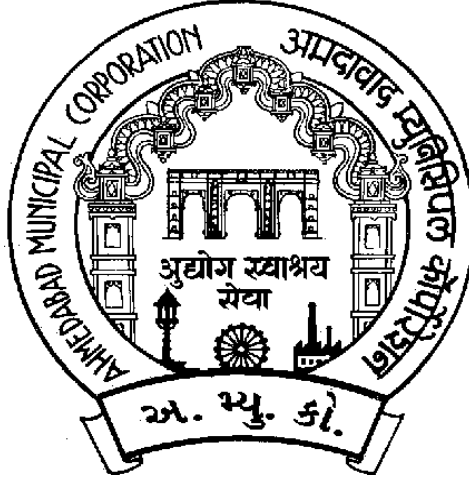


AHMEDABAD MUNICIPAL CORPORATION

(ENGINEERING DEPARTMENT- NORTH ZONE)



TENDER DOCUMENT

CONSTRUCTION OF INDULAL YAGNIK COMMUNITY HALL AFTER DEMOLITION OF OLD HALL BUILDING AT F.P.NO. 192, T.P.S.NO. 12 (ASARVA EXTENSION SOUTH) IN BAPUNAGAR WARD, NORTH ZONE, AHMEDABAD

Volume -II

Financial BID

Client-

Municipal Commissioner

Ahmedabad Municipal Corporation.

Sardar Patel Bhavan, Danapith,

Ahmedabad

AHMEDABAD MUNICIPAL CORPORATION

(ENGINEERING DEPARTMENT-NORTH ZONE)

Name of Work:- CONSTRUCTION OF INDULAL YAGNIK COMMUNITY HALL AFTER DEMOLITION OF OLD HALL BUILDING AT F.P.NO. 192, T.P.S.NO. 12 (ASARVA EXTENSION SOUTH) IN BAPUNAGAR WARD, NORTH ZONE, AHMEDABAD

Bill of Quantities

I. No.	Qty	Items	Unit Rate	Per	Amount
			Rs. Ps.		Rs. Ps.
		Civil Work Estimate			
1		Demolition & Dismantling work			
a	22	Demolition of RCC work using Hydra Breacker including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift. Removal Of Existing Building Foundation and Super Structure If Any.	1047.38	Cu.M.	23042.36
b	69	Demolition of Brick work and stone masonry including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift. (ii) In Cement Mortar. Removal Of Existing Building Foundation and Super Structure If Any.	544.95	Cu.M.	37601.55
c		Dismantling of sheet roofing including ridges, Hips, Valleys, Gutters etc. stacking of serviceable materials and disposal of unserviceable materials with all lead and lift.			
i	5	(i) G.I. sheet roofing.	47.25	Sq.mt	236.25
ii	5	(ii) A.C. sheet roofing.	53.55	sq.mt	267.75
d	1000	Dismantling steel work including distempering and stacking the materials with all lead and lift.	3.63	Kg.	3630.00
e	2	Dismantling doors, windows, ventilators etc. (wood or steel) shutters including chowkhats architraves, hold fasts and other attachment etc. complete and stacking them with in all lead and lift. (i) Not exceeding 3 Sq.M. in area.	185.85	Each	371.70
f	625	Removing & Scrapping of Old deteriorated Plaster of any thickness from Masonary / R.C.C. member including stacking of serviceable material & disposal of unserviceable from site of work with all lead & lift.	19.38	Sq.M.	12112.50
g	100	Dismantling any type tiled of stone floors laid in mortar including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift.	47.25	Sq.M.	4725.00
2		Excavation for foundation including sorting out stacking of useful material & disposing of excavated stuff upto 50 mt. lead. Loose & Soft soil. Executed With Mechanical Effort			
a	2700	up to 1.5 mt. depth	115.92	Cu.M.	312984.00

b	2531	1.5 to 3.0 mt. depth.	128.52	Cu.M.	325284.12
c	3325	3.0 to 5.0 mt. depth	141.11	Cu.M.	469190.75
d	1229	above 5.00 mt. depth	162.02	Cu.M.	199122.58
e	200	Add extra for Disposing off the excavated stuff of above items for lead of (A) 50 m to 100 m	17.28	Cu.M.	3456.00
f	200	Add extra for Disposing off the excavated stuff of above items for lead of (B) 100 m to 200 m	34.56	Cu.M.	6912.00
g		Providing and installing cast in situ single under reamed piles of specified diameter and length below pile cap, excluding the cost of Concrete, steel reinforcement but including the cost of boring with bentonite solution and the length of the pile to be embedded in pile cap etc. all complete. (Length of pile for payment shall be measured upto to the bottom of pile cap) :			
i	10	400 mm dia. Piles	644.63	Rmt.	6446.30
ii	10	450 mm dia. Piles	705.03	Rmt.	7050.30
h		Extra over single under ream for providing additional bulbs in under reamed piles, under specified diameter excluding the cost of Concrete, steel reinforcement (only the nos. of extra bulbs are to be paid).			
t	1	400 mm dia. Piles	813.05	Each	813.05
ii	1	450 mm dia. Piles	1103.43	Each	1103.43
3a	1	Provdg. & laying cement concrete 1:5:10 (1 cement : 5 course sand : 10 hand broken aggregates 40 mm nominal size) and curing complete, excluding cost of form work in foundation & Plinth.	2492.51	Cu.M.	2492.51
3b		Provdg. & laying cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of form work in			
	562	(A) Foundation and plinth	2976.00	Cu.M.	1672512.00
3c	198	Supplying of graded hand broken stone size of 90 mm to 127 mm at site (Rubble or Spoul)	983.93	Cu.M.	194818.14
3d	859	Labour charges for spreading the spouls 90 mm to 127 mm thick layer good earth filling in voids correcting the grade & camber comp. with rolling, watering, incl. preparing the surface by brushing for removing all loose or dirt ect.comp.	26.79	Sq.mt.	23012.61
4	2	Provdg. & laying cement concrete 1:4:8 (1 cement : 4 coarse sand : 8 hand broken stone aggregates 40 mm nominal size) and curing complete excluding cost of form work in foundation & plinth.	2653.67	Cu.M.	5307.34
5	2500	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm. in depth consolidation each deposited layer by ramming and watering.	129.10	Cu.M.	322750.00

6		Conveyance charges of earth lime, murrum, building rubbish, manure, garbage, sludge, excavated rock, fly ash, aggregate of any kind etc. comp.			
a	100	Conveyance charges upto 1 km	320.20	Cmt	32020.00
b	100	Conveyance charges upto 2 km	347.73	Cmt	34773.00
c	12000	Conveyance charges upto 5 km	408.41	Cmt	4900920.00
d	12000	Extra For Lead on Above Item Above 5 km & upto 6 km	9.26	Cmt	111120.00
e	12000	Extra For Lead on Above Item Above 6 km & upto 7 km	9.26	Cmt	111120.00
f	12000	Extra For Lead on Above Item Above 7 km & upto 8 km	9.26	Cmt	111120.00
g	12000	Extra For Lead on Above Item Above 8 km & upto 9 km	9.26	Cmt	111120.00
h	12000	Extra For Lead on Above Item Above 9 km	9.26	Cmt	111120.00
7a	15	Filling in plinth with sand under floors including watering, ramming, consolidating, compacting and dressing etc. completed.	455.63	Cu.M.	6834.45
7b	300	Filling in foundation and plinth with murrum or selected soil in layers of 20 cm. thickness including watering, ramming and consolidating etc. Complete.	286.20	Cmt	85860.00
8		Brick work using common burnt clay building bricks having crushing strength not less than 35 kg/Sq. cm. in cement mortar 1:6 (1 cement : 6 fine sand) conventional brick			
a	110	(a) in foundation & Plinth	3981.21	Cu.M.	437933.10
b	366	Super structure Upto Floor Two Level	4253.46	Cu.M.	1556766.36
c	83	Super structure Above Floor Two Level	4293.55	Cu.M.	356364.65
9		1.Half brick masonry in common burnt clay building bricks having crushing strength not less than 35 Kg/Sq. Cm. in cement mortar 1:4 (1 cement : 4 coarse sand) using conventional brick in Super structure upto floor Four level			
a	295	All Floor Level	646.70	Sq.M.	190776.50
10.1		Providing and laying controlled cement concrete of M-25 Grade and curing complete, Excluding the cost of form work, Scaffolding, cost of reinforcement for reinforced concrete work For any Height up to any FloorLevel.			
a	24	Foundations,Raft,Footings,Mass concrete	4238.04	Cu.M.	101712.96
b1	2	RCC Retaining wall at All Floor	4519.88	Cu.M.	9039.76
c1	13	Tie-Beam, Lintel , Beam- Bracket, Stair Case & Landing, Coping ,Slab, balcony, weather shed, loft , any cantilever etc All Floor	4496.07	Cu.M.	58448.91
d1	12	Columns,Pillars, posts and struts at All Floor	4593.91	Cu.M.	55126.92

10.2		Providing and laying controlled cement concrete of M-20 Grade and curing complete, Excluding the cost of form work, Scaffolding, cost of reinforcement for reinforced concrete work For any Height up to Floor Four Level.			
a	5	Foundations,Raft,Footings,Mass concrete	3977.88	Cu.M.	19889.40
b1	36	Tie Beam , Lintel , Beam- Bracket , Coping ,landing, Slab, balcony, weather shed, loft , any cantilever etc at All Floor	4460.36	Cu.M.	160572.96
c1	2	Column at All Floor	4558.20	Cu.M.	9116.40
d1	1	Stair Case All Floor	5418.91	Cu.M.	5418.91
10.3	2369	Providing and laying in position Ready Mixed M250 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for all lead having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying with all lead and lift, excluding the cost of centering shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in charge. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 450 kg)	4853.56	Cu.M.	11498083.64
10.4	5	Providing and laying in position Ready Mixed M200 grade concrete for reinforced cement concrete work , using cement content as per approved Design Mix manufactured in fully automatic batching plant and transported to site of work in transit mixer for all lead having continuous agitated mixer, manufactured as per mix design of specified grade for reinforced cement concrete work including pumping of R.M.C. from transit mixer to site of laying with all lead and lift, excluding the cost of centering shuttering finishing and reinforcement including cost of admixtures in recommended proportions as per IS: 9103 to accelerate/ retard setting of concrete, improve workability without impairing strength and durability as per direction of the Engineer - in charge. Without Fly Ash (Min cement level as per latest IS 456 shall be maintained) (Cement level 400 kg)	4793.10	Cu.M.	23965.50

10.5		Drilling suitable holes in reinforced or plain cement concrete with power driven drill machine to a minimum depth of 80mm upto 250mm in RCC beams, lintels, columns and slabs to introduce steel bars for sunshades/balconies including fixing the steel bars in position using Hilti Chemical HY200-R but excluding the cost of reinforcement, all complete as per direction of Engineer-In-Charge.			
a	120	8 mm Dia in 80 mm Deep & 12 mm Dia Drilling	183.52	Each	22022.40
b	500	10 mm Dia in 100 mm Deep & 14 mm Dia Drilling	263.66	Each	131830.00
c	500	12 mm Dia in 120 mm Deep & 16 mm Dia Drilling	343.80	Each	171900.00
d	60	16 mm Dia in 160 mm Deep & 20 mm Dia Drilling	608.63	Each	36517.80
e	25	20 mm Dia in 200 mm Deep & 25 mm Dia Drilling	1024.44	Each	25611.00
f	10	25 mm Dia in 250 mm Deep & 32 mm Dia Drilling	1938.54	Each	19385.40
11		Providing and laying controlled cement concrete 1:2:4(1cement : 2 coarse sand : 4 Graded stone aggregate 20 mm nominal size) and curing complete, Excluding the cost of form work and reinforcement for reinforced concrete work in:			
a	1	Foundations, footings, base of columns,grade slab and mass concrete.	3923.53	Cu.M.	3923.53
b	1	slab, landing shelves, Balconies, lintels, beams, girders, and cantilever, up to aany floor level.	4012.47	Cu.M.	4012.47
c	2534	P/A Trimix with dewatering machine and floater machine on constructed R.C.C. work incl. cost of machine and labour etc. comp. as directed.	54.00	Sqmtr	136836.00
d	950	Making 15 mm Groove in R.C.C work on road and filling it with poly sulfied selant and finished it good incl. all labour charges etc. comp. as directed	30.00	Rmt	28500.00
e	21	Providing and laying and fixing 25 mm thick expansion joint by hydrocell semi rigid UV resistance with high performance laminated closed cell polythene foam joint filler in sheet foam as directed, etc. complete.	738.13	Sqmt	15500.73
12		Providing form work in ordinary timber planking so as to give a rough finish including centering, shuttering, strutting and propping etc. height of propping and centering below supporting floor to ceiling not exceeding 4 M & removal of the same for in situ reinforced or plain concrete work in			
a	836	(A) Foundation, footings, bases of columns etc. and mass concrete.	171.68	Smt	143524.48
b	3249	(B) Flat surface such as soffits of slabs, landing and the like	252.00	Smt	818748.00

c	3199	(C) Vertical surfaces such as walls (any thickness) partitions.	229.95	Smt	735610.05
		(D) Columns, pillars, posts & struts.			
d	2044	(1) Square, rectangular, polygonal in plan	297.68	Smt	608457.92
e	20	(2) Circular or curved in plan.	422.10	Smt	8442.00
f	3084	(H) (1) Sides and soffits of beam, haunchings cantilevers, girders, bressumers, Coping and lintels not exceeding 1 M in depth.	192.15	Smt	592590.60
g	10	(2) Sides and soffits of beam, haunchings cantilevers, girders, bressumers and lintels exceeding 1 M in depth.	259.88	Smt	2598.80
h	106	(L) chullah hoops, weather sheds, chhajjas, carbels etc including edges.	155.78	Smt	16512.68
i	110	(M) Staircase with-sloping or stepped soffits incl. risers & strings excluding landing.	242.55	Smt	26680.50
j	2500	Extra for additional height of propping and centering where the height of propping and centering exceeds 4 .O M between supporting floor to ceiling including temporary brick or stone pillars for supporting as required. (i)Height more than 4.0 M.and upto 5.0 M.	386.48	Smt	966200.00
k	60	Extra for additional height of propping and centering where the height of propping and centering exceeds 4 .O M between supporting floor to ceiling including temporary brick or stone pillars for supporting as required. (i)Height more than 6.0 M.and upto 7.0 M.	573.30	Smt	34398.00
13		Providing T.M.T Fe 500D bar reinforcement for R.C.C. work including bending, binding and placing in position complete up to any floor level..			
a	264172	All Floor Level	75.46	Kg.	19934419.12
14	170	Providing and laying polished Kota stone slab (Polished / River Finish, Green colour) flooring over 20 mm. (average) thick base of cement mortar 1:6 (1 cement : 6 coarse sand) or lime mortar 1:1.5 laid over and joined with grey cement slurry including rubbing and polishing complete.25 mm th.	982.83	Sq.M.	167081.10
15	83	Providing and laying polished Kota stone slab 25 mm. thick in Platform ,Riser of Stair , Skirting, Tread , dado and pillars laid on 10 mm. thick cement mortar 1:3 (1 cement : 3 coarse sand) jointed with grey cement slurry including rubbing and polishing and MAKing groove where it is Required etc. compl	1176.03	Sq.M.	97610.49
16	5	Providing and laying white/Colur glazed tiles 6 mm thick in flooring treads of steps and landing laid on a bed of 12 mm thick cement mortar 1:3 (1 cement : 3 coarse sand) finished with flush pointing in white cement.	908.17	Sq. M.	4540.85

17	274	Providing and laying White / Colour glazed tiles of size 600 mmx300mm x 8 mm / 300 mmx 450mm x 8 mm in skirting, risers of steps, Floor and dedo on 10 mm. thick cement plaster 1:3 (1 cement : 3 coarse sand) and jointed with white cement slurry.	1426.95	Sq. M.	390984.30
18	2	Providing and laying marble stone slab flooring over 20 mm. (Average) base of cement mortar 1:6 (1 cement: 6 coarse sand) or L.M. 1:1.5 laid and jointed with grey cement slurry including rubbing and polishing complete: (A) Marble slab 25 mm. thick.	2194.63	Sq. M.	4389.26
19a	1855	Providing and laying Vitrified tiles 8 to 10 mm thick , 24" x 24" in flooring treads of steps and landing laid on a bed of 12mm thick cement mortar 1:3 (1-cement : 3-coarse sand) finishing with flush pointing in white cement.	1062.50	Sq. M.	1970937.50
19b	893	Providing and laying Vitrified tiles 8 to 10 mm thick , 24" x 24" in skirting risers of steps and dedo on 10mm thick cement plaster 1:3 (1cement : 3-coarse sand) and jointed with white cement slurry	1130.15	Sq. M.	1009223.95
19c	200	P & L 24" x 24" vitrified 8 mm thick tile flooring over 20 mm (average) base of cement mortar 1:6 (1cement: 6 coarse sand) on new surface or fixing on existing flooring by adhesive material including dismantling of existing flooring and jointed with color cement slurry including finished with flush pointing & cleaning the surface etc. complete for Antiskid	1383.99	Sq.M.	276798.00
19d	210	Providing and Laying Tactile Tile (For Vision Impaired Persons as per Standards) of Size 300x300x9.8 mm Having with Water Absorption less than 0.5% and Confirming to is:15622 of Approved Make in all Colours and Shades in for Outdoor floors such as footpath, Courtyard, Multi models Location etc., laid in 20 mm Thick Base of Cement Mortar 1:4 (1 Cement : 4 Course Sand) in all Shapes & pattern including Grouting the Joints with White Cement mixed with Matching pigment etc. Complete as per Direction of Engineer-in-charge.	1663.72	Sq. M.	349381.20
20	10	Providing and laying Ceramics tiles 6 to 8 mm thick in flooring, treads of steps, landing and dedo on 12 mm. thick cement plaster 1:3 (1 cement : 3 coarse sand) and jointed with white cement slurry.	960.47	Sq. M.	9604.70
21	780	Providing & Laying 18 mm thick Mirror polish granite For flooring , counter , stair - riser , tread , skirting , dedo , Jambs etc. machine cut or chiselled on bed of cement mortar 1:1 pointing with neat cement slurry incl. moulding, Making grooves where it is required etc. comp. as per instruction of engineer in charge.	2385.71	Sq. M.	1860853.80

22a		Providg. 20 mm. thick Finish / Mala cement plaster in single coat on fair side of brick / concrete walls for interior plastering upto any Floor level and finished even and smooth in C.M.1:4.			
i	4866	All Floor Level	190.58	Sq.M.	927362.28
b		Providg. 20 mm. thick Finish / Mala cement plaster in single coat plastering on ceilings, Beam side and soffits of stairs upto any Floor level and finished even and smooth in C.M.1:4.			
i	3750	All Floor Level	215.15	Sq.M.	806812.50
c	621	Providing & fixing 23 cm wide chicken mesh jali with nails & then application of 15 mm plaster on R.C.C. & masonry joints as per dir. of engg. In charge.	292.59	Sq.mt	181698.39
d	150	Providing and mixing water proofing materials in cement mortar in proportion recommended by the manufacturer. etc. comp. as per instruction of engineer in charge.	48.77	Per Bag of 50 Kg of Cement	7315.50
23a	2404	Providing 20 mm th. Double coat Sand face / Mala Cement Plaster on Walls upto any Height Above Ground level consisting of 12 mm th. Backing coat of C.M. 1:3 (1 cement : 3 Ssand) & 8 mm th. Finishing coat of C.M. 1:1 (1 cement : 1 sand) ets. Complete.	297.68	Sq.M.	715622.72
24a	50	White / Color washing with lime on undecorated wall surfaces (two coats) to give an even shade including thoroughly brooming the surface to remove all dirt, dust mortar drops and other foreign matter.	12.29	Sq.M.	614.50
24b	1800	Providing & Applying 3 mm thick External Wall Rustic Type Texture as per Design & Make as Approved by Consultants / Engineer in Charge. Work Includes All Necessary Scaffolding Work upto Any Height.	424.92	Sq.M.	764856.00
24 c	2700	Finishing walls with Acrylic Smooth exterior paint of required shade :New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	174.97	Sq.M.	472419.00

24d	50	P./L. METALIC HERITAGE SURFACE TEXTURE Providing and fixing of HERITAGE textured homogeneous wall finishing system from BAKELITE HYLAM LTD or equivalent make consisting of a two component system of (25 kgs per Pack) made of 92% silica particles coated with fade resistant pigments, 100% acrylic polymer bonding agent (5kgs per pack) with the applied thickness of the coating being between 0.8mm-1.2mm to be applied on acured, smooth level plaster without keying, as per the shades/combinations approved, as per the manufacturer directions, for usages, tobe applied by an approved applicator of the manufacturer, as per the directions / supervision of the engineers in charge, all complete. Includes All Necessary Scaffolding Work upto Any Height.	637.38	Sq.M.	31869.00
25a	4100	Wall Painting (two coats) with plastic emulsion / Oil paint of approved brand and manufacture and of shade required on undecorated wall surfaces to give an even shade, over and including a priming coat with alkali resistance primer of approved brand and manufacture after thoroughly brushing the surface free from mortar droppings, and other foreign matter and also including preparing the surface even and sand -papered smooth	78.44	Sq.M.	321604.00
b	4100	Extra over above item for every subsequent coat of of wall painting with plastic emulsion / Oil paint of approved brand.	33.39	Sq.mt.	136899.00
c	8000	Applying two coats of Birla (white cement based) or Asian (acrylic lapy-putty) or equivalent & two coats of primer of approved brand and manufacture on new wall surface to give an even shade including thoroughly brushing the surface free from mortar dropping and other foreign matter and sand papered smooth.	40.19	Sq.M.	321520.00
26		Providing and supplying ISI marked only standard length Stonewate pipes in standard lengths of following class and diameter including all taxes,insurance, transportiton, fright charges, octroi,inspection charges, loading,unloading, conveyance to departmental stores, stacking etc. complete			
a	120	23 cm dia.	299.00	Rmt	35880.00
		Lowering, laying and jointing stone ware pipes of following diameters with cement joints in C.M.1:1 proportion in proper position , grade and alignment at all level as directed by Engineer-in- charge including conveyance from stone to site of work, Jointing material etc.comp.			
b	120	23 cm dia.	128.00	Rmt	15360.00

