

Schedule Of Quantities for Proposed redevelopment of Ghatkopar swimming pool on land bearing F.P. No.195 of TPS Ghatkopar No. III, Village Ghatkopar-Kirol, R.N. Narkar Marg, near Odeon Mall situated in 'N' Ward, Mumbai, for Brihanmumbai Municipal Corporation.

SUMMARY OF M&E WORKS

Sr No	Item Package Disription	Cost of Package
1	Electrical Works	445,77,225.48
2	Fire Alarm and Fire Fighting System	165,46,106.50
3	HVAC System	401,22,778.00
4	Lift / Elevators	114,46,814.00
5	Swimming Pool Works	317,60,444.00
	Total	1444,53,367.98
	Grand Total M & E	1444,53,400.00
6	CSMC for M&E Works	58,66,586.00
7	SWIMMING POOL FILTRATION PLANT O&M	177,01,200.00

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1.0 - ELECTRICAL WORKS

						Rev-02
Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
	A	11KV SUBSTATION WORK				
1	GSP-FAIR-01 ELECT	SITC of 11 kV, 630A, 21kA/3sec, 3 way outdoor, extensible motorised SCADA compatible RMU	Nos	5,13,954.00	1.00	5,13,954.00
2	GSP-FAIR-02 ELECT	Providing printed instruction chart for treating persons suffering from electric shock, printed in English & Marathi and duly laminated complete.	Nos	151.00	4.00	604.00
3	GSP-FAIR-03 ELECT	Supplying and fixing PVC synthetic elastomer electrically insulating mat for 3.3 kV	SQM	557.00	7.00	3,899.00
4	GSP-FAIR-04 ELECT	Supplying and fixing PVC synthetic elastomer electrically insulating mat with class B insulation conforming to IS: 15652 – 2006 having 2.5 mm thickness up to 11 kV	SQM	676.00	8.00	5,408.00
5	GSP-FAIR-05 ELECT	Providing pair of duly tested rubber hand gloves as per IS :47705 suitable for working up to 22 kV	PAIR	564.00	2.00	1,128.00
6	R3-ME-15-31-d	Supplying standard first aid box with necessary antiseptic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (Bandaid) adhesive tape for medicinal use, scissors, anti-septic solution etc. (All above contents shall be of standard makes)	Nos	3,593.00	6.00	21,558.00
7	R3-ME-2-23	Supplying, installation, testing & commissioning of following sizes of 11kV (UE) grade XLPE aluminium conductor PVC sheathed round wire armoured cable				
8	R3-ME-2-23-a	1st Category XLPE Al conductor PVC sheathed round wire armoured cable- 3C x 240 sq.mm	Mtr	2,043.00	120.00	2,45,160.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
9	GSP-FAIR-06 ELECT	Supplying, installation, testing and commissioning 3 phase, 11/0.433 kV, 50 Hz., 630 kVA, indoor type, vacuum cast coil (VCC) dry type cast resin transformer, Copper wound , Dyn11 vector group, delta/star connection with additional neutral brought out on load side, for indoor use continuous duty, average temp rise of winding (at principal tap) 115°C at ambient temp max 50°C & min -5°C at full load rating, with Tapping (with off circuit tap links type tap changer) for off load +5 to - 5% @ 2.5% in +2/-2 steps, HV variation, class of insulation H/H, method of cooling AN, no load loss at rated voltage & frequency (+15% IS Tol) 1.60 kW, full load loss at rated current 5.00 kW, with 98.96 % efficiency at full load & 99.10 % at 1/2 full load, with 75 kV peak full wave lightning impulse withstand voltage with complete enclosure having IP 21 degree of protection, cable box arrangement at HV side & bus duct at LV side ,with rating & diagram plate, base channel, earthing terminals & WTI scanner with 3 PT-100 sensors, etc. standard accessories complete with test certificate (as per IS:11171 & IS 2026) with necessary permissions of Electrical Inspector, as per	Each	12,61,206.00	1.00	12,61,206.00
	MA-R3-ME-160	D.G.SET WITH PANEL (SP-ME-TS-31)				
10	GSP-FAIR-10 ELECT	D.G.SET WITH PANEL -250KVA	Nos.	18,47,424.00	1.00	18,47,424.00
	GSP-FAIR-11 ELECT	SITC OF AUTOMATIC MAINS FAILURE PANEL SUITABLE TO DG SET				
11	R3-ME-6-18-p	SITC OF AUTOMATIC MAINS FAILURE PANEL SUITABLE TO DG SET -250KVA	Nos.	1,68,912.00	1.00	1,68,912.00
	B	PANELS				

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
		Supplying, transporting to project site, installing and commissioning distribution wall mounting panel incorporating MCCB, MCBs, Surge protector, Isolator, indicating lamps, Copper busbars etc. as per the details as shown in the Respective Drawing & shall incorporate the following. Note:- Panel shall be IP 42 rating unless it is not specified in the SLD				
12	GSP-FAIR-07 ELECT	SITC OF MAIN LT PANEL	No.	9,24,031.00	1.00	9,24,031.00
		Incoming:				
		1 Nos 1250A TPN ACB(50kA), MDO Type with Microprocessor release,				
		Buscoupler - 1250A 4P, ACB (50kA), Manual Fixed type				
		1 Nos 400A TPN ACB(50kA), MCCB with Microprocessor Release S/C, O/L & E/F protection				
		Busbar:				
		1 Set 1600A TPN 50kA AL busbar				
		R-Y-B LED indicating lamps with protective MCB- 1 set & ON / OFF Indicator				
		2 Set - Digital Load Managers with RS 485 communication port with 3 suitable ratio CTs with Class-1 accuracy and MCB for protection.				
		Surge Arrestor - SPD 36KA TYPE 1&2 with Backup MCB of 63A				
		Outgoing:				
		01 No. 630A TPN MCCB (36kA)				
		04 Nos. 400A TPN MCCB (36kA)				
		03 Nos. 250A TPN MCCB (36kA)				
		08 Nos. 100A TPN MCCB (36kA)				
		05 Nos. of 63A TPN MCB,10KA				
		02 Nos. of 32A TPN MCB,10KA				
		As per SLD attached				
13	GSP-FAIR-08 ELECT	SITC OF MAIN LPDB PANEL	No.	2,71,139.00	1.00	2,71,139.00
		Incoming:				
		1 No. 250A TPN MCCB (36kA) with Microprocessor Release S/C, O/L & E/F protection				

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
		Busbar:				
		1 Set 500A TPN 36kA AL busbar				
		R-Y-B LED indicating lamps with protective MCB- 1 set & ON / OFF Indicator				
		1 Set - Digital Load Managers with RS 485 communication port with 3 suitable ratio CTs with Class-1 accuracy and MCB for protection.				
		Surge Arrestor - SPD 36KA TYPE 1 with Backup MCB of 63A				
		Outgoing:				
		4 Nos. 100A TPN MCCB (16kA)				
		3 Nos. 63A TPN MCCB (16kA)				
		3 Nos. 32A TPN MCCB (16kA)				
14	GSP-FAIR-09 ELECT	SITC OF MAIN HVAC PANEL	No.	3,60,170.00	1.00	3,60,170.00
		Incoming:				
		1 No. 630A TPN MCCB (36kA) wih Microprocessor Release S/C, O/L & E/F protection				
		Busbar:				
		1 Set 800A TPN 50kA AL busbar				
		R-Y-B LED indicating lamps with protective MCB- 1 set & ON / OFF Indicator				
		1 Set - Digital Load Managers with RS 485 communication port with 3 suitable ratio CTs with Class-1 accuracy and MCB for protection.				
		Outgoing:				
		01 Nos. 125A TPN MCCB (16kA)				
		01 Nos. 100A TPN MCCB (16kA)				
		06 Nos. 63A TPN MCCB (16kA)				
		07 Nos. 32A TPN MCCB (16kA)				
		APFC Panel (SP-ME-TS- 2)				
	R3-ME-1-29	APFC Panel				
15	R3-ME-1-29-a	Automatic Power Factor Corrector Panel (APFC) above 30KVAR only.(180 KVar)	Per KVAR	4,180.00	180.00	7,52,400.00
16	R3-ME-1-30-b	Supply and fixing 20 mm thick Marine Ply Plank	SQM	1,813.00	20.00	36,260.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
	R3-ME-1-32	SUPPLY & INSTALLATION OF ANGLE IRON FRAME WORK (TS-7)				
17	R3-ME-1-31-b	40 x 40 x 5 mm of M.S.angle.	Mtr	427.00	50.00	21,350.00
18	R3-ME-1-31-e	Flat bars 40 mm x 5 mm thick.	Mtr	283.00	50.00	14,150.00
19	R3-ME-1-31-f	Flat bars 50 mm x 6 mm thick	Mtr	367.00	50.00	18,350.00
	R3-ME-1-13-t	Readymade DB in CRCA enclosure with IP 44 degree of protection, with 125A TPN MCCB (Thermal Magnetic with overload, short circuit release) as incomer and 4Noss. 63A TP MCB OR 12Noss. 63A SP MCB as outgoing (4 way TPN MCCB DB) (Plumbing Feeder Panel)	Nos.	28,431.00	1.00	28,431.00
20	R3-ME-1-18-d	125A 4P MCCB	Nos.	8,518.00	1.00	8,518.00
21	R3-ME-1-17-n	63A TP MCB	Nos.	2,473.00	4.00	9,892.00
22	R3-ME-6-19-a	Automatic pump control panel	Nos.	50,982.00	4.00	2,03,928.00
23	R3-ME-1-27-a	415V Pump panel with 63A MCCB as incomer with phaseindicator and ammeter & voltmeter with selector switches, 2Noss. Of 25A MPCB with DOL Starter, local push button station& contactor of required rating as outgoing	Nos.	92,012.00	4.00	3,68,048.00
	C	Distribution Board (Box only) (SP-ME-TS- 3)				
	R3-ME-1-16	IP 43 & IP 30 Vertical TPN Distribution Board with Modular Incomer with Metal door (Box only) of of various sizes on wall/ Column/ floor mounting, with detachable gland plate, terminal connectors and other required hardware & fasteners. DB shall be designed with provision for MCCB as incomer & SP / TP MCB as outgoing as per requirement. (Cost of the DBs will be without MCB, MCCB). DB shall be as per IS 8623- 1 & 3 / IEC 61439- 1 & 3.				
24	R3-ME-1-16-a	IP 43 4 Way MCCB DB (125/160A MCCB + 4Way TP MCB /12 Way SP MCB) - FLOOR LPDB	Nos.	14,701.00	7.00	1,02,907.00
25	R3-ME-1-18-d	125A 4P MCCB	Nos.	8,518.00	7.00	59,626.00
26	R3-ME-1-17-d	32A SP MCB	Nos.	334.00	84.00	28,056.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
	R3-ME-1-15	IP43&30 SPN, TPN, Vertical TPN Distribution board with metal door of various sizes on wall/ Column/ floor mounting, with detachable gland plate, terminal connectors and other required hardware & fasteners. DB shall be designed with provision for FP MCB/ Isolator/ RCCB/ RCBO as incomer & SP / TP MCB as outgoing as per requirement. (Cost of the DBs will be without MCB, MCCB). DB shall be as per IS 8623- 1 & 3 / IEC 61439- 1 & 3.				
27	R3-ME-1-15-a	IP43 8 Way SPN DB (4 + 4Way)	No.	2,480.00	11.00	27,280.00
28	R3-ME-1-15-b	IP43 12 Way SPN DB (4 + 8Way)	No.	2,982.00	8.00	23,856.00
29	R3-ME-1-15-c	IP43 16 Way SPN DB (4 + 12Way)	No.	3,741.00	21.00	78,561.00
	C.3	MCB				
	R3-ME-1-17	Unit rate of 240V/415V, 'C' Curve, 10kA, Miniature circuit breaker suitable for DB mounting complete with connection, testing & commissioning etc. as required.				
30	R3-ME-1-17-b	10A SP MCB	No.	332.00	186.00	61,752.00
31	R3-ME-1-17-c	16A/20A SP MCB	No.	332.00	236.00	78,352.00
32	R3-ME-1-17-i	32A DP MCB	No.	992.00	39.00	38,688.00
33	R3-ME-1-17-m	32A TP MCB	No.	1,617.00	15.00	24,255.00
34	R3-ME-1-17-v	32A 4P MCB	No.	2,187.00	10.00	21,870.00
35	R3-ME-1-17-w	63A 4P MCB	No.	3,154.00	3.00	9,462.00
		MCBs in 16SWG sheet steel metal box (SP-ME-TS- 3)				
	R3-ME-1-19	MCBs In 16 SWG CRCA sheet steel enclosure, powder coated, wall / column mounted with provision for support arrangement, 2 earthing terminal, Incoming & outgoing cable terminal etc. with required hardware & fasteners. All MCBs shall be rated for 10kA, 'C' curve type. Colour shade shall be RAL 7032 Smoke gray as per IS 5 IP 43 Enclosure				
36	R3-ME-1-19-a	16/32 Amp. DP MCB	No.	3,049.00	6.00	18,294.00
37	R3-ME-1-19-b	16/32 Amp. TPN MCB	No.	4,281.00	8.00	34,248.00
38	R3-ME-1-19-c	63 Amp. TPN MCB	No.	5,271.00	7.00	36,897.00
		Earth Leakage circuit Breaker / Residual Current circuit Breaker (SP-ME-TS- 4)				

