

Name of Work:-

**Construction of Godown Building (2500 Metric Ton Capacity ) At Khushalpura, Taluka-Vyara Dist. Tapi.**

BILL OF QUANTITIES					
Percentage Rate Tender					
Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
1	Excavation for foundation upto 1.50 mt depth including sorting out and stacking of useful materials and disposing the excavated stuff upto 50 mt lead (A) Loose or soft soil.	615.70	Cumt	120.01	73890.16
2	Excavation for foundation 1.50 mt to 3.00 mt depth including sorting out and stacking of useful materials and disposing the excavated stuff upto 50 mt lead (B) Dense or hard soil	246.40	Cumt	166.44	41010.82
3	Filling in foundation and plinth with sand in layers of 20 cm. Thickness including watering ramming and consolidating etc. comp.	360.50	Cumt	471.69	170044.25
4	Filling available excavated Earth (Excluding Rock) in trench plinth side of foundation . in layer not excluding 20 cm in depth consolidation each deposited layer by ramming and watering etc. complete	529.42	Cumt	133.65	70756.98
5	Filling foundation and plinth with murrum or selected soil in layer of 20 cm in thickness including ramming watering and consolidating etc. complete	1081.40	Cumt	296.29	320408.01
6	Anti-Termite System:Providing and laying of permanent piping technology anti-termite treatment before flooring work by installing LLDPE (Low linear density polyethylene) tube of 8 mm O.D. & 6.4 mm I.D. with inbuilt pressure compensation chip every 30 cm interval in the tube, having working pressure of 2 Kg/cm <sup>2</sup> and release rate of 1.9 ltr/hour fixed by P-clips and nails. The LLDPE pipe shall be installed at the entire periphery of the building and at internal network of building at a depth of 20 to 200 mm under floor at every 2 to 3 mtr. c/c distance (adjusted as per building layout ) & Ends of loop pass through a PVC elbow of minimum 32 mm ID at junction box of wall and floor level, entering into a steel reinforced grooved flexible pipe of minimum 22 mm ID leading into junction box and the loops shall terminate in junction boxes & test every junction during injecting chemicals for termite control treatment. The anti termite chemical Imidacloprid 30.5% SC mix as per IS-6313 (part III) shall be injected by the pressure pump diluted with water @ 10.5 ml/5 ltr of water at the rate of 2 Kg/sq.cm @ 5 Ltr/SMT. The contractor shall submit approved line plan for piping system and junction boxes dully approved by Engineer-in-Charge with bond of 5 year warranty.(II)Anti Termite chemical injected area (Chemical injecting incl. labour cost)	1768.10	Sqmt	63.63	112504.20
7	Providing and laying controlled cement concrete M.150 and curing complete including the cost of formwork and excluding reinforcement for reinforced concrete work in (A) Foundations and plinth pcc	335.50	Cumt	4007.51	1344519.61
8	Providing and laying controlled cement concrete M.250 and curing complete including the cost of formwork and excluding reinforcement for reinforced concrete work in (A) Foundations, footings, and Mass concrete.	610.10	Cumt	4712.66	2875193.87
9	Providing and laying controlled cement concrete M-250 and curing complete including the cost of form work but excluding the cost of reinforcement for reinforced concrete work in (d) columns Up to Plinth level.	44.10	Cumt	7641.66	336997.21

