

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
9	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.				-
	Internal work - Exposed on wall				-
9.1	15 mm nominal outer dia .Pipes.	Meter	658	163.50	107,583.00
9.2	20 mm nominal outer dia .Pipes.	Meter	405	190.55	77,172.75
9.3	25 mm nominal outer dia .Pipes.	Meter	338	231.30	78,179.40
9.4	32 mm nominal outer dia .Pipes.	Meter	855	296.70	253,678.50
9.5	40 mm nominal outer dia .Pipes.	Meter	18	407.90	7,342.20
9.6	50 mm nominal outer dia .Pipes.	Meter	100	561.55	58,155.00
10	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge.				-
	Concealed work including cutting chases and making good the walls etc.				-
10.1	15 mm nominal outer dia .Pipes.	Meter	115	270.00	31,050.00
10.2	20 mm nominal outer dia .Pipes.	Meter	192	296.40	56,908.80
10.3	25 mm nominal outer dia .Pipes.	Meter	155	351.30	54,451.50
10.4	32 mm nominal outer dia .Pipes.	Meter	520	422.40	219,648.00
11	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required :				-
11.1	Kitchen Sink with drain board Size 510x1040 mm bowl depth 200mm.	Each	20	5966.15	119,323.00
11.2	Kitchen sink without drain board Size 610x510 mm bowl depth 200 mm.	Each	5	4343.45	21,717.25
12	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size), inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design :				-

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Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				-
12.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	23	8507.00	195,661.00
13	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design :				-
13.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	41	1571.25	64,421.25
14	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :				-
14.1	100 mm diameter	Meter	40	206.55	8,262.00
15	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design:				-
15.1	100 mm diameter S.W. pipe	Meter	40	592.60	23,704.00
16	Providing and fixing PTMT liquid soap container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.				-
		Each	52	228.85	11,900.20
17	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.(External Work)				-
17.1	15 mm dia. nominal bore	Meter	10	215.10	2,151.00
17.2	20 mm dia. nominal bore	Meter	40	249.30	9,972.00
17.3	25 mm dia. nominal bore	Meter	10	304.15	3,041.50
17.4	32 mm dia. nominal bore	Meter	14	343.20	4,804.80
17.5	40 mm dia. nominal bore	Meter	8	425.65	3,405.20
17.6	50 mm dia. nominal bore	Meter	80	527.20	42,176.00
18	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work				-
18.1	15 mm dia. nominal bore	Meter	10	9.60	96.00
18.2	20 mm dia. nominal bore	Meter	40	11.35	454.00
18.3	25 mm dia. nominal bore	Meter	10	14.95	149.50
18.4	32 mm dia. nominal bore	Meter	14	17.70	247.80
18.5	40 mm dia. nominal bore	Meter	8	21.00	168.00
18.6	50 mm dia. nominal bore	Meter	80	24.75	1,980.00
19	Providing and fixing Set of Sanitary ware for Handicapped toilet comprising of European type W.C pan with cistern-1 No., Wash Basin with one pair mounting brackets-1 No. complete with fittings & seat cover, one no hinged rail 76 cm and five nos of grab rails 60 cm).	Set	3	55000.00	165,000.00

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
20	Providing and fixing brass gun metal ball valve full bore type of approved quality tested to 20 Kg/ sq.cm ² with lever and female screwed ends of approved.				
20.1	15 mm nominal bore	Each	115	450.00	51,750.00
20.2	20 mm nominal bore	Each	89	600.00	53,400.00
20.3	25 mm nominal bore	Each	63	800.00	50,400.00
20.4	32 mm nominal bore	Each	129	1000.00	129,000.00
20.5	40 mm nominal bore	Each	32	1200.00	38,400.00
21	Providing and fixing uPVC class-B(IS:13592) trap of self cleaning design complete including cost of cutting and making good the cut-outs in walls and floors etc. complete (P or S trap).				
21.1	Make-Aashirwad / Raksha				-
	110 mm Outer dia inlet and 110 mm outer dia out let	Each	191	550.00	105,050.00
22	Providing and fixing 100% stainless steel grating of approved make and quality grade 304 on top of floor trap. The rate includes the cost of all ancillary works and material as required to complete the works.				
22.1	127 x 127mm	Each	191	250.00	47,750.00
22.2	101 x 101mm	Each	80	200.00	16,000.00
23	Providing and fixing 100mm dia nominal bore uPVC pipe (Class-III) inlet fitting approximately 400mm long above the trap with one or more 32/ 40/ 50/ 65mm dia holes for jointing waste pipes from waste appliances jointed and sealed with epoxy based sealant complete.	Each	271	450.00	121,950.00
24	Providing and fixing uPVC Pipes complete (IS: 4985 Class-V) with uPVC pipe fittings e.g. elbows, tees, reducers, unions, plugs, flanges etc. and clamps and jointing with solvent cement including chase cutting and making good the walls etc. wherever required for waste connection from W. B.Sink, floor drains etc.				
24.1	40 mm outer dia	Meter	16	250.00	4,000.00
24.2	63 mm outer dia	Meter	113	300.00	33,900.00
25	Providing and fixing uPVC SWR Pipes class B (IS:13592) with all injection moulded fittings complete including jointing with solvent cement including cutting and making good the walls wherever required. (For soil, waste, vent & rain water pipes). Nothing extra will be paid for supports.				
25.1	110 mm outer dia	Meter	1890	600.00	1,134,000.00
26	Cutting holes in RCC beam/Slab by diamond cutting technique.(Nothing extra payable for electrical and water supply required for the cutting operations)				
26.1	102mm dia Hole in 125mm thick slab	Each	80	700.00	56,000.00
26.2	152mm dia Hole in 125mm thick slab	Each	191	900.00	171,900.00
27	Providing and fixing uPVC CLEANOUT PLUG for cleaning				
	For 110 OD uPVC Pipe	Each	56	400.00	22,400.00
28	Providing and fixing push fit cap plug of POLO KAL NG for cleaning				

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Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
	For 110 OD Pipe	Each	79	800.00	63,200.00
29	Providing and fixing stainless steel clean out plug of approved make and quality grade 18/8 - 304 on top of PVC bend with spigot. The rate includes the cost of all ancillary works and material as required to complete the works.				
	For 110 OD Pipe	Each	50	1000.00	50,000.00
30	Providing and fixing piping system made of 3-layered reinforced polypropylene (PP) sewage pipes, halogen and lead free, with integral push-fit socket and factory-fitted lip ring, tested and monitored according to the Product Standard EN 1852 - 1, (halogen and calcium free) colour, push-fit type, food safe, high impact and stiffness as per ON EN 1451-1 and DIN 19560 with all necessary fittings in blue colour as per ON EN 1451-1 and DIN 19560 all fitted with factory fitted lip ring.				
	110 mm dia	Meter	446	1400.00	624,400.00
31	Receiving, storing, handling, installation, testing and commissioning of CP brass Health faucet with 8mm dia 1mtr. Long PVC tube and wall hook fixed to wall with rawl plug and CP brass screws complete.				
		Each	93	1400.00	130,200.00
32	Receiving, storing, handling, installation, testing and commissioning soap dish fixed in position by rawl plugs and CP brass screws.				
		Each	41	900.00	36,900.00
33	Providing and fixing self closing bib tap fixed to wall in position by cutting and making good the wall with CP brass flange				
		Each	80	1500.00	120,000.00
	Note:Item No. 17 to 27 belongs to Media Pavillion, Main Pavillion & TV production				
34	Providing and fixing glazed white vitreous china flat back urinals approx. size 690x345x330mm complete with built-in sensor and air purifier including making connection with CP brass pipe to CP spreaders, 32mm domical waste with 32mm brass bottle trap and pipe to wall, wall flanges comp. including cutting and making good the walls and floors complete wherever required. (Make:Hindware Cat No. 96005, Bottle trap:Make:ESS-ESS, Cat No.-C-231-C)				
		Each	6	18000.00	108,000.00
35	Providing and fixing white vitreous china wall hung type water closet (European type W.C. pan) with seat and lid, 3/6 litre low level concealed flushing cistem with manually controlled device (Actuator Chrome plated) with all fittings and fixtures complete including cutting and making good the walls and floors wherever required including cost of fixing chair, fasteners complete in all respects.				
		Each	98	14000.00	1,372,000.00

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
36	Providing & Fixing white glazed vitreous china wash basin with, 32mm C.P. brass waste of standard pattern, 32mm dia C.P. brass bottle trap and union, 32mm dia C.P. pipe to wall and C.P. wall flange complete including cutting and making good the wall and floors as required including fixing on brackets.				
	Counter Top wash basin -Basic Cost of Material shall be taken as Rs. 3200.00-Model/make to be selected by Architects/Clients	Each	27	8000.00	216,000.00
	Flat Back -Basic Cost of Material shall be taken as Rs. 1000.00-Model/make to be selected by Architects/Clients	Each	67	5000.00	335,000.00
37	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 a) 15 mm. - Basic Cost of Material shall be taken as Rs. 1000.00-Model/make to be selected by Architects/Clients				
	15mm nominal bore	Each	266	1200.00	319,200.00
38	Providing and fixing CP brass toilet paper holder: - Basic Cost of Material shall be taken as Rs. 900.00 Model/make to be selected by Architects/Clients				
	C.P. brass	Each	110	1100.00	121,000.00
39	Providing and fixing C.P. brass bib cock (2 in 1) of approved quality.- Basic Cost of Material shall be taken as Rs. 1250.00-Model/make to be selected by Architects/Clients				
	15 mm nominal bore	Each	118	1500.00	177,000.00
40	Providing and fixing SS liquid soap dispenser SS body and push button complete including fixing with all accessories.. (- Basic Cost of Material shall be taken as Rs. 8000.00-Model/make to be selected by Architects/Clients)	Each	20	9000.00	180,000.00
41	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc.				
41.1	15 mm dia. nominal bore	Meter	10	161.60	1,616.00
41.2	20 mm dia. nominal bore	Meter	40	188.05	7,522.00
41.3	25 mm dia. nominal bore	Meter	10	243.15	2,431.50
41.4	32 mm dia. nominal bore	Meter	14	296.50	4,151.00
41.5	40 mm dia. nominal bore	Meter	8	364.10	2,912.80
41.6	50 mm dia. nominal bore	Meter	80	453.65	36,292.00
42	Supplying automatic 'NO-Touch ' SS electric hand-driers complete with all accessories & fittings.- Basic Cost of Material shall be taken as Rs. 9500.00-Model/make to be selected by Architects/Clients)	Each	20	12000.00	240,000.00
43	Providing and fixing of sink mixer with swivel spout including cutting and making good the wall complete.- Basic Cost of Material shall be taken as Rs. 2300.00-Model/make to be selected by Architects/Clients				
		Each	12	2485.00	29,820.00

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Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
44	Providing and fixing of basin mixer Single level without popup waste system with 450mm long flexible hose.- Basic Cost of Material shall be taken as Rs. 2400.00-Model/make to be selected by Architects/Clients	Each	94	2795.00	262,730.00
	Sub Total				9,825,043.80
External Sewerage Works					
1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm 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 :				-
	All Kind of Soil				-
	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia.	Meter	1800	208.30	374,940.00
2	Extra for excavating trenches for pipes, cables etc. in all kinds of soil for depth exceeding 1.5 m, but not exceeding 3 m. (Rate is over corresponding basic item for depth upto 1.5 metre).				-
	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia.	Meter	1200	283.00	339,600.00
3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed.				-
	All Kind of Soil	Cum	200	155.60	31,120.00
4	Extra for every additional lift of 1.5 m or part thereof in excavation /banking excavated or stacked materials.				-
	All Kind of Soil	Cum	80	46.25	3,700.00
5	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	60	112.40	6,744.00
6	12 mm cement plaster finished with a floating coat of neat cement of mix :				-
	1:4 (1 cement: 4 fine sand)	Sqm	1000	203.25	203,250.00
7	15 mm cement plaster on the rough side of single or half brick wall of mix :				-
	1:4 (1 cement: 4 fine sand)	Sqm	1250	206.50	258,125.00
8	Extra for plastering on circular work not exceeding 6 m in radius:				-
	In one coat	Sqm	750	18.80	14,100.00

