

BILL OF QUANTITIES

(a) Civil work.

S.No.	Item/Description	Unit	Quantity	Rate	Amount
	Earth work in excavation by mechanical means (hydraulic excavator)/ manual means in foundation trenches or drains including dressing of sides and ramming of bottoms, lift up to 3.5m including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 100 m in all kinds of soil. Including backfilling with proper compacting. Back filling 9" layer wise with compaction as per instruction by site engineer & in charge.	Cft	9629		
a	BACK FILLING AT PLINTH AREA Filling watering and raming earth under floor with new earth excavated from outside upto any lead and lift	Cft	12036		
2	8" thick stone soling with proper compaction	Sft	6857		
3	2" thick DPC (Pudlo Powder Mixing) 1:2:4	Sft	497		
4	Inner side of plinth beam apply two coat of hot bitumen	Sft	8097		
5	Providing and laying 1:4:8 cement concrete bed under floor using graded stone crush 2" and down gauge with leveling ramming watering and curing etc. complete	Cft	3083		
6	Providing and laying polythene sheet 0.66 mm thick for damp proofing laid on 1:4:8 to receive 1:3:6 concrete as per specification and instruction of engineer/incharge with leveling ramming watering and curing etc. complete	Sft	5212		
7	Providing and laying C.C plane 1:3:6 cement concrete bed under floor using graded stone crush 3/4" and down gauge with leveling ramming watering and curing etc. complete	Cft	2006		
8	Providing and laying C.C plane 1:2:4 with 2" thick cement concrete bed under floor using graded stone crush 3/4" and down gauge with leveling ramming watering and curing etc. complete (cement opc/sr of lucky or dg khan or approved equivalent to be used)	Sft	9224		

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9	Providing and laying in position 1:2:4(1 Cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) grade of reinforced cement concrete up to plinth level including the cost of centering and shuttering scaffolding, propping strutting etc. and removal of form work but excluding cost of reinforcement vibrator will be used column foundation plinth beam 1:2:4 steel good quality of shuttering will be used in situ wall, plinth & column steel good quality shuttering, vibrator will be used in situ wall, plinth & column (cement opc/sr of lucky or dg khan or approved equivalent to be used)				
a	Foundation (SR cement will be used) 1:2:4	Cft	3483		
b	Plinth Beam (SR cement will be used) 1:2:4	Cft	1403		
c	Beam & Lintel 1:2:4	Cft	3432		
d	slab & stair 1:2:4	Cft	6691		
e	Columns 1:1.5:3	Cft	2429		
10	Providing and laying in position cement concrete of Situ wall ratio 1:3:6	Cft	548		
11	Providing and laying 3 “ thick C.C Floor (1:3:6) at plinth and plinth protection side	Sft	4715		
12	Solid block masonry wall of the following thickness set in 1:6 cements sand martor including curing etc, complete in all respect as shown in drawings. a) 4” thick b) 6” thick	Sft Sft	7000 6398		
13	Fabrication of steel reinforcement (60 grade billet steel) for cement concrete including cutting bending laying in position making joints and fastening including cost of binding wire (also includes removal of rust from bars)	Ton	57		
14	Providing and laying 2½" thick floor of ½ thick marble (1’x1’or 1’x2’) china Verona spotless, botisena cream or fancy or equaling quality, approved with chemical polish color over 2¼" thick cement mortar (1:6) including setting the tiles with cement slurry of matching color and including the cost of mortar for grouting complete in all respects and as per directions of Engineer In charge.	Sft	12000		

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15	MARBLE STEPS With 1:6 FLOOR , chemical polish 1" thick china Verona boteeseena or approved quality equivalent by site architect	Sft	480		
16	MARBLE STEPS RISERS Upto 7" high black jet or Indian green with grout and chemical polish approved by architect/engineer	Rft	225		
	MARBLE SKIRTING 4" High in room and corridors , chemical polish 1" thick china Verona boteeseena or approved quality equivalent by site architect	Rft	2190		
18	INTERNAL PILASTER Half inch thick pilaster ratio (1:4) all the pilaster work should be in plumb & level	Sft	41910		
19	EXTERNAL PILASTER: providing and applying color crete pilaster ¾" thick in ratio 1:4 of approved color as per direction of Architect/Engineer	Sft	13770		
20	Providing & fixing GI frames/chokat of size 5"x2" or for door using 20 gauge G.I sheet included welded hinges and fixing at site with necessary hold fast. Filling with cement sand slurry of ratio 1:6 complete as per direction of architect & site incharge	Rft	792		
21	Providing & fixing GI frames/chokat of size 5"x2" or for window using 20 gauge G.I sheet included welded hinges and fixing at site with necessary hold fast. Filling with cement sand slurry of ratio 1:6 complete as per direction of architect & site incharge	Rft	1284		
22	Providing and fixing 1.5 inch thick deodar wood fully glazed windows/ventilator shutters with 5mm thick tinted glass including fixing a shutter in window frame size 5"x2"of 16 gauge ironmongery fitting etc complete as required & instructed	Sft	1431		
23	Providing and fixing 1.5" thick solid commercial 3mm ply wood door shutter, including 3/8" thick deodar wood liping around shutter, fixing the shutter around with GI sheet door frame, with ironmongery fitting as required as instructed in any floor	Sft	1176		