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
10	Providing and laying cement concrete 1:3:6 (1-Cement : 3- coarse sand : 6- machine cut stone aggregates 40 mm nominal size) and curing complete excluding cost of formwork in (A) Foundation and Plinth	203.90	Cumt	3080.90	628195.51
11	Providing and laying controlled cement concrete M-200 and curing complete including the cost of form work but excluding the cost of reinforcement for reinforced concrete work in Columns, pillars posts and struts G.FLOOR	72.10	Cumt	7633.58	550381.12
12	Providing and laying controlled cement concrete M-200 and curing complete including the cost of form work but excluding the cost of reinforcement for reinforced concrete work in Columns, pillars posts and struts F.FLOOR	54.70	Cumt	7633.58	417556.83
13	Providing and laying controlled cement concrete M-250 and curing complete including the cost of form work but excluding the cost of reinforcement for reinforced concrete work in Ground & Plinth BEAMS	184.40	Cumt	6077.17	1120630.15
14	Providing and laying trimix flooring of 200mm thick controlled cement concrete M-200 and curing complete excluding the cost of form work but including the cost of reinforcement for reinforced concrete work in FLOORING SLABS including Compaction and finishing of cement concrete surface by trimix process inclusive of labour charges for the trimix vacuum dewatering process on cement concrete surface by using vacuum dewatering pump, surface floater, surface vibrator including Channelling & making grooves and rough finish to surface by providing expansion Joints, Contraction joints & construction joints with filling of joints with asphalt filler as directed by Engineer In charge & as per specification.	1745.10	sqmt	997.88	1741400.39
15	Providing and laying controlled cement concrete M.200 and curing complete including the cost of formwork and excluding reinforcement for reinforced concrete work in (C) Ground floor Beams,	71.60	Cumt	6303.41	451324.16
16	Providing and laying controlled cement concrete M-200 and curing etc. complete including the cost of form work and reinforcement for reinforced concrete work in (c) Chhajja for Ground+First floor	20.60	Cumt	6903.35	142209.01
17	Providing and laying controlled cement concrete M-200 and curing etc. complete including the cost of form work and reinforcement for reinforced concrete work in (c) Lintal for Ground floor	3.20	Cumt	6943.75	22220.00
18	Providing and laying controlled cement concrete M-200 and curing etc. complete including the cost of form work and excluding the cost of reinforcement etc. complete in (E) Stair case up to floor two level for Ground Floor	5.60	Cumt	7181.10	40214.16
19	Providing and laying controlled cement concrete M-200 and curing etc. complete including the cost of form work and excluding the cost of reinforcement etc. complete in RCC Vertical and horizontal fins for Ground floor	14.40	Cumt	5685.29	81868.18
20	Providing and laying controlled cement concrete M-200 and curing etc. complete including the cost of form work and excluding the cost of reinforcement etc. complete in RCC Vertical and horizontal fins for First floor	15.30	Cumt	5685.29	86984.94
21	Providing TMT Bar FE 500D reinforcement for R.C.C. work including bending, binding and placing in position complete upto floor two level	215916.50	Kg	77.29	16688186.29

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
22	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in foundation and plinth in Cement Mortar 1:5. (1- Cement : 5 -fine sand)(B) Conventional	140.30	Cumt	4153.07	582675.72
23	Brick work using common burnt clay building bricks having crushing strength not less than 35 kg./Sq.Cm. in foundation and plinth in Cement Mortar 1:5. (1- Cement : 5 -fine sand)(B) Conventional for GF+FF	217.00	Cumt	4434.92	962377.64
24	Providing 15mm thick cement plaster in single coat on Rough (Similar) side of single or half birck walls / concrete wall for interior plastering and finished even and smooth in C M 1:4 (1 cement : 4 coarse sand) with finished with trove lincluding scaffolding curing etc. complete. For Ground floor	1213.60	Sqmt	203.13	246518.57
25	Providing 15mm thick cement plaster in single coat on Rough (Similar) side of single or half birck walls / concrete wall for interior plastering and finished even and smooth in C M 1:4 (1 cement : 4 coarse sand) with finished with trove lincluding scaffolding curing etc. complete.. For first floor	369.90	Sqmt	203.13	75137.79
26	Providing 10 mm. Thick Mala cement plaster in single coat for plastering on ceiling and soffits of stairs and finished even and smooth in : (I) Cement mortar 1:4 (1 cement : 4 sand) with finished with trove lincluding scaffolding curing etc. complete. Ground Floor	155.70	Sqmt	204.63	31860.89
27	Providing 10 mm. Thick cement plaster in single coat for plastering on ceiling and soffits of stairs and finished even and smooth in : (I) Cement mortar 1:4 (1 cement : 4 sand) with finished with trove lincluding scaffolding curing etc. complete. First Floor	253.80	Sqmt	204.63	51935.09
28	20 mm Thick sand faced cement plaster on walls upto all height above ground level consisting of 12 mm Thick backing coat of c.m. 1:3 (1 cement : 3 sand) and 8 mm Thick finishing coat of c.m. 1:1 (1 cement : 1 sand) with 1x1cm Groves at junction of structure member etc. comp.etc. complete.	2055.20	Sqmt	337.52	693671.10
29	Providing throating or plaster drip and moulding to R.C.C. Chhajja.	125.60	Rmt	43.22	5428.43
30	White washing with lime on wall surfaces (three coats) to give an even shade including thoroughly brooming the surface to remove all dirt, dust, mortar drops and other foreign matter.	1583.50	Sqmt	18.59	29437.27
31	White washing with lime on ceiling surface and/or sloping roofs (three coats) to give an even shade including thoroughly brooming the surface to remove all dirt, dust, mortar drops and other foreign matter.	409.50	Sqmt	19.75	8087.63
32	Finishing wall with water proofing cement paint of approved brand and manufacture and of required shade on wall surface (three coats) to give an even shade after thoroughly brushing the surface to remove all dirt, and remains of loose powdered materials	2055.20	Sqmt	91.82	188708.46
33	Providinf and fixing 16mm dia MS bar grills of required pattern for windows/ Door using 16mm dia M.S angle/ M.S pipe, M.S flats and other structural steel at required spacing with galvanized wire jali 20mm x 20mm including cutting, welding and fabriction etc. including one coat of primer of approved quality and two coats of oil painting as per detail drawing etc complete.	900.00	kg	130.29	117261.00

