

CONSTRUCTION OF MASID AT SMBBMU, LARKANA SINDH.

BILL OF QUANTITIES

SUMMARY OF COST

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh with Additional Cost as per Notification No. IV/2(IV)-SO(RATES), Dated 1st December 2021

Sr. No.	DESCRIPTION	AMOUNT
1.	CIVIL WORKS	
2.	PUBLIC HEALTH WORKS	
3.	ELECTRIC WORKS	
	TOTAL	
	ADD SRA / PST	
	GRAND TOTAL	

CONSTRUCTION OF MASID AT SMBBMU, LARKANA SINDH.

BILL OF QUANTITIES

CIVIL WORKS

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh with Additional Cost as per Notification No. IV/2(IV)-SO(RATES), Dated 1st December 2021

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
1	C-1/18(b)	Excavation in foundation of Building Bridges and other structures including dagbelling dressing,refilling around structure with excavated earth Watering and ramming lead upto 5 ft in Ordinary Soil.	%0Cft	26301.59	3176.25	83540.43
2	C-18/92	Providing Anti -termmite treatment by spraying /sprinkling /spreading Neptachlar 0.5% Emulsion as an overall pre - construction treatment in slab type construction under the slab and along attached perches or entrances etc, complete as per directions of Engineer Incharge.	P.Sft	20881.60	9.74	203386.77
3	C-4/5(i)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without shuttering).(Mix 1:4:8)	%Cft	1261.72	14408.75	181797.91
4	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Marine Plywood will used for for all shuttering).(Foundation)	P.Cft	4042.42	394.20	1593522.77
5	C-4/6 a-i	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge. (Marine Plywood will used for for all shuttering)(Ground Floor)	P.Cft	3892.84	394.20	1534556.67
6	C-4/6 a-i +6 (d)	R.C work in roof slab, beams columns rafts, lintels and other structural members laid in situ or precast laid in position complete in all respects (I) Ratio (1 : 2: 4) 90 Lbs.cement 2 Cft. Sand 4 Cft. Shingle 1/8" to 1/4" gauge.(Marine Plywood will used for for all shuttering) (First Floor)	P.Cft	3774.40	406.30	1533537.90
7	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) (Marine Plywood will used for for all shuttering) U.P.L	P.Cft	634.77	433.50	275172.15
8	C-4/6 a-ii	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) (Marine Plywood will used for for all shuttering) G.F	P.Cft	1329.01	433.50	576125.48
9	C-4/6 a-ii+6 (d)	Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type B (nominal mix 1: 1.5: 3) (Marine Plywood will used for for all shuttering) F.F	P.Cft	923.82	445.60	411656.40
10	C-4/8(a)	Fabrication of mild steel reinforcement for cement concrete including cutting,bending, laying in position, making joints and fastenings including cost of binding wire (also includes removal of rust from bars.)	P.M.Ton	55.53	186000.00	10329499.43
11	C-5/4-I(e)	Pacca brick work in foundation and plinth in cement sand mortar 1:6.	%Cft	4826.89	17116.36	826187.72

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
12	C-1/21	Filling, watering and ramming earth in floors with surplus earth from foundation lead upto one chain and lift upto 5 feet.	%0Cft	8767.20	1512.50	13260.39
13	C-1/22	Filling, watering and ramming earth under floor with new earth (Excavated from outside) lead upto one chain and lift upto 5 feet.	%0Cft	221.88	3630.00	805.43
14	C-5/5-l(d)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:5	%Cft	4955.28	18252.08	904442.32
15	C-5/5-l(c)	Pacca brick work in Ground Floor cement, sand mortar Ratio 1:4	%Cft	177.40	18837.41	33418.16
16	C-5/5-l(d) + 6	Pacca brick work in First Floor cement, sand mortar Ratio 1:5	%Cft	2305.44	18690.71	430903.42
17	C-9/12(b)	Cement plaster 1:5 upto 20' (6.00 m) height:- b) ½" (13 mm) thick. (Internal) Ground Floor	%Sft	7589.75	2440.05	185193.71
18	C-9/12(b)+29	Cement plaster 1:5 upto 20' (6.00 m) height:- b) ½" (13 mm) thick. (Internal) First Floor	%Sft	3310.94	2581.02	85455.96
19	C-9/12(c)	Cement plaster 1:5 upto 20' (6.00 m) height:- b) ¾" (20 mm) thick. (Internal) Ground Floor	%Sft	3057.36	3003.50	91827.85
20	C-9/12(c)+29	Cement plaster 1:5 upto 20' (6.00 m) height:- b) ¾" (20 mm) thick. (Internal) First Floor	%Sft	606.95	3144.47	19085.30
21	C-9/11(c)	Cement plaster 1:4 Ground Floor:- c) ¾" (20 mm) thick. (External)	%Sft	8088.89	3386.26	273910.85
22	C-9/11(c)+29	Cement plaster 1:4 First Floor:- c) ¾" (20 mm) thick. (External)	%Sft	9527.41	3527.23	336053.55
23	C-9/10(a)	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 20' heigh ratio 1:3.(Ground Floor)	%Sft	5254.77	2439.62	128196.31
24	C-9/10(a)+29	Cement plaster 3/8" thick under soffit or R.C.C. roof slab only upto 20' heigh ratio 1:3.(First Floor)	%Sft	3136.39	2580.59	80937.31
25	C-9/24(c)	Distempering:- New surface:- three coats	%Sft	22956.15	1079.65	247846.09
26	C-9/38A+38B	Preparing the surface and painting with weather coat l/c rubbing the surface with rubbing brick / sand Paper, filling the voids with chalk/ plaster of Paris and then painting with weather coat of approved make.(New Coat + subsequent Coat) Ground Floor	%Sft	8088.89	1948.10	157579.67
27	C-9/(38A+38B)+4 2	Preparing the surface and painting with weather coat l/c rubbing the surface with rubbing brick / sand Paper, filling the voids with chalk/ plaster of Paris and then painting with weather coat of approved make.(New Coat + 1 subsequent Coat) First Floor	%Sft	9527.41	2176.19	207334.47
28	C-5/29	Supplying and filling sand under floor and plugging in walls.	%Cft	2785.20	1141.25	31786.10
29	C-4/2	Dry rammed brick or stone ballast 1 1/2" to 2" gauge.	%Cft	2785.20	3327.50	92677.54
30	C-4/5(f)	Cement concrete plain including placing compacting, finishing and curing, complete (including screening and washing at stone aggregate without shuttering.(Mix 1:2:4)	%Cft	1813.71	20149.25	365449.41
31	C-8/16-c	Providing and laying 2" thick topping cement concrete (1:2:4) including Surface finishing and dividiing into panels:	%Sft	1365.49	3847.50	52537.40
32	C-8/75	Providing & fixing glass strips 4 mm for flooring upto 1" depth l/c fixing in flooring with cement in specified pattern & design.	P.Sft	1230.72	11.16	13734.84
33	C-7/18	Khuras on roof 2'x2'x6" (600 x 600 x 150 mm)	Each	8.00	358.68	2869.44
34	C-18/84(a)	Supplying & fixing in position Aluminium channels framing for slidding windows & ventilators of Alcop made with 5 mm thick tinted glass glazing (Belgium) & Aluminium fly screen l/c handles stoppers & locking arrangement etc. complete. (a) Deluxe model (White).	P.Sft	1129.69	1592.69	1799238.00