26		Providing & Laying & Jointing glazed stoneware pipes incl. excavation up to 2.0 mt.,refilling, trasporting the pipe to work site, unloading, lowering in trenches, laying and jointing the pipes in c.m. 1:1 incl. all jointing materials such as cement, sand, hemp, bitumen as dire. testing the pipe line to a head of 1.5 mt. and hydraulic test as dire incl. watering trenches, spreading , and carting away of surplus earth within 100 mt.lead as dire. etc. comp.			
c	25	15 cm dia	288.23	Rmt	7205.75
d	15	10 cm dia.	211.05	Rmt	3165.75
27	10	Constructing brick masonry chamber for under ground C.I. Inspection chamber and bends with bricks having croshing strength not less than 35 Kg. Cm2 in C.M. 1:5 C.I. cover with frame (Lightduty) 455mm x 610 mm intenal dimensions total weight of cover with frame to be not less than 38 Kg. (Wt. of cover 23Kg.) and Wt. of frame 15Kg.) (R.C.C.top slab with 1:2:4 mix (1-cement:2-coarse sand:4-graded stone aggregate 20mm size) foundation concrete 1:5:10 inside plaster 15 mm thick with cement mortar 1:3 finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete.(i) Inside dimensions 455 mm x 610 mm and up to 850 mm deep	3863.85	No.	38638.50
28 a	4	Constructing Manhole with R.C.C. top slab in 1:2:4mix (1-cement: 2-coarse sand:4-graded stone aggregate 20 mm nominal size) foundation concrete 1:3:6 mix (1-cement:3-coarse sand:6-Brick bats 40+50mm size) inside plastering 15mm thick with Cement Mortar 1:5 (1-Cement:5-coarse sand) finished with a floating coat of neat cement and making channels in cement concrete 1:2:4 mix (1-Cement:2 - Coarse sand:4-stone aggregate 20 mm nominal size) finished smooth complete including curing and festing (i) Inside size 900mm x 1200mm and up to 1.5M. deep including C.I. cover with frame size 560 mm diameter total weight of cover and frame to be not less than 128kgs. (Wt. of cover 64Kg. and Wt. of frame 64Kg.) (A) With 230 mm thick walls of brick masonry using brick having crushing strength not less than 35Kg./Sq.cm. in Cement Mortar 1:5 (1-Cement: 5-Coarse sand) (2)B type depth up to 1.50 Metre	19139.07	No.	76556.28

29a	16	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 340x280x470 mm sizes respectively with standard flush pipe, Waster Pipe, Waste Coupling, PVC Connection and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : Cera Model No. S4020103 or Equivalent	3344.35	No.	53509.60
b	34	Providing and Fixing of C.P. Brass BIB Cock of 15 mm Dia of Jaquar make florentine series model no. 5047n or equivalent make with all necessary fittings. as approved by Engineer - in - charge.,	1564.17	No.	53181.78
c	34	Providing and fixing brass screw down Angle stop tap.(A) 15mm dia. Of Jaquar make florentine series modelno. 5053n or equivalent make with all necessary fittings. as approved by Engineer - in - charge.,	1160.57	No.	39459.38
d	6	Providing and fixing C.P. brass shower rose with 15mm or 20mm inlet Shower Arm.(A) 100mm dia. Each	279.37	No.	1676.22
e	12	Providing and Fixing of autoclosing pressmatic pillar cock / bib cock with all necessary fittings of Polished Bright Chrome Finish of Jaquar make model no. 031L65 or equivalent make as approved by Engineer in Charge. Rate including of cost of labour, material etc. in complete manner.	3280.52	No.	39366.24
f	22	Providing and Fixing of C.P. Brass Two Way Bib Cock of 15 mm Dia of Jaquar make model no. 041kn or equivalent make approved make with all necessary fittings. as approved by Engineer - in - charge.,	1411.58	No.	31054.76
g	16	Providing and Fixing of C.P. Brass urinal Valve Auto Closing System With Full Built in Control Cock & Wall Flange of 15 mm Dia of Jaquar make model no. 077 or equivalent make approved make with all necessary fittings. as approved by Engineer - in - charge.,	2568.08	No.	41089.28
30	12	Providg. & laying S.W. Gully trap with C.I. garting brick masonry chamber & water tight C.I. cover with frame of 300 mm x 300 mm size (inside) with standard weight. sqare mouth trap size 150 x100 mm P trap	1234.57	No.	14814.84
31	2000	Providing erecting and fixing double coated ISI water tank of required capacity each with all necessary fittings and connection etc. complete on terrace	3.91	Litre	7820.00
32	20	Extra rate over item of excavation of earth for excavation of asphalt pavement/RCC of thickness up to 0.20 meter including demolishing the asphalt carpet, metal, soiling / cutting Reinforcement etc.comp. with stacking the material as directed.-up to 0.20 meter thickness	71.42	Sq.M.	1428.40

33	30	Providing and fixing PVC SWR Nahni trap IS 14735 for drain - 100 mm diameter with jali of the following nominal diameter of self cleansing design with C.I screed down or hinged grating including the cost of cutting and making good the walls.	565.43	No.	16962.90
34a		Providg. And fixing Concealed / Open to wall, ceiling & floor in true line and level UPVC pipe Schedule- 40 of make as approved by engg. incharge. pipe shall be fix on wall with the help of clamp at every two meter center to center of shall be concealed as directed in cluding neccesarry fitting etc. in cluding testing of pipe and jointd and fixing the same with adhesive solvent , including cost of all materials of following nominal bore			
i	60	15 mm	71.93	Rmt	4315.80
ii	250	25 mm	90.93	Rmt	22732.50
iii	30	32 mm	117.97	Rmt	3539.10
iv	180	40 mm	146.65	Rmt	26397.00
v	25	50 mm	193.73	Rmt	4843.25
34b		Providing and fixing concealed center point to wall ceiling & floor CPVC (SDR 13.5) PIPE having National Sanitation Foundation (NSF) seal for potable water of following dia. nominal bore tube fittings and clamps including making good the wall, ceiling and floor etc. complete			
i	5	15 mm	165.21	Rmt	826.05
ii	5	20 mm	202.97	Rmt	1014.85
iii	5	25 mm	247.25	Rmt	1236.25
iv	5	32 mm	330.36	Rmt	1651.80
v	5	40 mm	437.66	Rmt	2188.30
vi	5	50 mm	647.30	Rmt	3236.50
35		Providg. And fixing to wall ,ceiling and floor 10.00 kg. F/Sq.Cm2 working pressure polythelene pipes of the following outside diameter, low, density, complete with special flange compression type fittings, wall clips etc. making good wall ceiling and floor.			
a	50	32 mm	116.40	Rmt	5820.00
b	70	(A) 75mm dia	274.68	Rmt	19227.60
c	140	© 110 mm dia	332.91	Rmt	46607.40
36	8	Providing and fixing water closet squatting Pan (Indian type W.C. Pan) size 580mm (A)VitreousChina. (I)Long pattern = White colour with Trap and Pair of Foot Rest	1351.49	No.	10811.92
37a	16	Providing and fixing white vitreous china extended wall mounting water closet of Cera Make S1043101 Carat Model Or Equivalent Model With EWC Soft Close Seat Cover, Chair Bracket, nuts, bolts and gasket etc complete.	12613.27	No.	201812.32

b	24	Providing and Fixing of C.P. Brass Flush Cock of 25 mm Dia of Jaquar make model no. 081 or equivalent and Outer Body of Jaquar make model no. 5083KPM or equivalent approved make with all necessary fittings. as approved by Engineer - in - charge.,	2732.58	No.	65581.92
c	16	Providing and fixing Health Faucet of Jaquar make model no. 573 or equivalent make as approved by engg. In charge with flexible tube upto 1 metre long etc. complete.	1543.36	No.	24693.76
38a	2	Providing and fixing 24"x18"x8" Carysil Elegance or Equivalent Make of Single Bowl Sink S.S. Matt Finish With Waste Coupling, Waste Pipe,etc. cutting and making good the walls wherever required.	7960.49	No.	15920.98
b	10	Providing and fixing Under counter Wash basine including 15 mm C.P. Brass Pillar tap, 32 mm C.P. Brass Waste of Standard make, Cutting & Making good the wall / granite Wherever Required in White Color : Model S2030101 of Cera Clair Series or Equivalent make Wash basine of size : 520x450 mm	6641.14	No.	66411.40
c	4	Providing and fixing Wall Hung wash basin Including 32 mm C.P. brass waste of standard pattern, cutting and making good the walls / granite wherever require:In White Color : Cera Cadal Or Equivalent Make Wash basin of size 515 x 410 mm	3825.20	No.	15300.80
39a	10	Providg. & fixing 600mm x 450 mm Bevelled edge mirror of superior glass mounted of .6 mm th. A.C. sheet or plywood sheet and fixed to wooden pluge with C.P. brass screws and washers.	825.48	No.	8254.80
b	2	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing : Rectangular shape 1500x450 mm	1773.73	No.	3547.46
40	10	Providg. & fixing C.P..Brass towal rail complete with C.P. brass brackets fixed to wooden plugs with C.P. Brass screws.(600 mmx 20 mm size)	597.22	No.	5972.20
41		Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :			
i	8	15 mm dia	886.22	No.	7089.76
ii	1	20 mm dia	1099.94	No.	1099.94
iii	25	25 mm dia	1552.93	No.	38823.25
iv	12	40 mm dia	3312.60	No.	39751.20
v	4	50 mm dia	4613.48	No.	18453.92
42a		Providing and fixing Full Way valve (HEX) with wheel of approved quality :			
i	2	15 mm Full Way valve (HEX)	1461.17	No.	2922.34
ii	2	20 mm Full Way valve (HEX)	1924.61	No.	3849.22

iii	8	25 mm Full Way valve (HEX)	2535.55	No.	20284.40
iv	1	32 mm Full Way valve (HEX)	3377.64	No.	3377.64
v	8	40 mm Full Way valve (HEX)	4661.10	No.	37288.80
vi	3	50 mm Full Way valve (HEX)	6675.14	No.	20025.42
43a	1	Providing and Fixing of C.P.Brass Pillar Cock of 15 mm Dia of approved make with all necessary fittings. as approved by Engineer - in - charge.,	1725.21	No.	1725.21
b	4	Providing fixing of SS grab bar with all hardwares for Physically Handicap toilet.	1937.24	No.	7748.96
44a	1000	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations:	1150.48	Sq.M.	1150480.00
		(a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS. 2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment.			
		(b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs.			
		(c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineerin- charge.			
		(d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineerin- charge			
		(e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test."All above operations to be done in order and as directed and specified by the Engineer-in-Charge :and shall be guaranteed for minimum period of 10 years after handing over the completed building by the main contractor to be finished as directed. Stamp paper guarantee 10 years to be furnished before receiving any payment from the client.			

		With average thickness of 120 mm and minimum thickness at khurra as 65 mm.			
b	1000	Providing and laying broken chine mosaic flooring for terrace using 12 mm to 20 mm broken pieces of glazed tiles to be laid over cement mortar 1:3 to plain or slope and to be tempered to bring mortar creme out upto surface using white cement including rounding off junctions and extending them upto 15 cm along the wall,clearing with water and oxalic acid etc. as directed.	739.89	Sq. M.	739890.00
c	520	Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge.	562.40	Sq. M.	292448.00
d	70	Filling in Sunken Portion with good Quality Aerated light weight concrete block having crushing strength not less than 35 kg/sqcm and where directed by the Architect / Engineer-in-charge, in sunk in layer. including watering, ramming where it is required etc. complete, as directed by the Architect / Engineer-in-charge .	4559.61	Cmt	319172.70
45	220	Providing and laying cement concrete flooring (I.P.S.) 1:2:4 (1-cement : 2-coarse sand : 4-graded stone aggregate 20mm nominal size) laid in one layer and finished with a floating coat of neat cement. (B) 50mm thick.	348.08	Sq.M.	76577.60
46a	7500	Providing and fixing M.S. grills/ Gate of required pattern to wooden/ Granite frames of windows etc. with M.S. flats at required spacings and frame alround, square or round bars with round headed bolts and nuts or by screws all complete as per the structural designs and directions of Engineer in charge	100.17	Kg.	751275.00
b	1500	Providing & Fixing Structural steel work (Confirming to IS 4923-1997) riveted, bolted or welded in builtup for all type sections, in framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete as per the structural designs and directions of Engineer in charge	126.68	Kg.	190020.00

c	600	Applying priming coat over new steel and other metal surface after and including preparing the surface by thoroughly cleaning, oil, grease, dirt and other foreign matter and scoured with brushes fine steel wood, scrapers and sand paper with ready mixed priming paint brushing red lead.	34.34	Sqmt	20604.00
d	600	Painting two coats (excluding priming coat) on new steel and other metal surface with enamel paint, brushing, interior to give an even shade including cleaning the surface an even shade including cleaning the surface of all dirt, dust and other foreign matter.	86.94	Sqmt	52164.00
e	20	Providing & Fixing 1 mm Thick S.S.-304 Grade 90 mm High S.S. Railing having Hand Rail Member of 50 mm Dia., 3 No. of Horizontal Pipe of 16 mm Dia. & Baluster Supprt of 40 mm Dia. At Every Third Step as per Detail Given. Rate Includes All Work Complete as per Description & as per Direction of Engg. in Charge.	2270.21	R.Mtr.	45404.20
47a	30	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm braced with flat iron diagonals 20x5 mm size with top & bottom rails of T-iron 40x40x6 mm with 38 mm dia. Steel pulleys complete with bolts , nuts , locking arrangement , stoppers , handles including applying a priming coat of red lead paint.	5391.23	Sq. M.	161736.90
b	10	Providing corrugated 0.80 mm (22 gauge) thick G.I. sheets roofing fixed with galvanized iron 'J' or 'L' hook bolts, and nuts 8 mm. dia with bitumen and G.I. limpet washers filled with white lead complete excluding the cost of purlines, rafters and trusses.	719.93	Sq.M.	7199.30
c	3	Providing valleys 900 mm. overall in plain 1.6 mm. thick G.I. sheet Class – 3 fixed with 'J' or 'L' hook bolts and nuts galvanized from 'J' or 'L' hook bolts and bitumen washers complete.	1042.78	Sq.mt.	3128.34
48a	9	Providing and fixing rolling shutters of approved make made of 80 mm wide M.S. laths inter-locked together through their entire length and jointed together at the ends by end locks mounted on specially designed pipe shaft with bracket plates, guide channels and arrangements for inside and outside locking with push-pull operation including the cost of hood cover and spring etc. complete.(A) Shutters having width below 3.5 M.	3468.72	Sq.M.	31218.48

48b	30	Providing and fixing rolling shutters of approved make made of 80 mm wide M.S. laths inter-locked together through their entire length and jointed together at the ends by end locks mounted on specially designed pipe shaft with bracket plates, guide channels and arrangements for inside and outside locking with push-pull operation including the cost of hood cover and spring etc. complete.(A) Shutters having width 3.5 M. and Above	4450.51	Sq.M.	133515.30
49a	115	Providing and fixing 27mm domal Series - 1.2 mm Th. Alluminium Section Three track Sliding window With Metalic Powder Coating and 4 MM Clear Glaas(Non Tuffen) Include All Accessories and Fixture etc. complete as per the direction of Engineer-in-charge.	6373.85	Sq. M.	732992.75
b	14	Providing and fixing 27mm domal Series - 1.2 mm Th. Alluminium Section Two track Sliding window With Metalic Powder Coating and 4 MM Clear Glaas(Non Tuffen) Include All Accessories and Fixture etc. complete as per the direction of Engineer-in-charge.	4999.10	Sq. M.	69987.40
c	26	ALUMINIUM DOOR WORK Providing and fixing Aluminium Door work (Single Shutter OR Double Shutter with fix glass) made from Jindal or equivalent make Powder Coated (50 micron pure polyester coating) , aluminium section frame built up standard tubular and other section of approved make confirming to IS 733 and IS 1285 , member size with shutters of horizontal member , vertical member Confirming to IS733 and IS 1285 fixed with rawl plug abd screws or fixing clips or with expansion hold fasteners including necessary filling up of gaps at junctions at top bottom and sides with required PVC/ Neoprene felt, 8/12 mm toughened glass of approved make etc. Aluminum sections shall be smooth, rust free, straight.mitred and jointed mechanically wherever required including Door Hardware such as cleat angles aluminum snap beading for glazing /paneling, CP Brass/ Stainless steel screws, Stoppers, heavy duty floor hing, S.S. Hinges, aldrop , Locking system, heavy duty Floor Springs, Pivot and fixtures and transparent silicon sealant glass fixing to frame as per details all complete as per architectural drawings and the direction of Engineer in Charge. rate incl. all type of alumnium sections for doors as per the detail Architectural dwg.	5401.70	Sq. M.	140444.11

50 a	12	Providing and fixing standard extruded of aluminium section of size 63 mm x 38.10 mm x 1.2mm (Section:2434, @ Wt.0.643Kg/mt) with colour anodized aluminium frame for ventilation with 5 mm thick frosted glass as details etc complete for Ventilation	1163.92	Sq. M.	13967.04
50 b	20	Providing and fixing standard extruded of aluminium section of size 63.50 x 38.10 x 1.95 mm (Section no: 4605, @Wt 1.094 Kg / Rmt with colour anodized aluminium frame with 5 mm thick transparent bronze colour tinted float glass as details etc complete for Fix window.	1509.90	Sq. M.	30198.00
50c	43	Providing Fixing 1.2 mm thick Aluminium Section Partition -Fully Glazed / Partly Panelled Partly Glazed / Fully Panelled , Having Size of Section of 2.1/2 x 1.1/2 with 4 mm Compact Sheet / 5 mm thick Glass Fixing with 4 mm thick EPDM Rubber etc. Complete as per Direction of Consultant / Engg.incharge.	3124.44	Sq.mtr.	134350.92
50d	13	Providing Fixing 1.2 mm thick Aluminium Section Partition Door -Fully Glazed / Partly Panelled Partly Glazed / Fully Panelled , frame Having Size of Section of 2 .1/2 x 1 .1/2 and Door Section Having Size of Tips Vertical 1 .3/4 x 1 .3/4, Top Rail 4 x 1 .3/4, Middle Rail 1 .3/4 x 1 .3/4, Bottom rail 4 x 1 .3/4 with 4 mm Compact Sheet / 5 mm thick Glass Fixing with 4 mm thick EPDM Rubber Including Lock, Handle, Door Closer, Door Stopper, Stopper etc Complete as per Direction of Consultant / Engg.incharge.	4061.77	Sq.mtr.	52803.01
51a	48	Providing and fixing Structural Glazing with using the 17 Micron anodised of approved colour aluminium section as transium, mullium of size 63mm x 38mm x 2 mm with using 6 mm thick reflective structural glass of approved make, colour / Tinted, toughened and shade and fixed with silicone sealant and spacer tap and at corner sealed neoprene foam dust and Air sealed gasket mirrored including scaffolding, cleaning of glass etc.complete at all heights and lifts with all necessary fitting and fixtures, anchore fasteners, necessary M.S. or Aluminium brackets, suitable design for openable or sliding window as per Architectural drawing and as directed by Engineer-in-charge. Grooves between the glasses to be filled with sealant of Dow corning - structural sealant 995, weather sealant 789. The entire facade should be water proof. The mullions are to be connected to bracket by SS-304 nut bolts. Measurement shall be given as per actual execution of the work. (Rate are included providing & fixing of MS structure steel work wherever Required)	3953.75	Sq.mt.	189780.00

51b	647	<p>Providing and fixing wall acoustical paneling Fixing with Sound Strut screw fixed horizontal/vertical to wall at every 600mm c/c. Metal cleat can be fixed on top edges of Sound Strut Ceiling Section 55 fixed directly by stamping to the CS55 and Intermediate Channel-91 which is screw fixed directly to the wall where ever required and using Rock wool between framing and panel with technical specification of 50 Kg Density and 50MM thick and above CS55 fixing aluminum channel with clip and fixing ecotone Slato Acoustic Panel make Slats L-16 of size 128mm x 2430 mm x 16mm thick up to 2400mm high as per the following specification :-Slats L-16- 2mm @16mm, 32 x 128 x 2430 mm high E1 grade Pine wood base Medium Density Fiber acoustic boards with Tongue & Groove Edge,2mm slot perforation @ 16mm centre, slates perforations, The acoustic should be furnished with a Black absorbent felt backing with an airflow resistance of 330-460 Ns/m³ (DIN 53887),wood practical core,NRC : should be Up to 0.75,should meet the safety requirements of EN 14190. The colour of panel as approved by Architect and as specified including all accessories, material &labour complete as directed by Architect / Engineer – in – charge.</p>	4376.53	Sqmt	2831614.91
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51c	100	<p>Design supply & installation of suspended Spider Glazing system designed to withstand the wind pressure as per IS 875 (Part-III). The Suspended System held with Spider Fittings of SS-316 Grade Steel of approved manufacturer with glass panel having 12 mm thick clear toughened glass held together with SS- 316 Grade Stainless steel Spider & bolt assembly with laminated glass fins 21 mm thick. The Glass fins and glass panel assembly shall be connected to Slab/ beams by means of SS- 316 Grade stainless steel brackets & Anchor bolts and at the bottom using SS channel of 50x25x2mm using fastener & anchor bolts, non staining weather sealants of approved make, Teflon/ nylon bushes and separators to prevent bi-metallic contacts, all complete to perform as per specification and approved drawings. The complete system to be designed to accommodate thermal expansion & seismic movements etc. The joints between glass panels (6 to 8 mm) and gaps at the perimeter & in U channel of the assembly to be filled with non staining weather sealant, so as to make the entire system fully water proof & dust proof. The rate shall include all design, Engineering and shop drawing including approval from structural designer, labour, T&P, scaffolding, other incidental charges including wastage, enabling temporary services all fitting fixers nut bolts, washer, Buffer plates, fastener, anchors, SS channel laminated glass etc. all complete. For the purpose of payment, actual elevation area of Glazing including thickness of joints and the portion of Glass panel inside the SS channel shall be measured.</p>	8052.84	Sq.mt.	805284.00
51e	40	<p>Providing and fixing 12 mm thick Toughened Glass Door with / Without Fix Portion Including Floor Spring , Lock, 300 mm Long Door Handle, Nut Bolt, Clamp, Connector and All accessories as approved by Engg. Incharge</p>	6449.86	Sq.mt.	257994.40