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
	R3-ME-1-25	ELCBs In 16 SWG CRCA sheet steel enclosure, powder coated, wall / column mounted with provision for support arrangement, 2 earthing terminal, Incoming & outgoing cable terminal etc. Colour shade shall be RAL 7032 Smoke gray as per IS 5.				
		with 100mA Sensitivity				
39	R3-ME-1-25-e	ELCB with 100mA Sensitivity 25Amp. 4Pole	No.	5,621.00	10.00	56,210.00
40	R3-ME-1-25-f	ELCB with 100mA Sensitivity 40Amp. 4Pole	No.	5,691.00	39.00	2,21,949.00
41	R3-ME-1-7-c	30/32 Amp. 415V TPN switch unit with CRCA sheet steel powder coated enclosure with accessories.	Nos.	1,651.00	2.00	3,302.00
42	R3-ME-1-7-d	63 Amp. 415V TPN switch unit with CRCA sheet steel powder coated enclosure with accessories.	Nos.	3,343.00	1.00	3,343.00
		CABLES, EXCAVATION, G.I. CABLE TRAYS & ACCESSORIES, CABLE JOINTS, CABLE PROTECTION PIPE.				
		Cables : Supply & laying " XLPE cables" on walls or through existing trenches etc. (SP-ME-TS- 6)				
		LV Cables of following sizes to be laid buried in ground/ laid in cable trays in ready made trenches, cables shall be fitted on wall / ceiling by the means of saddle & spacers. Miscellaneous items such as cable dressing accessories like nylon tie, Aluminium clamps, GI cleats, cable tags etc. are included in the scope. Removal of empty drums, cartoons and making the site normal as instructed by Purchaser client is included in scope.				
		1.1 kV grade stranded Al conductor, XLPE insulated,extruded PVC inner and FRLS outer sheathed,galvanised steel round or strip armoured cables				
41	R3-ME-2-1-s	1st category Al r armoured cables FRLS outer sheathed- 4C x 16 Sq mm	Mtr.	195.00	291.00	56,745.00
42	R3-ME-2-1-t	1st category Al armoured cables FRLS outer sheathed- 4C x 25 Sq mm	Mtr.	254.00	99.00	25,146.00
43	R3-ME-2-1-u	1st category Al armoured cables FRLS outer sheathed- 3.5C x 35 Sq.mm	Mtr.	294.00	394.00	1,15,836.00
44	R3-ME-2-1-v	1st category Al armoured cables FRLS outer sheathed- 3.5C x 50 Sq.mm	Mtr.	390.00	50.00	19,500.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
45	R3-ME-2-1-w	1st category Al armoured cables FRLS outer sheathed- 3.5C x 70 Sq.mm	Mtr.	510.00	30.00	15,300.00
46	R3-ME-2-1-y	1st category Al armoured cables FRLS outer sheathed- 3.5C x 120 Sq.mm	Mtr.	792.00	30.00	23,760.00
47	R3-ME-2-1-z	1st category Al armoured cables FRLS outer sheathed- 3.5C x 150 Sq.mm	Mtr.	922.00	30.00	27,660.00
48	R3-ME-2-1-aa	1st category Al armoured cables FRLS outer sheathed- 3.5C x 185 Sq.mm	Mtr.	1,167.00	50.00	58,350.00
49	R3-ME-2-1-ab	1st category Al armoured cables FRLS outer sheathed- 3.5C x 240 Sq.mm	Mtr.	1,485.00	88.00	1,30,680.00
50	R3-ME-2-1-ac	1st category Al armoured cables FRLS outer sheathed- 3.5C x300 Sq.mm	Mtr.	1,807.00	100.00	1,80,700.00
		1.1 kV grade stranded Cu conductor, XLPE insulated, extruded PVC inner and outer sheathed FRLS, galvanised steel round or strip armoured cables (SP-ME-TS- 6)				
51	R3-ME-2-3-i	1st category Cu armoured cables FRLS outer sheathed- 2C x 4	Mtr.	149.00	50.00	7,450.00
52	R3-ME-2-3-m	1st category Cu armoured cables FRLS outer sheathed- 2C x 6	Mtr.	204.00	50.00	10,200.00
53	R3-ME-2-3-q	1st category Cu armoured cables FRLS outer sheathed- 2C x 10	Mtr.	309.00	300.00	92,700.00
54	R3-ME-2-3-f	1st category Cu armoured cables FRLS outer sheathed- 3C x 2.5	Mtr.	142.00	300.00	42,600.00
55	R3-ME-2-3-j	1st category Cu armoured cables FRLS outer sheathed- 3C x 4	Mtr.	197.00	100.00	19,700.00
56	R3-ME-2-3-k	1st category Cu armoured cables FRLS outer sheathed- 4C x 4	Mtr.	255.00	11.00	2,805.00
57	R3-ME-2-3-o	1st category Cu armoured cables FRLS outer sheathed- 4C x 6	Mtr.	370.00	236.00	87,320.00
58	R3-ME-2-3-s	1st category Cu armoured cables FRLS outer sheathed- 4C x 10	Mtr.	621.00	820.00	5,09,220.00
		Cable End Termination For Aluminium Cables : (SP-ME-TS-6)				
	R3-ME-2-11	Cable end terminations for LV, XLPE/PVC insulated, PVC sheathed, armoured/ unarmoured cables including supply and fixing of Double compression cable glands, stripping of cable insulation, supply and fixing of aluminium lugs for aluminium cables for all phases and crimping the same to the conductor for the following cables. Miscellaneous items like cable lugs, G.I nut - bolts and G.I washers , consumables and other hardware materials as required to make the installation complete, are in the scope. All G.I Nut, bolt and washers shall be HDGI with				

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
59	R3-ME-2-11-s	Cable End Termination For Aluminium Cables – 4C x 25 Sq.mm	set	299.00	3.00	897.00
60	R3-ME-2-11-t	Cable End Termination For Aluminium Cables – 3.5C x 35 Sq.mm	set	301.00	7.00	2,107.00
61	R3-ME-2-11-u	Cable End Termination For Aluminium Cables – 3.5C x 50 Sq.mm	set	307.00	3.00	921.00
62	R3-ME-2-11-v	Cable End Termination For Aluminium Cables – 3.5C x 70 Sq.mm	set	361.00	18.00	6,498.00
63	R3-ME-2-11-x	Cable End Termination For Aluminium Cables – 3.5C x120 Sq.mm	set	709.00	3.00	2,127.00
64	R3-ME-2-11-y	Cable End Termination For Aluminium Cables – 3.5C x150 Sq.mm	set	851.00	9.00	7,659.00
65	R3-ME-2-11-z	Cable End Termination For Aluminium Cables – 3.5C x185 Sq.mm	set	1,023.00	4.00	4,092.00
66	R3-ME-2-11-aa	Cable End Termination For Aluminium Cables – 3.5C x 240	set	1,311.00	8.00	10,488.00
	R3-ME-2-12	Cable end terminations for LV, XLPE/PVC insulated, PVC sheathed, armoured/ unarmoured cables including supply and fixing of Double compression cable glands, stripping of cable insulation, supply and fixing of tinned plated copper lugs for copper cables for all phases and crimping the same to the conductor for the following cables. Miscellaneous items like cable lugs, G.I nut - bolts and G.I washers , consumables and other hardware materials as required to make the installation complete,				
67	R3-ME-2-12-a	Cable End Termination For Copper Cables – 2C x 1.5 / 2.5Sq.mm	set	114.00	6.00	684.00
68	R3-ME-2-12-b	Cable End Termination For Copper Cables – 2C x 4Sq.mm	set	109.00	6.00	654.00
69	R3-ME-2-12-c	Cable End Termination For Copper Cables – 2C x 6 Sq.mm	set	176.00	6.00	1,056.00
70	R3-ME-2-12-d	Cable End Termination For Copper Cables – 2C x 10 Sq.mm	set	161.00	6.00	966.00
71	R3-ME-2-12-g	Cable End Termination For Copper Cables – 3C x 2.5 Sq.mm	set	118.00	6.00	708.00
72	R3-ME-2-12-h	Cable End Termination For Copper Cables – 3C x 4 Sq.mm	set	159.00	6.00	954.00
73	R3-ME-2-12-q	Cable End Termination For Copper Cables – 4C x 4 Sq.mm	set	160.00	3.00	480.00
74	R3-ME-2-12-r	Cable End Termination For Copper Cables – 4C x 6 Sq.mm	set	187.00	7.00	1,309.00
75	R3-ME-2-12-s	Cable End Termination For Copper Cables – 4C x 10 Sq.mm	set	196.00	25.00	4,900.00
		Excavation (SP-ME-TS- 6)				
76	R3-ME-2-8	Excavating the trenches and refilling,reinstatement of the same after the cable is laid in approved manner (750 mm deep, 600 mm wide),in all types of soils 1 Cu. Mtr. = 2.2 RMT.	CUM	344.00	100.00	34,400.00
77	R3-ME-2-9	Excavating the trenches and refilling the same after the cable is laid in approved manner (Size of trench: 750 mm deep, 600 mm wide) in concrete/ masonry / asphalt. 1 Cu. Mtr. = 2.2 RMT. And	CUM	425.00	100.00	42,500.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
78	R3-ME-2-9-a	Preparation of brick wall trench with cement of depth 750mm below FFL for laying LT cable with 75mm sand layer at the bottom and 100mm sand layer on top of the cable with Burnt Bricks (225 mm x 112.5mm x 62.5mm). Above protective cover earth shall be back filled with sand & rammed. Rate includes supply & laying of sand, bricks & cable route marker. Cable route marker shall be provided	CUM	5,085.00	30.00	1,52,550.00
	X	G.I. Cable tray with all other accessories : Perforated Type (SP-ME-TS- 7)				
	R3-ME-2-13	Readymade 2500mm standard length, prefabricated, perforated cable tray from MS sheet and then hot dip galvanised, of following sizes and associated accessories such as coupler plates, tees, elbow etc. Galvanisation thickness shall be minimum 86 Micron				
79	R3-ME-2-13-f	G.I. Cable tray with all other accessories 75 x 25mm (W x H) - (16 SWG - 1.6mm) with cover	Mtr	426.00	50.00	21,300.00
80	R3-ME-2-13-g	G.I. Cable tray with all other accessories 100 x 25mm (W x H) - (16 SWG - 1.6mm) with cover	Mtr	484.00	100.00	48,400.00
81	R3-ME-2-13-h	G.I. Cable tray with all other accessories 150 x 25mm (W x H) - (16 SWG - 1.6mm) with cover	Mtr	600.00	100.00	60,000.00
82	R3-ME-2-13-i	G.I. Cable tray with all other accessories 200 x 50mm (W x H) - (16 SWG - 1.6mm) with cover	Mtr	783.00	100.00	78,300.00
83	R3-ME-2-13-j	G.I. Cable tray with all other accessories 300 x 50mm (W x H) - (16 SWG - 1.6mm)with cover	Mtr	1,013.00	300.00	3,03,900.00
84	R3-ME-2-13-k	G.I. Cable tray with all other accessories 450 x 75mm (W x H) - (14SWG - 2mm) without cover	Mtr	1,112.00	200.00	2,22,400.00
	R3-ME-2-14	Readymade 2500mm standard length, prefabricated, Ladder type cable tray from MS sheet and then hot dip galvanised, of following sizes and associated accessories such as coupler plates, tees, elbow etc. 50 mm side flanges shall be provided. Galvanisation thickness shall be minimum 86 Micron				
85	R3-ME-2-14-c	G.I. Cable tray with all other accessories : Ladder Type -300 x 75mm (W x H) - (16SWG - 1.6mm)	Mtr	351.00	50.00	17,550.00
86	R3-ME-2-14-d	G.I. Cable tray with all other accessories : Ladder Type -450 x 75mm (W x H) - (12SWG - 2.5mm)	Mtr	647.00	50.00	32,350.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
87	R3-ME-2-14-e	G.I. Cable tray with all other accessories : Ladder Type -600 x 75mm (W x H) - (12SWG - 2.5mm)	Mtr	705.00	50.00	35,250.00
	Z	G.I. Trunking / Duct / Raceway & all other accessories (SP-METS-10)				
	R3-ME-2-15	Readymade 2500mm standard length, prefabricated, GI trunking from MS sheet and then hot dip galvanised, of following sizes and associated accessories such as coupler plates, tees, elbow etc. 50 mm side flanges shall be provided. Galvanisation thickness shall be minimum 86 Micron. cost of trunking shall be included junction box of suitable size, and all other accessories required to complete the work.				
88	R3-ME-2-15-a	G.I. Trunking / Duct / Raceway & all other accessories – 50 x 40mm (W x H) - (16 SWG - 1.6 mm) with cover without partition	Mtr	258.00	50.00	12,900.00
89	R3-ME-2-15-b	G.I. Trunking / Duct / Raceway & all other accessories – 75 x 40mm (W x H) - (16 SWG - 1.6 mm) with cover without partition	Mtr	341.00	100.00	34,100.00
90	R3-ME-2-15-c	G.I. Trunking / Duct / Raceway & all other accessories – 100 x 40mm (W x H) - (14 SWG - 2mm) with cover without partition	Mtr	454.00	50.00	22,700.00
		PVC Trunking with cover & all other accessories (SP-ME-TS-10)				
	R3-ME-2-16	Following sizes PVC trunking with cover and all other accessories to complete the work like bend, partion, internal and external angles etc. cost of trunking shall be included base, cover, finishing accessories, junction boxes and mounting wiring accessories				
91	R3-ME-2-16-a	PVC Trunking with cover & all other accessories – 50 x 50mm (W x H) - PVC Trunking with cover	Mtr	226.00	100.00	22,600.00
92	R3-ME-2-16-c	PVC Trunking with cover & all other accessories – 100 x 50mm (W x H) - PVC Trunking with cover	Mtr	888.00	100.00	88,800.00
		Providing & laying Hume pipe across road or below the plinth beams and buried cable protection (SP-ME-TS- 06)				