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
35	C-17/26	Supplying & fixing in position iron/steel grill of 3/4" x 1/4" size flat iron of approved design including painting 3 coats etc. complete (weight not to be less than 3.7 Lbs./Sq . Foot of finished grill).	P.Sft	753.27	180.50	135965.24
36	C-18/83(a)	Supplying & fixing in position Aluminium channels framing for hinged doors or Alcop made with 5 mm thick tinted glass glazing (Belgium) and Alpha (Japan) locks l/c handles, stoppers etc.(a) Deluxe model (white).	P.Sft	410.55	1450.76	595609.52
37	C-17/24	Making & fixing steel grated door with 1/16" thick sheeting including angle iron frame 2" x 2" 3/8"and 3/4" square bars 4" centre to centre with locking arrangement.	P.Sft	39.27	726.72	28538.29
38	C-10/59	First class Sheesham wood wrought framed and fixed in place including chowkhats hold fasts, tower bolts, chocks, cleats, handles card with hooks and cost of nails and screws, etc. panelled or panelled and glazed or fully glazed 1-1/2" thick.	P.Sft	80.33	662.24	53194.43
39	C-11/8 (a+b)	Painting new surface:- c) Preparing surface and Varnishing wood work, including cleaning and preparing surface 2 coats.	%Sft	160.65	1423.40	2286.69
40	C-10/21	Providing and fixing, approved quality mortice lock.	Each	3.00	1786.13	5358.39
41	C-11/5-(c)	Preparing surface and painting of doors and windows any type, (including edges).Three Coats.	%Sft	152.59	2116.41	3229.45
42	C-18/69(a)	Damp Proof course with cement sand Ratio (1: 2) mixed with dampo b) 1-1/2" thick	%Sft	131.63	2877.32	3787.35
43	C-7/13	Two coats of bitumen laid hot using 34 Lbs for % Sft. Over roof and blinded with sand at one Cft. Per % Sft.	%Sft	585.13	1887.40	11043.79
44	C-7/38	Providing and laying single per layer of polythene sheet 0.13 mm thick for water proffing as per specification and instructions of Engineer incharge.	P.Sft	7051.64	10.70	75452.52
45	C-4/11	Providing and fixing ornamental cement jalli 2" thick (1 : 2 : 4) without steel.	P.Sft	2199.38	235.77	518548.36
46	C-Public Health Part B/J/Page-35	Providing C.I Manhole Cover & Frame i/c cost of Material etc.	P.Kg	40.00	140.00	5600.00
47	C-Public Health Part B/J/Page-56	Providing "expansion joint" in concrete work of 9" wide corugated PVC water stop (with bulb) i.c soldering cost of material and labour etc complete.	P.Rft	86.70	86.00	7456.20
48	C-4/7(ii)	Extra cost due to use of Hi Bond Pre-packaged Polymer Modified mortar (DHPMM) as an admixture in concrete mix for increasing durability, to be used in concreting, flooring, block/ brick/ stone masonry or plastering as % by weight of cement.	P.Kg	26.29	459.80	12087.45
Total of CSR ITEMS (A)						24561684.86
Amount Premium Quoted by Contractor Above/ Below +/-% (B)						
Total of CSR Items with Premium (A + B)						
1	NSI	Providing and laying structural pad for foundation made of selected granular fill material (Mixture of 50% gravel and 50% sand of approved quality and grade) including placing, mixing, spreading and compaction of sub-base material to required depth, grade to achieve 95% maximum modified AASHTO dry density, including carriage of all material to site of work complete in all respect as approved by the Engineer incharge (Provisional).	%Cft	10534.28		

