

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
40	Providing teak wood hand railing for stair case etc using (instead of SS screw, ms screw used.)	55.12	Rmt	1485	81853	589.31	32483
41	Providing teak wood plank for the stair case (wooden tread)	11.32	Sqm	5726	64818	2442	27643
				(B)	7760758		6638668

<b>GRAND TOTAL (A + B)</b>					29648263		23247998
----------------------------	--	--	--	--	----------	--	----------

*(Signature)*  
Assistant Engineer  
Chennai Central Sub Division 2/V  
CPWD, Besant Nagar, Chennai - 90

*(Signature)*  
Assistant Engineer (P)  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90

*(Signature)*  
Executive Engineer  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90

SN0	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
24	Fabricating 50 x 50 angles with 50 x 6 mm flat for parapert fin concrete at all balcony railings ( tender item rate 119)	914.99	Kg	112	102479	65.05	59520
25	Providing and fixing GI sheet gutter with multiples all around and fix in position	36.09	Rmt	1815	65503	737	26598
26	Marking inside and out side levels survery bill enclosed						
27	Statue pedestal	20	Nos	1000	20000	1000	20000
28	Athistanam work						
28.1	P.C.C. 1:4:8	15.45	Cum	4527	69942	3145.75	48602
28.2	Brick work in CM 1:6	46.36	Cum	6064	281127	3450.75	159977
28.3	Cornice work decorative plastering	2317.8	Rmt	350	811220	367	850622
29	Wooden louver inside auditorium	38.2	Sqm	4679	178738	3634.2	138826
30	Teak wood cost esclation	40.778	L.S	28917	1179177	28917	1179177
31	L band work	102.14	L.S	154	15730	154	15730
32	Providing and fixing 80 x 40 mm thick 2.8 mm tubular section by making pocket for holding and pack with concrete at sill level as directed by Architect	102.14	Rmt	636	64961	636	64961
33	Staircase Hand rail- Vertical tubular section 40 x 40 mmx2.8mm thick handrail	80.84	Rmt	430	34761	146.61	11852
33.1	Staircase Hand rail- Horizontal tubular section 40 x 40 mmx2.8mm thick handrail	195.21	Rmt	321	62662	146.61	28620
34	Providing and fixing 250 mm width and 25 mm thick mm plank over parapert and column cladding including fixing lock joint in wood. <sup>parapert</sup>	20	Sqm	6251	125020	2442	48840
35	Providing and fixing wall ledge on balcony slabs as per Architect instruction for the size 75mm width.	35.78	Rmt	627	22434	627	22434
36	Providing and fixing wall ledge on balcony slabs as per Architect instruction for the size 125mm width.	35.78	Rmt	793	28374	793	28374
37	Providing and fixing HILTI BOLT of 16 mm dia x 165 mm for structural work all etc.	121	Nos	379	45859	379	45859
38	Providing and fixing HILTI BOLT of 12 mm dia x 100 mm for structural work all etc.	506	Nos	75	37950	75	37950
39	Providing wall panelling(louver) work above the stage opening etc. <sup>panelling</sup>	12.99	Sqm	7919	102868	5433.52	70581

(2)

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
17.1	Fabricating and erecting angular section steel above the state area as per Drawing given by Architect with 75 x 75 x 5 mm and 50 x 50 x 5 mm section (Rates as per tender item No.119)	3378.5	Kg	112	378393	81.45	275180
17.2	Fabricating and erecting the existing available GI pipe at intermediates of the grid as per drawing.	675	Kg	40	27000	32.3	21803
17.3	Providing and fixing 50 x 50 mm spacing of 3 mm weld mesh over angeles (rates as per tender item No.122)	658.69	Kg	125	82336	69.45	45746
17.4	Prepare surface and apply three coats of enamel paint over one coate of primer (rates as per tender item no.159)	318.14	Sqm	140	44540	86.75	27599
19	Providing and laying in position, specified mix of RCC including compaction and curing complete but excluding centering, shuttering and reinforcement 1:1 1/2 : 3 nominal mix (1.5 m below and upt 1.2 m above G.L.) (Refer P.No. MB 2)	77.46	Cum	5411.6	419183	4334.35	335739
20	Providing and fixing 75 mm 6 guage PVC pipe for temporary re routing water line behind the koothambalam (Refer P.No.17 extra work MB 1)	65.55	Rmt	255	16715	257.32	16867
21	Providing and laying besser block masonry work of size: 400 x 200 x200 and cement mortar 1:4 for gallery step work	73.76	Sqm	838	61811	692.8	51101
22	Fabricating and bending toform circular cyclinder for jet nozzles for AC work with 3.2 mm MS.Sheet kept in position	42	Nos	2127.97	89375	2127.97	89375
23	Teak wood louver for bird mesh as per details						
23.1	Wooden louver for bird mesh between the beam gaps and dress gaps with 25 x 50 mm frames and 30 x 20 mm wooden louvers both sides including fixing in position etc	174.37	Sqm	5586	974031	5433.52	947443
23.2	Wooden louver for bird mesh between the beam gaps and dress gaps with 25 x 50 mm frames and 30 x 20 mm wooden louvers single side including fixing in position etc	83.19	Sqm	3964	329765	3152.02	262217
23.3	Wooden louver for bird mesh between the beam gaps and dress gaps with 25 x 50 mm frames and 30 x 20 mm wooden louvers single side including fixing in position etc	22.96	Sqm	3964	91013	3152.02	72370

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
7	Prepare surface and fix 50 mm x 50 mm welded mesh of 2.5 mm thick and blow cm1:3 for 40 mm to 50 mm thick with rough course sand with grouting compound by air compressor and guniting equipment.(Refer P.No.8 Extra Work MB 1	247.24	Sqm	1575	389403	2079.07	514029
8	Stage work for Kalasam fixing area.(Refer P.No.8 extra work MB 1) - 2 areas				30250		✓ 30250
9	Kalasam fixing - 2 Nos.				10895		✓ 10895
10	Crane hire charges and fabricating angular cage with 75 mm x 75 mm existing 1" pipe				79678		✓ 79678
11	Providing scaffolding for AC duct and electrical work.(Refer P.No. 9 Extra work MB1)	2261.3	Sqm	70	158288	142.25	321664
12	Providing and fixing eves board as design as existing flower pattern in 1" thick teak wood plank.(Refer P.No.10 extra work MB 1)	62.58	Rmt	2231	139616	2442	152820
13	Providing and fixing anutone board with silver wood planks all over the shuttering edges including tying with GS wire to embed in the roof concrete.(Anutone Board supplied by client at free of cost)Refer P.10 Extra work MB1)	141.18	Sqm	129	18212	151.5	21389
14	Supply of teak wood for Kalakshetra Foundation carpenter for Kalasam moulding (Refer P.No.11 Extra Work MB 1)	0.49	Cum	126776	62120	74700	36603
15	Providing and fixing re bar grouting to the existing beams and slab with Hilti chemical for green room area.(Refer P.No. 11 Extra work MB 1)						
15.1	16 mm dia Rod	302	Nos	233	70366	93.13	21699
15.2	20 mm dia Rod	114	Nos	472	53808	116.41	54946
15.3	12 mm dia Rod	595	Nos	149.5	88953	69.85	10443
15.4	10 mm dia rod	296	Nos	113.6	33626	58.21	6613
16	Providing and fixing teak wood cutter in valley area for the roof in 1" plank including nailing all etc.(Refer P. 13 Extra work MB 1)	43.92	Sqm	4652	204316	2442	107253
17	Fabrication work in stage area						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
160	Providing three finish coats of water-proof cement colour paint to walls and ceilings, applied evenly to give uniform finish in colour patterns and even shade, including curing, preparation of surface and a coat of matching primer, complete.	285	Sqm	60	17100	76.40	21774
161	Providing three finish coats of dry colour distemper to walls and ceilings applied evenly to give a uniform finish including preparation of surfaces, primer coat of whitening, to give an even shade.	1000	Sqm	80	80000	71.05	71050
				(A)	21887505		16609330

**EXTRA ITEMS FOR KOOTHAMBALAM PROJECT**

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
1	Providing and apply 2 coats of Linseed oil for battens and rafter on the roof area.(Refer P.No.6 Extra work MB 1)	3041.7	Sqm	110	334589	40.2	122277
2	Removing and handing over the Kalasam (big) Refer P.No.6 Extra work MB1	2	No	3000	6000	3000	6000
3	Removing and handing over the Kalasam (small) Refer P.No.6 Extra work MB1	1	No	2000	2000	2000	2000
4	Dismantling and removing statue and handing over to the client(Refer P.No.7 extra work MB 1)	54	No	200	10800	200	10800
5	Dismantling the existing name stone on hanling over to the client(Refer P.No.7 extra work MB 1)	2	No	500	1000	500	1000
6	Clearing and carting away the existing debris.(Refer P.No.7 Extra Work MB1)	114	Loads	1200	136800	433.92	49467
6.1	Clearing and carting away the existing debris I unit.(Refer P.No.7 Extra Work MB1)	34	Loads	600	20400	433.92	14753

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
155	Providing and laying colour sand stone slab treads and of steps in a single piece, of uniform thickness, with machine cut edges, laid on a bed of 20 mm thick cement mortar 1:4 (with coarse sand), laying slabs in cement slurry pigmented to match the shade of slabs, grinding, rubbing polishing, complete (length up to 1500 mm) : 25 mm thick : Grey Kotah stone	25	Sqm	800	20000	928.79	23220
156	Providing and laying stone slab in skirting and risers of steps, of uniform thickness with machine cut edges, in profiles laid on a bed of 20 mm thick cement mortar 1:4 with coarse sand including dressing of sides and tops laying slabs in cement slurry pigmented to match the shade of slabs pointing of joints cleaning excess mortar/slurry etc. curing, complete : 25 mm Rough Split Stone : Black Cuddapa stone	15	Sqm	800	12000	880.58	13209
	Wooden Flooring						
157	Providing and laying wood flooring over plain levelled and dried sub floor and hard wood timber frame including tongue and groove jointing system, in patterns including wax polishing the top surface and antitermite treatment and a coat of wooden primer, to the hidden surfaces and fixing with stainless steel screws etc., complete (timber frame shall be paid for separately) : 20 mm thick : 2nd class CP teak wood	125	Sqm	5380	672500	4250.60	531325
	Paints - Wood and metal surfaces						
158	Providing three finish coats of synthetic enamel colour paint, applied evenly and finished to approved texture, including, preparation of surface and a coat of primer, complete : Wooden surfaces with approved primer	850	Sqm	130	110500	86.75	73738
159	Providing three finish coats of synthetic enamel colour paint, applied evenly and finished to approved texture, including, preparation of surface and a coat of primer, complete : Steel surfaces with zinc chromate primer	350	Sqm	140	49000	86.75	30363
	Paints - Walls & Ceilings						

(b)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
151	Providing and laying in situ terrazzo floor in pattern and profile under layer cement concrete 1:2:4 and top layer with colour marble chips in one or more shade laid in cement in proportion 1:2 (1 cement : 2 marble chips by volume), laid in panels / narrow strips (dividing strips to be placed in floor shall be paid separately), cured, rubbed, polished and finished, complete, for : 50 mm thick flooring with under layer 38 mm thick and top layer 12 mm thick : Floor pavings, window sills, copings Medium shade pigment with 50% white and 50% ordinary grey cement	250	Sqm	700	175000	475.60	118900
	Stone flooring						
152	Providing and laying colour sand stone slab flooring, laid in patterns and profiles on a bed of 25 mm average thick cement mortar 1:4 (with coarse sand) to make up a total thickness of 50 mm, including laying slabs in cement slurry, pigmented to match the shade of slabs, grinding, rubbing and polishing complete : 25 mm thick: Grey Kotah stone	50	Sqm	600	30000	928.79	46440
153	Providing and laying colour sand stone slab flooring, laid in patterns and profiles on a bed of 25 mm average thick cement mortar 1:4 (with coarse sand) to make up a total thickness of 50 mm, including laying slabs in cement slurry, pigmented to match the shade of slabs, grinding, rubbing and polishing complete : 25 mm thick: Black Cuddapa stone	10	Sqm	600	6000	880.58	8806
154	Providing and laying colour sand stone slab flooring, laid in patterns and profiles on a bed of 25 mm average thick cement mortar 1:4 (with coarse sand) to make up a total thickness of 50 mm, including laying slabs in cement slurry, pigmented to match the shade of slabs, grinding, rubbing and polishing complete : 18 / 20mm thick : Yellow Jaisalmer stone	20	Sqm	650	13000	990.99	19820

(7)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
147	Providing and laying cement concrete flooring 1:2:4, finished with a floating coat of neat cement including cement slurry, laid in panels, in floors, landings, steps and similar locations, including nosing of steps etc. where required, complete : 40 mm thick	750	Sqm	350	262500	262.45	196838
148	CONCRETE FLOORING Providing and laying 40 mm thick red oxide flooring, under layer of 30 mm thick cement concrete 1:2:4 and top layer of 10 mm thick plaster of cement red oxide mix (using 3.5 kg of red oxide of iron per 50 kg of cement) in cement mortar 1:3 with coarse sand finished with a floating coat of neat cement red oxide mix of same proportion, including cement slurry, nosing of steps etc., complete.	850	Sqm	500	425000	475.60	404260
149	CONCRETE FLOORING Add for making chequers in pattern on cement concrete floors, steps, landings, pavements, etc.	150	Sqm	200	30000	27.30	4095
150	Providing and laying red oxide plaster skirting (upto 300 mm height) with top layer of 6mm thick plaster of cement mortar red oxide mix, using 3.5 kg of red oxide of iron per 50 kg of cement in cement mortar 1:3 with coarse sand, finished with a floating coat of cement red oxide mix of same proportion, of total thickness : 21 mm, with under layer 15 mm thick cement plaster 1:3 with coarse sand	25	Sqm	250	6250	252.25	6306
	Terrazo flooring						

(8)



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
140	Forming 15 mm deep grooves of uniform size in the top layer of washed stone grit plaster in pattern using wooden battens/aluminium channels, nailed to the under layer including removal of wooden battens/aluminium channels, repair to the edges of panels and finishing the groove complete in cement mortar 1:2 (1 cement : 2 silica sand) admixed with colour pigment, of groove widths : 10 mm	160	mtr	50	8000	50.00	8000
	Ceiling, wall acoustical tiles						
141	Providing and fixing ceiling tiles / boards in steel / aluminium / wooden frame work, including filling joints with joint fillers, jointing compounds, tapes, papers, painting of edges of tiles/boards, with two coats of primer, necessary screws where required etc., complete (frame work will be paid for seperately), of sizes : 12.5 mm thick Plaster of paris (gypsum anhydrous) ceiling tiles.	625	Sqm	300	187500	498.87	311794
142	do - do gypsum board 12mm thick.	180	Sqm	500	90000	712.30	128214
143	do - do Plain BWP type phenol formaldehyde synthetic resin bonded pressed particle board sheets conforming to IS 3087.	75	Sqm	700	52500	518.75	38906
	Brick flooring						
144	Providing and laying brick on edge flooring with bricks of class 75 including preparation of sub-base/surface, dressing of ground, if any, to required profiles, cement slurry, etc., complete, in cement mortar using coarse sand, of mix : 1:4	160	Sqm	700	112000	493.85	79016
145	FLOORING Add for brick flooring laid diagonal herring bone bond or other pattern.	160	Sqm	700	112000	493.85	79016
	Concrete flooring						
146	Providing and laying cement concrete flooring 1:2:4, finished with a floating coat of neat cement including cement slurry, laid in panels, in floors, landing, steps and similar locations, including nosing of steps ,etc. where required, complete : 25 mm thick	225	Sqm	250	56250	262.45	59051

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
134	Providing, fabricating and fixing in position selected quality seasoned & chemically treated wood work in frames and sub frames of doors, windows, clerestory windows and other frames, wrought to size & profile with mitred joints, including fixing to supports with threaded expansion bolts / hold fasts or other fixing accessories, complete : 2nd class CP teak wood	2.5	Cum	170000	425000	100279.50	250699
	<b>Finishes</b>						
	Gypsum plaster						
135	Providing and applying plaster of paris 10 mm thick (gypsum anhydrous)	300	Sqm	195	58500	99.70	29910
	Cement plaster						
136	Providing 10 mm thick average plaster to soffits and sides of slabs, beams and other concrete surfaces, etc., in cement mortar 1:4 with fine sand, applied, finished smooth and cured, complete.	200	Sqm	265	53000	128.90	25780
137	Providing 12 mm thick average cement plaster to walls, columns, piers, etc., applied, finished smooth and cured, complete, with mixes : 1:6 with fine sand	150	Sqm	215	32250	138.45	20768
138	Providing 12 mm thick average cement plaster to walls, columns, piers, etc., applied, finished smooth and cured, complete, with mixes : 1:6 with coarse sand	180	Sqm	236	42480	138.45	24921
139	Providing 20 mm thick cement plaster in two coats, under layer 12mm thick cement plaster 1:6 with coarse sand and top layer 8 mm thick cement plaster 1:4 with coarse sand, finished rough with sponge and cured complete including providing grooves on top layer. The size of panel shall not exceed 2 sqm.	250	Sqm	350	87500	185.50	46375

(10)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	<b><u>Damp &amp; Waterproofing, Thermal protection</u></b>						
	Damp proof course						
128	Providing and laying damp-proof course with cement concrete 1:2:4 with graded stone aggregate 12.5 mm nominal size, including side shuttering, compacting etc., complete. 40 mm thick	70	Sqm	300	21000	194.85	13640
	Wall and ceiling insulation						
129	Providing and placing in position over/on vapour barrier and such locations, insulation slab of approved manufacturers, abutting each other closely, including cutting to required sizes/profiles and all incidental work, complete, including applying a bonding base of a coat of blown bitumen @ 1.0 kg/sqm, glass wool/mineral wool/rock wool shall be packed in 100 micron low density polythene film, duly sealed from all sides (frame work shall be paid for separately) : 50 mm thick, fibre-glass (24kg per cum)	625	Sqm	500	312500	406.10	253813
130	WALL OR CEILING INSULATION Add for wrapping glass wool/mineral wool/rock wool in 0.1 mm thick aluminum foil instead of 100 microns thick low density polythene film.	625	Sqm	250	156250	198.15	123844
	Roof tiles						
131	Providing and fixing Mangalore tiles of size 400 x 240 mm, so as to cover an area of 320 x 210 mm, the lap should be not less than 75 mm.	200	Sqm	910	182000	525.97	105194
132	Fixing mangalore tiles of size 400x240mm so as to cover an area of 320x210mm. Te lap should be not less than 75mm. Provide for necessary mortar jointing, chasing in walls, tile cutting, tile wastage etc.	2500	Sqm	350	875000	525.97	1314925
133	Providing and fixing ridge tile and 3 way connector including necessary jointing	115	Rm	225	25875	240.53	27661
	<b><u>Doors and Windows</u></b>						
	Wooden frames						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	Bird Mesh						
122	Refabricating with existing framework with additional rod welded support and spreading GI welded metal mesh over the frames to shape and size and installing the fabricated units in place between RC fins without gaps.	375	Kg	125	46875	69.45	26044
	<u>Wood work</u>						
	Wood Framing						
123	Providing, fabricating and erecting MS welded built up sections/ frames and applying a primer coat of zinc chromate on duly prepared surfaces, complete : In guard bars, ladders, railings, and similar works.	180	Kg	90	16200	81.45	14661
124	Providing, fabricating and fixing in position selected quality seasoned and chemically treated wood work in frames of false ceilings, partitions, etc., complete : 2nd class Deodar wood.	6.5	Cum	110000	715000	65292.48	424401
125	Providing and fixing wooden frame with 50 mm x 50 mm battens, fixed at 600 mm centre to centre (both ways). Allow for solignum treatment to the timber framework : 2nd class CP teak Wood	225	Sqm	3500	787500	3386.20	761895
	Roof Truss						
126	Providing, fabricating and fixing in position selected quality seasoned and chemically treated wrought wood work in trusses, rafters, runners, posts, struts, wall plates, etc of size and profile in inclined roofs including anchoring to concrete members with holding down bolts, fixing accessories and all incidental works complete. 2nd class CP teakwood	20	Cum	150000	3000000	100279.50	2005590
	Rails and Balusters						
127	Providing and fixing wooden hand rail made out of 55 mm x 75 mm timber and fixed to existing MS plate with S/S screws ,etc. complete : 1st class Burma teak wood	110	mtr	1500	165000	605.09	66560

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
117	Providing random rubble masonry with hard stone with sides of stones, hammer dressed to achieve minimum thicknesses of joints and laid in cement mortar 1:6 with coarse sand, with joints not more than 15 mm thick, joints finished flush/raked to minimum 10 mm depth including necessary scaffolding, complete. Allow for levelling with cement concrete 1:6:12 with coarse sand at plinth/window sill/ceiling level and the like, in : Superstructures, upto 20.0 m above plinth level	45	Cum	2950	132750	3355.15	150982
118	Providing random rubble masonry with hard stone with sides of stones, hammer dressed to achieve minimum thicknesses of joints and laid in cement mortar 1:6 with coarse sand, with joints not more than 15 mm thick, joints finished flush/raked to minimum 10 mm depth including necessary scaffolding, complete. Allow for levelling with cement concrete 1:6:12 with coarse sand at plinth/window sill/ceiling level and the like, in : Basements and the like upto 7.0 m below GL	170	Cum	2750	467500	2817.50	478975
	<b>Metal work</b>						
	Structural steel						
119	BUILT UP SECTION Providing, fabricating and erecting bolted structural steel built up sections, trusses and frames and applying a primer coat of zinc chromate on duly prepared surfaces, complete.	2500	Kg	112	280000	81.45	203625
120	BUILT UP SECTION Providing and applying three finish coats of synthetic enamel paint on steel surfaces, complete. Steel stair	225	Sqm	110	24750	86.75	19519
121	Providing, fabricating and erecting MS welded built up sections/ frames and applying a primer coat of zinc chromate on duly prepared surfaces, complete : In stringers, treads, landings, etc. of staircases including chequered plates wherever required, all complete.	200	Kg	130	26000	69.45	13890

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
113	Add for cutting or chamfering the bricks to required shape in masonry work	120	mtr	400	48000	46.46	5575
114	Providing and making mouldings, cornices & corbels with bricks of class 75 in cement mortar 1:4 with coarse sand (girth to be measured in mm and length in running metres)	350	100 mm/m	350	122500	367.00	128450
115	Providing brick work with bricks of class 75 in half brick thick walls in any shape and profile including curvilinear, laid in cement mortar 1:4 with coarse sand, joints finished flush/raked to 12 mm depth, cured, including scaffolding and flat reinforcement (25 x 3 mm) at every fourth course and embedding the same in adjoining masonry/columns by drilling holes etc complete : Super structure upto 20.0 m above plinth level.	125	Sqm	680	85000	544.70	68088
	Random rubble masonry						
116	Providing random rubble masonry with hard stone with sides of stones, hammer dressed to achieve minimum thicknesses of joints and laid in cement mortar 1:6 with coarse sand, with joints not more than 15 mm thick, joints finished flush/raked to minimum 10 mm depth including necessary scaffolding, complete. Allow for levelling with cement concrete 1:6:12 with coarse sand at plinth/window sill/ceiling level and the like, in : Foundations and plinths, (1.5 m below and upto 1.2 above GL)	75	Cum	2600	195000	2817.50	211313

(14)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
108	Providing and laying lime concrete as per IS 2541 with 40% mortar comprising of 1 lime putty : 1 surkhi : 1 fine sand and 100% graded brick aggregate 40 mm nominal size in foundations, footings and under floor including side forms, complete. Precast - Fins/louvers	12	Cum	3000	36000	4074.20	48890
109	Providing and fixing precast cement concrete in vertical and horizontal fins individually or forming boxes and for louvers and similar, cast, cured, hoisted and fixed in position, setting in cement mortar 1:3 with coarse sand, along with required formwork and finishing smooth and all fixing arrangements complete but excluding the cost of reinforcement. Allow for stacking, curing and handling at all levels above/below GL.	33.5	Cum	10000	335000	5325.80	178414
	<u>Masonry - Brickwork, conventional bricks</u>						
110	Providing brick work with bricks of class 75, joints finished flush/raked to 12 mm depth, cured including necessary scaffolding complete in cement mortar 1:6 with coarse sand, in : Foundations and plinths (1.5 m below and upto 1.2 m above GL)	85	Cum	4250	361250	3450.75	293314
111	Providing brick work with bricks of class 75, joints finished flush/raked to 12 mm depth, cured including necessary scaffolding complete in cement mortar 1:6 with coarse sand, in : Superstructures upto 20.0 m above plinth level.	125	Cum	4400	550000	3972.75	496594
112	Providing brick work with bricks of class 75, joints finished flush/raked to 12 mm depth, cured including necessary scaffolding complete in cement mortar 1:6 with coarse sand, in : Basement, under ground water tank and the like, upto 7.0 m below GL	30	Cum	4250	127500	3450.75	103523

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
104	Providing and laying plain cement concrete 1:3:6 with coarse sand, laid to required thickness (not exceeding 50mm) and slopes, in roof screedings, floor screedings and similar locations, laid in panels not exceeding 4 sqm., consolidated, finished fair and cured complete : Floor screedings	57	Cum	3700	210900	3401.30	193874
	Structural Cooncrete - RCC						
105	Providing and laying in position, specified mix of RCC, including compaction and curing complete but excluding centring, shuttering and reinforcement, 1:2:4 nominal mix : In foundation and plinth (1.5 m below and upto 1.2 m above G.L.)	28	Cum	4500	126000	4190.95	117347
106	Providing and laying in position, specified mix of RCC, including compaction and curing complete but excluding centring, shuttering and reinforcement, 1:2:4 nominal mix : From plinth level to 7.0 m below GL in basement	5	Cum	4700	23500	4190.95	20955
107	Providing and laying in position, specified mix of RCC, including compaction and curing complete but excluding centring, shuttering and reinforcement, 1:2:4 nominal mix : From plinth level upto 20.0 m above in superstructure	125	Cum	4850	606250	4727.80	590975
	Lime Concrete						



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	Inserts						
98	Providing and fixing wedge expansion type hold / dash fasteners on CC / RCC surface backing including drilling necessary holes and the cost of bolts etc., complete : Fastener with threaded dia. 6 mm	800	Each	50	40000	27.50	22000
99	Providing and fixing wedge expansion type hold / dash fasteners on CC / RCC surface backing including drilling necessary holes and the cost of bolts etc., complete : Fastener with threaded dia. 10 mm	150	Each	75	11250	33.30	4995
	Reinforcement steel						
100	Providing and laying in position TMT (Thermo Mechanically Treated) bar reinforcement in all reinforced concrete works including straightening, cutting, bending, binding with 18 gauge annealed steel wire, complete, of grade : Fe 415	15	Tonne	55000	825000	53850.00	807750
	Plain cement concrete						
101	Providing and laying cement concrete with coarse sand and graded stone aggregate, 40 mm nominal size in foundations, footings and under floors including side forms curring etc., complete, of nominal mix : 1:4:8	40	Cum	3500	140000	3145.75	125830
	Reinforcement steel						
102	Providing and laying cement concrete with fine sand and graded stone aggregate, 40 mm nominal size in foundations, footings and under floors including side forms, curring etc., complete, of nominal mix : 1:4:8	18	Cum	3500	63000	3145.75	56624
103	Providing and laying cement concrete with fine sand and graded stone aggregate, 40 mm nominal size in foundations, footings and under floors including side forms, curring etc., complete, of nominal mix : 1:3:6	15	Cum	3700	55500	3401.30	51020

17

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
95	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Soffits and sides of beams, plinth beams, lintels, ties, ribs, pergolas and such other, string courses, cornices, corbels.	10	Sqm	300	3000	262.35	2624
96	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Soffits and sides of suspended slabs, floor and roof projections, landing slabs, canopies, chajjas, slabs of planting boxes and such other horizontal elements, coffer ribs and slabs.	20	Sqm	400	8000	316.50	6330
97	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Soffits and sides of waist slabs of stairs, sides of risers and stepped waist slabs, spiral staircases, etc.	8	Sqm	400	3200	316.50	2532

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
92	Providing and fixing centering and shuttering for concrete work (plain and reinforced) in following locations, including strutting, propping, bracing, bolting tie bolt / spring coil / plastic cone, wedging, easing, striking, removal etc, complete. Allow for forming grooves, drips, throats, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Sides of footings of columns and walls and sides of base slabs.	35	Sqm	300	10500	166.05	5812
93	Providing and fixing centering and shuttering for concrete work (plain and reinforced) in following locations, including strutting, propping, bracing, bolting tie bolt / spring coil / plastic cone, wedging, easing, striking, removal etc, complete. Allow for forming grooves, drips, throats, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Foundation beams, floor channels, kerb stones and drain walls.	18	Sqm	300	5400	166.05	2989
94	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Sides of columns, piers of any shape, size and profile.	10	Sqm	300	3000	354.85	3549

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
87	Providing and fixing MS gratings in lengths of 600 to 1000 mm, fabricated with angle frames and flats at 25 mm centres, Angle 50 x 50 x 5 mm and flat 45 x 5 mm Waterbound Macadam - Subgrade	15	Sqm	3000	45000	3486.28	52294
88	Preparation of subgrade by excavating or filling with available earth to an average of 225 mm depth, dressing to camber, watering and consolidating with road roller of 8-10 t capacity including making good the undulations etc. and disposal of surplus earth / bringing earth from borrow pits within a lead of 50 m, complete.	15	100 Sqm	5500	82500	55.95	839
89	Consolidation of sub-grade with road roller of 8 to 10t capacity including making good the undulations, etc. with earth or quarry spoils, etc. and rerolling the sub-grade, complete.	15	100 Sqm	3000	45000	337.40	5061
90	Add for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (Proctor density)	10	100 Sqm	2000	20000	8.15	82
	Kerbs & Gutters						
91	Providing and laying M-20 grade precast concrete kerb stones including setting in cement mortar 1:4 with coarse sand and pointing of joints with same mortars, etc. complete of size : 300 x 300 x 150 mm thick	160	mtr	450	72000	363.29	58126
	<b>Concrete Formwork and Accessories</b>						
	Form Work/Centering and shuttering						
	Forms in Place						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
80	CATCH BASINS OR MANHOLES Add for depth of manholes of size 900 x 800 mm beyond 600 mm	8	mtr	6000	48000	4153.60	33229
81	CATCH BASINS OR MANHOLES Add for depth of manholes of size 1200 x 900 beyond 900 mm	6	mtr	8000	48000	4975.60	29854
82	Providing manhole covers with frames and fixing the same during laying of cement concrete / reinforced cement concrete 1:2:4 mix on top of brick work / in slab, complete, of shape and duty : SFRC conforming to IS:12592, Rectangular, Medium duty 600 x 600 mm (Grade designation MD 10)	15	Each	2500	37500	1134.25	17014
83	CATCH BASINS OR MANHOLES Providing manhole covers with frames and fixing the same during laying of cement concrete / reinforced cement concrete 1:2:4 mix on top of brick work / in slab, complete, of shape and duty : Circular, Medium duty 500 mm dia. (Grade designation MD 10)	3	Each	2000	6000	913.60	2741
84	Providing and fixing foot rests in manholes embedded in 230 x 200 x 100 mm cement concrete blocks 1:3:6 with coarse sand, complete, of : CI weight 4.5 kg	15	Each	350	5250	236.55	3548
	Drains						
85	Constructing 300 mm inside drain width with 230 mm thick brickwork with bricks of class 75 in cement mortar 1:4 with coarse sand over raft or CC base, 25 mm thick CC 1:2:4 at bottom and in filling haunches including 12 mm thick cement plaster 1:3 with coarse sand finished with floating coat of neat cement inside and on exposed surface for drain of average depth : 100 mm	25	mtr	2100	52500	873.82	21846
86	Constructing 300 mm inside drain width with 230 mm thick brickwork with bricks of class 75 in cement mortar 1:4 with coarse sand over raft or CC base, 25 mm thick CC 1:2:4 at bottom and in filling haunches including 12 mm thick cement plaster 1:3 with coarse sand finished with floating coat of neat cement inside and on exposed surface for drain of average depth : 300 mm	15	mtr	2750	41250	1296.46	19447

(21)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
77	Constructing circular type manhole with class 75 bricks in cement mortar 1:4 with coarse sand, inside plaster 12 mm thick with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, foundation concrete 1:3:6 with coarse sand, 150 mm thick cement concrete 1:2:4 on top of masonry including centering, shuttering, making necessary channel in 150 mm thick cement concrete 1:2:4 finished with a floating coat of neat cement, complete, but excluding cost of foot rest and outside plaster, excavation and back filling, complete, of internal size : Add for depth over 910 mm and upto 1670 mm for circular manhole 910 mm dia at bottom and 560 mm dia at top	3	mtr	19000	57000	3567.30	10702
78	Constructing manholes one brick thick with class 75 bricks in cement mortar 1:4 with coarse sand, RCC top slab 150 mm thick with cement concrete 1:2:4 with necessary reinforcement, foundation concrete, 200 mm thick with cement concrete 1:4:8 with coarse sand, 12 mm thick inside plaster with cement mortar 1:3 in coarse sand finished with a floating coat of neat cement, making channels with cement concrete 1:2:4, finished with a floating coat of neat cement, complete, but excluding cost of foot rests and outside plaster, excavation and back filling, complete, of internal size : 900 x 800 x 600 mm deep	12	Each	12000	144000	7959.84	95518
79	Constructing manholes one brick thick with class 75 bricks in cement mortar 1:4 with coarse sand, RCC top slab 150 mm thick with cement concrete 1:2:4 with necessary reinforcement, foundation concrete, 200 mm thick with cement concrete 1:4:8 with coarse sand, 12 mm thick inside plaster with cement mortar 1:3 in coarse sand finished with a floating coat of neat cement, making channels with cement concrete 1:2:4, finished with a floating coat of neat cement, complete, but excluding cost of foot rests and outside plaster, excavation and back filling, complete, of internal size : 1200 x 900 x 900 mm deep	6	Each	20000	120000	10260.10	61561

22

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
73	Constructing soak pits 2500 mm dia., 3000 mm deep with 450 x 450 mm dry brick honey comb shaft with class 75 bricks, shaft top covered with RCC slab in cement concrete mix 1:2:4, 100 mm thick with reinforcement, portion between honey comb shaft and outer wall, filled with brick bats and brick ballast, covered at the top with 25mm thick stone slabs & earth, SW drain pipes 100 mm dia., 1800 mm long including excavation and disposal of surplus earth in authorized dumps, complete.	8	Each	20000	160000	15363.25	122906
	Catch basins or Manholes						
74	Constructing road gully chambers 450 x 500 x 600 mm deep inside, in one brick thick brick work with bricks of class 75 in cement mortar 1:5 in fine sand, including fixing horizontal grating with frame of size 450 x 500 mm in 150 mm thick cement concrete 1:2:4, foundation concrete 1:5:10, with coarse sand 150 mm thick, inside plaster 12 mm thick with cement mortar 1:3, finished with a floating coat of neat cement, excavation and back filling, complete, with : CI gratings weighing 90 kg.	30	Each	5000	150000	2913.15	87395
75	Constructing road gully chambers 450 x 450 x 775 mm deep inside, in one brick thick brick work with bricks of class 75 in cement mortar 1:5 with fine sand, including fixing 450 x 100mm vertical grating, top RCC slab 75 mm thick in 1:2:4 mix, foundation concrete 150 mm thick in 1:5:10, with coarse sand, inside plaster 12 mm thick with cement mortar 1:3 finished with a floating coat of neat cement, excavation and back filling, complete, with : CI gratings weighing 15.0 kg	12	Each	6500	78000	3401.10	40813
76	910 mm inside dia. at bottom, 560 mm inside dia. at top, 910 mm deep inside, and foundation concrete 225 mm thick	5	Each				

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
71	Constructing septic tanks conforming to IS:2470 with brick work in cement mortar 1:4 with coarse sand. Top slab in RCC 1: 2:4 mix with necessary reinforcement, precast RCC baffle walls, 12 mm thick plaster inside with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, flooring with cement concrete 1:2:4, laid to slope, of minimum thickness 100 mm, finished with 12 mm thick cement plaster 1:3 in coarse sand finished with a floating coat of neat cement, outside plaster 15 mm thick with cement mortar 1:5 in fine sand, cast iron tees of required size for inlet and outlet, CI vent pipes 50 mm dia. with mosquito proof nets, and 32 mm dia. brass wheel valves for removal of sludge, including SFRC manhole covers with frames, light duty, 600 x 450 mm size and plastic encapsuled MS foot rests at 300 mm intervals, complete, excluding excavation and refilling for : two year cleaning cycle for: 20 users	1	Each				
72	Constructing septic tanks conforming to IS:2470 with brick work in cement mortar 1:4 with coarse sand. Top slab in RCC 1: 2:4 mix with necessary reinforcement, precast RCC baffle walls, 12 mm thick plaster inside with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, flooring with cement concrete 1:2:4, laid to slope, of minimum thickness 100 mm, finished with 12 mm thick cement plaster 1:3 in coarse sand finished with a floating coat of neat cement, outside plaster 15 mm thick with cement mortar 1:5 in fine sand, cast iron tees of required size for inlet and outlet, CI vent pipes 50 mm dia. with mosquito proof nets, and 32 mm dia. brass wheel valves for removal of sludge, including SFRC manhole covers with frames, light duty, 600 x 450 mm size and plastic encapsuled MS foot rests at 300 mm intervals, complete, excluding excavation and refilling for : two year cleaning cycle for: 50 users	1	Each				



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
67	Providing, laying, jointing and testing of glazed stone ware pipes, conforming to IS:651 grade A, and jointing with cement mortar 1:1 with fine sand and tarred gasket of hemp yarn soaked in thick cement slurry, complete, excluding trenching and back filling, of nominal dia.: 100 mm	50	mtr	310	15500	226.05	11303
68	Providing, laying, jointing and testing of glazed stone ware pipes, conforming to IS:651 grade A, and jointing with cement mortar 1:1 with fine sand and tarred gasket of hemp yarn soaked in thick cement slurry, complete, excluding trenching and back filling, of nominal dia.: 150 mm	20	mtr	400	8000	301.35	6027
69	Providing and laying cement concrete 1:5:10 with coarse sand, 150 mm thick all around RCC/ SW pipes including bed concrete, necessary shuttering and curing, complete, for pipes of nominal dia.: 100 mm	10	mtr	270	2700	435.30	4353
70	Providing and laying cement concrete 1:5:10 with coarse sand, 150 mm thick all around RCC/ SW pipes including bed concrete, necessary shuttering and curing, complete, for pipes of nominal dia.: 150 mm	10	mtr	330	3300	532.40	5324
	Septic tank						

(25)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
64	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 90 mm	10	mtr	350	3500	323.42	3234
	Chamber, Brick masonry						
65	Constructing brick masonry chambers with class 75 bricks in cement mortar 1:5 with fine sand, RCC top slab 1:2:4 of avg. thickness 150 mm, including reinforcement, excavation, refilling, 100 mm thick foundation concrete 1:5:10 with coarse sand, 12 mm thick inside plastering with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, and 15 mm thick outside plastering in cement mortar 1:4 with fine sand, complete with one brick thick wall, of size : 600 x 600 x 750 mm deep inside, with CI surface box 100 mm top dia., 160 mm bottom dia. and 180 mm deep inside, with chained lid.	15	Each	9000	135000	5096.55	76448
66	Constructing brick masonry chambers with class 75 bricks in cement mortar 1:5 with fine sand, RCC top slab 1:2:4 of avg. thickness 150 mm, including reinforcement, excavation, refilling, 100 mm thick foundation concrete 1:5:10 with coarse sand, 12 mm thick inside plastering with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, and 15 mm thick outside plastering in cement mortar 1:4 with fine sand, complete with one brick thick wall, of size : 600 x 600 x 750 mm deep inside, with CI surface box 350 x 350 mm and 165 mm deep inside, with chained lid, for fire hydrant.	15	Each	10000	150000	4773.05	71596
	Piping - Drainage & Sewerage						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
58	Providing, laying, jointing and testing double flanged ductile iron pipes having screwed flanges, conforming to IS:8329, including compressed neoprene washers, galvanised steel fasteners, complete, excluding trenching and back filling, of nominal dia.: 100 mm	40	mtr	1200	48000	713.40	28536
59	Providing, fixing and testing wafer type CI butterfly valves, conforming to IS:13095, PN 1.6, MS hand lever operated with galvanised steel fasteners and 3 mm thick compressed neoprene gaskets, complete, of nominal size : 80 mm	5	Each	1900	9500	2363.27	11816
60	Providing, fixing and testing wafer type CI butterfly valves, conforming to IS:13095, PN 1.6, MS hand lever operated with galvanised steel fasteners and 3 mm thick compressed neoprene gaskets, complete, of nominal size : 100 mm	4	Each	3500	14000	3246.00	12984
61	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 40 mm	60	mtr	200	12000	221.56	13294
62	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 50 mm	40	mtr	225	9000	247.92	9917
63	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 63 mm	25	mtr	260	6500	265.35	6634

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
54	Earth work in excavation, in trenches, in all types of soil, for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated earth and then returning the soil as required, in layers not exceeding 200 mm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed, within a lead of 50 m complete, of pipes, cables of sizes : over 300 mm dia. (minimum width of trench 850 mm)	75	mtr	200	15000	250.20	18765
55	Excavation and Fill EXCAVATING, UTILITY TRENCH Excavating holes up to 0.5 cum including getting out the excavated material, then returning the soil as required in layers not exceeding 200 mm in depth, including consolidating each deposited layer by ramming, watering etc., disposing of surplus excavated material, as directed, within a lead of 50 m and lift upto 1.5 m, complete : All types of soil Termite - Pre treatment	80	Each	200	16000	41.85	3348
56	Providing and injecting chemical emulsions for pre-construction anti-termite treatment and creating continuous chemical barrier under and all around the column pits, wall trenches, basement excavation, top surfaces of plinth filling, junctions of walls and floors, along the external perimeter of buildings, expansion joints, over the top surface of consolidated earth on which plinth protection is to be laid, surrounding of pipes and conduits etc. complete, in accordance with IS:6313 (Part II). (Plinth area of the building at ground level shall only be measured): Using Chloropyriphos Emulsifiable concentrate 0.2% Water Distribution	1150	Sqm	60	69000	93.65	107698
57	Providing, laying, jointing and testing double flanged ductile iron pipes having screwed flanges, conforming to IS:8329, including compressed neoprene washers, galvanised steel fasteners, complete, excluding trenching and back filling, of nominal dia.: 80 mm	205	mtr	1000	205000	655.14	134304

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
51	Earth work in excavation 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 earth as directed, within a lead of 50 m, complete : All types of soil	200	Cum	250	50000	132.20	26440
	Utility Trench						
52	Earth work in excavation, in trenches, in all types of soil, for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated earth and then returning the soil as required, in layers not exceeding 200 mm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed, within a lead of 50 m complete, of pipes, cables of sizes : upto 80 mm dia. (minimum width of trench 450 mm)	230	mtr	150	34500	98.10	22563
53	Earth work in excavation, in trenches, in all types of soil, for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated earth and then returning the soil as required, in layers not exceeding 200 mm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed, within a lead of 50 m complete, of pipes, cables of sizes : over 80 mm dia. and upto 300 mm dia. (minimum width of trench 600 mm)	120	mtr	200	24000	160.25	19230

(27)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
44	Filling available excavated earth (excluding rock) in trenches, plinths, sides of foundations and in adjacent areas to profiles, shapes and levels etc. in layers not exceeding 200 mm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m, complete.	310	Cum	120	37200	75.45	23390
45	Supplying and stacking good earth, free from organics impurities. Bulk Excavation	825	Cum	350	288750	309.74	255536
46	Earth work in rough excavation, in all types of soil, banking excavated earth in layers not exceeding 200 mm in thickness, breaking clods, watering, rolling each layer with 1/2 ton roller, or compacting with wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 ton capacity and dressing up, in embankment for roads, flood banks, marginal banks and guide banks or filling up ground depressions, lead up to 50 m and lift up to 1.5 m, complete.	110	Cum	250	27500	276.50	30415
47	Earth work in excavation over areas (exceeding 300 mm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed, complete: All types of soil	250	Cum	285	71250	130.95	32738
48	Add for every additional lift of 1.5 m or part thereof in: All types of Fill	50	Cum	35	1750	35.45	1773
49	Providing and laying 100 mm/150 mm thick (consolidated thickness) hard core fill, under floors, pavings and other locations, with approved hard stones of size 50 mm and down, thoroughly filled with smaller chips, rammed, rolled, watered and consolidated to required levels, complete.	880	Cum	1200	1056000	965.54	849675
50	Providing clean fine sand fill under floors, pavings and similar locations, laid to required depth, compacted by flooding with water, finished to proper levels, complete.	750	Cum	1186	889500	1282.70	962025
	Trench						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
37	Providing and fixing close timbering including strutting, shoring and packing cavities (wherever required) complete (Measurement to be taken of the face area timbered), Depth not exceeding 1.5 m : in shafts, wells, cesspits, manholes and the like	40	Sqm	30	1200	104.00	4160
38	Add for every 1 m or part thereof of additional depth over an initial depth of 1.5 m, for close timbering : in trenches etc.	30	Sqm	40	1200	109.40	3282
39	Add for every 1 m or part thereof of additional depth over an initial depth of 1.5 m, for close timbering : in shafts, wells, cesspits, man-holes and the like	10	Sqm	40	400	129.45	1295
	Topsoil						
40	Earth work in surface excavation not exceeding 300 mm in depth but exceeding 1.5 m in width as well as 10 sqm on plan, in all types of soil including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be leveled and neatly dressed, complete.	225	100 Sqm	2100	472500	3589.05	8075
	Back fill						
41	Banking / Depositing all types of excavated earth in layers not exceeding 200 mm in thickness, breaking clods, watering, rolling each layer with power roller of minimum 8 ton capacity and dressing up to required profiles and levels, in embankment for roads, flood banks, marginal banks, mounds and guide banks etc. and compacting the deposited earth under optimum moisture content to give at least 95% of the maximum dry density, lead up to 50 m and lift up to 1.5 m, complete	325	Cum	140	45500	169.10	54958
42	Deduct for not rolling with power roller of minimum 8 ton capacity for banking excavated earth in layers not exceeding 200 mm in thickness.	160	Cum	-35	-5600	-3.05	-488
43	Deduct for not watering the excavated earth used in banking.	70	Cum	-20	-1400	-12.10	-847

(51)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
29	Dismantling CI / GS / PVC / Asbestos rain water pipes embedded in concrete / brick work with fittings and clamps including dismantling of concrete/brick work etc., stacking the serviceable material and disposal of unserviceable materials up to 50 m lead, of dia: over 150 mm	15	mtr	50	750	103.15	1547
	Clear and Grub						
30	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 300 mm (measured at a height of 1.0 m above GL) and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared, complete.	50	100 Sqm	1000	50000	463.45	23173
31	Felling trees including cutting of trunks and branches, removing the roots, stacking of serviceable materials and disposal of unserviceable materials within a 50 m lead, complete, of girths (measured at a height of 1.0 m above GL.) : over 300 mm and upto 600 mm	40	Each	500	20000	142.75	5710
32	Felling trees including cutting of trunks and branches, removing the roots, stacking of serviceable materials and disposal of unserviceable materials within a 50 m lead, complete, of girths (measured at a height of 1.0 m above GL.) : over 600 mm and upto 1200 mm	12	Each	1000	12000	631.80	7582
33	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared, complete.	20	100 Sqm	1100	22000	239.65	4793
34	Surface dressing of the ground including removing vegetation and inequalities not exceeding 150 mm deep, in all types of soil and disposal of rubbish upto a lead of 50 m, complete.	60	100 Sqm	1100	66000	894.20	53652
	Dewatering						
35	Pumping out water caused by spring, tidal or river seepage, broken water mains or drains and the like.	30	Kl. Ltr.	200	6000	318.05	9542
	Excavation - Close and open timbering						
36	Providing and fixing close timbering including strutting, shoring and packing cavities (wherever required) complete (Measurement to be taken of the face area timbered), Depth not exceeding 1.5 m : in trenches etc.	35	Sqm	30	1050	104.00	3640



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
22	Dismantling dry brick pitching in floors, drains etc, including stacking of serviceable materials and disposal of unserviceable materials within a 50 m lead.	75	Sqm	200	15000	326.80	24510
	Framing demolition						
23	Dismantling woodwork in frames, trusses, purlins and rafters upto a 10 metres span and 5 metres height including stacking the material within a 50 m lead, of sectional areas : upto 4000 sqmm	50	mtr	800	40000	1357.65	67883
24	Dismantling steel work in built up sections at all heights and depths, in angles, tees, flats, channels and tubes including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 m lead.	20	Qtl	5000	100000	65.00	1300
	Partitions Demolition						
25	Dismantling aluminum partitions, doors, windows, fixed glazing and false ceiling and gypsum partitions / false ceiling including stacking of serviceable materials and disposal of unserviceable materials upto a 50 m lead.	100	Sqm	200	20000	17.15	1715
	Rain water Pipes demolition						
26	Dismantling CI / GS / PVC / asbestos exposed rain water pipes with fittings and clamps including stacking the serviceable material and disposal of unserviceable material within a 50 m lead, of dia: upto 80 mm	30	mtr	20	600	19.60	588
27	RAIN WATER PIPES DEMOLITION Dismantling CI / GS / PVC / asbestos exposed rain water pipes with fittings and clamps including stacking the serviceable material and disposal of unserviceable material within a 50 m lead, of dia: over 80 mm and upto 150 mm	45	mtr	40	1800	20.50	923
28	Dismantling CI / GS / PVC / Asbestos rain water pipes embedded in concrete / brick work with fittings and clamps including dismantling of concrete/brick work etc., stacking the serviceable material and disposal of unserviceable materials up to 50 m lead, of dia: upto 80 mm	15	mtr	40	600	42.85	643