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24	Fabricating and fixing of M.S. grills for windows /generator room as per approved detail and design and fixing arrangement with three coats of enamel paint of approved color and one coat of red oxide etc. Complete in all respect and as per drawing, details & directions of the Architect / Engineer	Sft	3700		
25	Providing and fixing Wooden beading having width not less than 2 1/2" inches as directed by Architect/Engineer	Rft	3480		
26	Providing & fixing MS Staircase railing 3'-0" high on both side of stair, 1" hollow square MS bar having 14" gauge fixed at 12" centre to center including with 1.5" x 3/16" M.S flat, embedded in R.C.C. step, including the cost of 2"x3" wooden hand rail of beach wood including polishing etc complete in all respect and as per drawing, details & directions of the Architect / Engineer	Rft	105		
	ANTI TERMITE WORK Fumigation of entire building foundation and plinth area of approved quality	Sft	5215		
28	paintings on ceiling and walls up to required finish including making of base with primer and putty outer wall weather shield applying (using ICI/Berger/Gobbies)or equivalent brand approved shade, scrapping of loose paint, sand papering / filing upto the required finish, etc complete in all respects and direction /satisfaction of architect/engineer				
a	Synthetic enamel paint on walls for border	Sft	16703		
b	Oil bound distemper on ceilings & walls	Sft	41406		
c	Gloss enamel on windows & doors	Sft	5214		
29	Applying roof screeding on roof ratio (1:2:4) finish panel as per required slope & making perjala as instruction by architect/engineer with fixing of water outlets.	Sft	4150		
30	WATER PROOFING Provide and laying cementious waterproofing treatment by brush application or approved equivalent method on roof and sunk slab of washroom etc complete in all respects. Pagel Brand or approved quality by site architect	Sft	5230		
31	PARAPET WALL (1:3:6 block masonry)	Sft	1146		

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WATER SUPPLY & SANITARY INSTALLATIONS					
32	Providing & fixing 24" x 18" lavatory basin in white glazed earthen ware complete with i/c the cost of supporting masonry wall, with marble counter china Verona/boteseena or equivalent at the top 1 inch thick having a size 5'-4" x 2' built into wall, including supporting primary coat, including pillar traps, union & making requisite number of holes in walls plinth & floor for pipe connection and making good in cement concrete 1:2: (standard pattern)	Nos.	6		
33	Providing and fixing European WC 3-star or approved equivalent white glazed earthen ware complete with and i/c the cost of white / coloured plastic seat (best quality) and lid with C.P brass hinges & buffers. 3 gallons white/coloured glazed earthen ware low level flushing cistern with siphon fitting 1 ½ inch dia white porcelain enameled flush bend ¾ inch dia and making requisite number of holes in walls, plinth & floor for pipe connections and making good in cement concrete 1:2:4 (foreign quality) complete as per direction of Architect/Engineer	Nos.	15		
34	Providing & fixing toilet paper holder of standard size master or approved equivalent with brackets complete as per direction of architect/engineer	Nos.	15		
35	Providing and fixing in position nylon connections complete with ½" dia stop cock with pair of nuts and lining joints to nylon connection.	Nos.	21		
36	Providing and fixing towel rail master or approved equivalent Complete with brackets fixing on wooden cleats with 1" long C.P. brass screws. Complete with brackets fixing on wooden cleats with 1" long C.P. brass screws. Towel rail 30" long ¾" dia round or square (standard pattern)	Nos.	6		
37	Providing & fixing 5'x2 beveled edge mirror of Belgium glass complete with 1/8" thick hard board and C.P. screws fixed to wooden cleat.	Nos.	6		