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
34	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. (B) Shutters having width 3.5 M. and above	50.00	Sqmt	3555.04	177752.00
35	P & L 60x60cm Hand Dressed Mirror polished Blue Kota Stone slab 30 mm thick flooring over 20 mm (average) thick base of cement mortar 1:6 (1-cement 6-coarse sand) or L.M 1:1.5 (1 Lime putty : 1.5 coarse sand laid over and jointed with grey cement slurry mixed with pigment to match the shade of slab including rubbing and polishing etc.complete(30 mm thick)	1740.90	Sqmt	1084.30	1887657.87
36	P & L 41x57cm Hand Dressed Mirror polished Blue Kota Stone slab 30 mm thick in riser of steps,skirting dedo and pillars laid on 10 mm thick cement mortar 1:3 (1-cement 3-coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of slab including rubbing and polishing etc.complete(30 mm thick)	81.70	Sqmt	1103.87	90186.18
37	Providing Plinth Protection to Building including excavation in ordinary soil and laying cement concrete 1:3:6 using stone aggregates of 40mm nominal size in foundation layer 100 mm thick below pre-cast Rubber Dye inter locking concrete block 60mm thick with grade of concrete M200 pneumatic compressed by mechanically pressed and as per approved design including 75mm Sand layer for levelling and filling the joint with sand in proper line and level etc. complete, Including Providing and fixing pre-cast concrete kerb stone of grey 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:3 fine sand) etc. complete.	253.70	Sqmt	2158.37	547578.47
38	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. and Providing and laying cement concrete flooring 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.	298.10	Sqmt	1124.69	335270.09
39	Providing and fixing polished 18 mm thick Granite stone with full round edge and polished of approved quality in clading on sill and around the doors/ windows/ ventilation with 20 mm thick cement plaster CM (1:4) and fixing with cement slurry & adhesive including moulding of exposed edges as directed by engineering in charge etc. complete.	71.70	Sqmt	1701.85	122022.65

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
40	Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with briocks having croshing strength not less than 35Kg. Cm2 in C.M. 1:5 precast RCC cover 455mm x 610mm intenal dimensions with frame (R.C.C. top slabe with 1:2:4 mix (1-cement :2- coarse sand :4-graded stone aggregate 20mm size) foundation concrete 1:5:10 inside plaster 15mm 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 455mmx 610mm and 450mm deep for single pipe line.	10.00	No	3208.77	32087.70
41	Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with briocks having croshing strength not less than 35Kg. Cm2 in C.M. 1:5 C.I. cover with frame (Light duty) 455mm x 610mm intenal dimensions total weight of cover with frame to be not less than 38Kg. (Wt. of cover 23 Kg.) and Wt. of frame 15Kg. ) (R.C.C. top slabe with 1:2:4 mix (1-cement :2- coarse sand :4-graded stone aggregate 20mm size) foundation concrete 1:5:10 inside plaster 15mm 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 500mmx 700mm and 450mm deep for single pipe line.	8.00	No	3916.78	31334.24
42	Extra over items for every additional depth of 0.1M. of part thereof beyond 450mm depth for Brick masonry chamber.(i) for 455mm x 610mm size.	10.00	Each	242.39	2423.90
43	Extra over items for every additional depth of 0.1M. of part thereof beyond 450mm depth for Brick masonry chamber.(i) for 500mm x 700mm size.	8.00	Each	264.86	2118.88
44	Providing cement vata (10cm x 10cm size) quarter round in cement mortar 1:1 including neat cement finishing watering etc. Complete	91.40	Rmt	24.28	2219.19
45	Providing and fixing in position 150 mm high, English letters made from 1.0 mm thick stainless steel sheet as directed by Engineer in charge with all necessary tools & plants etc. complete.	30.00	No	282.80	8484.00
46	Providing and fixing Germany glass brick German size 19 x 19 x 10 cm is opening and fixed with white cement and boundary adhesive as per design and sealing the joints with silicon structural sealant SSG-4000 including all labour cost etc complete.	68.00	Sqmt	2934.05	199515.40