52a	73	Providing and fixing ISI marked 35 mm thick flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters with 1.00 mm thick Decorative Laminated Sheet on both faces of shutters including ISI marked Stainless Steel butt hinges, bright /matt finished 125 mm Stainless Steel handles of approved quality & make, ISI marked oxidised M.S. door latches / Aldrop Conforming to IS:5930 with necessary screws etc. complete as per direction of Engg. incharge.	4332.15	Sq.mt.	316246.95
b	170	Providing wood work in frames of Doors, windows clear story windows and othersimilar works wrought, framede and fixed in position. (A) Indian Teak Wood	602.04	10 Cu.Decim	102346.80
53		Providing and fixing 35 mm th. Shutters for doors windows & clearstory windows incl. wood frames as specified 12 cm. x 7cm. size incl. anodised alluminium fixtures and fastenings including primer coat of approved quality and two coats of oil paint etc. complete.			
a	3	Fully glazed	4788.50	Sq. M.	14365.50
b	3	Fully panelled	5478.89	Sq. M.	16436.67
c	3	Partly panelled and partly glazed	5133.69	Sq. M.	15401.07
54	47	Providing and fixing FRP frame size 100x50 mm and 28mm thick FRP depress panel shutter having extra reinforcement on sides & edges in Gel coat finish. The core of the shutter & frame is to be filed up with injected fire retardant grade polyurethane foam done in situ alongwith embedded wooden pieces for stiffening & also taking hinges & fintures. The whole FRP frame & shutter is to be water proof weather proof, termite proof & resistance to mild acid/alkali. Rates are to be inclusive of S.S hinges with necessary screws & alluminium fixtures & fastenings & fastener sleeve.	2354.22	Sq.M.	110648.34
55		Making connection to the ex.M.H.in running sewer incl. Dewatering and other required machinery etc. of following dia pipes at any convenient time. All damaged work shall be well repaired as per instructions. etc..complete.			
a	1	For Pipe 150 mm to 300 mm diameter	1339.29	No.	1339.29
b	1	For Pipe 400 mm to 600 mm diameter	2232.14	No.	2232.14
56	1	Making connection of galvanised Mild steel distribution branch with galvanised mild steel main 50mm to 80mm nominal bore by providing and fixing tee including cutting and threading the pipes complete	600.08	No.	600.08

57a	1500	Providing throating or plaster drip, grooves and moulding to Wall , R.C.C. chajja and slab.	41.25	Rmt	61875.00
57b	180	Providing & Laying cement vatta 10 cm x 10 cm in size quarter round in c.m. 1:1 (1 cement, 1 coarse sand) laid in one layers finishing with a floating of neat cement watering etc complete as dire.	23.45	Rmt	4221.00
58	1200	Carring out plinth treat ment to post construction/ existing structure by spraying chemical solution for termite control treatment including labour and material consist ment with I.S.I specification. Using Chlordene and Chiorpur files 20EC. As Per 6131_ part- II Concentration Weight one percent is recommended i.e one litre 20EC chemical emulsion with 19 liter give 1% concentration inclusive of one litre chemical emulsion appication at the rate of 5 Litre chemical/ Sqm of surface is recommended as per I.S	104.90	Sq.mt	125880.00
59	10	Carring out timber treatment to all wood work including drilling holes and spraying oil based chemical solution on surface of timber work for termite control including labour and material etc. complete. Using Chlordene 20EC. As Per 6113_part III Concentration Weight 1.00 percent is recommended one litre chemical emulsion dillute with 9 liter of kerosene precent concentration. Total dillute concentration will be 10 litre inclusive of the litre chemical emulsion application 0.75/Litre chemical per one Sqmt printed two coat wood surface.	54.98	Smt	549.80

60	200	Paver Block Providing and laying shot blasted Non - interlocking, Paver blocks of specified thickness, size, grade of concrete and colour machine made and blasting by automatic shot blasting machine and high density of as per approved sample of approved make for footpath, parking areas, service lanes, cross over and other areas as mentioned in the drawing. Including providing and laying 50 mm thick average bedding layer of coarse sand below paver block as per required grading and specification. Laid paver block shall be mechanically compacted. The work of the paving blocks shall be executed in line and level by skilled mason of flooring work only. Small size of paver block with same specification shall be used at residue or at end. It should be laid in such a way that the no cutting of the paver block to be necessary. If cutting of paver block shall be required, then cut by machine only and laying to be done by skilled flooring mason. The finished surface of the paver block shall have coarse sand Texture Finish. Pave blocks shall be compacted and shall be re-laid if necessary. Actual laid area shall be measured and paid without any wastage. (A) 80 mm thick M-35 grade Grey Paver block of size 200mm x 200mm. As per approved rate	1150.59	Sq.mt.	230118.00
61	350	Providing and fixing pre-cast concrete kerb stone of gray cement based concrete block 30cm length, 30cm height and 15cm thick of M250 grade concrete as per approved design and including excavation for fixing in proper line and level, filling the joint with C:M 1:3 (1cement:3fine sand) etc complete.	358.06	R.mt.	125321.00
62a	15	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body / plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge. With stainless steel cover plate minimum 1.25 mm thickness	4558.89	No.	68383.35
b	22	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1200 mm), with double speed adjustment with necessary accessories and screws etc. complete.	1626.10	No.	35774.20

63	125	Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including:	3061.95	Sq.mt.	382743.75
		(a) Structural analysis & design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design.			
		(b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc.			
		(c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material & labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work cost for ACP cladding is included in this item rate. The Contractor shall provide curtain wall with aluminium composite panel cladding, having all the performance characteristics all complete , as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places.			

64		Providing and Fixing Box type metal letters forming composite box made from 1mm thick stainless steel plate of grade 304 having brush finish of following font size to be fixed at Main Gate in english and or Gujarati and including fixing charges. etc. complete as per direction of Engg. incharge. for Payment Purpose Height of Letter will be measured.			
a	960	Upto 300 mm Height	93.85	R. Inch	90096.00
65a	35	Providing and Fixing MURAL made out of 2mm thick s.s. plate grade 304, including making necessary design as per Architect dwg. Through laser cutting including connection to the R.C.C./Masonry with necessary frame, anchor fastnuts, M.S. Plate etc. complete as per direction of Engg. incharge.	6804.07	Sq.mt.	238142.45
65b	7000	Providing and Fixing Sinage - internal and external signage boards with Vinyle Text on ACP sheet / 2 mm th. S.S. Plate etc. complete as per direction of Engg. incharge.	9.38	Sq.Inch	65660.00
65c	8	Providing and fixing retro Reflective Hi Intensity Micro Prismatic Grade Board using 2mm Aluminum / 4mm ACP, angle iron 75 x 75 x 6mm. Descaling and degreasing the board as per requirement using epoxy reflective process by screen painting as directed etc. complete including transporting and fixing in C.C. 1:2:4 with necessary excavation curing etc. complete as per I.R.C. 67-2012 design. A warranty for 7 years for the Retro reflective sheeting from original manufacturer & a certified copy of 3 year outdoor exposure test report from third party test lab for the product offered shall be submitted by contractor. (B)Class B Type-4(MDR/ODR) retro reflective sheeting	7535.31	Sq.mtr.	60282.48

65d	100	Road marking with hot applied thermoplastic paints with reflectorising glass beads on bitumin surface providing and laying a hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads @ 250gms per sqm area, thickness of 2.5mm is excluding of surface applied glass beds as per IRC:35-2015. The finished surface to be level, uniform and free from streaks and holes. zebra patta /bump patta lane/center line/ edge line/cut patta. The white color marking should provide liminance coefficient on cement road shall be min 130 mcd/m ² /lux and Asphalt road shall be min 100 mcd/m ² /lux during the service life during the day time. The marking should meet the performance criteria for night time reflectivity, wet reflectivity and skid resistance as mentioned in the section-15 of IRC 352015. Warranty for the Retro reflectivity should be two years.	364.08	Sqmt	36408.00
65e	10	CAT EYE/Pavement Marker(MNC two nail) made out of acrylic StreneAcrylonitrile or hi-impact poly Steren fitted with moulded of metheacrylate(MNC)reflector cube corner reflector design,filled with tightly adhering pooting compound as per ASTM D-788 size 11.5x7x1.60 cms or 10x10x1.75 cms provided with bituminous adhesive in sufficient quantity with each unit fixing with two shrank .Reflector on both side.Co efficient of lamination as per specification and compressive strenth 13 tones at 23 degree centigrade etc.B) Double side lenses.	160.71	Nos.	1607.10
66a	1155	Providing and fixing eco-friendly light weight calcium silicate false ceiling tiles having T egular edge & 15mm Thick Densified edges on the Tile Periphery for Extra Strength The Light weight calcium silicate ceiling tiles shall have, light reflection 85% non-combustible as per B.S.476 part IV, 100% humidity resistance and also having thermal conductivity 0.043° w/m KC. for the best thermal Insulation.	1632.63	Sq.mt.	1885687.65

		<p>The Light weight calcium Silicate tile shall be of approved texture Fine fissured/ Spintone/ Cosmos having NRC value of 0.5 & Globe having NRC value of 0.75 NRC or equivalent of size 595X595 mm to be laid on true horizontal level suspended inter locking metal grid of hot dipped galvanized steel sections (galvanizing @ 120 grams per sqm including bothside) consisting of main 'T' runner suitably spaced at joints to get required length and size of 24X38 mm made from 0.30 mm thick (minimum) sheet, 1200 mm centre to centre, and cross 'T' of size 24X28 mm made out of 0.33 mm (Minimum) sheet spaced 1200 mm along spaced between main 'T' at 600 mm centre to centre to form a grid of 1200X600mm and secondary cross 'T' of length 600mm and size 24x28mm made of 0.30 mm thick (Minimum) sheet to be interlocked at middle of the 1200X600mm panel to form grid of size 600X600mm resting on periphery walls / partitions on a perimeter wall angle pre-coated steel of size (24X24X3000mm made of 0.40mm thick (minimum)</p>			
		<p>sheet with the help of rawl plugs at 450mm centre to centre with 25mm long dry wall screws @ 230mm interval and laying 15mm thick Densified edges light weight calcium silicate ceiling tiles of approved texture (Fine Fissured/ Cosmos/Spintone) in the grid including, cutting /making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever required, Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25X35X1.6mm fixed to ceiling with 12.5mm dia and 50mm long dash fasteners, 4mm G.I. adjustable rods with galvanized steel level clips of size 85X30X0.8mm, spaced at 1200mm centre to centre long main 'T' bottom exposed with 24mm of all T-sections shall be pre-painted with polyester baked paint, for all heights,</p>			
		<p>, as per specifications, drawings and as directed by engineer-incharge.Note:- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/ opening (cut outs) having area less than 0.30 sqm. The calcium silicate ceiling tiles shall have NRC. Value of 0.50 (Minimum) for Fine fissured/ Spintone/ Cosmos and 0.75 NRC for Globe, light reflection 85% noncombustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity. 0.043° w/m KC.for the best thermal Insulation</p>			
66b	755	<p>Providing and fixing single layer water proof gypsum board 12.5 mm thick of the make New good Group Co.Ltd. or equivalent &</p>	600.94	Sq.mt.	453709.70

		New good Group Co.Ltd. company sections using water proof board of size 1220 mm x 1830 mm x 8.0 mm suspended by G.I suspender of size 25 mm x 3 mm with intermediate channel of size 18mm x40mm x0.80mm at 1220 mm center to center ceiling section of size 40mmx 35mmx 0.55mm at 457 mm center to center and perimetre chanel A of size 20mm x 27mm x 30mm x 0.50mm at edges & drops including paper taps and soffit cleat, anchor fastener, scoch bolt connecting cleat joining compound top coat on ceiling including making necessary opening for light fitting, diffuser etc. complete as per detail drawing as directed.			
67	10	Providing and Fixing 6 mm thick Lexan Polycarbonate multi wall roofing sheet fixed with hilti screw and rubber silicon sealer and alluminium strip of size 50 x 3 mm etc complete as directed by Engineer in charge	1427.62	sq.mt.	14276.20
68		Providing and supplying ISI Standard RCC pipes (of sulphate resisting Cement)in standard lengths of following class and diameter suitable for rubber ring joints (socket and spigot) including all taxes,insurance, transportation,treight charges,octroi,inspection charges, loading,unloading, conveyance to departmental stores, stacking etc. comple			
		Class NP3 Test pressure 0.7 Kg/Sq.Cm			
a	200	300 mm Diameter	755.00	Rmt	151000.00
b	25	450 mm Diameter	1361.00	Rmt	34025.00
68		Lowering, laying and jointing R.C.C. pipes in C.M.1:1 1/2 of following diameters in proper position , grade and alignment at all level as directed by Engineer-in- charge including conveyance from stone to site of work, labour giving hydraulic testing as per ISI code.			
		NP3 Pipe			
c	200	300 mm Diameter	119.00	Rmt	23800.00
d	25	450 mm Diameter	171.00	Rmt	4275.00
69	20	Constructing Bombay Pattern Type Catch Pit of size 0.60 x 0.60 depth up to 1 mt including excavation, B.B.C.C. (1:5:10), 23 cms thick brick maso. wall in the prop. of CM (1:6) with 40 mm thick IPS flooring in the prop M15 at bottom and 15 mm thick cement plaster inside the catch pit in the proportion of CM (1:3) with out jali etc. comp. as directed.	3125.00	No	62500.00
70	20	CatchPit Jali Fixing P/F FRC catch pit jali with frame 600mm x 600mm clear opening etc. comp.. As directed by engineer in charge.	1522.00	No	30440.00
		PERCOLATION WELL			
71	120	Drilling of pilot bore hole in Alluvial Strata by direct Rotary Rig of 250 mm.	694.64	Rmt	83356.80

72	120	Reaming 400 mm	212.50	Rmt	25500.00
73	1	Electro Logging charges with carting	16071.43	Job	16071.43
74	60	Providing and Installing 200 mm dia IS:12818 upvc Casing Pipe "CM" class plain Pipe	1193.75	Rmt	71625.00
75	1	Providing and Installing 200 mm dia IS:12818 upvc End Cap, with Air Vent cowl	669.64	Set	669.64
76	60	200 mm dia Regular with 1.5 mm sloted size cage type trapezoidal shape wire wound little carbon galvanized screen confirming to IS:8110	1146.43	Rmt	68785.80
77	10	Supply of Pea sized Gravel	2029.46	Cmt	20294.60
78	1	Air Vent of 50 mm Bend	401.79	Unit	401.79
79	120	Lowering and Removing of Dropline up to Depth 186 mtr.	147.32	Rmt	17678.40
80	1	Air Compressor 60 CFM/150 PSI	22205.36	Ls	22205.36
		Estimate For Civil Work With Percolation Well		Total Rs.	74617470.58
		Electrical Work			
I. No.	Qty	Items	Unit Rate	Per	Amount
			Rs. Ps.		Rs. Ps.
		Electrical Work Estimate			
1		INTERNAL WIRING			
1.1		Point wiring for Light / Bell with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade ZHFR/HRFR PVC insulated multi strand copper wires up to 10 mtr length , in below type of pipe erected with 6A Modular type switch / bell push & accessories and earth continuity of following type, erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured/metallic/white front plate modules erected on / in wall / ceiling as per pipe erected, with necessary Lamp holder/ceiling rose / H.D.Connector as directed.			
	225	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete	505.05	Pt	113636.25
1.2		Point wiring for FAN with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (Green) both are of .ISI marked 1.1 KV Grade ZHFR/HRFR PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected with 6A Modular type switch and hum free EME four or more step type electronic fan regulator with separately mounted and accessories with earth continuity of following type erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured/metallic/white front plate modules erected on / in wall / ceiling as per pipe erected. with necessary ceiling rose / H.D.Connector as directed.			
	35	(f) with medium class Rigid PVC pipe and accessories erected concealed in	701.40	Pt	24549.00

		wall/ceiling complete			
1.3		Point wiring for secondary light point with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (green) both are of ISI marked 1.1 KV grade ZHFR/HRFR PVC insulated multi strand copper wires, in below type of pipe to be erected complete with earth continuity and necessary connection with primary light with accessories erected on Metal / PVC / wooden box covered covered with appropriate front plate modules erected on / in wall / ceiling for open / concealed wiring. with necessary Lamp holder / ceiling rose / H.D.Connector as directed.as per pipe erected with following type of accessories.			
		Note:- Maximum up to 6 mtrs length, excess will be considered as Mains for Secondary Point.			
	260	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete	174.30	Pt	45318.00
1.4		Point wiring for Individual Plug with & earth wire of 1.5 sq.mm (Green) both are of ISI marked 1.1 KV grade ZHFR/HRFR PVC insulated multi strand copper wires up to 10 mtr length, in below type of pipe erected complete with Modular type switch & 5 pin Plug erected on PVC / Metallic/Wooden box covered with appropriate front plate modules erected on / in wall / ceiling as per pipe erected with following type of accessories.			
1.4.1	30	[I] For 6A Plug and 6 a switch with 2-1.5 sq.mm Cu. Wire from nearby switchboard/mcb db board	530.25	Pt	15907.50
		(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete			
1.4.2	25	[II] For 16A Plug and 16 amp switch with 2-2.5 sq.mm Cu. Wire from mcb db board.	774.90	Pt	19372.50
		(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete			
1.4.3	20	[III] For 16A Plug and 16 amp switch with 2-4 sq.mm Cu. Wire with 2.5 sq.mm (green) earthing wire from mcb d b board.	906.15	Pt	18123.00
		(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete			
1.5	65	Point wiring for on board Looped Plug with 6A Modular type switch & 5 pin socket erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate modules erected on / in wall / ceiling with following type accessories	255.00	Pt	16575.00

1.6		Point wiring for Two Way Controlled Light Point with 2-1.5 sq.mm & earth wire of 1.5 sq.mm (green) both are of .ISI marked 1.1 KV grade ZHFR/HRFR PVC insulated multi strand copper wires erected in below type of pipe with 6A Modular type switches and following type of accessories erected on PVC / Metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate modules erected on / in wall / ceiling as per pipe erected. with necessary batten/angle holder or ceiling rose or H.D.Connector as directed.			
	6	(f) with medium class Rigid PVC pipe and accessories erected concealed in wall/ceiling complete	627.90	Pt	3767.40
1.7		Providing following type of Modular Type Accessories mounted with PVC / metallic/Wooden box, single mounting base frame covered with textured / metallic/white front plate , modules erected with necessary connections as per site situation directed by Engineer In charge.			
1.7.1	5	(1)One No. SP 6 Amp.	150.00	E.a.	750.00
1.7.2	5	(2) One No 5 pin plug	150.00	E.a.	750.00
1.7.3	80	(7) Blank Plate Single	25.00	E.a.	2000.00
1.7.4	1	(8) Computer RJ-45 socket	159.00	E.a.	159.00
1.7.5	15	(9) 16 Amp. SP one way switch	179.00	E.a.	2685.00
1.7.6	15	(10) 6/16Amp. Universal socket	198.00	E.a.	2970.00
1.7.7	4	(13) 6A/10A/16A/20A/25A/32A Single pole Modular MCB Switch	307.00	E.a.	1228.00
1.7.8	4	(14) 6A/ 10A/ 16A/ 20A/ 25A/ 32A Double Pole Modular MCB Switch	406.00	E.a.	1624.00
1.8		Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed			
1.8.1	1080	(a)20 mm	24.00	Mtr	25920.00
1.8.2	2840	(b) 25 mm	33.00	Mtr	93720.00
1.8.3	60	(c) 32 mm	54.00	Mtr	3240.00
1.8.4	60	(d) 40 mm	67.00	Mtr	4020.00
1.9		Providing & erecting PVC Corrugated Flexible Conduit with required nos. of coupling, PVC bushes, Check-nuts etc. complete of following sizes.			
1.9.1	110	(1) 20 mm	17.00	Mtr	1870.00
1.9.2	250	(2) 25 mm	21.00	Mtr	5250.00
1.9.3	80	(3) 32 mm	27.00	Mtr	2160.00
1.9.4	70	(4) 40 mm	37.00	Mtr	2590.00
1.9.5	10	(5) 50 mm	46.00	Mtr	460.00
1.10.		providing and erecting Mains with ISI marked electrolyte stranded copper conductor, Non PVC Zero Halogen free fire retardant insulated copper conductor,			

		insulated wire (HRFR) conforms to IS-694, erected in existing pipe with 1.5sq. mm copper conductor of same specifications for earth continuity of following size.			
		In Existing medium class Rigid PVC pipe and accessories			
1.10.1	1750	(a) 2 wire 1.5 sq. mm	51.00	Mtr	89250.00
1.10.2	3020	(b) 2 wire 2.5 sq. mm	71.00	Mtr	214420.00
1.10.3	640	(a) 2 wire 4 sq. mm	101.00	Mtr	64640.00
1.10.4	25	(b) 2 wire 6 sq. mm	139.00	Mtr	3475.00
1.10.5	10	[g] 2 wire 10.0 sq.mm	219.00	Mtr	2190.00
1.11		providing and erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected in / on wall / ceiling with 2.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity of following size (A) with medium class Rigid PVC pipe and accessories			
1.11.1	30	(h) 4 wire 6 sq. mm	258.00	Mtr	7740.00
1.11.2	10	(i) 4 wire 10 sq. mm (use earth wire of 4 sq.mm)	421.00	Mtr	4210.00
1.12		providing and erecting Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size (Specifically for control panel, relays, power switchgears, motor starters & control wiring) with required size of copper lugs, nuts and bolts if required.			
1.12.1	20	(e) One wire 6.00 sq. mm	56.00	Mtr	1120.00
1.12.2	20	(f) One wire 10.00 sq. mm	91.00	Mtr	1820.00
1.12.3	15	(g) One wire 16.00 sq. mm	141.00	Mtr	2115.00
1.12.4	15	(h) One wire 25.00 sq. mm	234.00	Mtr	3510.00
1.12.5	15	(i) One wire 35.00 sq. mm	298.00	Mtr	4470.00
1.12.6	50	(k) One wire 70.00 sq. mm	663.00	Mtr	33150.00
1.13		Supplying and erecting Flexible PVC insulated multi strand multi core 1.1 kv grade ISI marked copper wires of following size to be erected as directed.			
1.13.1	140	e) 1.50 Sq.mm 3 core round PVC sheathed	46.00	Mtr	6440.00
1.13.2	80	h) 2.50 Sq.mm 3 core round PVC sheathed	77.00	Mtr	6160.00
1.13.3	15	k) 4.00Sq.mm 4 core round PVC sheathed	175.00	Mtr	2625.00
1.14		Supplying & erecting M.S. Box having 16 Gauge painted with red oxide or Heavy duty PVC box erected flushed on wall or concealed in wall with necessary plastering & finishing as directed of following size.			
1.14.1	10	(a) 100 mm x 100 mm x 75 mm(d)	47.00	No	470.00
1.14.2	5	(b) 175 mm x 100 mm x 75 mm(d)	76.00	No	380.00
1.14.3	5	(c) 200 mm x 250 mm x 75 mm(d)	88.00	No	440.00
1.14.4	15	(d) 250 mm x 300 mm x 75 mm(d)	111.00	No	1665.00

