechanical cleaning of shutter plates after every use is a must.				
10) The rate shall include hacking of concrete surface required to be				
plastered immediately after removal of formwork.				
11) Only new steel and plywood shuttering shall be permitted for its first	•			
use at site, and its number of uses will be solely with discretion of Architec 12) Providing cutouts, holes, slits, depression etc. for electrical fixtures	l.			
shall not be paid separately.				
13) Size of the panels used for exposed concrete finish areas shall be				
approved by the Architect. 14) The supporting system for platform door shall be having self alignment				
devices to ensure perfect line and level, and verticality of the shuttering,				
staging to achieve required degree of perfection.				
15) For quick erection of shuttering and staging the system should have suitable arrangement for moving entire set in transverse as well as in				
longitudinal directions and rails/wheels on any suitable arrangement which				
will be approved by the consultant.				

b1*	Bill of Quantities, Measu	ireme	nts &	Specificat	ions			
	Providing and laying Concrete M20 / 40 using RMC for all PCC works	a. 01110		Specifical				
	below raft slab, plinth beams, foundations, etc. including side forms if							
	required. The rate shall be inclusive of all taxes, towards plants & machinery, labour, all leads & lifts, all floors all charges required including							
	transportation, centering, formwork, compacting, roughening the surface if							
	special finish is to be provided and curing etc complete.							
	a) PCC for Foundation	195.50		·		7800.00	152490	
	b) PCC for Plinth	258.00	0.10	25.80	Cu.m.	7800.00	201240	
o5	Providing & laying M30/20, using RMC for RCC including pumping for							
	foundation, pile caps, raft slab, column, walls, shear walls, box column, retaining walls, plinth beams, floor beams, inverted beams, slabs,							
	staircase, drop pardis, chajja, parapets, pergolas, trench slab and beams in							
	structural floors, loft slabs at all levels, lintel beams/vertical stiffeners etc							
	including RCC underground water tanks, septic tanks, effluent treatment							
	tanks, overhead water tanks etc complete. The rate shall be inclusive of all taxes, towards plants & machinery, labour, all leads & lifts, all floors all							
	charges required including transportation, shuttering, centering, formwork							
	as per conditions below etc. complete.				Cu.m.	8450	0	
	Foundation Runner Beams (Ground Floor + First Floor)			23.70 31.00		8450 8450	200265 261950	
	3. Slabs			39.00		8450	329550	
	4. Lintel			4.30		8450	36335	
	5. Sill			2.50		8450	21125	
	6. Chajja			2.80	Cu.m.	8450	23660	
6	Providing and laying concrete M25/20 using RMC for staircase on grade							
	including finishing the surface smooth etc complete. The rate shall be							
	inclusive of all taxes, towards plant & machinery, labour, all leads & lifts, all floors all charges required including transportation, shuttering, centering,							
	formwork as per condition below, etc. complete.			17.20	Sq.Mt	8450	145340	
	Providing 9 Invites Constant MODIAN							
7	Providing & laying Concrete M20/40, using RMC, in alternate bays for 75 MM plinth protection and paving including compacting, vibrating, curing,							
	finishing to correct line & level with the use of wooden bottom and surface							
	finally finished with brooms as directed by Architect. Joints of and as							
	provided in alternate bays shall be filled with bitumen etc. all complete to the satisfaction to the Architect.			90.00	Running mt	7800	702000	
	ano candidonomico di la Americo del			90.00	, varining int	7 000	702000	
8	Providing and constructing RCC underground water tank including							
	excavation in all types of soil, refilling in sides of tank, trimming, dressing,			7000 00	1:4	6.5	50700	
	leveling, stacking and disposal of surplus soil and including : i) Rubble soling 230 thk.			7800.00) Litres	6.5	50700	
	ii) PCC, M 20/30 below raft							
	iii) M-25/20 RCC work in raft slabs, sump base, beams, RCC walls,							
	columns, top slabs etc. including unwrot shuttering to RC walls at all levels.							
	iv) TMT reinforcement. v) Water proof cement plaster to inside of water tanks.							
	vi) Box type water proofing treatment for raft and walls of UG tank.							
	vii) Patented cement based waterproofing treatment to top of slabs.							
	viii) 50 mm. thk. IPS to raft slab.							
	ix) Providing and fixing cast iron manhole covers 2 nos. 600 mm dia. with							
	locking arrangements. x) PVC water stop 150 mm dia; embedded intake and outlet pipes etc.							
	UG tank capacity.							
9	Providing, erecting, fixing and commissioning Sintex or approved							
	equivalent double layered tanks on overhead elevated pedestal as directed including scaffolding all allied plumbing, valves, stop cocks, MCGM certified							
	water tank cap, including cleaning etc. complete as per the satisfaction of							
		750 x 2 tanks	3	2.00)	5000	10000	
	TOTAL OF SUB-SECTION D						0/2::	
	TOTAL OF SUB SECTION - B						2134655	
			1					
					1			
	FORMWORK							
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·	FORMWORK Notes:							
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	Bill of Quantities, Measi	ıreme	nts &	Spec	ificati	ions			
	10) Only new steel and plywood shuttering shall be permitted for its first								
	use at site, and its number of uses will be solely with discretion of Architect. 11) Providing cutouts, holes, slits, depression etc. for electrical fixtures shall								
	not be paid separately.								
	12) Size of the panels used for exposed concrete finish areas shall be								
	approved by the Architect/ consultants. 13) The supporting system for platform door shall be having self alignment								
	devices to ensure perfect line and level, and verticality of the shuttering,								
ļ	staging to achieve required degree of perfection. 14) For quick erection of shuttering and staging the system should have								
	suitable arrangement for moving entire set in transverse as well as in								
	longitudinal directions and rails/wheels on any suitable arrangement which will be approved by the consultant.								
	will be approved by the consultant.								
D	REINFORCEMENT								
	This item is worked out by the Structural Consultant. For the purpose of this	course an ap	proximate ar	mount is bu	dgeted.				
	Notes: 1) The items given below shall be as per Section D : 'Reinforcement' of the								
	specifications.								
	2) Cover blocks shall be of good quality concrete M30/10 and shall be vibrated on a table vibrator to reduce the permeability.								
	Wherever welding of reinforcement is specified, the same shall be								
	carried out conforming to IS:9417 or IS:2751. Welding shall be carried out								
	by approved qualified welders only. One percent testing of welds shall be carried for all types of welds.								
	4) Overweight of the steel shall not be considered for calculating								
	consumption and payment purpose, I.S. constant for weight of different dia. of bars shall be considered for payment as well as consumption purpose.								
	5) Column reinforcement bars are required to be lapped in the middle								
	portion of columns as per IS 13920. Proper arrangement shall be made to support reinforcement projecting above floor level. Similarly laps within a								
	distance of 2 D (depth of beam) or 1/4 span from the face of the column are								
	not allowed. The overhanging bars should be properly supported. The cost of these works is deemed to have been included in the rate.								
	COSt of these works is deemed to have been included in the fate.								
d1*	Providing and fixing in position mild steel reinforcement of TATA / Vizag /								
	Sail Steel of various diameters for RCC. piles, pile caps, footings, foundations, slabs, beams, columns, canopies, staircases, dowels, chajjas,								
	lintels, pardis, copings, fins, arches etc. as per the detailed designs,								
	drawings and schedules including cutting, welding, bending, hooking the bars, binding with GI wires and concrete cover blocks etc. complete. No								
	separate payment for chairs, laps, wastage and binding wire will be made.								
	Slab Reinforcement	30.00			2355.00	kg/sq.m	75.00	176625	
	Beam Reinforcement	31.00	0.47	7850.00	3650.25	kg/sq.m	75.00	273768.75	
	TOTAL OF SUB SECTION - D							450393.75	
Е	STRUCTURAL STEEL WORKS AND								
_	OTHER FABRICATION ITEMS								
	This item is worked out by the Structural Consultant. For the purpose of this	course an api	proximate ar	mount is bu	daeted				
e1	Supplying, fabricating, erecting, aligning in position, fixing, Structural Steel								
	of TATA / Vizag / Sail Steel in all types of members (Box, Ropes, I-sections, C-sections, L-angles etc) for Columns, Beams, Truss Rafter, Purlin for								
	roofs, lofts, stairs, mezzanines, storage racks for paraffin boxes, portals,								
	braces, underpinning, shoring, frames etc. The rate to include cutting, anchor fasteners, bolting, welding, wastage and application of epoxy based								
	paints (Asian make) as per manufacturer's specifications and as directed.								
1	The rate should include painting of the steel as stated in item e3 below.				2.70	То	104000 00	304000	
!					3.70	Ton	104000.00	384800	
e2*	The rate should include painting of the steel as stated in item e3 below. I-Section: 160mm x 100mm x 20kg/m Providing, fabricating, erecting and fixing at all levels structural steel of				3.70	Ton	104000.00	384800	
e2*	The rate should include painting of the steel as stated in item e3 below. I-Section: 160mm x 100mm x 20kg/m Providing, fabricating, erecting and fixing at all levels structural steel of TATA / Vizag / Sail Steel in all types of members for Columns, Beams,				3.70	Ton	104000.00	384800	
e2*	The rate should include painting of the steel as stated in item e3 below. I-Section: 160mm x 100mm x 20kg/m Providing, fabricating, erecting and fixing at all levels structural steel of TATA / Vizag / Sail Steel in all types of members for Columns, Beams, Truss Rafter, Canopies, roof covers, purlin for roofs, lofts, mezzanines, storage racks for paraffin boxes, portals, braces, underpinning, shoring,				3.70	Ton	104000.00	384800	
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e2*	The rate should include painting of the steel as stated in item e3 below. I-Section: 160mm x 100mm x 20kg/m Providing, fabricating, erecting and fixing at all levels structural steel of TATA / Vizag / Sail Steel in all types of members for Columns, Beams, Truss Rafter, Canopies, roof covers, purlin for roofs, lofts, mezzanines, storage racks for paraffin boxes, portals, braces, underpinning, shoring,				3.70	Ton	104000.00	384800 436800	
	The rate should include painting of the steel as stated in item e3 below. I-Section: 160mm x 100mm x 20kg/m Providing, fabricating, erecting and fixing at all levels structural steel of TATA / Vizag / Sail Steel in all types of members for Columns, Beams, Truss Rafter, Canopies, roof covers, purlin for roofs, lofts, mezzanines, storage racks for paraffin boxes, portals, braces, underpinning, shoring, frames, work for all structural and other purposes, including cutting edges to the required profile, bolting, welding, anchor fastening, riveting, grouting etc. complete in all respects, including epoxy painting as specified in e3.								
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e3	The rate should include painting of the steel as stated in item e3 below. I-Section: 160mm x 100mm x 20kg/m Providing, fabricating, erecting and fixing at all levels structural steel of TATA / Vizag / Sail Steel in all types of members for Columns, Beams, Truss Rafter, Canopies, roof covers, purlin for roofs, lofts, mezzanines, storage racks for paraffin boxes, portals, braces, underpinning, shoring, frames, work for all structural and other purposes, including cutting edges to the required profile, bolting, welding, anchor fastening, riveting, grouting etc. complete in all respects, including epoxy painting as specified in e3. Painting of Steel Work Supplying painting and other materials and labour required for painting of structural steel as detailed below: i) Surface preparation: Mechanical cleaning, removing loose rust/scale using hard tools, power tools, use of aromatic solvents to remove soil / grease present and to ensure a clean and dry surface before priming. ii) Primer: Single coat of Epoxy resin and zinc phosphate of total dry film thickness of 25 microns iii) Finish-Coat 1: Single coat of high build chlorinated rubber medium with micaceous iron oxide of total dry film thickness of 75 microns. iv) Finish Coat 2 & 3: Two coats of plastic chlorinated rubber medium suitably pigmented of 25 microns of plastic chlorinated rubber medium suitably pigmented of 25 microns of yfilm thick each. Total DFT of paint system shall not be less than 200 micron.				4.20				

