

CONSTRUCTION OF SPECIALITY BLOCK AT GENERAL HOSPITAL, ERNAKULAM					
PART I - CIVIL					
Item No	Details of items	Quantity	Unit	Rate Rs (n figures & words)	Amount Rs.) (in
1	Boring, providing and installation bored cast-in-situ reinforced cement concrete piles of grade M-25 of specified diameter and length below pile cap, to carry a safe working load not less than specified, excluding the cost of steel reinforcement but including the cost of boring with bentonite solution and temporary casing of appropriate length for setting out and removal of same and the length of the pile to be embedded in the pile cap etc. by Crawler mounted, telescopic boom hydraulic piling Rig all complete, including removal of excavated earth with all its lifts and leads (length of pile for payment shall be measured up to bottom of pile cap). Note: Truck Mounted rotary/TMR/Tube well boring machine shall not be used. 600mm dia. Piles	3060.00	m		
2	Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform by Kentledge method and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge. Note: 1. Initial and Routine Load Test shall not be carried out by Dynamic method of testing. Note: 2. Testing agency shall submit the design of loading platform for the approval of Engineer-in-charge.: Single pile above 50 tonne and upto 100 tonne Safe capacity				
a	Initial test (Test Load 2.5 times the Safe capacity)	1	Each		
b	Routine test (Test Load 1.5 times the Safe capacity)	2	Each		
3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil.	270.00	m3		
4	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m	235.00	m3		

5	Supplying and filling in plinth with quarry dust sand under floors, including watering, ramming, consolidating and dressing complete	40.00	m3		
6	Conveying and disposing off excavated excess earth from the site	35.00	m3		
7	Supplying chemical emulsion in sealed containers including delivery as specified Chlorpyrifos/ Lindane emulsifiable concentrate of 20%	223.00	Litres		
8	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor : With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	400.00	m2		
9	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	63.00	m3		
10	Providing and laying in position ready mixed M-25 grade concrete for reinforced cement concrete work, using cement content as per approved design mix, manufactured in fully automatic batching plant and transported to site of work in transit mixer for all leads having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying , excluding the cost of centering, shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS : 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in - charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).				
a	All works upto plinth level.	225.00	m3		
b	All works above plinth level upto floor V level.	126.00	m3		

11	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level excluding cost of centering, shuttering, finishing and reinforcement 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size).	7.00	m3		
12	Add for using extra cement in the items of design mix over and above the specified cement content therein	140.40	ql		
13	Centering and shuttering including strutting, propping etc. and removal of form for :				
a	Foundations, footings, bases of columns, etc. for mass concrete.	310.00	m2		
b	Suspended floors, roofs, landings, balconies and access platform.	460.00	m2		
c	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	790.00	m2		
d	Columns, Pillars, Piers, Abutments, Posts and Struts.	270.00	m2		
e	Stairs, (excluding landings) except spiral-staircases.	20.00	m2		
f	Edges of slabs and breaks in floors and walls.Under 20 cm wide	140.00	m		

14	Weather shade, Chajjas, corbels etc., including edges.	50.00	m2		
15	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc. including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be measured) Suspended floors, roofs, landing, beams and balconies (Plan area to be measured).	450.00	m2		
16	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete Thermo-Mechanically Treated bars.	133680.00	kg		
17	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	7.50	m3		
18	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:6 (1 cement : 6 coarse sand)	185.00	m3		
19	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundations and plinth in.cement mortar 1:4 (1 cement : 4 coarse sand)	75.00	m2		
20	Extra for providing and placing in position 2 Nos. 6mm dia. M.S. bars at every third course of half brick masonry.	75.00	m2		
21	Providing and fixing 18mm thick gang saw cut mirror polished premoulded and prepolished) machine cut for kitchen platforms, flooring, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. Granite of any colour and shade: Area of slab over 0.50 sqm.(Lowest retails price not less than Rs. 2000/m2)	75.00	m2		
22	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.Fixed to openings /wooden frames with rawl plugs screws etc.	560.00	kg		

23	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	22.00	Each		
24	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm) with double speed adjustment with necessary accessories and screws etc. complete.	24.00	Each		
25	Providing and fixing PVC Door Frame of size 50x47mm with a wall thickness of 5 mm (± 0.2 mm) made out of single piece extruded PVC profile, with mitred cut joints and joint with 2nos of PVC bracket of size 190 mm x 100 mm long arms of cross section size 35 x 15mm & self driven self tapping screws, the vertical door profiles to be reinforced with 40x20mm M.S. rectangular tube of 0.8 mm , including providing EPDM rubber gasket weather seal throughout the frame, including jointing 5mm PVC frame strip with PVC solvent cement on the back of the profile. The door frame to be fixed to the wall using 8 x100mm long anchor fasteners complete, all as per manufacturer's specification and direction of Engineer -in- charge.	6.00	m		
26	35 mm thick factory made Solid panel PVC Door shutter made out of single piece extruded solid PVC profiles, 5 mm (± 0.2 mm) thick, having styles & rails (except lock rail) of size 95 mmx 35 mm x 5 mm, out of which 75 mm shall be flat and 20 mm shall be tapered (on both side), having one side thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power, including reinforcing with MS tube of size 40 mm X 20 mm x 1 mm, joints of styles & rails to be mitered cut & joint with the help of PVC solvent cement, self driven self tapping screws & M.S. rectangular pipes bracket of size 190 mm X 100 mm of cross section size 35 mm x 17 mm x 1 mm at each corner.				
	Single piece extruded 5mm thick solid PVC Lock rail of size 115 mm x 35 mm x 35 mm, out of which 95 mm to be flat and 20 mm to be tapered at both ends, having 15 mm solid core in middle of rail section integrally extruded, fixing the styles & rails with the help of solvent and self driven self tapping screws of 125 mm x 11 mm, including providing 5 mm Single piece solid PVC extruded sheet inserted in the door as panel, all complete as per manufacturer's specification and direction of Engineer-in-charge. Decorative finish (wood grained finish).	1.70	m ²		