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
9	Providing & Laying non-pressure NP3 class/light duty) RCC pipes single socket with rubber ring instead of collars jointed with stiff mixture of cement mortar in the proportion of 1 : 2 (1 cement : 2 fine sand) including testing of joints etc. complete				
	250 mm diameter	Rmt	400	468.60	187,440.00
	300 mm diameter	Rmt	500	506.35	253,175.00
10	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :				
	250 mm diameter	Rmt	400	624.60	249,840.00
	300 mm diameter	Rmt	500	720.70	360,350.00
11	Constructing brick masonry manhole with bricks in cement mortar 1:4 (1 cement : 4 coarse sand), R.C.C. top slab with 1 : 2 : 4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1 : 4 : 8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1 : 3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1 : 2 : 4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
	Inside size 90 x 80cm and 45 cm deep including C.I. Cover with frame(light duty) 455x610 mm internal dimensions total weight of cover and frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15 kg)				
	With F.P.S. bricks with class designation 75	Each	8	8507.00	68,056.00
	Extra for depth for manholes				
12	Size 90 X 80 cm				
	With F.P.S. bricks Class designation 75	Metre	1	5638.20	5,638.20
13	Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design:				

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
	0.91 m deep with S.F.R.C cover and frame (heavy duty, EHD-35 grade designation) 560 mm internal diameter conforming to I.S 12592, total weight of cover and frame to be not less than specified in IS code., fixed in cement concrete 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size) including centering shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately):				-
	With F.P.S. bricks Class designation 75	Each	23	8883.70	204,325.10
14	Extra for depth for circular type manhole 0.91m internal dia (at bottom with beyond 0.91m to 1.67m				-
	With F.P.S. bricks Class designation 75	Metre	8	4842.40	38,739.20
15	Constructing brick masonry circular type manhole 1.22m internal dia at bottom and 0.56m dia at top in cement motar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement motar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement :3 coarse sand sand :6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design:				-
	1.68 m deep with S.F.R.C cover and frame (heavy duty, EHD-35 grade designation) 560 mm internal diameter conforming to I.S 12592, total weight of cover and frame to be not less than specified in IS codes, fixed in cement concrete 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size) including centering shuttering all complete. (Excavation , foot rests and 12mm thick cement plaster at the external surface shall be paid for separately):				-
	With F.P.S. bricks Class designation 75	Each	19	16613.05	315,647.95
16	Extra for depth for circular type manhole 1.22m internal dia (at bottom with beyond 1.68m to 2.29m				-
		Metre	4	6270.70	25,082.80
	SUB TOTAL				2,939,873.25

BIDDER

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Sourav Das Gupta
 HON'Y. GENERAL SECRETARY, TCA
 Tripura Cricket Association

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
	External Water Supply System (Domestic & Irrigation)				
1	Constructing masonry Chamber 60x60x75 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for fire hydrants, with C.I. surface box 350x350 mm. top and 165 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design :				
	With F.P.S. bricks	Each	18	6431.70	115,770.60
2	Constructing masonry chamber 90 cm X 90 cm X 100 cm inside with 75 class designation brick work in cement mortar 1: 4 (1 cement : 4 coarse sand) for sluice valve with C. I. Surface Box 100mm top diameter, 160mm bottom diameter and 180mm deep (inside) with chained lid and RCC top slab 1:2:4 mix(1 cement:2 coarse sand:4 graded stone aggregate 20mm nominal size) necessary excavation, foundation concrete 1:5:10 (1 cement :5 fine sand:10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3(1 cement :3 coarse sand) 12mm thick finished with a floating coat of neat cement complete as per standard design.				
	With F.P.S. bricks	Each	22	11672.25	256,789.50
3	Constructing masonry Chamber 30x30x50 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for Garden hydrant valve, with C. I. surface box 100x100 x75 mm (inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand:10 graded stone aggregate 40mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12mm thick finished with a floating coat of neat cement complete as per standard design :				
	With F.P.S. bricks	Each	31	1157.75	35,890.25
4	Providing and fixing G.I. pipes complete with G.I. fittings including, trenching and refilling etc.				-
	external works				-
	25mm dia nominal bore	metre	62	257.30	15,952.60
4.2	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :				-

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Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
	25mm nominal bore	metre	62	8.75	542.50
5	Providing and filling sand of grading zone V or coarser grade all-round the G.I. pipes in external work.				-
	25mm nominal bore	metre	62	69.05	4,281.10
6	Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank				
		per liter	15000	7.25	108,750.00
7	Providing and fixing MDPE blue pipe to ISO 4427 PE 80 grade, electro fusion welded, having thermal stability for hot & cold water supply including all electro-fusion fittings viz. elbow, tee, reducing tee, MTA, FTA, reducers i/c trenching, refilling & testing of joints complete as per direction of Engineer in Charge. External work				-
7.1	DN25, PN12.5	Meter	1200	100.00	120,000.00
7.2	DN32, PN12.5	Meter	300	150.00	45,000.00
7.3	DN40, PN12.5	Meter	110	225.00	24,750.00
7.4	DN63, PN6	Meter	700	350.00	245,000.00
7.5	DN90, PN6	Meter	1500	450.00	675,000.00
7.6	DN110, PN6	Meter	800	600.00	480,000.00
7.7	DN160, PN6	Meter	120	1000.00	120,000.00
8	Providing and fixing gun metal ball valve with CP lever arm handle of approved quality (screwed end) :				-
8.1	20mm nominal bore	Each	1	565.00	565.00
8.2	25mm nominal bore	Each	3	704.00	2,112.00
8.3	32mm nominal bore	Each	3	1170.00	3,510.00
8.4	40mm nominal bore	Each	23	1769.00	40,687.00
8.5	50mm nominal bore	Each	5	7464.00	37,320.00
8.6	80mm nominal bore	Each	5	10476.00	52,380.00
	Note:Item No. 3 to 31 belongs to Irrigation System				-
9	Supply & installation of Pop-ups gear driven Rotors Sprinkler discharge 50.7 to 122.3 lpm, radius 17.1 mtr to 21.6 mtr adjustable arc with check valve	Each	20	2000.00	40,000.00
10	Supply & installation of Pop-ups gear driven Rotors Sprinkler discharge 7.7 to 15.5 lpm, radius 10 mtr to 12.2 mtr adjustable arc with check valve	Each	30	1000.00	30,000.00
11	Supply & installation of Pop-ups gear driven Rotors Sprinkler discharge 10.9 to 24.5 lpm, radius 4.5 mtr to 11.2 mtr adjustable arc with check valve	Each	40	1000.00	40,000.00
12	Supply & installation of SRS Spray Pop-ups discharge 4.81 lpm, radius 2.4 mtr adjustable arc (25 to 360 degree) with SRS body	Each	50	500.00	25,000.00
13	Supply & installation of PS Spray Pop-ups discharge 7.8 lpm, radius 5.2 mtr adjustable arc (0 to 360 degree) color code - Black	Each	30	500.00	15,000.00

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Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
14	Supply & installation of PS Spray Pop-ups discharge 12 lpm, radius 5.8 mtr adjustable arc (0 to 360 degree) color code- White	Each	100	500.00	50,000.00
15	1" X 30 cm standard Swing joint	Each	50	800.00	40,000.00
16	3/4" X 30 cm standard Swing joint	Each	30	600.00	18,000.00
17	1/2" X 30 cm standard Swing joint	Each	100	500.00	50,000.00
18	Supply & installation of Jain clean master 80 Cum. / hr 4" Duplex with M.MF(Filter)	Each	2	50000.00	100,000.00
19	Supply & installation of 40 Cum. / hr YF 4" (Screen filter)	Each	2	20000.00	40,000.00
20	Supply & installation of Quick pressure relief valve 2"	Each	2	10000.00	20,000.00
21	Supply and installation of Butterfly Valve 2" complete with nut and bolts(PN1.0).	Each	6	5000.00	30,000.00
22	Supply and installation of C.I gate valve 4" non R. Spindle(IS:780).	Each	6	5000.00	30,000.00
23	Supply and installation of C.I non return Valve 5".	Each	2	4000.00	8,000.00
24	Supply and installation of PVC double air release valve 2"	Each	2	1500.00	3,000.00
25	Supply and installation of Quick coupling valve 3/4 "	Each	30	650.00	19,500.00
26	Supply of Quick coupling valve key 3/4 "	Each	2	250.00	500.00
27	Supply and installation of pump of 20 HP having discharge 11.0 lps at 70 head 2 Nos.(both working)	Each	2	75000.00	150,000.00
28	Supply and installation of Panel with star delta starter, MCB, Voltmeter, Ammeter, Single phase preventer, pressure switch etc. Cabling etc.	Each	1	60000.00	60,000.00
29	Supply and installation of Suction, delivery & header pipe GI unit complete including joining two pumps.	Each	1	10000.00	10,000.00
30	Supply and installation of Non return valve 3" (Gun metal).	Each	2	8000.00	16,000.00
31	Supply and installation of Air release valve 2"	Each	2	1500.00	3,000.00
32	Supply and installation of Water level controller	Each	1	7500.00	7,500.00
33	Supply and installation of Irrigation Controller	Each	1	50000.00	50,000.00
34	Supply and installation of 1.5", PVC Solenoid valve	Each	25	5000.00	125,000.00
35	Supply and Installation of Valve Boxes Plastic Green Color Top Cover.	Each	25	5000.00	125,000.00
36	Supply and installation of White Direct Burial Wire (Imported)	Meter	6000	20.00	120,000.00
37	Supply and installation of Red Direct Burial Wire (Imported)	Meter	8000	20.00	160,000.00
38	supply and installation of Misc. Items i.e. DBY, DBR, Warning Tape etc. Required to automate the irrigation system.	LS	1	15000.00	15,000.00
	TOTAL				3,784,800.55
	Storm Water Drains				
1	Earth work in excavation by mechanical means (hydraulic excavator)/manual means over areas (exceeding 30cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m; disposed earth to be levelled and neatly dressed.	Cum.	600	155.60	93,360.00

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
2	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm 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 :				
	All Kind of Soil				-
2.1	Pipes, cables etc: exceeding 80 mm dia. but not exceeding 300 mm dia.	Meter	300	208.30	62,490.00
3	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	200	112.40	22,480.00
4	12 mm cement plaster finished with a floating coat of neat cement of mix :				-
	1:4 (1 cement: 4 fine sand)	Sqm	100	203.25	20,325.00
5	15 mm cement plaster on the rough side of single or half brick wall of mix :				-
	1:4 (1 cement: 4 fine sand)	Sqm	125	206.50	25,812.50
6	Extra for plastering on circular work not exceeding 6 m in radius:				-
	In one coat	Sqm	75	18.80	1,410.00
7	Providing & Laying non-pressure NP2 class(light duty) RCC pipes single socket with rubber ring instead of collars jointed with stiff mixture of cement mortar in the proportion of 1 : 2 (1 cement : 2 fine sand) including testing of joints etc. complete				-
	600 mm diameter	Metre	300	1379.45	413,835.00
8	Constructing brick masonry circular type manhole 1.22m internal dia at bottom and 0.56m dia at top in cement motar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement motar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement :3 coarse sand sand :6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design:				-

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
	1.68 m deep with S.F.R.C cover and frame (heavy duty, EHD-35 grade designation) 560 mm internal diameter conforming to I.S 12592, total weight of cover and frame to be not less than specified in IS codes, fixed in cement concrete 1:2:4 (1 cement :2 coarse sand :4 graded stone aggregate 20 mm nominal size) including centering shuttering all complete. (Excavation , foot rests and 12mm thick cement plaster at the external surface shall be paid for separately);				-
	With F.P.S. bricks Class designation 75	Each	6	16613.05	99,678.30
9	Extra for depth for circular type manhole 1.22m internal dia (at bottom with beyond 1.68m to 2.29m	Metre	2	6270.70	12,541.40
10	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - all work upto plinth level.				-
	1:2:4 (1 cement:2 coarse sand: 4 graded stone aggregate 20 mm nominal size) for filling haunches and coping.	Cum.	67	5466.30	366,242.10
	1:4:8 (1 cement:4 coarse sand: 8 graded stone aggregate 40 mm nominal size) for bed concrete.	Cum.	120	4301.15	516,138.00
11	Brick work with bricks of class designation 75 in foundation and plinth in : cement mortar 1:4(1cement:4 coarse sand).	Cum.	140	4753.45	665,483.00
12	12mm cement plaster of mix 1:4(1 cement:4 coarse sand).	Sqm.	800	172.30	137,840.00
13	Centring and shuttering including strutting, propping etc. and removal of form work for edges of slabs and breaks in floor and walls under 20cm wide.	Meter	1200	116.40	139,680.00
	SUB TOTAL				2,577,315.30
	Rain Water Harvesting				-
	Preambles: The following items shall be executed at four locations at any depth, nothing shall be paid extra for shifting of material & machines etc..				
1	Boring/drilling bore well of required dia for casing/strainer pipe, by suitable method prescribed in IS: 2800 (part 1) including collecting samples from different strata, preparing and submitting strata chart/ bore log. including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, upto 90 metre depth below ground level.-350mm dia	Meter	480	445.25	213,720.00
2	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia. conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all deptns, as per direction of Engineer				-
	200 mm nominal size dia	Meter	420	878.60	369,012.00