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
	R3-ME-2-19	Supply and laying of Heavy duty RCC Hume pipe for road crossing, below plinth beam of following size as diameter.				
93	R3-ME-2-19-a	Supply and laying Hume pipe -100 mm Dia	Mtr.	313.00	50.00	15,650.00
94	R3-ME-2-19-c	Supply and laying Hume pipe -250mm Dia.	Mtr.	518.00	50.00	25,900.00
95	R3-ME-2-19-d	Supply and laying Hume pipe -300mm Dia.	Mtr.	706.00	50.00	35,300.00
		WIRING FOR SUBMAINS/ CIRCUIT WIRING (SP-ME-TS- 12)				
	R3-ME-3-26	Point wiring by using FRLSZH insulated copper conductors (alongwith same size of FRLSZH insulated copper conductor for earthing & 3 plate ceiling rose) : PVC conduit concealed with modular switches & FRLSZH wires				
96	R3-ME-3-26-a	Light /Fan / Ex. fan Points Concealed Manner with Modular switches & FRLSZH wires	Each Pt.	793.00	798.00	6,32,814.00
97	R3-ME-3-26-b	3/5 Pin Independent Plug (IP) Concealed Manner with Modular switches & FRLSZH wires	Each Pt.	1,109.00	90.00	99,810.00
98	R3-ME-3-26-c	5A/6A - 3/5 Half Plug Concealed Manner with Modular switches & FRLSZH wires	Each Pt.	241.00	110.00	26,510.00
99	R3-ME-3-26-d	Bell Point with Bell / Buzzer & 1 Bell Push Concealed Manner with Modular switches & FRLSZH wires	Each Pt.	1,221.00	5.00	6,105.00
	R3-ME-3-19	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLSH insulated copper conductor wire in surface/ recessed hot dipped GI conduit as required				
100	R3-ME-3-19-b	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire in 20mm Conduit	Mtr	206.00	5352.00	11,02,512.00
101	R3-ME-3-19-c	2 X 4 sq. mm + 1 X 4 sq. mm earth wire in 25mm Conduit	Mtr	286.00	533.00	1,52,438.00
	R3-ME-3-38	Point wiring by using FRLSH insulated copper conductors (alongwith same size of FRLSH insulated copper conductor for earthing & 3 plate ceiling rose) using CONCEALED MANNER (WITH PVC CONDUIT PIPES, M.S. BOXES ETC.) POINTS				
102	R3-ME-3-38-i	15 / 5 A / 6 A Combined Power Plug Socket Point with Fuse and Indicating Lamp, One 15 Amp SP Switch	Each Pt.	1,524.00	112.00	1,70,688.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
	R3-ME-3-44	Point wiring by using FRLSZH insulated copper conductors (alongwith same size of FRLSZH insulated copper conductor for earthing & 3 plate ceiling rose) using G.I. CONDUIT				
		First Category Material				
101	R3-ME-3-44-a	Light /Fan / Ex. fan Points	Each	1,077.00	96.00	1,03,392.00
102	R3-ME-3-44-b	2/3 Pin Independent Plug (IP)	Each	1,773.00	10.00	17,730.00
103	R3-ME-3-44-j	5A/6A - 3/5 Pin Plug On Board	Each	131.00	10.00	1,310.00
104	R3-ME-3-44-k	Group Control Point Wiring 4-8 Points Controlled by One 15 A SP	Each	537.00	50.00	26,850.00
105	R3-ME-3-44-i	15 / 5 A / 6 A Combined Power Plug Socket Point with Fuse and Indicating Lamp, One 15 Amp SP Switch	Each Pt.	3,096.00	10.00	30,960.00
		LIGHT FIXTURES AND FANS				
		General indoor fittings (FG-IDF)				
		LED Outdoor Fittings (FG-ODF/LED)				
106	R3-ME-4-1-i	SITC of Direct light outdoor floodlight Colour temperature [K]: 3000	Nos	8,637.00	5.00	43,185.00
107	R3-ME-4-26-d	30W LED Street Light Luminaire with Polycarbonate Diffuser IP65 - High Impact proof multipurpose utility lighting for ROAD lighting and also could be ceiling & wall mounted. Designed to be Energy Saver, Dust proof, Weatherproof, corrosion proof and high impact proof against vandalism. The housing comprises of Aluminum extruded body wired with high powered LED, Electronic Driver. High Powered LED mounted on Aluminum clad PCB A clear UV resistant Polycarbonate	No.	2,532.00	10.00	25,320.00
108	R3-ME-4-1-l	SITC of Outdoor surface wall asymmetric distribution Bulkhead fixture CCT : 3000K	No.	4,936.00	5.00	24,680.00
109	R3-ME-4-34	SITC of Tubelight fixtures				
110	R3-ME-4-34-b	LED Tubelight fixtures 2X 18W	No.	915.00	489.00	4,47,435.00
111	R3-ME-4-32	SITC of Downlighter/Wall mounted LED:-				
112	R3-ME-4-32-b	INDOOR LED FIXTURES -Downlighter/Wall mounted LED 9-10 w	No.	499.00	30.00	14,970.00
113	R3-ME-4-34-d	LED Spot Light	No.	919.00	32.00	29,408.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
	R3-ME-4-26-e	20W LED Flood Light Luminaire IP65 - Integral type multipurpose utility lighting with mounting bracket and could be ceiling & wall mounted. Designed to be Energy Saver, Dust proof, Weatherproof and Toughened glass against vandalism. The housing comprises of Aluminum die cast LM6 aluminum alloy body wired with Electronic driver and 1 watt high powered LED with pre-focussed lens at various degrees. A clear Toughened glass is	No.	2,579.00	21.00	54,159.00
114	R3-ME-4-32-d	INDOOR LED FIXTURES -Downlighter/Wall mounted LED 13-18	No.	644.00	207.00	1,33,308.00
115	R3-ME-4-33-d	INDOOR LED FIXTURES - -LED Square Recessed Downlighter-	No.	1,214.00	87.00	1,05,618.00
116	R3-ME-4-33-e	INDOOR LED FIXTURES - -LED Square Recessed Downlighter-	No.	1,577.00	5.00	7,885.00
117	R3-ME-4-33-f	INDOOR LED FIXTURES - -LED Square Recessed Downlighter- 36W (600X600)	No.	4,759.00	80.00	3,80,720.00
118	R3-ME-4-30	SITC of LED Highbay luminary:-				
119	R3-ME-4-30-a	150 W	No.	9,305.00	33.00	3,07,065.00
120	R3-ME-4-28	SITC of LED Flood Light Fitting:-				
121	R3-ME-4-28-a	150 W	No.	9,600.00	16.00	1,53,600.00
122	R3-ME-4-31	SITC of LED Low Bay luminary:-				
123	R3-ME-4-31-a	150W	No.	9,411.00	9.00	84,699.00
124	R3-ME-4-12-q	Wall mounting air circulator of 450mm sweep, 230 Volts,AC 50 Hz, oscillating type complete with all necessary accessories for completing installation	No.	5,026.00	14.00	70,364.00
125	R3-ME-4-20-b	Standard Industrial type Fly killer with M.S. body, 4 X 20W tube and approx. area covered: 2000 sq.ft.	No.	3,701.00	4.00	14,804.00
126	R3-ME-9-9-a	20 litre per hour/ 40 litre	No.	38,287.00	20.00	7,65,740.00
127	R3-ME-4-34-e	LED Bulkhead fitting	No.	992.00	14.00	13,888.00
		For Pool Table-9mtr length (6000K-30Watt per meter)				
128	R3-ME-4-3-f	SITC of IP67 linear surface-mounted LED luminaire. Extruded Hshaped aluminum profile.	No.	22,210.00	2.00	44,420.00
		For Badminton Area 1 & 2 = 15mtr x 4 Nos. (6000K-30Watt per meter) Squash Area - 26mtr x 3 Nos. Shooting Range - 25mtr x 5 Nos. Gym Area - 30Mtr. 42mtr. 54mtr - each 1 No.				

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
129	R3-ME-4-3-e	SITC of IP67, linear surface-mounted LED luminaire. Extruded Hshaped aluminum profile.	No.	19,742.00	110.00	21,71,620.00
		Outdoor Lighting (SP-ME-TS- 19)				
130	R3-ME-4-28	SITC of LED Flood Light Fitting:-				
131	R3-ME-4-28-b	210 W	No.	18,069.00	53.00	9,57,657.00
132	R3-ME-4-27-g	130-150 W	No.	8,517.00	36.00	3,06,612.00
133	R3-ME-4-31-d	LED Gate post fitting	No.	10,680.00	5.00	53,400.00
134	R3-ME-10-10-i	Supply and erecting 9m (clear height) Fixed type High Mast (Top- 100mm, Bottom- 200mm) with hexagonal/round bracket and foundation/bolts suitable for max. 4nos floodlight fixtures on provided foundation as per specification	No.	79,616.00	9.00	7,16,544.00
135	R3-ME-10-11-a	Foundation for 12.5 Mtr. Highmast	No.	55,265.00	9.00	4,97,385.00
136	R3-ME-10-12-b	Supplying and erecting Outdoor Stand Mounted Feeder Pillar for highmast of the same manufacturer with 63A TPN MCB incomer, single dial timer switch, 45 A TP contactor for automatic switching of luminaries, 2 no 9A contactors and raise/lower push button, and provision for termination of Incoming minimum 35 sq. mm and outgoing minimum 16 & 2.5 sq. mm cables complete erected in min. 14 guage CRCA sheet box powder coated with supporting angles, self lock, gasket and slanting top erected on CC foundation in an approved manner.	No.	70,476.00	1.00	70,476.00
137	R3-ME-10-5-g	Providing & erecting 9 m high (clear height) galvanized OCTAGONAL pole with foundation bolts having bottom of 130 mm A/F, top 70 mm A/F on provided foundation as per specification	No.	96,775.00	32.00	30,96,800.00
138	R3-ME-10-6-a	Providing & erecting single arm standard bracket 1000MM long made up of 40 NB GI pipe suitable for octagonal pole of having top dia 70 MM as per specification	No.	9,181.00	38.00	3,48,878.00
139	R3-ME-10-6-b	Providing & erecting double arm standard bracket 1000MM long made up of 40 NB GI pipe suitable for octagonal pole of having top dia 70 MM as per specification	No.	13,425.00	4.00	53,700.00
140	R3-ME-10-7-a	Smart Pack junction box with 6A MCB & Terminals (for mounting inside base compartment of pole)	No.	2,701.00	41.00	1,10,741.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
141	R3-ME-10-12-c	Time controller for street light poles	No.	32,922.00	1.00	32,922.00
	BI	FANS (SP-ME-TS-28)				
142	R3-ME-4-12-d	Ceiling fan of 1200 mm sweep with all accessories including Electronic Regulator for completing installation as per specification.	No.	2,094.00	137.00	2,86,878.00
143	R3-ME-4-12-g	Exhaust fan of 150mm sweep, 1400RPM, AC, 230V , 50 Hz, single phase complete with all necessary accessories for completing installation	No.	1,335.00	72.00	96,120.00
144	R3-ME-4-15-b	S' type M.S. fan hook fabricated from suitable dia. M.S. rod for fixing ceiling fan by using pair of Anchor fastener.	No.	192.00	137.00	26,304.00
145	R3-ME-4-12-s	Fan safety rope/ Fan wire	No.	326.00	151.00	49,226.00
	BN	FIXING OF CEILING FANS WITH EXTENDED 1/2" G.I./ M.S. PIPE WITH SHACKLE MOUNTING ETC. WITH PAINTING:				
	R3-ME-4-17	Fixing of Ceiling fans with MS down rod, painting etc as required for completing installation as per specification				
146	R3-ME-4-17-c	Above 1 mtr. to 1.5 Mtr.	No.	368.00	137.00	50,416.00
	R3-ME-4-16	Fixing of tube light fixtures with MS down rods, ball socket , flanges , painting etc as required for completing installation as per specification				
147	R3-ME-4-16-c	Above 1 mtr. to 1.5 Mtr.	No.	528.00	369.00	1,94,832.00
	BH	INVERTER (SP-ME-TS-56)				
148	R3-ME-4-11-f	Inverter of 10KVA,single phase input and output with Tubular Battery(12X10) 200 AH Duration 4 Hrs.	Nos	2,94,827.00	1.00	2,94,827.00
	R3-ME-12-14	UPS				
149	R3-ME-12-14-b	3 Ph input & 3 Ph output 15 kVA fully microprocessor based true online double conversion UPS system with tubular batteries suitable for 1/2 hrs along with necessary battery racks & interconnections & UPS to battery bank cables.	Nos	5,10,317.00	1.00	5,10,317.00
		EARTHING & LIGHTNING PROTECTION SYSTEM				
	CS	Earthing (SP-ME-TS-38)				

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
150	R3-ME-7-1-c	Earthing station with 600 mm x 600 mm x 6 mm galvanised iron plate & 50 mm dia. G.I. pipe, 3000mm long GI pipe (Class B or better) earth pit as per IS 3043. The earth pit shall be provided with watering pipe (Class B) with wire messed funnel, 25x3 GI strip/ / 2X8SWG G.I. wire up to chamber (wire or strip size as per fault level), disconnecting links with 600 x 600 mm (clear) RCC chamber & heavy duty 3mm thick CI chequered plate cover with hinge & stainless steel bolts. Bentonite/ Charcol & Salt shall be provided for earth pits. Excavation, back filling, removal of excess soil is included in the	Nos	16,475.00	20.00	3,29,500.00
151	R3-ME-7-1-d	600 X 600 X 3.15 mm Copper Plate , 3000mm dip with suitable size cu strip earth pit as per IS 3043. The earth pit shall be provided with watering pipe (Class B) with wire messed funnel, 12 SWG cu wire upto chamber, disconnecting links with 600 x 600 mm (clear) RCC chamber & 3mm thick heavy duty CI chequered plate cover with hinge. Bentonite shall be provided for earth pits. Excavation, backfilling, removal of excess soil is included in the scope	Nos	24,427.00	10.00	2,44,270.00
	CU	Test links (SP-ME-TS-38)				
	R3-ME-7-3	Supply and installation of following size Test Links with required wiring and other accessories to complete the work.				
152	R3-ME-7-3-c	Supply and installation of following size Test Links -25 x 3 mm Cu (length : 300 mm)	Nos	238.00	20.00	4,760.00
153	R3-ME-7-3-e	Supply and installation of following size Test Links -50 x 6 mm GI (length : 300 mm)	Nos	96.00	20.00	1,920.00
	R3-ME-7-3-g	Supply of Test Joint (Folding Clamp) suitable to connect 8mm round conductor and max by 30x3 mm GI strip as specified in drawing and directed by Engineer.	Nos	1,861.00	5.00	9,305.00
	CV	Earthing Continuity Conductors (SP-ME-TS-38)				