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
2	NSI	Providing and laying marble of botticina fancy size 11" x24"x1/2" laid in white cement and matching pigment over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment and chemical polishing complete in all respect as approved & directed by the Engineer Incharge. (For Floor)	P.Sft	7986.52		
3	NSI	Providing and laying marble of Get Black size 2" x1'x1/2" laid in white cement and matching pigment over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment and chemical polishing complete in all respect as approved & directed by the Engineer Incharge. (For Floor)	P.Rft	3267.00		
4	NSI	Providing and laying Ceramic Matt Tiles Texture Light color for flooring size 12"x26"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respect as approved & directed by the Engineer/ Incharge. (Premium Quality Tile, Equivalent)	P.Sft	488.11		
5	NSI	Providing and laying Ceramic Matt Tiles Texture Light color for skirting / dado size 12"x26"x3/8" laid over 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement and matching pigment i/c cutting charges complete in all respect as approved & directed by the Engineer/ Incharge. (Premium Quality Tile, Equivalent)	P.Sft	2158.58		
6	NSI	Providing and fixing UPVC Doors 38mm thickness i/c delux matching color UPVC frame matt or glossy finish having color (white-Gray-Marble Gray-Oak Wood- Dard Oak Wood, Coffee Wood Honey Pine Wood-Mahagony-Marry Gold-Chocolate Brown-Honey Dew) i/c all accessories i/c mortice locks complete in all respect as approval by the Engineer Incharge.	P.Sft	207.06		
7	NSI	Providing and fixing 3/4" thick pre-polished Black Granite full width area above 2 Sft laid in white cement matching pigment 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment, making gola on exposed edges complete in all respect as approved by the Engineer/ Incharge.(Stairs and Podium)	P.Sft	1200.06		
8	NSI	Providing and fixing 3/4" thick pre-polished Black Granite full width area above 2 Sft laid in white cement matching pigment 3/4" thick cement sand mortar (1:2) i/c filling joints in white cement & matching pigment, making gola on exposed edges complete in all respect as approved by the Engineer/ Incharge.(Slab Vanity)	P.Sft	28.56		
9	NSI	Providing and fixing Steel Sheet (Jisti) hollow press frame of doors, etc. (Chowkhat only) of 16 SWG welded with M.S. flat 6"x1 1/2"x1/8" (150x40x3mm) M.S. hold fast 9"x1"x1/8" (225x25x3mm) welded/ screwed 4" (100mm) long iron hinges including fitting chowkhat with cement sand mortar 1:8 and embedding hold fast in cement concrete 1:2., Single Rebate, 10" wide, complete in all respect as per direction of Engineer in-charge.	P.Sft	32.90		
10	NSI	Providing and fixing SS railing 2'-6" height, 2" dia SS pole 16 SWG at 4 ft c/c, 2" dia SS 16 SWG pipe on top, 3 no. 3/4" dia SS 16 SWG horizontal pipe from pole to pole, buffing and polishing complete in all respect including the cost of base plate, base plate cap, rawl bolt etc. as per approval of Engineer/ Incharge.	P.Rft	107.61		

Sr. No.	Item No.	Description of Item	Unit	Qty	Rate	Amount
11	NSI	Providing and applying wall putty two coat on plastered surface to prepare the surface even and smooth complete in all respect and as approved and directed by the Engineer Incharge.	P.Sft	22956.15		
12	NSI	Providing and fixing thermopore sheet 1-1/2 inch thickness of 35-D in Roof for heat reduce purpose complete in all respect as approved & directed by the Engineer/ Incharge. (Premium Quality Tile, Equivalent)	P.Sft	6466.51		
13	NSI	Providing and Fixing Marble Pre-Cast Fountain complete in all respect including paint, fixing etc as per approved by Site Engineer.	Each	1.00		
14	NSI	Making Kalma on Menaar of Cement concrete plain including placing compacting, finishing and curing,Plaster,Weather Sheild complete with shuttering (including screening and washing at stone aggregate complete in all respect and as approved and directed by the Engineer Incharge.	Each	6.00		
15	NSI	Providing and applying bitumen memrane sheet of 4mm thickness, cleaning and scraping the top surface of Roof, apply first coat of Bitumen Primer coat,fill the joints Cracks and damaged parts of the surface apply Bitumen membrane with torch Gun and Overlapping and Joints filling of Membrane complete in all respect as per approval of Engineer/ Incharge.	P.Sft	6466.51		
16	NSI	Providing and Applying water proofing by Chemseal – 105 N Fiber-reinforced, Polymer-modified Cementitious Elastomeric Waterproofing Compound Imporient Brand for water drainage,Baths, OHWT and other Wet Areas as per drawings and specifications.	P.Sft	3787.11		
Total of Non CSR ITEMS						
GRAND TOTAL OF CIVIL WORKS						

CONSTRUCTION OF MASID AT SMBBMU, LARKANA SINDH.