1.15		Supplying and laying UPVC cable trunking system comprising unplasticised polyvinyl, chloride rigid material with ignition free and flame proof confirming BS with necessary end caps Internal and external bend, flat bends, coupler, tee etc..All necessary accessories and measuring of following sizes			
1.15.1	5	(2) 100 mm x 50 mm trunking	424.00	Mtr	2120.00
1.15.2	5	(4)100 mm x 50 mm trunking with TWIN compartment With clip in divider	1309.00	Mtr	6545.00
1.16		Supply & installation of surface mounted U PVC snap-on adaptable trunking raceways, fabricated out of U-PVC to Off-White or approved shade as per IS 733 of thickness 2.0mm for the base and sides with all accessories like removable covers, joints ,height spacer,angles complete with necessary bends, suitable sized junction boxes and tees etc, Complete.			
	5	(a)Size: 50x80mm PVC Raceways for Power & Data with 2 compartments above specifications.	1052.00	Mtr	5260.00
1.17		Supply & installation of modular type accessories for U PVC snap-on adaptable trunking/Pop up Box with required items erected with necessary connection. As desired by Engineer In charge			
1.17.1	1	i) 6 A SP 1 Way Switch	204.00	No	204.00
1.17.2	1	ii) 16A SP 1 Way Switch	351.00	No	351.00
1.17.3	1	iv) 6A universal socket shuttered	347.00	No	347.00
1.17.4	1	iv) 6/16 A universal socket shuttered	458.00	No	458.00
1.17.5	1	vi) Cat-6 LAN Socket	561.00	No	561.00
		SUB - TOTAL OF INTERNAL WIRING			874780.65
2		Switchgears , Panels , MCBDBs & MCBs			
		PANELS			
		Design, fabrication, assembling, supply, installation, testing and commissioning of cubicle type, wall / Floor mounted LT panel suitable for 415 V 3 phase, 4 wire 50 Hz AC supply system fabricated in compartmentised design from CRCA sheet steel of 2 mm thick for frame work ,Doors and partitions IP 42 and covers,3 mm thick for gland plates i/c cleaning and finishing complete 9 tank process in house facility for powder coating in approved shade, extendable type FP aluminium alloy busbars of high conductivity, DMC/SMC busbar supports, entire panel shall have a common copper earthbar of size 25mm X 5 mm / 50 x 6mm al earth bar at the rear with 2 Nos. earth studs, solid connection from main busbar to switchgears with require size of aluminium busbar & control wiring with 1.5 sqmm FRLS insulated copper conductor cable, cable alleys, cable gland plates i/c accessories as per specification and providing switchgears, metering			

		instruments etc. for following panel.G.A.Drawing to be approved by EIC or consultant. (Outgoing connectors must be nut-bolt type. Outgoing mains for 63Amp MCBs must be of 4 x 16sqmm cu flexible wires).Incomers Mains for MCBs shall be always from the busbars.			
		(a) Providing cable clamps / supports within distribution boards cable alley.			
		(b) All hinged door shall be earthed through 2.5 sq mm tinned b raised copper wire.			
		(c) Pad locking of MCCB's handles in "OFF" Position.			
		(d) All the C.T.s should be auto short link type.			
		(e) All the MCCB's should be with rotary handle.			
		(f) All incoming and outgoing air circuit breakers shall be placed on middle portion of the vertical in single tier formation.			
		(g) Any discrepancy found in SLD & Boq , it should be brought in the notice of the client / consultant, and the decision will be taken final by Client / consultant.			
2.1		Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 50 K.A. and above at 415 V having normal current rating up to 630A. with variable thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing			
	2	ICS=100% of ICU only	37658.25	No	75316.50
2.2		Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 KA. and above at 415 V . having normal current rating 250A. with variable thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing.			
	4	ICS=100% of ICU only	20739.00	No	82956.00
2.3		Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 KA. at 415 V. having Normal current rating 200A.with variable Thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S.housing			
	3	ICS=100% of ICU only	16061.00	No	48183.00
2.4		Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 35 KA. at			

		415 V. having normal current rating 125A. with Fixed thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing.			
	5	ICS=100% of ICU only	7976.00	No	39880.00
2.5		Providing and erecting Approved make Four pole moulded case circuit breaker having breaking capacity ICU of 25 KA. at 415 V, having normal current rating up to 25 A to 100A. with Fixed thermal & magnetic release suitable to work on A.C. supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing.			
	6	ICS=100% of ICU only	6112.00	No	36672.00
2.6		Providing and erecting Approved make Three pole moulded case circuit breaker having breaking capacity/strength ICU of 35 K.A. and above at 415 V. having Normal current rating 200A. with variable Thermal & magnetic release suitable to work on A.C.supply 50 c/s. with all internal connections, spreader tinned copper & complete erected in existing 16 G.M.S. housing.			
	1	ICS=100% of ICU only	15421.00	No	15421.00
2.7		providing and erecting Approved make Earth fault Relay suitable to mount with inter connection suitable to following size of moulded case circuit breaker having CT ratio & MCCB rating as following along with shunt trip 220V AC. with all internal connections & complete erected in existing M.S.housing..			
2.7.1	1	(1) 15 A -100 A , CT Ratio 1/100	4641.00	No	4641.00
2.7.2	4	(2) 125 A -200 A , CT Ratio 1/200	4934.00	No	19736.00
2.7.3	1	(3) 250 A -400 A , CT Ratio 1/400	5362.00	No	5362.00
2.7.4	1	(4) 600 A -800 A , CT Ratio 1/800	5997.00	No	5997.00
2.8	190	Fabricating the box type items made from M.S. Sheet with A.I. supports, wings, doors, handles other hardware materials as per requirement design with finishing by three tank powder coating processed inside and outside painted, erected as directed including minor civil work. to install above MCCB.	179.00	Kg	34010.00
2.9	80	providing and erecting Miniature circuit breaker single pole 0.5A to 2A system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark	268.00	No	21440.00
2.10.	15	providing and erecting Miniature circuit breaker single pole 6A to 25A suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark	111.00	No	1665.00
2.11		Providing & erecting 240 V MCB double			

		pole switch for motor & inductive load (C Curve) having 10 KA breaking capacity & confirms to IS : 8828 in existing box having following capacity			
2.11.1	10	(A) 6 to 32 Amp.	297.00	No	2970.00
2.11.2	14	(B) 40 Amp.	327.00	No	4578.00
2.12		Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity			
2.12.1	25	(a) 6 to 32 Amp.	590.00	No	14750.00
2.12.2	8	(b)40 Amp.	662.00	No	5296.00
2.12.3	18	(c)63 Amp.	730.00	No	13140.00
2.13		Providing & erecting 415 V MCB three Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity			
	1	(c)63 Amp.	709.00	No	709.00
2.14		Providing and erecting Approved make RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 10 KA and suitable for operation on single phase 240 V,50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed			
	8	(ii) 40Amps. DP	2213.00	No	17704.00
2.15		Providing and erecting following additional parts for panel mounting MCCBs			
2.15.1	20	(A)Extended operating rotary handle with pad lock with three position trip,off,on suitable for 25A to 250 A panel mounting cat-III	865.00	No	17300.00
2.15.2	2	(B)Extended operating rotary handle with pad lock with three position trip,off,on suitable for 400A to 630 A panel mounting cat-III	1298.00	No	2596.00
2.16	14	Supplying and erecting approved make panel mounting type Digital Voltmeter having 3 digits LED display, 0 to 750 AC Volts range erected on existing panel board with all connection, wiring etc .with manufacturers calibration certificate.	1263.00	No	17682.00
2.17	14	Supplying and erecting approved make panel mounting type Digital Ammeter having 3 digits LED display, external CT operated, calibrated for 0 to 1000 Amps suitable to operate on 500 Volt AC , erected on existing panel board with all connection, wiring etc .with manufacturers calibration certificate.	1543.00	No	21602.00
2.18	28	Supplying and erecting Ammeter / Voltmeter selector switch for 3 phase AC Supply 500 V on existing panel board with necessary connections.	314.00	No	8792.00
2.19	52	Providing & erecting L.T. Current Transformer with bar primary 50/5 to 1000/5	272.00	No	14144.00

		ratio 15 VA burden erected in existing CRCA box duly secured with insulating materials connected to the meter			
2.20.	4	Supplying & erecting approved make Power Factor Meter 150mm dia flush/projection type/ balanced & unbalanced load to work with appropriately provided CT's 100/5A to 400/5A ratio & other accessories complete erected in M.S. box & connected to the circuit by means of PVC copper Core leads.	5052.00	No	20208.00
2.21	60	Supplying and erecting approved make suitable panel indicator LED type lamp, lens cover, complete erected with necessary connections.	43.00	No	2580.00
2.22	16	Providing and erecting metallic vitrified danger notice board as per language suggested by engineer incharge for MEDIUM VOLTAGE installation to be erected as per IS-2551.	69.00	No	1104.00
2.23	18	Providing and erecting required size Aluminium strip for earthing of H.T. , OCB / ACB / Transformer, LT panel board, Motors etc. using copper clamp.	223.00	KG	4014.00
2.24	22	Providing and erecting required size Copper strip for earthing of H.T. OCB / ACB/ Transformer, LT panel board, Motors etc. using copper clamp.	787.00	Kg	17314.00
2.25	8	providng and erecting Approved make energy meter 3 phase 4 wire unbalanced load 500 V. 5 to 10A complete erected as directed with necessary earth wire.Class-1	2179.00	No	17432.00
2.26	250	Providing , erecting , fabricating the M.S. structure as per requirement on site incorporating proper size of M.S. angles,square,round, flats, bars, channels, sections complete with cutting, welding, grinding & finishing duly painted with one coat of red oxide with erection on site as per direction of engineer in charge with necessary grouting, cementing, plastering & finishing complete.	77.00	Kg	19250.00
2.27		Supplying and erecting triple pole & neutral 440V/ 500V panel mounting Aluminium Busbars with four equal Nos. of bus having current density not more than 0.8 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports /insulators, main cable socket to each busbar,erected in existing cubical panel with necessary connections.			
2.27.1	22	(A) Suitable for 100 Amp. Capacity	654.00	RnMtr	14388.00
2.27.2	12	(B) Suitable for 200 Amp. Capacity	1027.00	RnMtr	12324.00
2.27.3	10	(C) Suitable for 300 Amp. Capacity	1455.00	RnMtr	14550.00
2.27.4	10	(F) Suitable for 800 Amp. capacity	6179.00	RnMtr	61790.00

2.28		Supplying and erecting triple pole & neutral 440V / 500V panel mounting Copper Busbars with four equal Nos. of electrolyte bus having current density not more than 1.6 Amp. / sq.mm (Rated current / cross section area) duly wrapped with colour insulating tape for phase sequence of following current carrying capacity, erected with necessary bus bar supports /insulators, main cable socket to each bar, erected in existing cubical panel with necessary connections.			
	4	(A) Suitable for 100 Amp. Capacity	1942.00	RnMtr	7768.00
2.29		Providing & erecting weather proof, dust & vermin proof, floor mounted front operated indoor type cubical panel board necessary IP-42 and above protection as per approval from engineer incharge made from 14 SWG thick CRC M.S. sheet for outer body & doors, 16 SWG thick CRC M.S.sheet for internal partitions with necessary accesories , supporting angles/ flats channel including cutting, bending, drilling, welding, riveting with internal partitions & cable alley as per requirements & instruction of engineer-in-charge with erection of			
		supplied switch gears, BUSBARS, suitable size of inter connecting PVC copper wire / copper-aluminium strips, rubber grommets, rib, bakelite control fuses/MCB for measuring instruments, earth bus & earth bolts, foundation flange - bolts-base Plates, sufficient nos. of hinged doors, handles with locking arrangement and rubber gasket,heavy duty end terminal connection,danger notice board,necessary ventilation,earthing strip complete. The Panel shall be painted with epoxy powder coating.			
		(The rates excludes the cost of switchgears, bus bars, inter connecting mains & Copper Aluminium strips, meters, Fuses etc. The dimension shall be measured excluding base beams) The panel shall be supplied with following approved manufacturers with following size.			
		(B) The standard companies switch gear shall be used and only manufacturers at CPRI approved factory			
	25	(i) with 350mm depth	14755.00	Sqmtr	368875.00

2.30.		Providing & erecting weather proof, dust & vermin proof, floor mounted front operated outdoor type double door cubical panel board necessary IP-54 and above protection as per approval from engineer incharge made from 14 SWG thick CRC M.S. sheet for outer body & doors, 16 SWG thick CRC M.S. sheet for internal partitions with necessary accessories, supporting angles/ flats channel including cutting, bending, drilling, welding, riveting with internal partitions & cable alley as per requirements & instruction of engineer-in-charge with erection of			
		supplied switch gears, BUSBARS, suitable size of inter connecting PVC copper wire / copper-aluminium strips, rubber grommets, rib, bakelite control fuses/MCB for measuring instruments, earth bus & earth bolts, foundation flange - bolts-base Plates, sufficient nos. of hinged doors, handles with locking arrangement and rubber gasket, heavy duty end terminal connection, danger notice board, necessary ventilation, earthing strip complete. The Panel shall be painted with epoxy powder coating.			
		(The rates excludes the cost of switchgears, bus bars, inter connecting mains & Copper Aluminium strips, meters, Fuses etc. The dimension shall be measured excluding base beams) The panel shall be supplied with following approved manufacturers with following size.			
		(B) The standard companies switch gear shall be used and only manufacturers at CPRI approved factory			
	4	(i) with 350mm depth	16162.00	Sqmtr	64648.00
2.31		Supplying & erecting XLPE(IS:7098)(I)-88 ISI unarmoured copper cable 1.1 KV grade to be erected as directed of following size.			
2.31.1	90	(N) 4 core 16 Sq. mm	721.00	Mtr	64890.00
2.31.2	110	(M) 4 core 10 Sq. mm	568.00	Mtr	62480.00
2.31.3	60	(L) 4 core 6 Sq. mm	361.00	Mtr	21660.00
2.31.4	20	(C) 2 core 6 Sq. mm	202.00	Mtr	4040.00
2.31.5	40	(B) 2 core 4 sq.mm	130.00	Mtr	5200.00
2.32		providing and erecting Mains with ISI marked, 1.5KV grade electrolyte multi stranded, annealed copper conductor with heat resistant PVC insulated conforms to IS 694, IEC - 227 erected in existing pipe of following size (Specifically for control panel, relays, power switchgears, motor starters & control wiring) with required size of copper lugs, nuts and bolts if required.			
2.32.1	270	(a) One wire 1.00 sq. mm	12.00	Mtr	3240.00
2.32.2	310	(b) One wire 1.50 sq. mm	17.00	Mtr	5270.00
2.32.3	225	(c) One wire 2.50 sq. mm	27.00	Mtr	6075.00

2.33	1	50KVAR APFC PANEL	141527.00	No	141527.00
		Design, Supplying, installing, testing of factory fabricated ready made Three phase APFC Panel Cubical Panel fabrication should be type tested as per IEC 61921, 61439:1&2 Capacitor Duty Contactor for switching as per following Steps Incomer Switch of MCCB type Icu=Ics=50KA at 400/440 Volts, with OC, SC, internal earth fault protection Incomer Switch of MCCB type Icu=Ics=50KA at 400/440 Volts, with OC, SC, internal earth fault protection, Copper tinned insulated Busbar, Cubical panel should be indoor type with IP 43 and IK 10, Metalized polypropylene film type 3-phase 550 Volt Capacitor, De tuning Reactor for each capacitor, Panel having Short Circuit and Overload protection, Each step Capacitor having suitable MCB with Sc, OL, internal earth fault relay, Each stage having Stage Contactor (Capacitor load rating), PF regulator master controller having suitable steps with LCD display, Rs 485 Communication port, Indication LED Lamps for main incomer and ON-OFF for each capacitor bank, MS Chancel for Floor mounting, Cable entry as per site situation, Cooling fans for panel			
		(A) 50KVAR			
2.34		Supplying & erecting approved make IP 55 grade Company fabricated Timer Panel of following capacity for switch On-Off street lights on time scheduling basis made from 16G CRCA sheet duly epoxy power painted inside and outside with hinged doors and locking arrangement consisting of suitable size of 4 Pole MCB and 4 pole contactor (cat-III) with analog time switch, auto manual switch of same make and suitable input and output Bakelite terminals and with door earthing approved by Engineer in charge.			
	1	(B) 40 Amp	13218.00	E.a.	13218.00
		MCBDBs and MCBs			
2.35	250	providing and erecting Miniature circuit breaker single pole 6A to 25A suitable to operate on 240 V A.C. system and having breaking capacity 10 KA to be erected in existing box. confirming to IS 8828/1996 with ISI Mark	111.00	E.a.	27750.00
2.36		Providing & erecting 240 V MCB double pole switch for motor & inductive load (C Curve) having 10 KA breaking capacity & confirms to IS : 8828 in existing box having following capacity			
2.36.1	6	(A) 6 to 32 Amp.	297.00	E.a.	1782.00
2.36.2	3	(B) 40 Amp.	327.00	E.a.	981.00
2.37		Providing & erecting 415 V MCB Four Pole for Motor & Inductive Load (C Curve) having 10KA breaking capacity & confirms			

		to IS :8828 in existing box having following capacity			
2.37.1	4	(a) 6 to 32 Amp.	590.00	E.a.	2360.00
2.37.2	6	(b)40 Amp.	662.00	E.a.	3972.00
2.37.3	5	(c)63 Amp.	730.00	E.a.	3650.00
2.38	4	Sheets steel powder coated enclosure suitable for incorporating One/Two nos. MCB.	175.00	E.a.	700.00
2.39		Providing and erecting Sheet Steel powder coated MCB distribution board - flush / surface mounted fitted with busbar, neutral link, earth bar and DIN rail, Conforms to IS 8623-1 & 3, IEC 61439-1 & 3 without MCB to house appropriate nos. of MCBs.(The DBs should be used of same company of MCB to be used) suitable for			
		(A) single phase incoming and horizontal single phase outgoing			
		(b) sheet steel double door (IP-43)			
2.39.1	4	(i)4 way (concealed manner)	747.60	E.a.	2990.40
2.39.2	1	(i)4 way	623.00	E.a.	623.00
2.39.3	1	(iii)8 way (concealed manner)	1369.20	E.a.	1369.20
2.39.4	1	(iii)8 way	1141.00	E.a.	1141.00
2.39.5	4	(iv)12 way (concealed manner)	1773.60	E.a.	7094.40
2.39.6	1	(iv)12 way	1478.00	E.a.	1478.00
2.40.		(B) three phase incoming and single phase horizontal type outgoing Per phase isolation type (PPI)			
		(b) sheet steel double door			
2.40.1	3	(i)4 way (concealed manner)	2779.20	E.a.	8337.60
2.40.2	1	(i)4 way	2316.00	E.a.	2316.00
2.40.3	2	(ii)6 way (concealed manner)	3462.00	E.a.	6924.00
2.40.4	1	(ii)6 way	2885.00	E.a.	2885.00
2.40.5	9	(iii)8 way (concealed manner)	4054.80	E.a.	36493.20
2.40.6	1	(iii)8 way	3379.00	E.a.	3379.00
2.41		Supplying & erecting Sheet Steel powder coated Cable end termination Box to be mounted on Top or Bottom of the MCB Distribution Box for housing/covering Extra wires & Cables, suitable for following size of MCB DB Box.			
2.41.1	16	(G) Three Phase 8 Way (concealed manner)	819.60	E.a.	13113.60
2.41.2	2	(F) Three Phase 8 Way	683.00	E.a.	1366.00
2.42		providing and erecting Approved make ELCBs / RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 10 KA and suitable for operation on single phase 240 V,50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component. for following Max. rating erected as directed			
2.42.1	1	(i) 25 Amps.DP	1950.00	E.a.	1950.00
2.42.2	16	(ii) 40Amps. DP	2213.00	E.a.	35408.00
2.42.3	13	(iii) 63 Amps. DP	2628.00	E.a.	34164.00