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38	Supplying and fixing soap tray master or approved equivalent made of superior quality and design with fine finishing with C.P.C screws etc. complete	Nos.	6		
39	Supplying & fixing in position C.P. stop cock. master or approved equivalent	Nos.	21		
a	Supplying & fixing handle valve (china)				
i	½” dia	Nos.	2		
ii	¾” dia	Nos.	2		
iii	1” dia	Nos.	2		
iv	1 ½” dia	Nos.	2		
v	2” dia	Nos.	2		
40	Providing and laying manhole chamber in block masonry ratio 1:4 including pilasteimg and C.C bed 1:2:4 ratio, including mian hole cover with frame of approved quality				
a	size 2’x2’ deep 4’	No.	1		
b	size 2’x14 deep 4’	No.	1		
41	Supplying and fixing pillar cock of master or approved equivalent with C.P. head ½” dia.	Nos.	6		
42	Supplying & fixing C.P Muslim shower master or approved equivalent with double bib cock & ring pipe etc complete.	Nos.	15		
43	Supplyin and fixing UPVC “Nikasi” local dadex or approved equivalent pipe for sewerage including all cutting, fitting, beds, tees, specials etc shall be imported, jointed with solvent/ special a dheseive, laid in floors walls making holes in floor, plinth, wall and making them good with C.C 1:2:4 etc complete as per direction.				
	UPVC Nikasi pipe 4”dia.	Rft	200		
	UPVC Nikasi pipe 3” dia	Rft	150		
	UPVC Nikasi pipe 6” dia	Rft	40		
44	Supplying & fixing UPVC plydex (P.P.R.) manufactured by Dadex eternity Ltd internal and external water supply pipe Master or approved equivalent including all cutting, fitting, bends, tees, specials as required etc jointed with solvent/ special adhesive laid in floor walls trench making holes and making them good with C.C 1:2:4 etc complete as per direction.				

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a	UPVC polydex (PPR) pipe ½” dia.	Rft	150		
b	UPVC polydex (PPR) pipe ¾” dia	Rft	100		
c	UPVC polydex (PPR) pipe 1” dia.	Rft	150		
45	Providing and fixing 6”x6” floor trap Master or approved equivalent of the approved self cleaning design, with a UPVC grating 6”x6”, with or without vent arm complete with and including making requisite number of holes in walls, plinth and floor for pipe connections and making good in C.C. 1:2:4 etc.	Nos.	21		
46	Providing & fixing a P.V.C trap with 4” dia inlet and 4” out let of the approved self clearing design with a P.V.C grating 6”x6” with or without a vent arm including cost of making requisite number of holes in walls plinth and floor pipe connection and making good cement concrete 1:2:4	Nos.	21		
47	Providing & fixing P.V.C clamps of the approved design to ½ ” dia pipe sockets including the cost of cutting and making good to wall or M.S bolts & nuts 4” into wall including pipe distance pieces extra painting to match the colour of the building	Nos.	10		
48	Providing and fixing of water tank of master or equivalent approved having capacity of 500gallons	Nos.	6		
49	Providing and laying Ceramic Wall & floor Tiles (Shabbir) or equivalent of approved quality on at any height and floor including ¾” thick cement sand base plaster (1:4) and filling the joints with neat cement slurry using matching color pigment curing, cleaning etc. Complete in all respects and as per directions of the Architect / Engineer In-charge.	Nos.	3036		
	IRON STEEL GRILL AT COMPUND WALL Providing & fixing iron steel grill at 4” center to center, 1/5 feet clear height above the wall as per approved design and instruction of engineer in-charge	RFT	790		
TOTAL CIVIL WORKS					

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#	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
B	ELECTRICAL WORKS FOR SECONDARY SCHOOL OF MALIR COMPUS.				
1	1) WIRING & ELECTRICAL ACCESSORIES A) Providing and laying of wiring 2×3/0.029 plus 1×1.5sqmm S/C PVC insulated wire Pakistan cables or equivalent appropriate size of good quality PVC Pipe/Channel duct Adamjee or equivalent, surface/concealed in ceiling, wall/ floors complete all respect from fans, lights, exhaust fan and bell point to switch Boards. Approved by engineer.	480	Nos.		
2	B) Same as item A but wiring 2×7/0.36 plus 1×1.5sqmm S/C PVC insulated wire Pakistan cable or equivalent from switch Boards to sub DB. Approved by engineer.	85	Nos.		
3	C) Providing fixing and wiring of Multi Pin 5A, switch socket Clipsal Australia or Equivalent, 2×7/0.029 plus 1×1.5 Sqmm S/C PVC insulated wire from DB to outlet complete in all respect with Back box Pvc/Steel and all general electrification works. Approved by engineer.	95	Nos.		
4	MAIN CABLE: Providing & laying surface /concealed in wall/ floor, in good quality PVC Pipe/Channel duct Adamjee or Equivalent, approved quality Pakistan cable or Equivalent, PVC/PVC Insulated 50sqmm×4core, plus 1×25sqmm S/C PVC insulated wire, termination, testing & commissioning of the cable, from generator room to sub DB of building, as approved by engineer.	150	Rft		
5	SUB MAIN CABLE: Providing & laying surface /concealed in wall/ floor, in good quality PVC Pipe/Channel duct Adamjee or Equivalent, approved quality Pakistan cable or Equivalent, PVC/PVC Insulated 25sqmm×4core, plus 1×25sqmm S/C PVC insulated wire, termination, testing & commissioning of the cable, from generator room to sub DB of building, as approved by engineer.	50	Rft		
	2) PROIVIDNG & INSTALLATION OF THE FOLLOWING ELECTRICAL ACCESSORIES WITH PVC BACK BOXES.				
6	A) 4 Gang switch plates Clipsal Australia or Equivalent. Approved by engineer.	30	Nos.		
7	B) 6 Gang Switch Plates Clipsal Australia or Equivalent. Approved by engineer.	32	Nos.		