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PUBLIC HEALTH WORKS

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh with Additional Cost as per Notification No. IV/2(IV)-SO(RATES), Dated 1st December 2021

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
		<u>SANITARY FIXTURES AND FITTINGS</u>				
1	V-B (Ch 1/5)	Providing and fixing European type white glazed earthen ware wash down W.C. pan complete with and l/c the cost of white/black plastic seat (Best quality) and lid with C.P.brass hineges and buffers, 3 gallons white glazed earthen ware low level foushing cistern with siphon fitting 1-1/2" dia white porcelain enamelled fluish bend 3/4" dia and making requiste number of holes in walls, plinth and floor for pipe connections and making good in cement concrete 1:2:4.	Each	5.00	11,477.40	57,387.00
2	V-B (Ch 1/2-A ii)	Providing and Fixing squatting type white glazed earthen ware w.c pan with front fresh inlet & complete with including the cost of flushing cistern with internal fitting and flush pipe with bend and making requisite number of holes in walls plinth & floor for pipe connection and making good in cement concrete 1:2:4. (A) W.C pan 23" & low level earthen ware flush tank 3 gallons. (ii) with 4" dia white glazed earthen ware trap and plastic thumble.	Each	6.00	5,772.80	34,636.80
3	V-B (Ch 6/19 (a))	Providing and fixing CP Muslim shower with double bib cock & ring pipe etc complete.	Each	11.00	3,432.00	37,752.00
4	V-B (Ch 2/5)	Providing and fixing soap tray earthen ware with c.p screws etc.complete.	Each	46.00	497.20	22,871.20
5	V-B (Ch 2/1 (iii-b))	Providing and fixing chrome plated brass towel rail complete with brackets fixing with 1" long c.p brass screws. (iii) Towel Rail 24" long (b) 3/4" dia round or square (Superior Quality)	Each	4.00	1,082.92	4,331.68
6	V-B (Ch 2/2 (b))	Providing and fixing c,p brass toilet paper holder of standard size with chrome plated brass brackets complete (Similar to twyford's design No 1108) (b) Superior Quality	Each	11.00	1,071.40	11,785.40
7	V-B (Ch 1/22)	Providing and fixing (1/2") dia, lead connection complete with a (1/2") dia brass stop cock, two brass nuts & lining jointed to lead pipe with plumber wiped solder joints (1/2" lead pipe to be of not less than 4lbs per lineal yard.	Each	27.00	689.70	18,621.90
8	V-B (Ch 10/1 (i))	Providing and fixing 6" x 4" C.C gully trap with 4" outlet complete with 4" thick 1:2:4 C.C for bed & 1/2" thick cement plaster (1:3) to the karb. C.I grating 6" x 6" C.I cover and frame 12" x 12" (inside) etc complete. Earthan ware glazed Gully trap 6" x 6" x 4" with C.I cover & Frame.	Each	4.00	1,220.67	4,882.68
9	V-B (Ch 10/2 (e))	Providing R.C.C. pipe with collar class 'B' and digging the trenches to required depth & fixing inposition including cutting, fitting and jointing with maxphalt composition & cement mortar and testing with water pressure a head of 4 feet above the top of the highest pipe & refilling with excavating shaft. i) 310 mm (12") i/d	P.Rft	350.00	401.97	140,689.50

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
10	IV-A (1)	Excavation for pipeline in trenches, and pits in soft soils i/c trimming and dressing sides to true alignment and shape levelling of beds of trenches to correct level and grade, cutting joint and holes and disposal of surplus earth within a one chain as directed by engineer incharge. Providing fence guards, lights, flags and temporary crossings for non-vehicular traffic where ever required lift upto 5ft. (1.52 m) and lead upto one chain (30.5 m).	1000 Cft	3,150.00	3,600.00	11,340.00
11	1/13 (d)	Earth work compaction (Soft, ordinary or hard soil). (d) Ramming earth work (All types of soil).	1000 Cft	3,150.00	453.75	1,429.31
12	1/9 (a)	Rehandling of earth work. (a) Lead upto a single throw of Kassi, Phawrah or a = Shovel.	1000 Cft	3,150.00	756.25	2,382.19
13	V-B (Ch 6/4 (iv)	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flanged ends with rubber washing.(iv) 1-1/4" (Light pattern)	Each	8.00	337.92	2,703.36
14	V-B (Ch 6/4 (v)	Providing and fixing full way gun metal peet/gate valve with wheels, threaded or flanged ends with rubber washing.(v) 1-1/2" (Light pattern)	Each	8.00	695.42	5,563.36
MANHOLE						
15	VI-B (ii) P (1)	Constructing manhole or inspection chamber for the required diameter of circular sewer and 3'-6" (1067 mm) depth with walls of BB in cement sand mortar 1:3 cement plastered 1:3, 1/2" thick. Inside of walls and 1" (25 mm) thick over benching and channel i/c fixing C.I manhole cover with frame of clear opening 1-1/2' x 1-1/2' (457 x 457mm) of 1.75 cwt. (88.9 Kg) embedded in plain C.C 1:2:4 and fixing 1"(25mm) dia MS steps 6" (150 mm) wide projecting 4" (102mm) from the face of wall at 12" (305mm) C/C duly painted etc. Complete as per Standard specification and drawing.	Job	5.00	14,748.00	73,740.00
Total of CSR ITEMS (A)						430,116.38
Amount Premium Quoted by Contractor Above/ Below +/-% (B)						
Total of CSR Items with Premium (A + B)						
1	NSI	Providing and fixing Basin BOWL White ,Master (HD-1), sonex or equivalent complete in all respects as approved by the Engineer incharge.	Each	8.00		
2	NSI	Providing and fixing, chromium plated mixing valve, for wash hand basin mixer ,master (3048 CP), sonex or equivalent .complete with respect as per engineer incharge.	Each	8.00		
3	NSI	UPVC Multi Floor Trap (110x75mm) including strainer; making required number of connections; breaking concrete or masonry work & then making it good; etc. of approved make.	Each	12.00		
4	NSI	Providing, Fixing Dadex Class D or equivalent UPVC clean out with cover making requisite number of holes in walls, plinth or floor for pipe connection and making good the same as necessary to the structure complete including, rubber gasket and clamp.	Each	6.00		
5	NSI	Providing and fixing, floor trap of PVC, including concrete chamber all round, and C.I. grating:-. (Master,sonex or Equivalent)	Each	16.00		
6	NSI	Providing and fitting "P" trap:ii) 10 cm (4") glazed.	Each	11.00		