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
47	Providing and fixing approved quality prefabricated 0.80 mm thick colour coated GALVALUME self-supporting roofing system, 100% leak proof, of Proflex / Steel Craft or equivalent make approved by GSCSC Ltd., at height up to 10.0 m from base level, with proper perfect curve geometry, true to line and level, including placing and fixing complete, for Bay-3 (SPAN/5) having span 23.00 m, arch rise 4.60 m, arch length 26.78 m, length 42.00 m, height 6.00 m, , including on-site manufacturing and simultaneous installation facility, necessary roll forming, fabrication, seaming, all civil works, steel works, fabrication works, erection, supply and fixing of hangers, clamps, fasteners and accessories, complete in all respects, including providing and fixing turbo ventilators at approved locations with proper cut-outs and all required sealants of GE / Wacker or approved equivalent for complete waterproofing; the contractor shall submit detailed specifications, structural design data, test certificates and drawings prior to commencement of work, carry out minimum three (3) metallurgical tests, fabricate, corrugate, lift, place, erect and fix the roofing sheets at site at any height with excellent workmanship, the colour of sheets shall be as approved by the Architect, and the contractor shall provide 3 years guarantee, performance bond and maintenance for the prefabricated self-supporting roofing system without any extra cost, complete as per directions and to the full satisfaction of the Engineer-in-Charge, including Imported Galvalume material having BMT 0.80 mm (APT 0.85 mm) or BMT 1.10 mm (APT 1.15 mm) with thickness tolerance $\pm 0.02$ mm and coil width 912 mm with tolerance $\pm 4$ mm	1023.00	Sqmt	1969.50	2014798.50
48	Providing and fixing Turbo ventilators on the top of the self supported steel roof at the prescribed location as per the design and drawing, made out of high grade aluminium of brand everflow and equivalent. The turbo ventilators are to be fixed by using the housing made of polycarbonate of reputed brand and sealants of GE , Wreckers so there entire joinery with the roof . The rate is water proof. The rate is inclusive of all tools, tackles, fabrication, wastage and necessary civil work and everything to complete the work in perfect manner.	14.00	No	10150.50	142107.00
49	Extra for additional height of propping and centering where the height of propping and centering exceeds 4 .0 M between supporting floor to ceiling including temporary brick or stone pillars for supporting as required. (ii) Height more than 5.0 M.and upto 6.0 M.	1576.10	Sqmt	706.05	1112805.41
50	Providing, laying and jointing in true line and level 110 diameter U.P.V.C (Type B) conforming to IS 13592-1992 with one end plain and other end socketed with rubber ring, & fittings conforming to ISI 14735-1999 of approved make for drainage system pipe line, pipe shall be jointed with each other with rubber lubricant, pipe shall be fixed on wall using of PVC clamp of the size 110 mm diameter x 149 mm length x 145 mm heigh at every 2000 mm center to center or shall be concealed in walls as directed including necessary fittings such as bends, shoes etc. including testing of pipes and joints and jointed with adhesive solvent cement including cost of all materials.	112.00	Rmt	857.65	96056.80