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well screen (RMS) pipe with ribs conforming to IS: 12818. including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer-200 mm dia	Meter	180	820.80	147,744.00
4	Providing, laying, placing in position and fixing Geotextile membrane of approved sample by Engineer-in-charge in recharge wells at appropriate location as shown in standard-drawing approved by local body.	Sqm.	12	450.00	5,400.00
5	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	cum	32	878.85	28,123.20
6	Supplying, filling, spreading & leveling stone boulders of size range 5 cm to 20 cm, in recharge pit in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	Cum	48	504.15	24,199.20
7	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	Cum	48	910.65	43,711.20
8	Supplying, filling, spreading & leveling coarse sand of size range 1.5 mm to 2 mm in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer-in-charge.	Cum	48	852.60	40,924.80
9	Providing, placing & dressing coarse sand, river boulder in position in recharge wells as per standard drawing/design approved by local body, complete in all respects.	Cum			-
10	Constructing Recharge well cum desilting chamber of 15mx5mx3m clear size including structural design of slabs and wall complete including Brick or RCC wall, base concrete, filter media, excavation, extra heavy duty SFRC manhole covers complete in all respects as per standard design.	Each	2	600000.00	1,200,000.00
TOTAL					2,072,834.40
Pumps & Water Treatment					-
Raw Water Pump					-

PLUMBING WORK [INTERNAL & EXTERNAL]

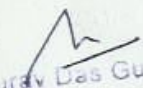
Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
1	Providing and fixing vertical, inline multistage centrifugal pumping set with stainless steel S S-304 stage casing and SS-304 impellers with stainless steel SS-316L shaft as per IEC standards and GJL250 cast iron suction & discharge casing, connected to TEFC ventilated induction motor of 2 pole, 2900 RPM, suitable for 400/440 Volts, 3 phase, 50 Hz A.C. supply with pressure gauge and with gunmetal isolation cocks, vibration elimination pads etc. complete with base and frame, nuts and bolts and necessary RCC foundations as per requirement as per instructions and pump shall have following duty:				-
	No. of Pumps: 3 (2 Working + 1 Stand by)				-
	Capacity : app.400 lpm				-
	Head : 25m	Set	1	750000.00	750,000.00
	Domestic Water Transfer Pump				-
2	Providing, fixing and testing of domestic water transfer pumps as follows:-				-
2.1	Horizontal, inline multistage centrifugal pumping set with stainless steel SS-304 stage casing and SS-304 impellers with stainless steel SS-316L shaft as per IEC standards and GJL250 cast iron suction & discharge casing, connected to TEFC ventilated induction motor of 2 pole, 2900rpm, suitable for 400/440 Volts, 3 phase, 50 Hz A.C. supply No. of Pumps: 3 (2 Working +1 Standby)				-
2.2	Control Panel with programmable logic controller (PLC) for cyclic operation of pumps. Pump working sequence should change after every operation. Contractor overload relays and MCBs should confirm to IEC 898 - 1995/ specifications. Blinking indications for pumps start, trip, low level trip, health supply should be provided in the panel along with the ammeter & voltmeter. Control panel should also consist of cooling fan and variable frequency drive and pressure vessel of 100 litres of FRP.				-
	Liquid level controller comprising of level controller, probes at high level of OH tank to cut-off motorised valve, one probes at mid level of OH tank to cut-in motorised valve including cost of motorised valve.				-
	Ball valves to be used should be Hot Pressed brass OT-58 with stainless steel ball and P.T.F.E seal and O-Ring. NRVs to be used should be with Springs and O-Ring arrangement.				-
	Complete set system to be mounted on a common base frame and shall follow following duty.				-
	Capacity : app. 400 lpm				-
	Head : app. 50 m	Set	1	700000.00	700,000.00
	Pressure Filter (Domestic Water)				-

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
3	Providing and fixing vertical pressure filter with dual media filter (comprising of 600mm bed depth of graded sand gravel and 600mm bed depth of Anthracite/Activated Carbon Filter) fabricated from high performance M.S plate of minimum 8mm thick for shell & 10mm thick for dished ends with top and bottom flanged openings including top and bottom hub and lateral distribution and collection system complete with initial charge of filter media, face piping, valves, accessories, painting, testing and commissioning complete. (Tested to 6 Kg/m ²)				-
	Discharge : 48000 lph				-
	Filtration Rate : 15000 lit./m ² /h				-
	Suggested dia app. : 2.00 m	Each	1	450000.00	450,000.00
	Water Softener				-
4	Providing and fixing 'Cation' ION exchange water softener fabricated from minimum 8mm thick M.S. plate on shell and 10mm thick M.S. plate on dished ends complete with initial charge of filter media and ION exchange resins, face piping accessories, piping testing and commissioning complete with resins of approved quality and make and brine tank of required capacity. (Bidder must indicate type and quantity of resin used and quantity of salt required per regeneration).				-
	Minimum expected rate of flow: 48000 lph				-
	Total soft water to be produced between two regeneration: app. 400 Cu.m				-
	Expected raw water hardness : app. 700-800 ppm				-
	Expected treated water hardness: less than 50 ppm				-
	Max. working pressure : 4 Kg/cm ²	Each	1	450000.00	450,000.00
	IRON REMOVAL FILTER				-
5	Providing and fixing iron removal filter fabricated from minimum 8mm thick M.S. plate on shell and 10mm thick M.S. plate on dished ends complete with initial charge of filter media and ION exchange resins, face piping accessories, piping testing and commissioning complete with resins of approved quality and make and brine tank of required capacity. (Bidder must indicate type and quantity of resin used and quantity of salt required per regeneration).				-
	Minimum expected rate of flow: 48000 lph				-
	Total soft water to be produced between two regeneration: app. 400 Cu.m				-
	Expected raw water iron : app. 0.3-0.5 ppm				-
	Expected treated water iron: less than .01 ppm				-
	Max. working pressure : 4 Kg/cm ²	Each	1	550000.00	550,000.00


BIDDER

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Sourav Das Gupta
 HON'BLE GENERAL SECRETARY, TCA
 Tripura Cricket Association

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
6	Providing and fixing M.S salt saturator, internally rubber lined as per requirement and externally painted with suitable anti-corrosive paint, with all required accessories for holding and supplying salt for softener complete in all respects, with electrically operated stirrer and of capacity 1000 litres.	Each	2	75000.00	150,000.00
7	Providing motor control centres fabricated from 16 gauges M.S. sheet with powder coated finish. The control panels should be comparable with H.P. of the motor as specified.				-
	For domestic water transfer pumps, raw water pump, auto chemical doser sump pump etc. in plant room.				-
	One incoming main isolation 315 A TPN MCCB.				-
	Fully taped aluminum bus bar 400 A TPN in a separate bus bar chamber.				-
	Isolation switch units with MCCB of required rating, for each unit.				-
	Fully automatic DOL starter with push button and ON/OFF indicating lights for each unit, for following requirements:				-
	i) Raw water pump 3 Nos. of 5 HP each (2 working +1 standby)				-
	ii) Domestic water transfer pumps 3 Nos. of 10 HP each (1 working + 1 standby) (Only connections to Built up Panel)				-
	vi) Auto chemical doser of 2 nos of 1 HP capacity (1 working + 1 stand by)				-
	ii) Sump pumps 2 Nos. of 2 HP each (1 working + 1 standby) (Only connections to Built up Panel)				-
	Rotary switches for Auto/Manual ON/OFF operations for each unit.				-
	Rotary duty selector switches.				-
	Panel type voltmeter 150mm with rotary selector switch for reading voltage between phases.				-
	Panel type ammeter 100mm square. One for each motors with appropriate range.				-
	Neon phases indicating lights on the incoming mains.				-
	Single phase preventor for each motor.				-
	CT Operated Relay				-
	All internal wiring colour coded from incoming mains to various switchgear, starter, meter, indicating lamp and bus bar. All the cable entry to the panel shall be from the top.				-
	(All for above from item (a) to (l) complete set). (The shop drawing to be prepared and approved before fabrication)	Set	1	250000.00	250,000.00
9	Providing and fixing motor pump controller cum water level indicating panel in powder coated sheet metal box in 16 gauges M.S including the following:				-
	Electronic water level controller working on magnetic type sensing probes with necessary length of armored cable up to control panel.				-


Sourav Das Gupta
 Hon'ble General Secretary
 Tripura Cricket Association

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
	Electronic minimum 4-level indicator with magnetic type sensing probes and necessary length of armored cable upto control panel.				-
	Arrangement of alternate switching mechanism for operational and standby pumps.				-
	For Water level indicators with following details:				-
	Underground tanks				-
	Minimum 4 level Multi level indicators with magnetic type sensor probes complete.	Each	1	20000.00	20,000.00
					-
B	For water level controllers with electronic sensing probe complete in all respect for following functions.				-
	i) Raw Water Pumps				-
	To cut off at low level in raw water U.G tanks. And cut off at high level in U.G Domestic and soft water tank.	Set	1	20000.00	20,000.00
10	Providing and fixing G.I. pipes (I.S. 1239 heavy duty class) complete with all necessary G.I. Fittings including all necessary fittings like bends, elbows, tees etc., either welded or screwed or flanged joints as per requirements, including all anchor blocks, anchor fasteners, couplings in all respects including enamel painting of required shade, cutting holes and chases in RCC wall and making good complete (The cost of flanges will be paid separately).				-
10.1	15mm dia	Metre	4	400.00	1,600.00
10.2	20mm dia	Metre	4	500.00	2,000.00
10.3	25mm dia	Metre	20	750.00	15,000.00
10.4	32mm dia	Metre	2	900.00	1,800.00
10.5	40mm dia	Metre	40	1000.00	40,000.00
10.6	50mm dia	Metre	30	1200.00	36,000.00
10.7	65mm dia	Metre	30	1400.00	42,000.00
10.8	80mm dia	Metre	40	1500.00	60,000.00
10.9	100mm dia	Metre	60	1800.00	108,000.00
11	150mm dia	Metre	80	2400.00	192,000.00
12	Providing and fixing galvanised steel flanges screwed or welded complete with 1.5m thick Teflon gaskets, nuts, bolts and washers etc., complete including testing of joints. The flanges shall be as per I.S: 6392-1971 table (6&7)				-
12.1	50mm nominal bore	Each	2	1000.00	2,000.00
12.2	65mm nominal bore	Each	2	1200.00	2,400.00
12.3	80mm nominal bore	Each	6	1500.00	9,000.00
12.4	100mm nominal bore	Each	8	2000.00	16,000.00
12.5	150mm nominal bore	Each	8	3000.00	24,000.00
13	Providing and fixing standard Blind flanges screwed or welded complete with 1.5mm thick Teflon gasket, nuts, bolts and washers etc., complete including testing of joints. The flanges shall be as per I.S:6392-1971 (Table 6 & 7)				-
	100mm dia	Each	6	2000.00	12,000.00
	150mm dia	Each	6	3000.00	18,000.00