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
	R3-ME-7-4	Supply & installation of Earth conductor of the following sizes to be cleated on wall / columns with nuts & bolts or laid in cable tray / buried in ground including cutting, drilling, tapping, jointing by welding, connecting to equipments, painting to welded portion by black bitumen paint and with all necessary GI hardware & accessories to complete the work				
154	R3-ME-7-4-a	25 x 3mm Tinned copper	Mtr	800.00	200.00	1,60,000.00
155	R3-ME-7-4-c	25 x 6mm Tinned copper	Mtr	1,608.00	500.00	8,04,000.00
156	R3-ME-7-4-d	50 x 6mm Tinned copper	Mtr	3,199.00	300.00	9,59,700.00
157	R3-ME-7-4-e	25 x 3mm GI	Mtr	50.00	200.00	10,000.00
158	R3-ME-7-4-f	25 x 6mm GI	Mtr	99.00	400.00	39,600.00
159	R3-ME-7-4-g	50 x 6mm GI	Mtr	200.00	300.00	60,000.00
160	R3-ME-7-4-k	Bare Copper Conductor size 8 SWG	Mtr	130.00	120.00	15,600.00
161	R3-ME-7-4-m	Bare G.I. Conductor size 8 SWG	Mtr	9.00	1200.00	10,800.00
162	R3-ME-7-4-n	Supply of Galvanised Steel Flat 30X3 mm thick from earth electrode directly in ground as required. Hot Dip GI strip, Cross sectional area of 90mm square According to DIN EN 50164-2 (VDE 0185 part 202) Meets the requirement of VDE0185/305(IS-IEC 62305) Zinc coating: 500 g/m square (Approx :70 micron coating) Should be tested and use exclusively for lightning protection ,earthing system and ring equipotential bonding.	Mtr	1,653.00	235.16	3,88,719.48
163	R3-ME-7-4-o	Supply of Cross connector for Flat: Suitable for 30mm Galvanised steel strip. Installed with 4 nos of hexagonal plate	Nos	1,164.00	100.00	1,16,400.00
164	R3-ME-7-4-p	Providing of flat conductor holder suitable for FL 30. Installed with 2 hexagonal bolts.	Nos	954.00	100.00	95,400.00
165	R3-ME-7-5-a	Supply of 8 mm Aluminum Round Conductor complete as specified in drawing & Meets the requirements of DIN EN 50164-2 (VDE 0185 part 202) & VDE 0185-305 (IS/IEC 62305)	Mtr	1,596.00	100.00	1,59,600.00
166	R3-ME-7-5-b	Supply of Roof conductor holder for parapet- Polyamide Conductor holder: With M8 female thread or diameter 7mm, M8 Screw to connect the conductor holder. Weather and temperature resistant from -35 to +90 degree Celsius tested. Conductor holder @ 1 meter distance.	Nos	388.00	50.00	19,400.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
167	R3-ME-7-5-d	Polyamide roof cable holder for flat roof: DIN 48829 Form B1. Closed form with bottom.	Nos	654.00	100.00	65,400.00
		Filling weight 1Kg (frost-resistant concrete). Sleeve from polyethylene, black @ 1 meter distance.				
168	R3-ME-7-5-e	Glue	Nos	13,653.00	10.00	1,36,530.00
169	R3-ME-7-5-f	Providing of cross universal connector: For T and cross connection, to route vertical down conductor /mesh formation made of hot dipped galvanised iron with necessary screws etc as required. Installed with 4 hexagonal bolts M8*25 with M8 hexagonal nuts	Nos	1,344.00	50.00	67,200.00
170	R3-ME-7-6-a	Fang Fix Junior system - Inclusive of AL interception rod of 1 Mtr Length (10mm dia), Quick mounting of the interception rod in the base using plug technology.	Nos	8,423.00	50.00	4,21,150.00
171	R3-ME-7-7-a	SITC of maintenance free heavy duty pure electrolytic copper chemical earthing electrode of 50mm dia , wall thickness 16SWG and 3 Mtr length with internal strip of copper 25 x 6 mm along with 50 KG of back fill compound (Highly conductive, non corrosive moisture retaining chemical) complete with excavation, civil work including top 300mm deep one brick thick masonry chamber with suitable FRP cover	Nos	68,500.00	10.00	6,85,000.00
172	R3-ME-9-16	Water Coolers (Nominal Cooling capacity/ Storage capacity)				
		Water Coolers 20 litre per hour/ 40 litre	Nos	41,524.00	18.00	7,47,432.00
173	Fair-AVO-01	SITC of IoT based Smart Optimizer 3P20EX (3 Phase 15KVA with remote monitoring)	Nos	99,750.00	5.00	4,98,750.00
174	Fair-AVO-02	SITC of IoT based Smart Optimizer 3P40EX (3 Phase 30KVA with remote monitoring)	Nos	1,93,997.00	20.00	38,79,940.00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty.	Amount (Rs)
	TOTAL FOR ELECTRICAL WORKS					357,42,268.48

Proposed redevelopment of Ghatkopar swimming pool on land bearing F.P. No.195 of TPS Ghatkopar No. III, Village Ghatkopar-Kirol, R.N. Narkar Marg, near Odeon Mall situated in 'N' Ward, Mumbai, for Brihanmumbai Municipal Corporation.

2.0 FIRE FIGHTING WORKS

S.No.	Reference	Description	Unit	Rate	Qty.	Amount
A		FIRE FIGHTING SYSTEM:				
		Fire Pumps & Accessories				
1	R3-ME-15-1-c	Supplying and installing, testing, perfect aligning and proper leveling and commissioning of fire service main pump, of 2820 LPM (Litres/min.) at 70 m centrifugal type pump - (Main Hydrant + Main Sprinkler)	Each	2,98,194.00	2.00	5,96,388.00
2	R3-ME-15-2-b	SITC of Jockey Pump of 240 LPM at 70 m head, (Jockey Hydrant + Jockey Sprinkler)	Each	1,06,121.00	2.00	2,12,242.00
3	R3-ME-15-3-a	SITC of Booster Pump of 450 LPM at 70 m head	Each	81,147.00	2.00	1,62,294.00
4	GSP-FAIR-12 ELECT	Supply, Installation, Testing & Commissioning of cubical type floor mounted 400A Fire Pump Control Panel fabricated from 14 g M.S. Sheet duly powder coated finish of approved shade and comprising of : ISITC of AUTO-MANUAL ELECTRICAL FIRE CONTROL PANEL FOR main hydrant pump 55kw(1w+1S), Sprinkler pump 55kw(1w+1S) jockey pump 2 Nos and booster PUMPS Sheet steel floor mounting control panel approximate size 2500 mm x 2100mm x 300mm (h w x d) OR as required for control of Fire pumps having suitably 400Amps incommer MCCB rated incoming isolating switch incoming Digital meter Enercon 6400 or equivallant voltmeter with selector switch and fuses. Outgoing consisting of MCCB for rated current along with Star Delta starter with hand reset overload cum shock preventor type relay, VOLTMETER, Ammeter to read current in any one phase. OFF/AUTO/MANUAL selector switch and Danfoss / NHT make or equivalent	Nos.	5,88,800.00	1.00	5,88,800.00
	R3-ME-15-4	Supplying and installing cast iron foot valve ball type /flap type with strainer for negative suction				
5	R3-ME-15-4-a	80 mm	Nos	5,118.00	1.00	5,118.00
6	R3-ME-15-4-b	100 mm	Nos	7,144.00	1.00	7,144.00
7	R3-ME-15-4-c	150 mm	Nos	11,772.00	2.00	23,544.00
	R3-ME-15-7	Supplying and installing double flange NRV				
8	R3-ME-15-7-a	80 mm	Nos	9,614.00	2.00	19,228.00
9	R3-ME-15-7-b	100 mm	Nos	13,067.00	1.00	13,067.00
10	R3-ME-15-7-c	150 mm	Nos	21,556.00	4.00	86,224.00
	R3-ME-15-8	Hydrant Valves				

S.No.	Reference	Description	Unit	Rate	Qty.	Amount
11	R3-ME-15-8-a	Supplying and installing gun metal single outlet hydrant valve fitted with necessary accessories	Nos	10,092.00	6.00	60,552.00
12	R3-ME-15-8-b	Supplying and installing gun metal Double outlet hydrant valve fitted with necessary accessories	Nos	20,611.00	22.00	4,53,442.00
	R3-ME-15-9	Sluice Valves				
13	R3-ME-15-9-a	Supplying and installing cast iron double flange sluice valve 75/80 mm dia.as per Specification	Nos	9,054.00	3.00	27,162.00
14	R3-ME-15-9-b	Supplying and installing cast iron double flange sluice valve 100 mm dia.as per Specification	Nos	9,772.00	3.00	29,316.00
15	R3-ME-15-9-c	Supplying and installing cast iron double flange sluice valve 150 mm dia.as per Specification	Nos	15,592.00	12.00	1,87,104.00
	R3-ME-15-10	Gate Valves				
16	R3-ME-15-10-a	Supplying & installing gun metal gate valve of size 20mm dia	Nos	431.00	6.00	2,586.00
17	R3-ME-15-10-b	Supplying & installing gun metal gate valve of size 25mm dia	Nos	575.00	4.00	2,300.00
18	R3-ME-15-10-c	Supplying & installing gun metal gate valve of size 50mm dia	Nos	718.00	31.00	22,258.00
	R3-ME-15-11	Hose				
19	R3-ME-15-11-a	Providing and fixing in position 2 lengths of 15 M long flexible canvas rubber lined hose reels 63 dia with adapter, branch pipe and nozzle and storing them in metal cabinets with lockable glass shutters and fixing the metal cabinet at ground level in a location where it can be easily spotted including painting etc	Each	12,776.00	68.00	8,68,768.00
20	R3-ME-15-11-c	Supplying & erecting high pressure poly propylene hose pipe 19 mm dia with 30 mtrs rolls. complete as per specification	Each	5,030.00	28.00	1,40,840.00
21	R3-ME-15-12-b	Supplying Stainless Steel branch Pipe 63 mm Ø fitted with 20 mm dia detachable hexagonal nozzle as per specifications	Each	4,886.00	34.00	1,66,124.00
22	R3-ME-15-13-a	Supplying and installing pressure gauge of 100 mm Ø., 0-300 PSI or 0- 14 kg per cm square fitted with 12/15 mm Ø. pad cock valve, and G.I. pipe, elbow etc.	Each	3,690.00	10.00	36,900.00
23	R3-ME-15-14-b	Supplying and erecting one no. Brass orifice plate having 6 mm. thickness, 160 mm outer dia of 160 mm at every single outlet hydrant valve	Nos	2,311.00	11.00	25,421.00
24	R3-CS-EW-1	Excavation for foundations, substructures, basements, tanks, sumps, walls, chambers, manholes, trenches, poles, pits & general building works in all types of soils, vegetable earth, soft murum, running sand, shingle, turf clay, loam, peat, ash, shale, slag, chalk, garbage, muddy/ marshy/ slushy soil, marine clay, reclaimed land etc. for depths/lifts upto 1.5M measured from the ground level, including dressing/ trimming the sides, leveling and ramming of bottoms, manual dewatering, removing rank vegetation, backfilling in layers not more than 200mm thickness, watering, consolidating, compacting to achieve not less then 97% Modified Proctor density conforming to relevant IS, stacking the selected material in measurable heaps for future use within owners space or disposing within an initial lead of 150m as directed, loading, unloading, leveling excluding shoring, strutting etc. complete as directed by Engineer-in-Charge.	Cum	387.00	15.50	5,998.50

S.No.	Reference	Description	Unit	Rate	Qty.	Amount
		Note:				
		1) The rate includes the handling/supporting the existing utilities such as cables, drains, pipes, water mains etc.				
		2) It also includes the royalty and other taxes applicable if any.				
	R3-ME-15-15	Providing and fixing in position G.I. Heavy grade ' <i>C' class pipes</i> (I.S. 1239 part I) with necessary clamping to wall beams and ceilings with hangers and clamps anchor fasteners wherever required to firmly support piping,				
25	R3-ME-15-15-a	150 mm	Rmt	2,861.00	400.00	11,44,400.00
26	R3-ME-15-15-b	100 mm	Rmt	1,945.00	10.00	19,450.00
27	R3-ME-15-15-c	80 mm	Rmt	1,400.00	40.00	56,000.00
28	R3-ME-15-17	Supplying & installing moulded HDP / <i>Fibre water tank</i> for -ve suction only, having capacity 1000 ltrs.fitted with necessary accessories complete as per specification.	Nos	20,119.00	1.00	20,119.00
29	R3-ME-15-18	Supplying and installing wall mounting <i>Swinging Hose Reel Drum</i> fitted with 19 mm dia. 30m high pressure polypropylene (Polyhose) long fitted with necessary accessories complete as per specification.	Nos	12,215.00	28.00	3,42,020.00
30	R3-ME-15-19	Supplying and installing <i>fire brigade Header</i> of 150 mm Ø, for supplying water in fire tank as per specification	Nos	10,059.00	1.00	10,059.00
31	R3-ME-15-20	Supplying and installing fire brigade Header (<i>Siamese Connection</i>) of 150 mm Ø for supplying water to wet riser system as per specification	Nos	10,779.00	1.00	10,779.00
32	R3-ME-15-21	Supplying and installing <i>Air Vessel</i> of 300 mm Ø 1.5m in height M.S. tank installed inside pump house as per specification	Nos	20,838.00	5.00	1,04,190.00
33	R3-ME-15-22	Supplying and erecting 20/25mm Ø G.M. <i>air release cock</i> , with necessary G.I. coupling to be fitted on top of Air vessel or on wet riser as per specification	Nos	1,508.00	3.00	4,524.00
34	R3-ME-15-23	Supplying and installing pressure switch with 12/15 mm Ø isolation valve, G.I. nipple, elbow etc. in an approved manner as per specification	Nos	8,407.00	9.00	75,663.00
35	R3-ME-15-24-a	Supplying and erecting <i>M.S./CRCA cabinet</i> for housing single hydrant valve (<i>size 400 x 400 x 400mm.</i>) made from 16 SWG sheet and angle iron 25 mm. x 25 mm. x 4 mm. having front doors with viewing glass (8"x6") and locking arrangement with necessary fixing material such as rubber bidding etc. duly painted in post box red colour	Nos	20,119.00	6.00	1,20,714.00
36	R3-ME-15-24-b	Supplying and erecting <i>M.S./CRCA cabinet</i> for housing Fire Brigade / SIEMESE connections (<i>size 1250 x 400 x 300 mm.</i>) made from 16 SWG sheet and angle iron 25 mm. X 25 mm. x 4 mm. having front doors with viewing glass (8" x 6") and locking arrangement with necessary fixing material such as rubber bidding etc. duly painted in post box red colour.	Nos	25,868.00	30.00	7,76,040.00
37	R3-ME-15-25-b	Providing coating of Bitumen Paint & <i>4mm thick Wrapping</i> as per IS 10221 for underground 150 mm Ring Main of Fire Fighting System.	Rmt	575.00	100.00	57,500.00