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
51	Providing and fixing the approved quality prefabricated 0.80 mm thick colour coated GALVALUME self-supporting 100% leak proof roof of proflex, steel craft or equivalent quality approved by GSCSC LTD at the height up to 10 MT base level with proper perfect curve geometry in line and level and placing and fixing. The prefabricated self-supporting roofing includes on site manufacturing & simultaneous installation facility, necessary roll farming, fabrication , seaming civil work, steel work, fabrication , erection , hangers , clamps, the contractor has to fix turbo ventilators at desired location having perfect cut outs on the roof with all necessary sealants of GE OR wrecker for complete water proofing. the contractor must provide all the detail specification , structural data, test certificate & drawing of the roofing system prior to commencement of work. the roofing shall be fabricate, corrugated , lifted, placed , erected, fixed at specific location up to any height at site and work shall be completed in excellent workmanship up to satisfaction of engineer in charge . The colour should be as per approved shed by architect. The contractor shall provide minimum 3 metallurgical test before commencement of work. The contractor has to give 3 years guaranty performance bond and maintenance for prefabricated roofing system without any extra cost. Including IMPORTED GALVALUME Material having BMT: 0.8mm, APT: 0.85 mm, Tolerance : +/- 0.02 MM, Coil Width: 912 mm, Tolerance: +/- 4 mm.	747.00	Sqmt	1666.50	1244875.50
52	Box cutting the road surface to proper slope and camber for making a base for road work including removing the excavated stuff and depositing on the road side slope as directed upto 50Mt.lead.	1279.00	Cum.	106.65	136405.35
53	Filling in plinth with sand under floors including watering ramming, consolidating and dressing complete for road work	270.00	Cum.	434.30	117261.00
54	Construction of granular sub-base 150 mm thick by providing coarse graded machine crushed B.T. material satisfying MOST specification of grading I (B.T. stone aggregate 53 mm to 26.5 mm 35 %, 26.5 to 4.75 mm - 45 % and 2.36 mm below - 20 % )including spreading in uniform layer with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC and compacting with vibratory roller to achieve the desired density etc. complete.	445.00	Cum.	904.96	402707.20
55	Providing and laying wet mix macadam base course 250 mm thick using machine crushed B.T. chips as per required gradation mixing with required optimum quantity of water, conveying the mix to site of work, spreading in to grade and camber with mechanical paver and consolidation each layer with vibratory roller including cost of material labour plant and equipment etc. complete.	539.00	Cum.	1170.59	630948.01
56	Compaction and finishing of cement concrete road by trimix M.250 process providing extra Labour charges for the trimix vacume dewatering service process on cement concrete road surface by using vacuum dewatering pump floater surface vibrator including making groves and rough finish to surface including leveling etc complete.	2691.00	Sqm.	63.63	171228.33
57	Providing and fixing pre-cast Rubber Dye inter locking concrete block 60mm thick with grade of concrete M30 pneumatic compressed by mechanically pressed and as per approved design confirming to IS 15658: 2006 including 35mm Sand layer for levelling and filling the joint with sand in proper line and level as per guidelines of IRC SP 63-2018 etc complete.	260.00	Sqm	704.07	183058.20