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
15	Dismantling / demolishing stone rubble masonry in cement / lime mortar in foundations, super structure and basement at all heights / depths including stacking of serviceable materials and disposal of unserviceable materials upto a 50 m lead. Ceiling Demolition	67	Cum	1300	87100	641.65	42991
16	Dismantling false ceiling, partitions, wall lining, etc supported / fixed to wooden / aluminium / metal frame including dismantling of frame, stacking of serviceable material and disposal of unserviceable material upto a 50 m lead, with : Wooden planks Door / window demolition	10	Sqm	275	2750	17.15	172
17	Taking out door, window and clerestory window shutters (metal or wood) including chowkhats, architrave, holdfast, etc. complete and stacking within a 50 m lead, of areas: upto 3 sqm	34	Each	750	25500	42.95	1460
18	Taking out door, window and clerestory window shutters (metal or wood) including chowkhats, architrave, holdfast, etc. complete and stacking within a 50 m lead, of areas: over 3 sqm	4	Each	1000	4000	56.95	228
19	Dismantling expanded metal or IRC fabrics along with battens and beadings including stacking the serviceable materials within a 50 m lead. Flooring demolition	375	Sqm	215	80625	21.05	7894
20	Dismantling tile work in floors and roofs in cement mortar/lime mortar including stacking of serviceable material and disposal of unserviceable material upto a lead of 50 m, of thickness : 10 mm to 25 mm	900	Sqm	225	202500	22.12	19908
21	Dismantling tile work in floors and roofs in cement mortar/lime mortar including stacking of serviceable material and disposal of unserviceable material upto a lead of 50 m, of thickness : over 25 mm and upto 40 mm	450	Sqm	250	112500	35.65	16043

34


SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
9	Dismantling of fence including supports of MS sections, pipe, wooden or any other material or combination of materials, along with foundations of supports, hooks, bolts etc., excavation of earth including refilling the earth etc., stacking of serviceable materials and disposal of unserviceable materials within 50 m lead : Barbed wire / chain link / expanded metal / concertina wire and the like.	155	Sqm	160	24800	21.05	3263
10	Dismantling of fence including supports of MS sections, pipe, wooden or any other material or combination of materials, along with foundations of supports, hooks, bolts etc., excavation of earth including refilling the earth etc., stacking of serviceable materials and disposal of unserviceable materials within 50 m lead : Wooden batten / boards	50	Sqm	450	22500	21.05	1053
	Selective demolition						
11	Demolishing lime concrete / cement concrete in all mixes, in foundations, super structure and basement, at all heights / depths, including disposal of unserviceable materials upto a 50 m lead.	120	Cum	1250	150000	221.85	26622
12	Demolishing RCC work in foundations, super structure and basement, at all heights / depths, including cutting, straightening scrapping, cleaning and stacking of reinforcement bars and disposal of unserviceable materials upto a 50 m lead.	380	Cum	2500	950000	960.80	365104
13	Demolishing RB work in foundations, super structure and basement, at all heights / depths, including cutting, straightening scrapping, cleaning and stacking of reinforcement bars and disposal of unserviceable materials upto a 50 m lead.	15	Cum	1200	18000	848.00	12720
14	Dismantling / Demolishing brick work in cement / lime mortar in foundations, super structure and basement, at all heights / depths, including removing of mortar, cleaning bricks and stacking of serviceable materials and disposed of unserviceable materials upto 50 m lead	82	Cum	1200	98400	536.60	44001

## KOOTHAMBALAM PROJECT

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	<b><u>SITE PREPARATION</u></b>						
	Site Demolition						
	External services						
1	Dismantling old CI pipes including excavation, removal of pipes, refilling trenches, breaking lead caulked joints, melting of lead and making lead blocks, stacking and handing over to owner pipes & lead at site, and disposal of unserviceable materials within a lead of 50 m, complete, of nominal di : 80 mm	80	mtr	35	2800	127.45	10196
2	Dismantling of manholes including RCC top slabs, CI/SFRC covers with frames, including stacking of useful materials and disposal of unserviceable materials within a lead of 50 m, complete, of shape and size : Rectangular, 900 x 800 x 450 mm deep	12	Each	750	9000	679.75	8157
3	Add for dismantling additional depth of : Circular manholes, 1220 mm dia., for depth beyond 1680 mm	5	mtr	1500	7500	580.65	2903
4	Add for dismantling additional depth of : Rectangular manholes, 900 x 800 mm, for depth beyond 450 mm	5	mtr	1000	5000	534.20	2671
5	Add for dismantling additional depth of : Rectangular manholes, 1200 x 900 mm, for depth beyond 900 mm	5	mtr	1000	5000	636.20	3181
6	Dismantling galvanised steel pipes (external work) including excavation and refilling trenches after taking out the pipes, including stacking of pipes within a 50 m lead, of nominal bores: 15 mm to 40	30	mtr	50	1500	41.50	1245
7	Dismantling of road including taking out soling, metalling etc, stacking of serviceable materials and disposal of unserviceable materials within a lead of 50 m : Water bound macadam	270	Cum	1060	286200	397.13	107225
8	EXTERNAL SERVICES DEMOLITION Dismantling of dry stone pitching including stacking of serviceable materials and disposal of unserviceable materials within a lead of 50.	50	Cum	1060	53000	302.70	15135

36

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
40	Providing teak wood hand railing for stair case etc using (instead of SS screw, ms screw used.)	55.12	Rmt	1485	81853	589.31	32483
41	Providing teak wood plank for the stair case (wooden tread)	11.32	Sqm	5726	64818	2442	27643
				(B)	7760758		6638668
<b>GRAND TOTAL (A + B)</b>					<b>29648263</b>		<b>23247998</b>

  
Assistant Engineer

Chennai Central Sub Division 2/V  
CPWD, Besant Nagar, Chennai - 90



Assistant Engineer (P)  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90

  
Executive Engineer

Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90



SN0	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
24	Fabricating 50 x 50 angles with 50 x 6 mm flat for parapert fin concrete at all balcony railings ( tender item rate 119)	914.99	Kg	112	102479	65.05	59520
25	Providing and fixing GI sheet gutter with multiples all around and fix in position	36.09	Rmt	1815	65503	737	26598
26	Marking inside and out side levels survery bill enclosed						
27	Statue pedestal	20	Nos	1000	20000	1000	20000
28	Athistanam work						
28.1	P.C.C. 1:4:8	15.45	Cum	4527	69942	3145.75	48602
28.2	Brick work in CM 1:6	46.36	Cum	6064	281127	3450.75	159977
28.3	Cornice work decorative plastering	2317.8	Rmt	350	811220	367	850622
29	Wooden louver inside auditorium	38.2	Sqm	4679	178738	3634.2	138826
30	Teak wood cost esclation	40.778	L.S	28917	1179177	28917	1179177
31	L band work	102.14	L.S	154	15730	154	15730
32	Providing and fixing 80 x 40 mm thick 2.8 mm tubular section by making pocket for holding and pack with concrete at sill level as directed by Architect	102.14	Rmt	636	64961	636	64961
33	Staircase Hand rail- Vertical tubular section 40 x 40 mmx2.8mm thick handrail	80.84	Rmt	430	34761	146.61	11852
33.1	Staircase Hand rail- Horizontal tubular section 40 x 40 mmx2.8mm thick handrail	195.21	Rmt	321	62662	146.61	28620
34	Providing and fixing 250 mm width and 25 mm thick mm plank over parapert and column cladding including fixing lock joint in wood.	20	Sqm	6251	125020	2442	48840
35	Providing and fixing wall ledge on balcony slabs as per Architect instruction for the size 75mm width.	35.78	Rmt	627	22434	627	22434
36	Providing and fixing wall ledge on balcony slabs as per Architect instruction for the size 125mm width.	35.78	Rmt	793	28374	793	28374
37	Providing and fixing HILTI BOLT of 16 mm dia x 165 mm for structural work all etc.	121	Nos	379	45859	379	45859
38	Providing and fixing HILTI BOLT of 12 mm dia x 100 mm for structural work all etc.	506	Nos	75	37950	75	37950
39	Providing wall panelling(louver) work above the stage opening etc.	12.99	Sqm	7919	102868	5433.52	70581

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
17.1	Fabricating and erecting angular section steel above the state area as per Drawing given by Architect with 75 x 75 x 5 mm and 50 x 50 x 5 mm section (Rates as per tender item No.119)	3378.5	Kg	112	378393	81.45	275180
17.2	Fabricating and erecting the existing available GI pipe at intermediates of the grid as per drawing.	675	Kg	40	27000	32.3	21803
17.3	Providing and fixing 50 x 50 mm spacing of 3 mm weld mesh over angeles (rates as per tender item No.122)	658.69	Kg	125	82336	69.45	45746
17.4	Prepare surface and apply three coats of enamel paint over one coate of primer (rates as per tender item no.159)	318.14	Sqm	140	44540	86.75	27599
19	Providing and laying in position, specified mix of RCC including compaction and curing complete but excluding centering, shuttering and reinforcement 1:1 1/2 : 3 nominal mix (1.5 m below and upt 1.2 m above G.L) (Refer P.No. MB 2)	77.46	Cum	5411.6	419183	4334.35	335739
20	Providing and fixing 75 mm 6 guage PVC pipe for temporary re routing water line behind the koothambalam (Refer P.No.17 extra work MB 1)	65.55	Rmt	255	16715	257.32	16867
21	Providing and laying besser block masonry work of size: 400 x 200 x200 and cement mortar 1:4 for gallery step work	73.76	Sqm	838	61811	692.8	51101
22	Fabricating and bending toform circular cyclinder for jet nozzles for AC work with 3.2 mm MS.Sheet kept in position	42	Nos	2127.97	89375	2127.97	89375
23	Teak wood louver for bird mesh as per details						
23.1	Wooden louver for bird mesh between the beam gaps and dress gaps with 25 x 50 mm frames and 30 x 20 mm wooden louvers both sides including fixing in position etc	174.37	Sqm	5586	974031	5433.52	947443
23.2	Wooden louver for bird mesh between the beam gaps and dress gaps with 25 x 50 mm frames and 30 x 20 mm wooden louvers single side including fixing in position etc	83.19	Sqm	3964	329765	3152.02	262217
23.3	Wooden louver for bird mesh between the beam gaps and dress gaps with 25 x 50 mm frames and 30 x 20 mm wooden louvers single side including fixing in position etc	22.96	Sqm	3964	91013	3152.02	72370

259

SN0	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
7	Prepare surface and fix 50 mm x 50 mm welded mesh of 2.5 mm thick and blow cm1:3 for 40 mm to 50 mm thick with rough course sand with grouting compound by air compressor and guniting equipment.(Refer P.No.8 Extra Work MB 1	247.24	Sqm	1575	389403	2079.07	514029
8	Stage work for Kalasam fixing area.(Refer P.No.8'extra work MB 1) - 2 areas				30250		✓ 30250
9	Kalasam fixing - 2 Nos.				10895		✓ 10895
10	Crane hire charges and fabricating angular cage with 75 mm x 75 mm existing 1" pipe				79678		✓ 79678
11	Providing scaffolding for AC duct and electrical work.(Refer P.No. 9 Extra work MB1)	2261.3	Sqm	70	158288	142.25	321664
12	Providing and fixing eves board as design as existing flower pattern in 1" thik teak wood plank.(Refer P.No.10 extra work MB 1)	62.58	Rmt	2231	139616	2442	152820
13	Providing and fixing anutone board with silver wood planks all over the shuttering edges including tying with GS wire to embed in the roof concrete.(Anutone Board supplied by client at free of cost)Refer P.10 Extra work MB1)	141.18	Sqm	129	18212	151.5	21389
14	Supply of teak wood for Kalakshetra Foundation carpenter for Kalasam moulding (Refer P.No.11 Extra Work MB 1)	0.49	Cum	126776	62120	74700	36603
15	Providing and fixing re bar grouting to the existing beams and slab with Hilti chemcial for green room area.(Refer P.No. 11 Extra work MB 1)						
15.1	16 mm dia Rod	302	Nos	233	70366	93.13	21699
15.2	20 mm dia Rod	114	Nos	472	53808	116.41	54946
15.3	12 mm dia Rod	595	Nos	149.5	88953	69.85	10443
15.4	10 mm dia rod	296	Nos	113.6	33626	58.21	6613
16	Providing and fixing teak wood cutter in valley area for the roof in 1" plank including nailing all etc.(Refer P. 13 Extra work MB 1)	43.92	Sqm	4652	204316	2442	107253
17	Fabrication work in stage area						

(C10)



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
160	Providing three finish coats of water-proof cement colour paint to walls and ceilings, applied evenly to give uniform finish in colour patterns and even shade, including curing, preparation of surface and a coat of matching primer, complete.	285	Sqm	60	17100	76.40	21774
161	Providing three finish coats of dry colour distemper to walls and ceilings applied evenly to give a uniform finish including preparation of surfaces, primer coat of whitening, to give an even shade.	1000	Sqm	80	80000	71.05	71050
				(A)	21887505		16609330

**EXTRA ITEMS FOR KOOTHAMBALAM PROJECT**

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
1	Providing and apply 2 coats of Linseed oil for battens and rafter on the roof area.(Refer P.No.6 Extra work MB 1)	3041.7	Sqm	110	334589	40.2	122277
2	Removing and handing over the Kalasam (big) Refer P.No.6 Extra work MB1	2	No	3000	6000	3000	6000
3	Removing and handing over the Kalasam (small) Refer P.No.6 Extra work MB1	1	No	2000	2000	2000	2000
4	Dismantling and removing statue and handing over to the client(Refer P.No.7 extra work MB 1)	54	No	200	10800	200	10800
5	Dismantling the existing name stone on hanling over to the client(Refer P.No.7 extra work MB 1)	2	No	500	1000	500	1000
6	Clearing and carting away the existing debris.(Refer P.No.7 Extra Work MB1)	114	Loads	1200	136800	433.92	49467
6.1	Clearing and carting away the existing debris I unit.(Refer P.No.7 Extra Work MB1)	34	Loads	600	20400	433.92	14753

(41)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
155	Providing and laying colour sand stone slab treads and of steps in a single piece, of uniform thickness, with machine cut edges, laid on a bed of 20 mm thick cement mortar 1:4 (with coarse sand), laying slabs in cement slurry pigmented to match the shade of slabs, grinding, rubbing polishing, complete (length up to 1500 mm) : 25 mm thick : Grey Kotah stone	25	Sqm	800	20000	928.79	23220
156	Providing and laying stone slab in skirting and risers of steps, of uniform thickness with machine cut edges, in profiles laid on a bed of 20 mm thick cement mortar 1:4 with coarse sand including dressing of sides and tops laying slabs in cement slurry pigmented to match the shade of slabs pointing of joints cleaning excess mortar/slurry etc. curing, complete : 25 mm Rough Split Stone : Black Cuddapa stone	15	Sqm	800	12000	880.58	13209
157	Wooden Fflooring Providing and laying wood flooring over plain levelled and dried sub floor and hard wood timber frame including tongue and groove jointing system, in patterns including wax polishing the top surface and antitermite treatment and a coat of wooden primer, to the hidden surfaces and fixing with stainless steel screws etc., complete (timber frame shall be paid for separately) : 20 mm thick : 2nd class CP teak wood	125	Sqm	5380	672500	4250.60	531325
158	Paints - Wood and metal surfaces Providing three finish coats of synthetic enamel colour paint, applied evenly and finished to approved texture, including, preparation of surface and a coat of primer, complete : Wooden surfaces with approved primer	850	Sqm	130	110500	86.75	73738
159	Paints - Walls & Ceilings Providing three finish coats of synthetic enamel colour paint, applied evenly and finished to approved texture, including, preparation of surface and a coat of primer, complete : Steel surfaces with zinc chromate primer	350	Sqm	140	49000	86.75	30363

(42)

SNO	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
151	Providing and laying in situ terrazzo floor in pattern and profile under layer cement concrete 1:2:4 and top layer with colour marble chips in one or more shade laid in cement in proportion 1:2 (1 cement : 2 marble chips by volume), laid in panels / narrow strips (dividing strips to be placed in floor shall be paid separately), cured, rubbed, polished and finished, complete, for : 50 mm thick flooring with under layer 38 mm thick and top layer 12 mm thick : Floor pavings, window sills, copings Medium shade pigment with 50% white and 50% ordinary grey cement	250	Sqm	700	175000	475.60	118900
	Stone flooring						
152	Providing and laying colour sand stone slab flooring, laid in patterns and profiles on a bed of 25 mm average thick cement mortar 1:4 (with coarse sand) to make up a total thickness of 50 mm, including laying slabs in cement slurry, pigmented to match the shade of slabs, grinding, rubbing and polishing complete : 25 mm thick: Grey Kotah stone	50	Sqm	600	30000	928.79	46440
153	Providing and laying colour sand stone slab flooring, laid in patterns and profiles on a bed of 25 mm average thick cement mortar 1:4 (with coarse sand) to make up a total thickness of 50 mm, including laying slabs in cement slurry, pigmented to match the shade of slabs, grinding, rubbing and polishing complete : 25 mm thick: Black Cuddapa stone	10	Sqm	600	6000	880.58	8806
154	Providing and laying colour sand stone slab flooring, laid in patterns and profiles on a bed of 25 mm average thick cement mortar 1:4 (with coarse sand) to make up a total thickness of 50 mm, including laying slabs in cement slurry, pigmented to match the shade of slabs, grinding, rubbing and polishing complete : 18 / 20mm thick : Yellow Jaisalmer stone	20	Sqm	650	13000	990.99	19820

(43)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
147	Providing and laying cement concrete flooring 1:2:4, finished with a floating coat of neat cement including cement slurry, laid in panels, in floors, landings, steps and similar locations, including nosing of steps ,etc. where required, complete : 40 mm thick	750	Sqm	350	262500	262.45	196838
148	CONCRETE FLOORING Providing and laying 40 mm thick red oxide flooring, under layer of 30 mm thick cement concrete 1:2:4 and top layer of 10 mm thick plaster of cement red oxide mix (using 3.5 kg of red oxide of iron per 50 kg of cement) in cement mortar 1:3 with coarse sand finished with a floating coat of neat cement red oxide mix of same proportion, including cement slurry, nosing of steps etc., complete.	850	Sqm	500	425000	475.60	404260
149	CONCRETE FLOORING Add for making chequers in pattern on cement concrete floors, steps, landings, pavements, etc.	150	Sqm	200	30000	27.30	4095
150	Providing and laying red oxide plaster skirting (upto 300 mm height) with top layer of 6mm thick plaster of cement mortar red oxide mix, using 3.5 kg of red oxide of iron per 50 kg of cement in cement mortar 1:3 with coarse sand, finished with a floating coat of cement red oxide mix of same proportion, of total thickness : 21 mm, with under layer 15 mm thick cement plaster 1:3 with coarse sand	25	Sqm	250	6250	252.25	6306
	Terrazo flooring						

(44)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
140	Forming 15 mm deep grooves of uniform size in the top layer of washed stone grit plaster in pattern using wooden battens/aluminium channels, nailed to the under layer including removal of wooden battens/aluminium channels, repair to the edges of panels and finishing the groove complete in cement mortar 1:2 (1 cement : 2 silica sand) admixed with colour pigment, of groove widths : 10 mm	160	mtr	50	8000	50.00	8000
	Ceiling, wall acoustical tiles						
141	Providing and fixing ceiling tiles / boards in steel / aluminium / wooden frame work, including filling joints with joint fillers, jointing compounds, tapes, papers, painting of edges of tiles/boards, with two coats of primer, necessary screws where required etc., complete (frame work will be paid for seperately), of sizes : 12.5 mm thick Plaster of paris (gypsum anhydrous) ceiling tiles.	625	Sqm	300	187500	498.87	311794
142	do - do gypsum board 12mm thick.	180	Sqm	500	90000	712.30	128214
143	do - do Plain BWP type phenol formaldehyde synthetic resin bonded pressed particle board sheets confirming to IS 3087.	75	Sqm	700	52500	518.75	38906
	Brick flooring						
144	Providing and laying brick on edge flooring with bricks of class 75 including preparation of sub-base/surface, dressing of ground, if any, to required profiles, cement slurry, etc., complete, in cement mortar using coarse sand, of mix : 1:4	160	Sqm	700	112000	493.85	79016
145	FLOORING Add for brick flooring laid diagonal herring bone bond or other pattern. Concrete flooring	160	Sqm	700	112000	493.85	79016
146	Providing and laying cement concrete flooring 1:2:4, finished with a floating coat of neat cement including cement slurry, laid in panels, in floors, landing, steps and similar locations, including nosing of steps ,etc. where required, complete : 25 mm thick	225	Sqm	250	56250	262.45	59051

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
134	Providing, fabricating and fixing in position selected quality seasoned & chemically treated wood work in frames and sub frames of doors, windows, clerestory windows and other frames, wrought to size & profile with mitred joints, including fixing to supports with threaded expansion bolts / hold fasts or other fixing accessories, complete : 2nd class CP teak wood	2.5	Cum	170000	425000	100279.50	250699
	<b>Finishes</b>						
	Gypsum plaster						
135	Providing and applying plaster of paris 10 mm thick (gypsum anhydrous)	300	Sqm	195	58500	99.70	29910
	Cement plaster						
136	Providing 10 mm thick average plaster to soffits and sides of slabs, beams and other concrete surfaces, etc., in cement mortar 1:4 with fine sand, applied, finished smooth and cured, complete.	200	Sqm	265	53000	128.90	25780
137	Providing 12 mm thick average cement plaster to walls, columns, piers, etc., applied, finished smooth and cured, complete, with mixes : 1:6 with fine sand	150	Sqm	215	32250	138.45	20768
138	Providing 12 mm thick average cement plaster to walls, columns, piers, etc., applied, finished smooth and cured, complete, with mixes : 1:6 with coarse sand	180	Sqm	236	42480	138.45	24921
139	Providing 20 mm thick cement plaster in two coats, under layer 12mm thick cement plaster 1:6 with coarse sand and top layer 8 mm thick cement plaster 1:4 with coarse sand, finished rough with sponge and cured complete including providing grooves on top layer. The size of panel shall not exceed 2 sqm.	250	Sqm	350	87500	185.50	46375

(46)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	<u>Damp &amp; Waterproofing, Thermal protection</u>						
	Damp proof course						
128	Providing and laying damp-proof course with cement concrete 1:2:4 with graded stone aggregate 12.5 mm nominal size, including side shuttering, compacting etc., complete. 40 mm thick	70	Sqm	300	21000	194.85	13640
	Wall and ceiling insulation						
129	Providing and placing in position over/on vapour barrier and such locations, insulation slab of approved manufacturers, abutting each other closely, including cutting to required sizes/profiles and all incidental work, complete, including applying a bonding base of a coat of blown bitumen @ 1.0 kg/sqm, glass wool/mineral wool/rock wool shall be packed in 100 micron low density polythene film, duly sealed from all sides (frame work shall be paid for separately) : 50 mm thick, fibre-glass (24kg per cum)	625	Sqm	500	312500	406.10	253813
130	WALL OR CEILING INSULATION Add for wrapping glass wool/mineral wool/rock wool in 0.1 mm thick aluminum foil instead of 100 microns thick low density polythene film.	625	Sqm	250	156250	198.15	123844
	Roof tiles						
131	Providing and fixing Mangalore tiles of size 400 x 240 mm, so as to cover an area of 320 x 210 mm, the lap should be not less than 75 mm.	200	Sqm	910	182000	525.97	105194
132	Fixing mangalore tiles of size 400x240mm so as to cover an area of 320x210mm. Te lap should be not less than 75mm. Provide for necessary mortar jointing, chasing in walls, tile cutting, tile wastage etc.	2500	Sqm	350	875000	525.97	1314925
133	Providing and fixing ridge tile and 3 way connector including necessary jointing	115	Rm	225	25875	240.53	27661
	<u>Doors and Windows</u>						
	Wooden frames						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	Bird Mesh						
122	Refabricating with existing framework with additional rod welded support and spreading GI welded metal mesh over the frames to shape and size and installing the fabricated units in place between RC fins without gaps.	375	Kg	125	46875	69.45	26044
	<u>Wood work</u>						
	Wood Framing						
123	Providing, fabricating and erecting MS welded built up sections/ frames and applying a primer coat of zinc chromate on duly prepared surfaces, complete : In guard bars, ladders, railings, and similar works.	180	Kg	90	16200	81.45	14661
124	Providing, fabricating and fixing in position selected quality seasoned and chemically treated wood work in frames of false ceilings, partitions, etc., complete : 2nd class Deodar wood.	6.5	Cum	110000	715000	65292.48	424401
125	Providing and fixing wooden frame with 50 mm x 50 mm battens, fixed at 600 mm centre to centre (both ways). Allow for solignum treatment to the timber framework : 2nd class CP teak Wood	225	Sqm	3500	787500	3386.20	761895
	Roof Truss						
126	Providing, fabricating and fixing in position selected quality seasoned and chemically treated wrought wood work in trusses, rafters, runners, posts, struts, wall plates, etc of size and profile in inclined roofs including anoring to concrete members with holding down bolts, fixing accessories and all incidental works complete. 2nd class CP teakwood	20	Cum	150000	3000000	100279.50	2005590
	Rails and Balusters						
127	Providing and fixing wooden hand rail made out of 55 mm x 75 mm timber and fixed to existing MS plate with S/S screws ,etc. complete : 1st class Burma teak wood	110	mtr	1500	165000	605.09	66560

(48)



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
117	Providing random rubble masonry with hard stone with sides of stones, hammer dressed to achieve minimum thicknesses of joints and laid in cement mortar 1:6 with coarse sand, with joints not more than 15 mm thick, joints finished flush/raked to minimum 10 mm depth including necessary scaffolding, complete. Allow for levelling with cement concrete 1:6:12 with coarse sand at plinth/window sill/ceiling level and the like, in : Superstructures, upto 20.0 m above plinth level	45	Cum	2950	132750	3355.15	150982
118	Providing random rubble masonry with hard stone with sides of stones, hammer dressed to achieve minimum thicknesses of joints and laid in cement mortar 1:6 with coarse sand, with joints not more than 15 mm thick, joints finished flush/raked to minimum 10 mm depth including necessary scaffolding, complete. Allow for levelling with cement concrete 1:6:12 with coarse sand at plinth/window sill/ceiling level and the like, in : Basements and the like upto 7.0 m below GL	170	Cum	2750	467500	2817.50	478975
	<b><u>Metal work</u></b>						
	Structural steel						
119	BUILT UP SECTION Providing, fabricating and erecting bolted structural steel built up sections, trusses and frames and applying a primer coat of zinc chromate on duly prepared surfaces, complete.	2500	Kg	112	280000	81.45	203625
120	BUILT UP SECTION Providing and applying three finish coats of synthetic enamel paint on steel surfaces, complete.	225	Sqm	110	24750	86.75	19519
	Steel stair						
121	Providing, fabricating and erecting MS welded built up sections/ frames and applying a primer coat of zinc chromate on duly prepared surfaces, complete : In stringers, treads, landings, etc. of staircases including chequered plates wherever required, all complete.	200	Kg	130	26000	69.45	13890

(47)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
113	Add for cutting or chamfering the bricks to required shape in masonry work	120	mtr	400	48000	46.46	5575
114	Providing and making mouldings, cornices & corbels with bricks of class 75 in cement mortar 1:4 with coarse sand (girth to be measured in mm and length in running metres)	350	100 mm/m	350	122500	367.00	128450
115	Providing brick work with bricks of class 75 in half brick thick walls in any shape and profile including curvilinear, laid in cement mortar 1:4 with coarse sand, joints finished flush/raked to 12 mm depth, cured, including scaffolding and flat reinforcement (25 x 3 mm) at every fourth course and embedding the same in adjoining masonry/columns by drilling holes etc complete : Super structure upto 20.0 m above plinth level.	125	Sqm	680	85000	544.70	68088
	Random rubble masonry						
116	Providing random rubble masonry with hard stone with sides of stones, hammer dressed to achieve minimum thicknesses of joints and laid in cement mortar 1:6 with coarse sand, with joints not more than 15 mm thick, joints finished flush/raked to minimum 10 mm depth including necessary scaffolding, complete. Allow for levelling with cement concrete 1:6:12 with coarse sand at plinth/window sill/ceiling level and the like, in : Foundations and plinths, (1.5 m below and upto 1.2 above GL)	75	Cum	2600	195000	2817.50	211313

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
108	Providing and laying lime concrete as per IS 2541 with 40% mortar comprising of 1 lime putty : 1 surkhi : 1 fine sand and 100% graded brick aggregate 40 mm nominal size in foundations, footings and under floor including side forms, complete. Precast - Fins/louvers	12	Cum	3000	36000	4074.20	48890
109	Providing and fixing precast cement concrete in vertical and horizontal fins individually or forming boxes and for louvers and similar, cast, cured, hoisted and fixed in position, setting in cement mortar 1:3 with coarse sand, along with required formwork and finishing smooth and all fixing arrangements complete but excluding the cost of reinforcement. Allow for stacking, curing and handling at all levels above/below GL.	33.5	Cum	10000	335000	5325.80	178414
	<u>Masonry - Brickwork, conventional bricks</u>						
110	Providing brick work with bricks of class 75, joints finished flush/raked to 12 mm depth, cured including necessary scaffolding complete in cement mortar 1:6 with coarse sand, in : Foundations and plinths (1.5 m below and upto 1.2 m above GL)	85	Cum	4250	361250	3450.75	293314
111	Providing brick work with bricks of class 75, joints finished flush/raked to 12 mm depth, cured including necessary scaffolding complete in cement mortar 1:6 with coarse sand, in : Superstructures upto 20.0 m above plinth level.	125	Cum	4400	550000	3972.75	496594
112	Providing brick work with bricks of class 75, joints finished flush/raked to 12 mm depth, cured including necessary scaffolding complete in cement mortar 1:6 with coarse sand, in : Basement, under ground water tank and the like, upto 7.0 m below GL	30	Cum	4250	127500	3450.75	103523

(51)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
104	Providing and laying plain cement concrete 1:3:6 with coarse sand, laid to required thickness (not exceeding 50mm) and slopes, in roof screedings, floor screedings and similar locations, laid in panels not exceeding 4 sqm., consolidated, finished fair and cured complete : Floor screedings	57	Cum	3700	210900	3401.30	193874
	Structural Cooncrete - RCC						
105	Providing and laying in position, specified mix of RCC, including compaction and curing complete but excluding centring, shuttering and reinforcement, 1:2:4 nominal mix : In foundation and plinth (1.5 m below and upto 1.2 m above G.L.)	28	Cum	4500	126000	4190.95	117347
106	Providing and laying in position, specified mix of RCC, including compaction and curing complete but excluding centring, shuttering and reinforcement, 1:2:4 nominal mix : From plinth level to 7.0 m below GL in basement	5	Cum	4700	23500	4190.95	20955
107	Providing and laying in position, specified mix of RCC, including compaction and curing complete but excluding centring, shuttering and reinforcement, 1:2:4 nominal mix : From plinth level upto 20.0 m above in superstructure	125	Cum	4850	606250	4727.80	590975
	Lime Concrete						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	Inserts						
98	Providing and fixing wedge expansion type hold / dash fasteners on CC / RCC surface backing including drilling necessary holes and the cost of bolts etc., complete : Fastener with threaded dia. 6 mm	800	Each	50	40000	27.50	22000
99	Providing and fixing wedge expansion type hold / dash fasteners on CC / RCC surface backing including drilling necessary holes and the cost of bolts etc., complete : Fastener with threaded dia. 10 mm	150	Each	75	11250	33.30	4995
	Reinforcement steel						
100	Providing and laying in position TMT (Thermo Mechanically Treated) bar reinforcement in all reinforced concrete works including straightening, cutting, bending, binding with 18 gauge annealed steel wire, complete, of grade : Fe 415	15	Tonne	55000	825000	53850.00	807750
	Plain cement concrete						
101	Providing and laying cement concrete with coarse sand and graded stone aggregate, 40 mm nominal size in foundations, footings and under floors including side forms curring etc., complete, of nominal mix : 1:4:8	40	Cum	3500	140000	3145.75	125830
	Reinforcement steel						
102	Providing and laying cement concrete with fine sand and graded stone aggregate, 40 mm nominal size in foundations, footings and under floors including side forms, curring etc., complete, of nominal mix : 1:4:8	18	Cum	3500	63000	3145.75	56624
103	Providing and laying cement concrete with fine sand and graded stone aggregate, 40 mm nominal size in foundations, footings and under floors including side forms, curring etc., complete, of nominal mix : 1:3:6	15	Cum	3700	55500	3401.30	51020

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
95	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Soffits and sides of beams, plinth beams, lintels, ties, ribs, pergolas and such other, string courses, cornices, corbels.	10	Sqm	300	3000	262.35	2624
96	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Soffits and sides of suspended slabs, floor and roof projections, landing slabs, canopies, chajjas, slabs of planting boxes and such other horizontal elements, coffer ribs and slabs.	20	Sqm	400	8000	316.50	6330
97	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Soffits and sides of waist slabs of stairs, sides of risers and stepped waist slabs, spiral staircases, etc.	8	Sqm	400	3200	316.50	2532

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
92	Providing and fixing centering and shuttering for concrete work (plain and reinforced) in following locations, including strutting, propping, bracing, bolting tie bolt / spring coil / plastic cone, wedging, easing, striking, removal etc, complete. Allow for forming grooves, drips, throats, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Sides of footings of columns and walls and sides of base slabs.	35	Sqm	300	10500	166.05	5812
93	Providing and fixing centering and shuttering for concrete work (plain and reinforced) in following locations, including strutting, propping, bracing, bolting tie bolt / spring coil / plastic cone, wedging, easing, striking, removal etc, complete. Allow for forming grooves, drips, throats, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Foundation beams, floor channels, kerb stones and drain walls.	18	Sqm	300	5400	166.05	2989
94	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Sides of columns, piers of any shape, size and profile.	10	Sqm	300	3000	354.85	3549

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
87	Providing and fixing MS gratings in lengths of 600 to 1000 mm, fabricated with angle frames and flats at 25 mm centres, Angle 50 x 50 x 5 mm and flat 45 x 5 mm Waterbound Macadam - Subgrade	15	Sqm	3000	45000	3486.28	52294
88	Preparation of subgrade by excavating or filling with available earth to an average of 225 mm depth, dressing to camber, watering and consolidating with road roller of 8-10 t capacity including making good the undulations etc. and disposal of surplus earth / bringing earth from borrow pits within a lead of 50 m, complete.	15	100 Sqm	5500	82500	55.95	839
89	Consolidation of sub-grade with road roller of 8 to 10t capacity including making good the undulations, etc. with earth or quarry spoils, etc. and rerolling the sub-grade, complete.	15	100 Sqm	3000	45000	337.40	5061
90	Add for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (Proctor density)	10	100 Sqm	2000	20000	8.15	82
	Kerbs & Gutters						
91	Providing and laying M-20 grade precast concrete kerb stones including setting in cement mortar 1:4 with coarse sand and pointing of joints with same mortars, etc. complete of size : 300 x 300 x 150 mm thick	160	mtr	450	72000	363.29	58126
	<u>Concrete Formwork and Accessories</u>						
	<u>Form Work/Centering and shuttering</u>						
	Forms in Place						

(56)



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
80	CATCH BASINS OR MANHOLES Add for depth of manholes of size 900 x 800 mm beyond 600 mm	8	mtr	6000	48000	4153.60	33229
81	CATCH BASINS OR MANHOLES Add for depth of manholes of size 1200 x 900 beyond 900 mm	6	mtr	8000	48000	4975.60	29854
82	Providing manhole covers with frames and fixing the same during laying of cement concrete / reinforced cement concrete 1:2:4 mix on top of brick work / in slab, complete, of shape and duty : SFRC conforming to IS:12592, Rectangular, Medium duty 600 x 600 mm (Grade designation MD 10)	15	Each	2500	37500	1134.25	17014
83	CATCH BASINS OR MANHOLES Providing manhole covers with frames and fixing the same during laying of cement concrete / reinforced cement concrete 1:2:4 mix on top of brick work / in slab, complete, of shape and duty : Circular, Medium duty 500 mm dia. (Grade designation MD 10)	3	Each	2000	6000	913.60	2741
84	Providing and fixing foot rests in manholes embedded in 230 x 200 x 100 mm cement concrete blocks 1:3:6 with coarse sand, complete, of : CI weight 4.5 kg	15	Each	350	5250	236.55	3548
	Drains						
85	Constructing 300 mm inside drain width with 230 mm thick brickwork with bricks of class 75 in cement mortar 1:4 with coarse sand over raft or CC base, 25 mm thick CC 1:2:4 at bottom and in filling haunches including 12 mm thick cement plaster 1:3 with coarse sand finished with floating coat of neat cement inside and on exposed surface for drain of average depth : 100 mm	25	mtr	2100	52500	873.82	21846
86	Constructing 300 mm inside drain width with 230 mm thick brickwork with bricks of class 75 in cement mortar 1:4 with coarse sand over raft or CC base, 25 mm thick CC 1:2:4 at bottom and in filling haunches including 12 mm thick cement plaster 1:3 with coarse sand finished with floating coat of neat cement inside and on exposed surface for drain of average depth : 300 mm	15	mtr	2750	41250	1296.46	19447

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
77	Constructing circular type manhole with class 75 bricks in cement mortar 1:4 with coarse sand, inside plaster 12 mm thick with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, foundation concrete 1:3:6 with coarse sand, 150 mm thick cement concrete 1:2:4 on top of masonry including centering, shuttering, making necessary channel in 150 mm thick cement concrete 1:2:4 finished with a floating coat of neat cement, complete, but excluding cost of foot rest and outside plaster, excavation and back filling, complete, of internal size : Add for depth over 910 mm and upto 1670 mm for circular manhole 910 mm dia at bottom and 560 mm dia at top	3	mtr	19000	57000	3567.30	10702
78	Constructing manholes one brick thick with class 75 bricks in cement mortar 1:4 with coarse sand, RCC top slab 150 mm thick with cement concrete 1:2:4 with necessary reinforcement, foundation concrete, 200 mm thick with cement concrete 1:4:8 with coarse sand, 12 mm thick inside plaster with cement mortar 1:3 in coarse sand finished with a floating coat of neat cement, making channels with cement concrete 1:2:4, finished with a floating coat of neat cement, complete, but excluding cost of foot rests and outside plaster, excavation and back filling, complete, of internal size : 900 x 800 x 600 mm deep	12	Each	12000	144000	7959.84	95518
79	Constructing manholes one brick thick with class 75 bricks in cement mortar 1:4 with coarse sand, RCC top slab 150 mm thick with cement concrete 1:2:4 with necessary reinforcement, foundation concrete, 200 mm thick with cement concrete 1:4:8 with coarse sand, 12 mm thick inside plaster with cement mortar 1:3 in coarse sand finished with a floating coat of neat cement, making channels with cement concrete 1:2:4, finished with a floating coat of neat cement, complete, but excluding cost of foot rests and outside plaster, excavation and back filling, complete, of internal size : 1200 x 900 x 900 mm deep	6	Each	20000	120000	10260.10	61561

85

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
73	Constructing soak pits 2500 mm dia., 3000 mm deep with 450 x 450 mm dry brick honey comb shaft with class 75 bricks, shaft top covered with RCC slab in cement concrete mix 1:2:4, 100 mm thick with reinforcement, portion between honey comb shaft and outer wall, filled with brick bats and brick ballast, covered at the top with 25mm thick stone slabs & earth, SW drain pipes 100 mm dia., 1800 mm long including excavation and disposal of surplus earth in authorized dumps, complete.	8	Each	20000	160000	15363.25	122906
	Catch basins or Manholes						
74	Constructing road gully chambers 450 x 500 x 600 mm deep inside, in one brick thick brick work with bricks of class 75 in cement mortar 1:5 in fine sand, including fixing horizontal grating with frame of size 450 x 500 mm in 150 mm thick cement concrete 1:2:4, foundation concrete 1:5:10, with coarse sand 150 mm thick, inside plaster 12 mm thick with cement mortar 1:3, finished with a floating coat of neat cement, excavation and back filling, complete, with : CI gratings weighing 90 kg.	30	Each	5000	150000	2913.15	87395
75	Constructing road gully chambers 450 x 450 x 775 mm deep inside, in one brick thick brick work with bricks of class 75 in cement mortar 1:5 with fine sand, including fixing 450 x 100mm vertical grating, top RCC slab 75 mm thick in 1:2:4 mix, foundation concrete 150 mm thick in 1:5:10, with coarse sand, inside plaster 12 mm thick with cement mortar 1:3 finished with a floating coat of neat cement, excavation and back filling, complete, with : CI gratings weighing 15.0 kg	12	Each	6500	78000	3401.10	40813
76	910 mm inside dia. at bottom, 560 mm inside dia. at top, 910 mm deep inside, and foundation concrete 225 mm thick	5	Each				

(59)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
71	Constructing septic tanks conforming to IS:2470 with brick work in cement mortar 1:4 with coarse sand. Top slab in RCC 1: 2:4 mix with necessary reinforcement, precast RCC baffle walls, 12 mm thick plaster inside with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, flooring with cement concrete 1:2:4, laid to slope, of minimum thickness 100 mm, finished with 12 mm thick cement plaster 1:3 in coarse sand finished with a floating coat of neat cement, outside plaster 15 mm thick with cement mortar 1:5 in fine sand, cast iron tees of required size for inlet and outlet, CI vent pipes 50 mm dia. with mosquito proof nets, and 32 mm dia. brass wheel valves for removal of sludge, including SFRC manhole covers with frames, light duty, 600 x 450 mm size and plastic encapsuled MS foot rests at 300 mm intervals, complete, excluding excavation and refilling for : two year cleaning cycle for: 20 users	1	Each				
72	Constructing septic tanks conforming to IS:2470 with brick work in cement mortar 1:4 with coarse sand. Top slab in RCC 1: 2:4 mix with necessary reinforcement, precast RCC baffle walls, 12 mm thick plaster inside with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, flooring with cement concrete 1:2:4, laid to slope, of minimum thickness 100 mm, finished with 12 mm thick cement plaster 1:3 in coarse sand finished with a floating coat of neat cement, outside plaster 15 mm thick with cement mortar 1:5 in fine sand, cast iron tees of required size for inlet and outlet, CI vent pipes 50 mm dia. with mosquito proof nets, and 32 mm dia. brass wheel valves for removal of sludge, including SFRC manhole covers with frames, light duty, 600 x 450 mm size and plastic encapsuled MS foot rests at 300 mm intervals, complete, excluding excavation and refilling for : two year cleaning cycle for: 50 users	1	Each				

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
67	Providing, laying, jointing and testing of glazed stone ware pipes, conforming to IS:651 grade A, and jointing with cement mortar 1:1 with fine sand and tarred gasket of hemp yarn soaked in thick cement slurry, complete, excluding trenching and back filling, of nominal dia.: 100 mm	50	mtr	310	15500	226.05	11303
68	Providing, laying, jointing and testing of glazed stone ware pipes, conforming to IS:651 grade A, and jointing with cement mortar 1:1 with fine sand and tarred gasket of hemp yarn soaked in thick cement slurry, complete, excluding trenching and back filling, of nominal dia.: 150 mm	20	mtr	400	8000	301.35	6027
69	Providing and laying cement concrete 1:5:10 with coarse sand, 150 mm thick all around RCC/ SW pipes including bed concrete, necessary shuttering and curing, complete, for pipes of nominal dia.: 100 mm	10	mtr	270	2700	435.30	4353
70	Providing and laying cement concrete 1:5:10 with coarse sand, 150 mm thick all around RCC/ SW pipes including bed concrete, necessary shuttering and curing, complete, for pipes of nominal dia.: 150 mm	10	mtr	330	3300	532.40	5324
	Septic tank						

(61)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
64	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 90 mm	10	mtr	350	3500	323.42	3234
	Chamber, Brick masonry						
65	Constructing brick masonry chambers with class 75 bricks in cement mortar 1:5 with fine sand, RCC top slab 1:2:4 of avg. thickness 150 mm, including reinforcement, excavation, refilling, 100 mm thick foundation concrete 1:5:10 with coarse sand, 12 mm thick inside plastering with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, and 15 mm thick outside plastering in cement mortar 1:4 with fine sand, complete with one brick thick wall, of size : 600 x 600 x 750 mm deep inside, with CI surface box 100 mm top dia., 160 mm bottom dia. and 180 mm deep inside, with chained lid.	15	Each	9000	135000	5096.55	76448
66	Constructing brick masonry chambers with class 75 bricks in cement mortar 1:5 with fine sand, RCC top slab 1:2:4 of avg. thickness 150 mm, including reinforcement, excavation, refilling, 100 mm thick foundation concrete 1:5:10 with coarse sand, 12 mm thick inside plastering with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, and 15 mm thick outside plastering in cement mortar 1:4 with fine sand, complete with one brick thick wall, of size : 600 x 600 x 750 mm deep inside, with CI surface box 350 x 350 mm and 165 mm deep inside, with chained lid, for fire hydrant.	15	Each	10000	150000	4773.05	71596
	Piping - Drainage & Sewerage						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
58	Providing, laying, jointing and testing double flanged ductile iron pipes having screwed flanges, conforming to IS:8329, including compressed neoprene washers, galvanised steel fasteners, complete, excluding trenching and back filling, of nominal dia.: 100 mm	40	mtr	1200	48000	713.40	28536
59	Providing, fixing and testing wafer type CI butterfly valves, conforming to IS:13095, PN 1.6, MS hand lever operated with galvanised steel fasteners and 3 mm thick compressed neoprene gaskets, complete, of nominal size : 80 mm	5	Each	1900	9500	2363.27	11816
60	Providing, fixing and testing wafer type CI butterfly valves, conforming to IS:13095, PN 1.6, MS hand lever operated with galvanised steel fasteners and 3 mm thick compressed neoprene gaskets, complete, of nominal size : 100 mm	4	Each	3500	14000	3246.00	12984
61	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 40 mm	60	mtr	200	12000	221.56	13294
62	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 50 mm	40	mtr	225	9000	247.92	9917
63	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 63 mm	25	mtr	260	6500	265.35	6634

63

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
54	Earth work in excavation, in trenches, in all types of soil, for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated earth and then returning the soil as required, in layers not exceeding 200 mm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed, within a lead of 50 m complete, of pipes, cables of sizes : over 300 mm dia. (minimum width of trench 850 mm)	75	mtr	200	15000	250.20	18765
55	Excavation and Fill EXCAVATING, UTILITY TRENCH Excavating holes up to 0.5 cum including getting out the excavated material, then returning the soil as required in layers not exceeding 200 mm in depth, including consolidating each deposited layer by ramming, watering etc., disposing of surplus excavated material, as directed, within a lead of 50 m and lift upto 1.5 m. complete.: All types of soil Termite - Pre treatment	80	Each	200	16000	41.85	3348
56	Providing and injecting chemical emulsions for pre-construction anti-termite treatment and creating continuous chemical barrier under and all around the column pits, wall trenches, basement excavation, top surfaces of plinth filling, junctions of walls and floors, along the external perimeter of buildings, expansion joints, over the top surface of consolidated earth on which plinth protection is to be laid, surrounding of pipes and conduits etc. complete, in accordance with IS:6313 (Part II). (Plinth area of the building at ground level shall only be measured): Using Chloropyriphos Emulsifiable concentrate 0.2% Water Distribution	1150	Sqm	60	69000	93.65	107698
57	Providing, laying, jointing and testing double flanged ductile iron pipes having screwed flanges, conforming to IS:8329, including compressed neoprene washers, galvanised steel fasteners, complete, excluding trenching and back-filling, of nominal dia.: 80 mm	205	mtr	1000	205000	655.14	134304

ASg



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
51	Earth work in excavation 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 earth as directed, within a lead of 50 m, complete : All types of soil	200	Cum	250	50000	132.20	26440
	Utility Trench						
52	Earth work in excavation, in trenches, in all types of soil, for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated earth and then returning the soil as required, in layers not exceeding 200 mm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed, within a lead of 50 m complete, of pipes, cables of sizes : upto 80 mm dia. (minimum width of trench 450 mm)	230	mtr	150	34500	98.10	22563
53	Earth work in excavation, in trenches, in all types of soil, for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated earth and then returning the soil as required, in layers not exceeding 200 mm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed, within a lead of 50 m complete, of pipes, cables of sizes : over 80 mm dia. and upto 300 mm dia. (minimum width of trench 600 mm)	120	mtr	200	24000	160.25	19230

65

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
44	Filling available excavated earth (excluding rock) in trenches, plinths, sides of foundations and in adjacent areas to profiles, shapes and levels etc. in layers not exceeding 200 mm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m, complete.	310	Cum	120	37200	75.45	23390
45	Supplying and stacking good earth, free from organics impurities. Bulk Excavation	825	Cum	350	288750	309.74	255536
46	Earth work in rough excavation, in all types of soil, banking excavated earth in layers not exceeding 200 mm in thickness, breaking clods, watering, rolling each layer with 1/2 ton roller, or compacting with wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 ton capacity and dressing up, in embankment for roads, flood banks, marginal banks and guide banks or filling up ground depressions, lead up to 50 m and lift up to 1.5 m, complete.	110	Cum	250	27500	276.50	30415
47	Earth work in excavation over areas (exceeding 300 mm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed, complete: All types of soil	250	Cum	285	71250	130.95	32738
48	Add for every additional lift of 1.5 m or part thereof in: All types of Fill	50	Cum	35	1750	35.45	1773
49	Providing and laying 100 mm/150 mm thick (consolidated thickness) hard core fill, under floors, pavings and other locations, with approved hard stones of size 50 mm and down, thoroughly filled with smaller chips, rammed, rolled, watered and consolidated to required levels, complete.	880	Cum	1200	1056000	965.54	849675
50	Providing clean fine sand fill under floors, pavings and similar locations, laid to required depth, compacted by flooding with water, finished to proper levels, complete. Trench	750	Cum	1186	889500	1282.70	962025