SR. NO.	ITEM NO.	DESCRIPTION	UNIT	QTY	RATE (RS)	AMOUNT (RS)
7	NSI	Providing and fixing looking glass 5 mm thick size as per requirment/ drawings and direction of engineer incharge complete in all respect. (Ghani Glass or Equivalent)	Sft	48.00		
8		WATER SUPPLY PIPES AND FITTINGS				
		P/F Polypropylene Random copolymer (PPRC) PN-20 pipe with fusion / threaded joints including the cost of all specials/ accessories i.e elbow, bend, sockets etc. (Popular /Beta or equivalent) complete in all respect.				
	i	1 1/4" (32 mm) dia.	Rft	250.00		
	ii	1" (25 mm) dia.	Rft	280.00		
	iii	2" (50 mm) dia.	Rft	300.00		
	iv	3/4" (20 mm) dia.	Rft	410.00		
9		SOIL, WASTE, VENTILATING PIPES & FITTINGS				
		Providing , fixing and testing UPVC Nikasi type "B" with solution of same quality make including the cost of all specials/ accessories i.e elbow, bend, sockets etc. (Popular/Beta or equivalent) complete in all respect.				
	i	100 mm (4") dia.	Rft	290.00		
	ii	80 mm (3") dia.	Rft	250.00		
		VALVES				
10	NSI	Providing and fixing handle valves 16bars or equivalent complete in all respects as approved by the engineer incharge.				
	i	3/4 inch	Each	10.00		
	ii	1/2 inch	Each	8.00		
		GAS GESYER				
11	NSI	Providing and Fixing Sui Gas Geyser 50 gallon capacity comprising of internal tank of G.I sheet 14-SWG and External M.S sheet 22-SWG covering with proper foot rests dully enamel painted, 4" thick heigh density glass wool insulation with proper warranty with thermostat temperature gauge including fixing and making connection at site etc. complete in all respects as approved by the Engineer Incharge. (Ambassador/Firex/Exquire)	No	2.00		
12	NSI	Supply and fixig, Pressure Pump 0.5 Hp Golden company complete in all respects as approved by the Engineer Incharge.	Each	1.00		
13	NSI	Poviding and fixing of centrifugal pump monoblock (super asia or equvilent make) coupled with 1.5 h.p motor, 50' head, size 1"x1-1/4" complete in all respect as approved by the engineer incharge.	Each	1.00		
Total of Non CSR ITEMS						
GRAND TOTAL OF PUBLIC HEALTH WORKS						

CONSTRUCTION OF MASID AT SMBBMU, LARKANA SINDH.

BILL OF QUANTITIES

ELECTRICAL WORKS

Rates Based on Composite Schedule of Rate (GENERAL-2012) Sindh with Additional Cost as per Notification No. IV/2(IV)-SO(RATES), Dated 1st December 2021