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
58	Providing and Laying homogenous Grey cement based concrete kerbing of size 30 cm x 30 cm x 10 cm size as per detailed drawing having grade of concrete M25 grade, including necessary excavation, BBCC 1:5:10 7.5 cm as per detailed drawing fixing in line and level, filling joints in CM 1:3 with smooth finished, white washing three coats etc. complete as directed by Engineer in charge.	520.00	Rmt.	370.68	192753.60
59	Providing laying (to level or slopes) and jointing reinforced concrete Light duty non-pressure pipes I.S. class NP2 of the following internal diameter with collars and butt ends prepared for collar joints including testing of joints complete.(D) 300	174.00	Rmt.	678.01	117973.74
60	Drilling of min. 250 mm dia. bore hole in all strata including dualover burden strata by combination DR/DTH rig including lowering 200 mm dia MS ERW pipes in bore hole and testing etc.all work as per directed engineer incharge.	50.00	Rmt	865.57	43278.50
61	Manufacture, supply and delivery of cage typeTrapezoidal shape ( ' V ' ) wire wound low carbon, Galvanized screen pipe and Stainless Steel Screen pipes, confirming IS: 8110 For (B) 200mm dia 1) 1.00mm Slot size	50.00	Rmt	1682.66	84133.00
62	Bore plug having 100 mm height made from M.S. plate with 3 holes at equal distance on circumference for nut-bolts type, locking arrangement with nuts-bolts & lock nuts of std. Make complete. For 250mm dia	1.00	No.	1161.62	1161.62
63	Providing PVC insulated flat submersible cable as per detailed technical specifications of R/C of GWSSB conforming to IS 694, IEC 60227 / 60228.d)1 R x 3 C x 6.0 mm <sup>2</sup>	50.00	Rmt	121.20	6060.00
64	Supplying and installing 3 Phase Borewell 3.0 HP Submersible Pump Sets Electric motor driven conforming to I.S. 8034 and motor conforms to IS-9283 working at 3 phase 400/440 volt 50 C/S A.C. supply & 2900 R.P.M. cat 2.5	1.00	Set	37130.63	37130.63
65	Providing and fixing check or non return pulley wheel valve of 50 mm diameter.	1.00	No.	1111.00	1111.00
66	Manufacture, supply and delivery of following ISI marked HDPE pipes (IS:4984/1985 with latest amendment) having material Grade PE-80 in approximate 100 meter coil length or as per GWSSB requirement with SS 316 nipple at both ends having 11 TPI threads as per specifications, press fitted and bolted having nominal diameter as under as per detailed technical specifications. v) DN 63 PN-12.5	45.00	Rmt	152.51	6862.95
67	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.(14) 6A/ 10A/ 16A/ 20A/ 25A/ 32A Double Pole Modular MCB SwitchCatIII	36.00	Nos.	410.06	14762.16
68	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 (b) 25 mm	985.30	Mtr.	33.33	32840.05



Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
69	Providing & Erecting Mains with 1.1 KV grade FRLS PVC insulated ISI marked stranded Copper conductor wire in following type of pipe to be erected concealed in /flushed on wall/ceiling, with 1.5 sq. mm copper conductor FRLS PVC insulated stranded wire of green colour for earth continuity in existing pipe With 2 wire 2.5 sq. mm	240.00	Mtr.	62.62	15028.80
70	Providing 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 (e) in existing pipe (b) 2 wire 6sq. mm	70.00	Mtr.	121.20	8484.00
71	Providing 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 (e) in existing pipe (a) 2 wire 4 sq. mm	754.00	Mtr.	86.86	65492.44
72	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 incharge may select any wattage capacity between the ranges shown.) ((A) Street Light (IP-65), Surge protection -4KV integral and ,Light must have 440VAC line supply with over-voltage protection. (i) above 36 to 48 wattsCatIII	20.00	Nos.	3345.12	66902.40
73	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 incharge may select any wattage capacity between the ranges shown.) (B) Flood Light (IP-65), Surge protection -4KV integral and ,Light must have 440VAC line supply with over-voltage protection. 100 to 120 watts CatIII	36.00	0.00	7266.95	261610.20

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74	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 incharge may select any wattage capacity between the ranges shown.) (C) Post Top Lantern LED fitting comprises of finish cast aluminum spigot and spun aluminum canopy fixed with opal polycarbonate, pipe arrangement for vertical mounting driver and accessories wired upto terminal block.IP 65(i)20- 30WCat-III	4.00	Nos.	4092.52	16370.08
75	Providing & erecting Switch board for Computer or electric apparatus consisting of following modular type accessories mounted with PVC / Metallic concealed/open box with single mounting base frame covered with textured/metallic /white front plate,modules erected with necessary connections as directed 1 no. 6A/16A universal plug-switch combined. 3 nos. 6A Switch 3 nos. 6A 5 pin Plug For Modular Type AccessoriesCat. III	8.00	Nos.	1133.22	9065.76
76	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 MarkCatIII	20.00	Nos.	112.11	2242.20
77	Providing & erecting 240 V MCB double pole switch for lighting Load (B Curve) having 10 KA breaking capacity & confirms to IS : 8828 in exist (B) 40 Amp. Cat.III	10.00	Nos.	295.93	2959.30
78	Replacing Old & us Switches by Providing & erecting 415V MCB Four Pole Switch for Lighting Load (B curve) having 10KA breaking capacity & confirms to IS :8828 in existing box having following capacity (b)40 Amp. Cat-III	4.00	Nos.	638.32	2553.28
79	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)(iv)12 way	2.00	Nos.	1492.78	2985.56
80	Sheets steel powder coated enclosure suitable for incorporating One/Two nos. MCB.	4.00	Nos.	176.75	707.00
81	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 (ii) 40Amps. DP Cat III	2.00	Nos.	2235.13	4470.26