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
14	Providing and fixing rubber expansion joints (to provide relief from stresses at pipe flanges) as per specification of the manufacturers i.e M/s Kanwal Industrial corporation,				
	100mm dia	Each	4	3500.00	14,000.00
	150mm dia	Each	4	4500.00	18,000.00
15	Providing and fixing C.I double flanges suction strainer bucket type/ "Y" type including, nuts, bolts and 3mm thick rubber insertion complete.				
	150mm dia	Each	3	8500.00	25,500.00
16	Providing and fixing brass/bronze lever operated ball valve of full flow with stainless steel ball (AISI 304 and spindle AISI 410) with setting and gland of superior quality having minimum working pressure of 20 kg/cm ² .				
16.1	15mm dia	Each	1	600.00	600.00
16.2	20mm dia	Each	1	750.00	750.00
16.3	25mm dia	Each	1	900.00	900.00
16.4	32mm dia	Each	1	1500.00	1,500.00
16.5	40mm dia	Each	3	2000.00	6,000.00
16.6	50mm dia	Each	3	3500.00	10,500.00
16.7	65mm dia	Each	4	5000.00	20,000.00
17	Providing and fixing butterfly valves, wafer end type class PN 1.0 as per I.S:13095 - 1991 or BS:5155, including necessary nuts, bolts, gaskets etc. complete (without gear box)				
17.1	80mm dia nominal bore.	Each	6	6500.00	39,000.00
17.2	100mm dia nominal bore.	Each	6	8000.00	48,000.00
17.3	150mm dia nominal bore.	Each	6	10000.00	60,000.00
18	Providing and fixing gunmetal non-return valves vertical or horizontal tested to 20 Kg/cm ² as per IS:778.				
18.1	25mm nominal bore	Each	1	850.00	850.00
18.2	32mm nominal bore	Each	1	1400.00	1,400.00
18.3	40mm nominal bore	Each	1	1800.00	1,800.00
18.4	50mm nominal bore	Each	1	4000.00	4,000.00
19	Providing and fixing C.I double flanged horizontal/vertical type non-return valve including nuts, bolts, 3mm thick rubber insertions complete to I.S:5312, Part-I, swing type, class PN 1.6.				
19.1	65mm nominal bore	Each	4	5000.00	20,000.00
19.2	80mm nominal bore	Each	4	6000.00	24,000.00
19.3	100mm dia nominal bore.	Each	4	7500.00	30,000.00
19.4	150mm dia nominal bore.	Each	4	9000.00	36,000.00
20	Providing and fixing heavy duty copper armored cables 1.1 KVA grade including necessary support clamps at ceiling level and connection legs complete in all respects.				
20.1	Power cable 3 core 2.5 Sq.mm	Metre	200	100.00	20,000.00
20.2	Power cable 3 core 4 Sq.mm	Metre	120	200.00	24,000.00
20.3	Power cable 3 core 6 Sq.mm	Metre	40	400.00	16,000.00
20.4	Power cable 3 core 10 Sq.mm	Metre	10	600.00	6,000.00
20.5	Power cable 2 core 1.5 Sq.mm	Metre	400	75.00	30,000.00
20.6	Power cable 3 core 10 Sq.mm	Metre	10	600.00	6,000.00

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
21	G.I. earthing wire 8 gauge from all motor and M.C.C panel to be connected in as approved manner to the general earthing system complete.	Metre	150	100.00	15,000.00
22	Providing earthing station for pumps and M.C.C panel including excavation, C.I. manhole cover and frame complete as per specifications and I.E. rules.	Each	1	12000.00	12,000.00
23	Providing and fixing M.S. slotted cable tray supported from ceiling at intervals of 60cms on both ends including cable clips with nuts and bolts welding of support rods with ceiling inserts or through dash fasteners cutting and making good complete.				
	300mm wide	Metre	60	1800.00	108,000.00
	150mm wide	Metre	80	1200.00	96,000.00
24	Providing and fixing M.S. structural work fabricated from standard section e.g. M.S rounds, angles, channels, plates including cutting to size, drilling, welding fixing and welding to insert plates in RCC structural members or through dash fasteners as per site conditions as directed by Engineer-in-charge including cutting and making good the walls, ceilings and floors (for pipe supports, clamps etc.)	Kg.	500	150.00	75,000.00
25	Providing and fixing UV Unit for domestic water supply complete in all respects for 550 LPS water supply flow rate.	Each	1	150000.00	150,000.00
	Submersible pumps for basement drainage & Sewage sumps				-
26	Submersible single stage single entry pumps with C.I. body and C.I. two vane enclosed type impeller connected to TEFC submersible motor for 415 volts, 3 phase, 50 cycles including MCC panel with level controllers, auto control, sequential change over facility with one proper working at low level & two proper working at high level with an audible alarm including all interconnectivity cables, with both pumps connected to common outlet header including valves, non return valves, lifting chains etc. complete in all respect				-
	Sewage Sump (one working+One standby)				-
	(Solid handling capacity 50mm)				-
	Capacity- 225 lpm (Each)				-
	Head - 10 m				-
	HP (Approx) 1.0 HP	Set	2	200000.00	400,000.00
	Drainage Sump (one working+One standby)				-
	(Solid handling capacity 50mm)				-
	Capacity- 600 lpm (Each)				-
	Head - 10 m				-
	HP (Approx) 3.0 HP	Set	2	400000.00	800,000.00
	Domestic Water Pump (Boosting System)				-

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
27	Providing, fixing and testing of packaged factory fitted variables frequency drive type skid mounted hydropneumatic system with variable speed system comprising of :- Note:Only Factory Fitted assembly is acceptable)				-
	Vertical, inline multistage centrifugal pumping set with stainless steel SS-304 stage casing and SS-304 impellers with stainless steel SS-316L shaft as per IEC standards and GJL250 cast iron suction & discharge casing, connected to TEFC ventilated induction motor of 2 pole, 2900rpm, suitable for 400/440 Volts, 3 phase, 50 Hz A.C. supply No. of Pumps: 2 (1 Working +1 Standby)				-
	Pressure vessel of non corrosive FRP composite construction lined with NSF and/or FDA listed material, like high density polyethylene with fully replaceable polyurethane. Air cell burst pressure of minimum of 5 times the vessel operating pressure and cycle tested for 2,50,000 cycles.				-
	No. and capacity of Pressure Vessel – 01 Nos. x 50 Ltrs)				-
	Control Panel with programmable logic controller (PLC) for cyclic operation of pumps. Pump working sequence should change after every operation. Contractor overload relays and MCBs should confirm to IEC 898 – 1995/ specifications. Blinking indications for pumps start, trip, low level trip, health supply should be provided in the panel along with the ammeter & voltmeter. Control panel should also consist of cooling fan.				-
	Pressure switches bellow type fitted with micro switch and having maximum pressure and differential scale should confirming BS-6134 standards and IP55 protection class.				-
	Suction and delivery header with Ball valves to be used should be Hot Pressed brass OT-58 with stainless steel ball and P.T.F.E seal and O-Ring. NRVs to be used should be with Springs and O-Ring arrangement. 25mm dia motorised valve with control panel to cut-in and cut-off the motorised valve incase of low and high water level in water tank.				-
	Complete set system to be mounted on a common base frame and shall follow following duty.				-
	Capacity : app. 150 lpm				-
	Head : app. 25 m	Set	1	450000.00	450,000.00
	TOTAL				6,492,600.00

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
	SEWAGE TREATMENT PLANT				-
1	Design, supplying, installing, testing & commissioning of prefabricated Sewage Treatment Plant (including civil work excavation, back filling & disposal of surplus earth MS/Civil construction work) for the following duty: Also taking NOC from local pollution control Board is in the scope of vendor:				-
	Nature of effluent - Domestic Sewage from Public Toilet, Kitchens, & Water of general nature.				-
	Daily average flow - 300 Cum / Day				-
	pH - 7.5 – 8.5				-
	BOD5 - 250 – 400 Mg/L				-
	S. Solids - 200 – 450 Mg/L				-
	COD - 600 – 800 Mg/L				-
	Oil & Grease - 50 Mg / L				-
	Effluent discharge standard after treatment				-
	pH - 6.0 – 8.5				-
	BOD5 - Less than 20Mg/L				-
	S. Solids - Less than 10 Mg/L				-
	COD - Less than 60 Mg/L				-
	Oil & Grease - Less than 5 Mg / L				-
	Sewage treatment plant shall include the following items:				-
	Screen chamber				-
	Sewage equalization tank/sump				-
	Aeration tank				-
	Clarifier tank				-
	Sludge holding tank				-
	Chlorine contact tank				-
	Tertiary Treatment Filter, Softener & Dosing Equipment				-
	Air Blowers, Pumps & equipment				-
	Piping, valves etc				-
	Electrical Panel & Cabling				-
	Flushing water tank				-
	Irrigation water storage tank				-
	Soft water tank				-
	Common plant room adjacent to STP.				-
	Puddle flanges as required for the STP.				-
	UV treatment	Job	1	7500000.00	7,500,000.00
	TOTAL				7,500,000.00
	HOT WATER SYSTEM				-
1	Providing and fixing solar water heater with following specs:				-
	System capacity:300 LPD				-
	System type:Thermosyphon Circulation				-
	SOLAR COLLECTORS				-
	Type of collector:Cu-Cu, Ultra sonically welded				-
	Size of collector:2080x1070x100mm				-
	Absorber area:2 sqm				-
	Absorber Coating:Selective coated black chrome Nelson				-
	Collectors absorbtivity:>0.95				-
	Collectors emmissivity:<0.20				-

PLUMBING WORK [INTERNAL & EXTERNAL]

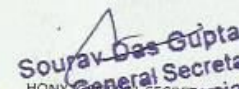
Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
	Collector box material: Extruded Aluminium frame 1.4mm				-
	No. of risers: 3 Nos.				-
	Fin width: 120mm				-
	Hardware: SS-304				-
	Weight: 40 Kgs(Dry)				-
	No. of collector=9 Nos				-
	INSULATING MATERIAL FOR SOLAR COLLECTORS				-
	Material: Rockwool				-
	Thickness of bottom insulation: 50mm				-
	Thickness of side insulation: 25mm				-
	Thermal conductivity: 0.029 W/mk				-
	Density: 40 Kg./cum				-
	COLLECTOR'S GLAZING MATERIAL :				-
	Material: Toughned clear glass				-
	Thickness: 4mm				-
	Transitivity: 88%				-
	Glass Beeding: EPDM				-
	COLLECTOR'S STANDS				-
	Material: 30x30x3mm thick				-
	Details of protective coating: powder coated				-
	HOT WATER STORAGE TANK				-
	No. of tank with capacity: 1 No 3000 lts				-
	Material: SS-304				-
	Insulating material for tank: Glass wool				-
	Thermal conductivity of insulation: 0.028 to 0.033 W/mk				-
	Density of insulation material: 48 Kg/cum				-
	Thickness of insulation material: 100mm				-
	Cladding material: Al 22 SWG				-
	SYSTEM PIPING: GI B class (IS: 1239)				-
	Pipe fitting : ISI Marked				-
	Valves: Gunmetal				-
	Insulation: Glass wool				-
	Insulation material density: 48kg/m				-
	Insulation thickness: 50mm				-
	Insulation cover: Wiremesh finished with aluminium cladding				-
	INSTRUMENTATION & CONTROLS				-
	Water meter				-
	Type: IS marked				-
	Material: Gunmetal				-
	Vane type: Metallic form designed				-
	End connection: screwed end				-
	Temperature Gauge				-
	Type: Dial gauge, mercury in type tube				-
	Material: SS stem				-
	Vane type: 0-120 deg celcius				-
	End connection: 1/2" BSP				-
	Gate valve				-
	Type: Screwed				-
	Material: Gunmetal				-
	Make: ISI Quality				-
	Strainer				-
	Type: Y type				-
	Material: cast Iron				-

PLUMBING WORK [INTERNAL & EXTERNAL]

Sl. No	Description of Work	Unit	Quantity	Unit Rate (Rs.)	Amount (Rs.)
	Purpose: Filtration of suspended material	Set	1	350000.00	350,000.00
2	Providing and fixing geysers of 50 liters capacity including angle valve complete in all respects.				-
	TOTAL	Each	12	20000.00	240,000.00
					590,000.00

BIDDER

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Sourav Das Gupta
 Hon'ble General Secretary
 Tripura Cricket Association

BOQ Tripura Cricket Stadium

FIRE FIGHTING WORKS		
ABSTRACT OF COST		
SL. NO.	ITEMS OF WORKS	AMOUNT
1.	PIPING & VALVES	8846217.28
2.	FIRE HYDRANT ACCESSORIES	2856108.50
3.	SPRINKLERS, WATER CURTAIN & ACCESSORIES	2125613.00
4.	FIRE PUMPS & ACCESSORIES	3984577.00
5.	FIRE EXTINGUISHERS & MISC. ITEMS	1355025.00
6.	FIRE CHECK DOORS	5000000.00
7.	PRESSURISATION FANS	650000.00
	GRAND TOTAL	24817540.78

BIDDER

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Sourav Das Gupta
HON. GENERAL SECRETARY, TCA
Tripura Cricket Association