2.43		Providing and erecting Approved make RCCBs conforming to IS: 12640 and having sensitivity of 30 mA and Short Circuit withstand capacity of 10 KA and suitable for operation on 3 phase and neutral 415V,50Hz. having characteristic of quick action & tripping with all advance feature & do not incorporate any electronic component for following Max. rating erected as directed.			
2.43.1	18	(i) 25 Amps.FP	2544.00	E.a.	45792.00
2.43.2	2	(ii) 40Amps. FP	2611.00	E.a.	5222.00
2.44		Supplying & erecting approved make SMC press moulded composite FRP. loop-in, loop-out approx. 2mm thick box complete with Bakelite connector strip 5way(3P+N+E),DIN rail for mounting MCB & hinged doors as per requirement having locking arrangements with mounting clamp with nuts, bolts & washers suitable for erection on pole with cable clamps& earth bolt of following size of box.			
	18	(F) 200mm x 180mm x 100mm [deep]	538.00	E.a.	9684.00
2.45	20	Providing and erecting metallic vitrified danger notice board as per language suggested by engineer incharge for MEDIUM VOLTAGE installation to be erected as per IS-2551.	69.00	E.a.	1380.00
2.46	5	Providing & erecting Medium Voltage Danger Notice Board sticker as per language suggested by engineer incharge of standard size as per IS-2551	26.00	E.a.	130.00
		SUB - TOTAL OF Switchgears , Panel and MCBDBs.			1750822.90
3		EARTHING			
		Follow IS code :3043 is the guideline for the earthing			
3.1	300	Providing and erecting required size HOT deep Galvanised iron strip for earthing of H.T. , OCB/ ACB/ Transformer LT panel board, Motors etc. using proper clamp.	77.00	KG	23100.00
3.2	10	Providing and erecting required size Copper strip for earthing of H.T. OCB / ACB/ Transformer, LT panel board, Motors etc. using copper clamp.	787.00	KG	7870.00
3.3	10	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.	787.00	KG	7870.00
3.4	90	Providing and erecting HOT deep Galvanised iron strip wire 8 to 16 SWG.	77.00	KG	6930.00
3.5		Supplying & erecting earth pit of minimum bore dia.150mm size approved make Earthing Electrode consisting Pipe-in-Pipe Technology as per IS 3043-1987 made of corrosion free hot dipped G.I.Pipes having Outer pipe dia of 50mm having 80-200 Micron galvanising, Inner pipe dia of 25 mm having 200-250 Micron galvanising, connection terminal dia of 12mm with			

		constant ohmic value surrounded by highly conductive compound with high charge dissipation suitable for following type of applications with chamber and heavy duty cover.(approved make OEM has to submit test certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 W/ meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphur content:- <2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time Necessary test report must be submitted.			
3.5.1	4	(a) For Electrical Installation up to 440V in normal soil, Length of pipe - 1 Mtr Back filling compound - 1 Nos Bag of 15 Kg.	4546.00	E.a.	18184.00
3.5.2	3	(c) For Electrical Installation covering Transformer Neutrals, Lightning arrester Earthing, A.C.Plant & Sensitive Computer System(like Automation, SCADA) i.e independent Earthing in normal soil. Length of Pipe : 3.00 mtrs Back filling Compound :2 nos Bags of 25 Kg.	8551.00	E.a.	25653.00
3.6	3	Supply, installation,testing and commissioning of Chemical Earthing with UL Certified 17.2mm Dia. X 3000mm Long 254 Micron-Copper bonded M.S. Rod manufactured as per IEC 62561-2 with 25Kg Bentonite powder plus " U " bolt rod clamp complete with Lockable high performance chamber suitable & tested for 5000T capacity with SS Hardware.or equivalent	12230.00	No	36690.00
		SUB - TOTAL OF Earthing			126297.00
4		CABLES, Cable Termination and cable Trenches			
4.1		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables			
4.1.1	215	(A-1) 3 1/2 core 35 Sq. mm (16 Sq. mm 1/2 core)	218.00	Mtr	46870.00
4.1.2	40	(B) 3 1/2 core 50 Sq. mm (25 Sq.1/2 mm core)	282.00	Mtr	11280.00
4.1.3	50	(D) 3 1/2 core 70 Sq. mm (35 Sq. mm 1/2 core)	375.00	Mtr	18750.00
4.1.4	25	(E) 3 1/2 core 95 Sq. mm (50 Sq. mm 1/2 core)	486.00	Mtr	12150.00
4.1.5	40	(F) 3 1/2 core 120 Sq. mm (70 Sq. mm 1/2 core)	535.00	Mtr	21400.00
4.1.6	20	(G) 3 1/2 core 150 Sq. mm (70 Sq. mm 1/2 core)	724.00	Mtr	14480.00
4.1.7	60	(H) 3 1/2 core 185 Sq. mm (95 Sq. mm 1/2 core)	896.00	Mtr	53760.00
4.2		Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand / Solid			

		Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables			
4.2.1	25	(a) 4 core 4 Sq. mm	116.00	Mtr	2900.00
4.2.2	300	(b) 4 core 6 Sq. mm	125.00	Mtr	37500.00
4.2.3	190	(c) 4 core 10 Sq. mm	139.00	Mtr	26410.00
4.3		Providing and erecting XLPE (IS:7098)(I)-88 ISI armoured cable multistrand Aluminium conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe of following size of cables			
4.3.1	275	(d) 4 core 16 Sq. mm	152.00	Mtr	41800.00
4.3.2	80	(e) 4 core 25 Sq. mm	189.00	Mtr	15120.00
4.4		Supplying & erecting XLPE(IS:7098)(I)-88 ISI unarmoured copper cable 1.1 KV grade to be erected as directed of following size.			
4.4.1	30	(G) 3 core 6 Sq. mm	290.00	Mtr	8700.00
4.4.2	10	(H) 3 core 10 Sq. mm	439.00	Mtr	4390.00
4.5		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand / Solid Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.			
4.5.1	30	(A) 4 core 2.5 Sq. mm	269.00	Mtr	8070.00
4.5.2	55	(B) 4 core 4 Sq. mm	361.00	Mtr	19855.00
4.5.3	790	(C) 4 core 6 Sq. mm	505.00	Mtr	398950.00
4.6		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.			
	140	(C) 4 core 10 Sq. mm	670.00	Mtr	93800.00
4.7	280	Making trench in soft soil of suitable width of 90 cm deep for laying cable or locating the fault all over the run and back filling the same and making the surface as normal ground.	55.00	Mtr	15400.00
4.8	30	Covering of cable with second class bricks or cement tiles laid cover the cable crosswise & also on both sides with covering of 7.5 Cm. layer of sand above & below cable (16 bricks per meter)	139.00	Mtr	4170.00
4.9	15	(A) Making trench in Hard Murrum / Tar Road of suitable width of 90 cm or required depth for laying any size of cable or locating the fault all over the run and back filling the same and making the surface as normal ground.	74.00	Mtr	1110.00
4.10.	5	(B) If additional machinery like hammer driller or JCB use [Add]	354.00	Mtr	1770.00
4.11		Drilling the road without breaking the road surface (Asphalt) for laying of cable for feeding power supply by making up to following size of holes at both ends complete.			
4.11.1	5	(A) Up to 100 mm bore dia	488.00	Mtr	2440.00
4.11.2	5	(B) Up to 150 mm bore dia	610.00	Mtr	3050.00
4.12		Supplying following size of Light duty "A"			

		Class G.I . Pipe & erecting as directed by Engineer-in-charge.			
	20	(A) 25 mm dia	171.00	Mtr	3420.00
4.13		Providing & laying. R.C.C. Hume pipe for cable to be laid 90 cm. below ground across the road crossing or on floor with necessary material in an approved manner and making the ground as per original.			
4.13.1	25	(B) 400 mm dia	394.00	Mtr	9850.00
4.13.2	20	(C) 300 mm dia	340.00	Mtr	6800.00
4.14		Providing & laying approved make Double walled corrugated pipes (DWC) of polyethylene(conforming to IS 14930 II)with necessary connecting accessories of same material at required depth in existing trench for laying of cable. below ground / road surface for enclosing cable			
4.14.1	90	(A)50 mm outer dia	62.00	Mtr	5580.00
4.14.2	310	(B)63mm outer dia	73.00	Mtr	22630.00
4.14.3	50	(C))90 mm outer dia	95.00	Mtr	4750.00
4.14.4	40	(D)120 mm outer dia.	136.00	Mtr	5440.00
4.15		Providing & laying approved make ISI marked Rigid PVC pipe having 6Kg / cm ² (Class-3) to be erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6 mtr.			
4.15.1	15	(D) 75 mm inner Dia. (5.5 Kg/6RMT)	124.00	Mtr	1860.00
4.15.2	10	(F) 110 mm inner Dia. (11.63 Kg/6 RMT)	234.00	Mtr	2340.00
4.16		Providing and, fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.			
4.16.1	12	(a) 2 to 4 core 2.5 / 4 Sq. mm	33.00	E.a.	396.00
4.16.2	96	(b) 2 to 4 core 6 Sq. mm	38.00	E.a.	3648.00
4.16.3	16	(c) 2 to 4 core 10 Sq. mm	38.00	E.a.	608.00
4.16.4	10	(d) 2 to 4 core 16 Sq. mm	47.00	E.a.	470.00
4.16.5	4	(e) 2 to 4 core 25 Sq. mm	51.00	E.a.	204.00
4.17		Providing and, fixing heavy duty flange type brass double compression type cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.			
4.17.1	8	(B) 3 & 1/2 core 35/50 Sq. mm	75.00	E.a.	600.00
4.17.2	4	(C) 3 & 1/2 core 70 Sq. mm	102.00	E.a.	408.00
4.17.3	4	(D) 3 & 1/2 core 95 Sq. mm	130.00	E.a.	520.00
4.17.4	2	(E) 3 & 1/2 core 120 Sq. mm	139.00	E.a.	278.00
4.17.5	2	(F) 3 & 1/2 core 150 Sq. mm	189.00	E.a.	378.00
4.17.6	6	(G) 3 & 1/2 core 185 Sq. mm	236.00	E.a.	1416.00
4.18		Solder less crimping type Aluminium lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner.			
4.18.1	36	(B) 10 Sq.mm	13.00	E.a.	468.00
4.18.2	36	(C) 16/25 Sq.mm.	15.00	E.a.	540.00
4.18.3	15	(D) 35/50 Sq.mm.	20.00	E.a.	300.00

4.18.4	18	(E) 70 Sq.mm.	25.00	E.a.	450.00
4.18.5	18	(F) 95 Sq.mm.	40.00	E.a.	720.00
4.18.6	18	(G) 120 Sq.mm.	45.00	E.a.	810.00
4.18.7	2	(H) 150 Sq.mm.	61.00	E.a.	122.00
4.18.8	16	(I) 185 Sq.mm.	80.00	E.a.	1280.00
4.19		Solder less crimping type Copper lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner.			
4.19.1	60	(A) 1.5/2.5 to 6 Sq.mm	8.00	E.a.	480.00
4.19.2	30	(B) 10 Sq.mm	10.00	E.a.	300.00
4.20.		Providing and fixing approved make Perforated C type cable tray. Made from sheet steel. The cable tray should be single or double bended as per required and as per IS 2062/1079 and shall be coated with hot dip galvanizing as per IS 2629/4759. with max 17.5% perforation with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erection with necessary support(included) as per Specification and as per instruction of engineer in charge..			
4.20.1	20	(2) 100 X 50 X 1.6 mm Thick	357.00	Mtr	7140.00
4.20.2	45	(3) 150 X 50 X 1.6 mm Thick	420.00	Mtr	18900.00
4.20.3	80	(4) 200 X 50 X 1.6 mm Thick	492.00	Mtr	39360.00
4.20.4	200	(5) 300 X 50 X 2.0 mm Thick	616.00	Mtr	123200.00
		SUB - TOTAL OF Cables,Cable Terminations & Cable Trenches			1129791.00
5		Light Fixtures & Fans			
		Supply , Installation, testing and commissioning of pre-wired, LED fitting/post top luminaries etc of all types, complete with all accessories and tube etc. directly on ceiling/ wall, including connection with 1.5 sq. mm FRLS PVC insulated, flexible, copper conductor, single core cable with flexible conduits and coupler and earthing etc. as required. Note:- The LED Light fixtures should comply all international standards third party (LM 79 for complete fixture, LM 80 for individual LED). The Manufacturer / Channel Partner of the Manufacturer has to submit 4- Years unconditional free Replacement Guarantee for complete fixture.			

5.1		Supplying and erecting LED indoor fittings with LEDs of wattage 0.2 Watt to 0.5 Watt assembled on single MCPCB, with housing used as a heat sink shall be made of thick sheet Steel conforming to IS: 513/CRCA/ aluminium die cast powder coated and high U.V. & corrosion resistance with diffuser with company mark/name 160V to 270V, Power Factor more than 0.95, THD < 15%, CCT 3000 K to 6500K, Luminaire efficacy > 85 lumens/watt, LED driver efficiency > 85 % (fitting required LM-79 & LM-80 Certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings. The Engineer in charge may select any wattage capacity between the ranges shown.)			
5.1.1		(A) Tube Light with integral / non integral driver			
5.1.1a	2	(iii) 18-20 Watts, Surge - 2KV, IP-20, conventional 4 feet	293.00	No	586.00
5.1.1b	100	(v) 36-40 Watts, Surge-2 KV, IP-20, conventional 4 feet	530.00	No	53000.00
5.1.2		(B) LED Panel Light with provision for Plane front frame with translucent cover fixed to housing complete. IP20			
5.1.2a	4	(i) up to 8 Watts, 4" x 4", Surge-2 KV	271.00	No	1084.00
5.1.2b	160	(iii) 12-15 watts, 6" x 6", Surge-2 KV	462.00	No	73920.00
5.1.2c	30	(iv) 18 to 20 watts, 8" x 8", Surge- 2 KV	607.00	No	18210.00
5.1.2d	130	(vi) 36 watts, 24" x 24", Surge- 2KV	1777.00	No	231010.00
5.1.3		(G) Spot Light 425 Lumens, Surge-2KV			
5.1.3a	10	(a) 3 to 7 Watts	805.00	No	8050.00
5.1.3b	10	(b) 8 to 11 Watts	1354.00	No	13540.00
5.1.4	4	(H) Mirror Light 9 Watts, wall mounted minimum 1 feet long	309.00	No	1236.00
5.1.5		(I) Adjustable spot light with COB led having aluminium reflector of following wattage			
5.1.5a	20	(ii) 12 Watts	957.00	No	19140.00
5.1.5b	20	(iii) 15 Watts	1087.00	No	21740.00
5.2	30	Providing & erecting Approved make Power Saving 50 Watt Ceiling Fan with double ball bearing ISI mark with Condenser 230 volt A.C. 50 Hz 1200 mm sweep complete having 3 blades with aluminium blades with , canopy & 30 cm. down rod erected with earthing. (Make shall be approved by Engineer in charge))	1929.00	No	57870.00
5.3	4	Providing & erecting Approved make Ceiling Fan with double ball bearing ISI mark with condenser A.C. 230V 50c/s. 1400 mm. sweep complete, canopy erected on existing hook or clamp with earthing [Make shall be approved by Engineer in Charge]	1721.00	No	6884.00

5.4	2	Providing & erecting Approved make Ceiling Fan with double ball bearing with Condenser 230 volt A.C.50 Hz. 900 mm sweep complete having 3 Aluminium blades, canopy erected complete. [Make shall be approved by Engineer in Charge]	1963.00	No	3926.00
5.5	1	Supplying and erecting approved make oscillating type medium duty bracket fan with Aluminium Blades A.C. 230V. 50cy/s wall mounted with height adjustment and rotary tilting device complete with guard, mounting accessories kit, pull cord for speed and oscillation flexible Core plug top complete erected with lead wires as directed. 400MM.	2329.00	No	2329.00
5.6	6	Supplying & erecting approved make low noise decorative exhaust fan having size 200mm with 1350 RPM with square frame ABS body with inbuilt lowers & square frame.	1687.00	No	10122.00
5.7	35	Supplying & erecting fan hook box of 10 mm M.S. round bar bounded to the RCC bars up to 50mm length each side and pierced through a 16 Gauge M.S. box / Heavy Duty PVC box complete erected concealed in Ceiling with necessary finishing.	107.00	No	3745.00
5.8	35	Providing 2.5mm.thick laminated acrylic sheet to cover the fan hook or Fan box.	18.00	No	630.00
5.9	35	Supplying and erecting 19 / 20 mm. nominal bore Medium Class M.S. Pipe down rod erected duly painted for fan complete with proper insulation without leakage and earthing.	107.00	Mtr	3745.00
5.10.		Supplying & erecting single phase approved make industrial exhaust fan suitable for medium duty ring mounted low noise operation suitable for medium duty having following dia size and maximum speed in RPM			
	5	[D] 450 mm dia 900 RPM	3306.00	No	16530.00
5.11	5	Providing suitable M.S. louver shutter of the Exhaust fan.	365.00	No	1825.00
5.12	4	Supplying & erecting electro galvanised G.I. wire micro mesh jali cover of grade 304 required size with suitable wooden frame duly fitted in wall outside of exhaust fan for insect protection.	628.00	Sqmtr	2512.00
5.13	2	Providing and erecting PVC body surface or pendent mounting LED Bulk type 9 watt Lighting Fitting with electronic driver. And lumen output from luminaire 720lm , input voltage range 90-300VAC , 50Hz cool white(3000 to 6500k), inbuilt driver, - 20degC to +60degC working temperature, AL frame with Beam Angle 120deg	780.00	No	1560.00
		SUB - TOTAL OF Light Fixtures & Fans			553194.00
6		External lighting			

		Supply , Installation, testing and commissioning of pre-wired, LED fitting /post top luminaries etc of all types of external lights, complete with all accessories and tube etc. directly on pole / pole bracket , including connection with 1.5 / 2.5 sq. mm FRLS PVC insulated, 3 core flexible, copper conductor, with flexible conduits and coupler and earthing etc. as required.			
6.1		Supplying and erecting LED street light / Flood light fittings with High power White LEDs wattage of 3 Watt and above assembled on single MCPCB, efficiency more than 130 lm/w and corrosion free High pressure die cast aluminum housing with smooth finish powder coated and heat sink extruded aluminium with diffuser and Polycarbonate optics/ lenses, with toughened glass with company mark/name engraved or embossed 160 to 270 V, Power Factor more than 0.95, THD < 10 %, CCT 3000 K to 5700K, Uniformity ratio > 0.45, Luminaire efficacy > 100 lumens/watt . LED driver efficiency > 85 %.(fittings required LM-79 & LM-80 certificates)(NOTE: Below description have shown ranges of Wattage capacity of LED fittings. The Engineer in charge may select any wattage capacity between the ranges shown.)			
6.1.1		(A) Street Light (IP-65), Surge protection - 4KV /5000K integral and 10 kv non integral ,Light must have 440VAC line supply protection. It should withstand 48 hours for 440VAC line supply.			
	16	(f) Above 60 watts to 90 watts (Required 72w)	5917.00	No	94672.00
6.1.2		(B) Flood Light (IP-65), Surge -4KV/5000K ,Light must have 440VAC line supply protection. It should withstand 48 hours for 440VAC line supply			
6.1.2.a	6	(c) Above 60 watts to 100 watts	6028.00	No	36168.00
6.1.2.b	4	(v) above 120 to 160 watts	8370.00	No	33480.00

6.2		<p>Supply of approved make frp/grp pole having following specifications : FRP/GRP pole made by centrifugal moulding process using thermoset resin polyester/epoxy resin system having minimum glass content 45.0%.The pole should be in one piece and tapered round in shape, having smooth outside surface finish and should be totally free from corrosion as well as non conductive and shock proof. Pole should be provided with FRP/GRP base bracket duly fabricated from metal(M.S) and duly clad with FRP/GRP material to avoid any metal exposure and painted with PU paint.</p> <p>Pole should have mechanical properties i.e 1. Specific gravity (ASTM D 792) 1.3-1.8 Kg/m³, 2. Glass Content % by weight (ASTM D 2584) 45.0 -55.0%, 3. Water absorption (ASTM D 570) <0.5%, 4. Tensile Strength (ASTM D 638) 200+/-50Mpa, 5. Flexural strength (ASTM D 790) 250+/-50Mpa, 6. Compressive Strength (ASTM D 695) 200+/-50MPa, 7. Yield Strength (ASTM D 638) 250 +/-50MPa.</p>			
		<p>Pole should be flame retardant as per IS 6746. Resin used shall be UV resistance and pigmented. Pole should be painted with first coat of epoxy primer and then two coats of highly weather resistance polyurethane paint to ensure proper adhesion of the paint. Minimum thickness shall be 80 to 100 micron. Deflection of the pole shall not exceed more than 10.0 % of the length of the pole for the given load. Pole should be generally made as per the dimensional data, performance criteria and some interchangeability features of poles as per the standard ANSI C123.20 latest version of ASTM D 923/01 including cable termination box with necessary accessories. The size of pole and type of installation with foundation , Anchor Base & Internal junction box as per the manufacturer details and site requirement . The cost of 6 Mtr & 10 Mtr pole's Flood light mounting ring is included.</p>			
		(3) 'B' class (Heavy Duty) frp/grp pole suitable for base plate mounting			
	14	<p>[D] Overall Length of 6.0 meter, Average thickness : 7mm, Top/Bottom Outside Dia. 76/176mm +/-2. Weight of Pole 25.0 Kg approx. (Without base) Metal Anchor Base duly frp clad (Size : 340 Ø * 12mm thk , Mounting hole PCD 285mm * 6 nos. of 20 Ø hole)</p>	16815.00	E.a.	235410.00
6.3		Providing FRP/GRP arm bracket of having 15° arm with 50 mm OD pipe *5 mm thk, 1000mm long from pole centre			
6.3.1	14	(a) Single arm bracket	1882.00	No	26348.00
6.3.2	1	(b) Double arm bracket	2390.00	No	2390.00

6.4	6	Supplying & erecting sintex make SMC press moulded composite FRP. loop-in, loop-out approx. 2mm thick box complete with bakelite connector strip 4way & hinged doors having locking arrangements with mounting clamp with nuts, bolts & washers suitable for erection on wall (c)150mm x 125mm x 100mm [deep].	472.00	No	2832.00
6.5	9	Providing cement concrete for foundation or for concrete filling in 1:2:4 ratio with 20 to 25 mm stone metal duly plastered with necessary curing for pole muffing or any other purpose.	5077.00	CU Mtr	45693.00
6.6	4	B' class galvanised iron pipe 32 mm outside dia 45 cms long duly welded on 20 cms x 20 cms x 3 mm thick M.S. base plate, erected on wall or corner for mounting street light luminaire with necessary hardware materials duly painted.	340.00	No	1360.00
		SUB - TOTAL OF External Lighting			478353.00
7		misc.			
7.1	1	Supplying & erecting approved make Automatic liquid level controller 6A. with sensor testing as per instruction of Engineer in charge on site complete with wiring connection with existing wires , with copper conductor from pump to upper and lower tank.	2332.00	Job	2332.00
7.2		Supplying and erecting Flexible PVC insulated multistrand multicore 1.1 kv grade ISI marked copper wires of following size to be erected as directed.			
	90	e) 1.50 Sq.mm 3 core round PVC sheathed	46.00	Mtr	4140.00
7.3		Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed .			
	90	(a) 20 mm	24.00	Mtr.	2160.00
7.4	2	Providing & erecting water cooler having storage capacity 150 Ltr. & cooling capacity 150 Ltr.per hour @ an ambient temp of 45° C. The outlet temp. of the water should drop by 15°C within a hour, The water cooler should be comprising of hermetically sealed compressor, fan motor, condensing unit, water tank surrounded by evaporating, coil, thermostats, relay etc.complete with necessary inlet & outlet connection. The body of water cooler will be made from Stainless Steel.	55340.00	No	110680.00
7.5	2	Supplying and erecting water filter cum purifier with ultra violate technology. (Aquaguard / waterdoc model or equivalent symphony/ crystal/videocon model)	5371.00	No	10742.00