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
82	Pipe type earthing having 150 cms.long and 2.5 cms. dia. galvanised iron pipe with coupling and buch buried in specially prepared earth pit complete with necessary 8 SWG earth wire.	4.00	Nos.	368.65	1474.60
83	For using salt and charcoal / coke as required for pipe type earthing.	4.00	Nos.	171.70	686.80
84	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. (A)(approved make OEM has to submit test certificate including value of earth resistance of installation duly stamped and signed by agency and officer Incharge has to ensure the value of earthing resistane mentioned in test Certificate) & having back filling compound of (B) Inner chemical (CCM Compound)- Resistivity:- 0.2 ohm / meter testing as per IEC 62561-2017, Voltage drop:- < 1 volt at no load & dry form, Sulphar content:- <2%(C) Back fill Compound :- Earthing compound should be capable to retain moisture for long time Necessary test report must be submitted by Agency. (a) For Electrical Installation up to 440V in normal soil Length of pipe - 1 Mtr Back filling compound - 1 Nos Bag of 15 Kg.. [3-14-9]	6.00	Nos.	4591.46	27548.76
85	Providing and erecting water cooler having storage capacity 80Ltr. & cooling capacity 40 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.	1.00	Nos.	49559.69	49559.69
86	Supplying & erecting reverse osmosis (RO) water purification system with M.S. powder coated pedestal frame, prefilter housing carbon filter suitable buster DC pump, auto low & high pressure switches with following size of LPH capacity & erected as directed [D] 100 LPH with 1 phase / 3 phase Raw water pump of 500LPH @ 2.5kg/cm2 - (1No - Kirloskar /CRI/Lubi), Dual media filter 10"x54" - (1 No), Micron cartridge filter 20" x 2.5" ( 1No), High pressure pump 500LPH @ 10kg/cm2 - (1No - Shinge /CRI /Lubi), RO Membrane housing with RO membrane of 40*40 - (1No), RO pressure tube 4" x 1E - ( 1No), 0 - 1200LPH Rotameter -(2 Nos), with Recovery Rate 50%.	1.00	Ea.	77891.20	77891.20
87	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. (c) 2 to 4 core 6Sq. mm	2.00	Nos.	38.38	76.76
88	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. (C) 2 to 4 core 10 Sq. mm	2.00	Nos.	38.38	76.76

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
89	Solderless 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. (A) 1.5/ 2.5/4/6 Sq.	8.00	Nos.	6.06	48.48
90	Solderless 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. (B) 10 Sq.mm	8.00	Nos.	13.13	105.04
91	Providing Street light pole bracket consisting of" B" Class MS .pipe of 4.2 cms. outside dia.complete with suitable MS sleeve tubing of required size and length suitable for 76.5mm/80mm/require size of pole top having nuts and bolts for fixing the brackets and having spread of 0.5 mtr. Length with 110 deg.with vertical plane and suitable welded stiffener reducer and nipple with checknut complete painted with one coat.of Red oxide / PU base primer and two coats of Aluminium / PU paint. paint with following nos of arms.[A] Single Arm bracket 0.5 Mtr	12.00	Nos.	450.46	5405.52
92	Providing Street light pole bracket consisting of" B" Class MS .pipe of 4.2 cms. outside dia.complete with suitable MS sleeve tubing of required size and length suitable for 76.5mm/80mm/require size of pole top having nuts and bolts for fixing the brackets and having spread of 0.5 mtr. Length with 110 deg.with vertical plane and suitable welded stiffener reducer and nipple with checknut complete painted with one coat.of Red oxide / PU base primer and two coats of Aluminium / PU paint. paint with following nos of arms. (B). with Double Arm Bracket 0.5 Mtr	4.00	Nos.	569.64	2278.56
93	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.(B) 40 Amp	3.00	Nos.	13350.18	40050.54
94	Providing and erecting Annealed bare Copper wire 8 to 16 SWG.	40.00	Kg	794.87	31794.80
95	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 for laying of cable. below ground / road surface for enclosing cable and back filling the same to make ground as per original.(a)50 mm dia.	734.40	Mtr.	62.62	45988.13
96	Providing & laying ISI marked Rigid PVC pipe having 6Kg / cm2 (Class-3) to e erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6 mtr. (a). 50 mm Dia. (2.5Kg/6RMT).	30.00	Mtr.	69.69	2090.70
97	Providing & laying ISI marked Rigid PVC pipe having 6Kg / cm2 (Class-3) to e erected at road crossing on or floor as directed for laying of cable. The pipes as following size of dia & weight per 6 mtr. (b). 90 mm Dia (8.0 Kg / 6RMT).	20.00	Mtr.	171.70	3434.00