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
1		DISTRIBUTION BOARDS				
		Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects mention in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp engineering or equivalent approved by engineer incharge				
		All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. item should be of ABB, Schneider or equivalent approved by engineer incharge				
i		Main Distribution Board				
		INCOMMING				
	ELECT SH-X(208)	Providing and fixing circuit breaker 125,150,200 & 225 amps TP(XS-225NS) on prepared board as required.	Per No.	1	25541	25,541
	ELECT SH-XV(273)	Providing and fixing of current transformer of ration 300/5 amps (round) RLC-30 as required or as per instructed as EI.	Per No.	3	1686	5,058
	ELECT SH-XVI(285)	Providing and fixing voltmeter size 96/96mm 500 volt as required and as instruction of EI.	Per No.	3	999	2,997
		OUTGOING				
	ELECT SH-X(203)	Providing and fixing circuit breaker 6,10,15,20,30,40,50 & 63 amps SP(TB-5S) on prepared board as required.	Per No.	22	916	20,152
	ELECT SH-X(206)	Providing and fixing circuit breaker 15,20,30,40,50 & 60 amps TP(XE-100CS(CB)) on prepared board as required.	Per No.	9	5521	49,689
2		WIRING IN CONCEALED CONDUITS				
i)		Distribution board to Switch				
		Wiring of light circuit from Distribution Board to switch,with Three nos. single core 2.5 Sqmm PVC insulated 450/750 volts grade stranded copper conductor cables in concealed PVC conduits (conduits partly shared) including PVC conduit, and conduit accessories etc. Cable should be of Newage, Fast cable, copper gate or equivalent and conduit should be of Solo,popular,easyfit or equivalent as approved by engineer incharge				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	552	294.00	162,288
ii)		Switch to light point & point to point wiring				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Wiring from switch to light or fan point with 3 nos. single core 1.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories,etc.(conduit partly shared).				
a	ELECT SH-II(124)	Wiring of Light and fan point with 3.29 Pvc insulated wire in 20mm (3/4") dia PVC conduit recessed in the wall or column as required.	Per/Point	130	1,130.00	146,900
b	ELECT SH-I(22)	Providing and laying (main or Sub Main Pvc insulated with 3-3.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	700	220.00	154,000
iii)		Switch to Switch				
		Wiring from switch to switch with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories,etc.(conduit partly shared).				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	180	294.00	52,920
iv)		Distribution board to General Purpose (5A/13A) socket				
		Wiring of circuit from Distribution Board to 5A/13A ,230Volts with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts graded , 2&3 pin switched socket, stranded copper conductor cables in concealed PVC conduit, including conduit accessories, etc(conduit partly shared)				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	210	294.00	61,740
v)		Socket to Socket				
		Wiring from 5 Amps, 2&3 pin socket to socket with 3 nos. single core 2.5 Sqmm PVC insulated 450/750 Volts grade solid or stanerd copper conductor cables in concealed PVC conduit including PVC conduit,Conduit accessories, etc complete. (conduit partly shared)				
	ELECT SH-I(24)	Providing and laying (main or Sub Main Pvc insulated with 3-7.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	40	294.00	11,760
vi)		Distribution board to 20Amps socket				
		Wiring of circuit from distribution board to 20A, 230Volts, DP switch with 3 or 5 nos. single core 6 Sqmm PVC insulated 450/750 Volts grade stranded copper conductor cables in concealed PVC conduit including PVC conduit, Conduit accessories, etc (conduit partly shared for A/Cs)				
a	ELECT SH-I(26)	Providing and laying (main or Sub Main Pvc insulated with 3-7.44 copper conductor in 1" dia PVC conduit recessed in the wall or column as required.	Rmtr	240	468.00	112,320
b	ELECT SH-I(40)	Providing and laying (main or Sub Main Pvc insulated with 4-7.44 copper conductor in 1-1/2" dia PVC conduit recessed in the wall or column as required.	Rmtr	70	613.00	42,910
vii)		Distribution board to PUMP connection				
	ELECT SH-I(40)	Providing and laying (main or Sub Main Pvc insulated with 4-7.44 copper conductor in 1-1/2" dia PVC conduit recessed in the wall or column as required.	Rmtr	70	613.00	42,910
3		LT CABLES				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		Supply at site, installation, testing and commissioning of PVC insulated armoured copper conductor cable 600 / 1000 Volt grade (or otherwise mentioned in cable description) in prelaidd conduits / trenches to be installed as per routes shown on drawings including cost of all necessary materials, connections, identification tags, cables lugs properly crimped at both ends for the following sizes complete in all respects. Actual length of cables to be installed shall be practically measured at site by the Contractor, duly authenticated by the Engineer before placing the order with the manufacturer, however, approximate length of cables are shown herewith. Payments shall be made as per actual length installed. Cable should be of Newage, Fast cable, copper gate or equivalent and conduit should be of Solo,popular,easyfit or equivalent as approved by engineer incharge				
i)	ELECT SH-I(119)	Providing and laying (main or Sub Main Pvc insulated, Pvc sheated with 4 core armoured copper conductor 600/1000 volts size 120mm2	Rmtr	275	9,606.00	2,641,650
4		MISCELLANEOUS FITTINGS				
		Supply, installation, testing & commissioning of Ceiling/ Exhaust fan. The ceiling/exhaust fan shall comprise circular fan metallic/ plastic body, metallic fan blades, down rod (if necessary) of suitable dia & length, AC capacitor, internal wiring, terminals all installation & operational accessories as per tender specifications, as per site requirements and as directed by the Engineer. make Bilal Switchgear Engineering, GFC, Pak Fan or approved equivalent.				
i	ELECT SH-XI(235)	Providing and Fixing of brass ceiling fan 56" (good quality)	No.	44	3,185	140,140
5		SOUND SYSTEM INSTALLATION				
		Sound System Installation,Supply, Install, Connect and commissioning,conduits wiring testing complete job, sound system (PA) complete,with wires, conduits, boxes and all accessories needed as shown on drawings and specifications .The input resistance of shunt speakers must be in the range(4-8Ω) the work consist: OR approved by Incharge/Engineer.				
i	ELECT SH-I(8)	Providing and laying (main or Sub Main Pvc insulated with 2-3.29 copper conductor in 3/4" dia PVC conduit recessed in the wall or column as required.	Rmtr	216	173.00	37,368
Total of CSR ITEMS (A)						3,710,343
Amount Premium Quoted by Contractor Above/ Below +/-% (B)						
Total of CSR Items with Premium (A + B)						
1		DISTRIBUTION BOARDS				
		Supply at site, fabrication, installation, testing and commissioning of Distribution Board (DB) , made of sheet steel 16 SWG, degreased and derusted, with 2 coats of antirust paint, 2 coats of powder coated paint of approved colour, protection classification IP-44, totally enclosed indoor floor mounting cubicle type in free standing design, with hinged door, handle including cost of all auxiliaries, internal wiring, designation lables on MCCBS, grounding bar suitable for system Voltage 415 V, 50 Hz, 3 Phase and neutral bus bars of 99.9% electrolytic copper, including cost of cable terminal blocks wiring from breakers, brass cable glands, all accessories complete in all respects metion in BOQ or not required for performing completely. All incoming and outgoing breakers shall be accessible only by opening the front door having further M.S. sheet cover gaskets shall also be provided where necessary. Panel should be compeltely made in certified factory. ie PEL, Green T & D, Mazcorp engineering or equivalent approved by engineer incharge				