7.6		Providing & erecting open well horizontal mono block pump set with cast iron body, complete for three phase submersible motor having			
7.6.1	2	[D] For 5 HP 3 phase open well horizontal mono block pump set suitable for 1350 LPM to 310 LPM @ 10 to 42 Mtr head suitable for 50/65 mm dia delivery pipe	18561.00	No	37122.00
7.6.2	1	[C] For 3 HP 3 phase open well horizontal mono block pump set suitable for 85 LPM to 270 LPM @ 11 mtr to 33 mtr head suitable for 50/65 mm dia delivery pipe	15552.00	No	15552.00
7.7		Supplying & erecting approved make motor control cubical panel (Direct - on - line) made from 16 G. CRCA sheet duly epoxy powder painted inside and outside with hinged doors and locking, arrangement consisting of suitable size of ON- OFF isolator (AC - 3/23duty) main fuses, single phasing preventer, indicating lamps for R- Y - B phases, overload relay, Automatic water level controller, Ammeter, Voltmeter each with two way selector switch incoming, wires duly socket crimped, main contactor & overload relay, start - stop push buttons, to be erected on angle iron frame grouted on wall as directed. The isolator, overload relay & contactors will be of L & T, Siemens or BCH make only.			
	2	(a) DOL up to 5.0 H.P.	7646.00	No	15292.00
7.8		Supplying & erecting approved make 3 phase motor control cubical panel (Star - Delta) made from 16 G. CRCA sheet duly painted with epoxy powder painted inside and outside with hinged doors and locking arrangement, consisting of suitable size of ON- OFF isolator (AC - 3/23 duty) main fuses, single phasing preventer cum water level. Guard (Complete unit), Toggle switch to by pass Single phase preventer cum WLG, indicating lamps for R- Y- B phases, over load relay, Automatic water level controller, Ammeter & Voltmeter each with two way selector switch incoming wires duly socket Crimped, Panel to be erected on angle iron frame grouted on wall as directed. Star Delta & main contactor, overload relay, thermal / Electronic Star delta cutoff timer, start - stop push buttons. The isolator overload relay & contactors of L& T, Siemens or Cuttler Hamer make only. Panel to be erected on angle iron frame ground on wall.			
	1	(A) S/D up to 7.5 H.P. for sewerage pump in basement	12865.00	No	12865.00

7.9	1	Charges for doing liaisoning work for obtaining the necessary clearances from the Electrical inspector / competent Authorities for the total Electrical installation,co-ordinating with various agencies. All necessary drawings, calculations, test certificates, etc. as required by these authorities shall be prepared and furnished by the EPC Vendor. Any modification/rectification as required by these authorities shall be carried out by the EPC Vendor at free of cost. The fees required to be paid to these authorities for inspection shall be borne by Owner on production of documentary evidences.	41000.00	No	41000.00
7.10.		online Un-interruptible Power Supply system			
		Supplying and erecting approved make online Un-interruptible Power Supply system comprising flat cum-boost charger with IGBT base rectifier & Inverter & sealed maintenance free SMF batteries. The charger having operating capacity for input 160-270V AC & inverter having output 230V,50 Hz Ac with 0.8 load power factor with battery, over/under voltage output with over load & short circuit protection equipment. The system housed in CRC sheet duly powder coated paint with following power backup.with MS painted batteries stand, 10% Overload capacity for momentary load.			
	1	(D) 5 KVA with 1Hr Backup	128815.00	No	128815.00
		SUB - TOTAL OF MISC. Work			380700.00
8		PASSENGERS ELEVATOR			
		Supply ,installing , commissioning and testing of M.R.L. Passengers Elevator 8 to 10 passengers as per R & B S.O.R (Category - Premium) having following specifications:- Ground+ 2 upper floor			
		Supplying, Erecting, Testing & Commissioning the passenger lift having following main features:			
		[1] GEAR LESS LIFT DRIVE comprising of High Starting torque Lift 3 phase 440 V A. C. Permanent Magnet Synchronous motor of proper rating with high efficiency shall be used. [2] Micro processor based / PLC, ACVVVF, vector control drive with encoder feedback closed loop system shall be used for lift car and door operation which shall be full collective selective operation hall call demand response, UP/DOWN hall stops, Main, Up/ Down Contactor with overload and phase reversal relay and safety controls.			

		<p>[3] Car with M S platform with bracings of adequate size and to sustain the impact load cabin + passenger with safety factor of fire for steel and side panels of Stainless steel of sheet of grade 304 duty. Car ceiling will be S.S. finishes with aesthetic appearance with LED ceiling lights. Car flooring shall be of anti skid PVC with choice of colour of engineer in charge. Car doors shall be of stainless steel grade 304, hairline finish with centre opening / telescopic automatic doors. Car panel will also be S.S. 304 finished with emergency stop device, mechanical door safety device, facility of auto/ attended mode. All car panel buttons and all floor switches must be with brail language as per lift act.</p>			
		<p>[4] All landing doors must be fire rated for 2 hour shall be fully automatic centre opening/ telescopic opening made of hairline finish steel grade of 304 with key holes and infrared curtains with Unlocking facility from outside</p> <p>[5] Appropriate battery operated emergency light in the car along with alarm switch shall be provided. Also, Emergency Light & Fan should start immediately without any Time Delay as soon as power fails.</p> <p>[6] Digital scrolling indicator system for up-down arrow along with floor position indicator shall be provided inside the car and at all floors.</p> <p>[7] Full height infra red curtain with multiple cross / crossing light beams shall be provided.</p> <p>[8] Automatic Rescue Device (ARD) shall be provided accordingly of passenger capacity with Manual Rescue Operation (Manual Cranking Facility).</p> <p>[9] Audio visual indication in the lift car showing over loading shall be provided such that doors kept open till excess load is removed.</p>			

		<p>[10] Spring buffers/PU Buffers shall be provided.</p> <p>[11] Car fan as per passenger capacity with automatic sleep timer shall be provided.</p> <p>[12] Voice annunciator with suitable music shall be provided in lift car.</p> <p>[13] Self diagnostics system for operational and safety parameters shall be provided in control panel.</p> <p>[14] Mechanical over speed governor with governor calibration as per actual site parameters and submission of calibration certificate submission, door key holes in the floor doors, fireman switch shall be provided.</p> <p>[15] Lift machine hoisting arrangement in the lift machine room and monkey ladder for lift pit should be provided by the lift agency, along with the other steel structure works, foundations for the machine etc...</p> <p>[16] In the hoist way fascia plate shall be provided without any extra cost, where ever required as / if directed by engineer in charge.</p>			
		<p>[17] Permanent wiring with necessary safety devices like RCCB in all circuit, Over Voltage Under Voltage protection and THD eliminator in circuit for lift machine room and lift well with proper numbers of light points, with fixtures, exhaust fan and plug points shall be provided by the agency. Only 3 phase Power Supply shall be made available by department in lift machine room. Necessary Earthing as per Lift Act/Rules shall be arranged by Lift Agency.</p> <p>[18] Any civil/ electrical works for additional and alteration in lift shaft and machine room related to erection of lift shall be made by lift agency without any extra cost. (granite/marble fixing around all landing door openings are not in lift agency's scope.)</p> <p>[19] Agency has to provide all working drawings and documents and liaison services for obtaining all necessary permission from lift inspector and other authorities.</p> <p>[20] acrylic transparent licence/display A4 size holder in lift car</p>			

		<p>[20A] As per statutory requirement of Govt. Of Gujarat lift & escalator act 2000, lift agency has to provide</p> <ol style="list-style-type: none"> 1. Car top safety barricade 2. Push & talk communication system. 3. Fireman's switch operation at Ground Floor. 4. carrying out third party lift inspection during/after lift erection and provide report by third party authorized by concern licensing authority 5. agency has to provide third party insurance upto completion of free maintenance period and submit the document for the same. 			
		<p>[21] Car Panel Operating Buttons with floor position indicator/buttons must be of Auto Glow type clearly visible when view from inside cabin.</p> <p>[22] For Physically Handicapped person Full Length Handrails of hairline finish steel grade of 304 should be provided at appropriate height on the Rear & Side Wall Panels in Lift Car.</p> <p>[23] With Necessary KVA rating voltage controlled Stabilizer suitable for your controller, drive and all equipments of lift.</p> <p>[24] Necessary rating of DP Elcb and FP Elcb required for lift is in scope of work which rating is suggested by CEICED Department (electrical Inspector)</p>			
		(B) SPECIAL FEATURES DESCRIPTION OF LIFTS for PREMIUM category			
		1. Advanced control system dual 64 bit embedded microprocessor with CANBUS Serial Communication mode including Regenerative power efficient operation, on site programming facility, Anti nuisance, Pte-opening, BMS/RMS with necessary online real time monitoring system having necessary connectivity for remote monitoring & other suitable supporting hardware & software devices to fulfil the purpose.			
		2. Floor Indication LCD Display with call registration & brail mark with arrival gong and hall lantern & TFT Screen in the car with MP3 Voice Announcer.			
		3. CAR Panel should be Scratch resistive SS Moonrock finish / Hair Line / Honeycomb for car and all Doors, All landing doors must have fire rating up to 2 hours and car door must have multi-level crisscross beam door protection.			
		4. To & fro communication system & wiring (i.e. car , control room & guard room) and Each elevator are equipped with remote monitoring system. agency has to provide mobile app and user id and password for monitoring			

		8/10 passengers Ground + 2 upper floors with Rated Speed of 1.0 m/sec -			
		AMC LOGO design as per given by department to be embossed inside the lift car wall opp. To door.			
	2	(C) With General PLUS ADDITIONAL SPECIAL FEATURES attached herewith. Prem. Cat.	1460178.00	No	2920356.00
		SUB TOTAL of Passengers Elevator			2920356.00
9		HVAC WORK			
9.1		Providing and erecting approved make ductable split Air Conditioning unit each consist of remote located condensing unit and an evaporating unit complete with interconnecting insulated refrigerant piping up to 10 RMT. rigid PVC, drain piping of 10 kg / cm2 dully insulated with nitrile rubber insulation of 10 RMT with ECO Friendly Green gas. The condensing unit is complete with hermetically sealed scroll compressor & condenser unit which effectively achieves heat rejection by utilizing air of fan and coil type condenser. The evaporating unit will be complete with DX evaporator centrifugal blower, blower motor along with microprocessor biased remote controller with memory backup etc.			
		DUCTABLE SPLIT AIR CONDITIONERS			
9.1.1	10	5.5 TR Ductable A.C. Unit	129950.00	No	1299500.00
9.1.2	8	8.5 TR Ductable A.C. Unit	190900.00	No	1527200.00
		SPLIT AIRCONDITIONING			
9.2		Providing and erecting approved make split air-conditioning unit consisting of copper condensing unit with fan motor, hermetically sealed rotary compressor with accessories etc. duly connected separately erected evaporating unit and blower motor with its accessories by means of extra supplied proper insulated copper tubing, drain PVC pipes suitable for (cost includes powder coated Stand, Eco Friendly green gas charging, 15A plug top & Remote Control) with necessary core cutting.			
		(2)For ISEER Range (KWH/KWH)(4.0 to 4.49)			
	2	(c) for 2 ton capacity	58706.00	No	117412.00
9.3	40	Supplying and erecting insulated pair of soft copper tubing including power and control cable, necessary PVC drain pipes for Split AC machine up to 4 TR capacity	956.00	RMT	38240.00
9.4		Supplying and installing MS angle , powder coated / Painted standard type of wall/floor stand mount for outdoor unit of split AC of following capacity, erected with necessary hardware materials as directed.			
	2	(B) 35mm*35mm*5mm thick M.S angle suitable for above 2 TR to 4 TR Capacity of ac machine	1496.00	No	2992.00
9.5		Refrigerant Piping & Cabling for Air cooled			

		Ducable units.			
		Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for VRV system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-0 tubular insulation/with Class-0 closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc with necessary refrigerant joint as required :			
9.5.1	395	(B) 9.5 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	367.00	RMT	144965.00
9.5.2	395	(C.) 12.7 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	506.00	RMT	199870.00
9.5.3	410	(F) 22.2 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	953.00	RMT	390730.00
9.5.4	410	(H) 28.58 mm dia (OD) (Hard drawn) with tube thickness 1.2 mm with 19 mm thick insulation	1191.00	RMT	488310.00
9.6		Rigid UPVC drain pipe of 10 Kg/cm2. rating with 9 mm thick.nitrile rubber insulation.			
9.6.1	110	(B) 40 mm dia.	108.00	Mtr	11880.00
9.6.2	60	(D) 25 mm dia.	87.00	Mtr	5220.00
9.6.3	60	(E) 19 mm dia.	67.00	Mtr	4020.00
9.7	18	Supply and Installtion for Canvass connections with zip to Ductable Ac Unit	1650.00	Nos.	29700.00
9.8		SHEET METAL DUCT			
		Supply, installation, balancing and commissioning of fabricated at site GSS sheet metal rectangular/round ducting complete with neoprene rubber gaskets, elbows, splitter dampers, vanes, hangers, supports etc. as per approved drawings and specifications of following sheet thickness complete as required.			
9.8.1	405	(A) 0.63 MM Sheet	1245.00	Sq Mtr	504225.00
9.8.2	320	(B) 0.80 MM Sheet	1453.00	Sq Mtr	464960.00
9.9	25	Supplying & fixing of powder coated extruded aluminium Supply Air Grills with aluminium volume control dampers complete as per specifications and size & shape as per site requirement and approved design.	10328.00	Sq Mtr	258200.00
9.10.	30	Supplying & fixing of powder coated extruded aluminium Return Air Grills with louvers but without volume control dampers complete as per specifications and size & shape as per site requirement and approved design.	7003.00	Sq Mtr	210090.00

9.11	5	Supplying, fixing testing commissioning of supply air diffuser of powder coated aluminium with aluminium volume control dampers with anti smudge ring & removable core and size & shape as per site requirement and approved design.	13553.00	Sq Mtr	67765.00
9.12	5	Supplying, fixing testing commissioning of Return air diffuser of powder coated aluminium without volume control dampers with anti smudge ring & removable core and size & shape as per site requirement and approved design..	9301.00	Sq Mtr	46505.00
9.13		INSULATION WORK			
		Supplying and fixing of following thickness duly laminated aluminum foil of mat finish closed cell Nitrile rubber (Class "O") insulation on existing duct after applying suitable adhesive for Nitrile rubber. The joints shall be sealed with 50 mm wide and 3 mm thick self adhesive nitrile rubber tape insulation complete as per specifications and as required.			
	725	13 MM Thick	583.00	Sqmtr	422675.00
9.14	205	Supply and Fixing of Acoustic Insulation of Duct by Open Cell Nitrile Rubber, having density 140 - 180 kg/m ³ .NRC value is 1.00 The Insulation shall pass Air Erosion Resistance Test in accordance to ASTM Standard C 1071 - 05 from an independent accredited testing agency. EPA Approved for use in Ductwork. 9mm / 10mm size	1385.00	Sqmtr	283925.00
9.15	605	Supplying & fixing 50mm thick TF quality expanded polystyrene for underdeck insulation on slab/wall /shaft exposed to sun/atmosphere as per specifications.	409.00	Sqmtr	247445.00
9.16	6	Fresh air intake louvers in 20 G extruded aluminium construction with 18 G extruded aluminium blades, bird screen, rain cowl, G-4 type Pre filters of 80-90% down to 15 micron & necessary supporting arrangement. Louver will be provided with SS wire mesh of 6.35 X 6.35 mm (i.e. 0.8 mm wire dia). All shall be housed in G.I. casing to enable fitted in PEB structure wall with filter removal facility from inside.	6059.32	No	36355.92
9.17	4	Supply, installation, testing and commissioning of ceiling mounted Single Inline fan - 500 cfm , 15 mm static pressure suitable for 220±10% volts, 50 Hz,single phase AC supply and complete with all standard accessories such as motors,blades etc.The casing of inline fan shall be accoustically lined and shall be selected for lower noise level. Fan motor shall have inbuilt speed controller. Provision of connection with 1.5 sq. mm PVC insulated FR copper conductor wire from the point outlet to the fan as required shall be deemed to be point outlet to the fan to be included in this cost.	20120.00	No	80480.00

9.18	1	Misc. Civil Work like Wall jari , Civil cutouts with Core Cutting ,walls / slab opening to Pass Ducts , Copper Pipes & Drain pipes including with Refinishing & Plastering of the same to the original finish.	21186.44	Job	21186.44
9.19	8	Supply, installation, testing & commissioning of 6 FEET Length AIR Curtain for Hall doors that are exposed to ambient, with all necessary accessories and mounting fixtures, Air curtain have Stainless Steel body (304 grade), Max. Air velocity at nozzle : 21 m/s, 2700/2100 RPM, 1490 CFM,Noise level 50-55db,No. of Blowers : 6, 220V/1P/50hz ,820w motor suitable for continues/intermittent functioning.	47424.00	No	379392.00
9.20.	40	Providing and fixing Trap Door of required size with using wooden frame of Size :- 50 X 50 and Hinging with Support of 12mm thick Round Bar with Anchor Fastner on Ceiling and Nut Bolt with Wooden Frame at Level of False Ceiling Bottom and using 19mm thick M.R.Quality ISI make plywood for opening Door in two part and fixing with require Hinges, Lock, Screw and all other require Hardware and open Surface finish with 1.00 mm thick Laminate In and Out side as per Architects Requirement with all Material & Labour etc. Completed.	7054.24	Sqmtr	282169.60
9.21	450	Providing , erecting , fabricating the M.S. structure as per requirement on site incorporating proper size of M.S. angles,square,round, flats, bars, channels, sections complete with cutting, welding, grinding & finishing duly painted with one coat of red oxide with erection on site as per direction of engineer in charge with necessary grouting, cementing, plastering & finishing complete.	77.00	Kg	34650.00
9.22	810	Supply and laying 1.5sqmm x 7core cu flexible round cable from indoor to outdoor unit .	180.00	Mtr	145800.00
		SUB TOTAL of HVAC WORK			7745862.96
10		ANNUAL OPERATION WORKS			
		Annual Operation Contract of Electrical/ELV/passenger elevators and HVAC System For DLP + 1 Year.			
		Annual Operating charges for 1-Year of DLP + 1 year for entire Electrical / ELV and HVAC system installed at site including General working hrs plus Additional working hrs during occupation of hall with one skilled electrician , who also look after operation of passenger elevator. AOC period starts after Virtual completion of project. Payment for AOC shall be made on quarterly basis & after completion of each quarter. Note:- Such person should inform to Lift Maintenance agency during breakdown or any Minor fault.			