Fire Fighting Works					
SL. No.	Description	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
I.	PIPING & VALVES				
1	Providing and fixing M.S. pipe to I.S. 1239 (Heavy class) complete with all supports & fittings like, unions, couplings, bends, elbows, tees, offsets, reducers, flanges as per table 'E' etc. to complete the work as per the requirement at site including painting with one coat of primer after surface preparation and two coats of synthetic enamel paint, cutting and making good the walls good complete. Pipe upto 40 mm dia threaded joints with holdtite, 50 mm dia and above should be welded joint (all type) (internal works/External Works).				
1.1	25 mm dia.	RM	3000	355.25	1,065,750.00
1.2	32 mm dia.	RM	400	456.75	182,700.00
1.3	40 mm dia.	RM	600	507.50	304,500.00
1.4	50 mm dia.	RM	600	568.40	341,040.00
1.5	65 mm dia.	RM	501	715.58	358,503.08
1.6	80 mm dia.	RM	300	872.90	261,870.00
1.7	100mm dia	RM	105	1319.50	138,547.50
1.8	150mm dia	RM	2500	1877.75	4,694,375.00
1.9	200 mm dia(7.35mm thick) IS:3589	RM	26	2436.00	63,336.00
1.10	250 mm dia(7.35mm thick) IS:3589	RM	29	3045.00	88,305.00
2	Providing and fixing one coat of 4 mm thick PYPKOTE/ COATAK anti-rust pipe protection including primer and lap of 25mm on external buried pipe including surface preparation, complete in all respects.				
2.1	150mm dia	RM	100	243.60	24,360.00
2.2	100mm dia	RM	30	182.70	5,481.00
2.3	80mm dia	RM	22	162.40	3,572.80
3	Excavating trenches of required width for pipes cables etc. in any type of soil including excavation for sockets and dressing of sides ramming of bottom, depth upto 1.5 M including getting out the excavated soil, and then returning the soil as required in layers not exceeding 20cms in depth including consolidating Sets deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed within a lead of 50m .				
3.1	80 mm dia. but not exceeding 300 mm dia..	RM	152	152.25	23,142.00
4	Providing and fixing cast iron dual plate wafer type non return valves of PN1.6 including nuts, bolts, 1.5mm thick compressed asbestos gasket including matching flanges as per table "E" complete				
4.1	65 mm dia.	Nos	4	3552.50	14,210.00
4.2	80 mm dia.	Nos	2	4567.50	9,135.00
4.3	100 mm dia.	Nos	2	5075.00	10,150.00
4.4	150 mm dia.	Nos	53	8120.00	430,360.00
5	Providing and fixing cast iron double flanged horizontal/vertical non return valves of PN1.6 including nuts, bolts, 3mm thick compressed asbestos gasket including matching flanges as per table "E" complete as per IS:5312 swing type (For Pumps Only)				
5.1	80 mm dia.	Nos	1	6597.50	6,597.50
5.2	100 mm dia.	Nos	1	7612.50	7,612.50
5.3	150 mm dia.	Nos	3	9135.00	27,405.00
5.4	200 mm dia.	Nos	1	15225.00	15,225.00
5.5	250 mm dia.	Nos	1	18270.00	18,270.00
6	Providing and fixing C.I. butterfly valves PN 1.6 complete with bolts, nuts 1.5mm thick compressed asbestos gasket companion flanges as per table "E" complete.				

SL. No.	Description	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
6.1	250 mm dia with gear	Nos	1	12180.00	12,180.00
6.2	200 mm dia with gear	Nos	2	9135.00	18,270.00
6.3	150 mm dia with lever	Nos	66	6597.50	435,435.00
6.4	100 mm dia with lever	Nos	3	5075.00	15,225.00
6.5	80 mm dia with lever	Nos	1	4060.00	4,060.00
6.6	65 mm dia with lever	Nos	1	3045.00	3,045.00
7	Providing and fixing C.I. foot valves including nuts, bolts, 1.5mm thick compressed asbestos gasket complete and companion flange as per table " E " in all respects				
7.1	150 mm dia.	Nos	1	10150.00	10,150.00
8	Providing and fixing brass ball valve (full bore type) with plastic coated lever and screwed female ends tested to 20 Kg/cm ² of approved quality as specified.				
8.1	25 mm dia.	Nos	59	913.50	53,896.50
8.2	50 mm dia.	Nos	4	1624.00	6,496.00
9	Providing and fixing dial type pressure gauge with isolation cock and copper pipe at hydrant station.				
9.1	Dial diameter 100 mm calibration 0-15 kg/ sq.cm.	Nos	96	1015.00	97,440.00
10	Cutting Holes in RCC slab by diamond cutting tools complete in all respects.				
10.1	For 150mm dia MS Heavy Class Pipe	Each	96	685.13	65,772.00
10.2	For 100mm dia MS Heavy Class Pipe	Each	4	456.75	1,827.00
10.3	For 80mm dia MS Heavy Class Pipe	Each	48	365.40	17,539.20
10.4	For 65mm dia MS Heavy Class Pipe	Each	4	299.43	1,197.70
10.5	For 50mm dia MS Heavy Class Pipe	Each	4	228.38	913.50
11	Providing and fixing gunmetal single acting air release valve with screwed inlet 25 mm dia.	Nos	4	1573.25	6,293.00
12	Providing and fixing blank flanges as per table 'E' with asbestos gasket, nut, bolts, washers complete				
12.1	200 mm dia.	Nos	4	507.5	2,030.00
	TOTAL				8,846,217.28
II.	FIRE HYDRANT ACCESSORIES				
13	Providing and fixing SS316 Single headed landing valve conforming to IS -5290 (Type-A) with 63 mm dia. single instantaneous female coupling on the outlet SS316 metal blank cap and chain, necessary companion flanges, nuts, bolts, washer and gasket complete as per specification. (ISI marked). All parts and body shall be of SS316 as per IS:5290.				
13.1	Single outlet	Nos	59	10150.00	598,850.00
14	Providing and fixing first aid fire hose reel drum wall mounting, swinging type (Powder coated finish in fire red) fitted with 20 mm dia. 30 m long high pressure hose (IS:444, Type-2) with 5 mm outlet SS nozzle with shut off valve (IS:8090). Name of Manufacturer should be embossed on the drum and complete hose reel drum shall be conforming to IS:884)	Nos	48	5582.50	267,960.00
15	Providing and fixing 63 mm dia. 15m long rubberized lined hose including SS316 male and female instantaneous type coupling approved by fire authority, machine wound with copper wire complete in all respects. Hose shall conform to IS 636 Type-A and coupling to IS 903 -1975 (ISI marked)	Nos	118	4872.00	574,896.00
16	Providing and fixing standard short size SS316 branch pipe with gunmetal nozzle 16 mm dia. outlet with standard instantaneous type 63 mm dia. coupling. (ISI marked, IS:903)	Nos	59	2537.50	149,712.50

SL. No.	Description	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
17	Providing and fixing door with frame for all internal fire hydrants fabricated from 20x20x3 mm and 40x20x3 mm aluminium hollow box sections mounted with 3 no. of 100 mm Aluminium butt hinge on Aluminium angle frame of 45x45x5 mm size with hold fasts fixed to wall with P.C.C. (1:2:4) blocks 100x100x100 mm including 2 nos allen key lock for locking along with padlock arrangement & fully glazed with 4 mm thick float glass approved by local Fire Authority, powder coated fire red finish with " fire hose" written on front suitable to house 15 mm long two length of canvas hose with couplings, one no of branch pipe, one fire mans axe and two numbers of portable extinguishers, first aid fire hose and supports for hoses, branch pipes, Axe and hose reel. Size 2100x 900 mm complete as per approved design including necessary fixing arrangement for hoses & axe and branch pipe.)	Nos	48	7612.50	365,400.00
18	Providing and fixing fire hose cabinet fabricated from 16 gauge M.S. Sheet with single or double glazed front door and locking arrangement, painted "Fire Red" with powder coated paint "Fire Hose" written on front including suitable supports to place 900 mm above ground level, approximately size 750x600x250 mm deep (to house two lengths of canvas hose with couplings, branch pipe and nozzle for external hydrants)	Nos.	11	4060.00	44,660.00
19	Providing and fixing gunmetal fire brigade inlet head as per IS:904 Specification tested for 20 Kg/cm2 with 63 mm dia. instantaneous type inlet and 100/150mm dia.. flanged outlet with built-in check valve for fire brigade connection to under ground tanks and fire risers including companion flanges, as portable " E" including nuts, bolts & washers etc.				
19.1	Four way	Nos	6	13195.00	79,170.00
20	Providing and fixing gunmetal fire brigade suction 150 mm dia. for fire tank complete with PVC Cap companion flange as per table "E" nuts, bolts, gasket etc				
20.1	150 mm	Nos.	1	8120.00	8,120.00
21	Air Cushion Tank for Risers				
	Providing and fixing of air vessel of the following specifications fabricated with MS Pipe of thickness specified.				
	specifications				
21.1	Diameter : 200 mm				
21.2	Shell Thickness: 6.35 mm				
21.3	Dish Ends : 10 mm				
21.4	Height : 1000 mm				
21.5	Finishing: Two coats of red enamel paint over primer out side and two coats of epoxy coating inside.				
21.6	Material of construction: M.S				
21.7	Test Pressure: 20 Kg/Sq.Cm.				
21.8	Height of supporting legs: 400 mm				
21.9	Quantity	Each	48	15225.00	730,800.00
	Note: Contractor should submit general arrangement drawings before fabrication of vessel and ultrasonic test report to be submitted on supply of vessel and test to be conducted at the presence of Plumbing-In-Charge. Also cost shall include two nos. Gunmetal NRV(ISI Marked)				

SL. No.	Description	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
22	Providing and fixing "Y" suction strainer with flanged connection 250 mm dia. suitable for 2850 lpm discharge with stainless steel 20 mesh complete including companion flanges etc. suitable for 200 dia. inlet and 200 dia. outlet including inside with rubberized paint and outside with two coats of enamel paint of approved shade after surface preparation necessary stainless steel nuts, bolts, washers etc.	Nos	2	18270.00	36,540.00
TOTAL					2,856,108.50
III. SPRINKLERS, WATER CURTAIN & ACCESSORIES					
23	Providing and fixing 15 mm gunmetal sprinkler head with quartz bulb and set to operate at specified temperature pendent/ upright/ side wall /quick response as per instruction fixed with loctite. Temperature of operation 68 deg.C K-80				
23.1	Normal response Pendent type/ upright type	Nos	1600	304.50	487,200.00
23.2	Normal response Side wall type	Nos	100	355.25	35,525.00
23.3	Extended throw normal response Up right type	Nos	200	406.00	81,200.00
24	Providing & fixing 25mm dia. UL listed gunmetal inspector test and drain valve with integral sight glass connected to drain line complete in all respects.	Nos	48	253.75	12,180.00
25	Providing and fixing electrically operated flow indicating switches model System Sensor in sprinkler branch line on each floor with necessary junction box installed in accessible place (Wiring from switches to panel and stair case pressurization not included)				
25.1	100/65/50 mm dia.	Nos	48	5075.00	243,600.00
26	Providing and fixing gunmetal installation valve with turbine type automatic alarm to be connected with control valve , drain valve, test valve and piping as per manufacturer's specifications complete in all respects.				
26.1	150 mm dia.	Nos	2	50750.00	101,500.00
27	Providing and fixing UL/Fm listed water curtain nozzle chrome plated complete including fixing in position on pipe complete in all respects with Teflon tape. (Size=15NB)	Each	96	355.25	34,104.00
28	Providing and fixing UL/Fm listed Deluge valve complete including fixing in position on pipe complete in all respects with drain valve, inlet/outlet , (Size=80NB)	Each	2	50750	101,500.00
29	Providing and fixing UL/Fm listed powder coated finish Escutcheon plate complete including fixing in position on pipe and ceiling complete in all respects. (Size=15NB)	Each	96	355.25	34,104.00
30	Providing and fixing UL/Fm listed SS braided flexible pipe with accessories complete with all accessories specified in technical specifications(Size=15B)				
30.1	780mm long	Each	500	1015	507,500.00
30.2	1000mm long	Each	400	1218	487,200.00
TOTAL					2,125,613.00
IV. FIRE PUMPS & ACCESSORIES					
	(All pumps will be supplied with wearing ring ,mechanical seal and coupling guard and Base Frame. Rates Quoted for pumps shall include making of foundation, supply and fixing of base frame, foot valve on suction side, butterfly valve and NRV on delivery side complete in all respects)				