(66)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
37	Providing and fixing close timbering including strutting, shoring and packing cavities (wherever required) complete (Measurement to be taken of the face area timbered), Depth not exceeding 1.5 m : in shafts, wells, cesspits, manholes and the like	40	Sqm	30	1200	104.00	4160
38	Add for every 1 m or part thereof of additional depth over an initial depth of 1.5 m, for close timbering : in trenches etc.	30	Sqm	40	1200	109.40	3282
39	Add for every 1 m or part thereof of additional depth over an initial depth of 1.5 m, for close timbering : in shafts, wells, cesspits, man-holes and the like	10	Sqm	40	400	129.45	1295
	Topsoil						
40	Earth work in surface excavation not exceeding 300 mm in depth but exceeding 1.5 m in width as well as 10 sqm on plan, in all types of soil including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be leveled and neatly dressed, complete.	225	100 Sqm	2100	472500	3589.05	8075
	Back fill						
41	Banking / Depositing all types of excavated earth in layers not exceeding 200 mm in thickness, breaking clods, watering, rolling each layer with power roller of minimum 8 ton capacity and dressing up to required profiles and levels, in embankment for roads, flood banks, marginal banks, mounds and guide banks etc. and compacting the deposited earth under optimum moisture content to give at least 95% of the maximum dry density, lead up to 50 m and lift up to 1.5 m, complete	325	Cum	140	45500	169.10	54958
42	Deduct for not rolling with power roller of minimum 8 ton capacity for banking excavated earth in layers not exceeding 200 mm in thickness.	160	Cum	-35	-5600	-3.05	-488
43	Deduct for not watering the excavated earth used in banking.	70	Cum	-20	-1400	-12.10	-847

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
29	Dismantling CI / GS / PVC / Asbestos rain water pipes embedded in concrete / brick work with fittings and clamps including dismantling of concrete/brick work etc., stacking the serviceable material and disposal of unserviceable materials up to 50 m lead, of dia: over 150 mm	15	mtr	50	750	103.15	1547
	Clear and Grub						
30	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 300 mm (measured at a height of 1.0 m above GL) and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared, complete.	50	100 Sqm	1000	50000	463.45	23173
31	Felling trees including cutting of trunks and branches, removing the roots, stacking of serviceable materials and disposal of unserviceable materials within a 50 m lead, complete, of girths (measured at a height of 1.0 m above GL.) : over 300 mm and upto 600 mm	40	Each	500	20000	142.75	5710
32	Felling trees including cutting of trunks and branches, removing the roots, stacking of serviceable materials and disposal of unserviceable materials within a 50 m lead, complete, of girths (measured at a height of 1.0 m above GL.) : over 600 mm and upto 1200 mm	12	Each	1000	12000	631.80	7582
33	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared, complete.	20	100 Sqm	1100	22000	239.65	4793
34	Surface dressing of the ground including removing vegetation and inequalities not exceeding 150 mm deep, in all types of soil and disposal of rubbish upto a lead of 50 m, complete.	60	100 Sqm	1100	66000	894.20	53652
	Dewatering						
35	Pumping out water caused by spring, tidal or river seepage, broken water mains or drains and the like.	30	Kl. Ltr.	200	6000	318.05	9542
	Excavation - Close and open timbering						
36	Providing and fixing close timbering including strutting, shoring and packing cavities (wherever required) complete (Measurement to be taken of the face area timbered), Depth not exceeding 1.5 m : in trenches etc.	35	Sqm	30	1050	104.00	3640

(88)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
22	Dismantling dry brick pitching in floors, drains etc, including stacking of serviceable materials and disposal of unserviceable materials within a 50 m lead.	75	Sqm	200	15000	326.80	24510
	Framing demolition						
23	Dismantling woodwork in frames, trusses, purlins and rafters upto a 10 metres span and 5 metres height including stacking the material within a 50 m lead, of sectional areas : upto 4000 sqmm	50	mtr	800	40000	1357.65	67883
24	Dismantling steel work in built up sections at all heights and depths, in angles, tees, flats, channels and tubes including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 m lead.	20	Qtl	5000	100000	65.00	1300
	Partitions Demolition						
25	Dismantling aluminum partitions, doors, windows, fixed glazing and false ceiling and gypsum partitions / false ceiling including stacking of serviceable materials and disposal of unserviceable materials upto a 50 m lead.	100	Sqm	200	20000	17.15	1715
	Rain water Pipes demolition						
26	Dismantling CI / GS / PVC / asbestos exposed rain water pipes with fittings and clamps including stacking the serviceable material and disposal of unserviceable material within a 50 m lead, of dia: upto 80 mm	30	mtr	20	600	19.60	588
27	RAIN WATER PIPES DEMOLITION Dismantling CI / GS / PVC / asbestos exposed rain water pipes with fittings and clamps including stacking the serviceable material and disposal of unserviceable material within a 50 m lead, of dia: over 80 mm and upto 150 mm	45	mtr	40	1800	20.50	923
28	Dismantling CI / GS / PVC / Asbestos rain water pipes embedded in concrete / brick work with fittings and clamps including dismantling of concrete/brick work etc., stacking the serviceable material and disposal of unserviceable materials up to 50 m lead, of dia: upto 80 mm	15	mtr	40	600	42.85	643

(69)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
15	Dismantling / demolishing stone rubble masonry in cement / lime mortar in foundations, super structure and basement at all heights / depths including stacking of serviceable materials and disposal of unserviceable materials upto a 50 m lead.	67	Cum	1300	87100	641.65	42991
	Ceiling Demolition						
16	Dismantling false ceiling, partitions, wall lining, etc supported / fixed to wooden / aluminium / metal frame including dismantling of frame, stacking of serviceable material and disposal of unserviceable material upto a 50 m lead, with : Wooden planks	10	Sqm	275	2750	17.15	172
	Door / window demolition						
17	Taking out door, window and clerestory window shutters (metal or wood) including chowkhats, architrave, holdfast, etc. complete and stacking within a 50 m lead, of areas: upto 3 sqm	34	Each	750	25500	42.95	1460
18	Taking out door, window and clerestory window shutters (metal or wood) including chowkhats, architrave, holdfast, etc. complete and stacking within a 50 m lead, of areas: over 3 sqm	4	Each	1000	4000	56.95	228
19	Dismantling expanded metal or IRC fabrics along with battens and beadings including stacking the serviceable materials within a 50 m lead.	375	Sqm	215	80625	21.05	7894
	Flooring demolition						
20	Dismantling tile work in floors and roofs in cement mortar/lime mortar including stacking of serviceable material and disposal of unserviceable material upto a lead of 50 m, of thickness : 10 mm to 25 mm	900	Sqm	225	202500	22.12	19908
21	Dismantling tile work in floors and roofs in cement mortar/lime mortar including stacking of serviceable material and disposal of unserviceable material upto a lead of 50 m, of thickness : over 25 mm and upto 40 mm	450	Sqm	250	112500	35.65	16043

(70)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
9	Dismantling of fence including supports of MS sections, pipe, wooden or any other material or combination of materials, along with foundations of supports, hooks, bolts etc., excavation of earth including refilling the earth etc., stacking of serviceable materials and disposal of unserviceable materials within 50 m lead : Barbed wire / chain link / expanded metal / concertina wire and the like.	155	Sqm	160	24800	21.05	3263
10	Dismantling of fence including supports of MS sections, pipe, wooden or any other material or combination of materials, along with foundations of supports, hooks, bolts etc., excavation of earth including refilling the earth etc., stacking of serviceable materials and disposal of unserviceable materials within 50 m lead : Wooden batten / boards	50	Sqm	450	22500	21.05	1053
	Selective demolition						
11	Demolishing lime concrete / cement concrete in all mixes, in foundations, super structure and basement, at all heights / depths, including disposal of unserviceable materials upto a 50 m lead.	120	Cum	1250	150000	221.85	26622
12	Demolishing RCC work in foundations, super structure and basement, at all heights / depths, including cutting, straightening scrapping, cleaning and stacking of reinforcement bars and disposal of unserviceable materials upto a 50 m lead.	380	Cum	2500	950000	960.80	365104
13	Demolishing RB work in foundations, super structure and basement, at all heights / depths, including cutting, straightening scrapping, cleaning and stacking of reinforcement bars and disposal of unserviceable materials upto a 50 m lead.	15	Cum	1200	18000	848.00	12720
14	Dismantling / Demolishing brick work in cement / lime mortar in foundations, super structure and basement, at all heights / depths, including removing of mortar, cleaning bricks and stacking of serviceable materials and disposed of unserviceable materials upto 50 m lead	82	Cum	1200	98400	536.60	44001

## KOOTHAMBALAM PROJECT

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	<b><u>SITE PREPARATION</u></b>						
	Site Demolition						
	External services						
1	Dismantling old CI pipes including excavation, removal of pipes, refilling trenches, breaking lead caulked joints, melting of lead and making lead blocks, stacking and handing over to owner pipes & lead at site, and disposal of unserviceable materials within a lead of 50 m, complete, of nominal di : 80 mm	80	mtr	35	2800	127.45	10196
2	Dismantling of manholes including RCC top slabs, CI/SFRC covers with frames, including stacking of useful materials and disposal of unserviceable materials within a lead of 50 m, complete, of shape and size : Rectangular, 900 x 800 x 450 mm deep	12	Each	750	9000	679.75	8157
3	Add for dismantling additional depth of : Circular manholes, 1220 mm dia., for depth beyond 1680 mm	5	mtr	1500	7500	580.65	2903
4	Add for dismantling additional depth of : Rectangular manholes, 900 x 800 mm, for depth beyond 450 mm	5	mtr	1000	5000	534.20	2671
5	Add for dismantling additional depth of : Rectangular manholes, 1200 x 900 mm, for depth beyond 900 mm	5	mtr	1000	5000	636.20	3181
6	Dismantling galvanised steel pipes (external work) including excavation and refilling trenches after taking out the pipes, including stacking of pipes within a 50 m lead, of nominal bores: 15 mm to 40	30	mtr	50	1500	41.50	1245
7	Dismantling of road including taking out soling, metalling etc, stacking of serviceable materials and disposal of unserviceable materials within a lead of 50 m : Water bound macadam	270	Cum	1060	286200	397.13	107225
8	EXTERNAL SERVICES DEMOLITION Dismantling of dry stone pitching including stacking of serviceable materials and disposal of unserviceable materials within a lead of 50.	50	Cum	1060	53000	302.70	15135

(72)



SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
40	Providing teak wood hand railing for stair case etc using (instead of SS screw, ms screw used.	55.12	Rmt	1485	81853	652.35	35958
41	Providing teak wood plank for the stair case ( wooden tread)	11.32	Sqm	5726 (B)	64818	4648.5	52621
					7760758		6946256

<b>GRAND TOTAL (A + B)</b>					29648263		24452391
----------------------------	--	--	--	--	----------	--	----------

*G. Vinayaram*  
Assistant Engineer  
Chennai Central Sub Division 2V  
CPWD, Besant Nagar, Chennai - 90

*S. N. S. S. S.*  
Assistant Engineer (P)  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90

*S. N. S. S. S.*  
Executive Engineer  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90

(75)

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
24	Fabricating 50 x 50 angles with 50 x 6 mm flat for parapert fin concrete at all balcony railings ( tender item rate 119)	914.99	Kg	112	102479	81.45	74526
25	Providing and fixing GI sheet gutter with multiples all around and fix in position	36.09	Rmt	1815	65503	737	26598
26	Marking inside and out side levels survery bill enclosed						
27	Statue pedestal	20	Nos	1000	20000	1000	20000
28	Athistanam work						
28.1	P.C.C. 1:4:8	15.45	Cum	4527	69942	3145.75	48602
28.2	Brick work in CM 1:6	46.36	Cum	6064	281127	4182.94	193921
28.3	Cornice work decorative plastering	2317.8	Rmt	350	811220	367	850622
29	Wooden louver inside auditorium	38.2	Sqm	4679	178738	3700.32	141352
30	Teak wood cost esclation	40.778	L.S	28917	1179177	28917	1179177
31	L band work	102.14	L.S	154	15730	154	15730
32	Providing and fixing 80 x 40 mm thick 2.8 mm tubular section by making pocket for holding and pack with concrete at sill level as directed by Architect	102.14	Rmt	636	64961	636	64961
33	Staircase Hand rail- Vertical tubular section, 40 x 40 mmx2.8mm thick handrail	80.84	Rmt	430	34761	439.83	35556
33.1	Staircase Hand rail- Horizontal tubular section 40 x 40 mmx2.8mm thick handrail	195.21	Rmt	321	62662	293.22	57239
34	Providing and fixing 250 mm width and 25 mm thick mm plank over parapert and column cladding including fixing lock joint in wood.	20	Sqm	6251	125020	4648.5	92970
35	Providing and fixing wall ledge on balcony slabs as per Architect instruction for the size 75mm width.	35.78	Rmt	627	22434	627	22434
36	Providing and fixing wall ledge on balcony slabs as per Architect instruction for the size 125mm width.	35.78	Rmt	793	28374	793	28374
37	Providing and fixing HILTI BOLT of 16 mm dia x 165 mm for structural work all etc.	121	Nos	379	45859	379	45859
38	Providing and fixing HILTI BOLT of 12 mm dia x 100 mm for structural work all etc.	506	Nos	75	37950	75	37950
39	Providing wall panelling(louwer) work above the stage opening etc.	12.99	Sqm	7919	102868	5517.52	71673

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
17.1	Fabricating and erecting angular section steel above the state area as per Drawing given by Architect with 75 x 75 x 5 mm and 50 x 50 x 5 mm section (Rates as per tender item No.119)	3378.5	Kg	112	378393	81.45	275180
17.2	Fabricating and erecting the existing available GI pipe at intermediates of the grid as per drawing.	675	Kg	40	27000	32.3	21803
17.3	Providing and fixing 50 x 50 mm spacing of 3 mm weld mesh over angeles (rates as per tender item No.122)	658.69	Kg	125	82336	135.71	89391
17.4	Prepare surface and apply three coats of enamel paint over one coat of primer (rates as per tender item no.159)	318.14	Sqm	140	44540	86.75	27599
19	Providing and laying in position, specified mix of RCC including compaction and curing complete but excluding centering, shuttering and reinforcement 1:1 1/2 : 3 nominal mix (1.5 m below and upt 1.2 m above G.L) (Refer P.No. MB 2)	77.46	Cum	5411.6	419183	4334.35	335739
20	Providing and fixing 75 mm 6 guage PVC pipe for temporary re routing water line behind the koothambalam (Refer P.No.17 extra work MB 1)	65.55	Rmt	255	16715	257.32	16867
21	Providing and laying besser block masonry work of size: 400 x 200 x200 and cement mortar 1:4 for gallery step work	73.76	Sqm	838	61811	864.8	63788
22	Fabricating and bending to form circular cyclinder for jet nozzles for AC work with 3.2 mm MS.Sheet kept in position	42	Nos	2127.97	89375	2127.97	89375
23	Teak wood louver for bird mesh as per details						
23.1	Wooden louver for bird mesh between the beam gaps and dress gaps with 25 x 50 mm frames and 30 x 20 mm wooden louvers both sides including fixing in position etc	174.37	Sqm	5586	974031	5517.52	962090
23.2	Wooden louver for bird mesh between the beam gaps and dress gaps with 25 x 50 mm frames and 30 x 20 mm wooden louvers single side including fixing in position etc	83.19	Sqm	3964	329765	3207.04	266794
23.3	Wooden louver for bird mesh between the beam gaps and dress gaps with 25 x 50 mm frames and 30 x 20 mm wooden louvers single side including fixing in position etc	22.96	Sqm	3964	91013	3207.04	73634

75

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
7	Prepare surface and fix 50 mm x 50 mm welded mesh of 2.5 mm thick and blow cm1.3 for 40 mm to 50 mm thick with rough course sand with grouting compound by air compressor and guniting equipent.(Refer P.No.8 Extra Work MB 1)	247.24	Sqm	1575	389403	2079.07	514029
8	Stage work for Kalasam fixing area.(Refer P.No.8 extra work MB 1) - 2 areas				30250		30250
9	Kalasam fixing - 2 Nos.				10895		10895
10	Crane hire charges and fabricating angular cage with 75 mm x 75 mm existing 1" pipe				79678		79678
11	Providing scaffolding for AC duct and electrical work.(Refer P.No. 9 Extra work MB1)	2261.3	Sqm	70	158288	142.25	321664
12	Providing and fixing eves board as design as existing flower pattern in 1" thcik teak wood plank.(Refer P.No.10 extra work MB 1)	62.58	Rmt	2231	139616	2442	152820
13	Providing and fixing anutone board with silver wood planks all over the shuttering edges including tying with GS wire to embed in the roof concrete.(Anutone Board supplied by client at free of cost)Refer P.10 Extra work MB1)	141.18	Sqm	129	18212	151.5	21389
14	Supply of teak wood for Kalakshetra Foundation carpenter for Kalasam moulding (Refer P.No.11 Extra Work MB 1)	0.49	Cum	126776	62120	123119	60328
15	Providing and fixing re bar grouting to the existing beams and slab with Hilti chemical for green room area.(Refer P.No. 11 Extra work MB 1)						
15.1	16 mm dia Rod	302	Nos	233	70366	93.13	21699
15.2	20 mm dia Rod	114	Nos	472	53808	116.41	54946
15.3	12 mm dia Rod	595	Nos	149.5	88953	69.85	10443
15.4	10 mm dia rod	296	Nos	113.6	33626	58.21	6613
16	Providing and fixing teak wood cutter in valley area for the roof in 1" plank including nailing all etc.(Refer P. 13 Extra work MB 1)	43.92	Sqm	4652	204316	3115.25	136822
17	Fabrication work in stage area						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
160	Providing three finish coats of water-proof cement colour paint to walls and ceilings, applied evenly to give uniform finish in colour patterns and even shade, including curing, preparation of surface and a coat of matching primer, complete.	285	Sqm	60	17100	76.40	21774
161	Providing three finish coats of dry colour distemper to walls and ceilings applied evenly to give a uniform finish including preparation of surfaces, primer coat of whitening, to give an even shade.	1000	Sqm	80	80000	71.05	71050
				(A)	21887505		17506135

**EXTRA ITEMS FOR KOOTHAMBALAM PROJECT**

SNo	Description	Qty	Unit	Rate by Kalashetra	Amount	Rate justified by CPWD	Amount
1	Providing and apply 2 coats of Linseed oil for battens and rafter on the roof area.(Refer P.No.6 Extra work MB 1)	3041.7	Sqm	110	334589	40.2	122277
2	Removing and handing over the Kalasam (big) Refer P.No.6 Extra work MB1	2	No	3000	6000	3000	6000
3	Removing and handing over the Kalasam (small) Refer P.No.6 Extra work MB1	1	No	2000	2000	2000	2000
4	Dismantling and removing statue and handing over to the client(Refer P.No.7 extra work MB 1)	54	No	200	10800	200	10800
5	Dismantling the existing name stone on hanling over to the client(Refer P.No.7 extra work MB 1)	2	No	500	1000	500	1000
6	Clearing and carting away the existing debris.(Refer P.No.7 Extra Work MB1)	114	Loads	1200	136800	433.92	49467
6.1	Clearing and carting away the existing debris I unit.(Refer P.No.7 Extra Work MB1)	34	Loads	600	20400	433.92	14753

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
155	Providing and laying colour sand stone slab treads and of steps in a single piece, of uniform thickness, with machine cut edges, laid on a bed of 20 mm thick cement mortar 1:4 (with coarse sand), laying slabs in cement slurry pigmented to match the shade of slabs, grinding, rubbing polishing, complete (length up to 1500 mm) : 25 mm thick : Grey Kotah stone	25	Sqm	800	20000	928.79	23220
156	Providing and laying stone slab in skirting and risers of steps, of uniform thickness with machine cut edges, in profiles laid on a bed of 20 mm thick cement mortar 1:4 with coarse sand including dressing of sides and tops laying slabs in cement slurry pigmented to match the shade of slabs pointing of joints cleaning excess mortar/slurry etc. curing, complete : 25 mm Rough Split Stone : Black Cuddapa stone	15	Sqm	800	12000	880.58	13209
	Wooden Flooring						
157	Providing and laying wood flooring over plain levelled and dried sub floor and hard wood timber frame including tongue and groove jointing system, in patterns including wax polishing the top surface and antitermite treatment and a coat of wooden primer, to the hidden surfaces and fixing with stainless steel screws etc., complete (timber frame shall be paid for separately) : 20 mm thick : 2nd class CP teak wood	125	Sqm	5380	672500	4250.60	531325
	Paints - Wood and metal surfaces						
158	Providing three finish coats of synthetic enamel colour paint, applied evenly and finished to approved texture, including, preparation of surface and a coat of primer, complete : Wooden surfaces with approved primer	850	Sqm	130	110500	86.75	73738
159	Providing three finish coats of synthetic enamel colour paint, applied evenly and finished to approved texture, including, preparation of surface and a coat of primer, complete : Steel surfaces with zinc chromate primer	350	Sqm	140	49000	86.75	30363
	Paints - Walls & Ceilings						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
151	Providing and laying in situ terrazzo floor in pattern and profile under layer cement concrete 1:2:4 and top layer with colour marble chips in one or more shade laid in cement in proportion 1:2 (1 cement : 2 marble chips by volume), laid in panels / narrow strips (dividing strips to be placed in floor shall be paid separately), cured, rubbed, polished and finished, complete, for : 50 mm thick flooring with under layer 38 mm thick and top layer 12 mm thick : Floor pavings, window sills, copings Medium shade pigment with 50% white and 50% ordinary grey cement	250	Sqm	700	175000	475.60	118900
	Stone flooring						
152	Providing and laying colour sand stone slab flooring, laid in patterns and profiles on a bed of 25 mm average thick cement mortar 1:4 (with coarse sand) to make up a total thickness of 50 mm, including laying slabs in cement slurry, pigmented to match the shade of slabs, grinding, rubbing and polishing complete : 25 mm thick: Grey Kotah stone	50	Sqm	600	30000	928.79	46440
153	Providing and laying colour sand stone slab flooring, laid in patterns and profiles on a bed of 25 mm average thick cement mortar 1:4 (with coarse sand) to make up a total thickness of 50 mm, including laying slabs in cement slurry, pigmented to match the shade of slabs, grinding, rubbing and polishing complete : 25 mm thick: Black Cuddapa stone	10	Sqm	600	6000	880.58	8806
154	Providing and laying colour sand stone slab flooring, laid in patterns and profiles on a bed of 25 mm average thick cement mortar 1:4 (with coarse sand) to make up a total thickness of 50 mm, including laying slabs in cement slurry, pigmented to match the shade of slabs, grinding, rubbing and polishing complete : 18 / 20mm thick : Yellow Jaisalmer stone	20	Sqm	650	13000	990.99	19820

79

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
147	Providing and laying cement concrete flooring 1:2:4, finished with a floating coat of neat cement including cement slurry, laid in panels, in floors, landings, steps and similar locations, including nosing of steps ,etc. where required, complete : 40 mm thick	750	Sqm	350	262500	262.45	196838
148	CONCRETE FLOORING Providing and laying 40 mm thick red oxide flooring, under layer of 30 mm thick cement concrete 1:2:4 and top layer of 10 mm thick plaster of cement red oxide mix (using 3.5 kg of red oxide of iron per 50 kg of cement) in cement mortar 1:3 with coarse sand finished with a floating coat of neat cement red oxide mix of same proportion, including cement slurry, nosing of steps etc., complete.	850	Sqm	500	425000	475.60	404260
149	CONCRETE FLOORING Add for making chequers in pattern on cement concrete floors, steps, landings, pavements, etc.	150	Sqm	200	30000	27.30	4095
150	Providing and laying red oxide plaster skirting (upto 300 mm height) with top layer of 6mm thick plaster of cement mortar red oxide mix, using 3.5 kg of red oxide of iron per 50 kg of cement in cement mortar 1:3 with coarse sand, finished with a floating coat of cement red oxide mix of same proportion, of total thickness : 21 mm, with under layer 15 mm thick cement plaster 1:3 with coarse sand	25	Sqm	250	6250	252.25	6306
	Terrazzo flooring						



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
140	Forming 15 mm deep grooves of uniform size in the top layer of washed stone grit plaster in pattern using wooden battens/aluminium channels, nailed to the under layer including removal of wooden battens/aluminium channels, repair to the edges of panels and finishing the groove complete in cement mortar 1:2 (1 cement : 2 silica sand) admixed with colour pigment, of groove widths : 10 mm	160	mtr	50	8000	50.00	8000
	Ceiling, wall acoustical tiles						
141	Providing and fixing ceiling tiles / boards in steel / aluminium / wooden frame work, including filling joints with joint fillers, jointing compounds, tapes, papers, painting of edges of tiles/boards, with two coats of primer, necessary screws where required etc., complete (frame work will be paid for separately), of sizes : 12.5 mm thick Plaster of paris (gypsum anhydrous) ceiling tiles.	625	Sqm	300	187500	498.87	311794
142	do - do gypsum board 12mm thick.	180	Sqm	500	90000	712.30	128214
143	do - do Plain BWP type phenol formaldehyde synthetic resin bonded pressed particle board sheets conforming to IS 3087.	75	Sqm	700	52500	518.75	38906
	Brick flooring						
144	Providing and laying brick on edge flooring with bricks of class 75 including preparation of sub-base/surface, dressing of ground, if any, to required profiles, cement slurry, etc., complete, in cement mortar using coarse sand, of mix : 1:4	160	Sqm	700	112000	493.85	79016
145	FLOORING Add for brick flooring laid diagonal herring bone bond or other pattern.	160	Sqm	700	112000	493.85	79016
	Concrete flooring						
146	Providing and laying cement concrete flooring 1:2:4, finished with a floating coat of neat cement including cement slurry, laid in panels, in floors, landing, steps and similar locations, including nosing of steps ,etc. where required, complete : 25 mm thick	225	Sqm	250	56250	262.45	59051

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
134	Providing, fabricating and fixing in position selected quality seasoned & chemically treated wood work in frames and sub frames of doors, windows, clerestory windows and other frames, wrought to size & profile with mitred joints, including fixing to supports with threaded expansion bolts / hold fasts or other fixing accessories, complete : 2nd class CP teak wood	2.5	Cum	170000	425000	138654.17	346635
	<u>Finishes</u>						
	Gypsum plaster						
135	Providing and applying plaster of paris 10 mm thick (gypsum anhydrous)	300	Sqm	195	58500	99.70	29910
	Cement plaster						
136	Providing 10 mm thick average plaster to soffits and sides of slabs, beams and other concrete surfaces, etc., in cement mortar 1:4 with fine sand, applied, finished smooth and cured, complete.	200	Sqm	265	53000	128.90	25780
137	Providing 12 mm thick average cement plaster to walls, columns, piers, etc., applied, finished smooth and cured, complete, with mixes : 1:6 with fine sand	150	Sqm	215	32250	138.45	20768
138	Providing 12 mm thick average cement plaster to walls, columns, piers, etc., applied, finished smooth and cured, complete, with mixes : 1:6 with coarse sand	180	Sqm	236	42480	138.45	24921
139	Providing 20 mm thick cement plaster in two coats, under layer 12mm thick cement plaster 1:6 with coarse sand and top layer 8 mm thick cement plaster 1:4 with coarse sand, finished rough with sponge and cured complete including providing grooves on top layer. The size of panel shall not exceed 2 sqm.	250	Sqm	350	87500	185.50	46375

(82)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	<u>Damp &amp; Waterproofing, Thermal protection</u>						
	Damp proof course						
128	Providing and laying damp-proof course with cement concrete 1:2:4 with graded stone aggregate 12.5 mm nominal size, including side shuttering, compacting etc., complete. 40 mm thick	70	Sqm	300	21000	194.85	13640
	Wall and ceiling insulation						
129	Providing and placing in position over/on vapour barrier and such locations, insulation slab of approved manufacturers, abutting each other closely, including cutting to required sizes/profiles and all incidental work, complete, including applying a bonding base of a coat of blown bitumen @ 1.0 kg/sqm, glass wool/mineral wool/rock wool shall be packed in 100 micron low density polythene film, duly sealed from all sides (frame work shall be paid for separately) : 50 mm thick, fibre-glass (24kg per cum)	625	Sqm	500	312500	406.10	253813
130	WALL OR CEILING INSULATION Add for wrapping glass wool/mineral wool/rock wool in 0.1 mm thick aluminum foil instead of 100 microns thick low density polythene film.	625	Sqm	250	156250	198.15	123844
	Roof tiles						
131	Providing and fixing Mangalore tiles of size 400 x 240 mm, so as to cover an area of 320 x 210 mm, the lap should be not less than 75 mm.	200	Sqm	910	182000	648.70	129740
132	Fixing mangalore tiles of size 400x240mm so as to cover an area of 320x210mm. Te lap should be not less than 75mm. Provide for necessary mortar jointing, chasing in walls, tile cutting, tile wastage etc.	2500	Sqm	350	875000	525.97	1314925
133	Providing and fixing ridge tile and 3 way connector including necessary jointing	115	Rm	225	25875	240.53	27661
	<u>Doors and Windows</u>						
	Wooden frames						

83

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	Bird Mesh						
122	Refabricating with existing framework with additional rod welded support and spreading GI welded metal mesh over the frames to shape and size and installing the fabricated units in place between RC fins without gaps.	375	Kg	125	46875	69.45	26044
	<u>Wood work</u>						
	Wood Framing						
123	Providing, fabricating and erecting MS welded built up sections/ frames and applying a primer coat of zinc chromate on duly prepared surfaces, complete : In guard bars, ladders, railings, and similar works.	180	Kg	90	16200	81.45	14661
124	Providing, fabricating and fixing in position selected quality seasoned and chemically treated wood work in frames of false ceilings, partitions, etc., complete : 2nd class Deodar wood.	6.5	Cum	110000	715000	65292.48	424401
125	Providing and fixing wooden frame with 50 mm x 50 mm battens, fixed at 600 mm centre to centre (both ways). Allow for solignum treatment to the timber framework : 2nd class CP teak Wood	225	Sqm	3500	787500	3449.25	776081
	Roof Truss						
126	Providing, fabricating and fixing in position selected quality seasoned and chemically treated wrought wood work in trusses, rafters, runners, posts, struts, wall plates, etc of size and profile in inclined roofs including ancoring to concrete members with holding down bolts, fixing accessories and all incidental works complete. 2nd class CP teakwood	20	Cum	150000	3000000	138654.17	2773083
	Rails and Balusters						
127	Providing and fixing wooden hand rail made out of 55 mm x 75 mm timber and fixed to existing MS plate with S/S screws ,etc. complete : 1st class Burma teak wood	110	mtr	1500	165000	556.40	61204

(84)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
117	Providing random rubble masonry with hard stone with sides of stones, hammer dressed to achieve minimum thicknesses of joints and laid in cement mortar 1:6 with coarse sand, with joints not more than 15 mm thick, joints finished flush/raked to minimum 10 mm depth including necessary scaffolding, complete. Allow for levelling with cement concrete 1:6:12 with coarse sand at plinth/window sill/ceiling level and the like, in : Superstructures, upto 20.0 m above plinth level	45	Cum	2950	132750	3355.15	150982
118	Providing random rubble masonry with hard stone with sides of stones, hammer dressed to achieve minimum thicknesses of joints and laid in cement mortar 1:6 with coarse sand, with joints not more than 15 mm thick, joints finished flush/raked to minimum 10 mm depth including necessary scaffolding, complete. Allow for levelling with cement concrete 1:6:12 with coarse sand at plinth/window sill/ceiling level and the like, in : Basements and the like upto 7.0 m below GL	170	Cum	2750	467500	2817.50	478975
	<b><u>Metal work</u></b>						
	Structural steel						
119	BUILT UP SECTION Providing, fabricating and erecting bolted structural steel built up sections, trusses and frames and applying a primer coat of zinc chromate on duly prepared surfaces, complete.	2500	Kg	112	280000	81.45	203625
120	BUILT UP SECTION Providing and applying three finish coats of synthetic enamel paint on steel surfaces, complete.	225	Sqm	110	24750	86.75	19519
	Steel stair						
121	Providing, fabricating and erecting MS welded built up sections/ frames and applying a primer coat of zinc chromate on duly prepared surfaces, complete : In stringers, treads, landings, etc. of staircases including chequered plates wherever required, all complete.	200	Kg	130	26000	69.45	13890

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
113	Add for cutting or chamfering the bricks to required shape in masonry work	120	mtr	400	48000	46.46	5575
114	Providing and making mouldings, cornices & corbels with bricks of class 75 in cement mortar 1:4 with coarse sand (girth to be measured in mm and length in running metres)	350	mm/ m	350	122500	367.00	128450
115	Providing brick work with bricks of class 75 in half brick thick walls in any shape and profile including curvilinear, laid in cement mortar 1:4 with coarse sand, joints finished flush/raked to 12 mm depth, cured, including scaffolding and flat reinforcement (25 x 3 mm) at every fourth course and embedding the same in adjoining masonry/columns by drilling holes etc complete : Super structure upto 20.0 m above plinth level.	125	Sqm	680	85000	544.70	68088
	Random rubble masonry						
116	Providing random rubble masonry with hard stone with sides of stones, hammer dressed to achieve minimum thicknesses of joints and laid in cement mortar 1:6 with coarse sand, with joints not more than 15 mm thick, joints finished flush/raked to minimum 10 mm depth including necessary scaffolding, complete. Allow for levelling with cement concrete 1:6:12 with coarse sand at plinth/window sill/ceiling level and the like, in : Foundations and plinths, (1.5 m below and upto 1.2 above GL)	75	Cum	2600	195000	2817.50	211313

(26)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
108	Providing and laying lime concrete as per IS 2541 with 40% mortar comprising of 1 lime putty : 1 surkhi : 1 fine sand and 100% graded brick aggregate 40 mm nominal size in foundations, footings and under floor including side forms, complete. Precast - Fins/louvers	12	Cum	3000	36000	4074.20	48890
109	Providing and fixing precast cement concrete in vertical and horizontal fins individually or forming boxes and for louvers and similar, cast, cured, hoisted and fixed in position, setting in cement mortar 1:3 with coarse sand, along with required formwork and finishing smooth and all fixing arrangements complete but excluding the cost of reinforcement. Allow for stacking, curing and handling at all levels above/below GL.	33.5	Cum	10000	335000	5325.80	178414
	<u>Masonry - Brickwork, conventional bricks</u>						
110	Providing brick work with bricks of class 75, joints finished flush/raked to 12 mm depth, cured including necessary scaffolding complete in cement mortar 1:6 with coarse sand, in : Foundations and plinths (1.5 m below and upto 1.2 m above GL)	85	Cum	4250	361250	3450.75	293314
111	Providing brick work with bricks of class 75, joints finished flush/raked to 12 mm depth, cured including necessary scaffolding complete in cement mortar 1:6 with coarse sand, in : Superstructures upto 20.0 m above plinth level.	125	Cum	4400	550000	3972.75	496594
112	Providing brick work with bricks of class 75, joints finished flush/raked to 12 mm depth, cured including necessary scaffolding complete in cement mortar 1:6 with coarse sand, in : Basement, under ground water tank and the like, upto 7.0 m below GL	30	Cum	4250	127500	3450.75	103523

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
104	Providing and laying plain cement concrete 1:3:6 with coarse sand, laid to required thickness (not exceeding 50mm) and slopes, in roof screedings, floor screedings and similar locations, laid in panels not exceeding 4 sqm., consolidated, finished fair and cured complete : Floor screedings	57	Cum	3700	210900	3401.30	193874
	Structural Cooncrete - RCC						
105	Providing and laying in position, specified mix of RCC, including compaction and curing complete but excluding centring, shuttering and reinforcement, 1:2:4 nominal mix : In foundation and plinth (1.5 m below and upto 1.2 m above G.L.)	28	Cum	4500	126000	4190.95	117347
106	Providing and laying in position, specified mix of RCC, including compaction and curing complete but excluding centring, shuttering and reinforcement, 1:2:4 nominal mix : From plinth level to 7.0 m below GL in basement	5	Cum	4700	23500	4190.95	20955
107	Providing and laying in position, specified mix of RCC, including compaction and curing complete but excluding centring, shuttering and reinforcement, 1:2:4 nominal mix : From plinth level upto 20.0 m above in superstructure	125	Cum	4850	606250	4727.80	590975
	Lime Concrete						

(28)



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	Inserts						
98	Providing and fixing wedge expansion type hold / dash fasteners on CC / RCC surface backing including drilling necessary holes and the cost of bolts etc., complete : Fastener with threaded dia. 6 mm	800	Each	50	40000	27.50	22000
99	Providing and fixing wedge expansion type hold / dash fasteners on CC / RCC surface backing including drilling necessary holes and the cost of bolts etc., complete : Fastener with threaded dia. 10 mm	150	Each	75	11250	33.30	4995
	Reinforcement steel						
100	Providing and laying in position TMT (Thermo Mechanically Treated) bar reinforcement in all reinforced concrete works including straightening, cutting, bending, binding with 18 gauge annealed steel wire, complete, of grade : Fe 415	15	Tonne	55000	825000	53850.00	807750
	Plain cement concrete						
101	Providing and laying cement concrete with coarse sand and graded stone aggregate, 40 mm nominal size in foundations, footings and under floors including side forms curring etc., complete, of nominal mix : 1:4:8	40	Cum	3500	140000	3145.75	125830
	Reinforcement steel						
102	Providing and laying cement concrete with fine sand and graded stone aggregate, 40 mm nominal size in foundations, footings and under floors including side forms, curring etc., complete, of nominal mix : 1:4:8	18	Cum	3500	63000	3145.75	56624
103	Providing and laying cement concrete with fine sand and graded stone aggregate, 40 mm nominal size in foundations, footings and under floors including side forms, curring etc., complete, of nominal mix : 1:3:6	15	Cum	3700	55500	3401.30	51020

189

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
95	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Soffits and sides of beams, plinth beams, lintels, ties, ribs, pergolas and such other, string courses, cornices, corbels.	10	Sqm	300	3000	262.35	2624
96	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Soffits and sides of suspended slabs, floor and roof projections, landing slabs, canopies, chajjas, slabs of planting boxes and such other horizontal elements, coffer ribs and slabs.	20	Sqm	400	8000	316.50	6330
97	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Soffits and sides of waist slabs of stairs, sides of risers and stepped waist slabs, spiral staircases, etc.	8	Sqm	400	3200	316.50	2532

970

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
92	Providing and fixing centering and shuttering for concrete work (plain and reinforced) in following locations, including strutting, propping, bracing, bolting tie bolt / spring coil / plastic cone, wedging, easing, striking, removal etc, complete. Allow for forming grooves, drips, throats, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Sides of footings of columns and walls and sides of base slabs.	35	Sqm	300	10500	166.05	5812
93	Providing and fixing centering and shuttering for concrete work (plain and reinforced) in following locations, including strutting, propping, bracing, bolting tie bolt / spring coil / plastic cone, wedging, easing, striking, removal etc, complete. Allow for forming grooves, drips, throats, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Foundation beams, floor channels, kerb stones and drain walls.	18	Sqm	300	5400	166.05	2989
94	Providing and fixing hard wood, planed plank shuttering, tongued and grooved, for exposed concrete surfaces, including strutting, propping, bracing, bolting, wedging, easing, striking, removal etc. complete. Allow for forming drips, throats, grooves, chamfers, cut-outs, openings etc. where called for and for dressing with approved shuttering oil to prevent adhesion. The works are at all levels. The floor height is up to 4.00 m : Sides of columns, piers of any shape, size and profile.	10	Sqm	300	3000	354.85	3549

(91)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
87	Providing and fixing MS gratings in lengths of 600 to 1000 mm, fabricated with angle frames and flats at 25 mm centres, Angle 50 x 50 x 5 mm and flat 45 x 5 mm Waterbound Macadam - Subgrade	15	Sqm	3000	45000	3486.28	52294
88	Preparation of subgrade by excavating or filling with available earth to an average of 225 mm depth, dressing to camber, watering and consolidating with road roller of 8-10 t capacity including making good the undulations etc. and disposal of surplus earth / bringing earth from borrow pits within a lead of 50 m, complete.	15	100 Sqm	5500	82500	55.95	839
89	Consolidation of sub-grade with road roller of 8 to 10t capacity including making good the undulations, etc. with earth or quarry spoils, etc. and re-rolling the sub-grade, complete.	15	100 Sqm	3000	45000	337.40	5061
90	Add for compaction of earth work in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (Proctor density)	10	100 Sqm	2000	20000	8.15	82
	Kerbs & Gutters						
91	Providing and laying M-20 grade precast concrete kerb stones including setting in cement mortar 1:4 with coarse sand and pointing of joints with same mortars, etc. complete of size : 300 x 300 x 150 mm thick	160	mtr	450	72000	363.29	58126
	<b>Concrete Formwork and Accessories</b>						
	<u>Form Work/Centering and shuttering</u>						
	Forms in Place						

92

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
80	CATCH BASINS OR MANHOLES Add for depth of manholes of size 900 x 800 mm beyond 600 mm	8	mtr	6000	48000	4153.60	33229
81	CATCH BASINS OR MANHOLES Add for depth of manholes of size 1200 x 900 beyond 900 mm	6	mtr	8000	48000	4975.60	29854
82	Providing manhole covers with frames and fixing the same during laying of cement concrete / reinforced cement concrete 1:2:4 mix on top of brick work / in slab, complete, of shape and duty : SFRC conforming to IS:12592, Rectangular, Medium duty 600 x 600 mm (Grade designation MD 10)	15	Each	2500	37500	1134.25	17014
83	CATCH BASINS OR MANHOLES Providing manhole covers with frames and fixing the same during laying of cement concrete / reinforced cement concrete 1:2:4 mix on top of brick work / in slab, complete, of shape and duty : Circular, Medium duty 500 mm dia. (Grade designation MD 10)	3	Each	2000	6000	913.60	2741
84	Providing and fixing foot rests in manholes embedded in 230 x 200 x 100 mm cement concrete blocks 1:3:6 with coarse sand, complete, of : CI weight 4.5 kg	15	Each	350	5250	236.55	3548
	Drains						
85	Constructing 300 mm inside drain width with 230 mm thick brickwork with bricks of class 75 in cement mortar 1:4 with coarse sand over raft or CC base, 25 mm thick CC 1:2:4 at bottom and in filling haunches including 12 mm thick cement plaster 1:3 with coarse sand finished with floating coat of neat cement inside and on exposed surface for drain of average depth : 100 mm	25	mtr	2100	52500	873.82	21846
86	Constructing 300 mm inside drain width with 230 mm thick brickwork with bricks of class 75 in cement mortar 1:4 with coarse sand over raft or CC base, 25 mm thick CC 1:2:4 at bottom and in filling haunches including 12 mm thick cement plaster 1:3 with coarse sand finished with floating coat of neat cement inside and on exposed surface for drain of average depth : 300 mm	15	mtr	2750	41250	1296.46	19447

93

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
77	Constructing circular type manhole with class 75 bricks in cement mortar 1:4 with coarse sand, inside plaster 12 mm thick with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, foundation concrete 1:3:6 with coarse sand, 150 mm thick cement concrete 1:2:4 on top of masonry including centering, shuttering, making necessary channel in 150 mm thick cement concrete 1:2:4 finished with a floating coat of neat cement, complete, but excluding cost of foot rest and outside plaster, excavation and back filling, complete, of internal size : Add for depth over 910 mm and upto 1670 mm for circular manhole 910 mm dia at bottom and 560 mm dia at top	3	mtr	19000	57000	3567.30	10702
78	Constructing manholes one brick thick with class 75 bricks in cement mortar 1:4 with coarse sand, RCC top slab 150 mm thick with cement concrete 1:2:4 with necessary reinforcement, foundation concrete, 200 mm thick with cement concrete 1:4:8 with coarse sand, 12 mm thick inside plaster with cement mortar 1:3 in coarse sand finished with a floating coat of neat cement, making channels with cement concrete 1:2:4, finished with a floating coat of neat cement, complete, but excluding cost of foot rests and outside plaster, excavation and back filling, complete, of internal size : 900 x 800 x 600 mm deep	12	Each	12000	144000	7959.84	95518
79	Constructing manholes one brick thick with class 75 bricks in cement mortar 1:4 with coarse sand, RCC top slab 150 mm thick with cement concrete 1:2:4 with necessary reinforcement, foundation concrete, 200 mm thick with cement concrete 1:4:8 with coarse sand, 12 mm thick inside plaster with cement mortar 1:3 in coarse sand finished with a floating coat of neat cement, making channels with cement concrete 1:2:4, finished with a floating coat of neat cement, complete, but excluding cost of foot rests and outside plaster, excavation and back filling, complete, of internal size : 1200 x 900 x 900 mm deep	6	Each	20000	120000	10260.10	61561

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
73	Constructing soak pits 2500 mm dia., 3000 mm deep with 450 x 450 mm dry brick honey comb shaft with class 75 bricks, shaft top covered with RCC slab in cement concrete mix 1:2:4, 100 mm thick with reinforcement, portion between honey comb shaft and outer wall, filled with brick bats and brick ballast, covered at the top with 25mm thick stone slabs & earth, SW drain pipes 100 mm dia., 1800 mm long including excavation and disposal of surplus earth in authorized dumps, complete.	8	Each	20000	160000	15363.25	122906
	Catch basins or Manholes						
74	Constructing road gully chambers 450 x 500 x 600 mm deep inside, in one brick thick brick work with bricks of class 75 in cement mortar 1:5 in fine sand, including fixing horizontal grating with frame of size 450 x 500 mm in 150 mm thick cement concrete 1:2:4, foundation concrete 1:5:10, with coarse sand 150 mm thick, inside plaster 12 mm thick with cement mortar 1:3, finished with a floating coat of neat cement, excavation and back filling, complete, with : CI gratings weighing 90 kg.	30	Each	5000	150000	2913.15	87395
75	Constructing road gully chambers 450 x 450 x 775 mm deep inside, in one brick thick brick work with bricks of class 75 in cement mortar 1:5 with fine sand, including fixing 450 x 100mm vertical grating, top RCC slab 75 mm thick in 1:2:4 mix, foundation concrete 150 mm thick in 1:5:10, with coarse sand, inside plaster 12 mm thick with cement mortar 1:3 finished with a floating coat of neat cement, excavation and back filling, complete, with : CI gratings weighing 15.0 kg	12	Each	6500	78000	3401.10	40813
76	910 mm inside dia. at bottom, 560 mm inside dia. at top, 910 mm deep inside, and foundation concrete 225 mm thick	5	Each				

95

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
71	Constructing septic tanks conforming to IS:2470 with brick work in cement mortar 1:4 with coarse sand. Top slab in RCC 1: 2:4 mix with necessary reinforcement, precast RCC baffle walls, 12 mm thick plaster inside with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, flooring with cement concrete 1:2:4, laid to slope, of minimum thickness 100 mm, finished with 12 mm thick cement plaster 1:3 in coarse sand finished with a floating coat of neat cement, outside plaster 15 mm thick with cement mortar 1:5 in fine sand, cast iron tees of required size for inlet and outlet, CI vent pipes 50 mm dia. with mosquito proof nets, and 32 mm dia. brass wheel valves for removal of sludge, including SFRC manhole covers with frames, light duty, 600 x 450 mm size and plastic encapsuled MS foot rests at 300 mm intervals, complete, excluding excavation and refilling for : two year cleaning cycle for: 20 users	1	Each				
72	Constructing septic tanks conforming to IS:2470 with brick work in cement mortar 1:4 with coarse sand. Top slab in RCC 1: 2:4 mix with necessary reinforcement, precast RCC baffle walls, 12 mm thick plaster inside with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, flooring with cement concrete 1:2:4, laid to slope, of minimum thickness 100 mm, finished with 12 mm thick cement plaster 1:3 in coarse sand finished with a floating coat of neat cement, outside plaster 15 mm thick with cement mortar 1:5 in fine sand, cast iron tees of required size for inlet and outlet, CI vent pipes 50 mm dia. with mosquito proof nets, and 32 mm dia. brass wheel valves for removal of sludge, including SFRC manhole covers with frames, light duty, 600 x 450 mm size and plastic encapsuled MS foot rests at 300 mm intervals, complete, excluding excavation and refilling for : two year cleaning cycle for: 50 users	1	Each				

(96)



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
67	Providing, laying, jointing and testing of glazed stone ware pipes, conforming to IS:651 grade A, and jointing with cement mortar 1:1 with fine sand and tarred gasket of hemp yarn soaked in thick cement slurry, complete, excluding trenching and back filling, of nominal dia.: 100 mm	50	mtr	310	15500	226.05	11303
68	Providing, laying, jointing and testing of glazed stone ware pipes, conforming to IS:651 grade A, and jointing with cement mortar 1:1 with fine sand and tarred gasket of hemp yarn soaked in thick cement slurry, complete, excluding trenching and back filling, of nominal dia.: 150 mm	20	mtr	400	8000	301.35	6027
69	Providing and laying cement concrete 1:5:10 with coarse sand, 150 mm thick all around RCC/ SW pipes including bed concrete, necessary shuttering and curing, complete, for pipes of nominal dia.: 100 mm	10	mtr	270	2700	435.30	4353
70	Providing and laying cement concrete 1:5:10 with coarse sand, 150 mm thick all around RCC/ SW pipes including bed concrete, necessary shuttering and curing, complete, for pipes of nominal dia.: 150 mm	10	mtr	330	3300	532.40	5324
	Septic tank						

(97)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
64	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 90 mm	10	mtr	350	3500	323.42	3234
	Chamber, Brick masonry						
65	Constructing brick masonry chambers with class 75 bricks in cement mortar 1:5 with fine sand, RCC top slab 1:2:4 of avg. thickness 150 mm, including reinforcement, excavation, refilling, 100 mm thick foundation concrete 1:5:10 with coarse sand, 12 mm thick inside plastering with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, and 15 mm thick outside plastering in cement mortar 1:4 with fine sand, complete with one brick thick wall, of size : 600 x 600 x 750 mm deep inside, with CI surface box 100 mm top dia., 160 mm bottom dia. and 180 mm deep inside, with chained lid.	15	Each	9000	135000	5096.55	76448
66	Constructing brick masonry chambers with class 75 bricks in cement mortar 1:5 with fine sand, RCC top slab 1:2:4 of avg. thickness 150 mm, including reinforcement, excavation, refilling, 100 mm thick foundation concrete 1:5:10 with coarse sand, 12 mm thick inside plastering with cement mortar 1:3 with coarse sand, finished with a floating coat of neat cement, and 15 mm thick outside plastering in cement mortar 1:4 with fine sand, complete with one brick thick wall, of size : 600 x 600 x 750 mm deep inside, with CI surface box 350 x 350 mm and 165 mm deep inside, with chained lid, for fire hydrant.	15	Each	10000	150000	4773.05	71596
	Piping - Drainage & Sewerage						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
58	Providing, laying, jointing and testing double flanged ductile iron pipes having screwed flanges, conforming to IS:8329, including compressed neoprene washers, galvanised steel fasteners, complete, excluding trenching and back filling, of nominal dia.: 100 mm	40	mtr	1200	48000	713.40	28536
59	Providing, fixing and testing wafer type CI butterfly valves, conforming to IS:13095, PN 1.6, MS hand lever operated with galvanised steel fasteners and 3 mm thick compressed neoprene gaskets, complete, of nominal size : 80 mm	5	Each	1900	9500	2363.27	11816
60	Providing, fixing and testing wafer type CI butterfly valves, conforming to IS:13095, PN 1.6, MS hand lever operated with galvanised steel fasteners and 3 mm thick compressed neoprene gaskets, complete, of nominal size : 100 mm	4	Each	3500	14000	3246.00	12984
61	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 40 mm	60	mtr	200	12000	221.56	13294
62	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 50 mm	40	mtr	225	9000	247.92	9917
63	Providing, laying, jointing and testing UPVC pipes, conforming to IS:4985 (6.0 kg/sq.cm.), including injection moulded fittings with bosses e.g. tees, bends, couplings, adapters, etc., and jointing with solvent weld joints, complete, excluding trenching and back filling, of outer dia.: 63 mm	25	mtr	260	6500	265.35	6634