10.1	12	Operating Charges only During Guarentee / Defect Liability period.	13983.05	Month	167796.60
10.2	12	Annual operation Charges for First year After Guarentee / Defect Liability Period	14682.20	Month	176186.40
		SUB-TOTAL Of ANNUAL Operation contract Of Electrical /passenger elevators and HVAC System			343983.00
11		COMPREHENSIVE Maintenance			
		Annual Comprehensive Type Maintenance Contract of ELECTRICAL + HVAC + passenger elevators For 1-Year DLP + ONE Year			
11.1	1	Annual comprehensive Type Maintenance Charges only During Guarentee / Defect Liability period.	FREE	Year	0.00
11.2	1	Annual comprehensive Type Maintenance Charges for 1st Year after Guarentee / Defect Liability period.	399003.94	Year	399003.94
		SUB-TOTAL Of ANNUAL comprehensive maintenance contract Of Electrical / HVAC and passenger elevators			399003.94
			TOTAL		16703144.45
I. No.	Qty	Items	Unit Rate	Per	Amount
			Rs. Ps.		Rs. Ps.
1		CCTV WORK			
		Final specification and block diagram shall be submitted by CCTV camera system vendor.			
1.1	23	SITC of 1/2.8" CMOS 3MP IP Fixed Lens IR rugged DOME Camera having progressive scanning system , Pixels 3MP (2304 x 1296),Lens 2.8 mm, Fixed, F1.4, Minimum Illumination color / BW: Color: 0.002 Lux @ F1.6, BW 0 Lux IR ON,IR Distance 40 Mtrs,Wide Dynamic Range 130 Db,Privacy Masking Off/On (5 Areas),Local Storage Micro SD/SDHC/SDXC card slot (2TB),Gain Control 0 ~ 100%,Angle of View (H x V) H:87.2° V:49.1°,Ethernet 10 Base-T/100 Base-TX Ethernet (RJ-45),Protocols:IPv4, IPv6, TCP/IP, HTTP, HTTPS, RTSP/RTP/RTCP, IGMP/Multicast, SMTP, SNMP, DHCP, NTP, DNS, DDNS, CoS, QoS,802.1X, UPnP, mDNS(Bonjour), UDP, ICMP, ARP, TLS, SFTP,Body Material Aluminium + Polycarbonate,Number of Video Streams 4,Ingress Protection IP66, IP67, Event Notification HTTPS, HTTP, SMTP, ONVIF, Bit Rate 100 K ~ 6 Mbps Certificates: FCC PART 15, CE (EN 55032), ICES-003,CE (EN 55035),UL listed to UL/CSA 62368-1, BIS IS 13252 (Part 1)/IEC 69050-1,RoHS, REACH, WEEE,BIS ER, STQC	13222.00	No	304106.00

1.2	6	<p>SITC of 1/2.8" CMOS 3MP IP Fixed Lens IR rugged Bullet Camera having progressive scanning system , Pixels 3MP (2304 x 1296),Lens 3.6 mm, Fixed, F1.4, Minimum Illumination color / BW: Color: 0.002 Lux @ F1.6, BW 0 Lux IR ON,IR Distance 50 Mtrs,Wide Dynamic Range 130 Db,Privacy Masking Off/On (5 Areas),Local Storage Micro SD/SDHC/SDXC card slot (2TB),Gain Control 0 ~ 100%,Angle of View (H x V) H:87.2° V:49.1°,Ethernet 10 Base-T/100 Base-TX Ethernet (RJ-45),Protocols:IPv4, IPv6, TCP/IP, HTTP, HTTPS, RTSP/RTP/RTCP, IGMP/Multicast, SMTP, SNMP, DHCP, NTP, DNS, DDNS, CoS, QoS,802.1X, UPnP, mDNS(Bonjour), UDP, ICMP, ARP, TLS, SFTP,Body Material Aluminium + Polycarbonate,Number of Video Streams 4,Ingress Protection IP66, IP67, Event Notification HTTPS, HTTP, SMTP, ONVIF, Bit Rate 100 K ~ 6 Mbps, Certificates: FCC PART 15, CE (EN 55032), ICES-003,CE (EN 55035),UL listed to UL/CSA 62368-1, BIS IS 13252 (Part 1)/IEC 69050-1,RoHS, REACH, WEEE,BIS ER, STQC</p>	13222.00	No	79332.00
1.3	1	<p>Supply , Installation , Testing and commissioning of 32 Channel NVR (Network Video Recorder) Embedded Linux based for recording upto 32CH at 1080P, 960fps with 04 nos. SATA HDDs minimum 40TB storage or more (recording requirement all cameras recording at 2MP, 25fps for 30 days), H.265 HEVC/H.264/MJPEG codec decoding, Front Panel with LEDs Indication for Power & HDDs Status, 3 nos. USB, ONVIF S, Time Sync with NTP, Encrypted Streaming & Control, 2-Way Audio Line & Out, PTZ Operation Pan, Tilt, Zoom, Support, Pre & Post Alarm Recording Support, Recording/Evidence Clip Export to USB, 16 Channel Synchronous Playback, Playback control i.e Play, Pause, Stop, Fast Forward, Backward, Speed Control, Timeline & Zoom; Snapshot, Web Client, Central Monitoring Software, iPhone; iPad; Android based Mobile clients, 02HDMI & 01VGA Output, 04 On Board HDDS each up to 10TB, Alarm Input (16 nos.), Alarm Output (04 nos.), RS232/485, eSATA, 256 Mbps throughput, NDAA Section 889 Compliant, Operating Temperature -10°C to 55°C, Certification : Certifications: ONVIF compliant, UL/CSA 62368-1, CE (EN 50130-4), FCC Part 15, EN 55032, NDAA & RoHS (EN63000) compliant. Including fixing accessories and cable termination with required connectors/Jack, complete in all respect as per instruction of engineer in-charge.</p>	66202.00	No	66202.00

1.4	2	Supply Installation Testing & Commissioning of 8TB Surveillance Harddisk	25150.00	No	50300.00
1.5	1	Supply, Installation, Testing and Commissioning of 43 inch, Professional LED Display Cum Commercial TV with Android 11 & Inbuilt play store, UHD resolution, 400 nits brightness, It's 24*7 usage, 50,000 hours life, 3 years warranty, Android 11 with inbuilt play store, Inbuilt wifi, Landscape / Portrait mode, Inbuilt Bluetooth, 2 GB / 16 GB Memory, Inbuilt SOC with HDMI cable	53465.00	No.	53465.00
1.6		Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed			
	950	(b) 25 mm	33.00	Mtr	31350.00
		CAT 6 UTP Cable			
1.7		Supplying & erecting approved make LAN cable of following size in existing pipe as per direction			
	1150	[C] CAT - 6	47.00	Mtr	54050.00
1.8		RACK			
1.8.1	1	Supply, Installation, Testing & Commissioning of 9U wall mount rack.	12053.57	No	12053.57
1.8.2	2	3U wall mount Rack	5025.01	No	10050.02
1.8.2	1	Supply, Installation, Testing & Commissioning of weather proof outdoor rack. For 8 port POE switch.	12840.00	No	12840.00
1.9	1	SITC of 24 x 10/100/1000BASE-T PoE ports 4 x Gigabit RJ45/SFP Combo ports Advanced L2 switching and security features L2+ Static Routing Optional "standard mode" or "surveillance mode" management user interface 193 W PoE budget (Including Five year free maintenance with guarantee)	31680.00	No	31680.00
1.10.	2	SITC of 8 x 10/100/1000BASE-T PoE ports 2 x Gigabit SFP ports Advanced L2 switching and security features L2+ Static Routing Optional "standard mode" or surveillance mode" management user interface 65W PoE budget [Approved by Competent Authority	18218.00	No	36436.00
1.11	1	Supply, Installation Testing & Commissioning 5 Mtr. HDMI Interface Cable as per the detailed Specifications supports transmission of 4K Signals as per the detailed Specifications	820.00	No	820.00
1.12	29	Supply, installation, fixing, testing and commissioning of PVC Junction box for CCTV Camera, IP65, outdoor application. Junction Box size will be as per vendor's requirement and site condition.	440.00	No	12760.00
1.13	1	SITC of Patch Panel Cat 6 UTP Keystone	4357.00	No	4357.00

		Type- 24 Port-Fully Loaded (Including Five year free maintenance with guarantee)			
1.14	29	SITC of Jack Cat 6 Keystone UTP (Including Five year free maintenance with guarantee)	160.00	No	4640.00
1.15	29	SITC of CAT6 UTP 24AWG PATCH CORD:1M,Plug 30U' Snag less (Including Five year free maintenance with guarantee)	155.00	No	4495.00
		SUB -TOTAL OF CCTV SYSTEM			768936.59
2		COMPREHENSIVE Maintenance			
		Annual Comprehensive Type Maintenance Contract of CCTV System For 1-Year DLP + ONE Year			
2.1	1	Annual comprehensive Type Maintenance Charges only During Guarentee / Defect Liability period.	FREE	Year	0.00
2.2	1	Annual comprehensive Type Maintenance Charges for 1st Year after Guarentee / Defect Liability period.	19223.42	Year	19223.42
		SUB -TOTAL OF CCTV Comprehensive Maintenance work			19223.42
			TOTAL		788160.01
I. No.	Qty	Items	Unit Rate	Per	Amount
			Rs. Ps.		Rs. Ps.
		FIRE FIGHTING SYSTEM			
		Design,Drawing,Supply,installing,testing and commissioning of FIRE HYDRANT WORKS			
		Internal / External Hydrant			
1.1		FIRE PUMPS			
1.1.1		Supplying, Installation, Testing and Commissioning of electric driven main Hydrant fire pump and Sprinkler pump suitable for automatic operation and consisting of following: complete in all respect as required.			
	2	a) Horizontal type, single stage, centrifugal, end suction pump of cast iron body & bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sq. cm. at highest and farthest outlet at specified flow of 2280 lpm at 65 Mtr. head conforming to IS 1520.with suitable size of footvalve confirming to IS 4038, Pressure rating PN2 , preventing entry of foreign body to pump through suction pipe, perfectly flat seating surfaces for good sealing.	230151.00	Set	460302.00
		b) Suitable HP Squirrel cage induction motor, TEFC, suitable for opertion on 415 volts, 3 phase 50 Hz. AC with IP 55 class protection for enclosure, horizontal foot mounted type with Class - 'F' insulation, conforming to IS-325.			

		c) M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
		The pump shall be capable of giving not less than 150% discharge at ahead not less than 65% of the rated head.			
1.1.2	1	Supplying, Installation, Testing and Commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following: complete in all respect as required	61717.00	Set	61717.00
		a) Horizontal type, single stage, centrifugal, end suction pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal at specified flow of 180 lpm at 70 m. head conforming to IS: 1520. with suitable size of footvalve conforming to IS 4038, Pressure rating PN2 , preventing entry of foreign body to pump through suction pipe, perfectly flat seating surfaces for good sealing.			
		b) Suitable HP Squirrel cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz. AC with IP 55 Class of protection for enclosure, horizontal foot mounted type with Class F' insulation, conforming to IS : 325.			
		c) M.S. fabricated Common base plate, flexible rubber coupling, coupling guard, foundation bolts etc. as required.			
		d) Suitable cement concrete foundation duly plastered with anti vibration pads.			
1.1.3		ENGINE DRIVEN PUMP			
	1	Supplying, Installation, Testing and Commissioning of diesel engine driven main fire pump suitable for automatic operation and consisting of following: complete in all respect as required	506181.00	Set	506181.00
		a) Horizontal type, single stage, centrifugal, end suction pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal to ensure a minimum pressure of 3.5 kg/sq. cm at highest and farthest outlet at specified flow of 2280 lpm at 65 m. head conforming to IS 1520.			

		b) Suitable HP, 1500 /1800 RPM water cooled with radiator, diesel engine conforming to relevant BS & IS standard complete with auto starting mechanism, 12/24 volts electric starting equipment, 180 AH lead acid battery with battery stand, exhaust pipe extended upto 6 m. outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm. thick aluminium sheet cladding, residential silencer, instruments and protection as per specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.			
		c) One 200 Ltr capacity day oil storage tank fabricated from 3 mm thick M.S. plates. Tank shall be provided with inlet, outlet, overflow, air vent, drain connections, filling connection & level indicator. Tank shall be mounted on a suitable steel structure (Painted with 2 coats of red oxide paint). Tank shall be provided with two or more coats of synthetic enamel paint outside over two coats of red oxide primer.			
		d) M.S. Fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.			
		e) Suitable cement concrete foundation duly plastered with anti vibration pads.			
1.2		FIRE PANEL			
	1	Fabrication, Supplying, Installation, Testing & Commissioning of electrical control panel of cubical construction, floor mounted type, fabricated out of 2mm thick CRCA sheet, compartmentalised with hinged lockable doors, dust and vermin proof, powder coated of approved shade after 7 tank treatment process, cable alley, inter-connection, having switchgears and accessories mounting and internal wiring, earth terminals, numbering etc. complete in all respect, suitable for main fire pump, pressurisation pump complete as per CPWD specification with following in coming and Outgoings, suitable for operation on 415V, 3 phase, 50Hz Ac Supply with enclosure protection class IP 42 as required :suitable for operation on 415 V, 3 phase, 50 HZ, AC supply with enclosure protection class IP 42 as required.	311460.00	No	311460.00
		A. Incoming Feeder:-			
		(i) 1 No of 250 A,35KA, 415V,FP MCCB with Thermalmagnetic Based Releases having O/C, S/C ,E/F protection, Digital ELR 96x96mm with CBCT, FP Spreader Terminals 1 set= 8 Pcs, Extended Rotory Handle for MCCB, 240V AC Shunt Trip coil for MCCB.			

		(ii) LED type indicating Lamp with suitable rating 2 Amp SP MCB:- 1 Set (each set comprise of R,Y,B)			
		(iii) Digital type 3 phase Multi function Meter with suitable rating of MCB & 3 Nos. of single core epoxy resin cast type CTs of 250/5 Amps, 10 VA, CL 1.0 ratings -1 Set.			
		B. Busbar:-			
		415 V, 200 Amps, FP Aluminium Busbars with Heat shrinkable color code insulation sleeves.			
		OUTGOINGS:- (All outgoing feeders for pumps should have digital Ammeter with selector switches and LED type ON,OFF,Trip indicating Lamps)			
		Main Fire Pump			
		1 sets - 160 A, 25kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 85 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
		SPRINKLER PUMP			
		1 sets - 160 A, 25kA TPN MCCB, Ics=100% Icu, with fully automatic Star/Delta starter suitable for 85 HP pump with overload protection, current sensing type single phase preventor complete with all accessories and internal wiring required for automatic operation, selector switch for local/remote, auto/manual/OFF operation.			
		JOCKEY PUMP:-			
		1 no. 63A, 16KA MCCB Ics=100%, Extended Rotary handle with TM release having O/C & S/C protection with 12.5 HP fully automatic star/ delta starter, current sensing type, Single Phase Preventer, ON/OFF Push Button & LED type Indicating lamps complete with all accessories and internal wiring required for automatic operation, selector switch, for local/remote, auto/manual operation			
		Diesel Engine Control.			
		Control for Diesel Engine comprising:			
		i) Auto/Manual selector switch & 3 attempt starting device, timers and relays as required, push buttons, start/stop in manual mode.			
		ii) LED type Indication lamp for High/Low Lub. Oil pressure, High Water Temp and Engine ON indication.			
		iii) Battery charger suitable for 12 V/24 V DC with boost and trickle selector switch, 0-30 V DC volt meter, 0-20 Amp DC Ammeter.			

		iv) All standard relays, accessories for automatic operation of diesel engine, wiring with 1.5 sq mm PVC insulated copper wire between various sensors and system controller / starter, suitable size cable for battery charging etc. as required.			
		System Controller			
		Designing, Supply, Installation, Testing and Commissioning of system controller to control operation of Main Electric Fire Pump, Diesel Pump, Pressurisation Pump, in sequence as per specification consisting of relays, timers, sensors, annunciation window for fault indication, control wiring complete as specification.			
		SEWAGE PUMPS			
		3 NOS. 25A DP MCB " C " Curve			
1.3	3	Providing and fixing in position the industrial type pressure gauges with gun metal / brass valves complete as required	967.73	Set	2903.19
1.4	3	Providing, fixing, testing and commissioning of Pressure Switch with Needle Valve.	1329.87	Set	3989.61
1.5	1	Supplying, Installation, Testing and commissioning of Air vessel fabricated from 10mm MS plate with dished ends, dia of 300 mm and height 1500 mm with suitable supporting legs, outside painted with one coat of primer and two coats of synthetic enamel paint of approved shade, complete with one 25mm dia connection from pump delivery, one 25 mm drain with valve. Complete as per technical specification & drawing details.	48500.00	No	48500.00
1.6		Providing, laying, testing & commissioning of 'C' class heavy duty MS Pipe conforming to IS 1239 i/c fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc., in ground including excavation and providing cement concrete blocks as support, anticorrosive treatment with coaltar/asphalt tape as per IS 10221, refilling the trench etc. of following sizes complete as required .(For HYDRANT)			
	30	100MM Dia	2300.63	Mtr	69018.90
1.7		Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as required :			
1.7.1	260	25 mm Dia.	672.50	Mtr	174850.00
1.7.2	70	32mm Dia.	769.22	Mtr	53845.40
1.7.3	65	40 mm Dia	934.63	Mtr	60750.95
1.7.4	50	50 mm Dia	1157.90	Mtr	57895.00
1.7.5	70	65 mm Dia	1458.89	Mtr	102122.30

1.7.6	35	80 mm Dia	1703.85	Mtr	59634.75
1.7.7	340	100 mm Dia	2309.46	Mtr	785216.40
1.7.8	12	150mm Dia	3230.53	Mtr	38766.36
1.7.9	5	200mm Dia (wall thickness 6.3mm)	4938.01	Mtr	24690.05
1.8		Supplying and fixing Single headed internal / External hydrant valve with 1 No. 63 mm dia instantaneous FM Gunmetal/Stainless Steel coupling and cast iron wheel,ISI marked, conforming to IS 5290 (type A) with blank Gunmetal/Stainless Steel cap and chain as required :			
	14	Single headed Stainless steel	5549.04	No	77686.56
1.9	13	Providing, fixing, testing and commissioning of Wall mounting swing type first aid Fire Hose Reel with drum, hanging bracket, 30 M x 25 mm dia high pressure hose reel tubing as per IS:884 with shut nozzle and ball valve and all required accessories.	10499.50	No	136493.50
1.10.	13	Supply, Installation, Testing and Commissioning of Weather proof Standard Fire Hose Cabinet wall mounting type (750 mm x 600 mm x 250 mm deep) having Double door opening with necessary locking arrangement by allan key suitable for housing 2 no.x15 mtrs. hose pipe, 1no. Branch pipe & nozzle spanner.Duly synthetic enamel painted.	4726.50	No	61444.50
1.11	26	Providing ISI marked RRL (IS : 636, type-A) fire hose pipe 15 meter long and 63 mm dia with ISI marked (IS : 903) Stainless steel male and female coupling bound and rivetted to hose pipes with copper rivets and copper wire complete as required.	4020.55	No	104534.30
1.12	14	Providing Stainless steel ISI marked 63 mm. dia. male Instantaneous pattern short branch pipes with 20 mm dia. Nozzle as per IS : 903, suitable for 10 Kg/sqcm operating pressure and suitable for interconnections to hose pipe coupling as required.	1502.28	No	21031.92
1.13		Supplying and fixing of fire brigade connection of cast iron body with gun metal male instantaneous inlet couplings complete with cap and chain as reqd. for suitable dia MS pipe connection conforming to IS 904			
1.13.1	1	2 way - 100 mm dia M.S. Pipe	6094.09	No	6094.09
1.13.2	1	4 way - 150 mm dia M.S. Pipe	12634.09	No	12634.09
1.14	2	Providing, fixing, testing and commissioning of 25 mm dia Air Release Valve and Ball Valve assembly for Air release system.	1949.25	No	3898.50
1.15	1	Providing, fixing, testing and commissioning Pressure Relief Valve 25mm dia with Ball Valve.	4940.68	No	4940.68

1.16	14	Supplying and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm ² complete as required.	1932.76	No	27058.64
1.17		Supplying, fixing, testing and commissioning of butterfly valve of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required :			
1.17.1	1	50mm Dia	3245.91	No	3245.91
1.17.2	3	65mm Dia	3420.35	No	10261.05
1.17.3	4	80mm Dia	3888.58	No	15554.32
1.17.4	3	100mm Dia	6026.30	No	18078.90
1.17.5	7	150mm Dia	8098.94	No	56692.58
1.17.6	7	200mm Dia	13745.61	No	96219.27
1.18		Providing, installation, testing and commissioning of non-return valve of following sizes confirming to IS:5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required :			
1.18.1	1	50mm Dia	5233.58	No	5233.58
1.18.2	2	100mm Dia	9988.10	No	19976.20
1.18.3	4	150mm Dia	16076.77	No	64307.08
1.19		Providing, installation, testing and commissioning of stainless steel Y-strainer fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.			
1.19.1	1	80mm Dia	4257.37	No	4257.37
1.19.2	1	100mm Dia	6023.59	No	6023.59
1.19.3	1	150mm Dia	10073.06	No	10073.06
1.19.4	2	200mm Dia	20125.33	No	40250.66
1.20.	12	Supply, Installation, Testing and Commissioning of Brass. Ball Valves with all fittings required. 25mm size	737.27	No	8847.24
1.21		Supplying and erecting Flexible PVC insulated multistrand multicore 1.1 kv grade ISI marked copper wires of following size to be erected as directed.			
	120	f) 1.50 Sq.mm 4 core round PVC sheathed	67.00	Mtr	8040.00
1.22	6	SITC of fire pump start stop push buttons in box.	954.50	No	5727.00
1.23	1	SITC of 2 Zone standalone Fire Alarm control Panel, 16X2 Character LCD Display, provision for zone wise contact and sounder. Panel does not have provision to connect Repeater Panel. Make: Ravel Approval: CE Mark. (Including Five year free maintenance with guarantee)	9300.00	No	9300.00

1.24		Providing and erecting ISI mark Medium class RIGID PVC PIPES of following size complete to be erected on/in wall or ceiling erected with necessary PVC fittings & Junction boxes fixed with adhesive solution & Clamps with following dia of pipes, in approved manner as directed			
	120	(b) 25 mm	33.00	Mtr	3960.00
1.25	6	Supply, Installation, Testing and Commissioning of Single action Manual Pull Station.Shock and Vibration Resistant, pull Down Lever Remains Down Until Reset. Shall be Polarity Insensitive (with all mounting accessories , complete with Junction Box for mooting on Surface, Cable lugs at Ends, cable compression glands, cable tags and ferruling.	1201.75	No	7210.50
1.26	6	Supply, Installation, Testing and Commissioning of Conventional Sounder cum strobe having tone settings with range of 95dbA and field selectable 15/30/75/110 candelas.(with all mounting accessories , complete with Junction Box for mooting on surface, cable lugs at ends, cable compression glands, cable tags and Ferruling.)	1201.75	No	7210.50
		CABLES AND TERMINATIONS			
1.27		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cable.			
1.27.1	36	(B) 3 core 4 Sq. mm	285.00	Mtr	10260.00
1.27.2	15	(G) 3 core 6 Sq. mm	392.00	Mtr	5880.00
1.28		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cable.			
1.28.1	30	(D) 3 core 10 Sq. mm	495.00	Mtr	14850.00
1.28.2	60	(E) 3 core 16 Sq. mm	720.00	Mtr	43200.00
1.29		Providing and erecting XLPE(IS:7098)(I)-88 ISI armoured cable multistrand Copper conductor for 1.1 KV. to be laid on wall with necessary clamps or in existing trench / pipe at road crossing or floor of following size of cables.			
1.29.1	25	(D) 8 core 2.5 sq.mm	315.00	Mtr	7875.00
1.29.2	25	(G) 12 core 2.5 sq.mm	415.00	Mtr	10375.00
1.30.		Providing and, fixing heavy duty flange type brass cable gland with rubber ring for PVC insulated armoured cable complete with out going tails, insulating tape etc for following size of cables.			
1.30.1	8	(A) 2 to 4 core 2.5 / 4 Sq. mm	33.00	No	264.00
1.30.2	4	(C) 2 to 4 core 10 Sq. mm	38.00	No	152.00
1.30.3	8	(D) 2 to 4 core 16 Sq. mm	47.00	No	376.00