27	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6mm angle iron and 3mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer:Using M.S. angels 40x40x6 mm for diagonal braces.	9.00	m2		
28	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs, beams during laying including painting the exposed portion of loop, all as per standard design complete.	30.00	Each		
29	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc. including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge. (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.)	140.00	kg		
30	Providing and fixing 1st quality ceramic glazed wall tiles 300x450mm size conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados over 12 mm thick bed of cement Mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm including pointing in white cement mixed with pigment of matching shade complete.(Lowest retail price not less than Rs. 400/m2) Make: NITKO, KAJARIA, ORIENT.	240.00	m2		
31	Providing and laying rectified antiskid Ceramic floor tiles 300x300 mm or more (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc., complete (Lowest retail price not less than Rs. 500/m2) Make: NITKO, KAJARIA, ORIENT.	13.00	m2		
32	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's less than 0.08% and conforming to IS : 15622 of approved make in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand) including grouting the joints with white cement and matching pigments etc., complete.Size of Tile 600x600 mm: (Lowest retail price not less than Rs. 900/m2) Make: NITKO, KAJARIA, ORIENT.	370.00	m2		

33	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer) with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make in all colours & shade in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), including grouting the joint with white cement & matching pigments etc. complete. Size of Tile 600x600 mm: (Lowest retail price not less than Rs. 900/m ²) Make: NITKO, KAJARIA, ORIENT.	35.00	m ²		
34	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc. including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete. Hot finished welded type tubes.	470.00	kg		
35	Providing and fixing pre-coated galvanised iron profile sheets (size shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm + 0.05 %, total coated thickness with zinc coating 120 gsm as per IS: 277 in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches while transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	50.00	m ²		
36	15 mm cement plaster of mix 1:4 (1 cement: 4 fine sand) for outside walls upto 10.0m height	800.00	m ²		
37	15 mm cement plaster on rough side of single or half brick wall of mix : 1:4 (1 cement: 4 coarse sand)	1280.00	m ²		
38	6 mm cement plaster of mix : 1:3 (1 cement: 3 fine sand) for under side of roof slab	540.00	m ²		
39	Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement. 12 mm cement plaster including providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers. to the top surface of slab & sunshade	460.00	m ²		

40	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	1820.00	m2		
41	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :	1820.00	m2		
42	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade New work (Two or more coats applied @ 1.43 ltr/ 10 sqm. over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm).	800.00	m2		
43	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on new work. Inside of walls	1820.00	m2		
44	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :Two or more coats on new work.	71.00	m2		
45	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of fine sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge.	200.00	m2		
46	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand) including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	3.20	m3		
47	Chequered precast cement concrete tiles 22 mm thick in footpath & courtyard, jointed with neat cement slurry mixed with pigment to match the shade of tiles including rubbing and cleaning etc. complete, on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand). Dark shade using ordinary cement.	10.00	m2		

48	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)	1070.00	kg		
49	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately). Powder coated aluminium (minimum thickness of powder coating 50 micron)	680.00	kg		
50	Providing and fixing 12mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge. Pre-laminated particle board with decorative lamination on both sides.	30.00	m2		
51	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item): With float glass panes of 5.50 mm thickness	61.00	m2		
52	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg., for doors, including cost of cutting floors , embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge. With brass cover plate minimum 1.25 mm thickness.	2.00	Each		
53	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineer-in-charge complete.				

a	205 X 19 mm				
		12.00	Each		
b	255 X 19 mm				
		42.00	Each		
54	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.Powder coated minimum thickness 50 micron aluminium tubular handle bar				
		50.00	Each		
55	Providing and fixing 100mm brass locks (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete				
		19.00	Each		
56	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete. Powder coated minimum thickness 50 micron aluminium				
		54.00	Each		
57	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately).				
		5.00	Each		
58	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/sqm. This layer will be allowed to air cure for 4 hours. b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry				
		12.50	m2		

59	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6mm angle iron and 3mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer. Using M.S. angels 40x40x6 mm for diagonal braces	6.50	m2		
	TOTAL -PART I - CIVIL WORKS				