SL. No.	Description	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
31	Wet Riser Pump and Sprinkler Pump(Single stage) Providing and fixing Factory fitted horizontal split casing pumping set with volute bronze impeller connected to a TEFC induction motor suitable for 410/440 volts, 3 phase , 50 cycles AC supply as per the details given below:				
31.1	Capacity : 2850 lpm				
31.2	Head : 70 meter				
31.3	HP : As per Approved performance curve				
31.4	No of stages : single				
31.5	RPM : 2900				
31.6	Mover : Electric Motor driven.				
31.7	Material of Construction/Specification				
	Shaft & Sleeve: S.S. 410				
	Impeller : Bronze				
	Casing : CI				
	Bearing : Grease lubricated				
	Seal : Mechanical Seal				
	Quantity :	Each	2	760000.00	1,520,000.00
	Note: Pump and Motor should meet the additional requirements as specified in the Specifications				
32	Jockey Pump :Providing and fixing factory fitted horizontal centrifugal pump with volute brozne impeller connccted to TEFC induction motor suitable for 400/410 Volts, 3 Phase, 50 Cycles , AC supply with the following specifications:				
32.1	Capacity : 180 lpm				
32.2	Head : 70 m.				
32.3	HP : As per Approved performance curve				
32.4	RPM : 2900				
32.5	Mover : Electric Motor driven				
32.6	Material of Construction:				
	Shaft & Sleeve : S.S. 410				
	Impeller : Bronze				
	Bearing : Grease lubricated				
	Seal : Mechanical Seal				
	Quantity :	Each	1	152250.00	152,250.00
	Diesel Engine Driven Fire Pump				
33	Supplying and fixing factory fitted single stage horizontal split casing pumping set of the following specifications including vibration elimination pads.				
33.1	Capacity : 2850 LPM				
33.2	Head : 70m				
33.3	HP : As per approved performance curve				
33.4	RPM : 1800 (pump and engine)				
33.5	Material of Construction:				
	Shaft & Sleeve : S.S. 410				
	Impeller : Bronze				
	Bearing : Grease, lubricated				
	Seal - Mechanical seal.				
33.6	Pump foundation as per manufacturer.				
	Quantity :	Each	1	950000.00	950,000.00
	Note: Pump and motor should meet the additional requirement as specified on the specifications and rates will be inclusive of everything as mentioned in the specifications.				
34	Water Curtain Pump:(Single Stage) Providing and fixing factory fitted horizontal centrifugal pump with volute brozne impeller connccted to TEFC induction motor suitable for 400/410 Volts, 3 Phase, 50 Cycles , AC supply with the following specifications:				
34.1	Capacity : 1620 lpm				
34.2	Head : 110 m.				

SL. No.	Description	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
34.3	HP : As per Approved performance curve				
34.4	RPM : 2900				
34.5	Mover : Electric Motor driven				
34.6	Material of Construction:				
	Shaft & Sleeve : S.S. 410				
	Impeller : Bronze				
	Bearing : Grease lubricated				
	Seal : Mechanical Seal				
	Quantity :	Each	1	650000.00	650,000.00
35	Air Vessel for Fire Pump:				
	Providing and fixing of air vessel of the following specifications fabricated with MS sheets.				
35.1	a. Diameter : 400 mm				
35.2	b. Shell Thickness: 8 mm				
35.3	c. Dish Ends : 10 mm				
35.4	d. Height : 1500 mm				
35.5	e. Finishing: Two coats of red enamel paint over primer out side and two coats of epoxy coating inside.				
35.6	f. Material of construction: M.S				
35.7	g. Test Pressure: 22 Kg/Sq.Cm.				
35.8	i. Height of supporting legs: 400 mm				
35.9	j. Quantity	Each	1	45675.00	45,675.00
	Note: Contractor should submit general arrangement drawings before fabrication of vessel and ultrasonic test report to be submitted on supply of vessel and test to be conducted at the presence of Plumbing-In-Charge.				
36	Providing and fixing liquid level controller for fire pump to stop fire pump in case of low level of water in tank , cost of conduit, cable and panel including making connection to pump panel and commissioning complete.				
36.1	Float type Sensor with panel	Nos	4	10150.00	40,600.00
36.2	Installation	Nos	4	1015.00	4,060.00
37	Providing and fixing dual type pressure switch suitable for 1-20 Kg/cm2 including electrical connections setting of Cut-In and cut-Off pressure complete in all respects.				
		Nos	4	1827.00	7,308.00
38	Design, fabrication, assembling, wiring, supply, installation, testing and commissioning of motor control centre shall be fabricated out of 14 gauge CRCA sheet steel in form in 3b formation with reinforcement of suitable size angle iron, channel 'T' sections irons and /or flats wherever necessary. Cable gland plates shall be provided on top as well as at the bottom of the panels. Panels shall be treated with all anticorrosive process before painting as per specifications with 2 coats of red oxide primer and final approved postal red color shade of powder coated paint. 2 Nos. earthing terminals shall be provided for 3 phase, 4 wire, 50 Hz supply system. Lifting hooks shall also be provided in case of large panels. Approval shall be taken for each panel before fabrication. Cadmium Plated hardware shall be used in fabrication of panels.				
	Incomer:				
	One incoming main isolation TPN MCCB of 630A rating				
	One fully taped copper bus bar of 800A capacity in separate bus bar chamber.				


SL. No.	Description	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
	One square panel type Voltmeter reading 0-500 V with rotary selector switch for reading voltage between phases.				
	One panel type Amperemeter (0-630A) with selector switch and CT				
	3 phase indication lights				
	Outgoing				
	2 nos. 160A TPN MCCB for main pump				
	1 no. 100A TPN MCCB for Water curtain pump				
	1 no. 40A TPN MCB one for jockey pump				
	2 nos. Star-Delta starter, one no. DOL Starter of suitable capacity.				
	3 nos. single phase preventors of suitable rating one for each motor				
	1 no. 40A TPN MCB one for jockey pump				
	3 nos. rotary type auto/manual off selector switch.				
	Space for 4 Nos. liquid level controller				
	Providing and fixing 1 No. auto start panel activated with pressure switch for diesel engine complete with all accessories, batteries, battery charger of suitable rating, MCB timers, push buttons, microprocessor based alarm annunciator, wiring and cabling including connection to diesel engine complete as required ready for working				
	Appropriate etched aluminium identification plate for each starter/switch.				
	Colour coded internal wiring from main to bus bar, switchgear, starters, indicating lamps complete in all respects.	Each	1	431375.00	431,375.00
39	Supplying & laying of following 1100 volt grade PVC insulated sheathed copper conductor armoured cable as per specification in cable trays, clamped includes anchor fastners to wall with suitable clamps, saddles fixing bolts including connecting testing and commissioning. (For Jockey Pump 2 Runs)				
39.1	3 core 6 sqmm	Meter	80	152.25	12,180.00
40	Supplying & laying of following 1100 volt grade PVC insulated sheathed XLPE aluminium conductor armoured cables as per specification in cable trays, ducts, clamped includes anchor fastners to wall with suitable clamps, saddles fixing bolts including connecting testing and commissioning.(For Main Hydrant/Sprinkler Pumps)				
40.1	3 core 150 sqmm	Meter	80	304.50	24,360.00
41	Cable end termination of the following PVC insulated sheathed PVC/XLPE aluminium conductor armoured cables of 1100 volt grade including supplying and fixing of crimping aluminium lugs, double compression glands with earthing facility at both ends of cables etc. complete as required				
41.1	3 core 150 sqmm Aluminium conductor cable	Nos	4	203.00	812.00
41.2	3 core 6 sqmm Copper conductor cable	Nos	8	101.50	812.00

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SL. No.	Description	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
42	Supply and fixing of perforated type GI cable trays of the following sizes as per specifications				
42.1	150 mm x 40 x 40 x 2 mm thick	Meter	60	812.00	48,720.00
42.2	300 mm x 40 x 40 x 2 mm thick	Meter	30	1421.00	42,630.00
43	Supply, Testing & Commissioning, fixing of following bare GI/Copper tapes / wires including all necessary fixing accessories and effecting connections as per specifications.				
43.1	4mm dia Copper wire	Meter	20	50.75	1,015.00
43.2	25 x 3 mm thick Copper tape	Meter	40	101.50	4,060.00
44	Providing and fixing M.S. structural work fabricated from standard sections, (MS rounds, angles, channels, slotted angle, etc.) including cutting to size, drilling, welding or insert plates including cost of (Hilti) fasteners, clamp in RCC structural members as directed, including two or more coats of synthetic enamel paint over one coat of primer after surface preparation including cutting and making good walls.	Kg	200	152.25	30,450.00
45	Providing and fixing diesel engine exhaust pipe with M.S. pipe to I.S. 1239 (Heavy Class) complete with all supports & fittings like, unions, couplings, bends, elbows, tees, offsets, reducers, flanges as per table 'E' etc. to complete the work as per the requirement at site including insulating the pipe with 12 mm thick supercera ceramic fibre rope over two coats of primer after surface preparation and two coats of bitumastic paint, cutting and making good the walls good complete.)	Meter	15	1218	18,270.00
TOTAL					3,984,577.00
V.	FIRE EXTINGUISHERS & MISC. ITEMS				
46	Providing and fixing Carbon-di-oxide fire extinguishers consisting of welded M.S cylindrical body, squeeze lever discharge valve fitted with internal discharge tube, 30cms long high pressure discharge hose, discharge nozzle, suspension bracket, confirming to IS : 15683 finished externally with red enamel paint and fixed to wall with brackets with rawl plug/dash fasteners complete with internal charge. Capacity 4.5 kg. ISI Marked.(Contractor should submit test certificate form manufacturer along with serial number of every extinguishers supplied.)	Nos	70	6597.50	461,825.00
47	Providing and fixing mechanical foam type (ISI marked) fire extinguishers consisting of welded M.S. cylindrical body squeeze lever discharge valve 30 cm long high pressure discharge hose, discharge nozzle suspension bracket ISI marked finished externally with red enamel paint and fixed to wall with brackets complete with internal charger.				
47.1	9 liters capacity. (IS. 15683)	Nos	10	3045.00	30,450.00
48	Providing and fixing water Co2(ISI marked) extinguishers including all accessories as per IS specification with wall bracket with rawl plug				
48.1	Capacity 9 liters.(IS:15683)	Nos	70	3045.00	213,150.00

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SL. No.	Description	Unit	Qty.	Rate(Rs.)	Amount (Rs.)
49	Providing and fixing ABC powder type fire extinguishers consisting of welded M.S. cylindrical body automatic modular ABC powder type extinguisher actuated through a sprinkler head mounted on The extinguisher body finished externally with red enamel paint and fixed to ceiling with brackets complete with internal charge. [For Transformer/DG/LT panel room]				
49.1	Capacity 4 Kg. (IS:15683)	Nos	70	3045.00	213,150.00
50	Providing and fixing of self illuminated / auto glow "EXIT" signs printed on photoluminescent sheet containing self illuminated base chemical, of appropriate size not less than 400 x 150 mm, suspended from ceiling or fixed to the walls with accessories as required and as directed at site.				
		Nos	80	1,015.00	81,200.00
51	Providing and fixing Carbon-di-oxide fire extinguishers consisting of welded M.S cylindrical body, squeeze lever discharge valve fitted with internal discharge tube, 30cms long high pressure discharge hose, discharge nozzle, trolley mounted, conforming to IS : 15683 finished externally with red enamel paint and fixed to wall with brackets with rawl plug/dash fasteners complete with internal charge. Capacity 22.5 kg. ISI Marked.(Contractor should submit test certificate form manufacturer along with serial number of every extinguishers supplied.)				
		Each	5	30,450.00	152,250.00
52	Providing and fixing mechanical foam type (ISI marked) fire extinguishers consisting of welded M.S. cylindrical body squeeze lever discharge valve 30 cm long high pressure discharge hose, discharge nozzle, trolley mounted ISI marked finished externally with red enamel paint and fixed to wall with brackets complete with internal charger.				
52.1	50 liters capacity. (IS. 15683)	Each	5	40600	203,000.00
TOTAL					1,355,025.00
VI. FIRE CHECK DOORS					
53	Supply & fixing Fire check door shutters consisting of vertical and horizontal rails/ style as per specification along with PYROSWISS EXTRA of SAINTGOBAIN OR EQUIVALENT Make 6.0mm thick clear toughened glass tested upto 2 hour and complies with both BS 476: Part 22. Makes to be used as per approved list of manufacturer complete with door closer, painting of fittings and ball bearing hinges(Required For Staircase, Lift lobby locations doors)				
		Sqm	250	20000.00	5,000,000.00
TOTAL					5,000,000.00
VI. PRESSURISATION FANS					
54	Supply, installation, testing and commissioning of tube axial flow fans for exhaust air suitable for installing in any position in Horizontal or vertical. The motor shall be suitable for 415 V \pm 10% volts three phase 50cycle, AC supply . The fan shall be equipped with mounting bracket & outlet core required at discharge. The fan shall be low RPM (less than 1000 RPM) and capacities based on minimum 30 MMWC static pressure or to suit the system, shall be as follows:				
54.1	6500 CFM @ 30 MMWG (for lift well pressurization)	Set	10	65000.00	650,000.00
TOTAL					650,000.00