S.No.	Reference	Description	Unit	Rate	Qty.	Amount
38	R3-ME-15-26-a	Supplying and erecting 15 mm (½") dia. NBCM Body chrome finished quartzoid bulb sprinkler having 68° C fixed temperature rating with deflector disc of conventional construction and quality conforming to international standards and listed by LPC (formally FOC U.K.) U.L.F.M. of USA or approved and listed by Tariff Advisory Committee (TAC) OF India	Nos	394.00	600.00	2,36,400.00
39	R3-ME-15-26-b	Providing and fixing in position <i>sprinkler guards</i> to protect open sprinkler in basement from mechanical damage.	Nos	515.00	25.00	12,875.00
40	R3-ME-15-26-c	Supplying & erecting <i>vane type water flow detector</i> suitable for detecting flow of water in wet sprinkler pipe of main line or branch lines of 100 mm dia having following features 1) Visual Switch Activation 2) Rugged Switch Assembly 3) Heavy Duty Aluminium pipe Saddles 4) Durable Metal Encloser 5) Steel U Bolts For Secure Mounting 6) Two SPDT (Single Pole Double Track) Synchronised Switches 7) Serviceable Without Draining Pipes	Each	10,779.00	17.00	1,83,243.00
	R3-ME-15-15	Providing and fixing in position G.I. Heavy grade ' <i>C' class pipes</i> (I.S. 1239 part I) with necessary clamping to wall beams and ceilings with hangers and clamps anchor fasteners wherever required to firmly support piping,				
41	R3-ME-15-15-c	80 mm	Rmt	1,400.00	700.00	9,80,000.00
42	R3-ME-15-15-d	65 mm	Rmt	1,141.00	300.00	3,42,300.00
43	R3-ME-15-15-e	50 mm	Rmt	914.00	500.00	4,57,000.00
44	R3-ME-15-15-f	40 mm	Rmt	678.00	374.00	2,53,572.00
45	R3-ME-15-15-g	32 mm	Rmt	577.00	1,270.00	7,32,790.00
46	R3-ME-15-15-h	25 mm	Rmt	507.00	1,555.00	7,88,385.00
	R3-ME-15-30	<i>Fire Extinguisher</i>				
47	R3-ME-15-30-a	CO ₂ Fire Extinguisher 4.5 kg	Nos	11,816.00	4.00	47,264.00
48	R3-ME-15-30-c	Supplying and erecting ABC powder type fire extinguisher as per IS : 13849 /15683 of 6 kg capacity with necessary clamp for erection on Wall.	Nos	2,156.00	17.00	36,652.00
49	R3-ME-15-30-e	Supplying and erecting D.C.P. type Fire Extinguisher 6 kg capacity cartridge type with Gun Metal cap 150 gram CO2 gas cartridge, powder and brackets conforming to IS 2171- 1985/ IS 15683 and complete erected with necessary clamps made from 50x6 mm M.S. flat with nuts & bolts grouted in wall complete.	Nos	2,802.00	17.00	47,634.00
		<i>Fire bucket, stand, hook and First Aid Box</i>				
50	R3-ME-15-31-a	Providing Round bottom FIRE Bucket of 9 Litres capacity as per IS : 2546 made out of 24 gauge G.I. sheet with extra handle at bottom duly painted white inside and red outside with FIRE Mark, on provided stand/ wall hook.	Each	862.00	4.00	3,448.00

S.No.	Reference	Description	Unit	Rate	Qty.	Amount
51	R3-ME-15-31-b	Providing Floor mounting stand for keeping 4 Nos. of FIRE buckets 1500mm in length, 900mm in height frame made out of 30x30x4 mm angle iron with cross supports for legs, welded with 4 hooks and duly painted with one coat of red lead and two coats of silver Paint.	Each	5,030.00	1.00	5,030.00
52	R3-ME-15-31-d	Supplying standard first aid box with necessary antiseptic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (Bandaid) adhesive tape for medicinal use, scissors, anti-septic solution etc. (All above contents shall be of standard makes)	Each	3,593.00	1.00	3,593.00
		TOTAL OF FIRE FIGHTING SYSTEM				106,14,464.50

Sr. No.	Item Code	Item Description	Unit (Nos/Mtr)	Rate(Rs)	Qty	Amount (Rs)
		BOQ for Fire Alarm System				
		Fire Alarm System (SP-ME-TS-65)				
1	R3-ME-15-32	Addressable Fire Alarm System				
2	R3-ME-15-32-a	Supply, Installation, testing & commissioning of addressable 2 loop main fire alarm electronic control panel, expendable up to 4 loop & having maximum 250 devices (any combination detectors plus devices) per loop & Audio/ Visual alarm complete as per IS: 2189 specification - modular type front operated with interlocking door arrangement totally enclosed dust and vermin proof for indoor type applications.	Nos	1,88,891.00	1.00	1,88,891.00
3	R3-ME-15-32-b	Supply, Installation, testing & commissioning of expandable Loop card for main fire alarm electronic control panel, shall support 254 devices both detectors and modules and shall support both class 'A' & class 'B' wiring.	Nos	11,209.00	2.00	22,418.00
4	R3-ME-15-32-d	Supply, Installation, testing & commissioning of Intelligent Photoelectric Smoke Detector along with mounting box & termination glands.	Nos	2,249.00	227.00	5,10,523.00
5	R3-ME-15-32-e	Supply, Installation, testing & commissioning of Intelligent Heat Detector along with mounting box & termination glands.	Nos	3,449.00	312.00	10,76,088.00
6	R3-ME-15-32-f	Supply, Installation, testing & commissioning of Intelligent multi-criteria Detector along with mounting box & termination glands.	Nos	2,692.00	5.00	13,460.00
7	R3-ME-15-32-g	Supply, Installation, testing & commissioning of Strobe Lights along with mounting box & termination glands.	Nos	6,380.00	33.00	2,10,540.00
8	R3-ME-15-32-h	Supply, Installation, testing & commissioning of Addressable Manual call point/ station with mounting back box	Nos	3,479.00	129.00	4,48,791.00
9	R3-ME-15-32-i	Supply, Installation, testing & commissioning of Programmable Electronic Sounders (Hooters):	Nos	4,880.00	33.00	1,61,040.00
10	R3-ME-15-32-j	Supply, Installation, testing & commissioning of remote response indicator	Nos	66.00	18.00	1,188.00
11	R3-ME-15-32-k	Supply, Installation, testing & commissioning of Isolator Module along with mounting box & termination glands.	Nos	2,925.00	30.00	87,750.00

S.No.	Reference	Description	Unit	Rate	Qty.	Amount
12	R3-ME-15-32-l	Supply, Installation, testing & commissioning of Addressable control Relay module with required accessories along with junction box, glands and terminators (For AC trip off, Access trip off, PA system, sprinkler flow switch, lift interface, sounder, fire fighter & telephone jack)	Nos	7,761.00	50.00	3,88,050.00
13	R3-ME-15-32-c	Supply, Installation, testing & commissioning of 2Cx1.5 sq.mm armoured RED color copper FRLS cable with necessary saddles, screws, junction boxes, sleeves, elbows couplings etc. for Fire alarm System	Mtrs.	104.00	23,099.50	24,02,348.00
14	R3-ME-15-33-h	Supplying and erecting FRLS armoured cable 4 core 1.5 sq.mm. copper complete erected on wall/ceiling/trusses as per specification	Mtrs.	357.00	100.00	35,700.00
15	R3-ME-15-33-i	Supplying and erecting FRLS armoured cable 8 core 1.5 sq.mm. copper complete erected on wall/ceiling/trusses as per specification	Mtrs.	536.00	100.00	53,600.00
16	R3-ME-15-32-m	Supply, Installation, testing & commissioning of Active Repeater panel with all accessories, which shall be replica of main fire alarm panel with control keys I.e. Mute, silent & sounder alarm	Nos	1,37,960.00	1.00	1,37,960.00
	R3-ME-15-27	FIRE SEALANT SYSTEM				
17	R3-ME-15-27-a	Supplying and erecting Fire resistant Mortar (20 kg) with fire resistance class S90 as per National Electrical Code (NEC) SP30- 2011 suitable to seal the openings with all kinds of cables, pipes and cable support system in steel and aluminium and plastic profiles (Except hollow core conductors). The residual openings shall be closed with filler as per specification	SQF	2,156.00	60.00	1,29,360.00
		Note:- For estimating purpose consider one bag of 20kg to cover 300mm x 400mm area 150mm thick or 0.018 m3				
	R3-ME-15-29	AUTO GLOW SIGNAGE				
18	R3-ME-15-29-a	SITC of Auto glow signage for Emergency Fire Exit	Nos	862.00	20.00	17,240.00
19	R3-ME-15-29-b	SITC of Auto glow signage for Staircase direction	Nos	862.00	20.00	17,240.00
20	R3-ME-15-29-c	SITC of Auto glow signage for Do not use lift in case of Fire etc.	Nos	1,149.00	10.00	11,490.00
21	R3-ME-15-31-d	Supplying standard first aid box with necessary antiseptic cream, medicine for use on wounds due burn, crepe bandage, gauge bandage, medicated ready to use bandage (Bandaid) adhesive tape for medicinal use, scissors, anti-septic solution etc. (All above contents shall be of standard makes)	Nos	3,593.00	5.00	17,965.00
		Total of Fire alarm system				59,31,642.00
		TOTAL FOR FIRE FIGHTING WORKS				165,46,106.50

Schedule Of Quantities for Proposed redevelopment of Ghatkopar swimming pool on land bearing F.P. No.195 of TPS Ghatkopar No. III, Village Ghatkopar-Kirol, R.N. Narkar Marg, near Odeon Mall situated in 'N' Ward, Mumbai, for Brihanmumbai Municipal Corporation.						
1.1 ELV SYSTEM WORKS						
						Rev-00
Sr. No.	Item Code	Item Description	Unit (Nos/Mtr)	Rate(Rs)	Qty	Amount (Rs)
		Telecommunication System				
	R3-ME-12-1	SITC OF EPABX				
1	R3-ME-12-1-c	SITC of EPABX 4 x12 P&T	Nos	20,966.00	1.00	20,966.00
2	R3-ME-12-1-h	SITC of additional 16 extn card	Nos	21,655.00	1.00	21,655.00
3	R3-ME-12-1-k	SITC of Push button telephone instrument desk top/ wall mount unit	Nos	1,634.00	10.00	16,340.00
	R3-ME-12-2	SITC OF TELEPHONE CABLES		-		
4	R3-ME-12-2-a	PVC Telephone Cable -2 pair	Mtr	26.00	500.00	13,000.00
	R3-ME-12-3	SITC OF ARMOURED JELLY FILLED TELEPHONE CABLES				
5	R3-ME-12-3-a	Armoured Telephone Cable -10 pair	Mtr	121.00	499.00	60,379.00
6	R3-ME-12-3-c	Armoured Telephone Cable -50 pair	Mtr	356.00	149.00	53,044.00
	R3-ME-12-6	M.S.Junction Box for EPABX :				
7	R3-ME-12-6-a	10 pair M.S. Junction Box for EPABX	Nos	1,031.00	5.00	5,155.00
8	R3-ME-12-6-b	20 pair M.S. Junction Box for EPABX	Nos	1,289.00	1.00	1,289.00
	R3-ME-12-4	SITC OF COMPUTERS CABLES				-
9	R3-ME-12-4-b	Cat 6 Gigabyte	Mtr	34.00	3,500.00	1,19,000.00
	R3-ME-12-5	SITC OF COMPUTER ACCESSORIES				-
10	R3-ME-12-5-d	PVC box & cover plate with RJ-11 for Telephone access only	Nos	258.00	4.00	1,032.00
11	R3-ME-12-5-c	PVC box & cover plate with RJ-45 for LAN access only	Nos	335.00	3.00	1,005.00
12	R3-ME-12-5-b	Switch BOX point for computers through PVC Conduit Description of Item8Modular SURFACE BOX - 1 No.8Modular PLATE - 1 No.INDICATOR LAMP - 1 No.15A SWITCH - 1 No.6A 5 PIN SOCKET - 3 Nos.2Modular SURFACE BOX - 1 Nos.2M PLATE - 1Nos.RJ11 SOCKET - 1 Nos.RJ45 SOCKET - 1Nos.	Nos	1,543.00	12.00	18,516.00
13	R3-ME-12-5-f	Aluminum channel 3/4" X 3/4", 16 SWG.	Rmt	120.00	50.00	6,000.00
	R3-ME-12-7	SUPPLY & LAYING OF CASING-CAPPING				-

14	R3-ME-12-7-a	25 mm X 12 mm - Casing-Capping	Rmt	65.00	50.00	3,250.00
15	R3-ME-12-7-b	20 mm X 12 mm - Casing-Capping	Rmt	58.00	10.00	580.00
	R3-ME-12-8	SUPPLY & LAYING OF PVC CONDUITS				-
16	R3-ME-12-8-a	25 mm.- Only PVC Conduits	Rmt	37.00	3,500.00	1,29,500.00
	R3-ME-12-9	SITC OF COMPUTER NETWORKS ACCESSORIES				-
17	R3-ME-12-9-a	Router for ISDN	Nos	4,812.00	2.00	9,624.00
18	R3-ME-12-9-l	7 Feet Patch Chord	Nos	206.00	4.00	824.00
19	R3-ME-12-9-m	3 Feet Patch Chord	Nos	172.00	160.00	27,520.00
20	R3-ME-12-9-t	SITC of 24 Port CAT-6 UTP Jack panel with cable manager	Nos	5,499.00	1.00	5,499.00
21	R3-ME-12-9-b	24 Port +4 10G SFP+ Fiber Optic Switch	Nos	2,01,935.00	1.00	2,01,935.00
22	R3-ME-12-9-c	Fiber Optic Cable	Mtr	52.00	100.00	5,200.00
23	R3-ME-12-9-g	Light Interface Unit (LIU)	Nos	7,734.00	2.00	15,468.00
24	R3-ME-12-9-v	SITC of 19 inch Rack	Nos	34,371.00	1.00	34,371.00
	Telecommunication TOTAL					7,71,152.00