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
98	Supplying and erecting approved make Octagonal pole made from HR sheet steel. The pole should be made as per IS. and shall be coated with hot dip galvanizing as per IS 2629/2633/4759, suitable suspend local wind speed with integral Junction box consist of terminal plate of min 6mm Hylam sheet, standard profile 35mmX7.5mm Din-Rail for MCB Mounting, stud type terminal and arrangement for cable termination to be erected With Suitable foundation (Included) as per details given by manufacturer considering site requirement(C) 5 Mtr. Long 70 mm Top X 130 mm bottom dia, 3 mm thickness with 200mmX200mmX12mm base plate, 4-M16 Bolts and 600mm long with necessary G.I. J Bolts .Approx Pole weight 46 kg	16.00	Nos.	6874.06	109984.96
99	Supplying & erecting XLPE(IS:7098)(I)-88 ISI unarmoured copper cable 1.1 KV grade to be erected as directed With 3 core 2.5 Sq. mm size.	192.00	Mtr.	137.36	26373.12
100	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. ICS=100% of ICU only Cat III	3.00	Nos.	6173.12	18519.36
101	Supplying & erecting approved make Four Pole 415V change over switch interior for panel mounting with operating mechanism A.C.23 duty confirming to IS for (C)100-125A Cat-III	1.00	Nos.	7790.13	7790.13
102	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.(A) Suitable for 100 Amp. Capacity	1.00	Nos.	660.54	660.54
103	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 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.(A) locally fabricated panel board(i) with 350 mm depth	4.00	SqMtr	10468.65	41874.60
104	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.	2.00	Nos.	1275.63	2551.26

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
105	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	2.00	Nos.	1558.43	3116.86
106	Supplying and erecting Ammeter / Voltmeter selector switch for 3 phase AC Supply 500 V on existing panel board with necessary connections.	4.00	Nos.	317.14	1268.56
107	Supplying and erecting approved make suitable panel indicator LED type lamp, lens cover, complete erected with necessary connections.	6.00	Nos.	43.43	260.58
108	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 (C) 4 core 10 Sq. mm	200.00	Mtr.	140.39	28078.00
109	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 (B) 4 core 6 Sq. mm	616.00	Mtr.	126.25	77770.00
110	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.	734.40	Mtr.	55.55	40795.92
111	Supplying and erecting approved make double ball bearing oscillating type Heavy duty bracket fan with Aluminium Blades A.C. 230V. 50cy/s wall mounted with height adjustment and rotary tilting device complete with guard, wall bracket,mounting accessories as directed.(B) 600mm	16.00	Nos.	6438.75	103020.00
				<b>Total Rs.</b>	<b>41748010.01</b>

I/We am/are willing to carry out the work at.....% above/below percent(Should be written in figures and words) of the estimated rate mentioned above. Amount of my /our

Tender works out as under.

Estimated amount put to tender

Deduct.....% below

Net

In words

Estimated amount put to tender

Add.....% Above

Net

In words

Item No	Description of Item	Quantity	Unit	Rate In figures	Amount
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**Notes:**

- 1 The Contractor shall exhibit a board with detailed specification and details of work as directed by the Engineer-In-Charge for which no extra payment shall be made.
- 2 The labour cess will be deducted as per prevailing rules i.e. 1% of the work done.
- 3 Income tax TDS will be deducted at a source while making payments of bills
- 4 In all R.C.C. Items in Rate Analysis Standard Cement Consumption has been taken as per Govt. G.R.: PRC-10/2017 Cement Consumption/16/C Date:11/05/2017 as stated in S.O.R. therefore in R.C.C. items where there is a change as per actual mix design the cost of difference of cement consumption have been deducted from the rate of original item at the rate of input rate mentioned in all the tender.

**Executive Engineer  
Tapi ( R & B ) Division  
Vyara**