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
		All MCCBs shall be suitable to operate without any derating at 40°C ambient temperature and shall be of one make only. The sides of MDB shall also have louvers at bottom and top on sides of panel for hot air exhaust, wire mesh etc. The back of the panel shall be lockable door instead of bolted and shall conform to single line diagram. item should be of ABB, Schneider or equivalent approved by engineer incharge				
i		Main Distribution Board				
		INCOMING				
		01 No Digital Ammeter scaled 0-500 Amps of appropriate sizes.				
		03 Nos. 6 amps ASP MCBs				
		03 Nos. R-Y-B indication lamps.				
		05 Nos.copper bus bars 225 Ampere,three phase,Earth and Neutral for distributions with appropriate size DB BOX				
		01 Nos Phase failure and phase reversal relay.				
		01 No Thermostatically controlled 230 Volts robust exhaust fans 6"/8" dia. to be installed on front of MDB for hot air exhaust including cost of thermostat ON-OFF switches wire mesh and all necessary accessories / wiring, complete in all respects.	Job	1		
2		LIGHT FIXTURES				
		Supply, installation, testing and commissioning of following light fittings, ceiling, recessed,wall mounted as per specified fixture. Complete with internal wiring, Grounding terminal , driver complete in all respects. Lights should be of Phillips, ledvance or equivalent				
i)		14 Watt 4t luxline LED wall/Ceiling mounted Light Fixture, IP-22 rated	No.	4		
ii)		20 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	66		
iii)		15 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	43		
iv)		10 Watt LED Light Fixture surface/recessed mounted, IP-22 rated	No.	21		
v)		50 watt chandellier as per approved style and color of Engineer incharge	No.	1		
3		MISCELLANEOUS FITTINGS				
		Supply, installation, testing & commissioning of Ceiling/ Exhaust fan. The ceiling/exhaust fan shall comprise circular fan metallic/ plastic body, metallic fan blades, down rod (if necessary) of suitable dia & length, AC capacitor, internal wiring, terminals all installation & operational accessories as per tender specifications, as per site requirements and as directed by the Engineer. make Bilal Switchgear Engineering, GFC, Pak Fan or approved equivalent.				
i)		12" outer dia exhaust fan with plastic body,fan blades and louvers	No.	14		
4		WIRING ACCESSORIES				
		Supply at site, installation, testing and commissioning of the following wiring accessories, complete in all respects. Made of TJ or legrand, or equivalent				
i)		10 Amps, 250Volts one way, One gang light control switches including appropriate size concealed Plastic back box.	No.	6		
ii)		10 Amps, 250Volts one way, Two gang light control switches including appropriate size concealed Plastic back box.	No.	6		
iii)		10 Amps, 250Volts one way, Four gang light control switches including appropriate size concealed Plastic back box.	No.	11		
iv)		10 Amps, 250Volts one way, Six gang light control switches including appropriate size concealed Plastic back box.	No.	12		
v)		10 Amps, 250Volts one way, Eight gang light control switches including appropriate size concealed Plastic back box.	No.	2		
vi)		10 Amps, 250Volts one way, TEN gang light control switches including appropriate size concealed Plastic back box.	No.	2		
vii)		10 Amps, 250Volts 2 way, 1 gang light control switches including appropriate size concealed Plastic back box.	No.	2		