	R3-ME-12-10	SITC OF PUBLIC ADDRESS SYSTEM				
25	R3-ME-12-10-p	Supply and installation of 6W recessed ceiling mount speaker with VARIABLE VOLTAGE TAPPING OF 6/3 watt	Nos	1,246.00	74.00	92,204.00
26	R3-ME-12-10-q	Supply and installation of 10W recessed ceiling mount speaker with VARIABLE VOLTAGE TAPPING OF 10/5 watt	Nos	1,822.00	2.00	3,644.00
27	R3-ME-12-10-r	Supply and installation of 25W recessed ceiling mount speaker with VARIABLE VOLTAGE TAPPING OF 25/15/10 watt	Nos	3,454.00	13.00	44,902.00
28	R3-ME-12-10-l	Wiring for speakers with 24/0.2 multi core twin twisted flexible copper.	Mtr	83.00	2,547.00	2,11,401.00
29	R3-ME-12-10-m	Supply & installation of PVC conduit for speaker wiring	Mtr	27.00	2,546.00	68,742.00
30	R3-ME-12-10-n	Supply and installation of 250 watts amplifier with USB	Nos	26,621.00	1.00	26,621.00
31	R3-ME-12-10-v	Supply and installation of Booster amplifier 300W with all accessories.	Nos	23,004.00	2.00	46,008.00
32	R3-ME-12-10-j	Supply & installation of Unidirectional Dynamic Vocal & Speech Microphone	Nos	4,176.00	2.00	8,352.00
33	R3-ME-12-10-k	Supply & installation of Microphone floor stand	Nos	1,719.00	2.00	3,438.00
	R3-ME-12-13	SITC OF CCTV				

34	R3-ME-12-13-m	Supply, Installation, Testing & Commissioning of IP Dome camera with 1/2.8" CMOS, Progressive Scan, HD 720P Horizontal Resolution, Dual H.264 streaming, 25 FPS, 2.8mm-10mm varifocal auto iris lens, 0.01 lux, Tamper detection, Wide dynamic Range, 3D Noise reduction, PoE & standard 12VDC/24VAC power input, Indoor surface mount enclosure, Mounted on True Ceiling / False ceiling as per site requirement (including required accessories), UL Listed Or Equivalent. Camera Shall be ONVIF compliant.	Nos	37,981.00	51.00	19,37,031.00
35	R3-ME-12-13-n	Supply, Installation, Testing & Commissioning of IP Fixed Box/ Bullet camera with 1/2.8" CMOS, Progressive Scan, Day/Night, HD720P Horizontal Resolution, Dual H.264 streaming, 25 FPS, 2.8mm-10mm varifocal auto iris IR corrected megapixel lens, 0.05 lux Day/Night, Tamper detection, Wide dynamic Range, 3D Noise reduction, PoE & standard 12VDC/24VAC power input, IP66 rated vandal resistant enclosure, UL Listed Or Equivalent. Camera Shall be ONVIF compliant.	Nos	37,981.00	3.00	1,13,943.00
36	R3-ME-12-13-o	Supply, Installation, Testing & Commissioning of IP PTZ camera with HD1080P 2.1MP Resolution, 20x optical zoom, 16X Digital zoom, Day/Night, Wide dynamic range, Dual H.264 streaming, 0.05 lux, vandal resistant, 360° continuous pan, -5° to +95° tilt, 300 preset, 4 tours, IP66 rated with built in heater and blower, Mounted on Wall/Pole as per site requirement (including required accessories), UL listed as per detailed specifications. Camera Shall be ONVIF compliant	Nos	2,14,824.00	9.00	19,33,416.00

37	R3-ME-12-13-p	Design, Supply, testing, installation and commissioning of modular 16 channel 1080P NVR, Recording: 1920X1080P, 15 FPS, 30 days recording, 24 hours/day; Real time monitoring with 25 FPS. Hard disc : 8 SATA III Ports, Each 6TB , up to 48TB, 1 eSATA port, Disk array: Support RAID 0/1/5/6/10, Two no's of RJ -45 10/100/1000 Mbps self adaptive Ethernet interface, RS 232, RS 485, keyboard interfaces, VGA/HDMI compatible, 2nos front USB 2.0 & 1 no at rear USB 2.0 compatible & 8 TB hard disc and as per storage configuration contractor shall consider the separate hard discs	Nos	1,11,039.00	5.00	5,55,195.00
38	R3-ME-12-13-t	Supply, Installation, Testing & commissioning of 42inches LED monitor, Full HD Resolution, Backlight LED, Brightness : 400 NITS min., Contrast : 1200 : 1 or better., Power supply : 230 ±10%, 50 Hz.	Nos	77,973.00	4.00	3,11,892.00
39	R3-ME-12-13-v	SITC of 1IN/4OUT Video Splitter for additional viewing	Nos	10,312.00	4.00	41,248.00
40	R3-ME-12-13-l	SITC of 8TB Storage (HDD)	Nos	37,981.00	4.00	1,51,924.00
41	R3-ME-12-4-b	Cat 6 Gigabyte	Mtr	34.00	3,200.00	1,08,800.00
42	R3-ME-12-8-a	25 mm.- Only PVC Conduits	Mtr	37.00	640.00	23,680.00
43	R3-ME-12-8-b	20 mm.- Only PVC Conduits	Mtr	27.00	2,560.00	69,120.00
44	R3-ME-12-9-n	SITC of 24 ports 10/100/1000 with 2 combo ports PoE switch with installation	Nos	39,528.00	4.00	1,58,112.00
45	R3-ME-12-9-u	SITC of 9 inch Rack	Nos	7,734.00	4.00	30,936.00
46	R3-ME-12-9-w	SITC of 32 inch Rack	Nos	47,262.00	1.00	47,262.00
47	R3-ME-12-9-x	SITC of Media convertor (fibre to Ethernet) with 10/100/1000 support	Nos	10,140.00	4.00	40,560.00
48	R3-ME-12-9-p	SITC of 12 core single mode fibre optic armoured cable with installation/Mtr	Mtr	72.00	300.00	21,600.00
49	R3-ME-12-9-o	SITC of Single Mode 1G SFP - 10KM Module with installation	Nos	8,249.00	4.00	32,996.00
50	R3-ME-12-9-f	Single Mode Fiber Optic Patch Chord	Nos	602.00	10.00	6,020.00
51	R3-ME-12-9-a	Router for ISDN	Nos	4,812.00	2.00	9,624.00
52	R3-ME-12-9-h	24 Port Manageable Switch	Nos	14,608.00	4.00	58,432.00
	R3-ME-12-14	UPS				-

53	R3-ME-12-14-a	Supply, Installation, testing, commissioning, performance demonstration of 2 KVA UPS true online with 1 phase input, 1 phase output with back up batteries for 2 Hours backup along with rack & connectors.	Nos	92,804.00	1.00	92,804.00
	R3-ME-12-15	Access Control System : Supply, Installation, Testing & Commissioning of following equipments for access control system.				-
54	R3-ME-12-15-a	Supply, Installation, Testing & commissioning of Proximity card reader suitable for mounting on metal surface/metal frames/ wooden frames / wall or as required based on site conditions including all accessories.	Nos	11,342.00	10.00	1,13,420.00
	R3-ME-12-15-b	Supply, Installation, Testing & commissioning of Electromagnetic lock : Double leaf Door with feedback - 1200 LBS	Nos	12,030.00	2.00	24,060.00
55	R3-ME-12-15-c	Supply, Installation, Testing & commissioning of Electromagnetic lock : Single leaf Door with feedback - 600 LBS	Nos	6,015.00	20.00	1,20,300.00
56	R3-ME-12-15-d	Supply, Installation, Testing & commissioning of Exit switch: Heavy Duty SS Finish Push Button for Exit	Nos	1,385.00	16.00	22,160.00
57	R3-ME-12-15-e	Supply, Installation, Testing & Commissioning of 2 Reader Access Control panel with required Power supply unit & Enclosure and Shall maintain a minimum of 25,000 access identity information and 1,00,000 transactions as minimum.	Nos	50,355.00	8.00	4,02,840.00
58	R3-ME-12-15-f	Supply, Installation, Testing & commissioning of Time & Attendance software.	Nos	77,336.00	1.00	77,336.00
59	R3-ME-12-15-g	Supply of 26-BIT proximity cards	Nos	344.00	300.00	1,03,200.00
60	R3-ME-12-15-h	Supply, Installation, Testing & commissioning of Access control management software(Single User)	Nos	68,744.00	1.00	68,744.00
	PA/ Access Control/ UPS TOTAL					71,81,967.00
	Grand Total for ELV System					79,53,119.00

Schedule Of Quantities for Proposed redevelopment of Ghatkopar swimming pool on land bearing F.P. No.195 of TPS Ghatkopar No. III, Village Ghatkopar-Kirol, R.N. Narkar Marg, near Odeon Mall situated in 'N' Ward, Mumbai, for Brihanmumbai Municipal Corporation.

3.0 HVAC WORKS

Rev-00

Sr. No.	Item Code	Item Description	Unit	Rate(Rs)	Qty	Amount (Rs)
A		VRF / VRV AC EQUIPMENTS				
		SITC of Capacity (R-410A /R-407c or eco-friendly Refrigerant) Air Cooled type OUTDOOR UNITS of VRF system having hermetically sealed scroll inverter compressor, condenser coil fabricated from Seamless Copper tube & Plate type Al. Fins of Multi Row, Axial Flow, upward throw condenser fan, Condenser fan - motor unit, insulated refrigeration piping, power / control wiring, and earthing, external wiring between Indoor & Outdoor units, all system controls- safety. Each Outdoor units with High Pressure switch, Fan driver overload protector, Over current relay, Inverter Overload Protector & Fusible Plug. The unit shall be suitable for 415 ± 10 % volts, 50 Hz, 3 phase AC supply, and IP 55 protection. The out door unit shall be installed on M.S. platform duly painted, as per specifications				
1	R3-ME-9-7-a	VRF / VRV AC EQUIPMENTS 8 HP	Nos	3,87,090.00	4.00	15,48,360.00
2	R3-ME-9-7-m	SITC of Seamless heavy gauge REFRIGERATION COPPER PIPINGfor VRF/ VRV system in 18 gauge, duly insulated with 13 mm/19 mm thickness. Nitrile Rubber Insulation. Refrigeration piping will have to be taken in the piping rack / Support individually connecting to Indoor units, including necessary supports, fittings, valves, Cable tray for exposed piping where ever required will be included.. The pipe sizes from 1/4 " to 1".(13 mm insulation) and 1-1/8 " to 2"(19 mm insulation) shall be used.	Mtr	4,082.00	160.00	6,53,120.00
3	R3-ME-9-2-k	Providing & fixing of Drain piping as per specification.	Mtr	296.00	200.00	59,200.00
4	R3-ME-9-7-n	Supply, Installation, Testing and Commissioning of Refnets as specified of pipe sizes from 1/4 " to 2"	Nos.	12,457.00	16.00	1,99,312.00

5	R3-ME-9-7-o	Supply, Installation, Testing and Commissioning of Central remote controller must be integrable with the VRV/VRF system Complete operation & monitoring of VRV air conditioning system shall be possible through the control system. Following functions shall be possible i.) Controlling indoor units ii.) Zone control iii.) Malfunction code display iv.) All the functions available with wired remote controller v.) It should be possible to wire the remote to 1000m vi.) Remote start / stop of indoor units vii.) Mal function report. viii.) Colour LCD touch panel icon display ix.) Fault History up to 100 actions. x.) Simple Interlock Function xi.) Fire Alarm System interface Required hardware shall be suitable for operation between -10 Deg C to 50 Dg C & humidity range, of 0% to 98%, without condensation.	Nos.	1,37,945.00	1.00	1,37,945.00
6	R3-ME-9-10-e	Indoor Units :- Large cassette type for VRF 2.8 TR Four way Cassette	Nos.	61,794.00	2.00	1,23,588.00
7	R3-ME-9-10-c	Indoor Units :- Large cassette type for VRF 2.0 TR Four way Cassette Type	Nos.	59,260.00	1.00	59,260.00
8	R3-ME-9-12-b	Indoor Units :- Hi-Wall unit for VRF 1.0 TR Hi-Wall unit	Nos.	28,011.00	8.00	2,24,088.00
9	R3-ME-9-12-a	Indoor Units :- Hi-Wall unit for VRF 0.8 TR Hi-Wall unit	Nos.	27,870.00	5.00	1,39,350.00
		TOTAL FOR VRF SYSTEM				31,44,223.00
B		Ventilation System				
		Propeller fan				
		Supply,installation,testing and commissioning of Propeller fan of the following capacity of approved make and specification. Fan shall be supplied with aluminum gravity louver & bird screen.				
10	R3-ME-4-12-g	Exhaust fan of 150mm sweep, 1400RPM, AC, 230V , 50 Hz, single phase complete with all necessary accessories for completing installation	Nos.	1,335.00	105.00	1,40,175.00
		Inline fan				