	Bill of Quantities, Measu	ıreme	nts &	Spec	ificati	ions			
	TOTAL OF SUB SECTION - E							1046640.9	
F	ROOFING								
	Note:								
	Measurement shall be taken for complete laid roof in square meter.								
	Overlaps will not be paid extra. The rate shall include all the material, labour bolts, nut, washers and tools and plants etc. complete.								
	about boits, not, washers and tools and plants etc. complete.								
	Steel Framed Roofing System								
f1	Providing and fixing of Steel Framed Roofing System. External Sheet: Klippon / Steel lock AZ 150 SMP colour coated Galvalume in 0.58mm TCT								
	and including screws and clips. Internal Sheet: Hi-Rib / Hispan AZ 150								
	Bare Galvalume/ SMP colour coated Galvalume in 0.47 mm TCT including screws. Insulation: Supply and Laying of 50mm thick log fiber resin bonded								
	fiberglass roll insulation 16kg/m3 density to be fixed between internal and								
	external sheets. Sub Girt: G. I. Purlins 40 x 50 x 40 mm x 16G (1.6mm) galvanised steel fixed to purlins / girt with self drilling fasteners at max.								
	500mm centers.				318.70	SQ. MT	1000.00	318700	
f2	Providing and fixing of flashing of all sizes for f1 above.								
	This item is worked out by the Consultant. For the purpose of this course an	approximate	amount is b	udgeted.					
	TOTAL OF SUB SECTION - F							240700	
	TOTAL OF SUB SECTION " F							318700	
G	MASONRY WORK								
	Note:								
	Note : 1) The items given below shall be as per 'Masonry Work' of the								
	specifications. 2) Rate should be inclusive of scaffolding, curing and also dewatering &		<u> </u>						
	2) Rate should be inclusive of scaffolding, curing and also dewatering & keeping surface dry during construction.		8 8 8 8 8 8 8 8 8 8 8 8						
	3) Cement for manufacturing concrete blocks to be provided by Contractor.								
	 Only self supporting scaffolding will be allowed, no holes in masonry would be permitted. 								
	5) Contractor will be responsible for making good all the surfaces of								
	brick/block masonry wall in its original form wherever in chasing the wall is done for providing service lines like electrical, telecommunication and water								
	supply and plumbing etc.								
	Factory including block making machine for manufacturing of concrete blocks shall be approved by Architect- in -charge.								
	7) The cement for block masonry shall conform to the requirement of								
	minimum cement requirement for P.C.C. of concrete specifications. 8) Required quantity of concrete blocks are to be manufactured with								
	grooves to accommodate the conduit pipes/water pipes etc. The grooves								
	should be staggered on both sides. 9) The rate for concrete block masonry walls shall be inclusive of producing								
	half blocks and odd sized blocks to suit the construction.								
	10) Mortars for all masonry work shall be mixed in an approved mortar								
	mixer or concrete mixer. 11) Hand mixing of mortar will not be allowed.								
	12) Only river sand and 43 grade cement shall be used.								
	Washing of sand in rotary screw type washing machines is a must. Bricks used shall be of first class and shall be of regular in shape and								
	their edges should be sharp and shall be free from crack. Brick shall be								
	fully soaked in clean water by submerging in a tank for a period of 12 hours immediately before use.								
	15) Contractor will be responsible for making good all the surfaces of								
	brick/block masonry wall in its original form wherever in chasing the wall is done for providing service lines like electrical, telecommunication and water								
	supply and plumbing etc.								
g1	Providing and laying brick (first class) masonry wall in 1:6 C:M, above plinth								
ສ '	or at all levels including for odd shaped walls, brick fins, columns, etc.								
	including striking joints, raking out joints, scaffolding, curing etc. complete. (Min. cement content 1.5 Bag/cu.m.). (ground floor)								
	a) 460mm thick brick				125.40	Cu.m.	1820.00	228228	
	Providing and laying brick (first class) Brick Pier				1.20	Cu.m.	1820.00	2184	
					126.60	Cu.m.		230412	
g2	Providing and laying brick (first class) masonry wall in 1:6 C:M, above plinth								
-	or at all levels including for odd shaped walls, brick fins, columns, etc.								
	including striking joints, raking out joints, scaffolding, curing etc. complete. (Min. cement content 1.5 Bag/cu.m.). (first floor)								C:M Concrete: Mortar
	a) 345mm thick brick				89.70	Cu.m.	1820.00	163254	
g3	Providing and laying brick (first class) masonry wall in 1:6 C:M, for								
	foundation. a) 460mm thick brick				85.00	Cu.m.	1820.00	154700	
	a) 660mm thick brick				32.40	Cu.m.	1820.00	58968	
	a) 860mm thick brick				41.40	Cu.m.	1820.00	75348	
	TOTAL OF SUB SECTION - G							682682	
Н	PLASTERING, PAINTING								

	Nister .		Speci				
	Notes:						
	1) The items given below shall be as per 'Plastering of the specifications. 2) Scaffolding for plastering shall be of self supporting type. Holes will not be allowed, to be made in the masonry or RCC work for anchoring the						
	scaffolding. 3) Only River Sand should be used. However washing of sand in rotary						
	screw type washing machines is a must. 4) Mortar for plastering work shall be machine mixed in a mortar mixer or						
	concrete mixer. Hand mixing of mortar will not be allowed.						
	5) The rate for plastering shall also include providing and mixing/ applying an approved bonding agent as per direction of Architect-in- charge, and						
	also applying approved hack-aid on surface receiving plaster. 6) Only 43 grade cement shall be used.						
	7) Rate should be inclusive of scaffolding and curing shall be started as soon as the plaster has hardened sufficiently not to be damaged when						
	watered. The plaster shall be kept wet for at least 10 days.						
	Providing 12mm thick Internal cement plaster in two coats in cement mortar 1:4 with / without neeru, finished smooth for all RCC/brick block masonry work including curing, and scaffolding etc complete.			687.00	 390.00	267930	
	Providing sand face plaster externally in two coats using approved screened sand in all position including providing base coat of 15 mm thick in cement mortar 1:4 mixing approved water proof compound at the rate of 1 kg / 50 kg of cement and curing the same for not less than two weeks and keeping the surface of base coat rough to receive the sand faced treatment 8 mm thick in cement mortar 1:4 and finishing the surface by taking out grains and curing for 14 days including preparing surface, watering and scaffolding etc. complete.			537.00	780.00	418860	
h3	Providing & applying a continuous cement plaster drip mould of size 50mm						
	wide and 15mm thick under RCC pardi, chajja and around window openings at all levels including necessary scaffolding, staging etc. and curing complete.			23.00	200.00	4600	
				20.00	200.00	4000	
	TOTAL OF SUB SECTION - H					691390	
J	PAINTING						
	Notes : 1) The items given below shall be as per 'Painting of the specifications.						
	Scaffolding for Painting shall be of self supporting type. Holes will not be allowed, to be made in the masonry or RCC work for anchoring the scaffolding.						
	The brands of the Paint shall be specified and readymade paint of required shade should be used.						
	The surface shall be made perfectly smooth by rubbing with sand paper of different grades						
	 All holes and open joints should be filled with strong putty or with a mixture of glue and plaster of paris and smoothened by rubbing with sand paper. 						
	6) In steel work, all scales, dirt, suppliers delivery mark, oil, grease etc shall be removed with sand paper before painting. Special care shall be taken for cleaning the corners						
	7) Each coats shall be allowed to dry up perfectly before the succeeding coat is laid over it.						
	Rate should be inclusive of scaffolding, curing and also dewatering & keeping surface dry during construction.						
	Providing and applying 3 coats over a coat of primer, of oil bound distemper of approved shade and of approved make over concrete / plastered surfaces including preparing of the surfaces, scaffolding etc. complete in all respects.			1224.00	170.00	208080	
	Providing and applying acrylic emulsion paint of approved quality, finish, colour and shade to old and new surfaces in three coats including preparing the surfaces, applying primer, putty, etc. complete.			1224.00	 185.00	226440	
	TOTAL OF SUB SECTION - J					434520	
						.0-020	
K	FLOORING & PAVING & SKIRTING						
	Notes:						
	The items given below shall be as per 'Flooring' of the specifications. At least 6 samples for all finishing items of work, from different approved.						
	sources shall be submitted before starting the work for approval. Architect in charge decision regarding the shade, quality and the source is final. All like materials of flooring, cladding, etc to be from same batch as per						
	approved sample. 3) Rate shall be inclusive of all exposed stone / tile edges to be chamfered, hand polished and moulded as directed.						
	4) Rates for vertical cladding in stone of thickness from 6mm to 25mm shall include exposed right angular corner joints finished and edges polished and						
	moulded as per Architect's instruction, with cutting 6 mm grooves and also edge preparation to suit corner angles.						
	5) Skirting/dado/cladding, because of varying height will be measured and paid on square metre basis instead of on running metre basis.						
	6) The rate for flooring/cladding should be inclusive of bedding/ back coat as specified. The thickness of mortar bedding or back coat specified is						
	minimum. This thickness will vary according to the thickness of flooring or cladding material so as to suit the specified level or line. The Contractor shall be responsible for proper bonding between backing coat & masonry work or RCC work and his rate shall be inclusive of providing and applying approved bonding agent.						

	Bill of Quantities, Measi	ureme	nts &	Spec	ificat	ions			
	7) For all vertical cladding, an approved chemical adhesive for tiles as per								
	manufacturer's instructions shall be used and the rates quoted shall be inclusive of the cost of this adhesive, for a thickness 3mm to 4mm.								
	8) Unless otherwise specified, all sizes to be in metric system.								
	9) Scaffolding for external cladding shall be of self supporting type. Holes								
	will not be allowed to be made in the masonry or RCC work for anchoring the scaffolding.								
	10) The rate for vertical cladding should also include the work on isolated								
	columns, chamfers, etc.								
	11) No separate payment will be made for providing and fixing, odd sized tiles of any shape and size to suit consultant requirement.								
	12) White/Coloured cement with matching pigments or Johnson BAL grout								
	with appropriate colour shall be provided by Contractor at his cost.								
	13) The Contractor shall provide suitable supports for supporting the cladding tiles and remove it only after the tiles have firmly adhered to its								
	location.								
	14) Edges of cladding tiles fixed on the corners of the columns and walls should be polished as per directive of Architect, or as indicated in the drawings.		**************************************						
	15) The maximum thickness of the paste prepared by using tile adhesive								
	and applied on the wall and column surfaces should not be more than								
	3mm. Contractor shall have no extra claims on account of increase in the thickness of the paste beyond maximum thickness as specified above due								
	to faulty workmanship or any other reason.								
	16) Mortar required for bedding/ back coat shall be mixed mechanically in mortar mill. Only river sand shall be used in the mortar.								
	17) All fixtures, electrical points, lights etc to be alighted with tiling, grooves	ļ							
	and pattern, flush with the wall face as per details and drawings. A mockup								
	for the same shall be got approved from Architect. 18) The contractors are required to study drawings carefully to understand	<u> </u>							
	fixing details of flooring, skirting, cladding etc, to keep required grooves								
	between different finishes at door and window locations flooring and								
	skirting junction, wall and ceiling junction etc to match flush line i. e. vertical plane of wall and skirting etc.								
	19) Rate shall be inclusive of cost of scaffolding, grouting, curing, final								
	polishing by non-slip wax polish and cleaning of surfaces and also dewatering & keeping surface dry during construction.		8 8 8 8 8 8 8 8 8	1					
	20) A sample/ mock up of flooring, cladding, etc to be got approved from,								
	Architect.								
	21) All additional grooves to be provided in vertical, horizontal and direction as shown in detailed drawings or as directed.								
	22) To make wall cladding surface and skirting surface flush, wall at skirting								
	level shall be required to recess inside as per fixing details. The necessary		1						
	recesses in RCC wall etc shall be taken at the time of construction itself. 23) Only 43 grade cement shall be used.								
	, , , - g								
k1	Providing and laying 25mm thick hand cut and mirror machine polished								
	Kota stone flooring for Plinths , square 300mm x 300mm finished size and of approved colour and shade in smaller patches for repair or in larger								
	areas including 20mm thick 1:2 lime mortar bedding or 1:6 cement mortar								
	bedding, to be compacted properly by suitable method as approved by the Architect, before laying shahabad stone in position. Joints finished with								
	neat cement slurry, width of joint shall be between 1.0mm to 1.50mm laying								
	as per design, including 3 coats of machine polishing after laying, curing, cleaning complete as directed.								OO MT
	a) Ground Floor				189.75		350.00	66412.5	SQ.MT SQ.MT
	b) First Floor				122.30		350.00	42805	SQ.MT
k2	Providing and laying 25mm thick hand cut and mirror machine polished green kotah stone flooring for midlanding, square 600mm x 600mm								
	finished size and of approved colour and shade in smaller patches for								
	repair or in larger areas including 20mm thick 1:2 lime mortar bedding or								
	1:6 cement mortar bedding, to be compacted properly by suitable method as approved by the Architect, before laying Kotah stone in position. Joints								
	finished with neat cement slurry, width of joint shall be between 1.0mm to								
	1.50mm laying as per design, including 3 coats of machine polishing after laying, curing, cleaning complete as directed.								SQ.MT
	a) Ground floor				2.70		1300.00	3510	SQ.MT
									33,
k3	Same as item k2 above but for risers and treads with moulding for nosing, anti skid grooves etc. complete.				16 10		260.00	4186	22.14
	anti snu grooves etc. complete.	<u> </u>			16.10		260,00	4180	SQ.MT
k4	-Do- same as in item No.k2 above but for dado of height 1500, mirror								
	polished and machine cut 5mm thick kotah stone 300 x 300 mm, and size to match the joints in flooring, etc complete.				00.70		260.00	24502	0
	size to materialie joints in nooring, etc complete.				82.70		∠60.00	21502	SQ. MT
k5	Providing and fixing anti - skid vitrified tiles of 300mm x 300 mm and 10								
	mm thickness (Santron) grey colour for toilet blocks and kitchen as directed including 15mm thick backing coat plastering 1:4 cement mortar,								
	fixing with adhesives as specified, joints filled with white cement paste or of								
	approved colour grouting materials including curing, scaffolding etc.								
	complete. (Overall tile variation allowance + 1.0 mm.) (Base price of tile Rs.500 / Sq m.)				24.60		1950.00	47970	SQ.MT
									54
k6	-Do- same as in item No.k1 above but for skirting of height 100mm, mirror polished and machine cut 20mm thick shahabad stone, and size to match								
	the joints in flooring, etc complete.				22.90	SQ. MT	260.00	5954	R. MT/ SQ. MT
	TOTAL OF SUB-SECTION P							100000 5	
	TOTAL OF SUB SECTION - K	<u> </u>						192339.5	
М	DOORS, WINDOWS AND PARTITIONS								
.71	JUNE TO AND LAKITION								
		.i	L	L	L				