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
54	Earth work in excavation, in trenches, in all types of soil, for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated earth and then returning the soil as required, in layers not exceeding 200 mm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed, within a lead of 50 m complete, of pipes, cables of sizes : over 300 mm dia. (minimum width of trench 850 mm)	75	mtr	200	15000	250.20	18765
55	Excavation and Fill EXCAVATING, UTILITY TRENCH Excavating holes up to 0.5 cum including getting out the excavated material, then returning the soil as required in layers not exceeding 200 mm in depth, including consolidating each deposited layer by ramming, watering etc., disposing of surplus excavated material, as directed, within a lead of 50 m and lift upto 1.5 m, complete : All types of soil Termite - Pre treatment	80	Each	200	16000	41.85	3348
56	Providing and injecting chemical emulsions for pre-construction anti-termite treatment and creating continuous chemical barrier under and all around the column pits, wall trenches, basement excavation, top surfaces of plinth filling, junctions of walls and floors, along the external perimeter of buildings, expansion joints, over the top surface of consolidated earth on which plinth protection is to be laid, surrounding of pipes and conduits etc. complete, in accordance with IS:6313 (Part II). (Plinth area of the building at ground level shall only be measured): Using Chloropyriphos Emulsifiable concentrate 0.2% Water Distribution	1150	Sqm	60	69000	93.65	107698
57	Providing, laying, jointing and testing double flanged ductile iron pipes having screwed flanges, conforming to IS:8329, including compressed neoprene washers, galvanised steel fasteners, complete, excluding trenching and back filling, of nominal dia.: 80 mm	205	mtr	1000	205000	655.14	134304

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
51	Earth work in excavation 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 earth as directed, within a lead of 50 m, complete : All types of soil	200	Cum	250	50000	132.20	26440
	Utility Trench						
52	Earth work in excavation, in trenches, in all types of soil, for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated earth and then returning the soil as required, in layers not exceeding 200 mm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed, within a lead of 50 m complete, of pipes, cables of sizes : upto 80 mm dia. (minimum width of trench 450 mm)	230	mtr	150	34500	98.10	22563
53	Earth work in excavation, in trenches, in all types of soil, for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5 m including getting out the excavated earth and then returning the soil as required, in layers not exceeding 200 mm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed, within a lead of 50 m complete, of pipes, cables of sizes : over 80 mm dia. and upto 300 mm dia. (minimum width of trench 600 mm)	120	mtr	200	24000	160.25	19230

(101)

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
44	Filling available excavated earth (excluding rock) in trenches, plinths, sides of foundations and in adjacent areas to profiles, shapes and levels etc. in layers not exceeding 200 mm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m, complete.	310	Cum	120	37200	75.45	23390
45	Supplying and stacking good earth, free from organics impurities. Bulk Excavation	825	Cum	350	288750	309.74	255536
46	Earth work in rough excavation, in all types of soil, banking excavated earth in layers not exceeding 200 mm in thickness, breaking clods, watering, rolling each layer with 1/2 ton roller, or compacting with wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 ton capacity and dressing up, in embankment for roads, flood banks, marginal banks and guide banks or filling up ground depressions, lead up to 50 m and lift up to 1.5 m, complete.	110	Cum	250	27500	276.50	30415
47	Earth work in excavation over areas (exceeding 300 mm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed, complete: All types of soil	250	Cum	285	71250	130.95	32738
48	Add for every additional lift of 1.5 m or part thereof in: All types of Fill	50	Cum	35	1750	35.45	1773
49	Providing and laying 100 mm/150 mm thick (consolidated thickness) hard core fill, under floors, pavings and other locations, with approved hard stones of size 50 mm and down, thoroughly filled with smaller chips, rammed, rolled, watered and consolidated to required levels, complete.	880	Cum	1200	1056000	965.54	849675
50	Providing clean fine sand fill under floors, pavings and similar locations, laid to required depth, compacted by flooding with water, finished to proper levels, complete.	750	Cum	1186	889500	1282.70	962025
	Trench						

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
37	Providing and fixing close timbering including strutting, shoring and packing cavities (wherever required) complete (Measurement to be taken of the face area timbered), Depth not exceeding 1.5 m : in shafts, wells, cesspits, manholes and the like	40	Sqm	30	1200	104.00	4160
38	Add for every 1 m or part thereof of additional depth over an initial depth of 1.5 m, for close timbering : in trenches etc.	30	Sqm	40	1200	109.40	3282
39	Add for every 1 m or part thereof of additional depth over an initial depth of 1.5 m, for close timbering : in shafts, wells, cesspits, man-holes and the like	10	Sqm	40	400	129.45	1295
	Topsoil						
40	Earth work in surface excavation not exceeding 300 mm in depth but exceeding 1.5 m in width as well as 10 sqm on plan, in all types of soil including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be leveled and neatly dressed, complete.	225	100 Sqm	2100	472500	3589.05	8075
	Back fill						
41	Banking / Depositing all types of excavated earth in layers not exceeding 200 mm in thickness, breaking clods, watering, rolling each layer with power roller of minimum 8 ton capacity and dressing up to required profiles and levels, in embankment for roads, flood banks, marginal banks, mounds and guide banks etc. and compacting the deposited earth under optimum moisture content to give at least 95% of the maximum dry density, lead up to 50 m and lift up to 1.5 m, complete	325	Cum	140	45500	169.10	54958
42	Deduct for not rolling with power roller of minimum 8 ton capacity for banking excavated earth in layers not exceeding 200 mm in thickness.	160	Cum	-35	-5600	-3.05	-488
43	Deduct for not watering the excavated earth used in banking.	70	Cum	-20	-1400	-12.10	-847

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
29	Dismantling CI / GS / PVC / Asbestos rain water pipes embedded in concrete / brick work with fittings and clamps including dismantling of concrete/brick work etc., stacking the serviceable material and disposal of unserviceable materials up to 50 m lead, of dia: over 150 mm	15	mtr	50	750	103.15	1547
	Clear and Grub						
30	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 300 mm (measured at a height of 1.0 m above GL) and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared, complete.	50	100 Sqm	1000	50000	463.45	23173
31	Felling trees including cutting of trunks and branches, removing the roots, stacking of serviceable materials and disposal of unserviceable materials within a 50 m lead, complete, of girths (measured at a height of 1.0 m above GL.) : over 300 mm and upto 600 mm	40	Each	500	20000	142.75	5710
32	Felling trees including cutting of trunks and branches, removing the roots, stacking of serviceable materials and disposal of unserviceable materials within a 50 m lead, complete, of girths (measured at a height of 1.0 m above GL.) : over 600 mm and upto 1200 mm	12	Each	1000	12000	631.80	7582
33	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared, complete.	20	100 Sqm	1100	22000	239.65	4793
34	Surface dressing of the ground including removing vegetation and inequalities not exceeding 150 mm deep, in all types of soil and disposal of rubbish upto a lead of 50 m, complete.	60	100 Sqm	1100	66000	894.20	53652
	Dewatering						
35	Pumping out water caused by spring, tidal or river seepage, broken water mains or drains and the like.	30	Kl. Ltr.	200	6000	318.05	9542
	Excavation - Close and open timbering						
36	Providing and fixing close timbering including strutting, shoring and packing cavities (wherever required) complete (Measurement to be taken of the face area timbered), Depth not exceeding 1.5 m : in trenches etc.	35	Sqm	30	1050	104.00	3640



SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
22	Dismantling dry brick pitching in floors, drains etc, including stacking of serviceable materials and disposal of unserviceable materials within a 50 m lead.	75	Sqm	200	15000	326.80	24510
	Framing demolition						
23	Dismantling woodwork in frames, trusses, purlins and rafters upto a 10 metres span and 5 metres height including stacking the material within a 50 m lead, of sectional areas : upto 4000 sqmm	50	mtr	800	40000	1357.65	67883
24	Dismantling steel work in built up sections at all heights and depths, in angles, tees, flats, channels and tubes including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 m lead.	20	Qtl	5000	100000	65.00	1300
	Partitions Demolition						
25	Dismantling aluminum partitions, doors, windows, fixed glazing and false ceiling and gypsum partitions / false ceiling including stacking of serviceable materials and disposal of unserviceable materials upto a 50 m lead.	100	Sqm	200	20000	17.15	1715
	Rain water Pipes demolition						
26	Dismantling CI / GS / PVC / asbestos exposed rain water pipes with fittings and clamps including stacking the serviceable material and disposal of unserviceable material within a 50 m lead, of dia: upto 80 mm	30	mtr	20	600	19.60	588
27	RAIN WATER PIPES DEMOLITION Dismantling CI / GS / PVC / asbestos exposed rain water pipes with fittings and clamps including stacking the serviceable material and disposal of unserviceable material within a 50 m lead, of dia: over 80 mm and upto 150 mm	45	mtr	40	1800	20.50	923
28	Dismantling CI / GS / PVC / Asbestos rain water pipes embedded in concrete / brick work with fittings and clamps including dismantling of concrete/brick work etc., stacking the serviceable material and disposal of unserviceable materials up to 50 m lead, of dia: upto 80 mm	15	mtr	40	600	42.85	643

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
15	Dismantling / demolishing stone rubble masonry in cement / lime mortar in foundations, super structure and basement at all heights / depths including stacking of serviceable materials and disposal of unserviceable materials upto a 50 m lead. Ceiling Demolition	67	Cum	1300	87100	641.65	42991
16	Dismantling false ceiling, partitions, wall lining, etc supported / fixed to wooden / aluminium / metal frame including dismantling of frame, stacking of serviceable material and disposal of unserviceable material upto a 50 m lead, with : Wooden planks Door / window demolition	10	Sqm	275	2750	17.15	172
17	Taking out door, window and clerestory window shutters (metal or wood) including chowkhats, architrave, holdfast, etc. complete and stacking within a 50 m lead, of areas: upto 3 sqm	34	Each	750	25500	42.95	1460
18	Taking out door, window and clerestory window shutters (metal or wood) including chowkhats, architrave, holdfast, etc. complete and stacking within a 50 m lead, of areas: over 3 sqm	4	Each	1000	4000	56.95	228
19	Dismantling expanded metal or IRC fabrics along with battens and beadings including stacking the serviceable materials within a 50 m lead. Flooring demolition	375	Sqm	215	80625	21.05	7894
20	Dismantling tile work in floors and roofs in cement mortar/lime mortar including stacking of serviceable material and disposal of unserviceable material upto a lead of 50 m, of thickness : 10 mm to 25 mm	900	Sqm	225	202500	22.12	19908
21	Dismantling tile work in floors and roofs in cement mortar/lime mortar including stacking of serviceable material and disposal of unserviceable material upto a lead of 50 m, of thickness : over 25 mm and upto 40 mm	450	Sqm	250	112500	35.65	16043

106

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
9	Dismantling of fence including supports of MS sections, pipe, wooden or any other material or combination of materials, along with foundations of supports, hooks, bolts etc., excavation of earth including refilling the earth etc., stacking of serviceable materials and disposal of unserviceable materials within 50 m lead : Barbed wire / chain link / expanded metal / concertina wire and the like.	155	Sqm	160	24800	21.05	3263
10	Dismantling of fence including supports of MS sections, pipe, wooden or any other material or combination of materials, along with foundations of supports, hooks, bolts etc., excavation of earth including refilling the earth etc., stacking of serviceable materials and disposal of unserviceable materials within 50 m lead : Wooden batten / boards	50	Sqm	450	22500	21.05	1053
	Selective demolition						
11	Demolishing lime concrete / cement concrete in all mixes, in foundations, super structure and basement, at all heights / depths, including disposal of unserviceable materials upto a 50 m lead.	120	Cum	1250	150000	221.85	26622
12	Demolishing RCC work in foundations, super structure and basement, at all heights / depths, including cutting, straightening scrapping, cleaning and stacking of reinforcement bars and disposal of unserviceable materials upto a 50 m lead.	380	Cum	2500	950000	960.80	365104
13	Demolishing RB work in foundations, super structure and basement, at all heights / depths, including cutting, straightening scrapping, cleaning and stacking of reinforcement bars and disposal of unserviceable materials upto a 50 m lead.	15	Cum	1200	18000	848.00	12720
14	Dismantling / Demolishing brick work in cement / lime mortar in foundations, super structure and basement, at all heights / depths, including removing of mortar, cleaning bricks and stacking of serviceable materials and disposed of unserviceable materials upto 50 m lead	82	Cum	1200	98400	536.60	44001

## KOOTHAMBALAM PROJECT

SNo	Description	Qty	Unit	Tendered cost		Justified by CPWD	
				Rate	Amount	Rate	Amount
	<b><u>SITE PREPARATION</u></b>						
	Site Demolition						
	External services						
1	Dismantling old CI pipes including excavation, removal of pipes, refilling trenches, breaking lead caulked joints, melting of lead and making lead blocks, stacking and handing over to owner pipes & lead at site, and disposal of unserviceable materials within a lead of 50 m, complete, of nominal di : 80 mm	80	mtr	35	2800	127.45	10196
2	Dismantling of manholes including RCC top slabs, CI/SFRC covers with frames, including stacking of useful materials and disposal of unserviceable materials within a lead of 50 m, complete, of shape and size : Rectangular, 900 x 800 x 450 mm deep	12	Each	750	9000	679.75	8157
3	Add for dismantling additional depth of : Circular manholes, 1220 mm dia., for depth beyond 1680 mm	5	mtr	1500	7500	580.65	2903
4	Add for dismantling additional depth of : Rectangular manholes, 900 x 800 mm, for depth beyond 450 mm	5	mtr	1000	5000	534.20	2671
5	Add for dismantling additional depth of : Rectangular manholes, 1200 x 900 mm, for depth beyond 900 mm	5	mtr	1000	5000	636.20	3181
6	Dismantling galvanised steel pipes (external work) including excavation and refilling trenches after taking out the pipes, including stacking of pipes within a 50 m lead, of nominal bores: 15 mm to 40	30	mtr	50	1500	41.50	1245
7	Dismantling of road including taking out soling, metalling etc, stacking of serviceable materials and disposal of unserviceable materials within a lead of 50 m : Water bound macadam	270	Cum	1060	286200	397.13	107225
8	EXTERNAL SERVICES DEMOLITION Dismantling of dry stone pitching including stacking of serviceable materials and disposal of unserviceable materials within a lead of 50	50	Cum	1060	53000	302.70	15135

(108)



GOVERNMENT OF INDIA  
CENTRAL PUBLIC WORKS DEPARTMENT  
OFFICE OF THE EXECUTIVE ENGINEER,  
CHENNAI CENTRAL DIVISION V,  
BESANT NAGAR, CHENNAI-600 090  
☎ 044-24916022/24460035

No:- 24(28)K/CCD V/15/270

Date : 05-02-2015

To

The Director,  
Kalakshetra Foundation,  
Thiruvanmiyur,  
Chennai - 41.

Sir,

**Sub : Koothambalam Project - award of contracts - justification of rates and award of contract. - reg**

**Ref : Yr.Ir.No: F.No. 10/2014-15/CPWD/KMBM/KF, dt: 14-01-15**

In continuation to this office lr. no: 24(28)K/CCDV/14/13, dt: 02-01-2015 and detailed study based on the factual condition in terms of the scaffolding and level of the work done the justification has been re-worked out and the same is mentioned in the annexure.

The modified detailed justified amount as on 2010 works out to Rs. 2,44,52,391/-, which were prevailing from December 2009 to December 2010.

The fee payable to CPWD will be 0.75% of the total justified amount is Rs. 1,83,393/- .

The following items were re-considered for revision in respect of justified rates. Agreement items 125, 126, 127, 131& 134, for Extra items 14, 16, 17.3, 21, 23.1, 23.2, 23.3, 28.2, 29, 33,34, 39, 40 and 41. For all other items mentioned in your letter, the justified rates were found in order as per the site condition. The justification were worked out based on the description of the items specified in the schedule submitted by your office and this office is not concern with the quantity mentioned in the schedule.

Yours faithfully,

**Encl: One copy of modified detailed comparative statement.**

(A. Suryanarayanan)  
Executive Engineer

**Copy to:**

- The Chief Engineer, SZI, CPWD, Chennai for information please, with reference to the lr. no: 28(7)15/2014-AdmnII/5436-60, dt: 12-11-2014.
- The Superintending Engineer, CCCII, CPWD, Chennai - 6 for information please.

Executive Engineer

109

**ANNEXURE**

**Koothambalam - Roof board insulation with Anutone boards fixing - Kalashetra foundation - Details of work**

S. No	Description of items	Quantity as specified	As per Agreement		JUSTIFIED	
			Rate	Amt	Rate	Amt
1	Supply of Anutone board as specified by the consultant	Actual quantity ordered as suggested 2500 sqm	Arranged by Kalakshetra foundation at free of cost			
2	Labour for fixing Anutone sheet including cutting and placing in position	2550 sqm	Rs. 130/- sqm	331500.00	Rs. 130/- sqm	331500.00
3	Removing and refit the existing battens available at site for the roof	10 cum	Rs.55,000/- cum	550000.00	Rs.11,077/- cum	110770.00
4	Providing and fixing C.P. teak over existing batten as per the item No 126 in the main work order	15 cum	Rs.1,50,000/- cum	2250000.00	Rs.1,38,654/- cum	2079810.00
5	Prepare surface and apply one coat approved water bound emulsion paint	2550 sqm	Rs. 55/- sqm	140250.00	Rs. 22/- sqm	56100.00
			<b>Total</b>	<b>3271750.00</b>		<b>2578180.00</b>

*(Signature)*  
Assistant Engineer  
Chennai Central Sub Division 2/V  
CPWD, Besant Nagar, Chennai - 90

*(Signature)*  
Assistant Engineer (P)  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90

*(Signature)*  
Executive Engineer  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90



GOVERNMENT OF INDIA  
CENTRAL PUBLIC WORKS DEPARTMENT  
OFFICE OF THE EXECUTIVE ENGINEER,  
CHENNAI CENTRAL DIVISION V,  
BESANT NAGAR, CHENNAI-600 090  
☎ 044-24916022/24460035

No:- 24(28)K/CCD V/15/269

Date : 05-02-2015

To

✓ The Director,  
Kalakshetra Foundation,  
Thiruvanmiyur,  
Chennai - 41.

Sir,

**Sub : Koothambalam Project - award of contracts - justification of rates and award of contract and Roof board insulation with anutone board fixing - reg**

**Ref : Yr.Ir.No: F.No. 10/2014-15/CPWD/KMBM/KF,  
dt: 14-01-2015**

The detailed comparative statement for the above project is enclosed for your kind information please.

The detailed justified amount as on 2010-11 for roof board insulation with anutone board works out to **Rs. 25,78,180/-**, which were prevailing then from December 2010 to December 2011.

The fee payable to CPWD will be 0.75% of the total justified amount is **Rs. 19,336/-**.

Yours faithfully,

**Encl: One copy of detailed comparative statement.**

  
(A. Suryanarayanan)  
Executive Engineer

**Copy to:**

- The Chief Engineer, SZI, CPWD, Chennai for information please, with reference to the Ir. no: 28(7)15/2014-AdmnII/5436-60, dt: 12-11-2014.
- The Superintending Engineer, CCCII, CPWD, Chennai - 6 for information please.

\_\_\_\_\_  
Executive Engineer

(111)

# Audio DESIGN

Hiring & Installation of  
Audio, Visual, LED &  
Stage Light Equipment

20,96,600/-

b.	500 Kg capacity Motors stage maker / Prolye with 20 Mtrs chain with controller.	3 Nos.	Rs. 1,95,000/-	Rs. 5,85,000.00
14.	Motorized Hoisting System for lighting bar - 4 nos. Motorized Hoisting System for Extra bar - 11 nos Motorized Hoisting System for Frill bar - 4 nos with multiple pulley system, wire rope ,Hemp rope, clamp, locks 50 mm Dia G.I pipe etc., as per site and Drawing required (Pipe will be paid separate)	19 Nos.	Rs. 1,65,000/-	Rs. 31,35,000.00
5	<b>DIMMER</b> Floor mounted Dimmer rack with 190 Nos. single phase 2 KW electronic dimmers to be distributed in 3 phases with suitable bus bar arrangements housed in sheet metal enclosure. Digital output, Output Light Indicator, Local controls etc. <b>Make: XL-10-190 Make: Modern Stage Service.</b>	1 No.	Rs. 8,80,000.00	Rs. 8,80,000.00
16	2 inches Dia, MS Pipe pole 6 feet height with double flange, nut bolt, washers and fixing arrangement at ground level.	8 Nos.	Rs. 5,300/-	Rs. 42,400.00

Taxes: Extra @12.5%

Packing and Forwarding at Chennai (Transportation Approx. Rs. 2,00,000.00 Extra)

Payment:: 50% advance and 50% against Delivery

Installation: Extra @ 7.5% + Service Tax @ 10.3% on installation.

Looking for your favorable reply.

67,39,000/-  
12.5% 8,42,375/-  
Installation (7.5%) 5,68,603/-  
Chrgs (Rs 75,31375) 58,566/-  
10.3% ST

P&F chrgs 2,00,000/-

Grand total Rs 84,08,544/-

for AUDIO DESIGN

[AUTHORISED SIGNATORY]

Rs. 84,08,544/-

112



# Audio DESIGN

Hiring & Installation of  
Audio, Visual, LED &  
Stage Light Equipment

6,82,400/-

	pipe. Size: 12.6m (AV) x 2.0m			
--	----------------------------------	--	--	--

STAGE LIGHTING				
8	<b>1000W Halogen Plano convex spot light</b> complete with 1000Watts Halogen Bipin T-11 lamp, spherical anodized reflector, imported socket, 150mm dia Plano convex lens, bottom sliding knob, yoke, colour frame & suitable clamp <i>Type: SL-35H.</i> <i>Make: Modern Stage Service.</i>	15 Nos.	Rs. 8,000/-	<b>Rs.1,20,000.00</b>
9	<b>600W Profile Light with GKV 600W Halogen Lamp, G 9.5 Socket, and Manufacturer rated lamp life is 250 Hours, IP 20 Casting aluminium housing, in conformity with the CE Standard and ROHS directive. <i>Type: Pro Stage</i> <i>Make: PR Lighting</i></b>	6 Nos.	Rs. 20,000/-	<b>Rs. 1,20,000.00</b>
10	<b>1000W, 240 Volt, PAR Sealed Beam Light</b> with Cold rolled coiled (CRC) Sheet Metal and aluminium die casting, mat black color, yoke & clamp with Barn door. CP 60/61/62. <i>Type: Modern-64</i> <i>Make: Modern Stage Service</i>	10 Nos.	Rs. 3,300/-	<b>Rs. 33,000.00</b>
11	<b>1000 W Halogen light with mesh &amp; barn door</b> consisting of 2nos. single contact compressible holders, yoke, 1000 W halogen tube & suitable clamp <i>Type: HL-44.</i> <i>Make: Modern Stage Service.</i>	4 Nos.	Rs. 1,800/-	<b>Rs. 7,200.00</b>
12	<b>M.S. Pipe Ladders</b> to be provided on sides of the Stage to be fixed on the existing GI pipe or top grid. Made of 50mm x 25mm MS pipe of following size. <b>[a] Size: 0.60 m x 2.40 m</b>	10 Nos.	Rs. 2,800/-	<b>Rs. 28,000.00</b>
13 a	<b>16 Mtr Motorised Box Truss</b> made out of aluminium with controller, 2 Nos – <b>One tonne motors</b> for each truss	2 Nos.	Rs. 5,50,000/-	<b>Rs. 11,00,000.00</b>

20,96,600/-

(13)

# Audio DESIGN

Hiring & Installation of  
Audio, Visual, LED &  
Stage Light Equipment

2,25,000/-

	The curtain should be draped to half area when in closed position. Minimum overlap at centre should be 900mm. The curtain should be stitched in double gathering. <b>Appx. Size:-</b> 12.6 m x 6.8 m			
3	<b>REAR CURTAIN</b> made out of black glazed curtain cotton cloth with <b>horizontal sliding arrangement</b> complete with fixing rails, brackets, sliding arrangement and motorised operation complete with runners, master runners, pullies, 3mm steel rope wire, <b>1HP</b> motor (Crompton) 2 nos, air breaker contactors ( <b>L&amp;T/SIEMENS</b> ), 2 nos. micro switches for auto stop, 3 nos. push buttons for forward, reverse and stop positions. The curtain should be draped to half area when in closed position. Minimum overlap at centre should be 900mm. The curtain should be stitched in double gathering. <b>Appx. Size:-</b> 12.6 m x 6.8 m	1 No.	Rs. 1,10,000/-	Rs. 1,10,000.00
4	<b>CYCLORAMA cum screen:-</b> Providing of cyclorama curtain cum screen in PVC perforated material, back portion of the cyclorama will be covered with tarpaulin materials The screen to be fixed on tubular frame made out of 32mm dia MS pipe. <b>Appx. Size:-</b> 12.00 m x 6.80 m	1 No.	Rs. 1,40,000/-	Rs. 1,40,000.00
5	Providing and fixing black glazed curtain cotton cloth fixed on existing frill pipe  Stitching Charges	8 Nos.	Rs. 5,300/-	Rs. 42,400.00
6	<b>Tormentor</b> Supplying and fixing the Tormentor with black Glaze cotton cloth Size:2.7 m + 0.6 m (Hinged) x 6.80 m	2 Nos.	Rs. 41,500/-	Rs. 83,000.00
7	<b>FRILLS :-</b> Providing and fixing average frills made out of double gathering glazed cotton cloth to be installed above the stage on 28mm dia GI	4 Nos.	Rs. 22,000/-	Rs. 88,000.00

6, 114

27

CD 1/10

# Audio DESIGN

Hiring & Installation of  
Audio, Visual, LED &  
Stage Light Equipment

Dated: 18<sup>th</sup> September 2010

The Director,  
Kalakshetra Foundation  
**CHENNAI - 600 032**  
Ph. +919840762646

Sub.: Quotation for stage lighting and stage furnishing for auditorium at Koothambalam, Chennai

Dear Madam,  
Below is the quotation of stage lighting and curtain system as you asked for:

S.N.	Item	Qty.	Rate. [Each]	Total Amount.
<b>STAGE FURNISHING</b>				
1	<b>MAIN CURTAIN</b> made out of fabric which will be supplied by us thro' Dastkar Haat Samity at your place. The sliding arrangement complete with fixing rails, brackets, sliding arrangement & motorised operation complete with runners, master runners, pullies, 3mm steel wire rope, 1 HP motor (Crompton) 2nos. air breaker contactors (L&T/SIEMENS), 2nos. micro switches for auto stop, 3 nos push buttons for forward, reverse and stop positions. The curtain should be draped to half area when in closed position. With masking frill 600 mm Drop from Prosc. <b>Appx. Size:- 13.6 m x 6.8 m</b>	1 No.	Rs. 1,00,000.00	Rs. 1,00,000.00
2	<b>CENTER CURTAIN-</b> made out of black glazed curtain cotton cloth (as per sample provided by you) with <b>horizontal sliding arrangement</b> complete with fixing rails, brackets, sliding arrangement and motorised operation complete with runners, master runners, pullies, 3 mm steel rope wire, 1HP motor (Crompton) 2 nos, air breaker contactors (L&T/SIEMENS), 2 nos. micro switches for auto stop, 3 nos. push buttons for forward, reverse and stop positions.	1 No.	Rs. 1,25,000/-	Rs. 1,25,000.00

(15) 2,25,000/-

MSS Technologies Pvt. Ltd.

(Stage Equpt. & Allied Services)

B-118, D. D. A. Shed,

Okhla Industrial Area, Phase-I,

NEW DELHI - 110 020.

Phones : 32590464 Fax: 26812974

e-mail : msstech@gmail.com

Total =

Qty Price R/F 24,97,000  
 3 NOS Rs. 2,10,000.00[each] 6,30,000

500 Kg capacity Motors stage maker / Prolye with 20 Mtrs chain with controller.

Motorized Hoisting System for lighting bar -4 nos.

Motorized Hoisting System for Extra bar -11 nos

Motorized Hoisting System for Frill bar - 4 nos with multiple pulley system, wire rope ,Hemp rope, clamp, locks 50 mm Dia G.I pipe etc., as per site and Drawing required  
 (Pipe will be paid separate)

19 NOS Rs. 1,85,000.00[each] 35,15,000

**DIMMER**

Floor mounted Dimmer rack with 190 Nos. single phase 2 KW electronic dimmers to be distributed in 3 phases with suitable bus bar arrangements housed in sheet metal enclosure. Digital output, Output Light Indicator, Local controls etc.

Make: XL-10-190 Make: Modern Stage Service.

1 NO Rs. 9,00,000.00[each] 9,00,000

2 inches Dia, MS Pipe pole 6 feet height with double flange, nut bolt, washers and fixing arrangement at ground level.

8 NOS Rs. 5,500.00[each] 44,000

VAT @ 12.5 extra.

Transportation Delhi to Chennai Approx 1,50,000.00 for 3 Trucks.

Installation 10% and service Tax 10.3% on installation extra. Installation 10%

Packing will be charged extra as per actual.

Thanks and Regards

MSS Technologies Pvt Ltd

*Amey*  
 Director

12.5% VAT 68,76,000 -

10.3% Service Tax 74,676 -

PEF 1,50,000 -

Grand total 87,38,776

*MSS Technologies Pvt. Ltd.*

*(Stage Equpt. & Allied Services)*

*B-118, D. D. A. Shed,*

*Okhla Industrial Area, Phase-I,*

*NEW DELHI - 110 020.*

*Phones : 32590464 Fax : 26812974*

*e-mail : msstech@gmail.com*

	<i>Qty</i>	<i>Rate</i>	<i>Bk. 9,18,00</i>
8) 1000W Halogen Plano convex spot light complete with 1000Watts Halogen Bipin T-11 lamp, spherical anodized reflector, imported socket, 150mm dia Plano convex lens, bottom sliding knob, yoke, colour frame & suitable clamp <i>Type: SL-35H.</i> <i>Make: Modern Stage Service.</i>	→ 15 Nos	Rs. 10,000.00[each]	1,50,000
9) 600W Profile Light with GKV 600W Halogen Lamp, G 9.5 Socket, and Manufacturer rated lamp life is 250 Hours, IP 20 Casting aluminium housing, in conformity with the CE Standard and ROHS directive. <i>Type: Pro Stage, Make: PR Lighting</i>	→ 6 Nos	Rs. 21,000.00[each]	1,26,000
10) 1000W, 240 Volt, PAR Sealed Beam Light with Cold rolled coiled (CRC) Sheet Metal and aluminium die casting, mat black color, yoke & clamp with Barn door. CP 60/61/62. <i>Type: Modern-64, Make: Modern Stage Service</i>	→ 10 Nos	Rs. 3,500.00[each]	35,000
11) 1000 W Halogen light with mesh & barn door consisting of 2nos. single contact compressible holders, yoke, 1000 W halogen tube & suitable clamp <i>Type: HL-44, Make: Modern Stage Service.</i>	→ 4 Nos	Rs. 2,000.00[each]	8,000
12) M.S. Pipe Ladders to be provided on sides of the Stage to be fixed on the existing GI pipe or top grid. Made of 50mm x 25mm MS pipe of following size. [a] Size: 0.60 m x 2.40 m	→ 10 Nos	Rs. 3,000.00[each]	30,000
13) 16 Mtr Motorised Box Truss made out of aluminium with controller, 2 Nos - One tonne motors for each truss	→ 2 Nos	Rs. 5,75,000.00[each]	11,50,000

*C/o 24,17,000*

*117*

MSS Technologies Pvt. Ltd.

(Stage Equpt. & Allied Services)

B-118, D. D. A. Shed,

Okhla Industrial Area, Phase-I,

NEW DELHI - 110 020.

Phones : 32590464 Fax : 26812974

e-mail : msstech@gmail.com

local

at centre should be 900mm. The curtain should be stitched in double gathering.

Appx. Size:- 12.6 m x 6.8 m

Qty Rate Bt 2,50,000

3) Rear Curtain made out of black glazed curtain cotton cloth with horizontal sliding arrangement complete with fixing rails, brackets, sliding arrangement and motorised operation complete with runners, master runners, pullies, 3mm steel rope wire, 1HP motor (Crompton) 2 nos, air breaker contactors (L&T/SIEMENS), 2 nos. micro switches for auto stop, 3 nos. push buttons for forward, reverse and stop positions. The curtain should be draped to half area when in closed position. Minimum overlap at centre should be 900mm. The curtain should be stitched in double gathering.

Appx. Size:- 12.6 m x 6.8 m

→ 1 NO Rs. 1,25,000.00[each] 1,25,000

4) Providing of cyclorama curtain cum screen in PVC perforated material, back portion of the cyclorama will be covered with tarpaulin materials The screen to be fixed on tubular frame made out of 32mm dia MS pipe.

Appx. Size:- 12.00 m x 6.80 m

→ 1 NO Rs. 1,50,000.00[each] 1,50,000

5) Providing and fixing black glazed curtain cotton cloth fixed on existing frill pipe

→ 8 NO Rs. 6,000.00[each] 48,000-

6) Supplying and fixing the Tormentor with black Glaze cotton cloth

Size:2.7 m + 0.6 m (Hinged) x 6.80 m

→ 2 NO Rs. 47,500.00[each] 95,000-

7) Providing and fixing average frills made out of double gathering glazed cotton cloth to be installed above the stage on 28mm dia GI pipe.

Size: 12.6m (AV) x 2.0m

→ 11 NO Rs. 25,000.00[each] 2,75,000-

(118)

2,75,000/-

MSS Technologies Pvt. Ltd.

(Stage Equpt. & Allied Services)

B-118, D. D. A. Shed,

Okhla Industrial Area, Phase-I,

NEW DELHI - 110 020.

Phones : 32590464 Fax : 26812974

e-mail : msstech@gmail.com

CP 11/10

Dated: 21/09/2010

The Director,  
Kalakshetra Foundation  
Chennai-32  
Ph. +919840762646

Sub.: Rates for lighting and curtain system for your auditorium.

Dear Sir/ Madam,  
As per your requirement, we are hereunder sending you the rates of each item.

1) Main Curtain made out of fabric which will be supplied by us thro' Dastkar Haat Samity at your place. The sliding arrangement complete with fixing rails, brackets, sliding arrangement & motorised operation complete with runners, master runners, pullies, 3mm steel wire rope, 1 HP motor (Crompton) 2nos. air breaker contactors (L&T/SIEMENS), 2nos. micro switches for auto stop, 3 nos push buttons for forward, reverse and stop positions. The curtain should be draped to half area when in closed position. With masking frill 600 mm Drop from Prosc.  
Appx. Size:- 13.6 m x 6.8 m

Qty Rate

→ 1 nos Rs. 1,10,000.00 [Each] 1,10,000

2) Centre Curtain made out of black glazed curtain cotton cloth (as per sample provided by you) with horizontal sliding arrangement complete with fixing rails, brackets, sliding arrangement and motorised operation complete with runners, master runners, pullies, 3 mm steel rope wire, 1HP motor (Crompton) 2 nos, air breaker contactors (L&T/SIEMENS), 2 nos. micro switches for auto stop, 3 nos. push buttons for forward, reverse and stop positions. The curtain should be draped to half area when in closed position. Minimum overlap

→ 1 nos Rs. 1,40,000.00 [each] 1,40,000

119

C 10 10

A<sup>2</sup>

Total (A)			Rs. 61,10,800.00
Less: Discount @ 6% on the overall value Total (A)			Rs. 3,66,648.00
Total (B)			Rs. 57,44,152.00
Add: VAT @ 12.5% on Total (B)			Rs. 7,18,019.00
Total (C)			Rs. 64,62,171.00
Add: Installation Charges @ 3% on Total (B)			Rs. 1,72,324.00
Add: Service Tax @ 10.3% on Installation Charges			Rs. 17,749.00
GRAND TOTAL			Rs. 66,52,244.00

❖ All the products are under one year guarantee except Lamp but in special case, one year additional guarantee for the Dimmer will be from our side.

❖ GI Pipe provided from your side, we will only install it.

This is the final price from our side. Please release the order and oblige.

**Terms & Conditions:-**

- The rates are **F.O.R. Delhi**.
- **Transportation** will be charged extra for 2 Trucks.
- **Boarding & Lodging of 10 persons** will be provided from your side.
- **Payment 25% in Advance, 65% against delivery and 10% after installation.**

Thanking you and assuring you of our best possible services at all times.  
for **MODERN STAGE SERVICE**

(**DAVINDER WADHWA**)

120



9	600W Profile Light with GKV 600W Halogen Lamp, G 9.5 Socket, and Manufacturer rated lamp life is 250 Hours, IP 20 Casting aluminium housing, in conformity with the CE Standard and ROHS directive. <i>Type: Pro Stage</i> <i>Make: PR Lighting</i>	6 Nos.	@ 18,000/-	Rs. 1,08,000.00
10	1000W, 240 Volt, PAR Sealed Beam Light with Cold rolled coiled (CRC) Sheet Metal and aluminium die casting, mat black color, yoke & clamp with Barn door. CP 60/61/62. <i>Type: Modern-64</i> <i>Make: Modern Stage Service</i>	10 Nos.	@ 3,000/-	Rs. 30,000.00
11	1000 W Halogen light with mesh & barn door consisting of 2nos. single contact compressible holders, yoke, 1000 W halogen tube & suitable clamp <i>Type: HL-44.</i> <i>Make: Modern Stage Service.</i>	4 Nos.	@ 1,600/-	Rs. 6,400.00
12	M.S. Pipe Ladders to be provided on sides of the Stage to be fixed on the existing GI pipe or top grid. Made of 50mm x 25mm MS pipe of following size. [a] Size: 0.60 m x 2.40 m	10 Nos.	@ 2,500/-	Rs. 25,000.00
13 a	16 Mtr Motorised Box Truss made out of aluminium with controller, 2 Nos - One tonne motors for each truss	2 Nos.	@ 5,00,000/-	Rs. 10,00,000.00
b.	500 Kg capacity Motors stage maker / Prolye with 20 Mtrs chain with controller.	3 Nos.	@ 1,75,000/-	Rs. 5,25,000.00
14.	Motorized Hoisting System for lighting bar -4 nos. Motorized Hoisting System for Extra bar -11 nos Motorized Hoisting System for Frill bar - 4 nos with multiple pulley system, wire rope ,Hemp rope, clamp, locks 50 mm Dia G.I pipe etc., as per site and Drawing required <b>(Pipe will be paid separate)</b>	19 Nos.	@ 1,50,000/-	Rs. 28,50,000.00
15	<b>DIMMER</b> Floor mounted Dimmer rack with 190 Nos. single phase 2 KW electronic dimmers to be distributed in 3 phases with suitable bus bar arrangements housed in sheet metal enclosure. Digital output, Output Light Indicator, Local controls etc. <i>Make: XL-10-190 Make: Modern Stage Service.</i>	1 No.	@ 8,00,000.00	Rs. 8,00,000.00
16	2 inches Dia, MS Pipe pole 6 feet height with double flange, nut bolt, washers and fixing arrangement at ground level.	8 Nos.	@ 5,000/-	Rs. 40,000.00

DM 7 parts with not dimmer

121

3	<p><b>REAR CURTAIN</b> made out of black glazed curtain cotton cloth with <b>horizontal sliding arrangement</b> complete with fixing rails, brackets, sliding arrangement and motorised operation complete with runners, master runners, pullies, 3mm steel rope wire, <b>1HP</b> motor (Crompton) <b>2</b> nos, air breaker contactors (<b>L&amp;T/SIEMENS</b>), <b>2</b> nos. micro switches for auto stop, <b>3</b> nos. push buttons for forward, reverse and stop positions. The curtain should be draped to half area when in closed position. Minimum overlap at centre should be <b>900mm</b>. The curtain should be stitched in double gathering.</p> <p><i>Appx. Size:- 12.6 m x 6.8 m</i></p>	1 No.	@ 1,00,000/-	Rs. 1,00,000.00	✓
4	<p><b>CYCLORAMA cum screen:-</b> Providing of cyclorama curtain cum screen in PVC perforated material, back portion of the cyclorama will be covered with tarpaulin materials The screen to be fixed on tubular frame made out of 32mm dia MS pipe.</p> <p><i>Appx. Size:- 12.00 m x 6.80 m</i></p>	1 No.	@ 1,25,000/-	Rs. 1,25,000.00	
5	<p>Providing and fixing black glazed curtain cotton cloth fixed on existing frill pipe</p> <p>Stitching Charges</p>	8 Nos.	@ 4,800/-	Rs. 38,400.00	✓
6	<p><b>Tormentor</b> Supplying and fixing the Tormentor with black Glaze cotton cloth Size:2.7 m + 0.6 m (Hinged) x 6.80 m</p> <p>Stitching Charges</p>	2 Nos.	@ Rs. 37,500/-	Rs. 75,000.00	✓
7	<p><b>FRILLS :-</b> Providing and fixing average frills made out of double gathering glazed cotton cloth to be installed above the stage on 28mm dia GI pipe. <i>Size: 12.6m (AV) x 2.0m</i></p>	4 Nos.	@ 20,000/-	Rs. 80,000.00	✓
8	<p><b>1000W Halogen Plano convex spot light</b> complete with 1000Watts Halogen Bipin T-11 lamp, spherical anodized reflector, imported socket, 150mm dia Plano convex lens, bottom sliding knob, yoke, colour frame &amp; suitable clamp <i>Type: SL-35H.</i> <i>Make: Modern Stage Service.</i></p>	15 Nos.	@ 7,200/-	Rs.1,08,000.00	✓

(122)

9312976000

Email received form

25

Final. N/S - Modern Stage Revised after form  
Service 1/5 wagna

modern stage service

CORPORATE OFFICE  
35, New Municipal Market, Lodhi Road  
New Delhi - 110003  
Tel: +91-11-24619543 / 643 / 743  
Fax: + 91-11-24627788 /8993(265)/2010

Dated: 20<sup>th</sup> September 2010

www.modernstageservice.in  
info@modernstageservice.in

lation

032

Ph. +919840762646

Subject: Estimate for stage lighting and stage furnishing for auditorium at Koothambalam, Chennai

Dear Sir,

With reference to your email regarding the above subject, we are sending you the estimate for your kind consideration:

S.N.	Description	Qty.	Rate.	Amount.
1	<b>MAIN CURTAIN</b> made out of fabric which will be supplied by us thro' Dastkar Haat Samity at your place. The sliding arrangement complete with fixing rails, brackets, sliding arrangement & motorised operation complete with runners, master runners, pullies, 3mm steel wire rope, 1 HP motor (Crompton) 2nos. air breaker contactors (L&T/SIEMENS), 2nos. micro switches for auto stop, 3 nos push buttons for forward, reverse and stop positions. The curtain should be draped to half area when in closed position. With masking frill 600 mm Drop from Prosc. <i>Appx. Size:- 13.6 m x 6.8 m</i>	1 No.	Motorized Mechanism  Stitching Charges  Cloth for the curtains	Rs. 75,000.00 ✓  Rs. 15,000.00 ✓  To be provided from your side ✓
2	<b>CENTER CURTAIN-I</b> made out of black glazed curtain cotton cloth (as per sample provided by you) with horizontal sliding arrangement complete with fixing rails, brackets, sliding arrangement and motorised operation complete with runners, master runners, pullies, 3 mm steel rope wire, 1HP motor (Crompton) 2 nos, air breaker contactors (L&T/SIEMENS), 2 nos. micro switches for auto stop, 3 nos. push buttons for forward, reverse and stop positions. The curtain should be draped to half area when in closed position. Minimum overlap at centre should be 900mm. The curtain should be stitched in double gathering. <i>Appx. Size:- 12.6 m x 6.8 m</i>	1 No.	@ 1,10,000/-	Rs. 1,10,000.00 ✓

123

## Letter of Offer (Quotation)

To,  
Kalakshetra Foundation  
Rukmani Devi College of Fine Arts  
Kalakshetra Road, Thiruvanniyur  
Chennai - 600 041  
Tamil Nadu

Kind Attn: Ms. Leela Samson

Offer date: 23 September 2009  
Valid For: 30days

Customer Request:  
By Email

Payment terms:  
100% upfront payment.

Delivery terms:  
Ex- Work Norway

Shipment:  
2-3 weeks from the date of P.O.

Warranty:  
2 years from the date of Invoice  
Lamp: 90days or 500hrs

Our Banker:  
Nordea Bank Norge AS  
Nygaardsgaten 42. PO Box 42  
NO- 1601 Fredrikstad  
Norway  
IBAN: NO5861050441287  
SwiftCode: NDEANOKK  
Account No.: 6105 04 41287

Item number	Description	Qty	Unit price	Total Amount
	(Item description text)	(No. of Qty)	(Price/unit in USD)	USD \$
101-1274-08	F32 1080 5700 AnsiLumens 1080p High Brightness Color Wheel	1	17500	17500
503-0061-00	EN 16 Long Throw Lens	1	3900	3900
101-1439-08	Optional Cineo 32 1080 4500 AnsiLumens 1080p Vizsim Color Wheel	1	15500	

Offer Total USD \$ **21400**

Created and Modified by:

*Ashok Sharma*  
Ashok Sharma  
Regional Sales Manager SAARC Region

124

For SOUND WIZARD  
Executive

30/3/09

155



OFFICE 2000 Solutions Pvt. Ltd.  
 16, 19 & 20, Block II,  
 SIDCO Electronic Complex,  
 Guindy Industrial Estate,  
 Chennai - 600 032, India  
 Tel: 91-44-22500774, 22500499  
 Fax: 91-44-22500550  
 Video: 91-44-22509537  
 www.office-2000.com  
 e-mail: info@office-2000.com

Ref No: O2K/SAL/QTN/09-10/002  
 Date: 23.09.2009

To  
 Ms. Leela Samson - Director  
 Kalakshetra Foundation  
 Rukmani Devi College of Fine Arts  
 Kalakshetra Road,  
 Thiruvanniyur  
 Chennai - 600 041, Tamil Nadu


PRICE QUOTE FOR PROJECTION SCREEN - KALAKSHETRA FOUNDATION, CHENNAI  
 QUOTATION DATED 23RD SEPTEMBER, 2009

Sl.No.	Model / Make	Item Description	Qty	DUTY PAID	
				Unit Price INR	Extended Price INR
1	PROJECTION SCREEN				
1	DRAPER - PARAGON - 114219	Motorised Projection Screen 270" / 686 cm Diagonal Matt White with 220V, 16:9 HDTV Format. Image Area 338 cm x 599 cm and Over all Size : 351 cm x 610 cm Includes 3-position switch	1	448550.00	448550.00
		Installation Charges	1	15000.00	15000.00
TOTAL INVESTMENT OUTLAY					463550.00

Terms & Conditions

- PO to be Placed on :- OFFICE 2000 SOLUTIONS PRIVATE LIMITED, #16, 19 & 20, Block II, SIDCO Electronic complex, Guindy Chennai - 600 032.
- Payment Terms :- 100% Advance along with PO
- Delivery :- 8 weeks receipt of PO & Payment
- Validity :- 30 days from Quote date.
- Warranty :- 12 months from the date of Installation or 13 months from the date of Delivery.

NOTE :- Warranty includes all Electrical spares, motor and switcher. But will not cover physical damages.  
Pen marking on the screen or Tampering with screen or unauthorized person servicing the product.

  
 Kamalakkannan  
 Customer Satisfaction Team

**For SOUND WIZARD**  
  
 Executive



(125)

29/33  
 30



# Sasi Enterprises

"Nelson Plaza", New No. 90, (149), Nelson Manickam Road, Choolaimedu, Chennai - 600 094.

Telefax : 91-44-23746661, 23746761, 23743769

E-mail : dhayalvr@vsnl.com / dhayalvr@eth.net

BOSCH

Security  
Certified Partner

AUTHORISED : BOSCH SYSTEM INTEGRATOR FOR COMMUNICATION, CCTV, FIRE ALARM,  
ACCESS CONTROL SYSTEMS & TELEX COMMUNICATION PRODUCT.

To  
Ms. Leela Samson  
Kalakshetra Foundation,  
Rukmani Devi College of Fine Arts,  
Kalakshetra Road, Thiruvanmiyur,  
Chennai - 600 041.  
Ph: 24521169, 0836, 4057  
Email : leelasamson@gmail.com / leelasamson@kalakshetra.in

NO:SE/Q/KF/9404

DT: 21.09.2009

Dear Sir / Madam,

Sub : Offer for supply of Telex Make Intercom System - Reg.

\*\*\*\*\*

With reference to the above subject. Accordingly we pleased to submitting our offer details given below:-

Sl.No	Model No	Description	Qty	U/Rate	Amount
1	PS15	Telex Power Supply	1	39674	39674
2	TW5W	Telex Splitter	1	15290	15290
3	BP319	Telex Beltpack	5	24714	123570
4	PH1	Telex Headset	5	16448	82240
<b>Total</b>					<b>260774</b>

(Rupees Two Lakhs Sixty Thousand Seven Hundred and Seventy Four Only)

### Our Terms and Conditions

Validity : Our offer is valid till 30 Days from date of this Offer.

Prices : Prices quoted by us are Exclusive of VAT @12.5% will be charged extra.

Delivery : 3-4 Weeks after receipt of your confirmed order.