		Supply, installation, testing and commissioning of centrifugal type Inline fan with cabinet of the following capacity, Fan shall be supplied with aluminum gravity louver & bird screen.				
		Note : all starter and electrical supply client scope.				
		Fresh Air Fans provided filter of 20 Micron.				
11	GSP-FAIR-01 HVAC	SITC OF Inline Fan Fresh Air Fan 1800 CMH, 15-20 MM SP WG	Nos.	38,410.00	1.00	38,410.00
12	GSP-FAIR-02 HVAC	SITC OF Inline Fan Fresh Air Fan 3000 to 3600 CMH, 15-20 MM SP WG	Nos.	45,259.00	3.00	1,35,777.00
13	GSP-FAIR-03 HVAC	SITC OF Inline Fan Fresh Air Fan 4000 to 4400 CMH, 15-20 MM SP WG	Nos.	61,640.00	12.00	7,39,680.00
14	GSP-FAIR-04 HVAC	SITC OF Inline Fan Fresh Air Fan 4800 CMH, 15-20 MM SP WG	Nos.	61,933.00	8.00	4,95,464.00
15	GSP-FAIR-05 HVAC	SITC OF Inline Fan Fresh Air Fan 9000 CMH, 15-20 MM SP WG	Nos.	1,13,275.00	1.00	1,13,275.00
16	GSP-FAIR-06 HVAC	SITC OF Inline Fan Fresh Air Fan 12000 CMH, 15-20 MM SP WG	Nos.	1,45,475.00	6.00	8,72,850.00
		Exhaust Air Fan				
17	GSP-FAIR-07 HVAC	SITC OF Inline Fan Exhaust Air Fan 1200 to 1600 CMH, 10-15 MM SP WG	Nos.	30,475.00	4.00	1,21,900.00
18	GSP-FAIR-08 HVAC	SITC OF Inline Fan Exhaust Air Fan 2000 to 2500 CMH, 10-15 MM SP WG	Nos.	35,831.00	6.00	2,14,986.00
19	GSP-FAIR-09 HVAC	SITC OF Inline Fan Exhaust Air Fan 2800 to 3200 CMH, 10-15 MM SP WG	Nos.	43,043.00	3.00	1,29,129.00
20	GSP-FAIR-10 HVAC	SITC OF Inline Fan Exhaust Air Fan 4300 to 4400 CMH, 10-15 MM SP WG	Nos.	59,716.00	9.00	5,37,444.00
21	GSP-FAIR-11 HVAC	SITC OF Inline Fan Exhaust Air Fan 5500 CMH, 10-15 MM SP WG	Nos.	59,716.00	1.00	59,716.00
22	GSP-FAIR-12 HVAC	SITC OF Inline Fan Exhaust Air Fan 7600 CMH, 10-15 MM SP WG	Nos.	1,00,510.00	1.00	1,00,510.00
23	GSP-FAIR-13 HVAC	SITC OF Inline Fan Exhaust Air Fan 11000 CMH, 10-15 MM SP WG	Nos.	1,24,200.00	1.00	1,24,200.00
24	GSP-FAIR-14 HVAC	SITC OF Inline Fan Exhaust Air Fan 12000 CMH, 10-15 MM SP WG	Nos.	1,32,825.00	4.00	5,31,300.00
		AIR DISTRIBUTION SYSTEM				

	R3-ME-9-52	GSS Ducting:- Supplying fabrication installation testing and commissioning of GI. Sheet metal ducting. Zinc coated. Complete with all Standard Accessories, G.I.. Hardware, Self Adhesive elastomeric foam gasket, Support etc as per SMACNA specification.				
25	R3-ME-9-52-c	GSS Ducting:- 24 SWG	Sqm	1,799.00	11,650.00	209,58,350.00
26	R3-ME-9-52-b	GSS Ducting:- 22 SWG	Sqm	1,986.00	3,875.00	76,95,750.00
		Grilles/Diffusers				
	R3-ME-9-37	Providing aluminium supply air diffusers & return air grills with volume control dampers	Sqm.	18,965.00	76.00	14,41,340.00
27						
		Fresh Air/Exhaust Air Louvers				
28	R3-ME-9-36	Providing fresh air damper with crowl piece,bird screen and removable type prefilters	Sqm.	16,410.00	10.00	1,64,100.00
29	GSP-FAIR-15 HVAC	SITC of Badminton-1 & 2 Ventillation Panel	Nos.	1,34,019.00	1.00	1,34,019.00
		Ventilation Panel Incomer 63 A 4P MCB with (0-63A) ammeter with three CT and selector switch, (0 - 500 V) voltmeter with selector switch, phase indication light with SP MCB. SET - 01 Outgoing a) For Fan Motor of Upto 3.7 Kw 32 A TP MCB with DOL starter, overload relay, start / stop push buttons, phase indication lights with SP MCB, on / off / trip indication lights with SP MCB, single phase preventer,auto / manual mode selector switch & Timer - SET-07 + 1 Spare. Controls & interlocking accessories as required for all the above panel shall be included in above costing.				
30	GSP-FAIR-16 HVAC	SITC of Billiards Room Ventillation Panel	Nos.	63,571.00	1.00	63,571.00

		<p>Ventilation Panel Incomer 32 A 4P MCB with (0-30A) ammeter with three CT and selector switch, (0 - 500 V) voltmeter with selector switch, phase indication light with SP MCB. SET - 01</p> <p>Outgoing a) For Fan Motor of Upto 3.7 Kw 32 A TP MCB with DOL starter, overload relay, start / stop push buttons, phase indication lights with SP MCB, on / off / trip indication lights with SP MCB, single phase preventer,auto / manual mode selector switch & Timer - SET-02 + 1 Spare. Controls & interlocking accessories as required for all the above panel shall be included in above costing.</p>				
31	GSP-FAIR-17 HVAC	SITC of Basketball Ventillation Panel	Nos.	1,85,186.00	1.00	1,85,186.00
		<p>Ventilation Panel Incomer 125 A 4P MCCB with Thermal Magnetic Release with (0-125A) ammeter with three CT and selector switch, (0 - 500 V) voltmeter with selector switch, phase indication light with SP MCB. SET - 01</p> <p>Outgoing a) For Fan Motor of Upto 5.5 Kw 32 A TP MCB with DOL starter, overload relay, start / stop push buttons, phase indication lights with SP MCB, on / off / trip indication lights with SP MCB, single phase preventer,auto / manual mode selector switch & Timer - SET-10 + 1 Spare. Controls & interlocking accessories as required for all the above panel shall be included in above costing.</p>				
32	GSP-FAIR-18 HVAC	SITC of Table Tennis Room Ventillation Panel & Carrom Cards Room Ventillation Panel	Nos.	85,842.00	2.00	1,71,684.00

		<p>Ventilation Panel Incomer 32 A 4P MCB with (0-30A) ammeter with three CT and selector switch, (0 - 500 V) voltmeter with selector switch, phase indication light with SP MCB. SET - 01</p> <p>Outgoing a) For Fan Motor of Upto 3.7 Kw 32 A TP MCB with DOL starter, overload relay, start / stop push buttons, phase indication lights with SP MCB, on / off / trip indication lights with SP MCB, single phase preventer,auto / manual mode selector switch & Timer - SET-04 + 1 Spare. Controls & interlocking accessories as required for all the above panel shall be included in above costing.</p>				
33	GSP-FAIR-19 HVAC	SITC of Squash Room 1, 2 & 3 Ventillation Panel	Nos.	1,23,208.00	1.00	1,23,208.00
		<p>Ventilation Panel Incomer 63 A 4P MCB with (0-30A) ammeter with three CT and selector switch, (0 - 500 V) voltmeter with selector switch, phase indication light with SP MCB. SET - 01</p> <p>Outgoing a) For Fan Motor of Upto 3.7 Kw 32 A TP MCB with DOL starter, overload relay, start / stop push buttons, phase indication lights with SP MCB, on / off / trip indication lights with SP MCB, single phase preventer,auto / manual mode selector switch & Timer - SET-06 + 1 Spare. Controls & interlocking accessories as required for all the above panel shall be included in above costing.</p>				
34	GSP-FAIR-20 HVAC	SITC of Shooting Area Ventillation Panel	Nos.	1,73,689.00	1.00	1,73,689.00

		<p>Ventilation Panel Incomer 63 A 4P MCB with (0-63A) ammeter with three CT and selector switch, (0 - 500 V) voltmeter with selector switch, phase indication light with SP MCB. SET - 01</p> <p>Outgoing</p> <p>a) For Fan Motor of Upto 2.2 Kw 32 A TP MCB with DOL starter, overload relay, start / stop push buttons, phase indication lights with SP MCB, on / off / trip indication lights with SP MCB, single phase preventer,auto / manual mode selector switch & Timer - SET-05 + 1 Spare.</p> <p>b) For Fan Motor of Upto 3.7 Kw 32 A TP MCB with DOL starter, overload relay, start / stop push buttons, phase indication lights with SP MCB, on / off / trip indication lights with SP MCB, single phase preventer,auto / manual mode selector switch & Timer - SET-03 + 1 Spare</p> <p>Controls & interlocking accessories as required for all the above panel shall be included in above costing.</p>				
35	GSP-FAIR-21 HVAC	SITC of Boxing Area Ventillation Panel	Nos.	1,24,554.00	1.00	1,24,554.00
		<p>Ventilation Panel Incomer 63 A 4P MCB with (0-63A) ammeter with three CT and selector switch, (0 - 500 V) voltmeter with selector switch, phase indication light with SP MCB. SET - 01</p> <p>Outgoing</p> <p>a) For Fan Motor of Upto 2.2 Kw 32 A TP MCB with DOL starter, overload relay, start / stop push buttons, phase indication lights with SP MCB, on / off / trip indication lights with SP MCB, single phase preventer,auto / manual mode selector switch & Timer - SET-06 + 1 Spare.</p> <p>Controls & interlocking accessories as required for all the above panel shall be included in above costing.</p>				

36	R3-ME-9-2-f	Providing & fixing of Boxing to cover refrigeration piping, cabling etc.	Mtr	422.00	200.00	84,400.00
37	R3-ME-9-2-g	Providing & fixing of platform and M.S. Railing for Outdoor units of Split AC to facilitate smooth access to technician to safely carry out maintenance .	Job	12,668.00	10.00	1,26,680.00
		Power & Control Cabling Supply, laying, testing and commissioning of power and control cabling as per specification given in the tender. Power cabling of XLPE insulated Aluminium conductor armoured cables of 1.1 KV Grade including cable end termination with brass compression glands & aluminium lugs etc as per specification. A) Power Cabling For Motor Up to 3.73 Kw 1 x 3C x 4 Sq. mm				
	Cables	Cables : Supply & laying " XLPE cables" on walls or through existing trenches etc. (SP-ME-TS- 6): LV Cables of following sizes to be laid buried in ground/ laid in cable trays in ready made trenches, cables shall be fitted on wall / ceiling by the means of saddle & spacers. Miscellaneous items such as cable dressing accessories like nylon tie, Aluminium clamps, GI cleats, cable tags etc. are included in the scope. Removal of empty drums, cartoons and making the site normal as instructed by Purchaser client is included in scope.				
	R3-ME-2-3	1.1 kV grade stranded Cu conductor, XLPE insulated, extruded PVC inner and FRLS outer sheathed, galvanised steel round or strip armoured cables (SP-ME-TS- 6)				
38	R3-ME-2-3-b	1st category Cu armoured cables FRLS outer sheathed- 3C x 1.5 Sq.mm	Mtr	104.00	200.00	20,800.00
39	R3-ME-2-3-f	1st category Cu armoured cables FRLS outer sheathed- 3C x 2.5 Sq.mm	Mtr	142.00	200.00	28,400.00
40	R3-ME-2-3-j	1st category Cu armoured cables FRLS outer sheathed- 3C x 4 Sq.mm	Mtr	197.00	200.00	39,400.00
41	R3-ME-2-3-n	1st category Cu armoured cables FRLS outer sheathed- 3C x 6 Sq.mm	Mtr	275.00	200.00	55,000.00
42	R3-ME-2-3-u	1st category Cu armoured cables FRLS outer sheathed- 4C x 16 Sq.mm	Mtr	918.00	200.00	1,83,600.00

43	R3-ME-9-105	SITC of Air curtain of length - 48"	Nos.	89,454.00	2.00	1,78,908.00
44	R3-ME-9-97	MS structure for AC works	Kg	260.00	1,000.00	2,60,000.00
45	R3-ME-9-98	FRP Coating for MS Structure	Sqm	3,578.00	50.00	1,78,900.00
46	R3-ME-9-101	Paint for exposed ducts	Sqm	774.00	300.00	2,32,200.00
		TOTAL FOR VENTILLATION SYSTEM				369,78,555.00
	TOTAL FOR HVAC WORKS					401,22,778.00

Schedule Of Quantities for Proposed redevelopment of Ghatkopar swimming pool on land bearing F.P. No.195 of TPS Ghatkopar No. III, Village Ghatkopar-Kirol, R.N. Narkar Marg, near Odeon Mall situated in 'N' Ward, Mumbai, for Brihanmumbai Municipal Corporation.							
4.0 LIFTS							
Sr No	Item No	Discription	Unit	Qty	Rate	Amount	REV-00 Remark
		SITC OF 10 PASSENGER/680 Kg GEARLESS LIFT MRL, COPO/ TOPO doors with frame having opening of 800 mm wide X 2000 mm high, Automatic Rescue Device, Audio- Visual, Overload indicator, Infra red curtain, 3VF drive, Emergency alarm, Fire alarm switch, overload warning indicator, suitable door safety as specified, suitable for physically challenged persons, complete in all respect as specified in technical specifications. The lift shall be provided with 3 year free defect liability period.C					
1	R3-ME-19-SI-10P- 5	SITC of Passenger gearless lift for 10 Passenger/680 Kg, G+5 floor (6Stops/6 Landings)	Job	4	21,29,480.00	85,17,920.00	Pass Lift
2	R3-ME-19-SI-6P-3	SITC of Passenger gearless lift for 6 Passenger/408 Kg, G+3 floor (4Stops/4 Landings)	Job	2	1464447.00	29,28,894.00	Pass Lift
			Grand Total			114,46,814.00	