	Bill of Quantities, Measu	ıreme	nts &	Spec	ificati	ions			
	Notes:					=			
	Carpentry and Joinery, Timber, Steel casement, Aluminum Doors Windows, skylights openable, sliding windows, rolling shutters and								
	polycarbonate sheet, curtain walls, etc.								
	2) For all aluminum works, the contractor shall submit shop drawing for each item of work indicating the section of aluminum, its weight and joinery								
	detail and total weight of window/door/partition walls etc. Wherever possible riveting shall be resorted to for connection. Alternatively hot								
	dipped galvanized pinheaded sheet metal/brass, screws could be used.								
	No mild steel without hot dipped galvanizing shall be used for any fastenings, etc.								
ļ	3) The rates shall not be paid separately for Aluminum sections used on								
	weight basis. 4) The rate shall be inclusive of providing & fixing glass panels includes								
	cost of all types of fixtures and fastenings made of any materials, neoprene								
	rubber gaskets, screws, etc. 5) Contractor shall submit samples of assembly sections from different								
	manufacturer's for approval. Architect decision shall be final.								
	6) All joints between civil work and aluminum frames shall be sealed and made air tight by applying Silicone sealant or equivalent as approved at								
	Contractor's cost.								
	7) Rates for repairs as well as providing and fixing of new doors, windows, sky light, rolling shutters, etc. in this section shall be inclusive of all the								
	items of hardware / fittings and no extra shall be paid to the contractor								
	towards the cost of hardware / fittings. 8) All Hardware should be as per samples approved by Architect. Providing								
	and fixing following hardware items in oxidized brass (unless otherwise stated) including, fixing with appropriate screws and fasteners in brass/								
	stainless steel metal screws (Nettlefold or equivalent) wherever specified								
ļ	etc of approved make type and thickness : 9) Providing and fixing the hardware complete in all respects with								
	necessary pins, plates, screws etc (All fittings & fixtures shall be of Heavy								
	duty brass of first quality) 10) All hardware and hinges shall be of palladium or approved equivalent								
	brand, all other hardware shall be of Dorma or approved equivalent brand.								
	11) Hinges: Railway type heavy duty hinges in brass oxidized with stainless steel pins of diameter not less than 4mm and leaf thickness not								
	less than 4mm (125mm x 65mm x 4mm to 300 mm x 65 mm x 4 mm)								
	12) Hinges: Parliamentary type heavy duty hinges 5mm thick brass oxidized.								
	13) Tower bolts having bolt dia of 10mm in brass oxidized, in brass body								
	600mm long etc complete. 14) Door handles. 'Dorma' TGDI35025S pull handle, 25 mm dia, 350mm								
	long or 'DORMA' TG9155 or matching with existing handle as specified								
	and approved by the Architect. 15) Brass oxidized Baby latches, 75mm long with 25mmx8mm thick bolt								
	complete with knob, Vacant / Engaged etc as per approved samples. Brass aldrops shall match existing original aldrops in the building and shall be								
	reused or fabricated to match the original.								
	16) Concealed type hydraulic door closer or open door closer of Dorma or equivalent brand with Dorma door stopper, spring loaded with rubber bush								
	and foot release.								
	17) Plain Mortice locks 6 levers Latch Bolt of Godrej make equivalent with brass body and chrome plated flat plate to edge of door including fixing to								
	timber or aluminium shutter frames etc complete.								
	18) Same as above item (16) but with dead lock.19) 3mm thick SS kick/push plate fixed with SS screws of 150-400 mm								
	depth. (CP brass domical head)								
	Door buffer with rubber/PVC bush shutter or wall mounted. Providing and fixing and repair rates will also be inclusive aldrops,								
	handles stopper etc. all complete.								
m1	D5 - Single leaf hinged sunmica door	1.20	2.20	19	50.16	SQ. MT	16000.00	35200	
	Providing and fixing 1st class teakwood door frames (BTC) of all sizes	1.20	2.20	18	55.10	JQ. WI	. 5550.00	55200	
	including making single or double rebates for shutters as per drawing, 6 Fischer Universal Frame fixing FUR 10 x 135T / FUR 10 x 150 T or								
	equivalent fastener instead of hold fast for fixing frames to concrete								
	members or masonry walls applying solignum on timber surface in contact with masonry / concrete and Duco Paint or polish of approved colour and								
	make, including moulded architrave etc. complete.								
m2	W1 - Teakwood Openable Panels Bay Window								
	Providing fabricating and fixing in position colour anodised extruded								
	teakwood sections Jindal or equivalent make for windows/ ventilators, side hung openable/fixed comprising of outer frame (0.35 kg/r.m.), shutter frame								
	(0.50 kg/R.m.), shutter(0.40 kg/R.m.), mullion for outer frame (0.55 kg/R.m.), locking handles and pull handle for each shutter, one pair S.S.								
	friction hinges for each shutter and 5 mm thick clear float glass Modi or								
	wired glass or equivalent with neoprene/rubber gasket with hinges, locking arrangement and wooden encasement wherever necessary including								
	masking of window sills before completion of work, demasking after								
	completion, cleaning, rate to include colour anodising all aluminium sections to a thickness of anodic film not less than 20microns etc. complete								
	as directed.	2.20	4.00	5	44.00	SQ.MT	6000.00	24000	
ļ	W2 - Teakwood Non-Openable Panel Window								
	Providing fabricating and fixing in position colour anodised extruded								
	teakwood sections Jindal or equivalent make for windows/ ventilators, fixed comprising of outer frame (0.35 kg/r.m.), mullion for outer frame (0.55								
	kg/R.m.), 5 mm thick clear float glass Modi or wired glass or equivalent								
	with neoprene/rubber gasket, locking arrangement and wooden encasement wherever necessary including masking of window sills before								
	completion of work, demasking after completion, cleaning, rate to include								
	colour anodising all aluminium sections to a thickness of anodic film not less than 20microns etc. complete as directed.	3.60	1.20	3	12.96	SQ.MT	3500.00	4200	
	W/2 Tackward Opens No Three Dept Window								
L	W3 - Teakwood Openable Three Panel Window								

	Bill of Quantities, Measu	ıreme	nts &	Spec	ificati	ions			
	Providing fabricating and fixing in position colour anodised extruded teakwood sections. Jindal or equivalent make for windows/ ventilators, side hung openable comprising of outer frame (0.35 kg/r.m.), shutter frame (0.50 kg/R.m.), shutter –(0.40 kg/R.m.), mullion for outer frame (0.55 kg/R.m.), locking handles and pull handle for each shutter, one pair S.S. friction hinges for each shutter and 5 mm thick clear float glass Modi or wired glass or equivalent with neoprene/rubber gasket with hinges, locking arrangement and wooden encasement wherever necessary including masking of window sills before completion of work, demasking after completion, cleaning, rate to include colour anodising all aluminium								
	sections to a thickness of anodic film not less than 20microns etc. complete as directed.	2.40	1.20	6	17.28	SQ.MT	6000.00	7200	
	W4 - Teakwood Openable Two Panel Window								
	Providing fabricating and fixing in position colour anodised extruded teakwood sections Jindal or equivalent make for windows/ ventilators, side hung openable comprising of outer frame (0.35 kg/r.m.), shutter frame (0.50 kg/r.m.), mullion for outer frame (0.55 kg/r.m.), looking handles and pull handle for each shutter, one pair S.S. friction hinges for each shutter and 5 mm thick clear float glass Modi or wired glass or equivalent with neoprene/rubber gasket with hinges, locking armagement and wooden encasement wherever necessary including masking of window sills before completion of work, demasking after completion, cleaning, rate to include colour anodising all aluminium sections to a thickness of anodic film not less than 20microns etc. complete as directed.	1.30) 1.00	3	3.90	SQ.MT	6000.00	6000	
	W5 - Teakwood Openable Full Height Louvered Window								
	Providing and fixing teakwood window frames along the edge of 10 mm thick WPC orientable 7 panel louvered window	3.00)	3.20	9.60	SQ. MT	25000.00	80000	
	TOTAL OF SUB SECTION - M							156600	
N	WATERPROOFING								
	Notes:								
	1) The contractor will give a 10 years guarantee of the work undertaken on Rs.100/- Stamp paper on the approved format duly registered. 2) Ten percent amount of value of works will be retained for the period of five years from the date of actual completion of the work, will be released progressively at four percent after two years subject to attending any rectification of defects and balance amounts by the end of five years. 3) All work to be done through specialist waterproofing and structural repair agencies shall be undertaken only on the approval of the Architect.								
n1*	Providing and applying 70mm to 75mm thick proprietary brand cement based waterproofing (box type) for bottom RCC raft slab and sides of RCC walls of water tanks, septic tanks, effluent treatment tanks, etc. including providing leak proof treatment by injection grouting to concrete members at 1.0m centres in both directions and also at all construction joints, and providing and fixing 20mm to 25mm thick rough Shahabad stone or other approved stone tiles set in 20mm thick 1:3 waterproof cement mortar and finishing the by laying/ plastering, with 20-30 mm thick C:M in 1:3 with waterproof compound (Contractor to give complete specifications for waterproofing system he propose to carry out)				20.00	SQ. MT	1400.00	28000	SQ.MT
n2	Providing and laying waterproofing in W.C and bath room including B.B. coba in all position consisting of specialised approved waterproofing compound and material as per specifications with all lead and lift.				136.54	SQ. MT	900.00	122886	SQ.MT
n4	Water Proofing Chajja								
	Providing and applying waterproofing treatment over chajja using proprietary cement based system like India Waterproofing using brickbats of 50 mm or metal no.2, average thickness of treatment 50 mm, finished with smooth cement finish with false tile marks, including breaking/removing existing water proofing and carting away the debris etc.								
	complete.				26.50	SQ. MT	900.00	23850	SQ.MT
n5	Tile joint filling Providing and filling cement based tile joint sealing compound (Johnson Bal Grout or equivalent) in bath / WC / toilet / flooring tiles including raking out old loose jointing material, curing etc. complete.						25.00	0	SQ.MT
n6	Providing and fixing Lead Flashing 750 mm over Chajja shall be housed approximately 300mm above chajja in a mortar joint of adjoining masonry wall, this sheet ct shall be sloping outwards. Fastening down. – The sheets, shall be fastened with the best SS or Brass screws/ bolts and lead washers Allen's, Fisher or other approved fastenings as directed by the Conservation Architect. The lead sheeting shall be good milled lead not less than 10 Kg/Sq.m bent to the shape fastened into the wall groove 20 mm, with brass/sss wall hooks with joints at right angles to the flow by a drip with a proper lap, if levels permit, or by 75mm joints of folded lead.						2600.00	0	RUNNING M
	TOTAL OF SUB SECTION - N							174736	
	TOTAL OF SECTION - II							6661882.321	
SE(CTION - IV : MISC.								