Payment : 50% Advance payment along with P.O. Balance 50% before delivery of the materials.

Guarantee : Twelve months from date of supply against manufacturing defects only.

Thanking you and assuring you of our best services always.

Yours faithfully,

For SASI ENTERPRISES.

R. BALARAMAN  
PROPRIETOR

For SOUND WIZARD  
Executive

126

BOSCH

Electro-Voice®

DYNACORD®

NEUMANN.BERLIN

SENNHEISER

Security System

PRO SOUND

PRO MUSIC & CONCERT SOUND

THE MICROPHONE COMPANY

Wireless and Wired Microphone

28/12

26	BOX MKII- 8 x D type hole with ILME Multipin Slot	2	20468	40936
27	19" R- Panel empty casing- 12 XLR Holes,	1	1990	1990
<b>PREMADE CABLES and DI Boxes</b>				
28	MIC Cables using Club Series - 15 Mtrs in Length	10	1957	19570
29	MIC Cables using Club Series - 10 Mtrs in Length	10	1421	14210
30	MIC Cables using Club Series - 5 Mtrs in Length	10	884	8840
31	MIC Cables using Club Series - 3 Mtrs in Length	10	670	6700
32	Instrument Cables using Club series - 10 Mtrs in Length	10	1285	12850
33	Instrument Cables using Club series - 5 Mtrs in Length	10	749	7490
34	DI Box Active Mono - PAN 02	2	10578	21156
35	DI BOX Passive Stereo - PAN 04	2	14430	28860
36	DI BOX Passive Mono - PAN 01	4	8079	32316
<b>Total in indian Rs</b>				<b>7,94,547. 00</b>
<b>Quote for Service, Installation, Food, Accommodation, and Travel</b>				
Date : 7/15/2009				Amount in Rs
Quote: Ref : EMaD /KALAK-FOUND/ 089 / 09				
Labour				
Installation				
Travel and Stay in chennai for 6 days in one visit				<b>Total Rs 1,06,000. 00</b>
<b>Total COST SUMMARY</b>			<b>Grand Total in Rs.</b>	<b>9,00,547. 00</b>

**Terms and Conditions:**

- + The delivery of the product will be done to site
- + The above price is all inclusive.
- + The payment has to be done in favour of S.U.N. Media Ventures Pvt. Ltd. Payable at Mumbai by DD
- + Ex Stock shipment will be done immediately on receipt of funds, rest delivery time 2 weeks
- + The above labour and installation has been calculated at one go cost for 6 days.  
If repeat visits are needed for lack of the items to be connected during visit they will be charged extra .  
on actuals or if installation takes more than 6 days , per day stay,food ,site soldering will be charged extra.

for ENVOY MARKETING AND DISTRIBUTORS  
Pfernandes.  
16/07/09

127

For SOUND WIZARD  
Executive

27/33  
30

# Envoy Marketing and Distributors

Sai Ganesh Sadan,  
219 ,S.B. Marg, Dadar West  
Mumbai - 400028  
Cell No.: 9221675837

## Kalakshetra Foundation

Kind Attn.: Ms Leela Samson

Rukmani Devi College of Fine Arts / Kalakshetra Road /  
Thiruvanniyur /  
600 041 Chennai, Tamil Nadu

Quote for Sommer Cables and Amphenol Connectors

Quote Ref.: EMaD / KALAK-FOUND/ 088 / 09

Date : 7/15/2009

Sr. No.	Item Descriptions	Length	Discounted Price Per Mtr / No	Total in Rs
<b>Audio and Speaker Cables from Sommer</b>				
1	Meridian SP260, Speaker cables : 2 x 6 Sq.mm	50	463	23150
2	Source Cables - Balanced Audio cable	400	157	62800
3	Cat 5e patch AW26 Cable Sommer Cat Pg. No.: 98	10	118	1180
4	8 Channel Multicore -Planet FMC08+2 ( 10 x 2 x 0.19sq.mm )	70	577	40390
5	12 Channel Multicore - Mistral MCF 12	130	1039	135070
6	20 Channel Multicore - Planet FMC20 ( 20 x 2 x 0.19sq.mm )	50	1192	59600
7	Nyfaz 2 x 4.00 sq.mm Speaker Cables	405	271	109755
8	Adat Optical Cable : HI-TLTL-0100 - 1 Mtr Length	2	1968	3936
9	XLR Male to XLR Female ( 60 cms length ) Using Source cable	16	443	7088
<b>Amphenol connectors</b>				
		Qty in Nos		
10	XLR 3 pin Male Cable type : AC3MM-G	75	172	12900
11	XLR 3 pin Female Cable type - AC3F	45	162	7290
12	XLR 3 pin Male Chassis type - AC3MMDZ	75	162	12118
13	XLR 3 pin Female Chassis type - AC3FDZ	85	178	15130
14	1/4" Phono Balanced, Cable type - ACPS-GN	25	102	2550
15	RCA Black - ACPR-BLK	10	129	1290
16	Audio connector 24 pin female chassis type from Sommer	2	5355	10710
17	Audio connector 24 pin Male cable type from Sommer	2	5523	11046
<b>Neutrik Connectors</b>				
		Qty in No.		
18	RJ45C5E	16	200	3200

128



24	BOX MKII- 12 x D type hole : TBH12 + AP-24-PG29 , Pg 322	3	9819	29457
25	BOX MKII- 8 x D type hole : TBH08 + AP-24-PG29 , Pg 322	1	9071	9071
26	BOX MKII- 8 x D type hole : TBH08 + AP-24-10/6, Pg 322	2	19129	38258
27	19" R- Panel empty casing- 12 XLR Holes, PB12X ,Pg 319	1	1860	1860
<b>DI Boxes and PREMADE CABLES</b>		<b>No</b>		
28	MIC Cables using Club Series - 15 Mtrs in Length	10	1829	18290
29	MIC Cables using Club Series - 10 Mtrs in Length	10	1328	13280
30	MIC Cables using Club Series - 5 Mtrs in Length	10	826	8260
31	MIC Cables using Club Series - 3 Mtrs in Length	10	626	6260
32	Instrument Cables using Club series - 10 Mtrs in Length	10	1201	12010
33	Instrument Cables using Club series - 5 Mtrs in Length	10	700	7000
34	DI Box Active Mono - PAN 02	2	9886	19772
35	DI BOX Passive Stereo - PAN 04	2	13486	26972
36	DI BOX Passive Mono - PAN 01	4	7550	30200
<b>Total in indian Rupees</b>				<b>7,42,513. 00</b>

For,  
 Frontiertech Consultancy  
 RB

(129)

For SOUND WIZARD  
 Executive

24/3/20

# Frontiartech Consultancy

Ajita Society, bock no. 13, Chendani, Koliwada,  
near Sadguru garden, Thane - East  
Thane - 400603  
Cell No. 9821551690

24/11  
Sachin Bagali  
98215516

To,  
**Kalakshetra Foundation**  
Kind Attn.: Ms Leela Samson  
Rukmani Devi College of Fine Arts / Kalakshetra Road / Thiruvanniyur  
600 041 Chennai, Tamil Nadu

Quote for Sommer Cables and Amphenol Connectors

Quote Ref.: FTC/KALAK-FOUND/050/2009

Date : 7/15/2009

Sr. No.	Item Descriptions	Length	Special Price	Total
			Per	Amount
	<b>Sommer Cables from Germany</b>	<b>Mtrs</b>	<b>Mtr / No</b>	<b>in Rupees</b>
1	Meridian SP260, Speaker cables : 2 x 6 Sq.mm	50	433	21650
2	Source Cables - Balanced Audio cable	400	147	58800
3	Cat 5e patch AW26 Cable Sommer Cat Pg. No.: 98	10	110	1100
4	8 Channel Multicore -Planet FMC08+2 ( 10 x 2 x 0.19sq.mm )	70	539	37730
5	12 Channel Multicore - Mistral MCF 12	130	971	126230
6	20 Channel Multicore - Planet FMC20 ( 20 x 2 x 0.19sq.num	50	1114	55700
7	Nyfaz 2 x 4.00 sq.mm Speaker Cables	405	253	102465
8	Adat Optical Cable : HI-TLTL-0100 - 1 Mtr Length	2	1839	3678
9	XLR Male to XLR Female ( 60 cms length ) Using Source cable	16	414	6624
	<b>Amphenol connectors from Australia</b>	<b>No</b>		
10	XLR 3 pin Male Cable type : AC3MM-G	75	161	12075
11	XLR 3 pin Female Cable type - AC3F	45	151	6795
12	XLR 3 pin Male Chassis type - AC3MMDZ	75	151	11325
13	XLR 3 pin Female Chassis type - AC3FDZ	85	166	14110
14	1/4" Phono Balanced, Cable type - ACPS-GN	25	95	2375
15	RCA Black - ACPR-BLK	10	121	1210
16	Audio connector 24 pin female chassis type ( CH106L,CDDF24 ,	2	5005	10010
17	Audio connector 24 pin Male cable type ( CHV06L16,CDDM24 ,	2	5162	10324
	<b>Neutrik Connectors from Germany</b>	<b>No</b>		
18	RJ45C5E - Sommer Cat. Pg no. 130	16	187	2992
19	NE8MC - Protec.Sleeve for RJ45C5E - Sommer Cat. Pg #.114	16	482	7712
20	NAC3FCA : Powercon Input Sommer Cat. Pg no.110	12	1011	12132
21	NAC3FCB : Powercon Output,Sommer Cat. Pg no.110	8	1011	8088
	<b>Empty casing Panel,Rack and Boxes</b>	<b>No</b>		
22	Empty Panel with Two Universal D Hole : LB2D, Pg. 318	4	715	2860
23	19" R- Panel empty casing- 16 XLR Holes, PB16X ,Pg 319	3	1946	5838

130

For SOUND WIZARD  
Executive

23/11/09

# S.U.N. MEDIA VENTURES PVT. LTD

Ground Floor, Krishna Kunj, Ashok Nagar, Cross Road No. 3, Kandivali (E),  
Mumbai-400 101. INDIA. Tel.: +91(22) 28854 117  
Telefax : +91(22)2884 1590 Email : sunmedia@vsnl.com

Sommer's Empty casing Panel,Rack and Boxes		Qty in Nos.			
22	Empty Panel with Two Universal D Hole : LB2D, Pg. 318	4	650	2600	Order Basis
23	19" R- Panel empty casing- 16 XLR Holes, PB16X ,Pg 319	3	1769	5307	Order Basis
24	BOX MKII- 12 x D type hole : TBH12 + AP-24-PG29 , Pg 322	3	8926	26778	Order Basis
25	BOX MKII- 8 x D type hole : TBH08 + AP-24-PG29 , Pg 322	1	8246	8246	Order Basis
26	BOX MKII- 8 x D type hole : TBH08 + AP-24-10/6, Pg 322	2	17390	34780	Order Basis
27	19" R- Panel empty casing- 12 XLR Holes, PB12X ,Pg 319	1	1691	1691	Order Basis
<b>Premade Cables and DI Boxes</b>					
28	MIC Cables using Club Series - 15 Mtrs in Length	10	1663	16630	Yes
29	MIC Cables using Club Series - 10 Mtrs in Length	10	1207	12070	Yes
30	MIC Cables using Club Series - 5 Mtrs in Length	10	751	7510	Yes
31	MIC Cables using Club Series - 3 Mtrs in Length	10	569	5690	Yes
32	Instrument Cables using Club series - 10 Mtrs in Length	10	1092	10920	Yes
33	Instrument Cables using Club series - 5 Mtrs in Length	10	636	6360	Yes
34	DI Box Active Mono - PAN 02	2	8987	17974	Order Basis
35	DI BOX Passive Stereo - PAN 04	2	12260	24520	Order Basis
36	DI BOX Passive Mono - PAN 01	4	6864	27456	Order Basis
<b>Total in indian Rupees</b>				<b>6,75,151.00</b>	

### BUSINESS TERMS:

1. 100 % Payment to be made before delivery. Draft in favour of S.U.N. Media Ventures Pvt. Ltd. Payable at Mumbai.
2. Interest @ 16% will be charged if bill not paid within 30 days or as per credit terms.
3. Our responsibility ceases the moment goods receives at your premises
4. Goods once sold will not taken back or exchanged.
5. Ex Stock :Delivery will be immediate, Order Basis Items will take minimum 10 to 12 woking Days on receipt of P.O
6. All items are inclusive of Sales Tax
7. If Octroi or any other Levies if applicable at your end has to be borne by the Customer.

For S.U.N. Media Ventures Pvt. Ltd,

For S. U. N. Media Ventures Pvt. Ltd,

Authorised Signatory

  
Director.

For SOUND WIZARD

  
Executive

131

2/33  
30

# S.U.N. MEDIA VENTURES PVT. LTD

1, Ground Floor, Krishna Kunj, Ashok Nagar, Cross Road No. 3, Kandivali (E),  
Mumbai-400 101. INDIA. Tel.: +91(22) 28854 117  
Telefax : +91(22)2884 1590 Email : sunmedia@vsnl.com

164

## Quotation

Quotation Ref. No.: SMVPL/ KF / 30 / 2009

DATE : 15 July 2009

COMPANY NAME : Messers Kalakshetra Foundation  
Kind Attn.: Ms Leela Samson  
ADDRESS : Rukmani Devi College of Fine Arts,  
Kalakshetra Road , Thiruvānmiyur  
Chennai - 600 041  
Tamil Nadu

## Registered & Sales Office

1, Gr. Floor, Krishna Kunj, Ashok Nagar,  
Cross Road No.3, Kandivli (E),  
Mumbai 400 101  
email: sunmedia.umesh@gmail.com  
Tel No. 022-28843772, 28854117

Sr. No.	Item Descriptions	Length	Best Price		Stock Availability
			Per Mtr	Total Price in Rs	
<b>Sommer Cables</b>					
1	Meridian SP260, Speaker cables : 2 x 6 Sq.mm	50	394	19700	Order Basis
2	Source Cables - Balanced Audio cable	400	134	53600	Yes
3	Cat 5e patch AW26 Cable Sommer Cat Pg. No.: 98	10	100	1000	Order Basis
4	8 Channel Multicore -Planet FMC08+2 ( 10 x 2 x 0.19sq.mm )	70	490	34300	Order Basis
5	12 Channel Multicore - Mistral MCF 12	130	883	114790	Order Basis
6	20 Channel Multicore - Planet FMC20 ( 20 x 2 x 0.19sq.mm	50	1013	50650	Order Basis
7	Nyfaz 2 x 4.00 sq.mm Speaker Cables	405	230	93150	Order Basis
8	Adat Optical Cable : HI-TLTL-0100 - 1 Mtr Length	2	1672	3344	Order Basis
9	XLR Male to XLR Female ( 60 cms length ) Using Source cable	16	376	6016	Yes
<b>Amphenol Connectors</b>					
		Qty in Nos			
10	XLR 3 pin Male Cable type : AC3MM-G	75	146	10950	Yes
11	XLR 3 pin Female Cable type - AC3F	45	137	6165	Yes
12	XLR 3 pin Male Chassis type - AC3MMDZ	75	137	10275	Yes
13	XLR 3 pin Female Chassis type - AC3FDZ	85	151	12835	Yes
14	1/4" Phono Balanced, Cable type - ACPS-GN	25	86	2150	Yes
15	RCA Black - ACPR-BLK	10	110	1100	Yes
16	Audio connector 24 pin female chassis type ( CH106L,CDDF24 , CDFA0.3 , page no. 132 and Pg 134) from Sommer	2	4550	9100	Order Basis
17	Audio connector 24 pin Male cable type ( CHV06L16,CDDM24 , CDMA0.3 , page no. 132 and Pg 134) from Sommer	2	4693	9386	Order Basis
<b>Neutrik Connectors</b>					
		Qty in Nos			
18	RJ45C5E - Sommer Cat. Pg no. 130	16	170	2720	Order Basis
19	NE8MC - Protec.Sleeve for RJ45C5E - Sommer Cat. Pg #.114	16	438	7008	Order Basis
20	NAC3FCA : Powercon Input Sommer Cat. Pg no.110	12	919	11028	Order Basis
21	NAC3FCB : Powercon Output,Sommer Cat. Pg no.110	8	919	7352	Order Basis

132

For SOUND WIZARD  
Executive

20/3/2009

# MEDIA LINK CONCEPTS

Digital Solutions for Audio & Video

Quotation Ref: No: 1381-A  
Date: 18.07.2009

To,  
Kalakshetra Foundation,  
Thiruvanniyur,  
Chennai-600 041.

Dear Sir,

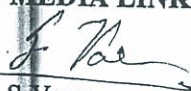
We thank you for your enquiry regarding **VENUE Mix Rack System**. We are pleased to quote to the following estimation.

S/No:	Subject	Unit	Unit Cost		Total Cost (In Rs)	
			Rs	P	Rs	P
1	<b><u>VENUE Profile console</u></b>  Mix Rack box with 48 mic/line inputs, 16 analog line outputs,  Two DSP Mix Engine Cards  D-Show® software  VENUE Pack 3.0 plug-ins  iLok USB Smart Key preauthorized  FWx Fire Wire Record/Playback in Pro Tools LE format  <b>VAT @ 12.5 %</b>	1	34,29,000	00	34,29,000	00
					4,28,625	00
					<b>38,57,625</b>	<b>00</b>

The above price includes Delivery at Chennai. Installation, Accessories & Maintenance will be additional.

Validity - 20 Days  
Warranty - 1 Year  
Delivery - 8 Weeks from Purchase Order.  
Payment - 100 % Advanced With Purchase Order

For **MEDIA LINK CONCEPTS**

  
S. Vasu  
Chief Technical Officer  
Mobile: 98400 17775

For **SOUND WIZARD**

Executive 

Admin Office: # 96, "VEENA" Building, 1st Floor, 100 feet Road, Vadapalani, Chennai - 26. Opp. Hotel Ambika Empire  
Regd. Office: "Chakra Flats", 1st Floor, No. 22, Janakiraman Colony, Arumbakkam, Chennai - 106.  
Mobile: 9840017775, 9840071591 Tel: 65340202 E-mail: media\_link@vsnl.net Web: www.medialinkconcepts.com

EO  
 CP 23/7  
 166  
 9/14

## Quotation

Ref: Q-188 /kalakshetra / 09-10

22<sup>nd</sup> July 2009

M/s. Kalakshetra Foundation,  
 Thiruvanmiyur, Chennai – 41.

Kind Attn : Mrs.Leela Samson

Dear Sir,

We thank you for your enquiry letter Dated 17<sup>th</sup> july 09 and herewith we have furnished our best quotation. Awaiting your valuable order to proceed further and assuring you of our best services and attention always.

Sno	Item Description	Qty	Unit Price	Total Price
1	<b>VENUE MIX RACK SYSTEM</b> <b>With Following Configuration:</b> * D-Show Profile Console * Mix Rack (48 mic/line inputs, 16 analog line outputs) with two DSP Mix Engnie Cards * D - Show software * VENUEPack 3.0 plug-ins * Video monitor mounting bracket (monitor not included) * Trackball mounting bracket (trackball not included) * iLok USB Smart Key (preauthorized with all VENUEPack & factory-installed plug-ins) * All necessary cables & user guides * FWx Fire Wire Record and Playback - 18 track recording in Pro Tools. <b>Total amount</b>	1	3,288,260	3,288,260
			Rs	3,288,260

### TERMS & CONDITIONS:

1. Purchase Order to be placed to our Chennai branch as given below.
2. Sales tax VAT @ 12.5% Extra.
3. Freight, Forwarding, Insurance and Entry tax/ Octorai to your account.
4. Payment: 100% Advance along with confirmed Purchase Order.
5. Delivery: 6 to 8 Weeks from receipt of Purchase Order and advance.
6. Warranty: As per manufacturer's warranty policy for one year applicable
7. Installation and Calibration Charges extra to your account..
8. Quotation Validity: 30 days from date of the quotation

For STUDIO CARE,

  
 R. RAMA KRISHNAN.

For SOUND WIZARD  
  
 Executive

134

18/33  
 30

ANSATA

167

11/14

**Terms and Conditions:**

- 1 VAT will be charged extra @ 12.5%
- 2 Payment terms: 100% payment along with order.
- 3 Delivery: 4 to 6 weeks of clean order with advance payment.
- 4 Validity: This offer is valid for 60 days from this date
- 5 Warranty: One year from the date of Invoice.
- 6 Computer required for recording/playback is not included in this offer.

Hope you will find our offer attractive and look forward to your valuable order.

Thank you.

Yours faithfully,  
For Ansata Computer Systems Pvt. Ltd.

  
Leslie J. Lean  
Director

For **SOUND WIZARD**  
  
Executive

135

17/33  
30

DP 24/7

Ref. No. ACS/2015

22 July, 2009

Ms. Leela Samson  
Director  
Kalakshetra Foundation  
Thiruvanmiyur  
Chennai - 600 041

Ref: Your Letter No. C:\2009-2010\V. Admin\2. Engineering\i.Plan\d.Sound system\Koothambalam.doc dated 3 July, 2009.

Sub: Digital Mixing Console - Mix Rack System with 18 Track Recording.

Dear Madam,

We are in receipt of your letter requesting for an offer for your above requirement and thank you very much for the same. We take please in making our offer for Digidesign VENUE Digital Mixing System as below.

**VENUE Mix Rack System with 18 Track Recording**

**Price in INR  
2,981,290/-**

Mix Rack System include the following VENUE components.

- o D-Show Profile console
- o Mix Rack (48 mic/line inputs, 16 analog line outputs)
- o with two DSP Mix Engnie Cards
- o D-Show® software
- o VENUEPack 3.0 plug-ins
- o Video monitor mounting bracket (monitor not included)
- o Trackball mounting bracket (trackball not included)
- o iLok USB Smart Key (preauthorized with all VENUEPack and factory-installed plug-ins)
- o All necessary cables and user guides
- o FWx Fire Wire Record and Playback -18 track recording in Pro Tools.

For SOUND WIZARD

Executive

136

16/33/30



# AUDIO CONTROL.

Shop No.15, Sector - 7, 'F' Type Bldg., Vashi, Navi Mumbai - 400 703.

167  
7/7

23-Jun-09

Kalakshetra Foundation  
Rukmani Devi College of Fine Arts  
Kalakshetra Road  
Thiruvanmiyur 600 041  
Chennai,

**Kind Attn: Ms. Leela Samson**

Dear Madam,

**Ref: Quotation for CD Player/Amplifier**

With reference to the above, we are glad to quote as under:

Pioneer CMX 3000 CD Player	:	Rs.51,840/-
Denon DNA 7100 Pre Amplifier	:	Rs.81,000/-
Denon DN-V 310	:	Rs.45,900/-

VAT: @ 12.5% Extra  
P&F: Extra as applicable

We await your valued order.

Thanking you,

Yours faithfully,  
For AUDIO CONTROL

  
PROPREITOR

For SOUND WIZARD

Executive

AM/FM tuner with XM Compatibility

www.d-mpro.com

137

13/33  
30

# THUMP

311-A, 3<sup>rd</sup> FLOOR, ATRIA MILLENIUM MALL, DR. A. B. ROAD, WORLI, MUMBAI 400 018  
TEL: 022-24813666 / 777

June 23, 2009

Kalakshetra Foundation  
Rukmani Devi College of Fine Arts  
Kalakshetra Road  
Thiruvanniyur 600 041  
Chennai,

Kind Attn: Ms. Leela Samson

Dear Madam,

We are glad to quote as under:

Sr. No.	Particulars	Rate
1.	Pioneer CMX 3000 CD Player	Rs.50,400/- per PC
2.	Denon DNA 7100 Pre Amplifier	Rs.78,750/- per PC
3.	Denon DN-V 310	Rs.44,625/- per PC

VAT: @ 12.5% Extra

P & F: Rs.5000/- Extra

We await your valued order.

Thanking you,

Yours faithfully,  
For THUMP

  
PROPREITOR

For SOUND WIZARD  
  
Executive

(138)

14/33  
30



Kalakshetra Foundation  
Rukmani Devi College of Fine Arts  
Kalakshetra Road  
Thiruvanniyur 600 041  
Chennai,  
Tamil Nadu

June 23, 2009

Tel: (44) 24 52 11 69 /24 52 08 36 /24 52 40 57  
Mobile: (0) 98 407 62 646  
Email [leelasamson@gmail.com](mailto:leelasamson@gmail.com) /[leelasamson@kalakshetra.in](mailto:leelasamson@kalakshetra.in)

**Kind Attn: Ms. Leela Samson**

Dear Madam,

We thank you very much for the interest shown in the range of products we deal with.  
We are glad to quote as under:

Sr. No.	Particulars	Qty	Rate
1.	Pioneer CMX 3000 CD Player	1 pc	Rs.48,000/-
2.	Denon DNA 7100 Pre Amplifier	1 pc	Rs.75,000/-
3.	Denon DN-V 310	1 pc	Rs.42,500/-

VAT: @ 12.5% Extra

P & F: Rs.3000/- Extra

Payment: 100% advance

Delivery: 12 weeks from the date of confirmed order

If you have any clarifications or seek any other information, please feel free to contact the undersigned. We await your valued order.

Thanking you,

Yours faithfully,  
For RIVERA INTERNATIONAL

PROPRIETOR

For SOUND WIZARD

Executive

397A/1B, Mangaldas House, Naaz Cinema Compound, Lamington Road, Mumbai - 400 004. India.  
Tel.: 2380 0555 / 444 / 2385 7022 • Fax : 22- 2386 2342 • E-mail : [sales@riverainternational.com](mailto:sales@riverainternational.com)

139

13/23  
30

# SUSAN ELECTRONICS

172

#34, Sait Colony, 1st Floor, 1st Street, Egmore, Chennai-600 008. ☎ : 28194423

Ref. :

Date : .....

## Quotation

Kind Attn : Mr.Fabien.  
No : CK / 031 / 08-09  
Date:15/09/2009

Customer Name :  
Kalakshetra Foundation,  
Rukmani Devi College of Fine Arts, Kalakshetra Road,  
Thiruvanmiyur, Chennai 600 041  
Phone : 2452 1169  
Mobile : 98407 62646

Sl.No	Description	Qty	Rate/each	Amount
1	Alesis Multimix 8 Line	1 no	20,190.00	20,190.00
2	Samson D3500 Feedback Management	3 nos	24,120.00	72,360.00
3	Samson Powerbrite PBPRO 10	4 nos	11,615.00	46,460.00
4	Samson SRK 21 Equipment Rack	1 no	7,745.00	7,745.00
5	Samson SRK 12 Equipment Rack	2 nos	6,705.00	13,410.00
6	Samson SRK 8 Equipment Rack	1 no	6,325.00	6,325.00
7	Samson BT4 Telescopic Mic Stand	12 nos	1,975.00	23,700.00
8	Samson MB1 Mini Mic Stand	8 nos	1,570.00	12,560.00
9	Samson SB100 Studio Boom Stand	2 nos	7,150.00	14,300.00
10	Samson Servo 120A Power Amplifier	2 nos	14,000.00	28,000.00
11	Samson CH700 Headphones	2 nos	2,025.00	4,050.00
			Insurance @ 2%	4,980.00
			Total	2,54,080.00

### Terms & Conditions

Payment : 100% in advance, along with your order  
Transportation : Extra, to-pay at actuals  
Delivery : 10 - 12 weeks time.  
Validity : 20 days from date



For Susan Electronics

✓  
(140)

For SOUND WIZARD

Executive

13/33  
30



No 26, First Street,  
Sait Colony, Egmore,  
Chennai - 600008  
Ph : 9884304428

Quote

To,  
Kalakshetra Foundation,  
Rukmani Devi College of Fine Arts,  
Kalakshetra Road, Thiruvanmiyur,  
Chennai - 600 041

Invoice No: IMI/Inst/0224  
Dated : 17/09/2009

<u>Item Description</u>	<u>Price</u>	<u>Amount</u>
1) 1 X Alesis Multimix 8 Line	19,270.00	19,270.00
2) 3 X Samson D3500 Feedback Management	23,020.00	69,060.00
3) 4 X Samson Powerbrite PBPRO 10	11,090.00	44,360.00
4) 1 X Samson SRK 21 Equipment Rack	7,390.00	7,390.00
5) 2 X Samson SRK 12 Equipment Rack	6,400.00	12,800.00
6) 1 X Samson SRK 8 Equipment Rack	6,040.00	6,040.00
7) 12 X Samson BT 4 Telescopic Microphone Stand	1,885.00	22,620.00
8) 8 X Samson MB 1 Mini Microphone Stand	1,495.00	11,960.00
9) 2 X Samson SB 100 Studio Boom Microphone Stand	6,825.00	13,650.00
10) 2 X Samson Servo 120A Power Amplifier	13,360.00	26,720.00
11) 2 X Samson CH 700 Headphone	1,930.00	3,860.00
	Insurance @ 1%	2,380.00
	<b>Total</b>	<b>2,40,110.00</b>

( Rupees: Two Lakhs, Forty thousands, One hundred and Ten only)

Terms & Conditions

- a) The above prices ex-Chennai, inclusive of all taxes
- b) Payment 100% along with your order
- c) Delivery in 8 - 10 weeks time

We hope that you will find our offer attractive and look forward to receive your valued order soon.

For I-Media International

M. Subramanian  
Authorised Signatory

For SOUND WIZARD  
  
Executive

(141)

11/33/30

174



# PRO MUSICALS

25, Casa Major Road,  
(Next to Don Bosco School),  
Egmore, Chennai - 600 008.  
Phone : 044-28193607, 28193445  
Fax : 044-28193823  
E-Mail : promusic@vsnl.com

## Offer

No : AP / 291 / 09-10  
Date : 17/09/2009  
Kind Attn : Leela Samson

Customer Name :  
Kalakshetra Foundation,  
Rukmani Devi College of Fine Arts, Kalakshetra Road,  
Thiruvanmiyur, Chennai 600 041  
Phone : 2452 1169  
Mobile : 98407 62646

Sl.No	Description	Qty	Price Each	Amount
1	Alesis Multimix 8 Line	1 no	18,355.00	18,355.00
2	Samson D3500 Feedback Management	3 nos	21,925.00	65,775.00
3	Samson Powerbrite PBPRO 10	4 nos	10,560.00	42,240.00
4	Samson SRK 21 Equipment Rack	1 no	7,040.00	7,040.00
5	Samson SRK 12 Equipment Rack	2 nos	6,095.00	12,190.00
6	Samson SRK 8 Equipment Rack	1 no	5,750.00	5,750.00
7	Samson BT4 Telescopic Mic Stand	12 nos	1,795.00	21,540.00
8	Samson MB1 Mini Mic Stand	8 nos	1,425.00	11,400.00
9	Samson SB100 Studio Boom Stand	2 nos	6,500.00	13,000.00
10	Samson Servo 120A Power Amplifier	2 nos	12,725.00	25,450.00
11	Samson CH700 Headphones	2 nos	1,840.00	3,680.00
			Insurance @ 1%	2,265.00
			Total	2,28,685.00

### Terms & Conditions

Taxes : The above prices are inclusive of all taxes  
Payment : 100% in advance by DD, along with your order  
Delivery : 4 - 6 weeks time.  
Validity : 20 days from date  
Our Sales tax nos,  
TNGST No. 33520541405  
CST No. 696867 / 26-11-02.

B. Anand  
For Pro Musicals

142

10/33  
20

RAILWAYS & GOVT. SUPPLIERS FOR ELECTRICALS, ELECTRONICS  
 & TELECOMMUNICATION SPARES & EQUIPMENT & GENERAL SUPPLIERS

Sales & Admn. Office :  
 Bombay Market Apartments,  
 Basement No. B-20,  
 Tardeo Road, Mumbai - 400 034.  
 Ph.: 2351 1052 Telefax : 2353 4381

Ref. No. Ank/0487/09/Q0

Date :  
18th September 2009

TO,  
KALASHETRA FOUNDATION  
Rukmani Devi College of Fine Arts,  
Thiruvanmiyur, Chennai - 600 041

Dear Sir,  
 Please find our offer as under :-

<u>Sr.No</u>	<u>Description</u>	<u>Qty</u>	<u>Unit Rate</u>	<u>Total Amt</u>
1	<u>Digital Signal Processor</u> Make : QSC Model : DSP 30	1	43200	43200
2	<u>Speaker</u> Make : QSC Model No.: ADS 282 H	4	42000	168000
3	<u>Speaker</u> Make : QSC Model : HPR 122	4	61575	246300
4	<u>Amplifier</u> Make : QSC Model : RMX 5050	1	90200	90200
5	<u>Digital Signal Processor</u> Make : QSC Model : DSP 322	1	200000	200000
6	<u>Speaker</u> Make : QSC Model No.: ADS 32 T	4	7500	30000

**TERMS & CONDITIONS.**

TAXES : VAT @ 12.5% EXTRA.  
 DELIVERY : WITHIN 2 MONTHS  
 PAYMENT : AGAINST DELIVERY.  
 VALIDITY : 15 DAYS.

Thanking you,  
 for ANKUR ELECTRONICS

7,77,700/-

✓  
 For SOUND WIZARD

Executive

(195)

9/23/09

176

# Calibre

Sound Systems Pvt. Ltd.

REF : CSSPL/XLS/09

DATE : 18.09.2009

TO,  
KALASHETRA FOUNDATION  
Rukmani Devi College of Fine Arts,  
Chennai.

Dear Sir,  
This is with reference to your enquiry, we are pleased to submit our offer as under :-

<u>SR.NO`</u>	<u>ITEM DESCRIPTION</u>	<u>QTY</u>	<u>UNIT RATE</u>	<u>TOTAL AMT</u>
1	QSC DIGITAL SIGNAL PROCESSOR - <u>MODEL NO.: DSP 30</u>	1	42500.00	42500.00
2	QSC SPEAKER <u>MODEL NO. : ADS 282 H</u>	4	41800.00	167200.00
3	QSC SPEAKER <u>MODEL NO.: HPR 122</u>	4	60000.00	240000.00
4	QSC AMPLIFIER <u>MODEL NO.: RMX 5050</u>	1	89100.00	89100.00
5	QSC DIGITAL SIGNAL PROCESSOR <u>MODEL NO.: DSP 322</u>	1	199000.00	199000.00
6	QSC SPEAKER <u>MODEL NO.: ADS 32 T</u>	4	7200.00	28800.00
<b><u>BASIC TOTAL</u></b>				<b>766,600.00</b>

**TERMS & CONDITIONS.**

TAXES EXTRA AS APPLICABLE.  
DELIVERY : WITHIN 8/10 WEEKS.  
PAYMENT : 50% ADVANCE, BALANCE AGAINST DELIVERY.  
VALIDITY :15 DAYS.

Thanking you,  
for CALIBRE SOUND SYSTEMS PVT. LTD

  
AJIT THAKUR

For **SOUND WIZARD**

  
Executive

144

8/25  
20

Regd. Office : Room No. 21, 2nd Floor,  
290 Lamington Road, Mumbai 400 007.  
Telephone : 6637 8301





# MRH DIGITAL SYSTEMS™ PRIVATE LIMITED

P. O. Box 4050, 290 Lamington Road, Mumbai 400 007, India.  
Phone: (91-22) 23873615-23868578-23896086-23895383/84/85  
Fax: (91-22) 23873618 E-Mail: sales@mrhdigital.com

177

To,  
**Kalashetra Foundation**  
Rukmani Devi College of Fine Arts,  
Kalashetra Road, Thiruvanmiyur,  
Chennai -600 041  
Tamilnadu

Date : 18<sup>th</sup> September, 2009

Dear Sir / Madam

We have the Pleasure to Quote to you for your requirement and the same is as under

- 1) QSC Digital Signal Processor DSP 30 --- 1No --- @Rs 41,923/- Rs 41,923/-
- 2) QSC Digital Signal Processor DSP 322 --- 1 No --- @Rs.1,96,637/- Rs 1,96,637/-
- 3) QSC Speaker ADS 32 T --- 4 Nos --- @Rs 6,863/- Rs 27,452/-
- 4) QSC Speaker ADS 282 H --- 4 Nos --- @Rs. 40,998/- Rs 1,63,992/-
- 5) QSC Speaker HPR 122 --- 4 Nos --- @Rs. 58,165/-Rs 2,32,660/-
- 6) QSC Amplifier RMX 5050 --- 1 No --- @Rs. 88,244/- Rs 88,244/-

**Total Amount Rs 7,50,908/-**

Terms of sale:

Taxes : 12.5% CST will be Charged Extra

Delivery : Will be dispatched on Freight topay Basis From our Vasai Warehouse

Delivery Period : 6 to 8 week from date of confirmed order

Payment : 100% against Delivery

Guarantee : One year against Manufacturing Defects

Validity : 30 Days

For MRH Digital Systems Pvt Ltd

*N. Shah*

Director

✓

145

7/33  
30

For **SOUND WIZARD**

Executive



# Sasi Enterprises

b2

"Nelson Plaza", New No.90, (149), Nelson Manickam Road, Choolaimedu, Chennai - 600 094.  
Telefax : 91-44-23746661, 23746761, 23743769  
E-mail : dhayalvr@vsnl.com/ dhayalvr@eth.net



AUTHORISED : BOSCH SYSTEM INTEGRATOR FOR COMMUNICATION, CCTV, FIRE ALARAM,  
ACCESS CONTROL SYSTEMS & TELEX COMMUNICATION PRODUCT.

TO  
M/s. Kalakshetra Foundation ,  
Kalakshetra Road, Thiruvanmiyur,  
Chennai - 600 041.  
Ph: 24521169, 0836, 4057  
Email : works@kalakshetra.in

NO:SE/Q/KF/9661  
Dt: 01.03.2010

Kind Attn : Mr. Srinivasan

Dear Sir,

Sub : Offer for Supply of Sennheiser Make Wireless Microphone System for Kalakshetra - Reg.  
\*\*\*\*\*

With reference to the above subject. Accordingly we pleased to submitting our offer details given below

Sl.No.	Type	Description	Qty	U / Rate	Amount
1	MZH 3040	Gooseneck for ME Installed	3	10,500	31,500
2	ME 34	Condenser Mic	3	8,295	24,885
3	MZTX 31	Table Stand	3	10,027	30,081
4	MZW 36 PRO	Windsheild	3	3,044	9,132
5	EW 135 G3	Vocal Set	3	43,050	129,150
6	EW 122 G3	Presentation Set	6	43,050	258,300
7	HSP EW 4	Headset Microphone Black	6	37,275	223,650
<b>Total</b>					<b>706,698</b>

(Rupees Seven Lakhs Six Thousand Six Hundred and Ninety Eight Only)

Our Terms and Conditions:-

Validity : Our offer is valid till 30 Days from date of this Offer.

Prices : Prices quoted by us are Exclusive of VAT @4% will be charged extra.

Delivery : Within 10 days after receipt of your confirmed order.

Payment : 50% Advance payment along with P.O. Balance 50% before delivery of the materials.

Guarantee : Twelve months from date of supply against manufacturing defects only.

Thanking you and assuring you of our best services always.

Yours faithfully,  
For SASI ENTERPRISES.

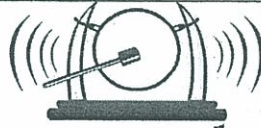
R. BALARAMAN  
PROPRIETOR

7,06,698  
41 VAT  
28,268  
7,34,966

146

Shankari Digital Recording

Professionals in Audio Digital Recording



7 Hills

Professionals in Sound & Light

# Resonators

Date:03/03/2010.

CST & Tin No:29840481834.

Proforma Invoice

RefNo :02.03/03/2010

Kind Attn: Ms. Leela Samson  
KALAKSHETRA Foundation  
Thirruvanmiyur  
Chennai 600041.

Your Sales Tax Nos:

Kindly Attend:PO For Veena Varuni Project.

Contact no: +91 9880535569 - 9845135569

SLNO	PARTICULARS	Qty	Unit Price	Value
01	UB82e Black / The UB82e has a compact vented rectangular enclosure and is engineered to provide very high output and wideband response in distributed applications.	02	106,315	212,630
02	KF750/KF755 Spare Fly Clip/Cables [FC700C]	02	17,623	35,246
03	Mackie FRS 1700 / 1660W Professional Lightweight Stereo Power Amplifier	06	41,825	250,950
04	VR61 Black / The VR61 compact full-range loudspeaker offers a specially engineered, purpose-designed 6-inch LF driver that enables it to match the output of competitive 8-inch 2-way designs.	20	36,912	738,240
05	NTL720 Black 230 VAC / A true three-way design delivering big-time performance with maximized vocal clarity. Next, the entire enclosure face is filled by a full-sized mid/high horn providing 110-degree (horizontal) by 12-degree (vertical) dispersion.	02	359,253	718,506

All payments requested by "Account payee" instruments only

Sub Total:  
Vat @ 12.5%  
Grand Total

1,955,572.00  
244,447.00  
2,200,019.00

RESONATORS  
# 90537, 4th Main, 3rd Cross  
Vidydranyapuram, Mysore-570 008  
Karnataka, INDIA  
Ph: (0821)-2482113, Cell: 9880535569

( Twenty Two Lakh & Nineteen Only)

For Resonators,

A.P.Srinivas

**Terms & Condition :**

Payment as 100 % advance DD against Delivery .  
Freight and Freight insurance will be additional at actual .  
Delivery immediate if in stock or 4 - 8 weeks from the date of Confirmed order along with 50 % advance .  
Proforma Invoice is valid for 30 days .

905/37,4<sup>th</sup> Main, 3<sup>rd</sup> Cross, Vidydranyapuram, Mysore-570008, Karnataka, INDIA.

Ph : (0821) 2482113 , 2481679. Mobile : 9880535569 , 9845135569.

Email : [srinirec@hotmail.com](mailto:srinirec@hotmail.com) , [fluteprasad@rediffmail.com](mailto:fluteprasad@rediffmail.com)

197

146/8, Second Floor, Millenium Towers,  
(Nr. to Mehta Nagar Bus Stop),  
Nelson Manickam Road, Chennai - 600 029.  
Telefax : 23744883, 23745359 / 60, 43553070  
Email : teleradchennai@airtelmail.in  
www.teleradindia.com

## FINAL OFFER

TO

M/S Kalakshetra foundation,  
Chennai.

*Authorised Distributer for*

Sennheiser Electronics India Pvt. Ltd.,  
39-42B, Edmonton Shopping Mall,  
Hotel Bristol, M.G. Road, Gurgaon  
Haryana - 122 002.

Our Ref. No.: TEL/CHN/212/SENN/09-10/INR

Dt.:27/02/2010

S.NO.	MODEL	DESCRIPTIONS	QTY	UNIT PRICE IN INR	TOTAL PRICE IN INR
1	MZH 3040	GOOSENECK FOR ME INSTALLED	3	10,300.00	30,900.00
2	ME 34	CONDENSER MIC	3	8,137.00	24,411.00
3	MZTX 31	TABLE STAND	3	9,836.00	29,508.00
4	MZW 36 PRO	WINDSHIELD	3	2,986.00	8,958.00
5	EW 135 G3	VOCAL SET	3	42,230.00	126,690.00
6	EW 122 G3	PRESENTATION SET	6	42,230.00	253,380.00
7	HSP EW 4	HEADSET MICROPHONE BLACK	6	36,565.00	219,390.00
					693,237.00

Terms and Conditions:

- 1 DELIVERY :With in 10days from the date of receipt of your confirmed order.
- 2 PAYMENT :50% Advance and Balance Against delivery
- 3 TAXES :VAT 4 % Will be Extra.
- 4 VALIDITY :1 Month
- 6 ORDER IN FAVOUR OF : M/S TELERAD,CHENNAI.
- 7 WARRANTY :Two Years from the date of Invoice
- 8 BILLING :From TELERAD,CHENNAI.

FOR TELERAD

  
T.P. KUMAR  
AREA MANAGER



AREA CODE: 079  
TIN: 33671463744  
C.S.T NO.: 867223/01/04/2006

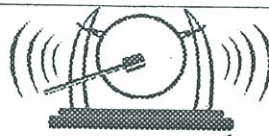
6,93,237 -

4,11,120 -

148

Authorised Agents for **SONY** Professional Video Systems

A DIVISION OF AMBALAL SARABHAI ENTERPRISES LTD., REGD. OFFICE : WADI WADI, VADHODHARA - 309 007



# Resonators

Date:03/03/2010.

CST &amp; Tin No:29840481834.

Proforma Invoice

Ref No :02.03/03/2010

Kind Attn: Ms. Leela Samson  
 KALAKSHETRA Foundation  
 Thirruvanmiyur  
 Chennai 600041.

Your Sales Tax Nos:

Kindly Attend:PO For Veena Varuni Project.

Contact no: +91 9880535569 - 9845135569

SL.NO	PARTICULARS	Qty	Unit Price	Value
01	UB82e Black / The UB82e has a compact vented rectangular enclosure and is engineered to provide very high output and wideband response in distributed applications.	02	106,315	212,630
02	KF750/KF755 Spare Fly Clip/Cables [FC700C]	02	17,623	35,246
03	Mackie FRS 1700 / 1660W Professional Lightweight Stereo Power Amplifier	06	41,825	250,950
04	VR61 Black / The VR61 compact full-range loudspeaker offers a specially engineered, purpose-designed 6-inch LF driver that enables it to match the output of competitive 8-inch 2-way designs.	20	36,912	738,240
05	NTL720 Black 230 VAC / A true three-way design delivering big-time performance with maximized vocal clarity. Next, the entire enclosure face is filled by a full-sized mid/high horn providing 110-degree (horizontal) by 12-degree (vertical) dispersion.	02	359,253	718.506

All payments requested by "Account payee" instruments only

Sub Total:

1,955,572.00

Vat @ 12.5%

244,447.00

Grand Total

2,200,019.00

( Twenty Two Lakh &amp; Nineteen Only)

For Resonators,

A.P.Srinivas

Terms & Condition :

Payment as 100 % advance DD against Delivery .

Freight and Freight Insurance will be additional at actual .

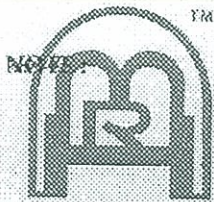
Delivery immediate if in stock or 4 - 8 weeks from the date of Confirmed order along with 50 % advance .

Proforma Invoice is valid for 30 days .

905/37,4<sup>th</sup> Main, 3<sup>rd</sup> Cross, Vidydranyapuram, Mysore-570008, Karnataka, INDIA.

Ph : (0821) 2482113 , 2481679. Mobile : 9880535569 , 9845135569.

Email : [srinirec@hotmail.com](mailto:srinirec@hotmail.com) , [fluteprasad@rediffmail.com](mailto:fluteprasad@rediffmail.com)



# MRH DIGITAL SYSTEMS™ PRIVATE LIMITED

Skanda Krupa, No. 191, 1st Cross, 38th Main, BOOHBCS,  
BTM Hind Stage, Bangalore - 560 068, INDIA.  
Phone : (91-80) 4120 0571/72/73, Fax : (91-80) 4120 0574

69

TO  
KALAKSHETRA FOUNDATION  
THIRUVANMIYUR  
CHENNAI - 600041

DATE:02.03.10

KIND ATTN: MS. LEELA SAMSON

## QUOTATION

SL NO.	MODEL/DESCRIPTION	UNIT RATE	QTY.	AMOUNT
1	UB82e Black / The UB82e has a compact vented rectangular enclosure and is engineered to provide very high output and wideband response in distributed applications.	104,328.00	2	208,656.00
2	KF750/KF755 Spare Fly Clip/Cables [FC700C]	17,294.00	2	34,588.00
3	Mackie FRS 1700/1660W Professional Lightweight Stereo Power Amplifier	40,663.00	6	243,978.00
4	VR61 Black / The VR61 compact full-range loudspeaker offers a specially engineered, purpose-designed 6-inch LF driver that enables it to match the output of competitive 8-inch 2-way designs.	30,335.00	20	606,700.00
5	NTL720 Black 230 VAC / A true three-way design delivering big-time performance with maximized vocal clarity. Next, the entire enclosure face is filled by a full-sized mid/high horn providing 110-degree (horizontal) by 12-degree (vertical) dispersion.	352,538.00	2	705,076.00
TOTAL				1,798,998.00
SALES TAX @ 12.5%				224,874.75
GRAND TOTAL				2,023,872.75

### NOTE :

1. FREIGHT WILL BE EXTRA AT ACTUALS.
2. DELIVERY : 8-10 WEEKS FROM RECEIPT OF COMMERCIAL CLEAR PURCHASE ORDER
3. PAYMENT TERMS :100% ADVANCE WITH PURCHASE ORDER
4. VALIDITY: 30 DAYS

FOR MRH DIGITAL SYSTEMS PVT. LTD.

T.S. SRIRAM  
BUSINESS HEAD - SOUTH  
Mobile : 93417.33603

150



E&E SYSTEMS

E&E Systems (India) Pvt. Ltd.

#14 Bhattrahalli, Old Madras Road, Near Garden City College,  
K.R Puram, Bangalore-560049, INDIA.

Proforma Invoice

TIN No: 29830841467 Dated 29.04.2009

Service Tax No: AACCE1438RST001

Billing Address:

Kind Attn: Ms. Leela Samson  
KALAKSHETRA Foundation  
Thirruvanmiyur  
Chennai 600041

PI No : 002/Kala/04.02.2010

Date : 04.02.2010

Ph No.- 044-24524359

Email : info@kalakshetra.in

Your Po No :

Date :

Sl.No	Model / Description	Qty	Unit Price	Total
1	UB82e Black / The UB82e has a compact vented rectangular enclosure and is engineered to provide very high output and wideband response in distributed applications.	2	99,360	198,720
2	KF750/KF755 Spare Fly Clip/Cables [FC700C]	2	16,470	32,940
3	Mackie FRS 1700 / 1660W Professional Lightweight Stereo Power Amplifier	6	38,727	232,362
4	VR61 Black / The VR61 compact full-range loudspeaker offers a specially engineered, purpose-designed 6-inch LF driver that enables it to match the output of competitive 8-inch 2-way designs.	20	28,890	577,800
5	NTL720 Black 230 VAC / A true three-way design delivering big-time performance with maximized vocal clarity. Next, the entire enclosure face is filled by a full-sized mid/high horn providing 110-degree (horizontal) by 12-degree (vertical) dispersion.	2	335,750	671,500

Amount in words : Nineteen Lakh Twenty Seven Thousand Four Hundred and Eighty Eight Only.