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8	C) 8 Gang Switch Plates Clipsal Australia or Equivalent. Approved by engineer.	35	Nos.		
9	<u>ELECTRIC CEILING FANS:</u> Providing & installing testing of CEILING FANS 56" Approve brand of best quality Royal Deluxe, Millat or equivalent, Copper winding quality complete all respect with dimmer switch and above mention wiring work. Approved by engineer.	70	Nos.		
10	<u>ENERGY SAVERS:</u> Providing & installation of Energy saver 24w with holder E-27, screw type Philips or equivalent, complete all respect with above mention wiring work. Approved by engineer.	350	Nos.		
11	<u>EXHAUST FANS;</u> Providing and installation of exhaust fan 12" 220V, Royal/Pak fan or equivalent, copper winding, complete all respect for ready to operate.	06	Nos.		
12	<u>WATER PUMP MOTOR AND CONTROL PANEL;</u> Providing and fixing of mono-block water pump 3 HP, 3-phase 400v, Siemens or equivalent and motor control panel with following accessories; TP miniature circuit breaker 40amp Hager or equivalent, magnetic contactor 5hp, with over load EOCR, Schneider electric or equivalent, ON/OFF push button, complete all respect including CC foundation (all civil work) as approved by engineer.	02	Job.		
13	<u>WATER PUMP MAIN ELECTRIC CABLE;</u> Providing & laying surface /concealed in wall/ floor, in good quality UPVC Pipe Pak Arab or equivalent, approved quality Pakistan cable or Equivalent, PVC/PVC Insulated 16sqmm×4core, plus 1×10sqmm S/C PVC insulated wire, termination, testing & commissioning of the cable, from generator room to water pump DB, as approved by engineer.	175	Rft		
14	<u>WATER PUMPUPVC PIPE FITTING;</u> Providing and installation of UPVC Pipe fitting for water supply from UG Tank to OH Tank, UPVC Pipe fitting Sch-40, DADEX or approved equivalent, complete all respect as approved by engineer.	02	Job		
15	<u>EARTHING PIT:</u> Providing making earth pit, bore type, 80ft deep, 10'×32mm (Dia), 99.99% pure copper rod, chemical filling (4 bags each EP), 20ft UPVC pipe 3"dia, provide and install earth testing point MS powder coated box (size 16"×12") including tin coated copper bus bar 40×350mm,	01	Job		

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	make earth pit chamber. Providing and installed Pvc earth cable s/c 2×70mm, Pakistan cable or equivalent, from Copper rod (earth bore) to testing point.				
16	EARTH CABLE: Providing and installation of earth cable 25mm S/C Pakistan cable or equivalent from earth test point to Main/sub DBs. As approved by Engineer.	400	Rft		
17	SUB DISTRIBUTION BOARD: Providing and installation , testing,& commissioning of the following distribution board made of MS sheet 16Gauge powder coated, double door surface/ concealed, Panel size 40''× 30''× 8'' complete in all respect. As approve by engineer. INCOMING; 1×100Amp. TP Terasaki Japan or equivalent, MCCB, 15K with phase indication Lights (R, Y, B). OUTGOING; 25×10Amp. S/P MCB Hager France or equivalent. 10×16Amp. S/P MCB Hager France or equivalent. 10×32Amp. S/P MCB Hager France or equivalent.	03	Nos.		
GRAND TOTAL					

NOTE: SR CEMENT WILL BE USED TILL DPC LEVEL & C.C FLOORS & USED DEFORMS STEEL BARS ALL 1:2:4 CONC. RATIO REQUIRED STRENGTH 3000 PSI, 1:1.5:3 STRENGTH WOULD BE 3750 PSI CUBE WILL BE REQUIRED FOR CHECKING THE COMPRESSIVE STRENGTH OF CONCRETE. ALL CONCRETE WORK DONE BY MACHINE MIXING

SUMMARY OF COST

Civil works of Elementary & Secondary School (G+2) = Rs _____/=

Electrical works of Elementary & Secondary school (G+2) = Rs _____/=

GRAND TOTAL = Rs _____/=

IN WORDS

(_____

_____)

CONTRACTOR SIGNATURE & SEAL

CHAIRMAN TENDER COMMITTEE
SINDH MADRESSATUL ISLAM UNIVERSITY KARACHI.