HVAC SYSTEM WORKS		
ABSTRACT OF COST		
SL. NO.	ITEMS OF WORKS	AMOUNT
1	COST OF HVAC WORKS	41915820.00
	GRAND TOTAL	41915820.00

HVAC SYSTEM WORKS

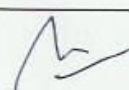
Sl. No.	Item Description	Unit	Qty.	Rate	Amount [Rs.]
1	Supply, erection, testing & commissioning including refrigerant charging of Air Cooled ALL Inverter Scroll VRF type system. Unit shall be factory assembled, powder coated GI sheet metal cabinets, all hardware of anti rust quality, refrigerant Cooled PCB, conformal coating on PCB to protect from duct & humidity, must have Wide voltage range from 320 V to 460 V, hydrophilic blue fin material for better corrosion resistance, top discharge type with Brushless DC Motor only. Outdoor Units must be Hot Air Top Discharge Type, as per site requirement.				
	The ODU capacity must be delivering actual cooling capacity at 42 deg C, no unloading upto 56 deg C. minimum COP must be 3.8 at 100% Load & 4.1 at 50% load at an ambient of 41 Deg C. Outdoor COP Calculation Must be furnished as per table, attached with Specification,				
	Condenser Heat exchanger made of copper tubes, Should inner grooved for high heat transfer. The condenser fans are to be fitted with high efficiency BLDC motor that regulate air flow depending on demand resulting more power saving.				
	The VRF system must compatible with R410A green Refrigerant only. System must be pre-charged at Factory. If required additional, based on the site, then it will be charged additional at site.				
1.1	66 HP	Nos.	5	1413400.00	7,067,000.00
1.2	56 HP	Nos.	1	1337400.00	1,337,400.00
1.3	44 HP	Nos.	9	938600.00	8,447,400.00
1.4	18 HP	Nos.	1	457600.00	457,600.00
2	Supply, erection, testing & commissioning of VRF cassette multifold indoor units comprising of coil section, filter section and high static fan section. The unit shall be ceiling suspended type and complete with all standard accessories.				
2.1	4 WAY CASSETTE UNIT 1.7 TR- (Min Air flow - 655 CFM)	Nos.	49	42500.00	2,082,500.00
2.2	4 WAY CASSETTE UNIT 2.0 TR - (Min Air flow - 655 CFM)	Nos.	8	42800.00	342,400.00
2.3	4 WAY CASSETTE UNIT 2.8 TR- (Min air flow - 1100 CFM)	Nos.	125	50900.00	6,362,500.00
2.4	4 WAY CASSETTE UNIT 3.2 TR- (Min air flow-1100 CFM)	Nos.	18	49500.00	891,000.00
3	Supply, erection, testing & commissioning of VRF ducted indoor units comprising of coil section, filter section and high static fan section. The unit shall be ceiling suspended type and complete with all standard accessories.				
3.1	8.0 TR Hi Static ductable unit of 3100 CFM	Nos.	6	73000.00	438,000.00
4	Supply, erection, testing & commissioning of cordless remote control	Nos.	200	900.00	180,000.00

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Sl. No.	Item Description	Unit	Qty.	Rate	Amount [Rs.]
5	Supply, erection, testing & commissioning of corded remote control	Nos.	6	3100.00	18,600.00
6	Supply, erection, testing & commissioning of individual Y joints / Refnet Joints for connecting IDU with Refrigerant piping.	Lot	1	1416000.00	1,416,000.00
7	Supply installation testing commissioning of tube axial fan having 18000cfm and 50 mm static supply air fan.	Nos.	1	700000.00	700,000.00
8	Supply installation testing commissioning of tube axial fan having 14500cfm and 40 mm static fan for exhaust.	Nos.	1	580000.00	580,000.00
9	Supply, erection, testing & commissioning of refrigerant piping to be manufactured from hard drawn copper complete with nitrile rubber based insulation 19/13mm				
9.1	41.275 mm OD (insulation - 19 mm thk.)	RMT	545	2300.00	1,253,500.00
9.2	38.02 mm OD (insulation - 19 mm thk.)	RMT	513	2050.00	1,051,650.00
9.3	34.9 mm OD (insulation - 19 mm thk.)	RMT	475	1850.00	878,750.00
9.4	28.6 mm OD (insulation - 19 mm thk.)	RMT	455	1600.00	728,000.00
9.5	25.02 mm OD (insulation - 19 mm thk.)	RMT	523	1440.00	753,120.00
9.6	22.2 mm OD (insulation - 19 mm thk.)	RMT	640	1250.00	800,000.00
9.7	19.1 mm OD (insulation - 13 mm thk.)	RMT	1045	990.00	1,034,550.00
9.8	15.9 mm OD (insulation - 13 mm thk.)	RMT	110	800.00	88,000.00
9.9	12.7 mm OD (insulation - 13 mm thk.)	RMT	280	650.00	182,000.00
10.0	9.5 mm OD (insulation - 13 mm thk.)	RMT	950	590.00	560,500.00
10.1	6.35 mm OD (insulation - 13mm thk.)	RMT	750	550.00	412,500.00
10	Supply, erection, testing & commissioning of drain piping of 25 mm dia of HDPE construction	RMT	900	215.00	193,500.00
11	Supply, erection, testing & commissioning of drain piping of 32 mm dia of HDPE construction	RMT	560	250.00	140,000.00
12	Supply, erection, testing & commissioning of drain piping of 40 mm dia of HDPE construction	RMT	310	300.00	93,000.00
13	Supply and Installation of R410 Gas	kg	380	1900.00	722,000.00
14	Supply, erection, testing & commissioning of 2C x 1.5 sq. mm shielded copper control cable in PVC conduit	RMT	3175	210.00	666,750.00
15	Supplying, Installing, Testing and Commissioning with all lead and lifts, all levels - GSS Ducting. The work shall include all ancillary items like supports, clamps,				
15.1	0.63 mm (24G) Ducting	Sqmt	600	750.00	450,000.00
15.2	0.8 mm (22G) Ducting	Sqmt	350	900.00	315,000.00
16	Supplying, Installing, Testing and Commissioning with all lead and lifts, all levels - Powder coated, extruded aluminium, removable center core type, supply air diffusers with volume control dampers of aluminium construction.	Sqmt	8	8500.00	68,000.00

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Sl. No.	Item Description	Unit	Qty.	Rate	Amount [Rs.]
17	Supplying, Installing, Testing and Commissioning with all lead and lifts, all levels -Powder coated, extruded aluminium, removable center core type Return air diffusers without volume control dampers of aluminium construction .	Sqmt	12	7500.00	90,000.00
18	Supplying, Installing, Testing and Commissioning with all lead and lifts, all levels - Collar Damper of opposed blade type made out of Aluminium alloy extrusion.	Sqmt	3	4000.00	12,000.00
19	Supplying, Installing, Testing and Commissioning Thermal insulation with with 13 mm thk nitrile rubber.	Sqmt	200	750.00	150,000.00
20	Supplying, Installing, Testing and Commissioning Acoustical insulation with ith 12 mm thick rigid board fibreglass covered with aluminium perforated sheet.	Sqmt	100	972.00	97,200.00
21	MS Frame for mounting the modular outdoor unit at terrace	Nos.	40	7055.00	282,200.00
22	Supply, erection, testing & commissioning of perforated GI cable tray for running the exposed pipeline at terrace	RMT	610	920.00	561,200.00
23	Supply, erection, testing & commissioning of Tube Axial Fan 900CFM Capacity	Nos.	4	3000.00	12,000.00
	Total				41,915,820.00

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LIFT WORKS		
ABSTRACT OF COST		
SL. NO.	ITEMS OF WORKS	AMOUNT
1	COST OF LIFT WORKS	29312062.50
	GRAND TOTAL	29312062.50

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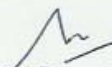
LIFT WORKS					
SL. NO.	PARTICULAR	UNIT	QTY	RATE	AMOUNT
1	Supplying, installation, testing and commissioning of 13 Passenger (884 Kg) lifts having contract speed of 1.0 MPS serving different floors in the lift shaft as per detailed specifications and as under: - MAIN PAVILION				
	Floor: G+4				
	Travel : 15 Meters (approx.)				
	Stops and Opening : 4 Stops & 4 Opening				
	controller: AC Variable voltage and variable frequency				
	Automatic rescue device complete with dry maintenance free batteries as required				
	Operation: Microprocessor based single automatic push button / simplex selective collective / duplex selective collective/ with/ without attendant				
	power: 415V 3phase 50 HZ, 4-wire system				
	type of door: a. car: power operated center opening horizontal sliding, stainless steel scratch proof (moon rock finish)				
	b. landing doors: stainless steel scratch proof (moon rock finish)				
	A hand rail not less than 600mm long at 900 mm above floor level to be fixed adjacent to control panel in the lift car				
	Voice announcement system in the car to announce the position of the elevator in the hoist-way as the car passes or stops at a floor served by the elevator				
	Lift as per Above description complete as required.	Set	4.00	2777250.00	11109000.00
2	Supplying, installation, testing and commissioning of 1000 kg Goods cum passenger lifts having contract speed of 1.0 MPS serving different floors in the lift shaft as per detailed specifications and as under: - MAIN PAVILION				
	Floor: G+4				
	Travel : 15 Meters (approx.)				
	Stops and Opening : 5 Stops & 5 Opening				
	controller: AC Variable voltage and variable frequency				
	Automatic rescue device complete with dry maintenance free batteries as required				
	Operation: Microprocessor based single automatic push button / simplex selective collective / duplex selective collective/ with/ without attendant				
	power: 415V 3phase 50 HZ, 4-wire system				
	type of door: a. car: power operated center opening horizontal sliding, stainless steel scratch proof (moon rock finish)				
	b. landing doors: stainless steel scratch proof (moon rock finish)				
	A hand rail not less than 600mm long at 900 mm above floor level to be fixed adjacent to control panel in the lift car				
	Voice announcement system in the car to announce the position of the elevator in the hoist-way as the car passes or stops at a floor served by the elevator				
	Lift as per Above description complete as required.	Set	1.00	3048937.50	3048937.50
3	Supplying, installation, testing and commissioning of 1500 kg Goods cum passenger lifts having contract speed of 1.0 MPS serving different floors in the lift shaft as per detailed specifications and as under: - MAIN PAVILION				
	Floor: B+G+4				
	Travel : 20 Meters (approx.)				
	Stops and Opening : 6 Stops & 6 Opening				
	controller: AC Variable voltage and variable frequency				
	Automatic rescue device complete with dry maintenance free batteries as required				