Sub Total : 1,713,322.00

Add Tax @ 12.5% 214,166.00

Grand Total : 1,927,488.00

Terms & Condition :

Payment as 100 % advance DD against Delivery .  
Freight and Freight insurance will be additional at actual .  
Delivery immediate if in stock or 4 - 8 weeks from the date of  
Confirmed order along with 50 % advance .  
Proforma Invoice is valid for 30 days .

For E & E Systems Indian Pvt.Ltd.



151

E&E Systems (India) Pvt Ltd

Regd. Off. : 82/83, Borewell Road, Whitefields

Bangalore - 560 066, India

Tel. : +91 (0) 80 41743030

Fax : +91 (0) 80 28456467

The Director  
Kalakshetra Foundation,  
Thiruvamyur,  
Chennai - 600 041

Ref.: RV/KF02/2009-2010  
Date: September 15, 2009

Dear Madam,

We are pleased to quote for the following items as required.

Sl. No.	Description	Qty	Price	Amount
1	EAW NTL 720 Line Array	10	434,400.00	4,344,000.00
2	EAW NTS22 Subwoofer	2	319,100.00	638,200.00
3	EAW FB172 Fly Bar for NTL 720	2	182,300.00	364,600.00
4	EAW KF750 Cables - FC 700C	2	20,800.00	41,600.00
5	EAW UB52i Loudspeaker	4	83,800.00	335,200.00
6	EAW VR61 Front Fill Speaker	20	34,700.00	694,000.00
7	EAW CAZ1400 Amplifier	6	44,000.00	264,000.00
8	Audix Micropod 18HC Gooseneck Microphone	3	26,500.00	79,500.00
9	Audix W3-OM5 Handheld Transmitter with Mic	4	52,700.00	210,800.00
10	Audix W3-BP Body Pack System	4	42,800.00	171,200.00
11	Audix HT5-BG Slim Line Headphone Microphone	4	20,200.00	80,800.00
12	Audix ADX10-P Lavalier Microphone	4	13,100.00	52,400.00
13	Audix W3-BP Body Pack System	4	42,800.00	171,200.00
14	Audix APS-911 Battery/Phantom Power Adapter	4	4,400.00	17,600.00
15	Audix WS10S External Wind Screen	4	1,350.00	5,400.00
16	Audix MC10L Metal Clip	4	1,400.00	5,600.00
<b>GRAND TOTAL</b>				<b>74,76,100.00</b>

**Terms:**

- Payment : 100% payment in advance
- Delivery : 15 to 18 weeks from the date of PO with advance
- Tax : Inclusive of all taxes
- Warranty : One year from the date of delivery
- Validity : Prices are valid for four week only

We hope that the price quoted by us is competitive and expect your valuable order.

Thanking you while assuring you of our best attention at all times.

Yours truly,

for Proserve Business Solutions

*R Venkatasubramanian*  
R Venkatasubramanian

4/33  
20

**For SOUND WIZARD**  
*[Signature]*  
**Executive**

152





Ref

KF/SPK/2009-2010

September 14, 2009

To:

The Director,  
Kalakshetra Foundation,  
Thriuvamyur, Chennai - 600041

Dear Sir,

We thank you for your enquiry for EAW at Audix and are pleased to quote for the items of your interest as per the specification given.

S.No.	Description	Unit Price	Qty	Amount ( Rs.)
1	EAW NTL 720 Line Array	416000.00	10	4160000.00
2	EAW NTS22 Subwoofer	305300.00	2	610600.00
3	EAW FB172 Fly Bar for NTL 720	174400.00	2	348800.00
4	EAW KF750 Cables – FC 700C	19730.00	2	39460.00
5	EAW UB52i Loudspeaker	80300.00	4	321200.00
6	EAW VR61 Front Fill Speaker	33200.00	20	664000.00
7	EAW CAZ1400 Amplifier	42200.00	6	253200.00
8	Audix Micropod 18HC Gooseneck Microphone	25400.00	3	76200.00
9	Audix W3-OM5 Handheld Transmitter with Mic	50500.00	4	202000.00
10	Audix W3-BP Body Pack System	41000.00	4	164000.00
11	Audix HT5-BG Slim Line Headphone Microphone	19400.00	4	77600.00
12	Audix ADX10-P Lavalier Microphone	12500.00	4	50000.00
13	Audix W3-BP Body Pack System	41000.00	4	164000.00
14	Audix APS-911 Battery/Phantom Power Adapter	4400.00	4	17600.00
15	Audix WS10S External Wind Screen	1250.00	4	5000.00
16	Audix MC10L Metal Clip	1400.00	4	5600.00
<b>TOTAL</b>				<b>7159260.00</b>

**Terms and conditions:**

Delivery : 16 weeks form the date of confirmed purchase order.

Payment : 100% advance with purchase order.

Warranty : 1 year

Offer validity : 21 days from this date

Yours Faithfully

For Sriram Studios

  
Authorised Signature

(153)

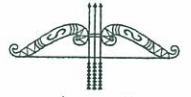
  
For SOUND WIZARD  
Executive5/33  
20

**ADITYA INFOTECH LTD.**

Flat No. 3, City Star, Millenium Tower, 2nd Floor, 29, Temple Avenue,  
Srinagar Colony, Saidapet, Chennai - 600 015

Tel. : (044) 22351996, 97, 32984914 Fax : (044) 22351996

E-mail : aditya\_chen@adityagroup.com Website : www.adityagroup.com



मा सैव्यम् पराजितः

**aditya**  
BUILDING THE FUTURE

Date: 14-09-2009

Ref No: AIL/CHN/1409/001

To,  
The Director,  
Kalakshetra Foundation,  
Thiruvamyur,  
Chennai - 600 041

KIND ATTENTION MS. Leela Samson

Dear Madam,  
As required, Please find below the Price for EAW and Audix Products.

S.No	UNIT	Quantity	Price Per Unit (INR)	VAT (%)	Unit Value excluding VAT
1	EAW NTL 720 Line Array	10	335750.00	12.5	3357500.00
2	EAW NTS22 Subwoofer	2	246625.00	12.5	493250.00
3	EAW FB172 Fly Bar for NTL 720	2	140875.00	12.5	281750.00
4	EAW KF750 Cables - FC700C	2	15250.00	12.5	30500.00
5	EAW UB52i Loudspeaker	4	64750.00	12.5	259000.00
6	EAW VR61 Front Fill Speaker	20	26750.00	12.5	535000.00
7	EAW CAZ1400 Amplifier	6	34000.00	12.5	204000.00
8	Audix Micropod 18HC Gooseneck Microphone	3	22125.00	4.0	66375.00
9	Audix W3-OM5 Handheld Transmitter with Mic	4	44000.00	4.0	176000.00
10	Audix W3-BP Body Pack System	4	35750.00	4.0	143000.00
11	Audix HT5-BG Slim Line Headphone Microphone	4	16875.00	4.0	67500.00
12	Audix ADX10-P Lavalier Microphone	4	10875.00	4.0	43500.00
13	Audix W3-BP Body Pack System	4	35750.00	4.0	143000.00
14	Audix APS-911 Battery/Phantom Power Adapter	4	3750.00	4.0	15000.00
15	Audix WS10S External Wind Screen	4	950.00	12.5	3800.00
16	Audix MC10L Metal Clip	4	1045.00	12.5	4180.00
Total Value Excluding VAT					5823355.00
Discount (5%) (-)					5546052.38
VAT - 12.5% (+)					615354.70
VAT - 4% (+)					24928.57
<b>GRAND TOTAL</b>					<b>6186335.65</b>

Rupees Sixty One Lakhs Eighty Six Thousand Three Hundred & Thirty Five Rupees and Sixty Five Paise Only

**Terms & Conditions:**

1. Payment Terms: 50% Advance along with the Purchase Order and 50% on Delivery
2. Delivery Terms: 12-16 Weeks on receipt of PO and Advance
3. Warranty: As per respective Manufacturers guidelines

For Aditya Infotech Ltd

Vishal .B. Joshi

Regional Sales Manager - Audio



(159)

For SOUND WIZARD  
Executive



## Fan Diagram

Note: Fan setup may differ from the illustration depending on the required mounting method.

Upper Yoke. Secures the fan to the mounting structure.

Upper Safety Cable. Redundant safety feature that secures the fan to the mounting structure in the event of an accident.

Extension Tube. Extends fan from ceiling and provides a path for wiring.

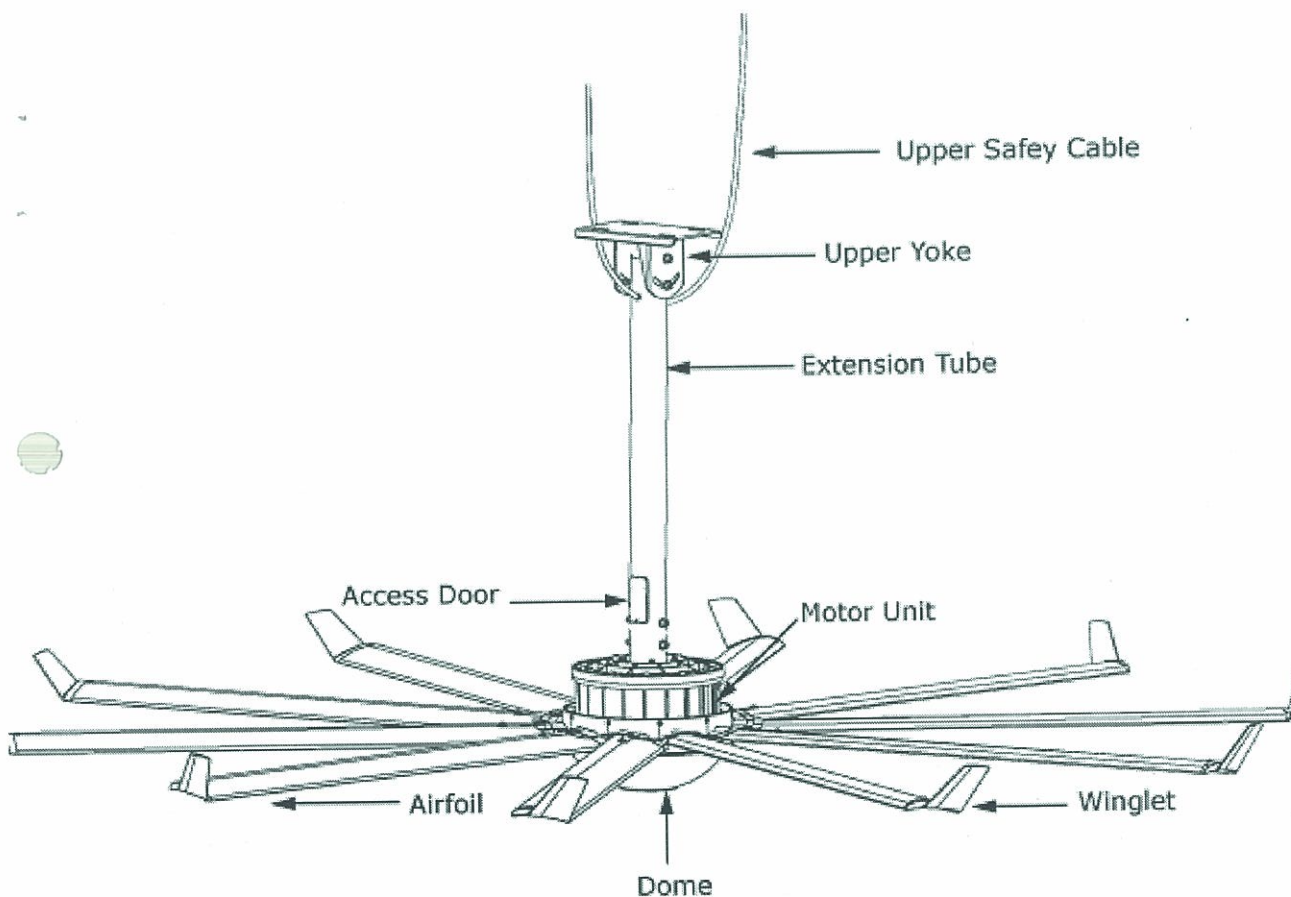
Access Door. Provides access to lower safety cable.

Motor Unit. Includes direct drive motor, onboard controls, and hub (see p.1 for more information).

Airfoil. Provides air movement. In the event of a collision, safety retainers secure the airfoils to the fan hub.

Winglet. Improves the efficiency of the fan by reducing drag.

Dome. Aluminum enclosure for components on the underside of the fan. Note: Round dome shown. An optional flat dome is available.





Contents



Index



Search

- Search -

x

- Welcome
- Getting Started
- Mounting the Fan
- Hanging the Fan
- Installing Airfoils
- Installing the Dome
- Installing Guy Wires
- Electrical Installation
  - Overview
  - Safety
  - Mounting the Fan Controller
  - Wiring
    - Delta Secondary
    - Attach Wiring Access Door
    - Daisy Chaining
    - Addressing
  - Interfacing with Building Automation
- Operating the Fan
- Preventive Maintenance
- Troubleshooting
- Replacing Parts
- Accessories
- Alternative Mounting Methods

Installing Airfoils



## Installing Airfoils

**WARNING:** Disconnect power to the fan before installing the airfoils!

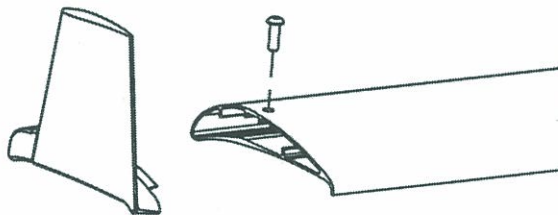
Big Ass Fans recommends completing electrical installation before installing the airfoils.

### To install the airfoils:

#### 1 Attach Winglets (to Airfoils)

Attach the 10 winglets to the 10 airfoils using the Winglet Hardware. Securely tighten the screws using a 1/8" Allen wrench.

*Winglet Hardware (BAF-Supplied):*  
(10) 1/4-20 x 3/4" Screw



#### 2 Position Airfoils and Trim

Slide the airfoil trim pieces and the airfoils onto the tabs as shown.



#### 3 Attach Airfoils (to Motor Unit)

Attach the 10 airfoil retainers using the Airfoil Hardware. Moving clockwise around the fan hub, position the airfoil retainers. Hole A should be positioned over top of Hole B. Do not tighten the hardware until all airfoil retainers have been

156



Contents



Index



Search

- Search -

x

- Welcome
- Getting Started
- Mounting the Fan
- Hanging the Fan
- Installing Airfoils
- Installing the Dome
- Installing Guy Wires
- Electrical Installation
- Operating the Fan
- Preventive Maintenance
- Troubleshooting
- Replacing Parts
- Accessories
- Alternative Mounting Methods

Home > Installing the Dome



# Installing the Dome

**WARNING:** Ensure power is disconnected from the fan prior to installing the dome.

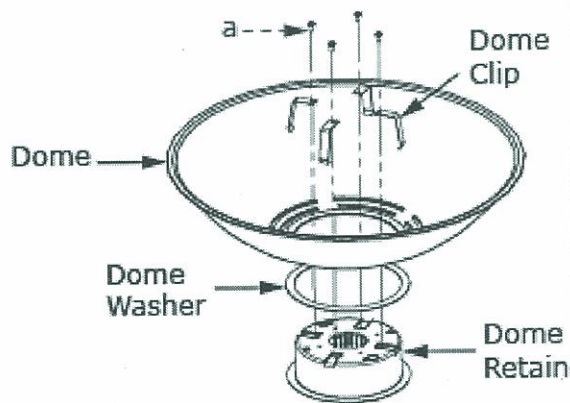
Install the dome as shown below. *Note: A round dome is shown in the illustrations below. An optional flat dome is available.*

## To install the dome:

### 1 Assemble Dome

Assemble the dome, dome clips, dome washer, and dome retainer as shown. Secure the dome clips to the dome retainer with the Dome Retainer Hardware. Securely tighten the screws using a flat head screwdriver.

*Dome Retainer Hardware (BAF-Supplied):*  
(4) 8-18 x 3-8" Screw



### 2 Attach Dome (to Static Hub)

Insert two (2) screws from the Dome Retainer Hardware into the static hub. The screws should be placed diametrically opposite of one another. Do not tighten the screws.

Attach the dome assembly to the static hub. Guide the dome retainer keyhole slots to the static hub screws. Turn the dome assembly

157



Contents

Index

Search

- Search -

GO

Home > Getting Started > About this Fan



# About this Fan

Element was designed from the ground up to deliver the benefits of a Big Ass Fan to commercial, air-conditioned environments. Element combines the gentle air circulation and energy efficiency of a typical Big Ass Fan with the silent and stylish modern fan that will complement any environment.

## Technical specifications

Fan Diameter	Input Power	Max Amp	Max RPM	Fan Weight*
12 ft (3.7 m)	10 A @ 100-125 V, 1 $\Phi$	6.4 A @ 100-125 V, 1 $\Phi$ 3.2 A @ 200-250 V, 1 $\Phi$	82	230 lbs (104 kg)
14 ft (4.3 m)	10 A @ 100-125 V, 1 $\Phi$	6.2 A @ 100-125 V, 1 $\Phi$ 3.1 A @ 200-250 V, 1 $\Phi$	64	244 lbs (111 kg)
18 ft (5.5 m)	10 A @ 100-125 V, 1 $\Phi$	5.5 A @ 100-125 V, 1 $\Phi$ 2.8 A @ 200-250 V, 1 $\Phi$	42	272 lbs (123 kg)
20 ft (6.1 m)	10 A @ 100-125 V, 1 $\Phi$	4.5 A @ 100-125 V, 1 $\Phi$ 2.3 A @ 200-250 V, 1 $\Phi$	33	286 lbs (130 kg)

\*Fan weight includes 3-ft extension tube and upper yoke.

Type in the word(s) to search for:  
technical specification

Highlight search results

Search results per page 10

Total Number of Search Results : 2

Title	Rank $\Delta$
About this Fan About this Fan Element was designed from the ground up to deliver the benefits of ...	1
<b>Element-Install-Guide-Online.pdf</b> INSTALLATION GUIDE For help, call 1 ( 877) BIG-FANS or visit www.bigassfans.com Element WWW. BI ...	2

158

# 24

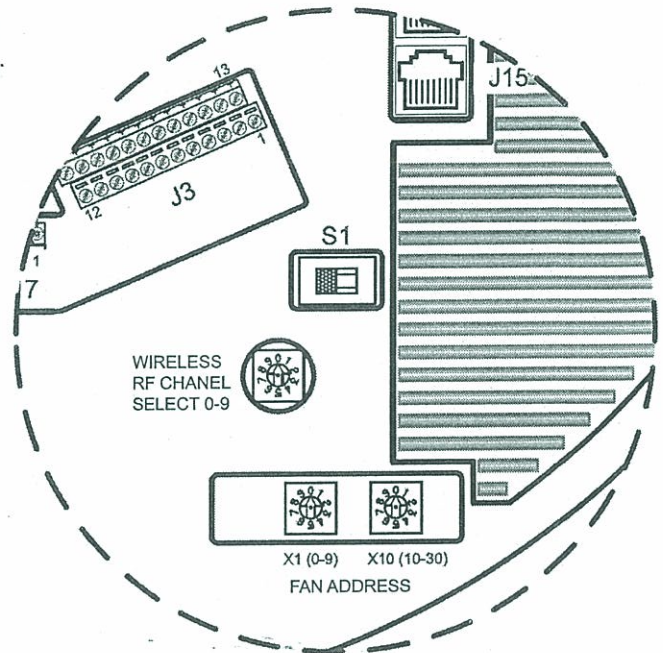
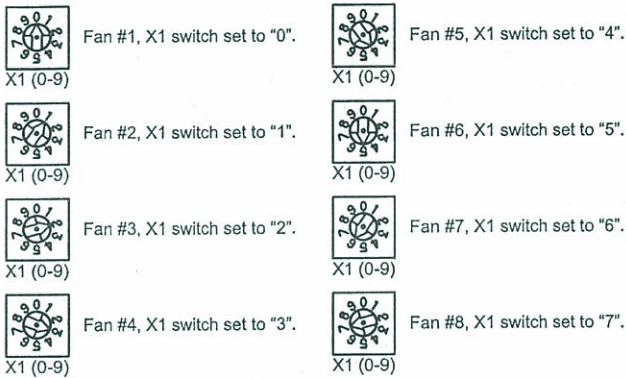
## Electrical Installation (cont.)

### Addressing

Depending on the version, one of two methods of addressing are implemented on Element fan motor assemblies. Earlier versions use two rotary selector switches, which adjust both the address' least significant digit and most significant digit. In later versions, a four position dip switch is utilized for address assignment. In either case, the range of addressing for the fan is 0 through 7 (Fan #1 through Fan #8) on the wallpad.

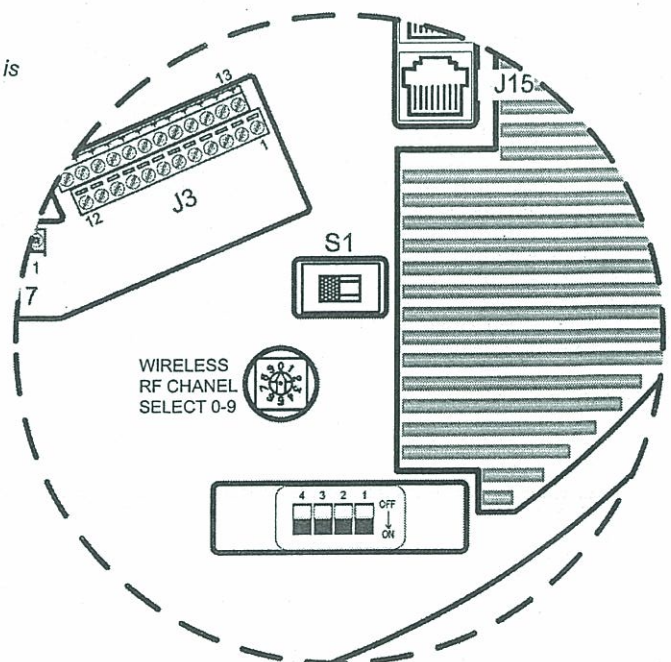
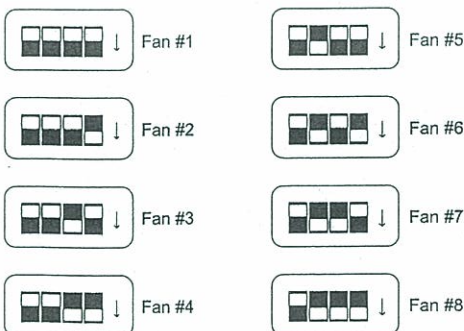
#### Rotary switch addressing

Adjustments are made using switch X1, the least significant digit only. X1 can be rotated in either direction for a setting of 0 through 7. Settings 8 and 9 are inactive. The factory default address setting is 1.



#### Dip switch addressing

Adjustments are made using switch positions 1, 2, and 3. Position 4 is inactive. The factory default address setting is 1 (all switches off).



139

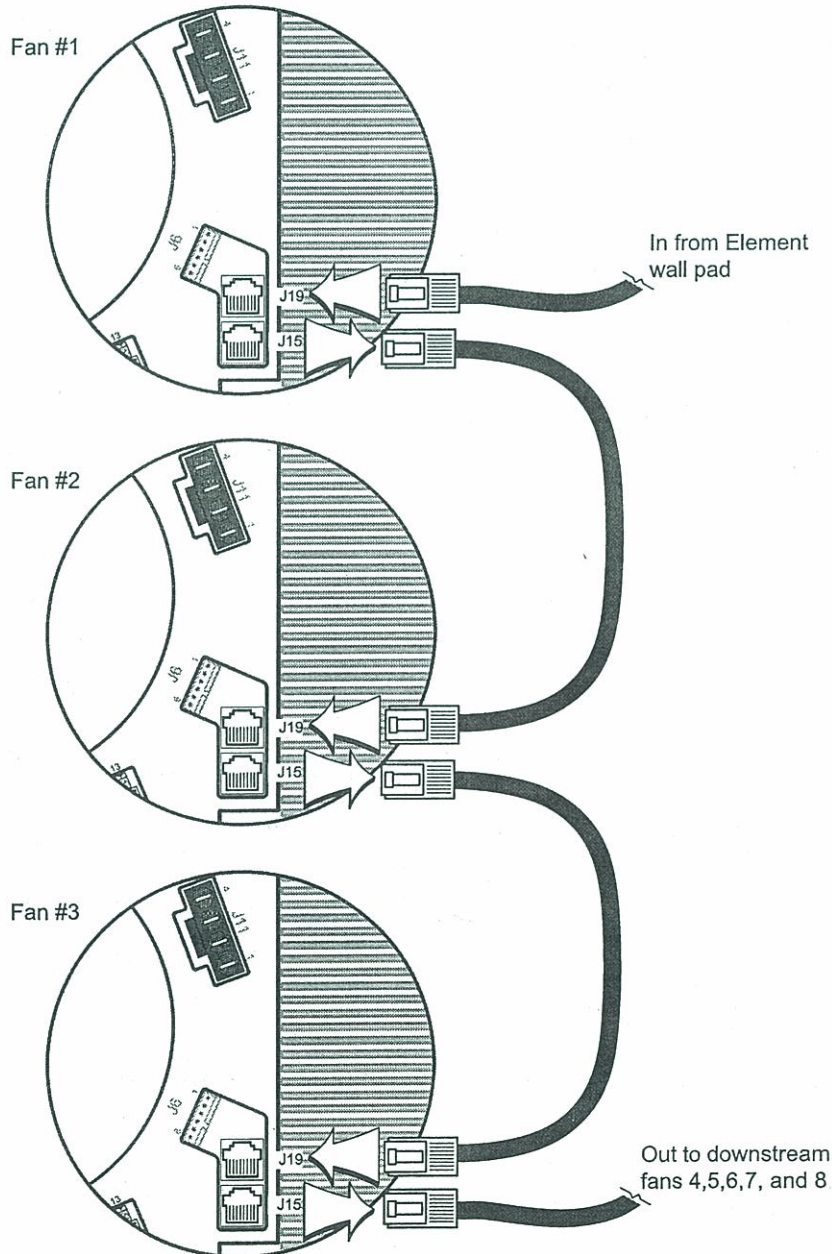
**Daisy chaining**

Either port on the Element is acceptable for input or output. J15 and J19 can be treated as input or output at the discretion of the user; however, the connectors must be used accordingly on each fan. Route wiring through the top of the extension tube to the electronics mounting plate on the underside of the fan.

The following illustrates a typical setup utilizing multiple Element fans and a single wallpad, allowing for the operation of multiple fans with a single wallpad installation. *Note: The Element wallpad can control a maximum of eight (8) fans independently.*

The Element fan's communications loop utilizes standard CAT5 Ethernet patch cable assemblies wired to either the 568A or 568B standard.

Connect the wallpad to connector J19 on Fan #1. On the same fan (#1), wire out of connector J15 and into the J19 connector on Fan #2. Repeat this on up to six (6) additional Element fans.



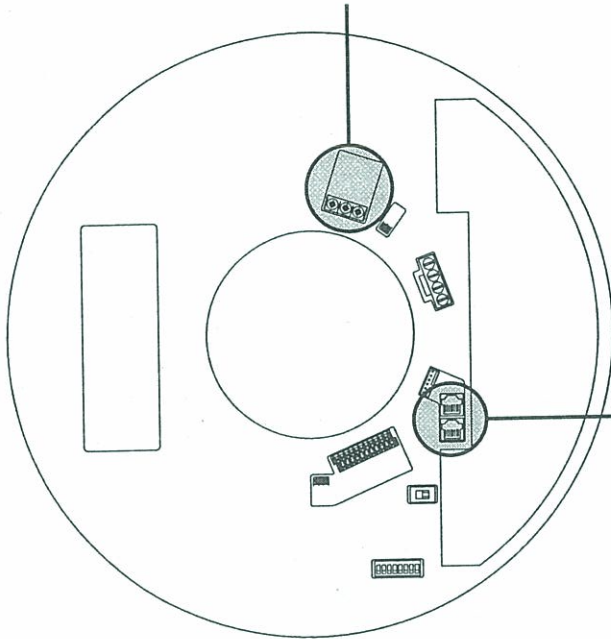
160



Wiring connections diagram

**J8- Main Power Connections**

- Supply Voltage: 120–250 VAC Single Phase
- Required Circuit Size: 10 A @ 200–250 V, 15 A @ 100–125V
- Max Amp: 6.4 (120 V), 3.7 (208 V), 3.2 (240 V)
- Wire Type- 14 AWG (not supplied)
- Input Power Terminal Torque: 15 in-lbs (1.69 N·m)



**J19, J15- Wall Controller Connections**



**J19** Remote Control Unit In / Out #1

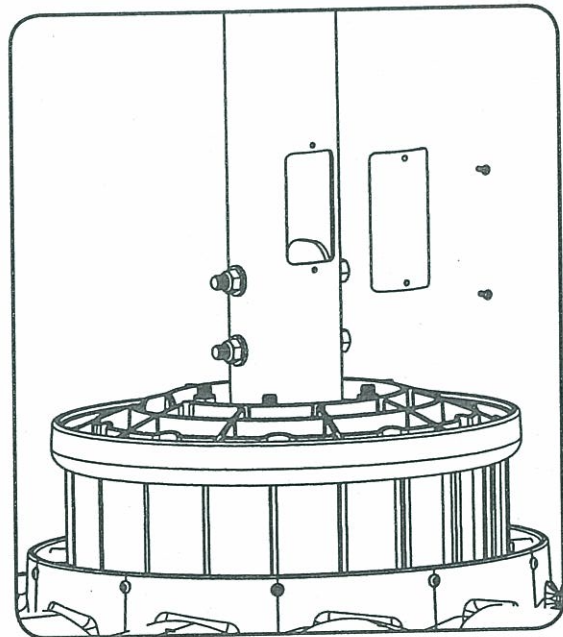


**J15** Remote Control Unit In / Out #2

- Supplied remote will work in either location
- Cable Type: Category 5 or 5E
- Connector Type: RJ45

**Attach wiring access door**

After all connections have been made, attach the wiring access door. Securely tighten the screws using a 3/32" Allen wrench.



(161)

## Wiring connections

Route wiring through the top of the extension tube to the electronics mounting plate on the underside of the fan.

**CAUTION:** To prevent damage, avoid contact with the printed circuit board located on the bottom of the fan!

### Wiring the motor

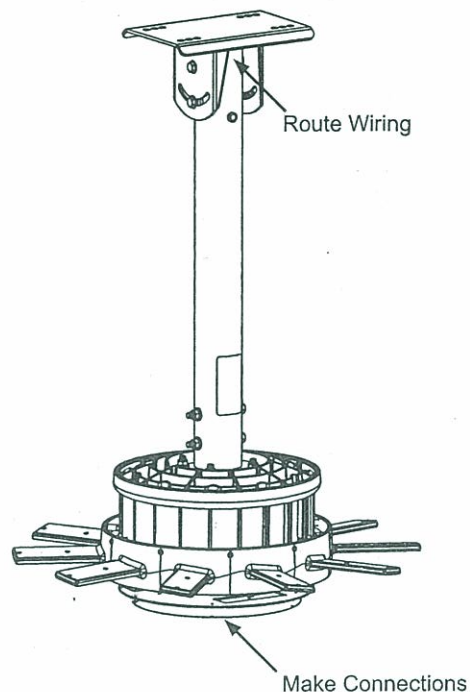
Adhere to the following when wiring the motor:

- Follow the diagrams on the following pages to connect power supply to the fan.
- Required Supply Circuit Size: 100–250 VAC Single Phase
- Max Amp: 6.4 A @ 100–125 V, 1  $\Phi$ ; 3.2 A @ 200–250 V, 1  $\Phi$
- Wire Type: 14 AWG (not supplied)
- Input Power Terminal Torque: 15 in·lbs (1.69 N·m)

### Wiring the wall controller

Adhere to the following when wiring the controller:

- Follow the diagrams on the following pages to connect the wall controller to the fan.
- The required cable type is category 5 or 5E patch cable (not supplied). The cable should be straight-through type (not crossover). For easiest installation, Big Ass Fans recommends using a pre-made cable available at most electronics retailers. *Note: A short category 5 cable is included for fan startup verification.*
- The connector type is RJ45 (not supplied).
- The maximum cable length is 3000 ft (with 120 ohm termination resistance).

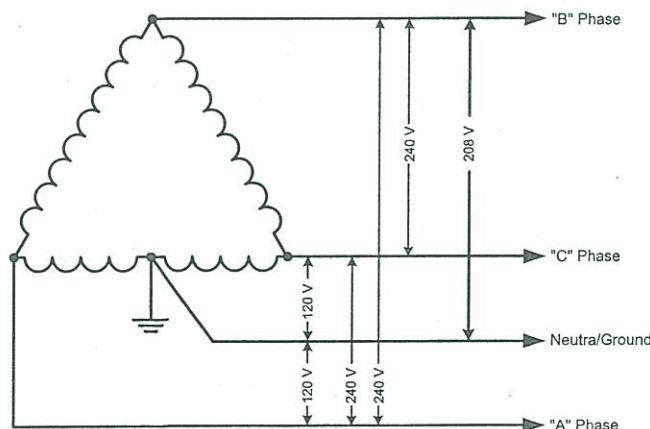


## Delta secondary

**CAUTION:** Care must be taken when connecting the Element fan to a three phase 240/120V Secondary as shown above. The Element fan controller relies on internal references made between each incoming phase and ground. To prevent damage to the fan controller, adhere to the the following recommendations:

The following is a common arrangement available for industrial and commercial power distribution in the United States.

- **240V/120V Three Phase (Delta Secondary)**, which provides 240 V between phases for three phase loads, 120 V from phase "A" and "C" to Neutral / Ground, and 208 V from phase "B" to Neutral / Ground as shown below. In this transformer arrangement, phase "B" is commonly referred to as a "Wild Leg" or "High Leg," and should be marked accordingly with an orange finish or other effective means per NEC 110.15.
- **200V-250V Single phase** fan controllers should be connected so that only phase "A" and phase "C" are utilized. (Each power lead should measure 120 V to Ground.)



162

## Electrical Installation



**WARNING:** To reduce the risk of electric shock, wiring should be performed by a qualified electrician! Incorrect assembly can cause electric shock or damage the motor and the controller! Hazard of electrical shock!

**WARNING:** The installation of a Big Ass Fan must be in accordance with the requirements specified in this installation manual and with any additional requirements set forth by the national electric code (NEC), ANSI/NFPA 70-2011, and all local codes. Code compliance is ultimately YOUR responsibility!

**WARNING:** The fan controllers contain high voltage capacitors which take time to discharge after removal of mains supply. Before working on the fan controller, ensure isolation of mains supply from line inputs at the fan controller board (L1, L2/N). Wait three minutes for capacitors to discharge to safe voltage levels. Failure to do so may result in personal injury or death.

**CAUTION:** The Big Ass Fans product warranty will not cover equipment damage or failure that is caused by improper installation.

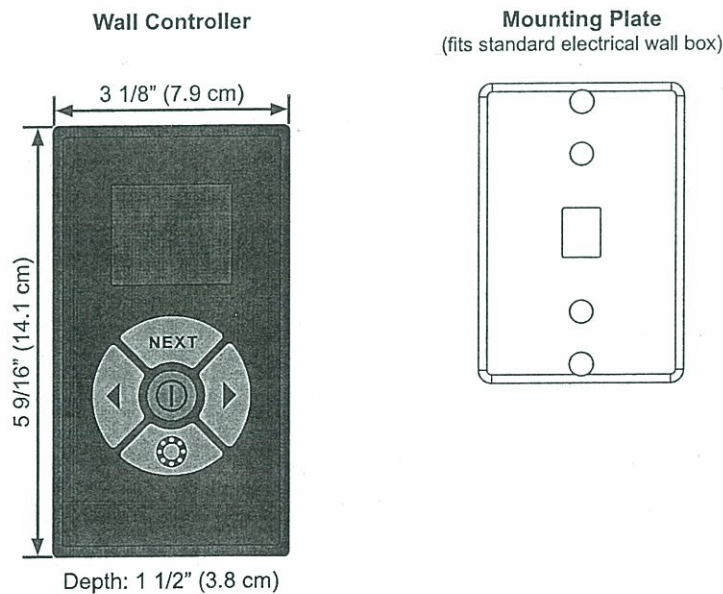
**WARNING:** Exercise caution and common sense when powering the fan. Do not connect the fan to a damaged or hazardous power source. Do not attempt to resolve electrical malfunctions or failures on your own. Contact Big Ass Fans if you have any questions regarding the electrical installation of this fan.

**ATTENTION:** If installing the fan in the United States, the fan must be installed per the following National Fire Protection Association (NFPA) guidelines:

- The fan must be centered approximately between four adjacent sprinklers.
- The vertical distance from the fan to the sprinkler deflector must be at least 3 ft (91.4 cm).
- The fan must be interlocked to shut down immediately upon receiving a waterflow signal from the alarm system.

### Mounting the wall controller

To mount the wall controller, install the controller on a flat surface that is readily accessible, free from vibration, and where there is adequate distance from foreign objects or moving equipment. Attach the mounting plate to a standard electrical wall box using customer-supplied hardware. Use the key hole slots on the wall controller to attach it to the mounting plate. Mount the wall controller so that the fan(s) it controls is visible from the wall controller location.



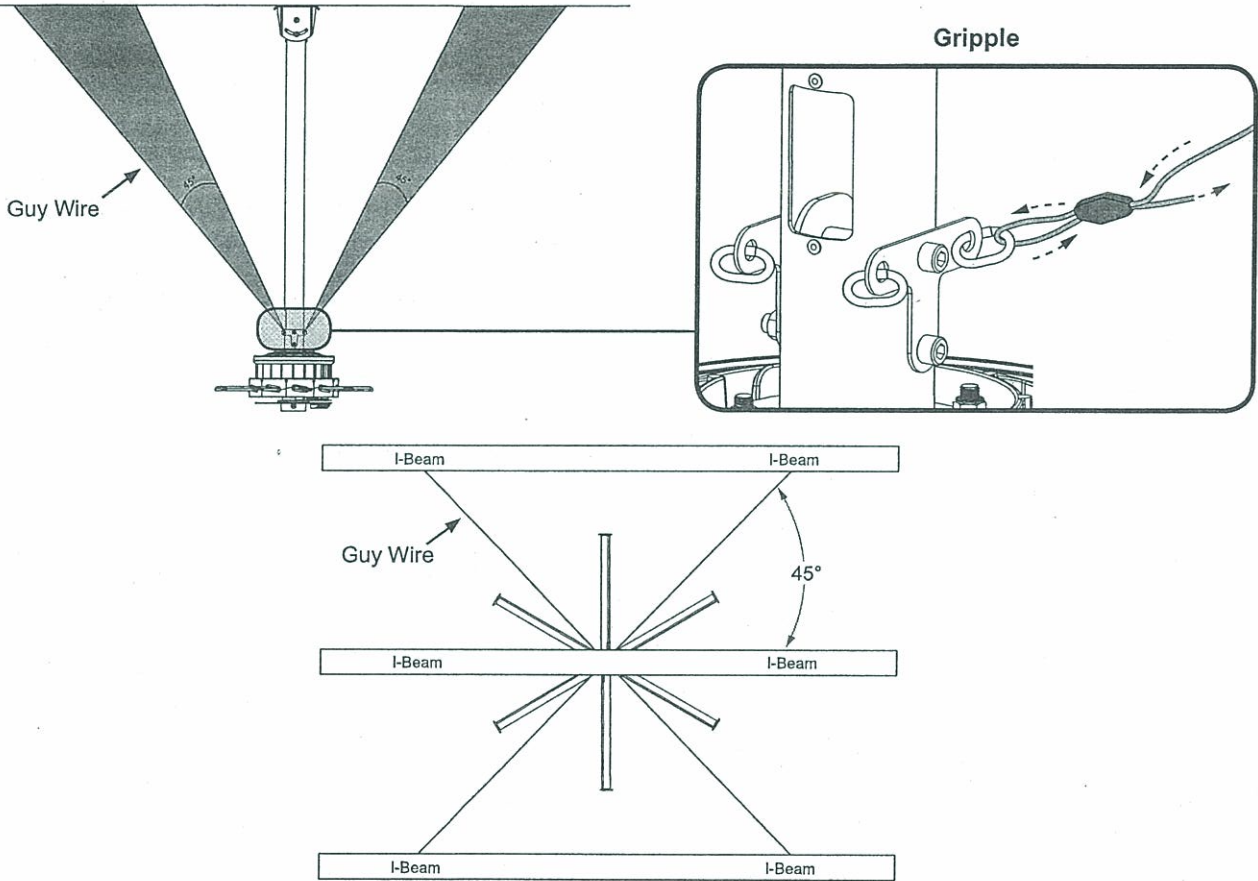
163

**4. Route guy wire through Gripple®**

Route the guy wire through the Gripple, the carabiner on the motor, and back through the Gripple as shown. Do not tighten the Gripple until the remaining guy wires have been installed.

- Note: To back the guy wire out of the Gripple, insert 1/16 (1.5 mm) Allen wrench into the small hole on the Gripple.

Note: I-beams are shown in the illustration below. Your mounting structure may differ.



Note: I-beams shown above. Your mounting structure may differ.

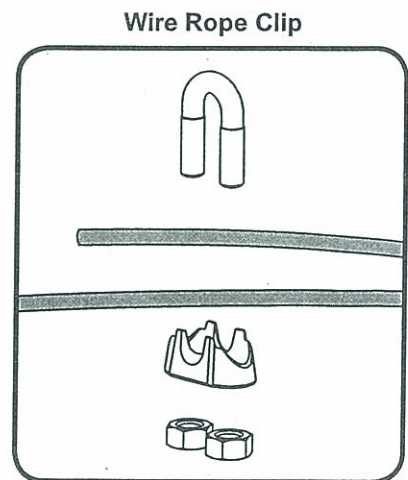
**5. Install remaining guy wires**

Repeat steps 3–4 to install the three remaining guy wires.

**⚠ CAUTION: Over-tightening the guy wires could throw the fan off balance.**

Evenly cinch all four guy wires into place using the Gripples. The guy wires should be taut, evenly spaced around the fan, and away from the path the airfoils. Maintain a distance of 6"–8" between the Gripple and the frame mounting eyebolt.

Once all of the guy wires are taut, secure their loose ends with the wire rope clips and torque to **4.5 ft-lb (6.1 N·m)**. The wire rope clip nearest the eyebolt should create a loop about 2" in length. The second wire rope clip should be located 3"–4" from the first clip. Trim the cables so there is no more than 1"–3" extending from the end of the Gripple. *Ensure all electrical cords/cable are unobstructed by the guy wire system.*



169

## 18

## Installing Guy Wires

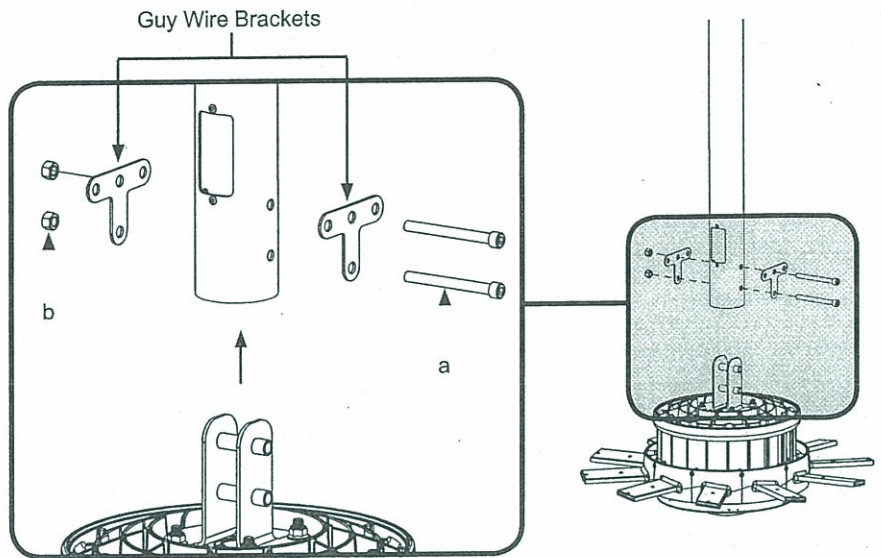
Guy wires may not be included in your fan order. They are intended to constrain the fan's lateral movement and are only included with all fans that have extension tubes 4 ft (1.2 m) or longer.

## 1. Attach guy wire brackets

Attach the guy wire brackets to the extension tube and main fan unit using the Mounting Hardware as shown. *Note: Do not use the supplied washers when installing guy wire brackets on Element.*

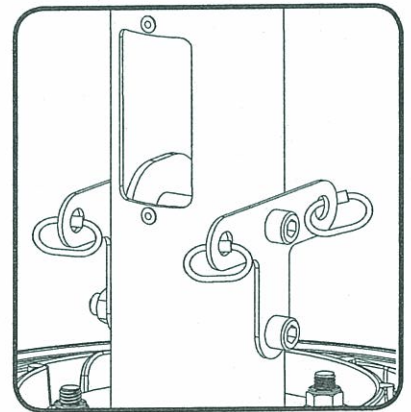
## Mounting Hardware (BAF-Supplied):

- a. (2) 1/2-13 x 5" Bolt
- b. (2) 1/2-13 Nylock Nut



## 2. Attach locking carabiners to guy wire brackets

Secure the (4) locking carabiners to the guy wire brackets as shown. Securely tighten the carabiners.



## 3. Attach beam clamp

Attach the beam clamp to the mounting structure. *The guy wire should be at approximately a 45° angle from the roof to the extension tube (see the illustrations on the following page). Place the beam clamp accordingly.*

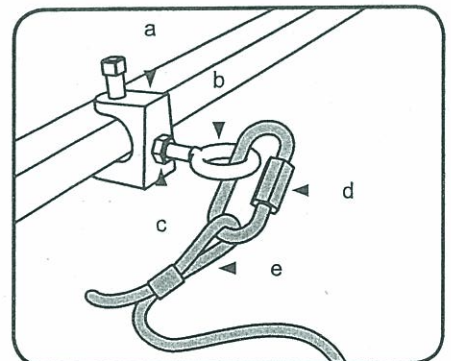
For best results, the guy wires should be installed at 45° in the X-Y, Y-Z, and X-Z planes as shown on the following page. If the angle deviates by more than 15°, contact Customer Service for assistance.

Fasten the small eyebolt and nut onto the beam clamp. The nut will be on the outside of the beam clamp.

Loop the crimped end of the guy wire into the locking carabiner and secure to the eyebolt as shown. Securely tighten the carabiner.

## Guy Wire Hardware (BAF-Supplied):

- a. 1/4" Beam Clamp
- b. 1/4-20 x 1" Eyebolt
- c. 1/4-20 Hex Nut
- d. Locking Carabiner
- e. Guy Wire



165

# Installing Dome

**⚠ WARNING: Disconnect power to the fan before installing the dome.**

*Note: A round dome is shown in the illustrations below. An optional flat dome is available.*

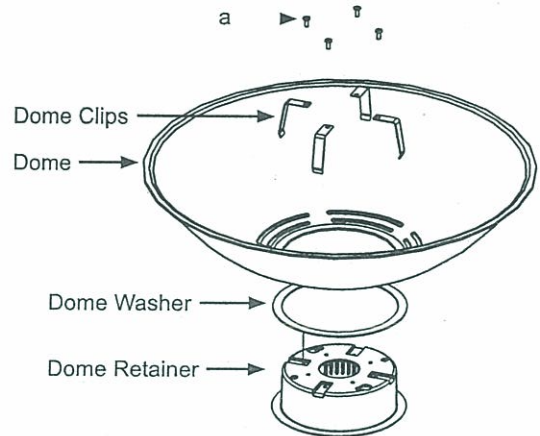
## 1. Assemble dome

Assemble the dome, dome clips, dome washer, and dome retainer as shown. Secure the dome clips to the dome retainer with the Dome Retainer Hardware (8-18 x 3/8" screws).

Securely tighten the screws using a flat head screwdriver.

### Dome Retainer Hardware (1):

- a. (4) 8-18 x 3/8" Screw



## 2. Attach dome to static hub

**Big Ass Fans does not recommend installing a light module on the Element.**

Insert two (2) screws from the Dome Retainer Hardware (1/4-20 x 5/8" screws) into the static hub as shown. The screws should be placed diametrically opposite of one another. Do not tighten the screws.

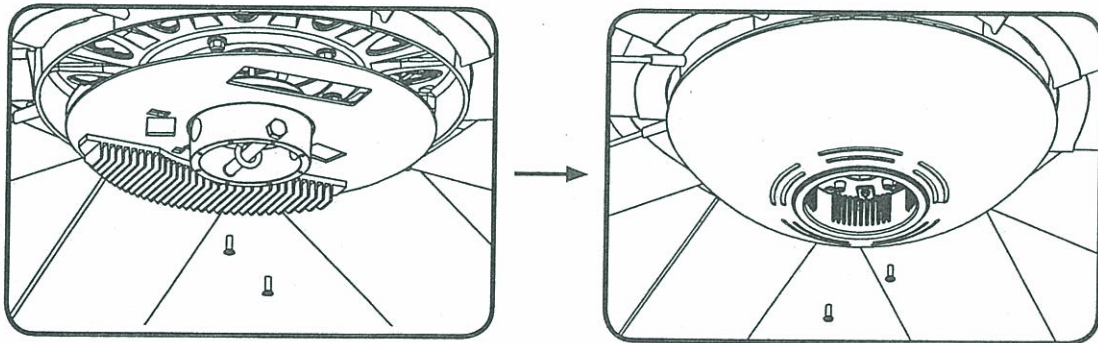
Attach the dome assembly to the static hub. Guide the dome retainer keyhole slots to the static hub screws. Turn the dome assembly clockwise.

Insert two (2) more screws from the Dome Retainer Hardware (1/4-20 x 5/8" screws) into the dome retainer to secure it to the static hub.

Securely tighten all screws using a flat head screwdriver.

### Dome Retainer Hardware (2):

- (4) 1/4-20 x 5/8" Screw



## 3. Attach center cap to dome

Snap the center cap into the dome retainer.