1.31		Solder less crimping type Copper lugs conforming to IS suitable for cable of following size evenly crimped with high pressure tool & connected to switchgear terminals with brass/cadmium plated nut bolts in an approved manner.			
1.31.1	24	(A) 1.5/2.5 to 6 Sq.mm	8.00	No	192.00
1.31.2	16	(B) 10 Sq.mm	10.00	No	160.00
1.31.3	32	(C) 16 Sq.mm.	12.00	No	384.00
1.32		Providing and fixing approved make Perforated C type cable tray. Made from sheet steel. The cable tray should be single or double bended as per required and as per IS 2062/1079 and shall be coated with hot dip galvanizing as per IS 2629/4759. with max 17.5% perforation with coupler plate / Fish plate and GI hardware like nut - bolt and washers etc. erection with necessary support(included) as per Specification and as per instruction of engineer in charge..			
1.32.1	20	(1) 50 X 50 X 1.6 mm Thick	302.00	RnMtr	6040.00
1.32.2	30	(4) 200 X 50 X 1.6 mm Thick	492.00	RnMtr	14760.00
1.33	1	Supply, installation,testing and commissioning of Chemical Earthing with UL Certified 17.2mm Dia. X 3000mm Long 254 Micron-Copper bonded M.S. Rod manufactured as per IEC 62561-2 with 25Kg Bentonite powder plus " U " bolt rod clamp complete with Lockable high performance chamber suitable & tested for 5000T capacity with SS Hardware.or equivalent	12230.00	E.a.	12230.00
1.34	2	Supplying, Installation, Testing and commissioning Sewage water submersible pumping sets of CI casing & impeller, SS shaft, including with inbuilt water level sensors for operating the pumps automatically and all accessories suitable for operation on 220 V-240 V, single phase, 50 Hz. AC supply etc. as reqd.	19676.50	No	39353.00
		> 10 mm solid handling capacity,Minimum Capacity - 50 LPM,Minimum Head > 13.5 Mtr			
1.35	1	Charges of Preparing Design , Drawings ,Testing of Fire Fighting System with necessary Approval from Local Fire authority.(Including Pre-NOC and NOC from Fire authority.)	76271.19	job	76271.19
1.36		Providing, fixing, testing and commissioning of below Auto Glow Signages.			
1.36.1	12	Fire Exit: 4" X 12"	514.97	No	6179.64
1.36.2	12	Fire Equipment: 4" X 12"	514.97	No	6179.64
1.36.3	6	In case of Fire, do not use lift, use staircase: 8" x 8"	650.00	No	3900.00
1.36.4	3	Fire Lift 4"X12"	514.97	No	1544.91
1.36.5	6	Fire Extinguishers 8"x 4"	480.00	No	2880.00
1.36.6	6	Floor Sign": 4" X 12"	514.97	No	3089.82

1.36.7	6	Fire Hydrant 4" X 12"	514.97	No	3089.82
1.36.8	6	Fire Hose Reel.4" X 12"	514.97	No	3089.82
1.36.9	6	DCP Extinguisher 8"x 4"	480.00	No	2880.00
1.36.10	6	CO2 Extinguisher 8"X 4"	480.00	No	2880.00
1.37		Providing, fixing, testing & commissioning of 15mm dia quartzoid bulb type sprinklers of rating with required accessories :			
1.37.1	120	Pendent Sprinkler 57°C standard response (K-80) UL Listed	362.25	No	43470.00
1.37.2	40	Pendent Sprinkler 68°C standard response (K-80) UL Listed	471.50	No	18860.00
1.38		Supplying, installation, testing & commissioning of sprinkler flexible pipe (UL Listed) of stainless steel complete with 15 NPT on reducer thread with maximum working pressure of 175 PSI test pressure of 875 PSI (Burst) with branch line (Inlet) 25mm NPT male thread to sprinkler head (Outlet) 15mm NPT female thread with reducer, nipple, 2 side brackets, center bracket, stockbar of following sizes complete as required etc of following sizes as required:			
	15	700mm	1247.38	No	18710.70
1.39	1	Providing fixing, testing and commissioning of Draining & Testing Assembly 25mm dia with Sight Glass , Union joint , Ball Valve & Drain Valve.	4939.25	No	4939.25
1.40.		Supplying, Installation, Testing and commissioning of Flow Switch on sprinkler distribution header on each floor with necessary Junction Box and shall be connected to fire alarm panel through cable. Flow switch shall be "UL" Listed size 150mm dia/ 100mm dia/ 80mm dia.			
1.40.1	6	100MM Dia	6791.90	No	40751.40
1.40.2	1	150MM Dia	8565.61	No	8565.61
1.41	1	Providing, fixing, testing and commissioning of Sprinkler Alarm valve of cast iron body and brass/bronze working parts comprising of water motor alarm, bronze seat clapper, and clapper arm, hydraulically driven mechanical gong bell to sound continuous alarm when the sprinkler system activates, pressure gauges, emergency releases, strainer, pressure switch, cock valve complete with drain valve and bypass, test control box, ball valves, flanges, gasket etc. 100mm dia.	41510.40	No	41510.40
1.42	90	Supplying, Installation, Testing and commissioning of 2 C X 1.5 Sqmm Copper Armoured for Flow Switch Cabling from Annunciation panel to Flow Switch.	122.88	Mtr	11059.20

	2	SITC of 5 HP sewage pump for the basement designed for liquids which are non-aggressive and non-explosive, sewage / effluent water with solids or fibers, pump shall have non clog, semi open or closed type impeller with material of construction of cast Iron FG260, CF8 AND CF8M, stainless steel shaft, suitable for pumping liquid up to 50 degree C. The Pump shall be supplied with double mechanical shaft seal with material of construction of SiC /SiC/Viton/S.S 316 at the pump end , close coupled with dry submersible motor, having class F insulation, IP 68 protection, epoxy sealed cable entry, with S1 duty for fully submerged and S3 duty for partially submerged, suitable for 3 phase, 415volts, 50 Hz power supply, All cast iron parts shall be CED (cathode electrode deposition) coated for corrosion resistance with uniform coating and controlled deposition thickness of 20-30 microns. The pump has 1500- 200 LPM at 5.8-16.2 Mtr head with 1450RPM.	60797.00	No	121594.00
		SUB-TOTAL OF FIRE HYDRANT System			4265924.90
2		FIRE EXTINGUISHERS			
2.1	6	FIRE EXTINGUISHER Supplying, Installation, Testing and commissioning of Dry Chemical Powder (DCP) 6 Kg Fire Extinguisher Mono Ammonium Phosphate Powder 40, Stored Pressure Type, Pressure Gauge, Controllable discharge mechanism Class A, Rating 3A & Class B rating 21B as per IS 15683 ISI MARK (ABC Dry Chemical Powder - MAP 40%)fitted with required accessories including wall suspension brackets.	2724.25	No	16345.50
2.2	6	Supplying, fixing, testing and commissioning of CO2 type Fire Extinguisher of capacity 4.5 kg filled with Co2 Gas as per IS 15222 with controll discharge mechanismfitted with Hose & Horn applicable on Class B fire rating 21B confirms to IS 15683, bearing ISI mark. Co2 Cylinder as per IS 7285.	6526.00	No	39156.00
2.3	2	Providing & fixing of ISI marked water CO2 type Portable fire extinguisher,9 LTR capacity, Hydraulic test pressure 35Kgf/ cm2, Discharge range 2 Mtr,Average discharge time: Min. 13Sec,Fire Rating 3A,Grade: IS:15683.	3450.00	No	6900.00
2.4	1	Providing & fixing of ISI marked, Squeeze Grip Cartridge Type water CO2 type Portable fire extinguisher,9 LTR capacity, Hydraulic test pressure 35Kgf/ cm2, Discharge range 2 Mtr,Average discharge time: Min. 13Sec,Fire Rating 3A,Grade: IS:15683.	4200.00	No	4200.00

2.5	1	Providing,fixing, testing and commissioning of 10Kg Modular type fire extinguisher having Nitrogen expellant ,ceiling mounted,Sprinkler Nozzle is gas tight the release temperature is adjusted with sprinkler imported bulb set at 57 degree C or 68 degree C ,coverage area 4 to 5 sqmtr,	2950.00	No	2950.00
		SUB TOTAL of FIRE EXTINGUISERS			69551.50
3		FIRE DETCTION & FIRE ALARM SYSTEM			
3.1	1	Supply, Installation, Testing & Commissioning of Microprocessor based Networkable Analogue Addressable Fire Alarm Control Panel. The Panel shall be compliant with EN54-2, EN54-4 and approved by LPCB. The Fire Alarm Control Panel shall have inbuilt 2 loops and expandable capacity upto 8 loops. The Panel must have Full colour 800 x 480 LCD with resistive touch screen and automatic backlight dimming. The Panel must also have the capability to take Addressable Intelligent Wired and Wireless Devices on same loop. Each loop shall have a capacity of 127 analogue Addressable devices and 127 Base sounders/Base Sounder Beacons. The panel shall have an event log of minimum 10,000 events @ 1 second resolution, Filterable and Printable. The Panel shall have Three access levels. Panel shall support upto 5000 Cause & Effects entries, with upto 20,000 inputs controlling & 20,000 Controlling outputs across the network. The Panel shall have capability for Peer to Peer networking through RS485 network card.	203348.75	No	203348.75
		The Panel must have 4 inbuilt programmable sounder circuits, each circuit rated at 2.5A.The Panel must have inbuilt 3 programmable inputs and 5 inbuilt programmable relay outputs. The Panel shall have up to sub-addressable 512 programmable Inputs/Outputs via optional RS485 COMMS serially connected expansion cards. The Panel shall have 240 V AC power supply along with automatic Battery Charger. The Panel shall be fully expandable via common plug in loop driver boards. The user shall have a choice of using the panel with 5.25 Amp or 10.25 Amp power supply unit which is inbuilt in the FACP and should be approved to EN54-4. The Panel shall have configurable via USB port to PC or memory stick. The Panel shall have dedicated RS232 serial port for optional printer. Approved by LPCB			

3.2	95	SITC of Analogue Addressable Multi-Sensor which is fully compatible with Analogue Addressable Protocol, having removable high performance chamber with Twin fire LED's allow 360 degree viewing, User selectable sensitivity modes 1% to 4.5% obs/m, Incorporate Optical and dual Heat elements, lock mechanism (sensor to base), Electronically addressed, Pulsing/non-pulsing controlled from panel. Approved by LPCB & VdS. (Including Five year free maintenance with guarantee)	3597.20	No	341734.00
3.3	35	SITC of Analogue Addressable Multi- Heat Sensor which is fully compatible with Analogue Addressable Protocol, having removable high performance chamber with Twin fire LED's allow 360 degree viewing, User selectable sensitivity modes 0 to 88 degree Celsius, Incorporates Fixed Temperature and Rate Of Rise Heat elements, lock mechanism (sensor to base), Electronically addressed, Pulsing/non-pulsing controlled from panel. Approved by LPCB (EN54: Part 5) (Including Five year free maintenance with guarantee)	3498.30	No	122440.50
3.4	130	SITC of sensor common mounting base, includes stainless steel contacts, slim profile - only 8mm, quick connection via square cable clamps, facility for remote indicator, Approved by LPCB (Including Five year free maintenance with guarantee)	354.20	No	46046.00
3.5	13	Supply, Instillation, Testing and Commissioning of Fault isolator Module capable of monitoring shorted loop circuit and automatically restore communications when shorted conditions are corrected (Including Five year free maintenance with guarantee)	2477.10	No	32202.30
3.6	10	Supplying, installation, testing & commissioning of response indicator on surface/recessed MS Box having two LED, metallic cover complete with all connections etc as required.	193.20	No	1932.00
3.7	8	SITC of Manual Call Point approved to EN54-11:2001, Approved by LPCB Easy to install, push-fit wiring terminals (Including Five year free maintenance with guarantee)	4191.75	No	33534.00
3.8	8	SITC of Analogue addressable loop powered Base Sounder, variable sound output 50 ~ 98 dB(A) (± 2 dB(A)) output at 1 metre, 51 user-selectable tones (all tones EN54-3 compatible), Auto shutdown feature prevents noise-pollution, Approved by LPCB & VdS (Including Five year free maintenance with guarantee)	7442.80	No	59542.40

3.9	5	Supply, Installation, Testing and Commissioning of Analogue Addressable Single Input Module. which Includes a single monitored input, flying leads for easy installation. Electronically addressed, (conforms to EN54). as per tender specification etc. as required.	3982.00	No	19910.00
3.10.	5	Supply, Installation, Testing & Commissioning of Analogue Addressable Single Output Module . which Includes a single output, flying leads for easy installation. Electronically addressed, Approved by LPCB & Vds.	4688.55	No	23442.75
3.11	1050	Supplying & laying of 2x1.5 sqmm fire alarm armoured cable, 600/1000V rated with annealed copper conductor having XLPE insulation, steel wire armouring & FRLS outer sheath complete as required.	135.70	Mtr	142485.00
		SUB -TOTAL OF FIRE DETECTION& ALARM SYSTEM			1026617.70
4		Annual Comprehensive Type Maintenance Contract of for Above Fire Fighting System For 1-Year DLP + ONE Year			
		Every six months Testing certificates with Photographs should be sent to competent authority by concern contractor.			
4.1	1	Annual comprehensive Type Maintenance Charges only During 1st Year DLP / Defect Liability period.	0.00	Year	0.00
4.2	1	Annual comprehensive Type Maintenance Charges for 1st Year after Guarentee / Defect Liability period.	134052.35	Year	134052.35
		SUB TOTAL of Annual Comprehensive Maintenance of Fire Fighting Sytem			134052.35
			TOTAL		5496146.45
		LANDSCAPING WORK :			
1	700	LAYING OUT LAWN – After excavating soil upto 30 cm. depth & removing unwanted stuff, stones etc. Preparing soil for planting by supplying and mixing 6 inch river fine site and 0.5 cmt FYM maximum 100 sqmt of lawn area and doing termicide @ 1 fit / 100 sqmt area and planting selection 1 type / approved lawn grass at maximum 6 cm x 6 cm distance and maintain it upto 120 days. Maintainance include all operations i.e. watering, grass cutting, gap filling, applying of fertizer if require etc.	85.00	Sq.mt.	59500.00
2	315	Supplying, Spreading and leveling of good earth like firtile soil as directed etc compt.	575.00	Cmt.	181125.00
3	70	Supplying, Spreading and leveling of good quality river Kap Filling 100 mm as directed etc comp.	575.00	Cmt.	40250.00
4	1500	Supply and Planting saplings of Hedge plants like kadvi mahendi, karmda, dyuranta, nikodeviya etc. specifies bag size is 4 inch x 6 inch, well established &	15.00	Nos	22500.00

		free from disease at site. as per the instructions			
5	100	Supply and Planting saplings of Ficus panda, Ficus benjamina, Ficus benjamina variegated, Ficus longisland bag size is 13 inch x 13 inch, well branched, well established & free from disease at site as per the instructions	150.00	Nos	15000.00
6	300	Supply and Planting saplings of (Jasud, Ixora, Ticoma Gaudi-chaudi, Gultora, Jetropha, Haemeliya, Chandani, Mogaro, Galfemia, , Allamenda, Desi Gulab, Euphorbia mili, Jasud Hybrid, Chandani double, Madhukamini, Madhumalti, Ticoma Capensis, Ixora draft, Nikadevia, English Karen etc.) having height of minimum 2.00 to 2.5 ft. and bag size is 8 inch x 10 inch, well branched, well established & free from disease at site as per the instructions.	85.00	Nos	25500.00
7	100	Supply and Planting saplings of Golden Bamboo having height of minimum 5 to 6 ft. and bag size is 8 inch x 10 inch, well branched, well established & free from disease at site as per the instructions.	45.00	Nos	4500.00
8	80	Supply and Planting saplings of Palm(Botal palm,foxtel) having height of minimum 10.00 to 12.00 ft. and bag size is 21 inch x 21 inch, well branched, well established & free from disease at site as per the instructions	3500.00	Nos	280000.00
9	30	Supply and Planting saplings of champa (deshi) having height of minimum 8 to 10 ft. and bag size is 15 inch x 16 inch, well branched, well established & free from disease at site as per the instructions.	450.00	Nos	13500.00
10	10	Supply, Spreading and leveling of Brick dust (Chharu) particle size having maximum 10 mm	1300.00	Cmt	13000.00
11	120	Supply Saplings and Planting of trees species as specified (Alstonia scholaris, Erythrina indica, Jacaranda mimosifolia, Delonix regia , Anthocephalus cadamba, Spathodea companulata, Neem (Azadirachta indica), Lagerstromia speciosa , Tabebuia argentea, Cordia sebestena, Mimosaops elengi, Bauhinia blakeana, Kigelia pinnata, Cassia fistula, Banyan, Ficus religiosa, Peltophoroum, Bottle brush, Silver Oak, Billi, Mahagony, Pendula, Desi Asopalav, Sevan, Badam, Ficus infectoria, Pinkesiya, Millingtonia hotensis, Rain Tree, Bakm limdi, kasid, Ashok tree, parkia, Tabebuia Rosea, millettia, etc.) having height of minimum 7.00 to 8.0 ft. and bag size is 13 inch x 13 inch, well branched, well established & free from disease at site as per the instructions.	250.00	Nos	30000.00

12	80	Supplying insecticides at site well packed in bottle of 20 litre. weight including royalty and carriage with all leads and lifts (product to be brought in company sealed packing only)	300.00	20 L Bottle	24000.00
				Total Rs.	708875.00
		Furniture (Table, Chair and Window Curtains)			
1	4	Supply of Midium back revolving chair having denim blue color, 12 mm BWR grade ply, L ply frame, 45 mm mold sheet back, fibre base 27" custer (Nylon), Hidrolic Mechanism etc comp. As per sample approved by department.	3364.41	No.	13457.64
2	2	Supply of Officer Table(Single Mobile Drower Unit) Size-66"x30"x30", 36 mm post form Formika top and 42 mm post form Formika side made from ISI grade MDF board, wirh keyboard tray and apron, Mobile Drower Unit- size, 18"x21"x27" made from Post Form ISI grade MDF board unit with three drower, handle, lock, high quality channel. As per sample approved by department.	12652.54	No.	25305.08
3	140	Providing & Fixing in Position Vertical Roller Blinds with Minimum 3 % and Maximum 5 % Light Transperace Screen Fabric Incuding Providing & Fixing of Powder coated G- Channel at the Topof Window with necessary Screw , Cleats etc. and PVC Roller (Weight Pipe) and PVC Chain For Up and Down Movement of Blinds etc. of Approved Make and as per Drawings / Instruction of Engg. in Charge For All Colors and Shades. Rates Includes all Lead and Lift For All Floor Level, All Height , All Material , Accessories, Fixing , Scaffolding , Labor etc. Complete in All Respects. All Required Accessories & Material must be From Same Manufacturer.	1372.03	Sq.mt.	192084.20
4	140	Providing & Fixing Sun Control Reflective Type Film / Frosted Film as Selected by Architect/ Engg. In Charge For Glass Doors / Windows etc. as Directed.	646.37	Sq.mt.	90491.80
				Total Rs.	321338.72

Signature of Bidder

Seal

Date

Special Condition For Tenderers

- **Scope includes Complete Demolition of Super Structure & Sub Structure up to Foundation Level of Existing Old Buildings in the Said Plot Under Development as Instructed by Engg. In Charge & Then Disposal of Serviceable & Un Serviceable Material including Cleaning & Levelling of Entire Plot. The Total Project Includes Demolition of Existing Units and Site Clearance. The Total Responsibility and Liability of This Demolition Works Including Site Clearance Shall Be of The Contractor. This Demolition and Debris Removal Includes all Hidden Foundation also at Locations Where New Foundation or New Work is To Be Done.**
- **Contractor Has to Visit Site with representative of A.M.C. Before Quoting Amount in Tender. The Contractor Shall Not Be Paid For Any Dismantling, Demolition, Carting The Debris And/ or Any Expenses Incurred For Site Clearance.**
- **Contractor shall have to Pay Premium Amount to A.M.C. For Disposal of Serviceable Goods Like Old Reinforcement, Old Wooden Doors/Windows, Iron Work, Copper/Alu. Wiring, Bricks etc. Which shall be Quoted in Part-A of Financial Bid.**
- **For Consideration of Lowest Eligible Bidders , Premium Amount as Mentioned Above i.e. Part-A shall be Deducted From e-Tender Amount For Construction Work i.e. Part-B , Quoted by the Contractors.**
- **The Lowest Eligible Bidder shall have to Deposit Premium Amount for the Serviceable Goods at the Time of Submission of Security Deposit.**

Signature of contractor

Seal

Additional City Engineer (NORTH ZONE)

Ahmedabad Municipal Corporation

AHMEDABAD MUNICIPAL CORPORATION ENGINEERING DEPARTMENT- NORTH ZONE		
Name of Work : CONSTRUCTION OF INDULAL YAGNIK COMMUNITY HALL AFTER DEMOLITION OF OLD HALL BUILDING AT F.P.NO. 192, T.P.S.NO. 12 (ASARVA EXTENSION SOUTH) IN BAPUNAGAR WARD, NORTH ZONE, AHMEDABAD.		
<u>FINANCIAL BID (Online Only)</u> <u>Part-A</u> <u>Demolition of Existing Structure</u>		
Sr.No.	Description	Amount
1	Quoted Premium Amount For Serviceable Material (Which is Payable to A.M.C. at The Time of Depositing Security Deposit by the Lowest Eligible Bidder)	Rs.
	Total	Rs.
Amount in Words Rupees :		
<u>Part-B</u>		
Sr.No.	Description	Amount
1	Amount For Civil Work	Rs.7,46,17,470.58
2	Amount For Electrical, Elevator & HVAC Work with Annual Operation & Comprehensive Maintenance for 1 Years after completion of DLP of 1 Year	Rs.1,67,03,144.45
3	Amount For CCTV Work with Annual Operation & Comprehensive Maintenance for 1 Years after completion of DLP of 1 Year	Rs. 7,88,160.01
4	Amount For Fire Fighting System Work with Annual Comprehensive Maintenance for 1 Years after completion of DLP of 1 Year	Rs. 54,96,146.45
5	Amount For Landscaping Work	Rs. 7,08,875.00
6	Amount For Furniture Work (Table Chair and Window Curtains)	Rs. 3,21,338.72
	Total	Rs. 9,86,35,135.21
I/We am/are willing to carry out work at _____ % above / below (should be written in figures and words) the estimated cost mentioned above. Estimated cost put to tender : Rs. 9,86,35,135.21 Estimated cost put to tender : Rs. 9,86,35,135.21 Add _____ % above : Rs _____ Deduct _____ % below : Rs _____ Net: Rs _____ Net : Rs _____ In words : Rupees _____ In words : Rupees _____ _____		
<u>Net Tender Amount For Consideration of Lowest Eligible Bidders</u>		
Sr.No.	Description	Amount
1	Net Amount For Cost of Civil , Electrical, Fire Fighting, O&M, Landscaping and Interior & Furniture Work i.e. Part-B	Rs.
2	Quoted Premium Amount Payable to A.M.C. i.e. Part-A	Rs.
3	Net Tender Amount i.e. (Part-B - Part-A)	Rs.
	Net Tender Amount in Words Rupees :	
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Signature of contractor Seal Date </div> <div style="width: 45%; text-align: right;"> Additional City Engineer (N.Z.) Ahmedabad Municipal Corporation </div> </div>		