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SL. NO.	PARTICULAR	UNIT	QTY	RATE	AMOUNT
	Operation: Microprocessor based single automatic push button / simplex selective collective / duplex selective collective/ with/ without attendant power: 415V 3phase 50 HZ, 4-wire system				
	type of door: a. car: power operated center opening horizontal sliding, stainless steel scratch proof (moon rock finish)				
	b. landing doors: stainless steel scratch proof (moon rock finish)				
	A hand rail not less than 600mm long at 900 mm above floor level to be fixed adjacent to control panel in the lift car				
	Voice announcement system in the car to announce the position of the elevator in the hoist-way as the car passes or stops at a floor served by the elevator				
	Lift as per Above description complete as required.	Set	1.00	4347000.00	4347000.00
4	Supplying, installation, testing and commissioning of 13 Passenger (884 Kg) lifts having contract speed of 1.0 MPS serving different floors in the lift shaft as per detailed specifications and as under: - MEDIA PAVILION Floor: G+4 Travel : 15 Meters (approx.) Stops and Opening : 4 Stops & 4 Opening controller: AC Variable voltage and variable frequency Automatic rescue device complete with dry maintenance free batteries as required				
	Operation: Microprocessor based single automatic push button / simplex selective collective / duplex selective collective/ with/ without attendant power: 415V 3phase 50 HZ, 4-wire system				
	type of door: a. car: power operated center opening horizontal sliding, stainless steel scratch proof (moon rock finish)				
	b. landing doors: stainless steel scratch proof (moon rock finish)				
	A hand rail not less than 600mm long at 900 mm above floor level to be fixed adjacent to control panel in the lift car				
	Voice announcement system in the car to announce the position of the elevator in the hoist-way as the car passes or stops at a floor served by the elevator				
	Lift as per Above description complete as required.	Set	2.00	2777250.00	5554500.00
5	Supplying, installation, testing and commissioning of 13 Passenger (884 Kg) lifts having contract speed of 1.0 MPS serving different floors in the lift shaft as per detailed specifications and as under: - MEDIA PAVILION Floor: G+4 Travel : 15 Meters (approx.) Stops and Opening : 5 Stops & 5 Opening controller: AC Variable voltage and variable frequency Automatic rescue device complete with dry maintenance free batteries as required				
	Operation: Microprocessor based single automatic push button / simplex selective collective / duplex selective collective/ with/ without attendant power: 415V 3phase 50 HZ, 4-wire system				
	type of door: a. car: power operated center opening horizontal sliding, stainless steel scratch proof (moon rock finish)				
	b. landing doors: stainless steel scratch proof (moon rock finish)				
	A hand rail not less than 600mm long at 900 mm above floor level to be fixed adjacent to control panel in the lift car				

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SL. NO.	PARTICULAR	UNIT	QTY	RATE	AMOUNT
	Voice announcement system in the car to announce the position of the elevator in the hoist-way as the car passes or stops at a floor served by the elevator				
	Lift as per Above description complete as required.	Set	1.00	2777250.00	2777250.00
6	Supplying, installation, testing and commissioning of 10 Passenger (680 Kg) lifts having contract speed of 1.0 MPS serving different floors in the lift shaft as per detailed specifications and as under: - TV PRODUCTION Floor: B+G+3 Travel : 20 Meters (approx.) Stops and Opening :5 Stops & 5 Opening controller: AC Variable voltage and variable frequency Automatic rescue device complete with dry maintenance free batteries as required Operation: Microprocessor based single automatic push button / simplex selective collective / duplex selective collective/ with/ without attendant power: 415V 3phase 50 HZ, 4-wire system type of door: a. car: power operated center opening horizontal sliding, stainless steel scratch proof (moon rock finish) b. landing doors: stainless steel scratch proof (moon rock finish) A hand rail not less than 600mm long at 900 mm above floor level to be fixed adjacent to control panel in the lift car Voice announcement system in the car to announce the position of the elevator in the hoist-way as the car passes or stops at a floor served by the elevator				
	Lift as per Above description complete as required.	Set	1.00	2475375.00	2475375.00
	TOTAL				29312062.50

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CRICKET STADIUM LIGHTING WORKS		
ABSTRACT OF COST		
SL. NO.	ITEMS OF WORKS	AMOUNT
1	COST OF CRICKET STADIUM LIGHTING	85000000.00
	GRAND TOTAL	85000000.00

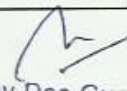
Cricket Stadium Lighting (2500 to 3000 Lux Level)					
SI No	Head Description	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
1.	Design, Manufacture, Supply, Assembly, Installation, Commissioning of Hot Dip Galvanised High Masts 44M as per specifications and approved make with cross- arm fixing plates, cross-arms, ladder, platform etc. complete in all respects.	6	Sets		
2.	Design, Manufacture, Supply, Installation of Foundation Bolts with nuts, washers, temp plate and anchor plates as per approved make complete in all respects.	6	Sets		
3.	Design, Supply of materials, construction of Civil Foundation inclusive of all Materials, Labour and Tools & Machinery as per drawing design to suit the high-mast complete in all respects.	6	Jobs		
4.	Design, Manufacture, Supply, Installation, Testing & Commissioning of Imported Constant illumination Technolgy Main Floodlights fixture of 1.5kw Metal Halide of approved make complete with HID Lamp as per specification and complete in all respects.	450	Sets		
5.	Design, Manufacture, Supply, Installation, Testing & Commissioning of Imported Constant illumination Technolgy Security Floodlights fixture of 1.5kw Metal Halide of approved make complete with HID Lamp as per specification and complete in all respects.	12	Sets		
6.	Supply, Testing & Commissioning of Imported Control Gear and boxes / racks to suit above rating of floodlights for each high-mast as per approved makes complete in all respects.	6	Lots		

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SI No	Head Description	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
7.	Supply, Installation, Testing & Commissioning of Internal Wiring 2.5sqmm (min) copper conductor, PVC insulated, PVC sleeve protected to connect from Control Gear to each Floodlight inside each high-mast as per approved make complete in all respects.	6	Lots		
8.	Design, Manufacture, Supply, Installation, Testing & Commissioning of Electrical Main LT Panel as per system requirement consisting of 2 In-comer and metering section and 6 out-going feeders and one spare feeder, all of suitable rating and size as required by the lighting system as per approved makes complete in all respects.	1	No.		
9.	Design, Manufacture, Supply, Installation, Testing & Commissioning of Electrical Mast LT Panel as per system requirement consisting of 1 In-comer and metering section and 3 out-going feeders and one spare feeder, all of suitable rating and size as required by the lighting system as per approved makes complete in all respects.	6	Nos.		
10.	Supply, Installation, Testing & Commissioning of LED Type of Aviation Obstruction Lights along with connecting internal cable and mounting arrangement on top of the mast as per approved make complete in all respects.	8	Sets		
11.	Supply, Installation, Testing & Commissioning of power cable 3.5cx120sqmm AYWY Al conductor, XLPE insulated, PVC sheathed, Steel armoured type laid buried in trench with brick cover as per approved make complete in all respects. To connect the Main Panel to each High Mast panel.	1000	Meter		

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SI No	Head Description	Qty	Unit	Unit Rate (Rs.)	Amount (Rs.)
12.	Supply, Installation, Testing & Commissioning of control cable 4cx16sqmm YWY Cu conductor, XLPE insulated, PVC sheathed, Steel armoured type laid buried in trench with brick cover as per approved make complete in all respects. To connect the Security Lights for each High Masts	1000	Meter		
13.	Supply, Installation, Testing & Commissioning of control cable 3cx2.5sqmm YWY Cu conductor, XLPE insulated, PVC sheathed, Steel armoured type laid buried in trench with brick cover as per approved make complete in all respects. To connect the AOL circuits for each High Masts	1000	Meter		
14.	Supply, Installation, Testing & Commissioning of copper wiring 10sqmm PVC insulated to connect from High Mast panel to Control Gear Boxes as per approved make complete in all respects.	1000	Meter		
15.	Supply, Installation of GI plate earth electrode type earth station including chamber etc. as per IS complete in all respects.	26	Sets		
16.	Supply, Installation of GI earth strip of 25 x 5 mm size connecting between GI pipe earth electrode and body earth points on mast / panel buried in ground complete in all respects.	260	Meters		
TOTAL					8500000.00

SPORTS LIGHTING OF CRICKET STADIUM FOR CTV TELECAST		
10 Year Life Cycle Cost Sheet		
Sl. No.	Parameters	Values
1	Model & Make of Imported Floodlights	
2	Quantity of Floodlights Offered	a
3	Kw per lamp (incl ballast loss)	b
4	Power Load Kw per hour	a x b
5	Energy Cost - Rupees per Kwh	10.0
6	Hours used per year	500.0
7	Energy Cost per year	(a x b) x 10 x 500
	10 Year Total Energy Cost	X = {(a x b) x 10 x 500} x 10
8	Useful Lamp Life	In hours (d)
9	Group Relamp in 10 years	5000 hours / (d)
10	Cost of lamp	Rs. (e)
	10 Year Cost of group relamp	a x e x (5000 / d)
11	Estimated qty of lamps replace / year	f
12	Total spot relamp in ten years	f x 10
	10 Year Cost of Spot relamp	(f x e x 10)
	Total Relamp Cost	Y=(a x e x (5000/d)) + (f x e x 10)
13	Ballast Replacement Cost for 10 years	g
14	Capacitor Replacement Cost for 10 years	h
15	Ignitor Replacement Cost for 10 years	i
	10 Year Cost of Component replacement	Z = (g + h + i)
	Energy + Re-lamp + Maintenance Cost 10 years	X + Y + Z


PREPARATION OF PITCH QUADRANGLE OUTFIELD AND SUB SOIL DRAINAGE

SL. NO	ITEMS OF WORKS	AMOUNT
1	Laying of Subsurface Drainage System for Tripura Cricket Out Field ft Pitches	61,798,600.00
	GRAND TOTAL	61,798,600.00

PREPARATION OF PITCH QUADRANGLE OUTFIELD AND SUB SOIL DRAINAGE					
Sr.	Item Description	Unit	Quantity	Rate	Amount
1	Soil for ground filling 0.5 M depth considered (The rate are cut and fill with in the site)	Cum	RO	200	
2	Fine Dresing and Compaction(25mm top)	Sqm	20000	28	560,000.00
3	Excavation of Trenches for Drainage (200 x 300 mm) and shifting of soil out side of stadium.	Rmt.	6660	95	632,700.00
4	Supply of Geotextte (for trenches)	Sqm	12600	68	856,800.00
5	Laying of Geotextile	Sqm	12600	38.00	478,800.00
6	Supplying of Perforated Pipe f88/ 100mm)	Rmt.	6030	175.00	1,055,250.00
7	Supplying of Y " Joints double	Nos	220	800.00	176,000.00
8	Supplying of Y ' Joints sinole	Nos	50	700.00	35,000.00
9	Supplying of End Caps 4" PVC	Nos	220	135	29,700.00
10	Installation, jointing and fixing of Perforated Pipe 4" and 6"	Rmt.	6030	165.00	994,950.00
11	Suppymg of T JoJnts 6"	Nos	20	600.00	12,000.00
12	Suppying of Cross	Nos	20	580.00	11,600.00
13	Supply of 6" PVC pipe 4 kq/	Rmt.	624	550.00	343,200.00
14	Supply of 6" PVC End Cap	Nos	20	230.00	4,600.00
15	Coupler 6"	Nos	25	160	4,000.00
16	Coupler 4"	Nos	200	90.00	18,000.00
17	Supplying of Aggregate 6 - 10 mm size for Trenches	Cum	347	4950.00	1,717,650.00
18	Supply of agregate 100 mm blanket layer(compactd)	Cum	3000	4950.00	14,850,000.00
19	Washing. Charges of aggravate	Cum	RO	870.00	
20	Carting and Laying of 8-10 mm aggregate	Cum	3347	650.00	2,175,550.00
21	Supplying of Unseived Sand 8" thick compacted(River sand)	Cum	5200	950.00	4,940,000.00
22	Sievsng of sand	Cum	RO	730.00	
23	Carting and Laying of Unseived Sand	Cum	3000	680	2,040,000.00
24	Picking of stone from sand(unsieved)	Cum	3000	125.00	375,000.00
25	Carting and laying of sieved sand	Cum	3000	680	2,040,000.00
26	Supply of Organic Matter 100kg/100sqm(Neem Cake)	Kg	20000	32.00	640,000.00
27	Spreading and Mrxing of GM on the top of final < ayer(50mm)	Sqm	20000	28.00	560,000.00
28	Basal Fertilization & Starter fertilizer	sqm	20000	32.00	640,000.00
29	Supply of bermuda grass(Loase)	LS			750,000.00
30	Grassing with 3 month maintenance (Dibbling/Sprigging)	sqm	20000	130.00	2,600,000.00
31	Course Sand for pitch(764 sqm)	Cum	76	950	72,200.00
32	Fine Sand for pitch	Cum	76	900.00	68,400.00
33	Black Soil for Pitch	Cum	600	30000.00	18,000,000.00
34	Laymg of Sand and soil in layer for pitch making, iezing of pitch soil etc	Cum	752	6500.00	4,888,000.00
35	Massing of pitch including grass	sqm	764	300.00	229,200.00
TOTAL					61,798,600.00

BIDDER

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Sourav Das Gupta
Honorary General Secretary
Tripura Cricket Association