	Bill of Quantities, Measi	ıremei	nts &	Spec	ificati	ions			
	Notes: 1) Rate shall include minor civil work, scaffolding, electrical works,								
	dismantling, liasoning cost, steel items, etc. 2) The quoted price shall be inclusive of central excise duty, VAT, octroi and								
	service tax and all other applicable taxes. This quotation shall not be subject to price variation cost.								
	3) The contractor shall make necessary arrangements to provide suitable lockable weather proof storage space for the materials and shall also stack the existing dismantled material in a safe secure place for the disposal of the municipal authorities.								
	The contractor shall include in the quotation 60 months free maintenance, which will be commenced from the date of completion of project.								
	5) The cost shall be inclusive of all preparatory work and no extra cost will be provided towards this item.								
	7) The rate shall be inclusive of providing & fixing glass panels includes cost of all types of fixtures and fastenings made of any materials, neoprene rubber gaskets, screws, etc.								
	(6) For all works in this section as specified by the conservation architect, the contractor shall submit shop drawing for each item of work indicating the sections materials, its joinery detail etc. Wherever possible wooden pins shall be resorted to for connection, Alternatively stainless steel/brass, screws/bolts could be used. No other nails / screws shall be used for any fastenings, etc.								
	Contractor shall submit samples of assembly sections from different manufacturer's for approval. Architect decision shall be final.								
	All joints between civil work and timber frames shall be sealed and made air tight by applying Silicone sealant or equivalent as approved at Contractor's cost.								
1	Fabrication and installation of Information Sign as specified in the drawings.								
a)	Providing & fixing in position signage board in aluminium extruded brown anodized section with letters in vinyl on both sides covered with acrylic sheet and as per approved sample by Architect fixing as directed				1.00		5000.00	5000	
	sheet and as per approved sample by Architect fixing as directed				1.00		3000.00	3000	
	TOTAL OF SECTION - IV							5000	
SE	CTION - V: ELECTRICAL								All visible light fixtures, fans, HVAC units etc including all the wiring, conduiting, connections and all other items required are included in an approximate rate/per symt. For the purpose of this course, it is
	This item is worked out by the Electrical Consultant. For the purpose of this	course an app	roximate an	nount is bud	740.00 laeted.		2500.00	1850000	assumed as Rs 2500/sqmt.
1 a	EARTHING Supply, Installation, Testing and Commissioning of Earthing station as per				J				
4	IS 3043 consisting of 40 mm G.I.3000mm long pipe supplied with funnel at top including salt charcoal, masonry chamber, test link box, hardware including excavation and masonry work with cast iron cover for the chamber.								
2	EARTHING STRIPS/CONDUCTOR								
	Supply & Laying of following sizes of strips & wires from earthing chamber/Grid to the electrical equipment & terminating the same. The portion of the strip under ground shall be laid at a depth of 600 mm and on surface shall be fixed with spacers & clamps.& also on Tray. Excavation &								
а	all civil work to be included. 25 mm x 3 mm G.I. strip for Distribution Board(First Distribution Board in a								
b	cluster of Distribution Boards.) 8 SWG G.I. Earthing wire for Lighting & Power Distribution Board.								
3	METER								
a	Supply, Installation, testing and commissioning of 3 phase energy meter suitable for unbalance load and including necessary cutout and jumper wires etc complete as per supply company's requirement.								
b	Supply, Installation, testing and commissioning of TPN MCB 16 A and including ncessary cutout and jumper wires etc complete as per supply company's requirement.								
С	Supply, Installation, testing and commissioning of TPN MCB 40 A and including necessary cutout and jumper wires etc complete as per supply company's requirement.								
d	Supply, Installation, testing and commissioning of TPN MCB32 A and including necessary cutout and jumper wires etc complete as per supply company's requirement.								
4	DISTRIBUTION BOARD Supply & Installation of standard manufacturers Distribution Board for Lighting. It shall be a standard Board with double door & suitable for recess mounting & shall be as follows. Scope includes mounting arrangement including necessary steel, hardware etc. Wires in D.B. to be								
а	properly dressed with button tape and with lugs, labels etc. Incomer40A TPN MCB- 1No. 40 A,30 mA, 2P, RCBO - 3 Nos Outgoing 6/10A SP MCB -24 Nos. (LDB)								
5	CABLES & TERMINATIONS								
	Supply , Installation ,Testing & Commissioning of PVC Armoured Cable fixed to walls, Ceilings with clamps, spacers saddles or laid in ready made trench or tied to cables tray with cable ties, tags etc. as follows. 1100V grade as per I.S. Installation ,Testing & Commissioning of cables (on walls, trays) PVC insulated, 1100V grade, steel armored as per I.S.1554 with								
а	latest amendment including spacers, saddles, tags, etc.The cables to be properly dressed. 4C x 16 Sq.mm.AL AYFY								
ь	3C x 10 Sq.mm.AL AYFY								

	Pill of Quantities Mossi	ıromo	nte 2	Snoo	ificat	ione			
	Bill of Quantities, Measu	areme	mis œ	Spec	ilicat	10115	1	Ī	
d	3C x 4 Sq.mm,AYFY								
e	3C x 6 Sq.mm.AYFY								
f	3C x 2.5 Sq.mm.AYFY								
6	TERMINATION OF CABLE								
	Termination of cables with Heavy duty Siemens type glands & lugs. Lugs used should be Copper for copper cables & Aluminium for aluminium cable.								
	Scope to include all material & labour including proper tools, Insulation								
	tape.								
	4C x 16 Sq.mm.AL AYFY								
	3C x 10 Sq.mm.AL AYFY								
c d	4C x 10 Sq.mm.AYFY 3C x 4 Sq.mm.AYFY							<u> </u>	
e	3C x 6 Sq.mm,AYFY							<u> </u>	
f	3C x 2.5 Sq.mm.AYFY								
7	POINT WIRING								
	Point wiring for light, bell point. Scope to include circuit Wiring for lighting &								
	the light switchboard with switches & further wiring to light points. The switchboard shall be recess mounted/surface mounted of G.I standard as								
	per the supplier. The point Wiring shall consist of 3 x 1.5 Sq. mm copper								
	wire, PVC insulated, 1100V grade in PVC conduit/ PVC casing caping. The								
	wires & conduits shall run from the switchboard to the individual point &								
	circuit wiring shall be of 3 x 2.5mm2 copper wire from distribution board to the switch board. Modular plate type switches to be used 6A Switch								
	Socket on switch board to be included.In majority of the cases the lights are								
	group switched from the Distribution Board in which case the wire shall be								
.	3 x 2.5 mm2. All wires shall be FRLS.								
	Primary Light Point wiring of average length up to 5 meters length of wire. Primary Light Point wiring of average length up to 5.5 to 10 meters length						<u> </u>		
a,II	of wire								
a.iii	Primary Light Point wiring of average length up to 10.5 to 15 meters length								
ļ	of wire;				<u> </u>				
a.iv	Primary Light Point wiring of average length up to 15.5 to 20 meters length of wire:								
b.i	of wire; SECONDARY LIGHT POINT (First Light to second light point, Up to 5			1					
~.·	meters of length of wire 3x 1.5 sq. mm wires								
b.ii	SECONDARY LIGHT POINT (First Light to second light point.Up to 5.5 to								
	10 meters of length of wire 3x 1.5 sq. mm wires								
b.iii	SECONDARY LIGHT POINT (First Light to second light point.Up to10.5 to 15 meters of length of wire 3x 1.5 sq. mm wires								
b.iv	SECONDARY LIGHT POINT (First Light to second light point.Up to 15.5 to							<u> </u>	
	20 meters of length of wire 3x 1.5 sq. mm wires								
ci	Fan point wiring shall be same as Primary light point point with individual								
	control. Wire of size 3x1.5sq. mmsize shall run from the switch board to the								
	fan point through PVC conduit/ PVC casing caping. The circuit from the DB to the switch board shall be 3x2.5sq. mm wires. Space for regulator to be								
	provided in the switch board. Up to 5 Meters of length of wire								
	Fan Point wiring wiring length 5.5 to 10 meter length								
	Fan Point wiring wiring length 10.5 to 15 meter length								
	Fan Point wiring wiring length 15.5 to 20 meter length Exhaust fan/ Wall Fanpoints wiring shall be same as Primary light point with								
d	individual control & 6A socket & top @ the fan point. Wire of size 3 x 1.5								
	mm2 size shall run from the Switch Board to the fan point through conduit								
	.The circuit from the D.B. to the Switch Board. with 3 x 2.5 mm2 wire								
ei	Point wiring for 6 Amp switch socket point. Scope to include running of 3x								
	2.5mm2 copper wire, PVC insulated, 1100V grade in PVC conduit. Wires to be run from the Power Distribution board to the Individual sockets upto 4								
	sockets can be looped on one circuit. Workstation. Raw power. All wires shall								
<u></u>	be FRLS Wiring length up to 5 meters .						<u> </u>		
	6 A socket point wiring length 5.5 to 10 meters							<u> </u>	
	6 A socket point wiring length 10.5 to 15meters 6 A socket point wiring length 15.5 to 20meters						<u> </u>		
elv	o A socket point wining rengin 15.5 to 20Meters							<u>:</u>	
8(i)	Point wiring for 6/16Amp switch socket point. Scope to include circuit							<u> </u>	
``	from D.B. to individual points. Conduit, accessories & wires with 3 x 4mm2								
	copper wire to be laid from D.B to individual socket. Two socket per circuit								
(ii)	to be considered.All wires shall be FRLS.Wiring length up to 5 meters 6/16 A Point wiring 5.5 to 10 meter length of wire								
	6/16 A Point wiring 10.5 to 15 meter length of wire								
	6/16 A Point wiring 15.5 to 20 meter length of wire								
(v)	6/16 A Point wiring 20.5 to 25 meter length of wire								
9a	Supply, Installation, Testing & Commissioning 6A switch socket outlet & box consisting of Modular plate type switches including connections.								
b	Supply, Installation, Testing & Commissioning 6/16A switch socket outlet &								
	box consisting of Modular plate type switches including connections.								
C	Supply, Installation, Testing & Commissioning of 20A Reyroll Plug socket								
L	with 3 pin Metal Top, in metal board with 20A SPMCB.								
d	Supply, Installation, Testing & Commissioning of 225 mm Dia. Exhaust Fan with connection.								
е	Providing and installing, connecting and commissioning 32A TPN SFU with								
	HRC Fuse.								
	Desiding and Lain-Toront T. U. C.				<u> </u>	ļ	<u> </u>	<u> </u>	
10a	Providing and laying Two pair Telephone cable in existing conduit/casing caping								
b	Providing and installing out let for telephone cable							<u> </u>	
11	Providing and installing celing fan 1200mm sweep with five steps electronic								
	regulator			1					
10	LIGHT FIXTURES INCLUDING CONNECTION AND BULB								
12	LIGHT FIATURES INCLUDING CONNECTION AND BULD	L		1	L	L	L	L	