## 16

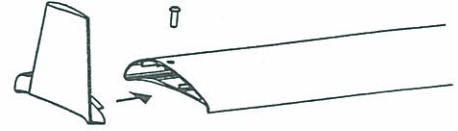
## Installing Airfoils

Big Ass Fans recommends completing electrical installation (p. 20) and testing the connections before installing the airfoils.

**⚠ WARNING:** Disconnect power to the fan before installing the airfoils.

### 1. Attach winglets to airfoils

Attach the winglet to the airfoil using the Winglet Hardware as shown. Securely tighten the screws using a 1/8" Allen wrench. *Attach winglets to all ten (10) airfoils before attaching the airfoils to the fan.*

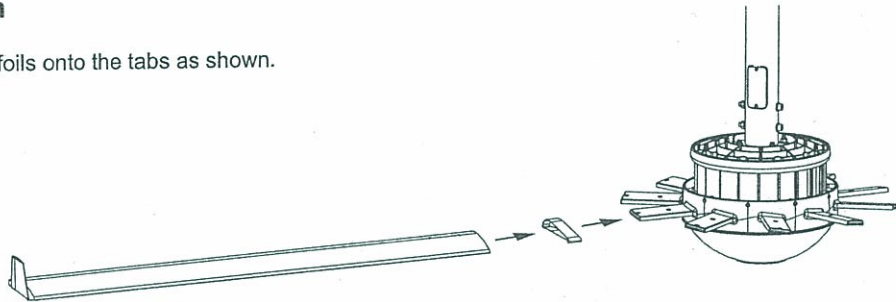


#### Winglet Hardware:

(10) 1/4-20 x 3/4" Screw

### 2. Position airfoils and trim

Slide the airfoil trim pieces and the airfoils onto the tabs as shown.



### 3. Attach airfoils to main fan unit

Attach the 10 airfoil retainers with the Airfoil Hardware. Moving clockwise around the fan hub, position the airfoil retainers end over end as shown. Hole A of the retainer should be positioned over top of Hole B. *Do not tighten the bolts until all the airfoil retainers have been attached!*

Tighten the bolts along the outer perimeter to **29 ft·lb (39.3 N·m)** using a torque wrench and 1/2" socket. After the outer perimeter bolts are torqued, tighten the bolts along the inner perimeter to **29 ft·lb (39.3 N·m)** using a torque wrench and 1/2" socket.

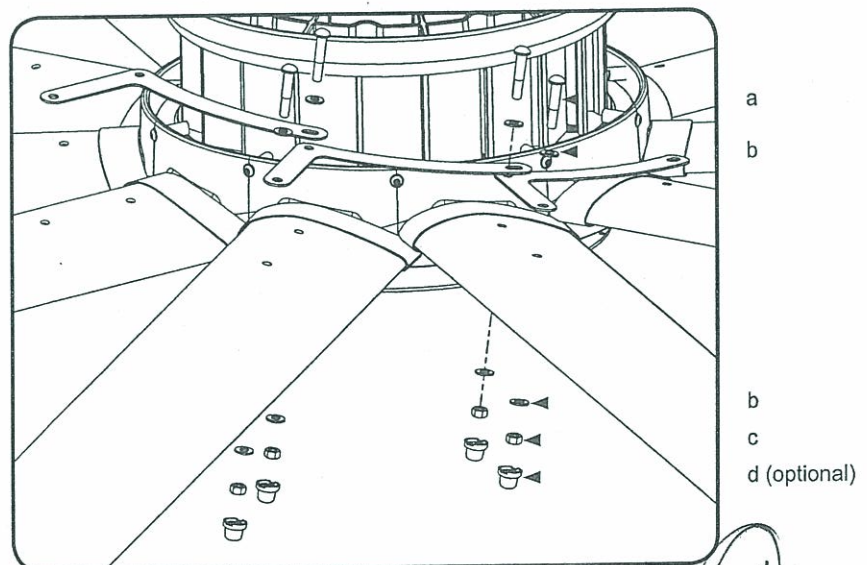
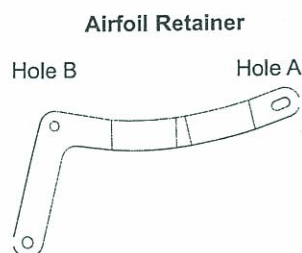
If desired, place nut covers on the nuts. *Note: Nut covers are packaged with the trim and center cap.*

#### Airfoil Hardware:

- a. (20) 5/16-18 x 1-3/4" GR 8 Bolt
- b. (40) 5/16" Washer
- c. (20) 5/16-18 Nylock Nut

#### Nut covers:

- d. (20) 1/2" Nut Cover (optional)



#### 4. Attach main fan unit (to extension tube)

Do not discard the main fan unit packaging and foam. It should be used if the fan is ever moved or relocated.

- ⚠ **CAUTION:** Do not remove the motor from its protective packaging prior to hanging it!
- ⚠ **CAUTION:** To prevent damage, avoid contact with the printed circuit board located on the bottom of the fan!
- ⚠ **CAUTION:** The main fan unit is heavy. Use care when raising it.

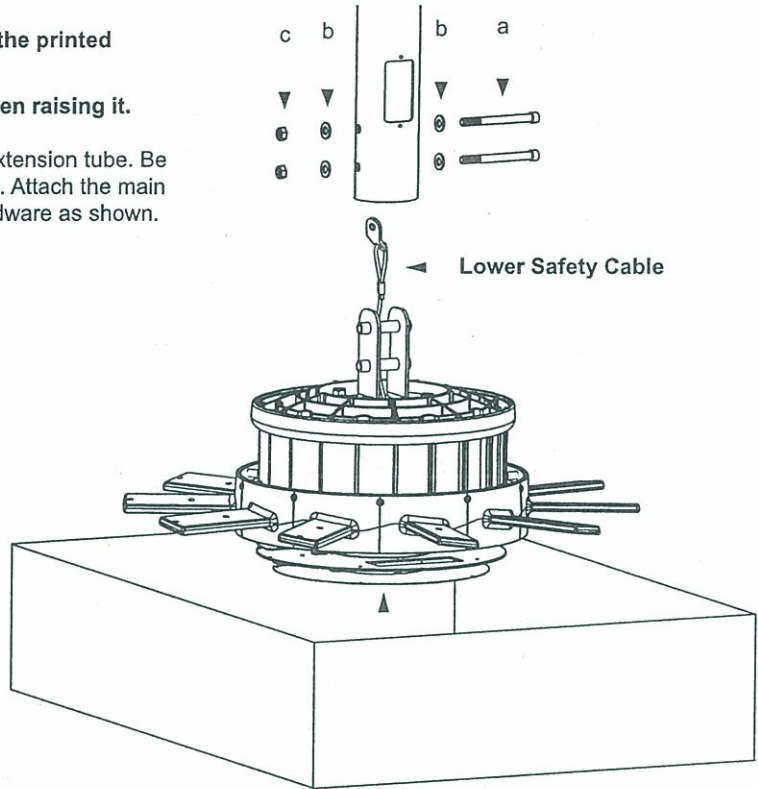
Raise the main fan unit directly from its packaging to the extension tube. Be sure to route the lower safety cable into the extension tube. Attach the main fan unit to the extension tube using the Main Fan Unit Hardware as shown.

Tighten the bolts to **20 ft·lb (27.1 N·m)** using a 3/8" Allen wrench and a torque wrench and 3/4" socket.

*Note: If installing guy wires, see "Installing Guy Wires" on p. 18.*

##### Main Fan Unit Hardware:

- a. (2) 1/2-13 x 5" Bolt
- b. (4) 1/2" Flat Washer
- c. (2) 1/2-13 Nylock Nut



#### 5. Secure lower safety cable

Big Ass Fans recommends completing electrical installation (p. 20) and testing the connections before installing the airfoils.

- ⚠ **CAUTION:** When securing the lower safety cable, be careful not to pinch any electrical wiring that may be routed through the extension tube.

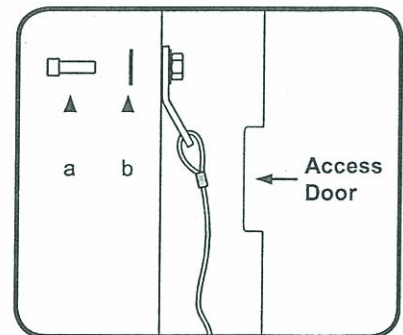
Remove the access door from the extension tube with a 3/32" Allen wrench. Save the door and screws.

The lower safety cable is equipped with a pre-assembled plate and weld nut. Fasten the end of the lower safety cable to the inside wall of the extension tube using the Lower Safety Cable Hardware as shown.

Tighten the bolt to **20 ft·lb (27.1 N·m)** using a 3/8" Allen wrench and torque wrench.

##### Lower Safety Cable Hardware:

- a. (1) 1/2-13 x 1 1/2" Bolt
- b. (1) 1/2" Flat Washer



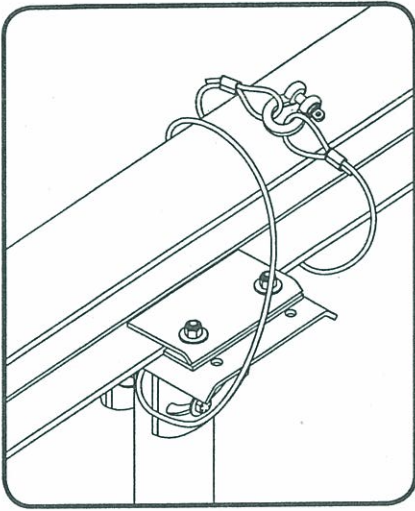


### 3. Secure upper safety cable

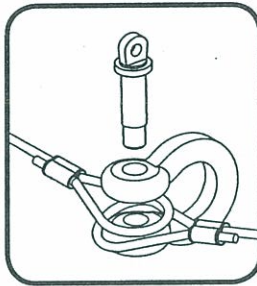
The safety cable is a crucial part of the fan and must be installed correctly. If you have questions, call Customer Service for assistance.

Secure the safety cable to the I-beam or angle iron by wrapping it around the I-beam or angle iron and securing the looped ends with the shackle as shown. The cable must be drawn tightly around the I-beam or angle iron, leaving as little slack as possible. If possible, the shackle should be on the topside of the I-beam or angle iron. Securely tighten the shackle.

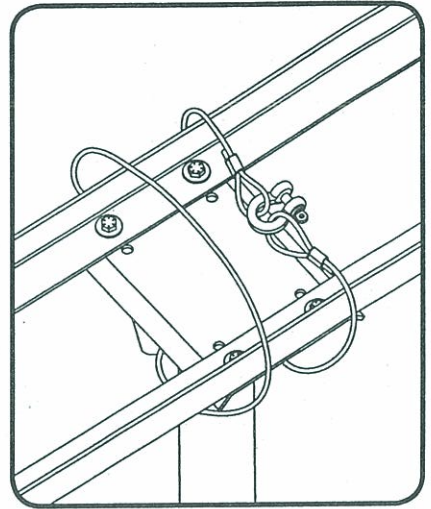
I-Beam Mount



Shackle



Angle Iron Mount



# Hanging the Fan

13

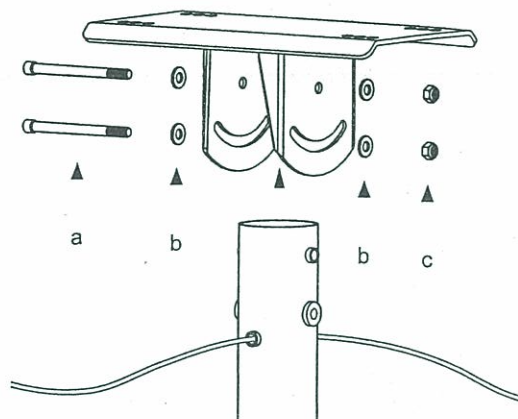
## 1. Attach extension tube (to upper yoke)

Fasten the extension tube to the upper yoke (already attached to I-beam or angle irons) using the Extension Tube Hardware as shown. *Before tightening the bolts, allow the extension tube to hang freely and balance itself.*

Tighten the bolts to **40 ft·lb (54.2 N·m)** using a 3/8" Allen wrench and a 3/4" socket with torque wrench

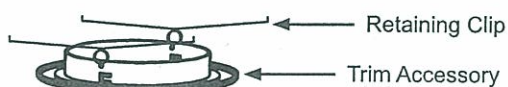
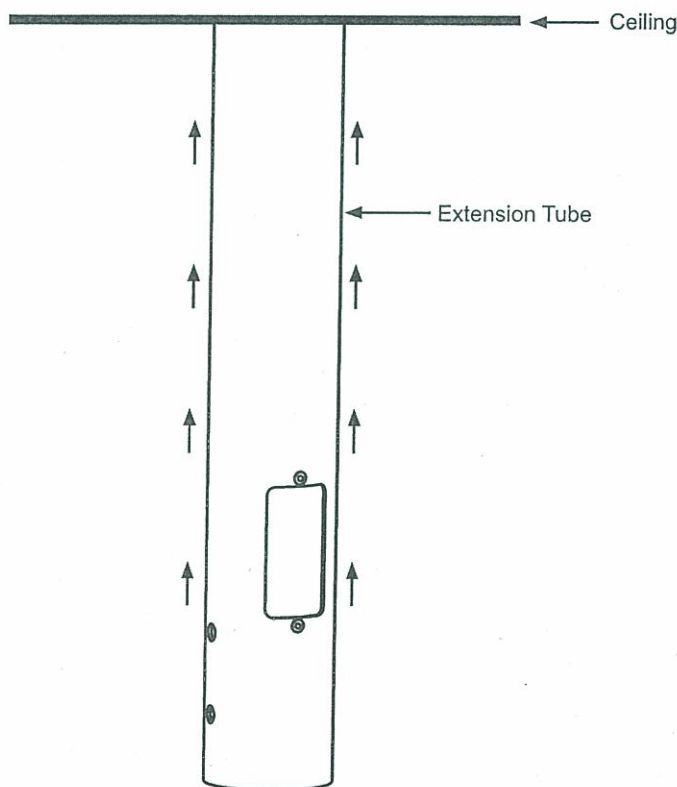
### Extension Tube Hardware:

- a. (2) 1/2-13 x 6" Bolt
- b. (4) 1/2" Flat Washer
- c. (2) 1/2-13 Nylock Nut



## 2. Install trim accessory

Slide the trim accessory around the extension tube and raise it to the ceiling. Pinch both retaining clips, slide them through the hole in the ceiling, and release.



170

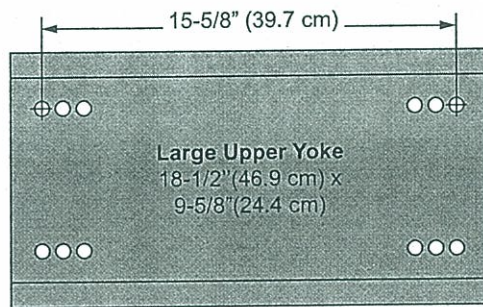
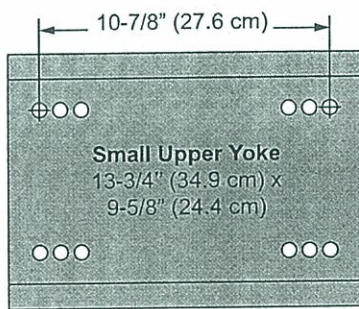
**5. Attach upper yoke (to angle irons)**

Secure the upper yoke directly to the angle irons with the Beam Clip Hardware as shown. The angle irons should be aligned with the outermost holes of the upper yoke. Consult the diagrams below for distances between the angle irons.

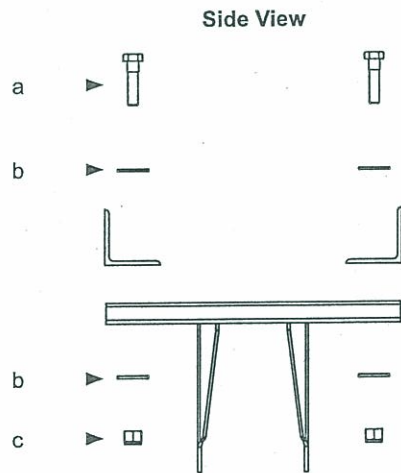
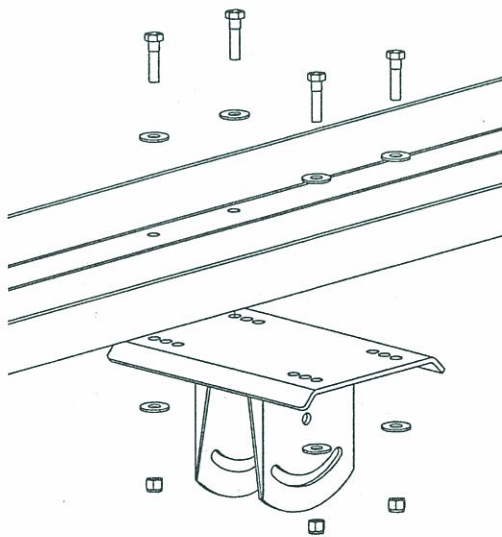
Tighten the bolts to 40 ft·lb (54.2 N·m) using a torque wrench and 3/4" socket.

**Beam Clip Hardware (BAF-Supplied):**

- a. (4) 1/2-13 x 2" GR 8 Bolt
- b. (8) 1/2" Flat Washer
- c. (4) 1/2-13 Nylock Nut



Note: Dashed lines represent angle irons in the above illustrations.



171

## Mounting Structure: Bar Joists (cont.)

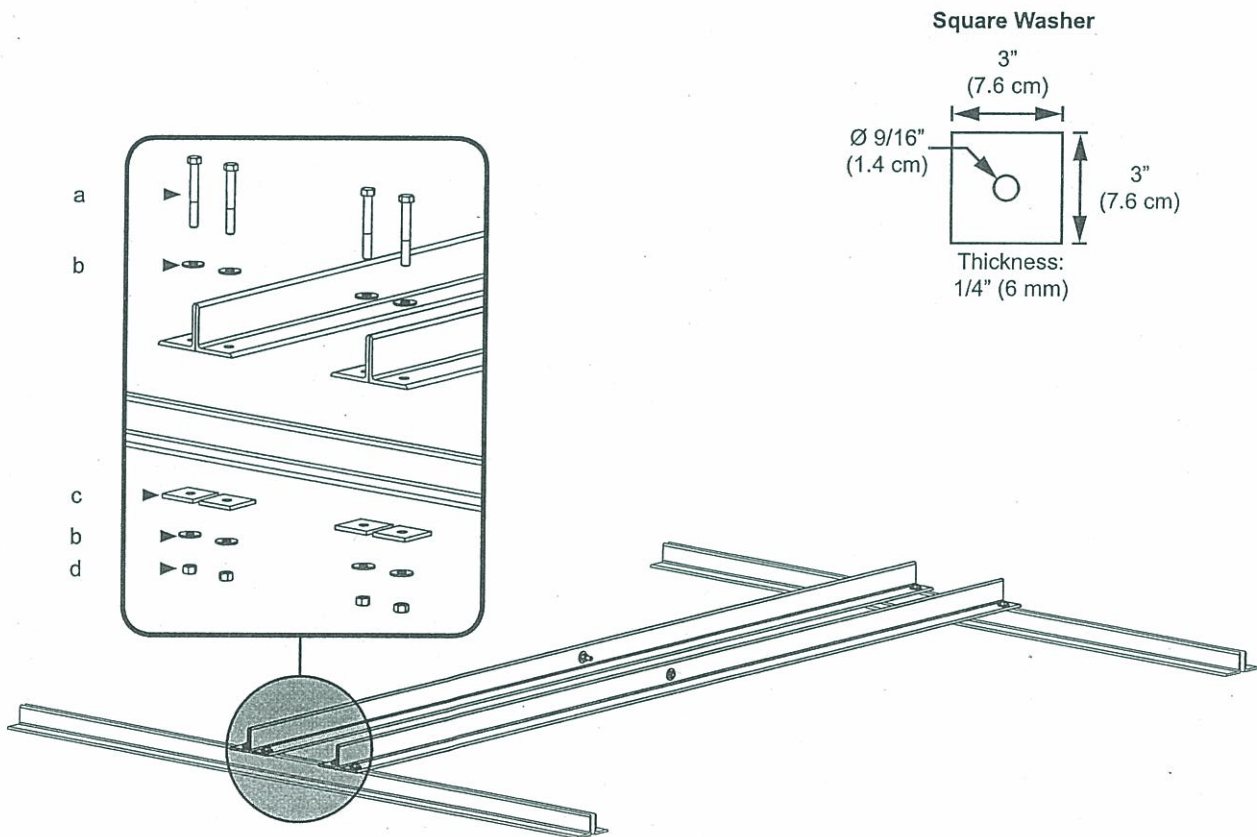
11

**4b. Fasten double angle irons to roof structure mounting points**

Fasten the angle irons to the roof structure mounting points at each end with customer-supplied Grade 8 hardware as shown. The angle irons with fan mounting holes should be positioned on the inside, facing each other. *Do not tighten the hardware until the upper yoke has been mounted to the angle irons.*

**Grade 8 Hardware (Customer-Supplied):**

- a. (8) 1/2-13 Bolt
- b. (16) 1/2" Washer
- c. (8) 3" Square Washer (BAF-Supplied; see diagram)
- d. (8) 1/2-13 Nylock Nut



172

## 4a. Fasten single angle irons to roof structure mounting points

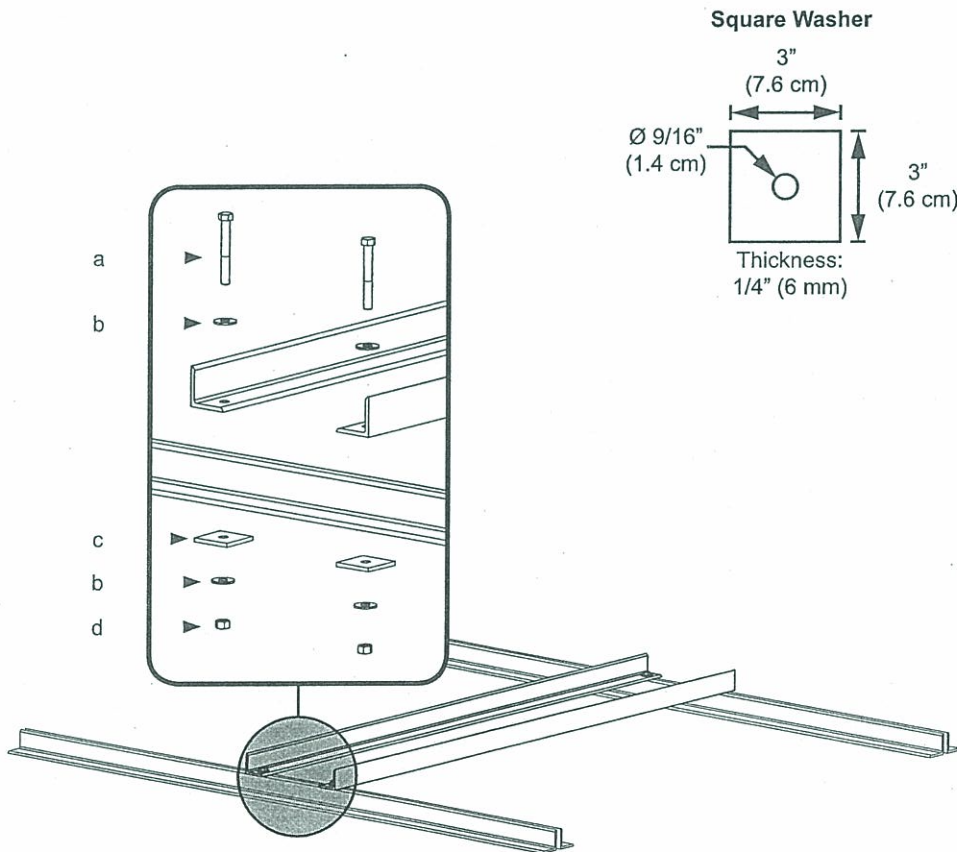
If the angle iron span is greater than 8 ft (2.4 m) and requires double angle irons, proceed to step 4b.

Fasten the angle irons to the roof structure mounting points at each end with customer-supplied Grade 8 hardware as shown. *Do not tighten the hardware until the fan has been mounted to the angle irons.*

Proceed to step 5.

## Grade 8 Hardware (Customer-Supplied):

- a. (4) 1/2-13 Bolt
- b. (8) 1/2" Washer
- c. (4) 3" Square Washer (BAF-Supplied; see diagram)
- d. (4) 1/2-13 Nylock Nut



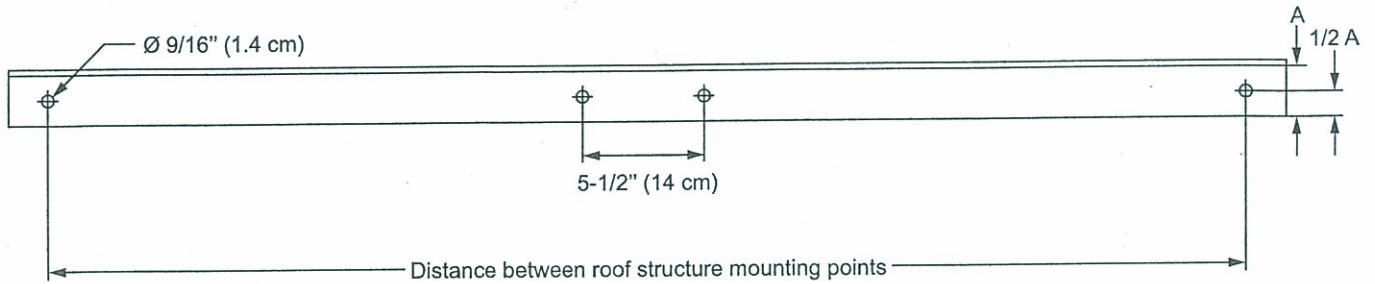
## Mounting Structure: Bar Joists (cont.)

9

## 2. Pre-drill angle irons

- Drill two  $\text{Ø } 9/16''$  (1.4 cm) holes exactly  $5\text{-}3/8''$  (13.7 cm) apart in the centers of two angle irons.

Measure the distance between the mounting points of the roof structure that the angle irons will span. Measure the same distance on the angle irons and drill  $\text{Ø } 9/16''$  (1.4 cm) holes through each end of the angle irons. Drill holes in two angle irons if span is 8 ft (2.4 m) or less. Drill holes in four angle irons if span is greater than 8 ft (2.4 m).



## 3. Secure angle irons (if span is longer than 8 ft)

If the angle iron span is 8 ft (2.4 m) or less, proceed to step 4a on the following page.

If the angle iron span is longer than 8 ft (2.4 m), it is necessary to use double angle irons.

Locate the center of the angle iron length. Drill  $\text{Ø } 9/16''$  (1.4 cm) hole through the center of the vertical wall of the angle iron. Drill a total of four angle irons.

Place two drilled angle irons back to back. Fasten the angle irons together with customer-supplied Grade 8 hardware.

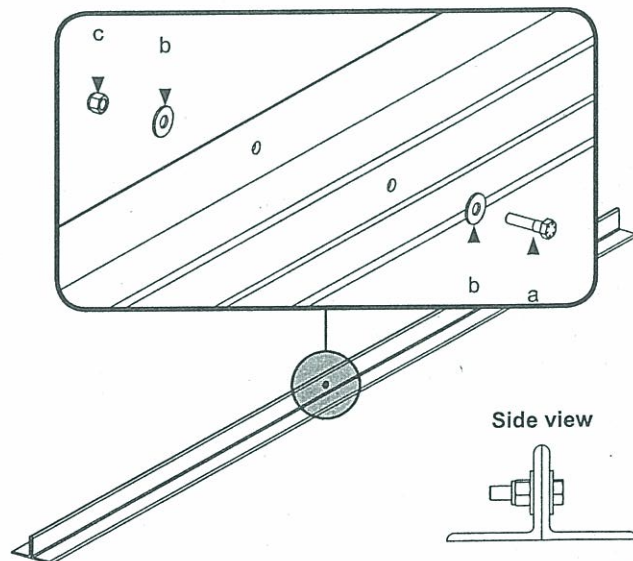
Align the angle irons to each other and tighten the bolts to **40 ft·lb (54.2 N·m)** using a torque wrench and  $3/4''$  socket.

Repeat step for remaining two (2) angle irons.

Proceed to step 4b.

## Grade 8 Hardware (Customer-Supplied):

- (2) 1/2-13 Bolt
- (4) 1/2" Washer
- (2) 1/2-13 Nylock Nut



# 8

## Mounting Structure: Bar Joists

**If you are installing the fan to an I-beam and have attached the upper yoke, proceed to "Hanging the Fan" (p. 13).**

- ⚠ **WARNING:** The fan should not be installed unless the structure on which the fan is to be mounted is of sound construction, undamaged, and capable of supporting the loads of the fan and the method of attachment to the structure. A structural engineer should verify that the structure is adequate prior to fan installation. Verifying the stability of the mounting structure is the sole responsibility of the customer and/or end user, and Big Ass Fans hereby expressly disclaims any liability arising therefrom, or arising from the use of any materials or hardware other than those supplied by Big Ass Fans or otherwise specified in these installation instructions.
- ⚠ **WARNING:** Never use beam clamps when mounting the fan to angle irons! Beam clamps are only intended for I-beam installations.
- ⚠ **CAUTION:** Do not install the fan from a single purlin, truss, or bar joist.
- ⚠ **CAUTION:** Unsupported angle iron spans should not exceed 12 ft (3.7 m).
- ⚠ **CAUTION:** The angle irons must be fastened to the roof structure at each end.
- ⚠ **CAUTION:** Ensure the mounting location will not expose the fan to direct contact with water unless the fan is labeled, "Suitable for use in wet locations."

### 1. Select proper angle irons

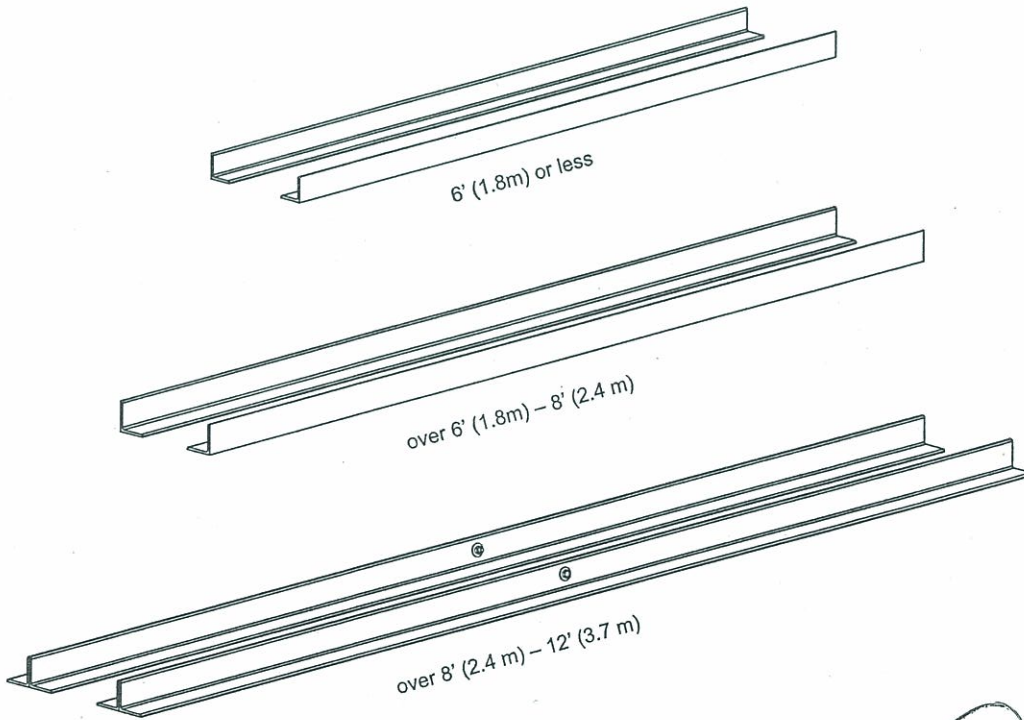
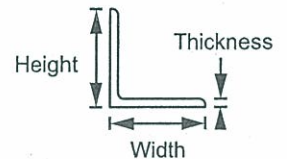
*Note: Angle irons and angle iron hardware are not included with the fan.*

Follow the table below when selecting angle irons for fan installation.

Angle iron span (between mounting points)	Minimum angle iron dimensions (W x H x T)	Number of angle irons needed
6' (1.8 m) or less	2.5" (6.4 cm) x 2.5" (6.4 cm) x 0.25" (0.6 cm)	2
over 6' (1.8 m) to 8' (2.4 m)	3" (7.6cm) x 3" (7.6 cm) x 0.25" (0.6 cm)	2
over 8' (2.4 m) to 12' (3.7 m)	3" (7.6 cm) x 3" (7.6 cm) x 0.25" (0.6 cm)	4 <sup>1</sup>

1. Two pairs of angle irons. Pairs should be placed back to back and fastened in center (see step 3).

**Angle Iron Side View**  
(see table for dimensions)



175

# Mounting Structure: I-Beam

**Big Ass Fans should only be hung from an I-beam or bar joists. See the following page for bar joist mounting instructions. Consult a structural engineer for installation methods not covered in this manual.**

- ⚠ **WARNING:** The fan should not be installed unless the structure on which the fan is to be mounted is of sound construction, undamaged, and capable of supporting the loads of the fan and the method of attachment to the structure. A structural engineer should verify that the structure is adequate prior to fan installation. Verifying the stability of the mounting structure is the sole responsibility of the customer and/or end user, and Big Ass Fans hereby expressly disclaims any liability arising therefrom, or arising from the use of any materials or hardware other than those supplied by Big Ass Fans or otherwise specified in these installation instructions.
- ⚠ **CAUTION:** It is not recommended to mount a Big Ass Fan from a fabricated I-beam.
- ⚠ **CAUTION:** Install the spacers only if the thickness of the I-beam flange exceeds 3/8" (1cm). The mounting holes on the spacer are closer to one side than the other. Make sure this side is facing the I-beam.
- ⚠ **CAUTION:** Ensure the mounting location will not expose the fan to direct contact with water unless the fan is labeled, "Suitable for use in wet locations."

## 1. Attach upper yoke (to I-beam)

Measure the flange width of the I-beam from which the fan will be hung. Consult the tables and diagram below to determine what size upper yoke is included with your fan package. Select the upper yoke mounting holes that match the flange width of the I-beam.

Secure the upper yoke to the I-beam with the Beam Clip Hardware as shown. Tighten the bolts to **40 ft·lb (54.2 N·m)** using a torque wrench and 3/4" socket.

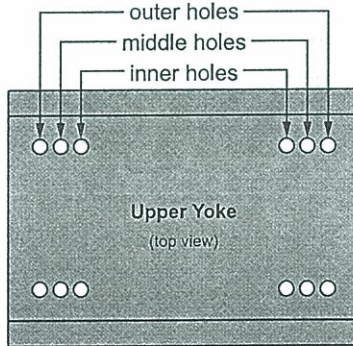
Proceed to "Hanging the Fan" (p. 13).

### Beam Clip Hardware (BAF-Supplied):

- a. (4) 1/2-13 x 2" GR 8 Bolt
- b. (8) 1/2" Flat Washer
- c. (4) 1/2-13 Nylock Nut
- d. (2) Beam Clip
- e. (2) Spacer

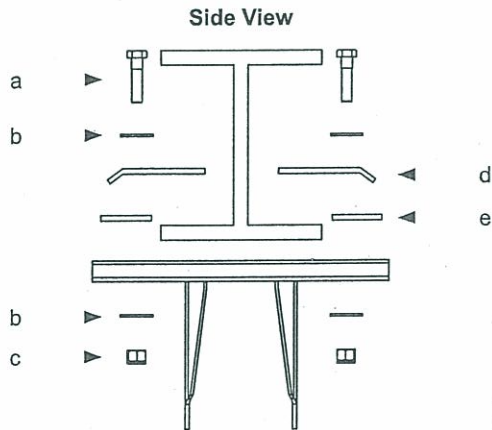
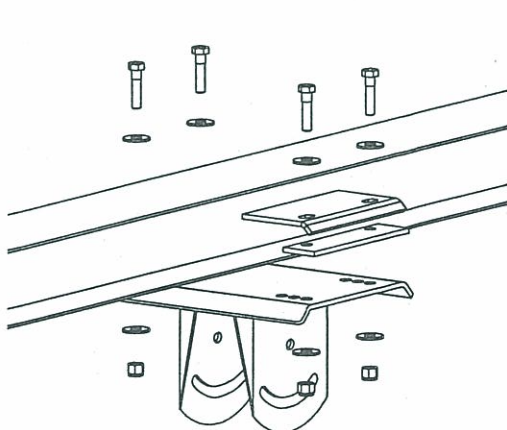
**Small Upper Yoke**  
13-3/4" (349 mm) x 10" (258 mm)

I-beam flange width	Upper yoke mounting holes
5" (127 mm) to 6-5/8" (168 mm)	Inner holes
>6-5/8" (168 mm) to 8-1/4" (210 mm)	Middle holes
>8-1/4" (210 mm) to 9-7/8" (250 mm)	Outer holes



**Large Upper Yoke**  
18-1/2" (470 mm) x 10" (258 mm)

I-beam flange width	Upper yoke mounting holes
9-7/8" (250 mm) to 11-3/8" (289 mm)	Inner holes
>11-3/8" (289 mm) to 13" (330 mm)	Middle holes
>13" (330 mm) to 14-5/8" (371 mm)	Outer holes



176



## 6

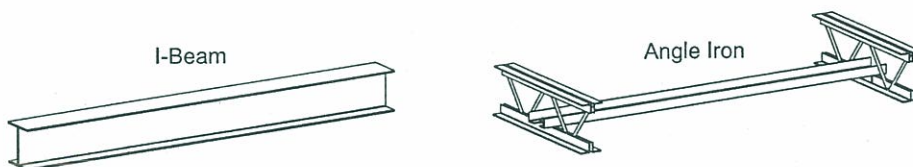
## Pre-Installation (cont.)

## Preparing the work site

**⚠ CAUTION: Mount fan only to an angle iron or I-beam.**

When surveying the work site keep the following guidelines in mind:

- Element weighs, at maximum, 286 lbs (with 3-ft extension tube). A scissor lift or other suitable means for lifting the weight of the fan and at least two installation personnel will be required.
- Big Ass Fans can only be hung from an angle iron or an I-beam. The minimum dimensions of the angle iron must be 2-1/2" × 2-1/2" × 1/4" (6.4 cm × 6.4 cm × 0.6 cm) and it cannot be longer than 6 ft (1.8 m). It must be secured to structure. Do not mount the fan to single purlins, trusses, or bar joists. Consult a structural engineer for installation methods not covered in the manual.



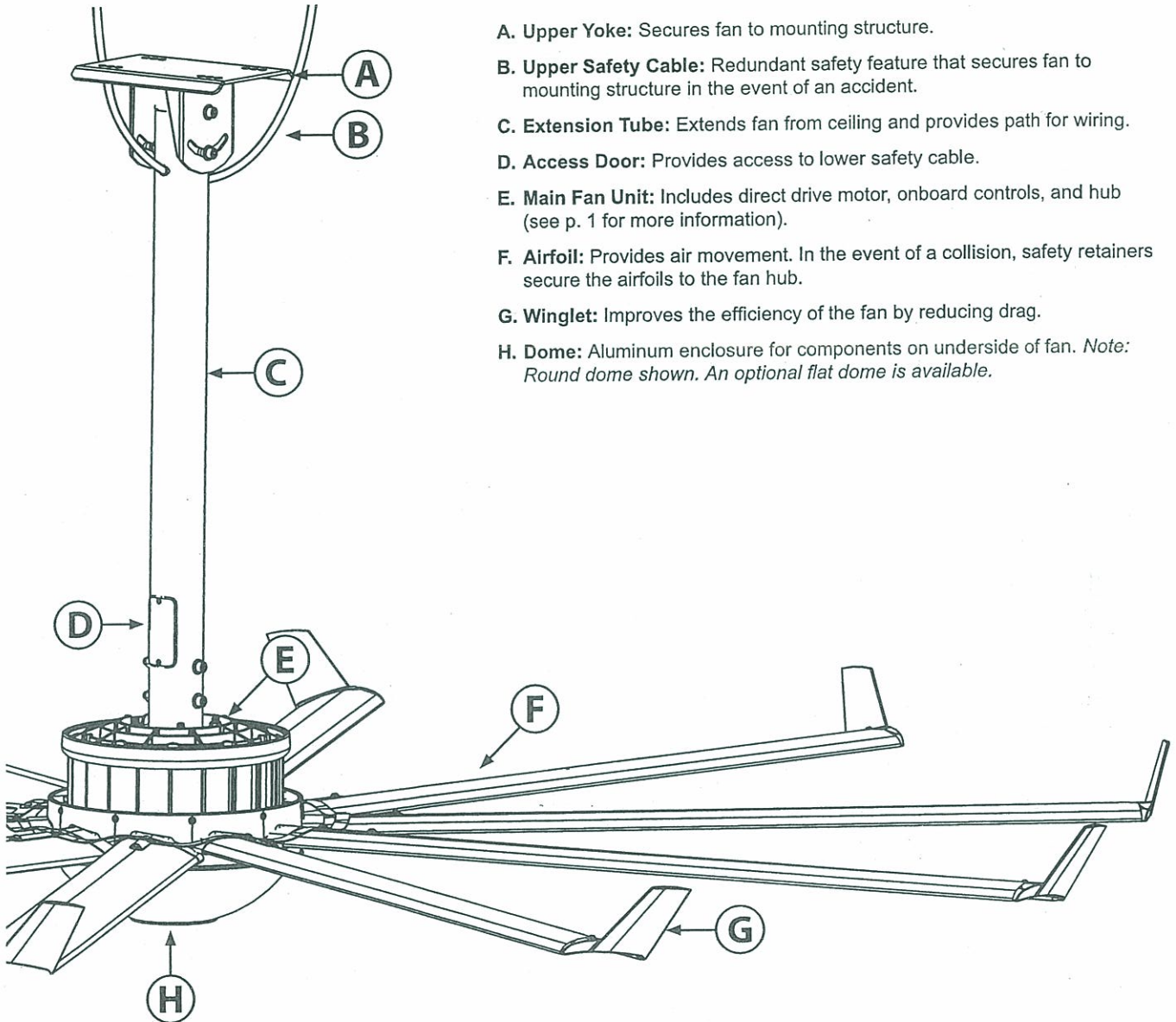
- Fan installation area must be free of obstructions such as lights, cables, sprinklers, or other building structure. The airfoils should have at least 2 ft (0.61 m) of clearance from any obstructions.
- Adhere to the safety requirements in the table below when selecting the fan location.

Safety requirement	Minimum distances
Clearance	≥2 ft from all fan parts. The fan installation area must be free of obstructions such as lights, cables, sprinklers, or other building structure.
Blade height	≥10 ft above the floor
HVAC equipment	≥1x fan diameter if at same level or above diffuser. ≥2x fan diameter if below diffuser.
Fan spacing	2.5x fan diameter, center-to-center
Radiant/IR heaters	See the manufacturer's requirements for the minimum clearance to combustibles.

- Fans mounted on lightweight I-beams (common in steel buildings) could cause the beam to flex and the fan to move significantly during operation. If this flexing causes a clearance problem, we suggest installing a stiffening strut on a nearby beam.
- The fan should be visible from the location of the wall controller.
- The mounting system must be able to withstand the torque forces generated by the fan. A 20-ft diameter fan generates nearly 300 ft-lb (406.7 N-m) of torque during operation.
- If the fan is to be located near infrared or radiant heaters, Big Ass Fans recommends that the fan be mounted according to the following guidelines:
  - The fan should be mounted outside of the clearances recommended by the manufacturer of the heater and at a height equal to or above the shielding on the heating element.
  - The controller must be mounted on the opposite side of the heater.
  - If mounting the fan below the heater shielding, all fan elements must be located outside of the clearances recommended by the manufacturer of the heater and the controller must be remotely mounted.
- Ensure the mounting location will not expose the fan to direct contact with water unless the fan is labeled, "Suitable for use in wet locations."

177

## Fan diagram



**A. Upper Yoke:** Secures fan to mounting structure.

**B. Upper Safety Cable:** Redundant safety feature that secures fan to mounting structure in the event of an accident.

**C. Extension Tube:** Extends fan from ceiling and provides path for wiring.

**D. Access Door:** Provides access to lower safety cable.

**E. Main Fan Unit:** Includes direct drive motor, onboard controls, and hub (see p. 1 for more information).

**F. Airfoil:** Provides air movement. In the event of a collision, safety retainers secure the airfoils to the fan hub.

**G. Winglet:** Improves the efficiency of the fan by reducing drag.

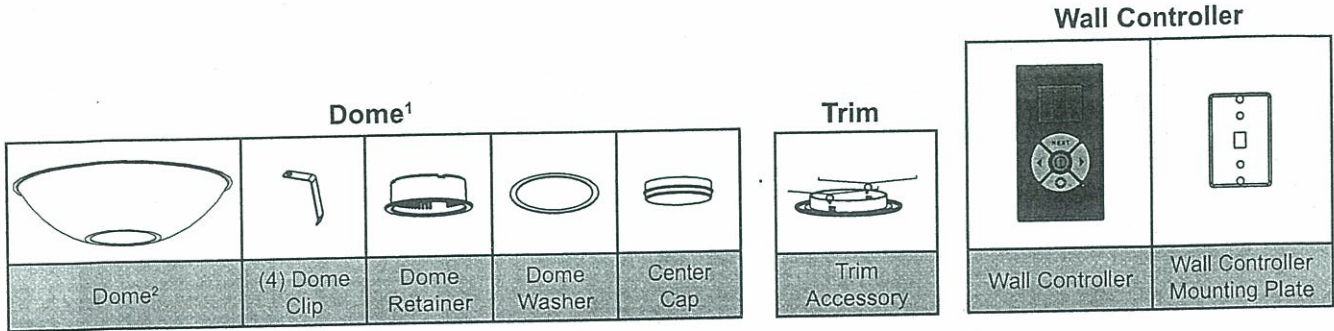
**H. Dome:** Aluminum enclosure for components on underside of fan. *Note: Round dome shown. An optional flat dome is available.*

178

# 4

## Pre-Installation (cont.)

### Parts included (cont.)



1. The Dome Retainer Hardware is packed in the dome retainer box. Big Ass Fans does not recommend installing a light module.
2. Round dome shown. An optional flat dome is available.

### Tools needed

Big Ass Fans recommends gathering the following tools prior to beginning installation. *Note: This list of suggested tools is not exhaustive. Additional tools may be necessary.*

Mechanical Installation:	Electrical Installation:
Standard Wrench Set	Phillips and Flat Head Screwdrivers
Standard Socket and Ratchet Set	Pair of #10 to #14AWG Strippers
Torque Wrench capable of 40 ft·lb (54.2 N·m)	Pair of Medium Size Channel Locks
Phillips and Flat Head Screwdrivers	Multimeter
Standard Allen Wrench Set	CAT5/5E Crimper
	CAT5/5E Cable tester

### Important weights

Part	Weight
Upper Yoke	17 lbs (7.7 kg)
Extension Tube (3')	15 lbs (9.1 kg)
Motor Assembly	127 lbs (57.6 kg)
Airfoil (10)	7 lbs (3.1 kg) each
Winglet (10)	0.8 lbs (0.4 kg) each
Aluminum Dome	2.2 lbs (1.0 kg)
Wall Controller	0.4 lbs (0.2 kg)

179









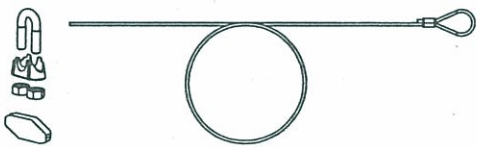
Pre-Installation (cont.)

Parts included

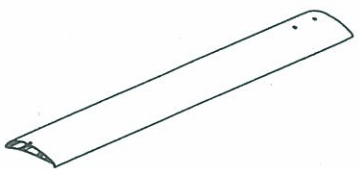




**CAUTION:** The components located on the bottom of the main fan unit are fragile and include sensitive electronics. Do not remove the assembly from its protective packaging prior to hanging it from the extension tube!

Note: A fire relay is also included with the fan (not shown below). Drawings below are not to scale.



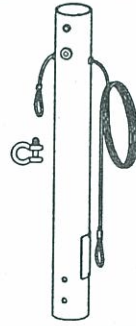
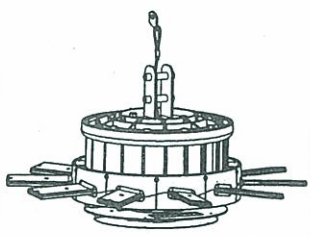
Hardware

			
<b>Beam Clip Hardware</b> (4) 1/2-13 x 2" Bolt (8) 1/2" Flat Washer (4) 1/2-13 Nylock Nut	<b>Extension Tube Hardware</b> (2) 1/2-13 x 6" Bolt (4) 1/2" Flat Washer (2) 1/2-13 Nylock Nut	<b>Main Fan Unit Hardware</b> (2) 1/2-13 x 5" Bolt (4) 1/2" Flat Washer (2) 1/2-13 Nylock Nut	<b>Lower Safety Cable Hardware</b> (1) 1/2-13 x 1 1/2" Bolt (1) 1/2" Flat Washer
			
<b>Access Door Hardware<sup>1</sup></b> (2) 8-32 x 1/2" Screw	<b>Winglet Hardware</b> (10) 1/4-20 x 3/4" Screw	<b>Airfoil Hardware</b> (20) 5/16-18 x 1-3/4" GR 8 Bolt (40) 5/16" Washer (20) 5/16-18 Nylock Nut	<b>Dome Retainer Hardware<sup>2</sup></b> (4) 8-18 x 3/8" Screw (4) 1/4-20 x 5/8" Screw
			
<b>Guy Wire Hardware<sup>3</sup></b> (8) Locking Carabiner (4) 1/4" Beam Clamp (4) 1/4-20 x 1" Eyebolt (4) 1/4-20 Hex Nut		(4) Gripple® (4) Guy Wire (8) Wire Rope Clip	

Airfoils

			
(10) Airfoil			
			
(10) Winglet	(10) Airfoil Trim	(10) Airfoil Retainer	(21) Nut Cover

Mounting

	
(2) Beam Clip & (2) Spacer	Upper Yoke
	
Extension Tube & Safety Cable <sup>4</sup>	Main Fan Unit <sup>4</sup>

1. The Access Door Hardware is installed in the extension tube when the fan is shipped. The shackle for the safety cable is included with the Mounting Hardware.
2. The Dome Retainer Hardware is packed in the dome retainer box. Big Ass Fans does not recommend installing a light module.
3. Guy wires are designed to constrain fan's lateral movement and are only included in some fan packages. Big Ass Fans recommends using guy wires if the fan's extension tube is 4 ft or longer, if the fan is exposed to high winds or similar conditions, or if the fan is close to any building fixtures. Guy Wire Hardware is bagged separately from hardware boards.
4. The components located on the bottom of the main fan unit are fragile and include sensitive electronics. Do not remove the assembly from its protective packaging prior to hanging it from the extension tube!