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
viii)		15 Amps, 250Volts, universal 5 in 1 switched socket unit including appropriate size Plastic back box.	No.	15		
ix)		20 Amps Double Pole(DP) switch with neon indication lamp complete including appropriate size Plastic back box.	No.	8		
x)		45 Amps Double Pole(DP) switch with neon indication lamp complete including appropriate size Plastic back box.	No.	7		
xi)		Fan Dimmer 250 watt with switch including appropriate size Plastic back box. with all associated accessories.	No.	44		
xii)		Appropriate size of plastic body fan box and ceiling fan rod 24" in length	Nos	44		
xiii)		MS BAR for hanging Ceiling fan	Nos	44		
5		GROUNDING SYSTEM				
i)		GROUNDING cable				
		Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only):- a) 250/440 volts, PVC insulated: 7/0.74 mm (7/0.029")	rmtr	290		
		Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 660/1100 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches, etc (rate for cable only):- 19/1.32 mm (19/0.052")	rmtr	40		
ii)		Plate type earthing				
		Providing & fixing of Plate type Earthing commpressed with execveted hole 6"up 63 feet,GI pipe 2"(50mm)with Tees , Sockets , Endcap of 60 (RFT) Copper Plate of 1/2"x 2"x 48", 2x 70mmsq S/Core copper bare conductor 125 (Rft) Earth Connection Point of 1200 x 50 x 50mm (L x W x T) Inspection Pit of 300 x 300 x 450 mm (L x W x D) completed with all respect	No.	1		
iii)		Grounding Connection Point				
		Supply of Grounding connecting points consisting of copper plate 300mm long x50mm wide x 6mm thick to be installed, complete with fixing arrangement, brass nuts bolts, washers, lugs, 12.5mm dia. holes to facilitate connections of Incoming copper strips / copper conductors.	Nos.	1		
iv)		Testing and commissiong				
		Testing and commissioning of the earthing system in the presence of site engineer with electronic devices such as megger etc, making so report with after approximating 3 time testing and the grounding ohm must be less than or upto 3 ohms	Nos.	1		
6		CIVIL WORKS				
i)		Trench (for LT Cable)				
		Labour for excavation and refilling of trench 12" wide, 24" deep 9" sand compaction below and above cable, ramming watering all necessary material, labour etc, complete in all respect. Actual length of the trench shall be as per site condition and paid accordingly however approximate length of trench is given.	R.Mtr	275		
ii)		Manhole For LT Cable Pulling (If Required)				
		Construction of manholes to facilitate pulling of cables in trench or conduit as shown on drawing, manholes shall be of the size 24" x 24" x 30" deep with 9" thick wall with cement mortar, internal plaster 1:4, 100mm thick RCC cover for manhole, including cost of all accessories / materials, complete in all respects. (Tentative number of manholes have been provided, however payment shall be made as per actual and as per quantity requirement)	Nos.	5		
iii)		Conduit				
		Supply and erection of PVC pipe for wiring recessed in walls, including inspection boxes, pull boxes, hooks, cutting jharries, and repairing surface, etc., complete with all specials				
a		20 mm i/d	R.Mtr	50		

Sr. No.	Item No.	Description	Unit	Qty	Unit Rate (Rs.)	Total Amount (Rs.)
b		25 mm i/d	R.Mtr	500		
7		CCTV System				
i		Camera Cable				
		Supply, installation, Testing and commissioning of CAT 6a UTP CABLE IN PVC PIPE Ø 1"; MEASUREMENT IN METERS complete in all respects. Made of D-Link or equivalent approved by engineer incharge	R.Mtr	520		
ii		Fiber Optic Cable				
		Supply at site, installation, testing and commissioning of the following Fiber Optic Cables to be installed in conduits, cable trays and dura duct including cost of all necessary accessories/ materials complete in all respect. Cable should be made of D-Link or equivalent & Conduit should be of solo, popular or equivalent approved by site engineer				
		12 Core Multimode (50/125um) OM2 Unitube Armoured Outdoor Fiber Cable - HDPE Sheath in meters D-Link(NCB-FM500-AUHD-12)	R.Mtr	50		
8		Air Conditioning				
		Providing, shifting, fixing, testing, commissioning, adjusting and balancing of standard (Cool only) DC inverter technology air conditioning units, including indoor evaporating and out door condensing unit, the indoor units wall mounted of capacities as specified below, complete with factory charged refrigerant, piping insulation including condensate copper piping connection, between indoor/outdoor units conduiting and any additional charge of refrigerant accessories, and Drain piping upto nearest drain water line included in these rates making the job complete in all respect. AC should be of Haier,dawlance, gree or equivalent, copper piping should be of muller, trox and insulation of Durkflex or equivalent, Drain pipe should be 3/4" dia pvc pipeof master, turkplast or equivalent as approved by site engineer				
		1/4 and 1/2 copper piping shouls be used till 1.5 ton AC and 5/8 and 3/8 piping should be used for 2 ton AC and 3/8 and 1/2 for 4 ton AC between indoor and outdoor unit. Given in engineer estimate quantities will only be used if required more than the accessories given with the air conditions				
		The AC Unit should maintain approx 11 BTU per cubic feet plus addition of 3000BTU in the total amount for persons and devices				
i)		Ac unit indoor and outdoor				
		Copper piping				
a		Copper tube ¼ " dia, supply and fixing.	MTR	20		
b		Copper tube ⅜ " dia. supply and fixing.	MTR	100		
c		Copper tube ½ " dia. supply and fixing.	MTR	80		
ii)		Insulation				
a		Insulation elastomeric nitrite rubber Pipe for Copper tube ¼" dia, as per complete specification, supply and fixing.	MTR	20		
b		Insulation elastomeric nitrite rubber Pipe for Copper tube ⅜ " dia, as per complete specification, supply and fixing.	MTR	100		
c		Insulation elastomeric nitrite rubber Pipe for Copper tube ½" dia, as per complete specification, supply and fixing.	MTR	80		
iii)		Drain Pipe				
		pprc conduit 25 mm dia, complete with all bends tees, boxes, saddles etc, for concealed wiring, supply and fixing	Mtr	300		
iv)		Frame				
		Mild Steel 14 SWG Frame For Outer Unit.	Nos.	15		
Total of Non CSR Items						
Grand Total						