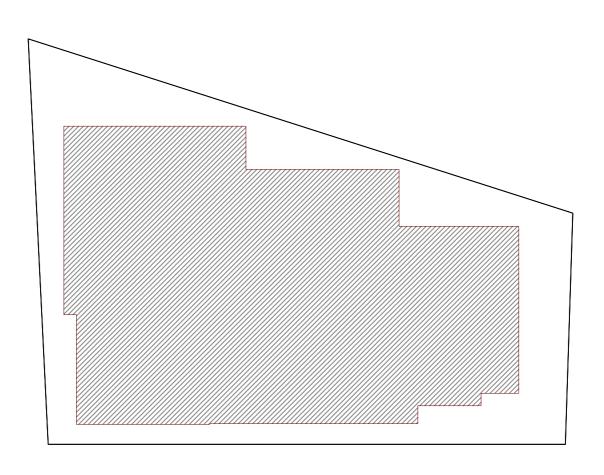
	Bill of Quantities, Measi	urem	ents 8	Spe	cificat	ions			
	Supply & Installation of light fixtures with Sigma Ballast including lamps, junction boxes, down rod/supports, hardwares rawl plugs, wires/ cables								
a	etc. as required and connecting it to switch boards. Supply and Installation of Portable Emergency Light on Battery suitable for								
	upto 10 hours. Installite/Canara make. Mounting arrangement for lamp to be included.								
b	1x18W Bracket light WST 71150 with G.I. water pipe arm 1 m long welded to the cap								
d	WFZ 42250								
е	WIF 22228 SGW								
13	Liasoning charges with respective authorities for shifting of point of electrical service and others								
14	Excavation in outside soil including refilling.								
15	Supplying and erecting steel tubuler pole 165.1x139.7x114.3mm thick with 4.5x4.5x3.65 mm thick and (5.6x2.7x2.7mm) respectively11 mtrs. Long as per 1.S. 2713 with test certificate from manufacturer complete erected duly painted with two paints of red oxide and two coats of aluminium paint complete erected in position with M.S. base plate of 30x30x0.6 cms thick welded at the bottom and suitable pole cap eracted with set screws or wielded complete erected C.C. foundation and plinth.Junction/Looping box included								
	Note: For item nos. 16, 17 and 18, rates should be inclusive of a								
16	comprehensive maintenance for 60 months by the vendor Supplying and erecting centrifugal water pump (Mono block)with C.I. impler, priming funelcock and common flange mounted on a common shaft of induction motor of 400 V 3 phase A.C. supply of minimum 3 H. P. Motor capable of discharging water 600 to 170 lites per minutes at 12.5 to 27.5 meters total head from all clauses with foundation and with 50 mm suction and 50 mm delivery, water pump shall be confirming to I.S.1520 complete.(Crompton / Kirloskar / Grundfos or any other equivalent make)								
17	Water level controller with necessary probes for controlling motor for cut off when upper tank water level is full, when water level in the tank comes to pre determined level pump shall start automatically. When water level in the suction tank is below the water level, the pump should not start. Also pump should not run dry, The controller shall have manual, auto switches and selection of pump. The rate shall include necessary wiring with copper wires								
18	DOL Starter suitable for 3 H.P. motor including over load								
19	Providing and fixing 25mm PVC conduits / Casing caping including all								
	fittings								
	TOTAL OF SECTION - V							1850000	
SE	CTION - VI:PLUMBING				740.00	SQ. MT	350.00	259000	For all Sanitary and Water Supply Works: All piping, connectors, flanges and all other items required for connecting sanitary fixtures and fittings are included in an approximate rate/per sqmt. Only main & visible fixtures are budgeted individually on a per item basis. For the purpose of this course, it is assumed as Rs 350/sqmt.
Α	SANITARY SYSTEM								
	Note: All catalogue nos. referred in various items of sanitary fittings are as per Hindustan / Parryware Sanitary ware Catalogues and all fixtures are Jaguar Continental series.								
1.1	Providing and fixing approved Indian make white / coloured glazed						45005.55	000==	
	vitreous chinaware wall hung European water closet cistern including - a) 10 litres capacity flushing cistern with 15mm inlet connection with CP brass stop cock, CP brass flush bend etc.				6.00		15000.00	90000	Nos.
	b) CI chair supports for the water closet. c) White or coloured solid plastic seat & cover very heavy quality with rubber buffers fixed to the closet with CP brass pillar hinges.								
1.2	100 mm dia connector pipe from P trap to the junction of the soil stack on external face of building.								Nos.
1.3	Providing and fixing approved ISI marked make white / coloured glazed vitreous chinaware wash 'hand basin counter top or suitable for mounting								
	below 'counter comprising: a) White / coloured glazed vitreous chinaware oval shaped wash basin, size 570mm x 425mm with supporting MS or CI brackets.				6.00		8000.00	48000	Nos.
	b) 1No 15mm CP brass pillar cock with all fittings. c) 1No 32mm CP cast brass bottle trap with extension piece to wall, wall flange with rubber adopter waste connection.								
	 d) 1No heavy quality CP brass angular stop cock 15mm size with CP brass flexible connector pipe. The supporting bracket shall be provided with 3 coats of approved paint of approved shade. 								
1.70	Providing and fixing heavy ISI marked make heavy quality CP brass concealed type stop cock with heavy quality cast wall flange.				7.00		700.00	4900.00	Nos.
	Size 15mm								
					1				Nos.
									1403.

1.5 ISD did CL. corrector gaps from Pr or 8 tipp to the jurytime of sed states on contracts the of the Markey. 1.6 Supply and the industry. 1.7 Supplying of the industry in the industry in the contract of the industry in the contract of the industry in the contract of the industry in	
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Combined congs. from this by physical boding. Akkee CP Phases services will not be updated and the control of the state period that and updated and will all property make with visible country of a manufacture state of the CP phase services and a state of a province make with visible country of a manufacture state of the CP phase services country of a manufacture state of the CP phase services control on the CP phase services	Nos.
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24 Providing, buying fixing patient with sexewed pints as only an experimental to 25 pints above your provided by contributing to 25 pints and separation and an experimental to 25 pints and separation and an experimental to 25 pints and separation and applied pints are supported by the pints and separation and applied pints are supported by the pints and separation and applied pints are supported by the pints and separation and applied pints are supported by the pints and applied pints are supported by the pints and applied by the pints and applied by the pints and applied by the pints are supported by the pints and applied by the pints are supported by the pints and applied by the pints are supported by the pints	9000
20m n.b. 32mm n.b. 32mm n.b. 40mm n.b. 100mm	
35mm n.b. 35mm n	
Momin n.b Somm n.b So	
Somm n.b	
85mm n.b 100mm n.b 1	
2.2 Providing, Ising pointing with screwed joints ("Class heavy GI pipes conforming to 16 1230 including all fittings, besting, painting with bitimastic painting complete as per specifications. For pipe limes ladd below ground level and fall in chases in walls in chases in walls in chases in walls in chases in walls and reinstatement). 15mm 20mm 28mm 28mm 38mm 68mm 68mm 68mm 68mm 68mm 19mm 19mm 19mm 19mm 19mm 19mm 19mm 1	
2.27 Providing, laying, fising jointing with screwed joints Cr class heavy GI pipes conforming to IS 1239 including all fittings, testing, paining with bitumastic paint protection wapping with brease holder objective begind & leave that the providing chases in walls. The ratio includes excession and cutting chases in walls and reinstatement). 1. films 20ms 20ms 20ms 20ms 20ms 32mm 32mm 32mm 32mm 32mm 32mm 32mm 32	
25mm 32mm 25mm 6 Somm 6 Somm 6 Somm 7 Somm 8 Somm 8 Somm 8 Somm 9	
2.3" Providing, fixing and testing heavy quality gun metal or brass ball valve with screwed ends 20kgm class on GI or copper pipe lines (Leader/ZOLOTO make) 8 Mom 6 Smm 5 Smm 9 Mom 1 Mom 1 Mom 1 Mom 2 Mom 3 Mom 4 Mom 3 Mom 4 Mom 5 Mom 5 Mom 6 Mo	
2-3s Providing, fixing and testing heavy quality gun metal or brass ball valve with make) 8 80mm 6 55mm 5 50mm 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
serveed ends 20kgm dass on GI or copper pipe lines (Leader/ZOLOTO make) 8 0mm 6 5mm 7 0mm 8 0mm 8 0mm 8 0mm 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Somm 40mm 52mm 25mm 20mm 15mm	
Admm	
25mm 25mm 20mm 20mm 20mm 20mm 20mm 20mm	
2.4* Providing and fixing in position tested heavy quality ISI marked full way gun metal gate valve of new or equivalent make having both ends screwed female conforming to IS 778:1984 etc. complete. i) 50mm dia ii) 40mm dia ii) 32mm dia iv) 25mm dia v) 20mm dia v) 50mm dia 2.5* Providing, erecting, fixing and commissioning PVC overhead water tank (BMC approved) including making of proper platform as per consultant's direction, lifting of tank to terrace floor level, placing of tank on platform in proper alignment, making of inlet / outlet connections as per bye-laws etc. complete. ii) 1000 litres capacity ii) 1000 litres capacity 2.6* Providing, fixing gun metal non return valve of approved quality. 80mm 65mm 65mm 65mm 90mm 40mm 32mm 2.7* Providing and fixing approved ISI marked make CI flanged water meters direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
15mm 2.4* Providing and fixing in position tested heavy quality ISI marked full way gun metal gate valve of new or equivalent make having both ends screwed female conforming to IS 778:1984 etc. complete. i) 50mm dia ii) 30mm dia iii) 32mm dia iv) 25mm dia v) 25mm dia v) 25mm dia v) 15mm dia v) 10mm dia vi) 15mm dia vi) 15	
2.4* Providing and fixing in position tested heavy quality ISI marked full way gun metal gate valve of new or equivalent make having both ends screwed female conforming to IS 778:1984 etc. complete. i) 50mm dia ii) 32mm iii) 32mm iiii) 32mm iiiii) 32mm iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	
ii) 90mm dia ii) 40mm dia iii) 32mm dia v) 25mm dia v) 25mm dia v) 15mm dia v) 15mm dia 2.5* Providing, erecting, fixing and commissioning PVC overhead water tank (BMC approved) including making of proper platform as per consultant's direction, lifting of tank to terrace floor level, placing of tank on platform in proper alignment, making of inlet / outlet connections as per bye-laws etc. complete. ii) 9000 litres capacity iii) 1000 litres capacity iii) 1000 litres capacity iii) 1000 litres capacity iii) 1000 litres capacity 2.6* Providing, fixing gun metal non return valve of approved quality. 80mm 65mm 50mm 40mm 32mm 2.7* Providing and fixing approved ISI marked make CI flanged water meters direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
iii) 32mm dia iv) 25mm dia v) 25mm dia v) 29mm dia vi) 15mm dia vi) 15mm dia 2.5* Providing, erecting, fixing and commissioning PVC overhead water tank (BMC approved) including making of proper platform as per consultant's direction, lifting of tank to terrace floor level, placing of tank on platform in proper alignment, making of inlet / outlet connections as per bye-laws etc. complete. i) 5000 litres capacity ii) 1000 litres capacity iii) 1000 litres capacity 2.6* Providing, fixing gun metal non return valve of approved quality. 80mm 65mm 50mm 40mm 32mm 7.7* Providing and fixing approved ISI marked make CI flanged water meters direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
iv) 25mm dia v) 25mm dia v) 25mm dia vi) 15mm dia vii) 15mm dia v	
vi) 15mm dia 2.5* Providing, erecting, fixing and commissioning PVC overhead water tank (BMC approved) including making of proper platform as per consultant's direction, lifting of tank to terrace floor level, placing of tank on platform in proper alignment, making of inlet / outlet connections as per bye-laws etc. complete. i) 5000 litres capacity ii) 2000 litres capacity iii) 1000 litres capacity 2.6* Providing, fixing gun metal non return valve of approved quality. 80mm 50mm 40mm 32mm 7 Providing and fixing approved ISI marked make CI flanged water meters direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
2.5* Providing, erecting, fixing and commissioning PVC overhead water tank (BMC approved) including making of proper platform as per consultant's direction, lifting of tank to terrace floor level, placing of tank on platform in proper alignment, making of inlet / outlet connections as per bye-laws etc. complete. i) 5000 litres capacity ii) 2000 litres capacity iii) 1000 litres capacity 2.6* Providing, fixing gun metal non return valve of approved quality. 80mm 65mm 50mm 40mm 32mm Providing and fixing approved ISI marked make CI flanged water meters direct reading type callibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
(BMC approved) including making of proper platform as per consultant's direction, lifting of tank to terrace floor level, placing of tank on platform in proper alignment, making of inlet / outlet connections as per bye-laws etc. complete. i) 5000 litres capacity ii) 1000 litres capacity iii) 1000 litres capacity iii) 1000 litres capacity 2.6* Providing, fixing gun metal non return valve of approved quality. 80mm 65mm 50mm 40mm 32mm 72.7* Providing and fixing approved ISI marked make CI flanged water meters direct reading type callibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
ii) 2000 litres capacity iii) 1000 litres capacity 2.6* Providing, fixing gun metal non return valve of approved quality. 80mm 65mm 75mm 80mm 80mm 80mm 80mm 80mm 80mm 80mm 8	
iii) 1000 litres capacity 2.6° Providing, fixing gun metal non return valve of approved quality. 80mm 65mm 50mm 40mm 32mm 40mm 32mm 40mm 40m	
2.6* Providing, fixing gun metal non return valve of approved quality. 80mm 65mm 50mm 40mm 32mm 72.7* Providing and fixing approved ISI marked make CI flanged water meters direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
80mm 65mm 50mm 50mm 40mm 32mm 2.7* Providing and fixing approved ISI marked make CI flanged water meters direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
65mm 50mm 40mm 32mm 2.7* Providing and fixing approved ISI marked make CI flanged water meters direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
50mm 40mm 32mm 2.7* Providing and fixing approved ISI marked make CI flanged water meters direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
32mm 2.7* Providing and fixing approved ISI marked make CI flanged water meters direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
2.7* Providing and fixing approved ISI marked make CI flanged water meters direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
direct reading type calibrated in litres & kilolitres tested and approved by MCGM with dirt box (strainer) including making necessary flanged joints, testing etc. complete.	
140 man elmo	
40mm size	
VOLUME SIZE	