180

# 2

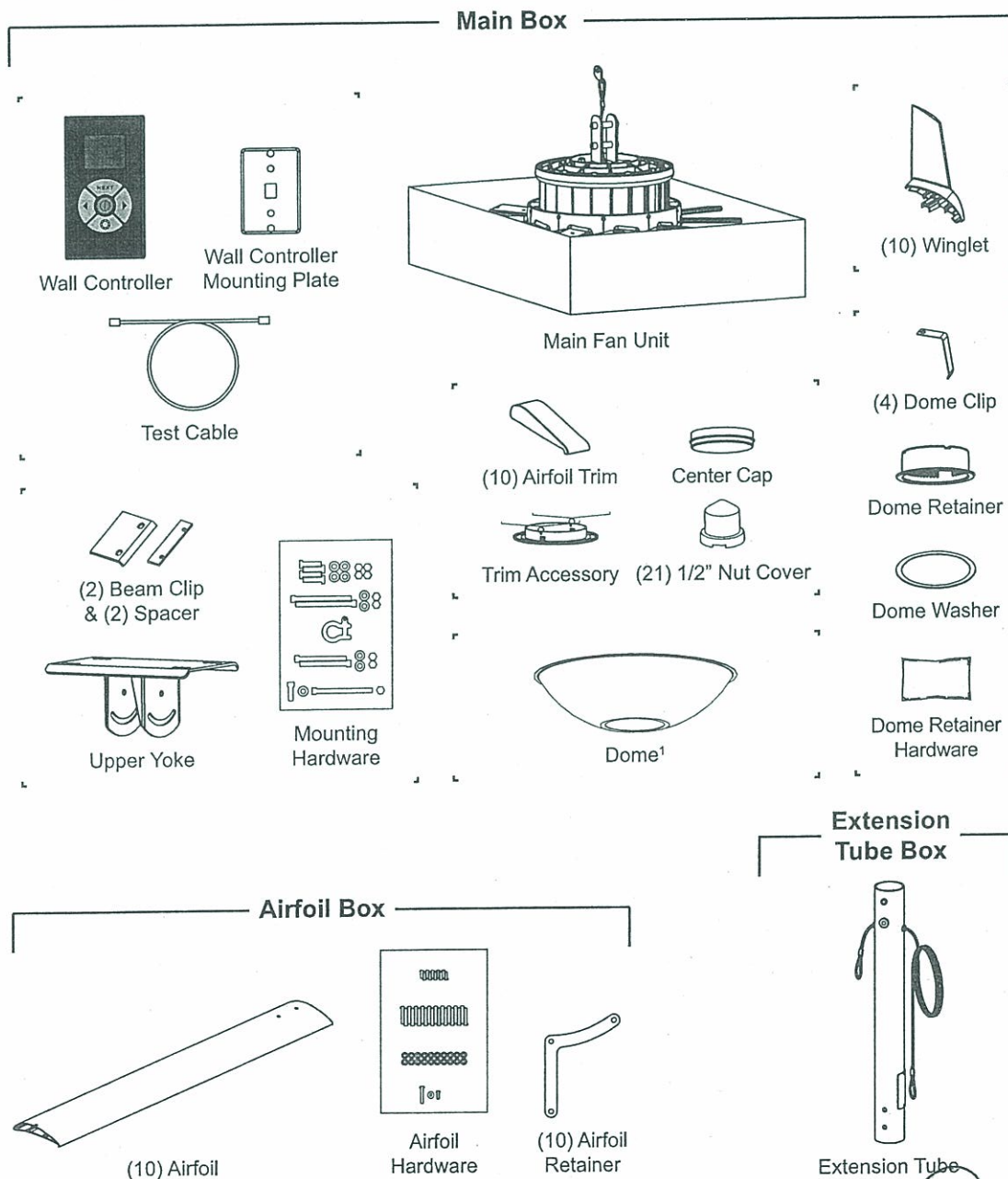
## Pre-Installation

### What's in the box

- ⚠ CAUTION: Do not remove the motor from its protective packaging prior to hanging it!
- ⚠ CAUTION: To prevent damage, avoid contact with the printed circuit board located on the bottom of the fan!
- ⚠ CAUTION: If you ordered multiple fans, be sure to keep the components of each fan together.

The fan is shipped in three boxes. The largest box contains the main fan unit assembly, upper yoke, beam clips & spacers, dome, dome clips, dome retainer, dome washer, center cap, airfoil trim, winglets, wall control, wall control mounting plate, test cable, mounting hardware, and fire relay. The fire relay and its Installation Guide (not shown below) are packaged in a small box within the main box. A smaller box contains the airfoils, airfoil retainers, and airfoil hardware. Another small box contains the extension tube with attached safety cable. If you are missing any piece required for installation, contact Big Ass Fans.

Note: Dashed lines indicate internal boxes. Drawings below are not to scale.



1. Round dome shown. An optional flat dome is available.

# Introduction

1

Thank you and congratulations on your purchase of a Big Ass Fan, an efficient and cost-effective way to stay cool in the summer and warm in the winter. The revolutionary design of our fans combines the best of both form and function to bring power performance and a sleek look to any setting. More importantly, you have purchased a product that is backed by extensive research, thorough testing, and quality manufacturing. We're ready to answer any questions or comments at 1-877-BIG-FANS or visit our Web site at [www.bigassfans.com](http://www.bigassfans.com).

## Who we are and what we do

Big Ass Fans has been the preeminent manufacturer of large-diameter, low-speed fans since 1999. With a worldwide presence and located in beautiful Lexington, KY, we research, design, and manufacture the most effective air movement solutions on the market. Our never-ending commitment to quality and innovation keeps us at the leading edge of a burgeoning industry. With an eye to helping customers satisfy their needs, and a strong sense of corporate responsibility to the community, Big Ass Fans has redefined the way business is done.

## About this fan

### Technical specifications

Fan diameter	Input power	Maximum amp	Maximum RPM	Fan weight*
12 ft (3.7 m)	10 A @ 100–250 V, 1 $\Phi$	6.4 A @ 100–125 V, 1 $\Phi$ 3.2 A @ 200–250 V, 1 $\Phi$	82	230 lbs (104 kg)
14 ft (4.3 m)	10 A @ 100–250 V, 1 $\Phi$	6.2 A @ 100–125 V, 1 $\Phi$ 3.1 A @ 200–250 V, 1 $\Phi$	64	244 lbs (111 kg)
16 ft (4.9 m)	10 A @ 100–250 V, 1 $\Phi$	6.2 A @ 100–125 V, 1 $\Phi$ 3.1 A @ 200–250 V, 1 $\Phi$	52	258 lbs (117 kg)
18 ft (5.5 m)	10 A @ 100–250 V, 1 $\Phi$	5.5 A @ 100–125 V, 1 $\Phi$ 2.8 A @ 200–250 V, 1 $\Phi$	42	272 lbs (123 kg)
20 ft (6.1 m)	10 A @ 100–250 V, 1 $\Phi$	4.5 A @ 100–125 V, 1 $\Phi$ 2.3 A @ 200–250 V, 1 $\Phi$	33	286 lbs (130 kg)

\* Fan weight includes 3-ft extension tube and upper yoke.

182

<b>Operating the Fan</b>	Navigating the Controller Menu,	.28
	Speed Selection Screen,	.30
	Active Fan Selection Screen,	.31
	Toggling Fan Direction,	.32
	Toggling the Auxiliary Relays,	.33
<b>Preventive Maintenance</b>	Annual Preventive Maintenance,	.34
	General Preventative Maintenance,	.34
	Annual Maintenance Checklist,	.35
<b>Troubleshooting</b>	General Troubleshooting,	.37
	Troubleshooting Fault Screens,	.38
<b>Warranty Return Instructions</b>	Acknowledgment & Return Instructions,	.39
	Warranty Claim Form Instructions,	.40
	Warranty Claim Form,	.41
	Responsibility Agreement,	.42
<b>Big Ass Fan Certified Installers</b>	Check-In Procedure,	.43
	Close-Out Procedure,	.45

183

## Contents

<b>General Information</b>	Important Safety Information,	ii
	Regulatory Compliance Information,	ii
<b>Introduction</b>	Thank You,	.1
	About Big Ass Fans,	.1
	About This Fan,	.1
<b>Pre-Installation</b>	What's in the Box,	.2
	Parts Included,	.3
	Tools Needed,	.4
	Important Weights,	.4
	Fan Diagram,	.5
	Preparing the Work Site,	.6
<b>Mounting Structure: I-Beam</b>	Attach Upper Yoke (to I-Beam),	.7
<b>Mounting Structure: Bar Joists</b>	1. Select Proper Angle Irons,	.8
	2. Pre-drill Angle Irons,	.9
	3. Secure Angle Irons (if span is longer than 8 ft),	.9
	4a. Fasten Single Angle Irons to Roof Structure Mounting Points,	.10
	4b. Fasten Double Angle Irons to Roof Structure Mounting Points,	.11
5. Attach Upper Yoke (to Angle Irons),	.12	
<b>Hanging the Fan</b>	1. Attach Extension Tube (to Upper Yoke),	.13
	2. Install Trim Accessory,	.13
	3. Secure Upper Safety Cable,	.14
	4. Attach Main Fan Unit (to Extension Tube),	.15
	5. Secure Lower Safety Cable,	.15
<b>Installing Airfoils</b>	1. Attach Winglets to Airfoils,	.16
	2. Position Airfoils and Trim,	.16
	3. Attach Airfoils to Main Fan Unit,	.16
<b>Installing Dome</b>	1. Assemble Dome,	.17
	2. Attach Dome to Static Hub,	.17
	3. Attach Center Cap to Dome,	.17
<b>Installing Guy Wires</b>	1. Attach Guy Wire Brackets,	.18
	2. Attach Locking Carabiners to Guy Wire Brackets,	.18
	3. Attach Beam Clamp,	.18
	4. Route Guy Wire through Gripple®,	.19
	5. Install Remaining Guy Wires,	.19
<b>Electrical Installation</b>	Electrical Installation Safety,	.20
	Mounting the Wall Controller,	.20
	Wiring Connections,	.21
	Delta Secondary,	.21
	Wiring Connections Diagram,	.22
	Attach Wiring Access Door,	.22
	Daisy Chaining,	.23
	Addressing,	.24
<b>Interfacing with Building Automation Systems</b>	Wiring,	.25
	0–10 VDC Analog Speed Reference,	.26
	4–20 mA Analog Speed Reference,	.27

189



ii



## IMPORTANT SAFETY INSTRUCTIONS READ AND SAVE THESE INSTRUCTIONS



**WARNING—TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:**

- a. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes.
- b. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.

**CAUTION:** The installation of a Big Ass Fan must be in accordance with the requirements specified in this installation manual and with any additional requirements set forth by the national electric code (NEC), ANSI/NFPA 70-2011, and all local codes. Code compliance is ultimately YOUR responsibility!

**WARNING:** The fan controllers contain high voltage capacitors which take time to discharge after removal of mains supply. Before working on the fan controller, ensure isolation of mains supply from line inputs at the fan controller board (L1, L2/N). Wait three minutes for capacitors to discharge to safe voltage levels. Failure to do so may result in personal injury or death.

**CAUTION:** Exercise caution and common sense when powering the fan. Do not connect the fan to a damaged or hazardous power source. Do not attempt to resolve electrical malfunctions or failures on your own. Contact Big Ass Fans if you have any questions regarding the electrical installation of this fan.

Suitable for use with solid-state speed controls.

**WARNING—To reduce the risk of fire, electric shock, and injury to persons, Big Ass Fans must be installed with Big Ass Fan supplied controllers that are marked (on their cartons) to indicate the suitability with this model. Other parts cannot be substituted.**

**CAUTION:** When service or replacement of a component in the fan requires the removal or disconnection of a safety device, the safety device is to be reinstalled or remounted as previously installed.

**WARNING:** Risk of fire, electric shock, or injury to persons during cleaning and user-maintenance! Disconnect the appliance from the power supply before servicing.

**WARNING—TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:**

- a. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer.
- b. Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.

**CAUTION:** Do not bend the airfoils when installing or servicing the fan. Do not insert foreign objects between rotating airfoils.

**WARNING:** Stay alert, watch what you are doing, and use common sense when installing fans. Do not install fans if tired or under the influence of drugs, alcohol, or medication. A moment of inattention while installing fans may result in serious personal injury.

**CAUTION:** The installation of this fan requires the use of some power tools. Follow the safety procedures found in the owner's manual for each of these tools and do not use them for purposes other than those intended by the manufacturer.

**CAUTION:** The Big Ass Fans product warranty will not cover equipment damage or failure that is caused by improper installation.

**CAUTION:** Do NOT install the fan where it may come into direct contact with water unless the fan is labeled, "Suitable for use in wet locations."

### FCC compliance statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a commercial installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

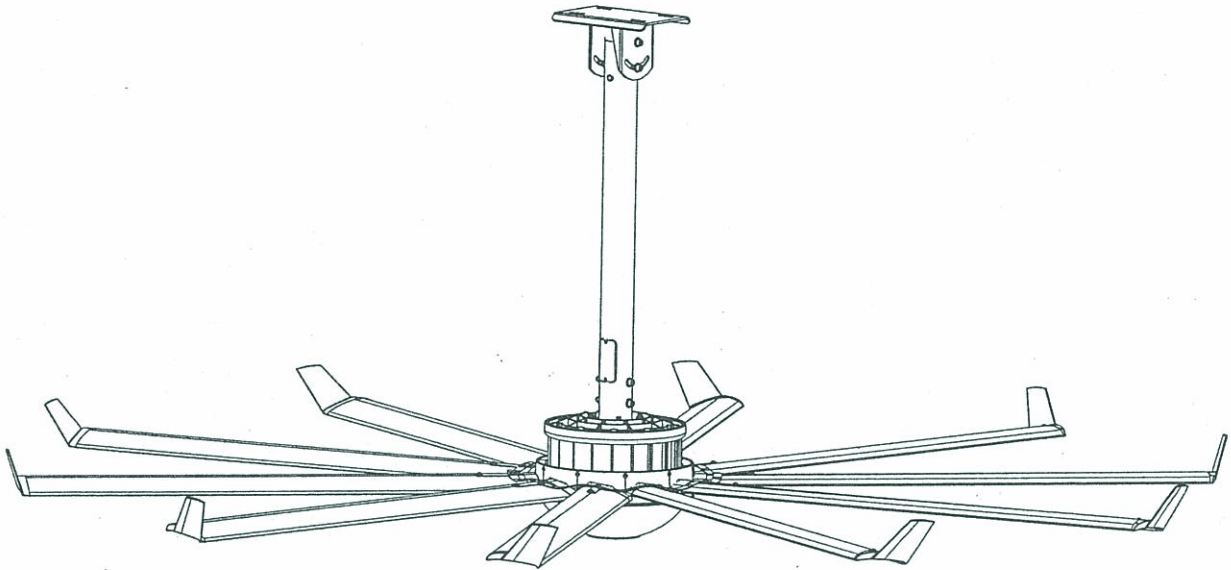
**IMPORTANT:** Changes or modifications to this product not authorized by Big Ass Fans could void the EMC compliance and negate your authority to operate the product.

### Industry Canada statement

This device complies with Canada ICES-003, Class B.

185

# Element Installation Guide



Installation Guide:  
Jan. 2015  
Rev. K4



This product was manufactured in a plant whose Management System is certified as being in conformity with ISO 9001:2008.



See p. ii.



Intertek

Conforms to ANSI/UL STD 507: Electric Fans  
Certified to CAN/CSA C22.2 No.113: Fans & Ventilators

## Contact Information

**Manufacturing**  
2425 Merchant Street  
Lexington, KY 40511  
1-877-BIG-FANS  
[www.bigassfans.com](http://www.bigassfans.com)

**Customer Service**  
2348 Innovation Drive  
Lexington, KY 40511  
1-877-BIG-FANS  
Intl.: +1 859 233 1271  
[www.bigassfans.com](http://www.bigassfans.com)

**Warranty Returns**  
800 Winchester Road  
Lexington, KY 40505  
1-877-BIG-FANS  
[www.bigassfans.com](http://www.bigassfans.com)

**Australia Office**  
Unit 4, 5 McPhall Road  
Coomera QLD 4209  
(07) 550 0690  
[www.bigassfans.com.au](http://www.bigassfans.com.au)

Element and the Element logo are trademarks of Delta T Corporation, registered in the United States and/or other countries. All other trademarks used herein are the properties of their respective owners. No part of this document may be reproduced or translated into a different language without the prior written consent of Big Ass Fan Company. The information contained in this document is subject to change without notice. For the most up-to-date information, see the online Element Installation Guide at [www.bigassfans.com](http://www.bigassfans.com).

[www.bigasssolutions.com/patents](http://www.bigasssolutions.com/patents)

180

## Installation Checklist

- Did a structural engineer approve the mounting structure? (See p. 6 for Big Ass Fans approved mounting structures.)
- Are you familiar with the function and use of the safety cables? (See pp. 14–15 for information on properly securing the safety cables.)
- Will the fan be installed so that the blades are at least 10 ft (3.05 m) above the floor?
- Will the fan be installed so that the blades have at least 2 ft (0.61 m) of clearance from obstructions?
- Will the fan be installed so that it is not subjected to high winds, such as from an HVAC system? Install the fan so that it is  $\geq 1x$  fan diameter away from a diffuser if the fan is at same level or above diffuser. If the fan is below a diffuser, install the fan so that it is  $\geq 2x$  fan diameter from the diffuser.
- Will the distance between multiple fans be at least 2.5x the fans' diameter when measured from the centers of the fans?
- If installing to an I-beam, is the upper yoke the correct size? (See p. 7 for more information on installing the fan to an I-beam.)
- If you ordered multiple fans, did you keep the parts for each fan together?

**Customer Service: 1-877-BIG-FANS**  
(International: +1 859 233 1271)

187



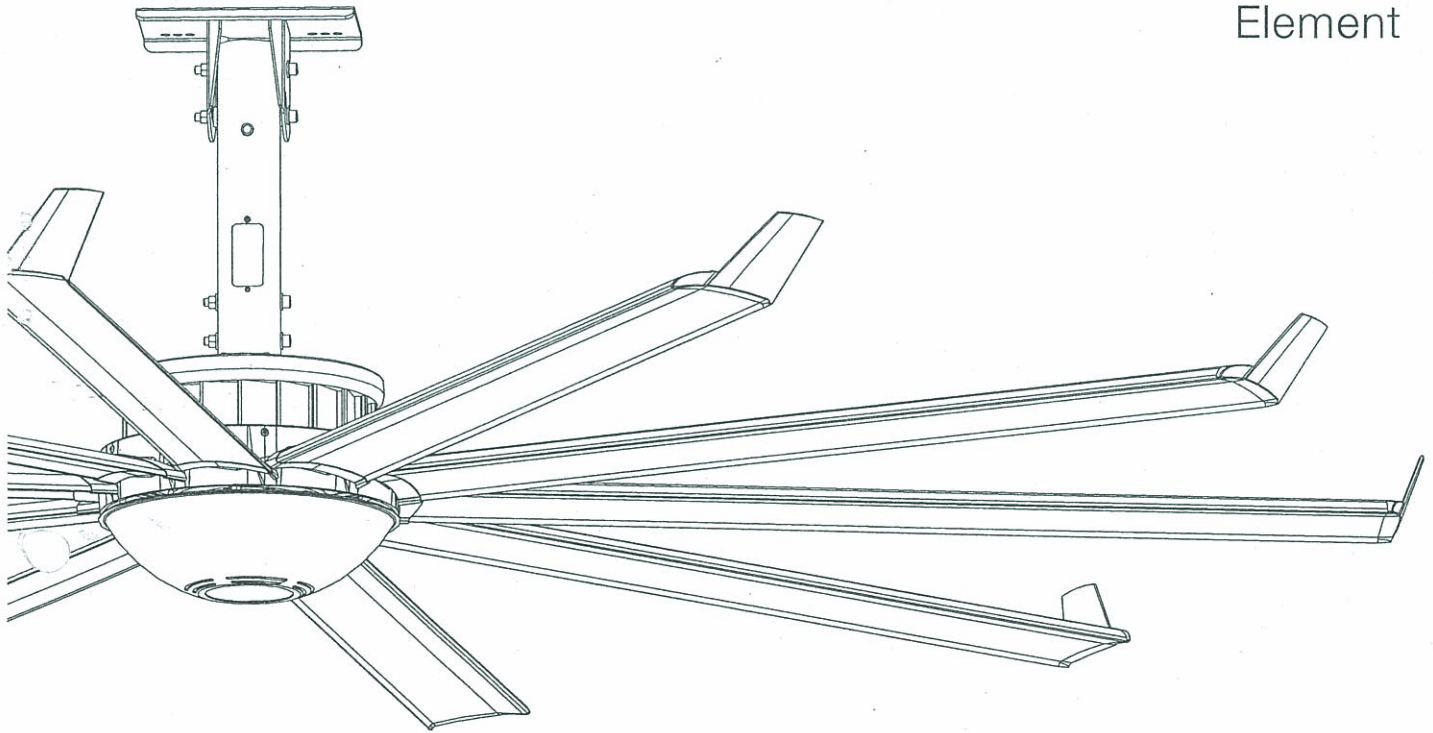
**BIGASS**  
FANS

*No Equal®*

# INSTALLATION GUIDE

---

Element



For help, call 1 (877) BIG-FANS  
or visit [www.bigassfans.com](http://www.bigassfans.com)



HVAC Electrical Work				
Sl No.	Discription	quantity	Rate	Amount
				10050063
1	1	1	85000	85000
2	1	1	75000	75000
3	2.1	1	7500	7500
4	2.2	2	7750	15500
5	3.a	2	36000	72000
6	3.b	3	32000	96000
7	5.a	25	366	9150
8	5b	50	295	14750
9	5c	25	192	4800
10	5d	100	125	12500
11	5e	50	120	6000
12	6a	2	342	684
13	6b	4	270	1080
14	6c	4	245	980
15	6d	10	180	1800
16	6e	4	180	720
17	7	30	300	9000
18	8a	75	23	1725
19	8b	200	140	28000
			Total	442189
	Add			10050063
			Grand total	10492252

*Tip*

AESP

*[Signature]*

Executive Engineer (E) (A)  
Chennai Central Electrical Circle  
CPWD Chennai-600 006

*[Signature]*

189

Air conditioning work				
Sl No.	Discription	Quantity	Rate	Amount
46	19.1	15	1060	15900
47	19.2	15	850	12750
48	19.3	15	310	4650
49	19.4	15	600	9000
50	42.1	3	404	1212
51	42.2	3	606	1818
52	43	4	3000	12000
53	44	4	2000	8000
54	45	10	700	7000
55	46	14	400	5600
56	47	51	3500	178500
57	48	9	4500	40500
58	49	2	1500	3000
59	50	0	0	0
60	51	0	0	0
61	52	6	2500	15000
62	53.01	70	2415	169050
63	53.02	20	2415	48300
64	53.03	20	2415	48300
65	54	500	180	90000
66	55	70	200	14000
67	56	350	250	87500
68	57	120	320	38400
69	58	1050	1034	1085700
70	59	1	300000	300000
			Total	10050063

*[Handwritten Signature]*

Executive Engineer (E) (A)  
 Chennai Central Electrical Circle  
 CPWD Chennai-600 006

190

Air conditioning work				
Sl No.	Description	Quantity	Rate	Amount
1	1.1	1	1002600	1002600
2	1.2	2	695,700	1391400
3	1a	1	150000	150000
4	2.1	3	50500	151500
5	3.1	2	154900	309800
6	4.1	1	86000	86000
7	4.2	1	89000	89000
8	5.1	1	2400000	2400000
9	6.1	4	32000	128000
10	7.1	0	0	0
11	7.2	25	666	16650
12	7.3	90	843	75870
13	7.4	130	1034	134420
14	7.5	70	1201	84070
15	7.6	110	1458	160380
16	8.1	0	0	0
17	8.2	4	2500	10000
18	8.3	8	2629	21032
19	8.4	17	3269	55573
20	8.5	0	0	0
21	8.6	0	0	0
22	9.1	0	0	0
23	9.2	1	36000	36000
24	9.3	3	55000	165000
25	10.1	3	3446	10338
26	11.1	3	2360	7080
27	12	28	750	21000
28	13	19	750	14250
29	14	15	750	11250
30	15	13	900	11700
31	16.1	2	2500	5000
32	16.2	2	6500	13000
33	17.1	14	4000	56000
34	18.1	40	350	14000
35	18.2	30	300	9000
36	18.3	40	300	12000
37	19	1	100000	100000
38	20	0	0	0
39	21	3	2800	8400
40	22	16	4500	72000
41	23.1	130	1257	163410
42	23.2	40	1004	40160
43	23.3	850	890	756500
44	23.4	60	725	43500
45	19	15	1200	18000

*[Signature]*

Executive Engineer (E) (A)

Chennai Central Electrical Circle

CPWD Chennai-600 006

191



भारत सरकार/GOVERNMENT OF INDIA  
के.लो.नि.वि./CENTRAL PUBLIC WORKS DEPARTMENT  
अधीक्षण अभि. वि. का कार्यालय/OFFICE OF SUPERINTENDING ENGINEER (E)  
चे.के.वि.परि.।CHENNAI CENTRAL ELECTRICAL CIRCLE  
SHASTRI BHAWAN, 26, HADDOWS ROAD, CHENNAI – 600 006  
दूरभाष सं:/ Tel: 28270246 Fax: 28271781.



No:-23(46)/CCEC/PB/2015/WS/232

Date: 13/02/2015

सेवा में/ To,

The Director,  
Kalakshethra Foundation.  
Thiruvanmiyur,  
Chennai-41.

Sir,

Sub: Koothambalam Project – HVAC Work- award of Contractor-  
Justification of rates –Reg.

Ref: 1) Your letter No. 10/2014-15/CPWD/ KMBM/KF dt.12.11.2014  
2) 10/2014-15/CPWD/KMBM/KF dt.27/01/2015.

\*\*\*\*\*

With reference to the above, the justification for HVAC work including Electrical Panel Board Rs.1, 04, 92,252/- The tender amount of Rs.1,18,00,000/- is 12.46% above of the justified rates Rs.1,04,92,252/-

Encl: Item wise Justification rate

Yours faithfully,

B-S. Reddy

(B.SRIDHAR REDDY)

अधीक्षण अभियंता (वि.) चेकेविपरि. चन्नै-06

SUPERINTENDING ENGINEER (Elect)  
CCEC, CPWD, CHENNAI-06

192



ADYAR STUDENTS XEROX (P) LTD  
NO.65/1, VALMEEKI STREET  
, THIRUVANNIYUR  
CHENNAI 600041 - PH 42113030, Ex-no:22

**CASH BILL**

Bill No:72  
Bill Date:02-03-2015 Bill Time:12:45:37

Particulars	Qty	Rate (Rs)	Amount (Rs)
PLAN B&W XER 3		40.00	120.00

GRAND TOTAL: 120.00

**RECEIVED CASH: 120.00**

COLOUR PRINTING, LASER, XEROX, BINDING,  
LAMINATION, THESIS, WORK DONE HERE

Date 10.3.2015

As advised by the Director, the photostat copy of the  
Kodhambalam Proposal dig by Appukuttan nam, was  
taken to handover to the Archivist M/S. VEDSATH for  
Phase II - works.

*[Handwritten signature]*

*[Handwritten signature]*  
To

*[Handwritten signature]*  
also.

193

**Koothambalam - Roof board insulation wit**

S. No	Description of items
1	Supply of Anutone board as specified by the consultant
2	Labour for fixing Anutone sheet including cutting and placing in position
3	Removing and refit the existing battens available at site for the roof
4	Providing and fixing C.P. teak over existing batten as per the item No 126 in the main work order
5	Prepare surface and apply one coat approved water bound emulsion paint

*(Signature)*

**Assistant Engineer**

**Chennai Central Sub Division 2/V  
CPWD, Besant Nagar, Chennai - 90**

194



GOVERNMENT OF INDIA  
CENTRAL PUBLIC WORKS DEPARTMENT  
OFFICE OF THE EXECUTIVE ENGINEER,  
CHENNAI CENTRAL DIVISION V,  
BESANT NAGAR, CHENNAI-600 090  
☎ 044-24916022/24460035

No:- 24(28)K/CCD V/15/270

Date : 05-02-2015

To

The Director,  
Kalakshetra Foundation,  
Thiruvanmiyur,  
Chennai - 41.

Sir,

**Sub : Koothambalam Project - award of contracts - justification of rates and award of contract. - reg**

**Ref : Yr.Ir.No: F.No. 10/2014-15/CPWD/KMBM/KF, dt: 14-01-15**

In continuation to this office Ir. no: 24(28)K/CCDV/14/13, dt: 02-01-2015 and detailed study based on the factual condition in terms of the scaffolding and level of the work done the justification has been re-worked out and the same is mentioned in the annexure.

The modified detailed justified amount as on 2010 works out to Rs. 2,44,52,391/-, which were prevailing from December 2009 to December 2010.

The fee payable to CPWD will be 0.75% of the total justified amount is Rs. 1,83,393/- .

The following items were re-considered for revision in respect of justified rates. Agreement items 125, 126, 127, 131& 134, for Extra items 14, 16, 17.3, 21, 23.1, 23.2, 23.3, 28.2, 29, 33,34, 39, 40 and 41. For all other items mentioned in your letter, the justified rates were found in order as per the site condition. The justification were worked out based on the description of the items specified in the schedule submitted by your office and this office is not concern with the quantity mentioned in the schedule.

Yours faithfully,

**Encl: One copy of modified detailed comparative statement.**

  
(A. Suryanarayanan)  
Executive Engineer

**Copy to:**

- The Chief Engineer, SZI, CPWD, Chennai for information please, with reference to the Ir. no: 28(7)15/2014-AdmnII/5436-60, dt: 12-11-2014.
- The Superintending Engineer, CCCII, CPWD, Chennai - 6 for information please.

Executive Engineer

195



भारत सरकार/GOVERNMENT OF INDIA  
के.लो.नि.वि./CENTRAL PUBLIC WORKS DEPARTMENT  
अधीक्षण अभि. वि. का कार्यालय/OFFICE OF SUPERINTENDING ENGINEER (E)  
चे.के.वि.परि. ICHENNAI CENTRAL ELECTRICAL CIRCLE  
SHASTRI BHAWAN, 26, HADDOWS ROAD, CHENNAI - 600 006  
दूरभाष सं:/ Tel: 28270246 Fax: 28271781.



No:-23(46)/CCEC/PB/2015/WS/ 107

Date:- 20/01/2015

सेवा में/ To,

The Director,  
Kalakshethrea Foundation.  
Thiruvanmiyur,  
Chennai-41.

Sir,

Sub: Koothambalam Project – award of Control Justification of rate -reg.  
Ref: Your letter No. 10/2014-15/CPWD/ KMBM/KF dt.12.11.2014

\*\*\*\*\*

With reference to the above, the justification for following sub heads are furnished here with based on the schedules submitted to this office for further necessary action.

1. Internal Electrical Installation Works – (JMR) Rs.59,76,901/-
2. Additional Electrical Works – (JMR) Rs.8,63,851/-

Yours faithfully,

*B. S. Reddy*

(B.SRIDHAR REDDY)

अधीक्षण अभियंता (वि.) चेकेविपरि. चेन्नै-06  
SUPERINTENDING ENGINEER (Elect)  
CCEC, CPWD, CHENNAI-06

196

HVAC Electrical Work				
Sl No.	Discription	quantity	Rate	Amount
				10050063
1	1	1	85000	85000
2	1	1	75000	75000
3	2.1	1	7500	7500
4	2.2	2	7750	15500
5	3.a	2	36000	72000
6	3.b	3	32000	96000
7	5.a	25	366	9150
8	5b	50	295	14750
9	5c	25	192	4800
10	5d	100	125	12500
11	5e	50	120	6000
12	6a	2	342	684
13	6b	4	270	1080
14	6c	4	245	980
15	6d	10	180	1800
16	6e	4	180	720
17	7	30	300	9000
18	8a	75	23	1725
19	8b	200	140	28000
			Total	442189
	Add			10050063
			Grand total	10492252

*AE*

AE, S.P

*E. S. S. S. S.*

*AE*

Executive Engineer (E) (A)  
Chennai Central Electrical Circle  
CPWD Chennai-600 006

197

Air conditioning work				
Sl No.	Discription	Quantity	Rate	Amount
46	19.1	15	1060	15900
47	19.2	15	850	12750
48	19.3	15	310	4650
49	19.4	15	600	9000
50	42.1	3	404	1212
51	42.2	3	606	1818
52	43	4	3000	12000
53	44	4	2000	8000
54	45	10	700	7000
55	46	14	400	5600
56	47	51	3500	178500
57	48	9	4500	40500
58	49	2	1500	3000
59	50	0	0	0
60	51	0	0	0
61	52	6	2500	15000
62	53.01	70	2415	169050
63	53.02	20	2415	48300
64	53.03	20	2415	48300
65	54	500	180	90000
66	55	70	200	14000
67	56	350	250	87500
68	57	120	320	38400
69	58	1050	1034	1085700
70	59	1	300000	300000
			Total	10050063

*[Handwritten Signature]*

Executive Engineer (E) (A)  
 Chennai Central Electrical Circle  
 CPWD Chennai-600 006

198

Air conditioning work				
Sl No.	Discription	Quantity	Rate	Amount
1	1.1	1	1002600	1002600
2	1.2	2	695,700	1391400
3	1a	1	150000	150000
4	2.1	3	50500	151500
5	3.1	2	154900	309800
6	4.1	1	86000	86000
7	4.2	1	89000	89000
8	5.1	1	2400000	2400000
9	6.1	4	32000	128000
10	7.1	0	0	0
11	7.2	25	666	16650
12	7.3	90	843	75870
13	7.4	130	1034	134420
14	7.5	70	1201	84070
15	7.6	110	1458	160380
16	8.1	0	0	0
17	8.2	4	2500	10000
18	8.3	8	2629	21032
19	8.4	17	3269	55573
20	8.5	0	0	0
21	8.6	0	0	0
22	9.1	0	0	0
23	9.2	1	36000	36000
24	9.3	3	55000	165000
25	10.1	3	3446	10338
26	11.1	3	2360	7080
27	12	28	750	21000
28	13	19	750	14250
29	14	15	750	11250
30	15	13	900	11700
31	16.1	2	2500	5000
32	16.2	2	6500	13000
33	17.1	14	4000	56000
34	18.1	40	350	14000
35	18.2	30	300	9000
36	18.3	40	300	12000
37	19	1	100000	100000
38	20	0	0	0
39	21	3	2800	8400
40	22	16	4500	72000
41	23.1	130	1257	163410
42	23.2	40	1004	40160
43	23.3	850	890	756500
44	23.4	60	725	43500
45	19	15	1200	18000

*P. S. Srinivasan*  
Executive Engineer (E) (A)

Chennai Central Electrical Circle  
CPWD Chennai-600 006

1999



भारत सरकार/GOVERNMENT OF INDIA  
के.लो.नि.वि./CENTRAL PUBLIC WORKS DEPARTMENT  
अधीक्षण अभि. वि. का कार्यालय/OFFICE OF SUPERINTENDING ENGINEER (E)  
चे.के.वि.परि.।CHENNAI CENTRAL ELECTRICAL CIRCLE  
SHASTRI BHAWAN, 26, HADDOWS ROAD, CHENNAI – 600 006  
दूरभाष सं./ Tel: 28270246 Fax: 28271781.



No:-23(46)/CCEC/PB/2015/WS/232

Date: 13/02/2015

सेवा में/ To,

The Director,  
Kalakshethra Foundation.  
Thiruvanmiyur,  
Chennai-41.

Sir,

Sub: Koothambalam Project – HVAC Work- award of Contractor-  
Justification of rates –Reg.

Ref: 1) Your letter No. 10/2014-15/CPWD/ KMBM/KF dt.12.11.2014  
2) 10/2014-15/CPWD/KMBM/KF dt.27/01/2015.

\*\*\*\*\*

With reference to the above, the justification for HVAC work including Electrical Panel Board Rs.1, 04, 92,252/- The tender amount of Rs.1,18,00,000/- is 12.46% above of the justified rates Rs.1,04,92,252/-

Encl: Item wise Justification rate

Yours faithfully,

B-S. Reddy

(B.SRIDHAR REDDY)

अधीक्षण अभियंता (वि.) चेकेविपरि. चेंनै-06

SUPERINTENDING ENGINEER (Elect)  
CCEC, CPWD, CHENNAI-06

200



HVAC Electrical Work				
Sl No.	Discription	quantity	Rate	Amount
				10050063
1	1	1	85000	85000
2	1	1	75000	75000
3	2.1	1	7500	7500
4	2.2	2	7750	15500
5	3.a	2	36000	72000
6	3.b	3	32000	96000
7	5.a	25	366	9150
8	5b	50	295	14750
9	5c	25	192	4800
10	5d	100	125	12500
11	5e	50	120	6000
12	6a	2	342	684
13	6b	4	270	1080
14	6c	4	245	980
15	6d	10	180	1800
16	6e	4	180	720
17	7	30	300	9000
18	8a	75	23	1725
19	8b	200	140	28000
			Total	442189
	Add			10050063
			Grand total	10492252

*Tip*

A.E.S.P

*Executive Engineer*

Executive Engineer (E) (A)  
Chennai Central Electrical Circle  
CPWD Chennai-600 006

*EU*

(201)

Air conditioning work				
Sl No.	Discription	Quantity	Rate	Amount
46	19.1	15	1060	15900
47	19.2	15	850	12750
48	19.3	15	310	4650
49	19.4	15	600	9000
50	42.1	3	404	1212
51	42.2	3	606	1818
52	43	4	3000	12000
53	44	4	2000	8000
54	45	10	700	7000
55	46	14	400	5600
56	47	51	3500	178500
57	48	9	4500	40500
58	49	2	1500	3000
59	50	0	0	0
60	51	0	0	0
61	52	6	2500	15000
62	53.01	70	2415	169050
63	53.02	20	2415	48300
64	53.03	20	2415	48300
65	54	500	180	90000
66	55	70	200	14000
67	56	350	250	87500
68	57	120	320	38400
69	58	1050	1034	1085700
70	59	1	300000	300000
			Total	10050063

*[Handwritten Signature]*

Executive Engineer (E) (A)  
 Chennai Central Electrical Circle  
 CPWD Chennai-600 006

202

Air conditioning work				
Sl No.	Discription	Quantity	Rate	Amount
1	1.1	1	1002600	1002600
2	1.2	2	695,700	1391400
3	1a	1	150000	150000
4	2.1	3	50500	151500
5	3.1	2	154900	309800
6	4.1	1	86000	86000
7	4.2	1	89000	89000
8	5.1	1	2400000	2400000
9	6.1	4	32000	128000
10	7.1	0	0	0
11	7.2	25	666	16650
12	7.3	90	843	75870
13	7.4	130	1034	134420
14	7.5	70	1201	84070
15	7.6	110	1458	160380
16	8.1	0	0	0
17	8.2	4	2500	10000
18	8.3	8	2629	21032
19	8.4	17	3269	55573
20	8.5	0	0	0
21	8.6	0	0	0
22	9.1	0	0	0
23	9.2	1	36000	36000
24	9.3	3	55000	165000
25	10.1	3	3446	10338
26	11.1	3	2360	7080
27	12	28	750	21000
28	13	19	750	14250
29	14	15	750	11250
30	15	13	900	11700
31	16.1	2	2500	5000
32	16.2	2	6500	13000
33	17.1	14	4000	56000
34	18.1	40	350	14000
35	18.2	30	300	9000
36	18.3	40	300	12000
37	19	1	100000	100000
38	20	0	0	0
39	21	3	2800	8400
40	22	16	4500	72000
41	23.1	130	1257	163410
42	23.2	40	1004	40160
43	23.3	850	890	756500
44	23.4	60	725	43500
45	19	15	1200	18000

*[Handwritten Signature]*

2023

Executive Engineer (E) (A)

Chennai Central Electrical Circle

CPWD Chennai-600 006

*[Handwritten Initials]*



भारत सरकार/GOVERNMENT OF INDIA  
के.लो.नि.वि./CENTRAL PUBLIC WORKS DEPARTMENT  
अधीक्षण अभि. वि. का कार्यालय/OFFICE OF SUPERINTENDING ENGINEER (E)  
चे.के.वि.परि.।CHENNAI CENTRAL ELECTRICAL CIRCLE  
SHASTRI BHAWAN, 26, HADDOWS ROAD, CHENNAI – 600 006  
दूरभाष सं./ Tel: 28270246 Fax: 28271781.



No:-23(46)/CCEC/PB/2015/WS/232

Date: 13/02/2015

सेवा में/ To,

The Director,  
Kalakshethra Foundation.  
Thiruvanmiyur,  
Chennai-41.

Sir,

Sub: Koothambalam Project – HVAC Work- award of Contractor-  
Justification of rates –Reg.

Ref: 1) Your letter No. 10/2014-15/CPWD/ KMBM/KF dt.12.11.2014  
2) 10/2014-15/CPWD/KMBM/KF dt.27/01/2015.

\*\*\*\*\*

With reference to the above, the justification for HVAC work including Electrical Panel Board Rs.1, 04, 92,252/- The tender amount of Rs.1,18,00,000/- is 12.46% above of the justified rates Rs.1,04,92,252/-

Encl: Item wise Justification rate

Yours faithfully,

B-S. Reddy

(B.SRIDHAR REDDY)

अधीक्षण अभियंता (वि.) चेकेविपरि. चेन्नै-06

SUPERINTENDING ENGINEER (Elect)

CCEC, CPWD, CHENNAI-06

264

HVAC Electrical Work				
Sl No.	Discription	quantity	Rate	Amount
				10050063
1	1	1	85000	85000
2	1	1	75000	75000
3	2.1	1	7500	7500
4	2.2	2	7750	15500
5	3.a	2	36000	72000
6	3.b	3	32000	96000
7	5.a	25	366	9150
8	5b	50	295	14750
9	5c	25	192	4800
10	5d	100	125	12500
11	5e	50	120	6000
12	6a	2	342	684
13	6b	4	270	1080
14	6c	4	245	980
15	6d	10	180	1800
16	6e	4	180	720
17	7	30	300	9000
18	8a	75	23	1725
19	8b	200	140	28000
			Total	442189
	Add			10050063
			Grand total	10492252

*AE*

AE SP

*E. S. S. P.*

*AE*

Executive Engineer (E) (A)  
Chennai Central Electrical Circle  
CPWD Chennai-600 006

205

Air conditioning work				
Sl No.	Discription	Quantity	Rate	Amount
46	19.1	15	1060	15900
47	19.2	15	850	12750
48	19.3	15	310	4650
49	19.4	15	600	9000
50	42.1	3	404	1212
51	42.2	3	606	1818
52	43	4	3000	12000
53	44	4	2000	8000
54	45	10	700	7000
55	46	14	400	5600
56	47	51	3500	178500
57	48	9	4500	40500
58	49	2	1500	3000
59	50	0	0	0
60	51	0	0	0
61	52	6	2500	15000
62	53.01	70	2415	169050
63	53.02	20	2415	48300
64	53.03	20	2415	48300
65	54	500	180	90000
66	55	70	200	14000
67	56	350	250	87500
68	57	120	320	38400
69	58	1050	1034	1085700
70	59	1	300000	300000
			Total	10050063

*[Handwritten Signature]*

Executive Engineer (E) (A)  
Chennai Central Electrical Circle  
CPWD Chennai-600 006

206

Air conditioning work				
Sl No.	Discription	Quantity	Rate	Amount
1	1.1	1	1002600	1002600
2	1.2	2	695,700	1391400
3	1a	1	150000	150000
4	2.1	3	50500	151500
5	3.1	2	154900	309800
6	4.1	1	86000	86000
7	4.2	1	89000	89000
8	5.1	1	2400000	2400000
9	6.1	4	32000	128000
10	7.1	0	0	0
11	7.2	25	666	16650
12	7.3	90	843	75870
13	7.4	130	1034	134420
14	7.5	70	1201	84070
15	7.6	110	1458	160380
16	8.1	0	0	0
17	8.2	4	2500	10000
18	8.3	8	2629	21032
19	8.4	17	3269	55573
20	8.5	0	0	0
21	8.6	0	0	0
22	9.1	0	0	0
23	9.2	1	36000	36000
24	9.3	3	55000	165000
25	10.1	3	3446	10338
26	11.1	3	2360	7080
27	12	28	750	21000
28	13	19	750	14250
29	14	15	750	11250
30	15	13	900	11700
31	16.1	2	2500	5000
32	16.2	2	6500	13000
33	17.1	14	4000	56000
34	18.1	40	350	14000
35	18.2	30	300	9000
36	18.3	40	300	12000
37	19	1	100000	100000
38	20	0	0	0
39	21	3	2800	8400
40	22	16	4500	72000
41	23.1	130	1257	163410
42	23.2	40	1004	40160
43	23.3	850	890	756500
44	23.4	60	725	43500
45	19	15	1200	18000

Executive Engineer (E) (A)

Chennai Central Electrical Circle

CPWD Chennai-600 006

207

**ANNEXURE**

**Koothambalam - Roof board insulation with Anutone boards fixing - Kalashetra foundation - Details of work**

S. No	Description of items	Quantity as specified	As per Agreement		JUSTIFIED	
			Rate	Amt	Rate	Amt
1	Supply of Anutone board as specified by the consultant	Actual quantity ordered as suggested 2500 sqm	Arranged by Kalakshetra foundation at free of cost			
2	Labour for fixing Anutone sheet including cutting and placing in position	2550 sqm	Rs. 130/- sqm	331500.00	Rs. 130/- sqm	331500.00
3	Removing and refit the existing battens available at site for the roof	10 cum	Rs.55,000/- cum	550000.00	Rs.11,077/- cum	110770.00
4	Providing and fixing C.P. teak over existing batten as per the item No 126 in the main work order	15 cum	Rs.1,50,000/- cum	2250000.00	Rs.1,38,654/- cum	2079810.00
5	Prepare surface and apply one coat approved water bound emulsion paint	2550 sqm	Rs. 55/- sqm	140250.00	Rs. 22/- sqm	56100.00
			<b>Total</b>	<b>3271750.00</b>		<b>2578180.00</b>

*(J. Vivekanandam)*  
Assistant Engineer  
Chennai Central Sub Division 2/V  
CPWD, Besant Nagar, Chennai - 90

*(P. N. Srinivas)*  
Assistant Engineer (P)  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90

*(S. S. Srinivas)*  
Executive Engineer  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90

2008



**ANNEXURE**

**Koothambalam - Roof board insulation with Anutone boards fixing - Kalashetra foundation - Details of work**

S.No	Description of items	Quantity as specified	As per Agreement		JUSTIFIED	
			Rate	Amt	Rate	Amt
1	Supply of Anutone board as specified by the consultant	Actual quantity ordered as suggested 2500 sqm	Arranged by Kalakshetra foundation at free of cost			
2	Labour for fixing Anutone sheet including cutting and placing in position	2550 sqm	Rs. 130/- sqm	331500.00	Rs. 130/- sqm	331500.00
3	Removing and refit the existing battens available at site for the roof	10 cum	Rs.55,000/- cum	550000.00	Rs.11,077/- cum	110770.00
4	Providing and fixing C.P. teak over existing battens as per the item No 126 in the main work order	15 cum	Rs.1,50,000/- cum	2250000.00	Rs.1,38,654/- cum	2079810.00
5	Prepare surface and apply one coat approved water bound emulsion paint	2550 sqm	Rs. 55/- sqm	140250.00	Rs. 22/- sqm	56100.00
			<b>Total</b>	<b>3271750.00</b>		<b>2578180.00</b>

*(Signature)*  
Assistant Engineer  
Chennai Central Sub Division 2/V  
CPWD, Besant Nagar, Chennai - 90

*(Signature)*  
Assistant Engineer (P)  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90

*(Signature)*  
Executive Engineer  
Chennai Central Division V  
CPWD, Besant Nagar, Chennai - 90

*(Signature)*



GOVERNMENT OF INDIA  
CENTRAL PUBLIC WORKS DEPARTMENT  
OFFICE OF THE EXECUTIVE ENGINEER,  
CHENNAI CENTRAL DIVISION V,  
BESANT NAGAR, CHENNAI-600 090  
☎ 044-24916022/24460035

No:- 24(28)K/CCD V/15/269

Date : 05-02-2015

To

✓ The Director,  
Kalakshetra Foundation,  
Thiruvanmiyur,  
Chennai - 41.

Sir,

**Sub : Koothambalam Project - award of contracts - justification of rates and award of contract and Roof board insulation with anutone board fixing - reg**

**Ref : Yr.Ir.No: F.No. 10/2014-15/CPWD/KMBM/KF,  
dt: 14-01-2015**

The detailed comparative statement for the above project is enclosed for your kind information please.

The detailed justified amount as on 2010-11 for roof board insulation with anutone board works out to Rs. 25,78,180/-, which were prevailing then from December 2010 to December 2011.

The fee payable to CPWD will be 0.75% of the total justified amount is Rs. 19,336/-.

Yours faithfully,

Encl: One copy of detailed comparative statement.

  
(A. Suryanarayanan)  
Executive Engineer

Copy to:

- The Chief Engineer, SZI, CPWD, Chennai for information please, with reference to the Ir. no: 28(7)15/2014-AdmnII/5436-60, dt: 12-11-2014.
- The Superintending Engineer, CCCII, CPWD, Chennai - 6 for information please.

Executive Engineer

210