Schedule Of Quantities for Proposed redevelopment of Ghatkopar swimming pool on land bearing F.P. No.195 of TPS Ghatkopar No. III, Village Ghatkopar-Kirol, R.N. Narkar Marg, near Odeon Mall situated in 'N' Ward, Mumbai, for Brihanmumbai Municipal Corporation.						
5.0 SWIMMING POOL WORKS						
Sr No	Item No	Discription	Unit	Rate	Qty.	REV-01 Amount
		Design, Supply, Installation Testing , Commissioning, Of Swimming Pool and its Filtration Plant at Odeon Swimming Pool Ghatkopar TOTAL SWIMMING POOL VOLUME INCLUDING BALANCING TANK 3400m3 TURNOVER PERIOD 4 Hrs PLANT CAPACITY 850M3/HR RESIDUAL CHLORINE TO BE MAINTAINED 0.2 TO 0.5PPM PH TO BE MAINTAINED 7.2 - 7.8				
1	GSP-FAIR-SWP-01	Filter Vertical type (imported)Totally anti-corrosive Imported filters 2.0m dia manufactured with fibre glass and polyester resin fitted with collector arms and diffuser made from unplasticised PVC and polypropylene. 100% Anti-corrosive internal Gelcoat resistant to even salt water. Filter supplied complete with lid in polyester resin and fibre glass, manual air purge cap for sand discharge and PVC flange connection for inlet and outlet complete with necessary pressure gauges. Filter manufactured using state of the art production technique to ensure toughness durability and easy to maintain and in conformity with International Standards	Nos.	10,34,489.00	8.00	82,75,912.00
2	GSP-FAIR-SWP-02	Filter media Silica Sand/White quartz for filter with granulometry between 0.4 and 0.8mm	KG.	23.00	30,400.00	6,99,200.00
3	GSP-FAIR-SWP-03	Filter media Silica Sand/White quartz for filter with granulometry between 1 and 2mm	KG	23.00	9,600.00	2,20,800.00
4	GSP-FAIR-SWP-04	Frontal piping valves 160mm dia PVC frontal piping & fittings comprising bends,tees, for filter including valve batteries, i.e. 5 Nos. 150mm dia Butterfly valves for inlet, outlet upwash, washout, rinse with flanges supports wherever required etc. complete set.	SET	7,15,752.00	8.00	57,26,016.00
5	GSP-FAIR-SWP-05	Circulating pumpsets at about 12 to 15 mtr. Head casing : CI Motor Details : Type : squirrel cage Enclosure : TEFC speed in RPM : 1450 Rated Voltage/frequency 415 V+/-10 The work comprising of suction piping, valves, suction & delivery piping, delivery valves and NRV etc as per specification	Nos.	2,97,758.00	8.00	23,82,064.00
6	GSP-FAIR-SWP-06	400 mm dia PVC pipe for pump delivery Header assembly (within plant room) of 6 kg pressure, with branches of pipe coming from delivery of Pump, comprising of bends, tees, flanges tail piece, offsets, nuts, bolts supports etc . wherever required	SET	6,21,968.00	1.00	6,21,968.00

7	GSP-FAIR-SWP-07	400 mm dia PVC pipe Filter Inlet Header assembly (Within plant room) of 6kg pressure with branches of 160 mm dia PVC pipe also of 6 kg pressure going to filter comprising of bends, tees, flanges, tail piece, offsets, nuts, bolts , supports etc. wherever required	SET	7,64,217.00	1.00	7,64,217.00
8	GSP-FAIR-SWP-08	400 mm dia filtered water outlet header assembly of 6 kg pressure with branch connections comprising of bends, tees, tail piece, nuts, bolts flanges, supports wherever required etc. complete withing the plant room	SET	8,16,225.00	1.00	8,16,225.00
9	GSP-FAIR-SWP-09	Piping Works inside swimming Pool including Circulating Piping with accessories such as inlet nozzles, SS strainer at Chamber near Balancing tank, Valves tees, unions bends, pool main drains, including its piping .	Lumpsum	22,50,000.00	1.00	22,50,000.00
10	GSP-FAIR-SWP-10	Alum Dosing plant including electronic dosing pumps, with fittings etc. complete, 100 ltr Sintex tank and stirrer. Electrical : 230 V.A.C. 50 HZ Suction/Discharge Tubing : 4/6mm Material Of Construction. Pump Head : Glass filed PP Diaphragm : Teflon Connectors : Glass filled Polypropylene Suction tubing : HDPE	SET	46,300.00	1.00	46,300.00
11	GSP-FAIR-SWP-11	Soda Ash dosing plant including electronic dosing pumps, with fittings etc. complete, 100 ltr Sintex tank and stirrer. Electrical : 230 V.A.C. 50 HZ Suction/Discharge Tubing : 4/6mm Pump Head : Glass filed PP Diaphragm : TeflonConnectors : Glass filled PP Suction tubing : HDPE Discharge tubing : HDPE Flow : 10lph This will be injected into pump delivery header Including materials and labour charges	SET	46,300.00	1.00	46,300.00

12	GSP-FAIR-SWP-12	Ozone Generating Equipment of C.E. producing . at 10% w/w concentration supplied with duel gas flow pattern inside each sub element with individually fused HT element for ozone generation in vertical electrodes, Feed gas preparation system, , suitable booster pumps, NRV, Injectors, piping etc. The system shall work on Oxygen feed, corona discharge type, with controls for ozone output and oxygen feed flow, with indicators for power on, Blown fuse(control & power), ozone output, with protection and interlocks for high/low Voltage, control supply fuse, HT supply, high overload. The scope of work includes supply and installation of suitable equipments and assembly to produce/generate Oxygen from atmospheric air and mixing & piping arrangement. complete as required	SET	39,94,485.00	1.00	39,94,485.00
13	GSP-FAIR-SWP-13	Gaseous Chlorinator of vacuum type capacity 5 kg/hr with control valve, vacuum chamber, flow meter, etc. along with one set of suction and delivery piping with valves for 1 No. 3 HP Booster Pumping set with Starter along with 2 Nos. gas cylinder Including materials and labour charges	SET	4,02,156.00	1.00	4,02,156.00
14	GSP-FAIR-SWP-14	Test set P.H. Test Set, Chlorine Test set Swimming pool	SET	4,073.00	1.00	4,073.00
15	GSP-FAIR-SWP-15	SUCTION SWEEPER Trolley mounted suction sweeper self priming pump with 2 HP motor with rubber tyred wheel, handle, 3 ft long suction sweeper head with brush, handle, wheels, rubber squeegees, towing rope, 30 Mtr length and 4 core flexible cable with industrial plug along with deep bag net and curved brushes and other maintenance accessories like handle etc.	SET	1,95,390.00	1.00	1,95,390.00
16	GSP-FAIR-SWP-16	SUCTION SWEEPER Trolley mounted suction sweeper self priming pump with 3 HP motor with rubber tyred wheel, handle, 3 ft long suction sweeper head with brush, handle, wheels, rubber squeegees, towing rope, 30 Mtr length and 4 core flexible cable with industrial plug along with deep bag net and curved brushes and other maintenance accessories like handle	SET	2,25,118.00	1.00	2,25,118.00
17	GSP-FAIR-SWP-17	ELECTRICAL CONTROL PANEL Electrical Control panel board as per approved makes for electrical distribution to various motors/starters including voltmeter, ammeter, indicating lamps, ozone plant , chlorination plant etc. Necessary electrical cabling work from panel to motor included in scope.	NOS	11,18,068.00	1.00	11,18,068.00

18	GSP-FAIR-SWP-18	LADDER Overflow model stainless steel AISI-316 ladder, width 500mm handrails dia 43mm stainless steel non slip steps, and anchoring fixtures no.	Nos.	46,895.00	12.00	5,62,740.00
19	GSP-FAIR-SWP-19	Life Buoy 730mm dia bright orange cross linked polyethylene outer shell that will not rot or mould and is unaffected by extreme weather or prolonged outdoor exposure all round Retro Reflective tapes and lifebuoy grab lones	Nos.	11,049.00	8.00	88,392.00
20	GSP-FAIR-SWP-20	Life buoy holder made from aluminium, complies with EN 12145 for attaching to wall or rail including cuffs for attaching to rails 9 .	Nos.	7,944.00	2.00	15,888.00
21	GSP-FAIR-SWP-21	Life guard loop made of stainless steel with butterfly nut which can be connected the telescopic handle .	no.	7,944.00	1.00	7,944.00
22	GSP-FAIR-SWP-22	SS Hand Rail SS 304 Grab rail 40mm dia duly buffed and mirror polished alongwith supports	Mtrs	3,353.00	110.00	3,68,830.00
23	GSP-FAIR-SWP-23	Extensible handle 13 m for attachment to the life guard loops in anodized aluminium .	no.	7,944.00	1.00	7,944.00
24	GSP-FAIR-SWP-24	Starting Blocks 700 mm high starting blocks with base in stainless steel AISI-316, 500 X 500MM platform slopping at 5 degree and making an angle of 5.5 degree with the ground in polyester & fibre glass with non slip finish complete with fixing shall be provided for each lane Each starting block shall be anchored on the deck with the help of 43mm SS 315 anchor starter blocks shall have nummesequence .	NOS.	1,36,735.00	10.00	13,67,350.00
25	GSP-FAIR-SWP-25	Float line Rope Roller Float line rope roller shall be provided each 1.8 m wide so as to have lane ropes rolled on them. Each roller shall be made in SS 304 with wheels for manufacturing each roller shall have a capacity roll six nos lane ropes .	nos.	1,46,596.00	2.00	2,93,192.00
26	GSP-FAIR-SWP-26	Float lines 50M long with floats in and S.S.hook - 1no. Float line tightners , along with both side fixing post with Level anchor made of stainless steel AISI-316 .	Nos.	1,30,146.00	9.00	11,71,314.00
27	GSP-FAIR-SWP-27	FALSE START INDICATOR One set of false start posts shall be provided on either side of the racing pool at a distance of 15m from the starting blocks. False start posts shall comprise of 2 stainless steel SS 316 posts each of 48mm dia and 1.8 m height. Out of these two post one shall be with pulley and quick cord, fixing and loosening device and shall be complete with 28m false start line comprising of polyester cord and a float.Each post shall be properly anchored socket on the deck.	set	29,438.00	1.00	29,438.00

28	GSP-FAIR-SWP-28	BACK STROKE INDICATOR Two sets of back stroke turn indicator post, Comprising of 4 posts and 56 m flag rope with polyester cord and orange flag shall be placed at distance of 5m from either side of the racing pool and shall span across the sides. Each set of back stroke turn indicator posts shall comprises of 2 stainless steel SS 316 posts each of 48 mm dia 1.8m height each post shall be properly anchored in a suitable anchoring socket on the deck.	Set	29,560.00	2.00	59,120.00
		TOTAL FOR SWIMMING POOL ACCESSORIES				317,60,444.00
		SWIMMING POOL FILTRATION PLANT O&M				
29	GSP-FAIR-SWP-29 O&M	O&M of Swimming Pool filtration Plant	Months	2,95,020.00	60.00	177,01,200.00

Schedule Of Quantities for Proposed redevelopment of Ghatkopar swimming pool on land bearing F.P. No.195 of TPS Ghatkopar No. III, Village Ghatkopar-Kirol, R.N. Narkar Marg, near Odeon Mall situated in 'N' Ward, Mumbai, for Brihanmumbai Municipal Corporation.						
1.2 PLUMBING PUMPS WORK						
Sr No	Item No	Discription	Unit	Qty	Rate	REV-00 Amount
1	R3-ME-6-8-i	100 mm dia nominal bore	Each	6	11,019.00	66,114.00
	R3-ME-15-6	Supplying & Installing cast iron double flange butterfly valve				
2	R3-ME-15-6-a	80 mm dia	Each	2	3,860.00	7,720.00
3	R3-ME-15-6-b	100 mm dia	Each	2	5,317.00	10,634.00
4	R3-ME-6-5-s	Self priming pumpsets: (Flushing) Self priming pumpsets:10 H.P., 2 stage, single phase/ 3 ph motor, with head of (10 – 90 Mtr.) giving discharge upto 410 lpm. (50x40mm) Pump body: Cast Iron, Impeller: Polypropylene Shaft SS 410	Nos.	2	1,45,916.00	2,91,832.00
5	R3-ME-6-5-s	Self priming pumpsets: (Domestic) Self priming pumpsets:10 H.P., 2 stage, single phase/ 3 ph motor, with head of (10 – 90 Mtr.) giving discharge upto 410 lpm. (50x40mm) Pump body: Cast Iron, Impeller: Polypropylene Shaft SS 410	Nos.	2	1,45,916.00	2,91,832.00
	R3-ME-1-27	Design, fabrication, assembly, supply, installation, testing & commissioning of Pump panel suitable for 415V, 3Ph. 4 wire system. Pump panel shall be wall mounted & shall be fabricated from 1.6mm thick CRCA sheet steel. Pump panel shall be earthed with 8/10 swg earth wire. Colour shade shall be RAL 7032 Siemens gray as per IS 5.				
6	R3-ME-1-27-b	415V Pump panel with 100A MCCB as incomer with phase indicator and ammeter & voltmeter with selector switches, 2Nos. Of 32A MCB with Star delta Starter, local push button station & contactor of required rating as outgoing.	Nos	2	1,06,853.00	2,13,706.00
		TOTAL FOR PLUMBING PUMPS WORKS				8,81,838.00

Schedule Of Quantities for Proposed Construction of Odean Sports Complex,Ghatkopar.

Schedule Of Quantities for Proposed redevelopment of Ghatkopar swimming pool on land bearing F.P. No.195 of TPS Ghatkopar No. III, Village Ghatkopar-Kirol, R.N. Narkar Marg, near Odeon Mall situated in 'N' Ward, Mumbai, for Brihanmumbai Municipal Corporation.

		M&E CSMC				
1	GSP-FAIR-01 CSMC MEP	CMSC cost for MEP services after DLP period of one year i.e. for 2nd Year	Year	14,88,740.65	1	11,80,476.25
2	GSP-FAIR-02 CSMC MEP	CMSC cost for MEP services after DLP period of one year i.e. for 3rd Year	Year	14,88,740.65	1	11,80,476.25
3	GSP-FAIR-03 CSMC MEP	CMSC cost for MEP services after DLP period of one year i.e. for 4th Year	Year	14,88,740.65	1	11,80,476.25
4	GSP-FAIR-04 CSMC MEP	CMSC cost for MEP services after DLP period of one year i.e. for 5th Year	Year	14,88,740.65	1	11,80,476.25
		LIFT CSMC				
5	GSP-FAIR-05 CSMC LIFT	CSMC cost for 6 Nos Lifts after DLP period of three year i.e. for 4th Year	Year	5,72,341.00	1	5,72,341.00
6	GSP-FAIR-06 CSMC LIFT	CSMC cost for 6 Nos Lifts after DLP period of three year i.e. for 5th Year	Year	5,72,341.00	1	5,72,341.00
				COST		58,66,587.00