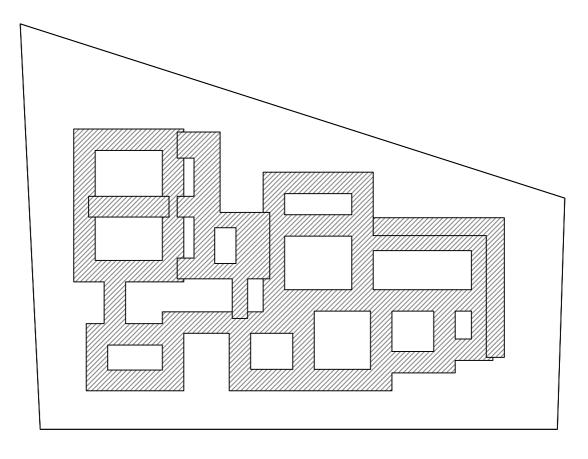
	Bill of Quantities, Meası	ıreme	nts &	Spec	ificat	ions			
2.8*	Constructing brick masonry valve & meter chambers in 230mm thick brick	-							
	masonry in cement mortar 1.5 using first class bricks constructed over a bed of 150mm thick cement concrete 1:2:4 plastering inside outside and all								
	exposed surface with 20mm thick cement mortar 1.3, finishing 'inside with a floating coat of neat cement providing & fixing CI frame & cover size,								
	weight mentioned below painting all CI items with 3 coats of approved							8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
	bitumastic paint etc. complete. Chamber 600 x 600mm clear inside with 600 x 600 CI frame & cover								
	weighting not less than 72kgms. Depth of chamber not exceeding 1000mm.								
2.9*	Providing Structural support for pipe lines using channels, tees, angles,								
	flats & plates fabrication by cutting threading & welding if required, applying one coat of red oxide primer and three coats of synthetic enamel paint,								
	including necessary bolts nuts, washer etc. as required by the								
	Engineer-in-charge. The weight of the support shall be calculated on the basis of catalogue weights of sections used (weight of bolts, nuts etc. will								
	not be considered).								
2.10*	Providing & fixing brass float valves with brass rod and copper float suitable to withstand a pressure 2 kg/sq.cm								
	50mm n.b								
	40mm n.b								
2.11*	Excavation in trenches for pipelines of required width and depth as directed								
	by Engineer-in-charge including trimming bottom and sides, excavation for sockets including refilling with selected excavated material (after laying of								
	pipeline) in 200mm layers, watering consolidation disposal of surplus earth								
	within 50m etc. complete. In ordinary soil (for CI pipe lines laid outside the building only) depth not								
	exceeding 1.5m.								
	- Do - in soft rock								
2.12*	Providing and fixing best Indian make CP brass air valves with isolation								
	valve fixed on GI lines. 15mm n.b air valve with 15 mm isolation valve.							1 1 1 1	
	20mm n.b air valve with 20 mm isolation valve.								
2.13*	Providing connections to equipments (Kitchen/ Laundry etc. including								
	provision of control valve, running joint with union etc. complete.								
	65mm connections 50mm connections								
	40mm connections								
	32mm connections 25mm connections								
	20mm connections								
	15mm connections								
2.14*	Supplying and installing Bourden type pressure gauges range 0 to 20								
	Kg/sq.cm. calibrated both in psi and kg/sq.cm. with 10mm brass gauge cock etc. complete.								
2 15*	Providing and fixing pipe sleeves upto 600mm long, cut from heavy quality								
	M.S pipes conforming to IS 1239 or 3589 (depending on size of pipe with								
	M.S flange conforming to table 13 of IS 6392 on both ends and a 6mm puddle flange at the centre of the sleeve, all flanges welded to pipe, fixing								
	the sleeve in position by tack welding to reinforcement etc. complete.								
	40 mm n.b 50 mm n.b								
	65mm n.b								
	80 mm n.b 100 mm n.b								
С	INTERNAL DRAINAGE SYSTEM This item is worked out by the Services Consultant. For the purpose of this of	ourse an ann	roximate am	ount is hud	aeted.				
3.1*	Providing and fixing cast iron traps of self cleansing design with water	> a app	aa uli		J = u.				
	seal not less than 50mm with or without vent, including setting the trap in 1:2:4 cement concrete etc. complete. The trap shall be 'P' or 'S' type								
	as required. Trap with 100 mm inlet and 100mm dia outlet.							• • • • • • • • • • • • • • • • • • •	
3.2*	As in item 3.1 but trap with 75 mm outlet.								
2 2*	As in item 2.1 but tree in DVC								
3.3*	As in item 3.1 but trap in PVC.								
3.4*	As in item 3.2 but with PVC trap.								
3.5*	Providing and fixing stainless steel grating of 18 gauge thick, with								
	circular perforation of approved pattern over CI traps. The grating shall be of size 100mm x 100mm or circular of 100mm dia (as directed) and shall								
	be set in cement, sand mortar 1:3 etc. complete.								
3.6	- Do - grating of size 150 mm x 150 mm.								
3 7*	Providing, fixing, jointing and testing PVC WC pan connector of approved								
J.,	colour with or without vent horn all as per requirements of								
	Engineer-in-charge. Size 100mm i/d - Length 300mm to 400mm.								
3.8*	Supplying, laying, fixing jointing & testing heavy ISI marked cast iron spun								
	soil pipes / centri cast pipes including all fittings with or without inspection doors, vents, cowls at top etc. jointing with lead caulked joints all as								
	per specification and as directed by Engineer-in-charge. 150mm i/d								
	100mm i/d								
•					•		•	•	

	Bill of Quantities, Measi	ıreme	nts &	Spec	ificat	ions	 	
	75mm i/d	41 01110		Opou	IIIOGE			
	65mm i/d							
	50mm i/d							
3.9	Providing, laying, jointing with screwed joints using teflon tape GI pipes of class Tata or Zenith conforming to class heavy of IS 1239 with all fittings testing the piping, painting with 2 coats of bitumastic paint wrapping with Hassein faced polyethylene tape in two layers and again painting with 2 coats of bitumastic paint. The rate includes for cutting chases in wall & floors for embedding the pipe and reinstatement of surface							
	to original conditions.							
	50mm i/d 40mm i/d						<u> </u>	
	32mm i/d						<u> </u>	
3.10*	Providing and fixing in position cast iron rain water inlets with gravel guard and dome type grating specially cast generally conforming to drgs Inlet for:							
	150mm i/d pipes							
	100mm i/d pipes							
3.11*	Providing and fixing lead sheet flashing made out of 3mm thick lead sheets setting in a layer of cold bitumen etc. complete. The sheet shall project at least 150mm all around the pipe and shall be tucked into the pipe at least by 100mm.							
	150mm i/d pipes							
	100mm i/d pipes							
3.12*	Providing and fixing MS supports for pipes fabricated from MS flats angles and plates including fixing the brackets to walls, slab, beam etc. with anchor, fasteners 12mm 'U' or 'J' bolts for fixing the pipes to damp painting with one coat of primer and two coats of approved paint etc. complete.							
3,13*	Providing and laying cement concrete 1:2:4 for bedding, envelopes							
	haunches etc. for the pipes including mixing placing form work curing etc. complete.							
3.14*	Supplying laying fixing jointing and testing PVC drainage system (SWR) including fittings with or without inspection doors, vents, cowls etc. all as directed by engineer in charge.							
ļ	110 OD							
	75 OD							
3.15*	Providing and fixing PVC plain or multi floor traps of self cleansing design with water seal not less than 50 mm with or without vent including setting the traps in cement mortar etc. complete. Traps with 125 mm inlet and 75 mm outlets.							
3.16*	Providing clean outs in cast iron drain piping comprising G I heavy class socket and screwed plug, connecting C I pipe with lead caulked joint etc. complete.							
	150mm							
	100mm							
	75mm							
3.17	Supply, laying, jointing and testing PVC pipes including all moulded fittings conforming to IS 4985 (10Kg/sqcm variety) etc. complete.							
	50mm O.D							
	40mm O.D							
ļ	32mm O.D							
3,18	Providing and fixing in position heavy ISI marked long arm C.I. nahani trap of IS 1729 weighing 9 kg of Neco or Equivalent make of size 100x75x500mm dia outlet including embedding on flooring at required level with M150 cement concrete all around and below the trap, supplying and fixing brass C.P. square grating of size of 150 x 150mm with brass C.P.							
	cover plate as specified etc. complete.							
3.19	Providing, fixing and jointing in proper alignment & position heavy ISI marked 50mm dia. C.I. pipe of Neco or Equivalent for vent conforming to IS 1729 with all necessary fittings, like offset, bend, cowl etc. including erection of scaffolding at required level, making holes in walls as required, fixing of pipe & fitting in position, lead jointing /filling of joints with CM 1:3 (only on approval of consultant), reinstatement of surfaces etc. complete.							
	<i></i>	,						
3.20	Providing, fixing and jointing in proper alignment & position heavy ISI marked C.I. Centri pipes of Kapilansh or Equivalent make (within building line) for drainage conforming to IS 3929 of 150 mm diameter size with all necessary fittings, like offset, bend, etc. including excavation upto required level, making holes in walls if required, laying of pipe at proper gradient, lead jointing /filling of joints with CM 1:3 (only on approval of consultant), reinstatement of surfaces etc. complete.							
3 24	Providing and constructing 300 v 300mm internal size brick massers: stills:							
3.21	Providing and constructing 300 x 300mm internal size brick masonry gully trap chamber including laying of 100mm thick PCC 1:3:6 in bed, 115mm thick brick walls in CM 1:5, fixing of glazed stoneware gully trap of size 150 x 100mm, making connection of wastewater pipe to it, plastering inside the chamber with CM 1:3 to form hopper, fixing of heavy C.I. cover with frame weighing not less than 7 kg. in PCC 1:2:4 & making flooring level on top etc. complete.							

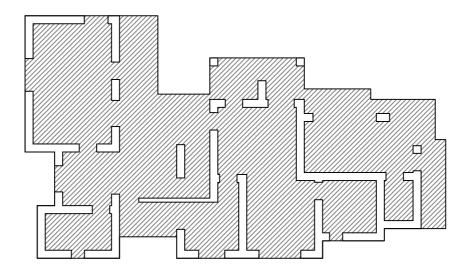
	Bill of Quantities, Measu	iraments &	Specificat	ione			
3 22	Providing, laying and jointing ISI marked first quality 'A' grade salt glazed	ii eiiieiilə C	s opecificat	10113			
3.22	stoneware pipe & bend, including excavation to the level of required depth,						
	laying of 100mm thick PCC, placing of pipe on PCC as specified at proper						
	alignment and gradient, sealing the joints with tarred gasket of hemp or						
	rope yarn, caulking with cement mortar 1:2, testing of pipeline, encasing of						
	pipe as specified, curing, refilling etc. complete.						
	i) 100mm dia						
	ii) 150mm dia for depth between 0.45 and 0.60 Mtrs						
	iii) 150mm dia for depth between 0.60 and 1.00 Mtrs						
3.23	Providing & fixing 150 mm diameter ISI marked first quality 'A' grade salt						
	glazed stoneware sewer trap as specified.						
	i) 150mm diameter						
2 245	Constructing brick masonry inspection chamber of size of 900x450mm and						
3.24	depth as mentioned in itw\esm below including excavation upto required						
	depth, laying of 100mm thick PCC foundation bed in 1:3:6 mix, 230mm						
	thick brickwork in CM 1:3, 20mm thick plastering of walls inside & outside						
	as specified, making of smooth channel & haunch in CM 1:2, 150mm thick						
	PCC coping on top, fixing of C.I. manhole cover of Neco make weighing not						
	less than 75 kg, backfilling, removal of surplus earth as specified etc.						
	complete.						
	i) Depth between 0.45 and 0.60 m. ii) Depth between 0.60 and 1.00 m.						
	n/ Depart between 0.00 and 1.00 m.						
	TOTAL OF SECTION - VI: PLUMBING					538900	
	TOTAL OF OLUTION - VI. I LUMBING					330300	
e E	CTION - VII:LANDSCAPING AND GARDENI	NC					
3E	CHON - VII. LANDSCAPING AND GARDENI	NG .					
Λ*	Davidonment work						
Α*	Development work						
a1	Planting of Flowering trees on soft surface:						
a i	Digging of pit for plantation of tree by excavating the ground in the earth /						
	murum / sand of 1.0m x 1.0m x 1.0m size, removing excavated material						
	from site, filling Red Hill Earth (0.33 Cu.m.), Cow dung manure (0.33						
	Cu.m.) and good excavated earth from pit (0.33 Cu.m.), mixing of Red Hill						
	earth and cow dung manure and plantation of tree sapling, staking of tree						
	sapling, preparation of tree basin, levelling, watering and maintaining for 30						
	days after completion of plantation and replacement of casualties till 30		0.00	00.14	0.00	0	
	days. (Excluding cost of the plant)		0.00	<u>SQ.MT</u>	0.00	U	
a2	Planting of Flowering trees on hard surface:						
	Digging of pit for plantation of tree by excavating the ground in the concrete						
	/ masonary/ asphalt of 1.0m x 1.0m x 1.0m size, removing excavated						
	material from site, filling Red Hill Earth (0.33 Cu.m.), Cow dung manure						
	(0.33 Cu.m.) and good excavated earth from pit (0.33 Cu.m.), mixing of						
	Red Hill earth and cow dung manure and plantation of tree sapling, staking						
	of tree sapling, preparation of tree basin, levelling, watering and maintaining for 30 days after completion of plantation and replacement of						
	casualties till 30 days. (Excluding cost of the plant)		0.00	SQ.MT	0.00	0	
	, , , , , , , , , , , , , , , , , , , ,		3,00		,,	-	
В*	Providing plants and tree saplings:						
b1*	Plant 1		10.00	Nos.	0.00	0	
b2*	Plant 2		10.00	Nos.	0.00	0	
b3*	Plant 3		10.00	Nos.	0.00	0	
b4*	Plant 4		10.00	Nos.	0.00	0	
b5*	Plant 5		10.00	Nos.	0.00	0	
b6* b7*	Plant 6 Plant 7		10.00	Nos.	0.00	0	
b/^ b8*	Plant 8		10.00	Nos. Nos.	0.00	0	
	Plant 9		10.00	Nos.	0.00		
	Plant 10		10.00	Nos.	0.00		
	Plant 11		10.00	Nos.	0.00		
	Plant 12		10.00	Nos.	0.00		
<u>-</u>			. 5.00		2.30		
	TOTAL OF SECTION - VII: LANDSCAPING AND GARDE	NING				0	
						-	
	GRAND TOTAL (SECTIONS I + II + III + IV +	V + VI + VII \				0400422.22	
	CIGIND TOTAL (OLONO I TITLE IN THE TWO	vi · vii)				9109132.32	



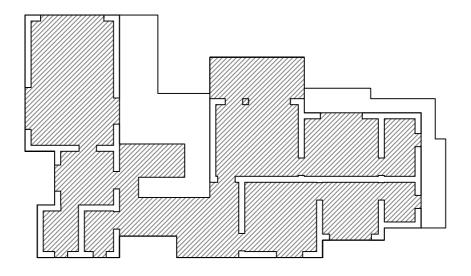
II. A. a1 - EXCAVATION PIT LINE FOR FOUNDATION 354 sq. m



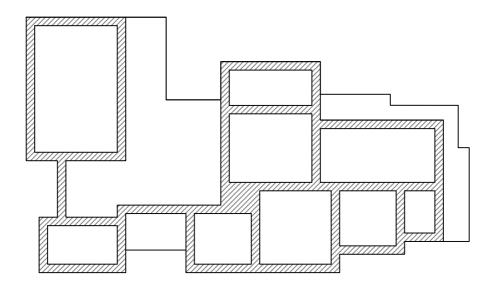
II. A. a3 - ANTI TERMITE TREATMENT PRECONSTRUCTION FOR FOUNDATION 195.5 sq. m



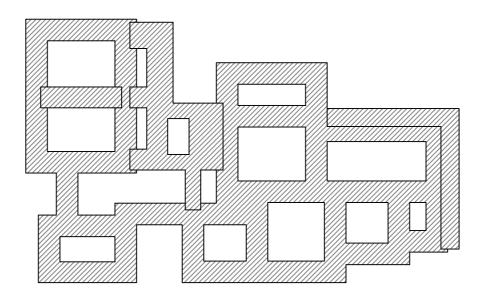
II. A. a4 - ANTI TERMITE TREATMENT POSTCONSTRUCTION FOR GROUND FLOOR 247.75 sq. m



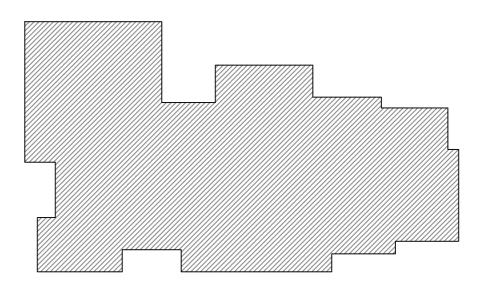
II. A. a4 - ANTI TERMITE TREATMENT POSTCONSTRUCTION FOR FIRST FLOOR 180.5 sq. m



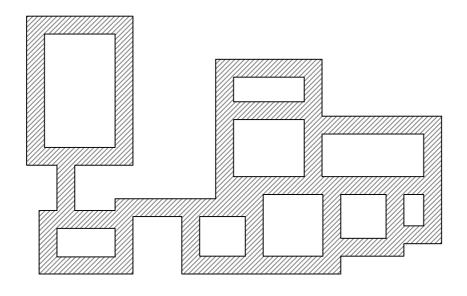
II. A. a5 - DAMP PROOF COURSE 58 sq. m



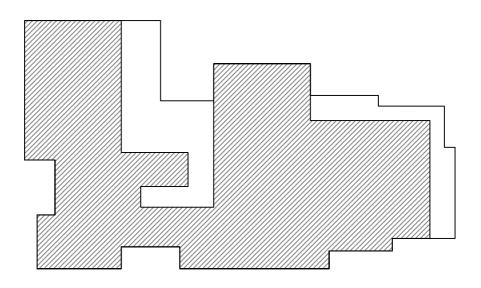
II. B. b1 - PCC FOR FOUNDATION 195.5 sq. m



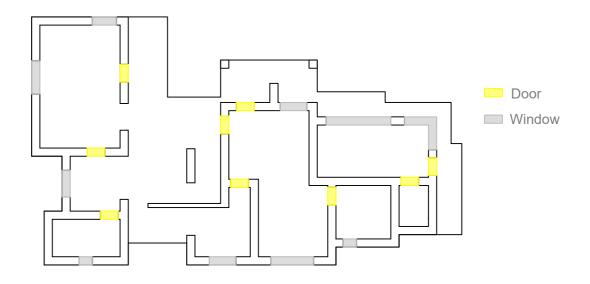
II. B. b1 - PCC FOR GROUND FLOOR PLINTH $$258\ sq.\ m$



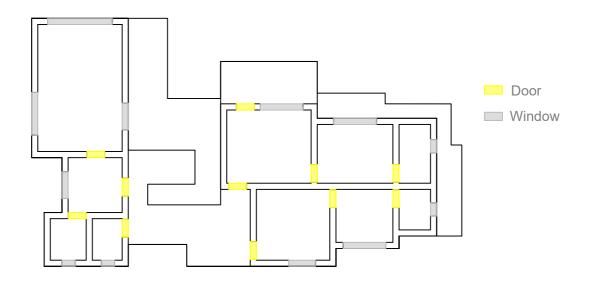
II. B. b5 - RCC FOR FOUNDATION 23.7 cu. m



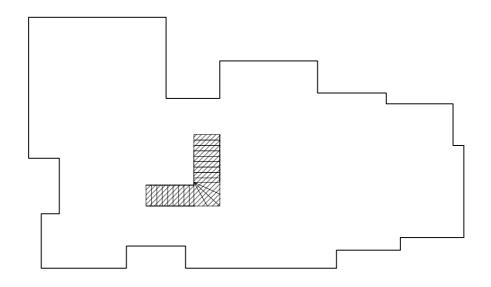
II. B. b5 - RCC FOR FIRST FLOOR SLAB 39 cu. m



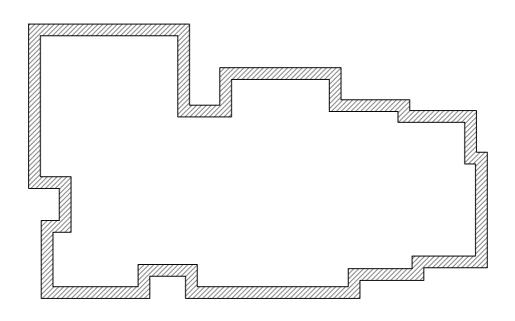
II. B. b5 - RCC LINTELS AND SILLS FOR GROUND FLOOR 3.8 cu. m



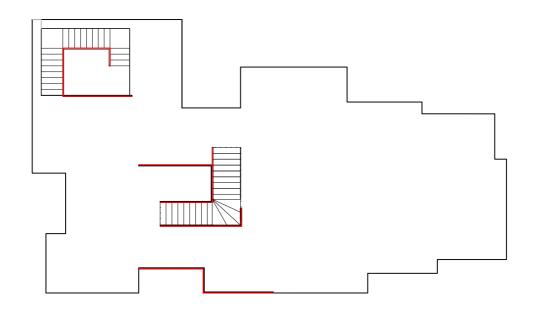
II. B. b5 - RCC LINTELS AND SILLS FOR FIRST FLOOR 3 cu. m



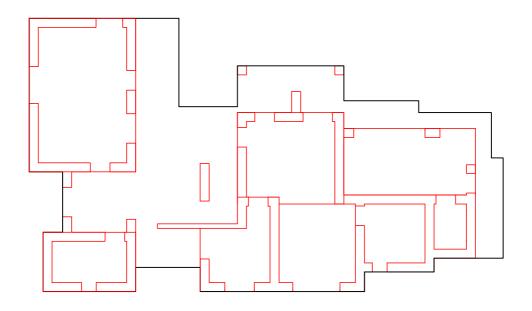
II. B. b6 - RCC FOR STAIRCASE 17.2 sq. m



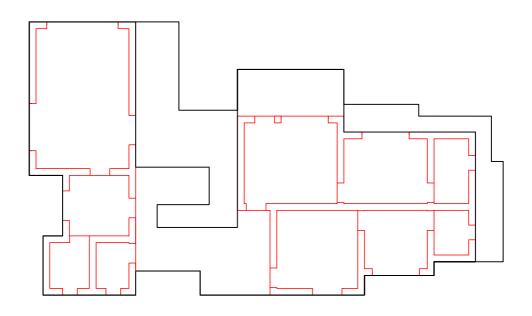
II. B. b7 - PLINTH PROTECTION 90 running. m



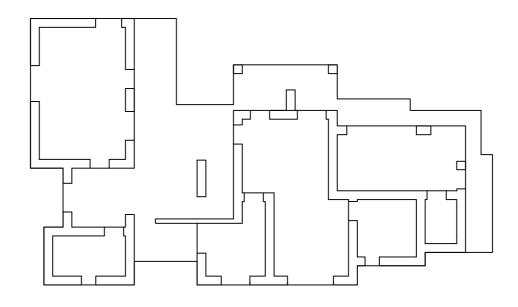
II. E. e4 - STEEL RAILING 33 running. m



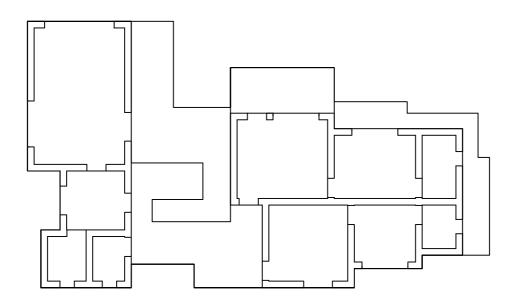
II. G. g1 - BRICK MASONRY WALLS FOR GROUND FLOOR 126.6 cu. m



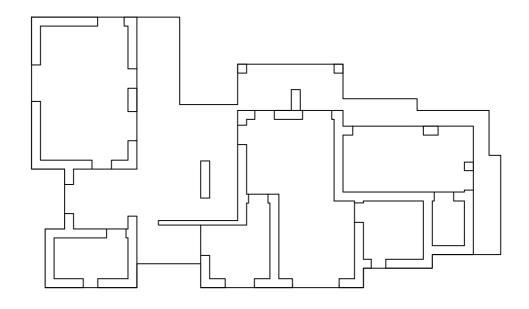
II. G. g2 - BRICK MASONRY WALLS FOR FIRST FLOOR 89.7 cu. m



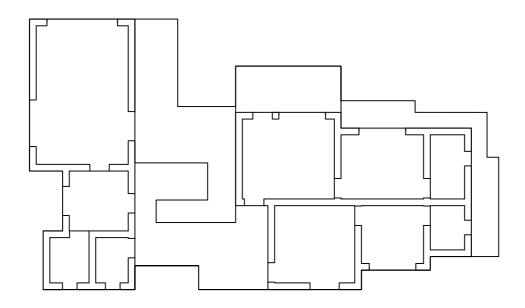
II. H. h1 & h2 - PLASTER FOR GROUND FLOOR 687 sq. m



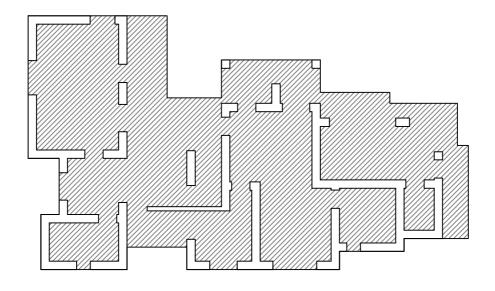
II. H. h1 & h2 - PLASTER FOR FIRST FLOOR $$537\ sq.\ m$



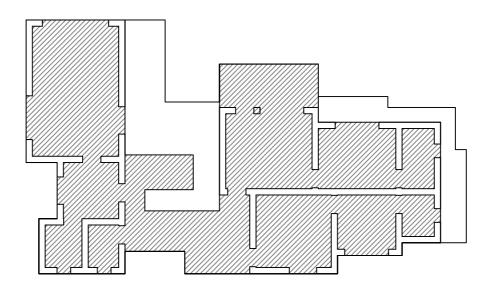
II. J. j1 & j2 - PAINTING FOR GROUND FLOOR $$687\ sq.\ m$$



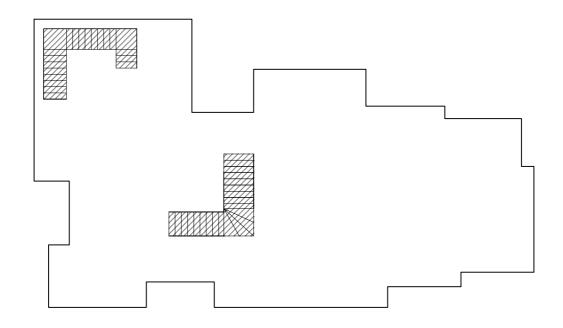
II. J. j1 & j2 - PAINTING FOR FIRST FLOOR 537 sq. m



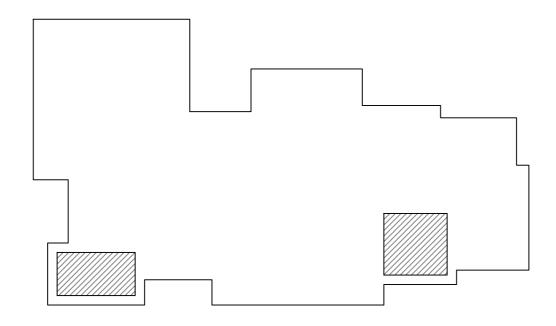
II. K. k1 - KOTA STONE FLOORING FOR GROUND FLOOR 189.75 sq. m



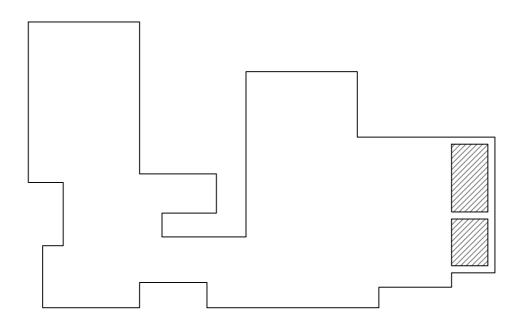
II. K. k1 - KOTA STONE FLOORING FOR FIRST FLOOR 122.3 sq. m



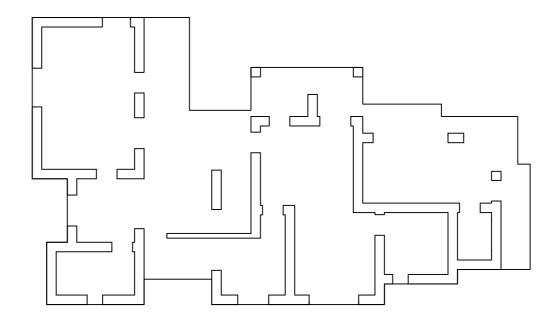
II. K. k2 & k3 - KOTA STONE FLOORING FOR STAIRCASE 18.8 sq. m



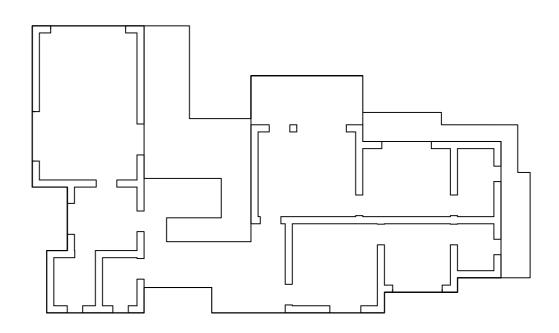
II. K. k5 - ANTI SKID VITRIFIED TILES FOR GROUND FLOOR 13.6 sq. m



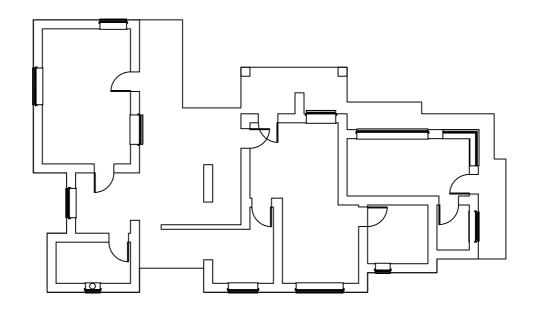
II. K. k5 - ANTI SKID VITRIFIED TILES FOR FIRST FLOOR 11 sq. m



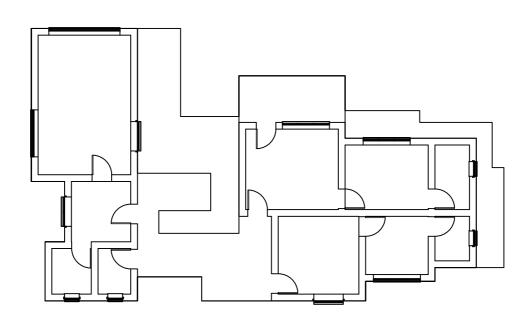
II. K. k6 - SKIRTING FOR GROUND FLOOR 13.5 sq. m



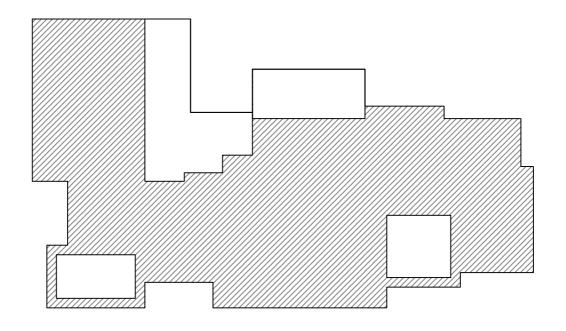
II. K. k6 - SKIRTING FOR FIRST FLOOR 9.4 sq. m



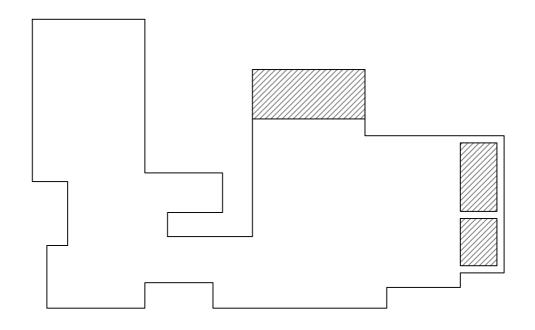
II. M. m1 & m2 - DOORS AND WINDOWS FOR GROUND FLOOR 76.7 sq. m



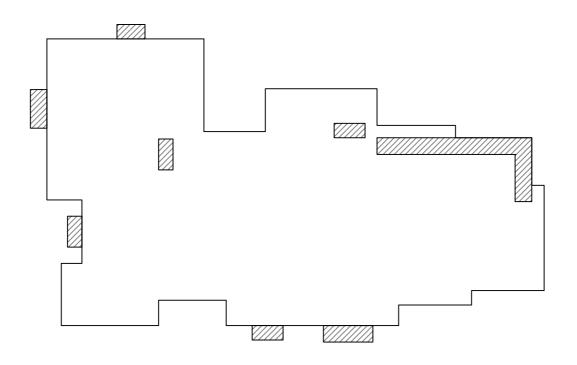
II. M. m1 & m2 - DOORS AND WINDOWS FOR FIRST FLOOR 61.1 sq. m



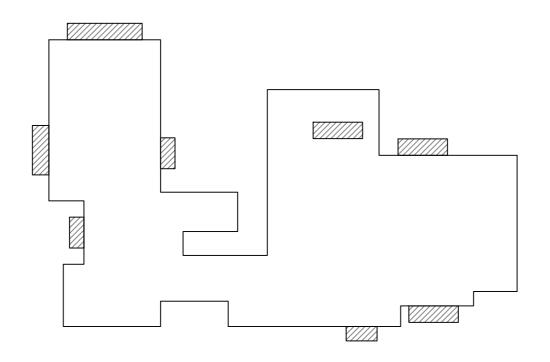
II. N. n2 - WATERPROOFING FOR GROUND FLOOR 70.5 sq. m



II. N. n2 - WATERPROOFING FOR FIRST FLOOR 66.1 sq. m



II. N. n4 - WATERPROOFING CHAJJA FOR GROUND FLOOR 14.2 sq. m



II. N. n4 - WATERPROOFING CHAJJA FOR FIRST FLOOR 12.3 sq. m