

BILL OF QUANTITY-CUM-PRICE SCHEDULE

Name of Project : 400KV GIS SUBSTATION AT ENNORE SEZ
Name of Work : CIVIL WORKS OF GIS & CRB BUILDING

S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
1	Earthwork in excavation by mechanical means(Hydraulic excavator)/manual means over areas (exceeding 30cm in depth 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rain water/subsoil seepage water and disposal of excavated earth upto 100m and lift upto 4m, disposed earth to be levelled and neatly dressed.				
(a)	All kinds of soil .	2000	cum	129.35	258700.00
2	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (not exceeding 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rain water/subsoil seepage water and dressing of sides and ramming of bottoms, lift upto 3.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 100m.				
(a)	All kinds of soil .	500	cum	130.80	65400.00
3	Filling available excavated earth (including rock) in trenches, plinth, sides of foundations, etc., in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead upto 100m and lift upto 3.5m.	1500	cum	83.80	125700.00
4	Carriage & disposal of surplus excavated earth/rock beyond initial lead by mechanical means not necessarily all the times on pucca roads, including loading, unloading, dressing of excavated material, etc., complete as per specifications -.				
(a)	Lead upto 1 km.	600	cum	82.78	49668.00
(b)	Lead upto 3 km.	300	cum	104.98	31494.00
(c)	Lead upto 5 km.	100	cum	125.92	12592.00
5	Supplying and filling in plinth with Jamuna/local sand under floors including watering, ramming, consolidating and dressing complete.	450	cum	749.30	337185.00
6	Supplying chemical emulsion in sealed containers including delivery as specified.				
	Chloropyriphos emulsifiable concentrate of 20%	200	litre	185.95	37190.00

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7	Diluting & injecting chemical emulsion for PRE-CONSTRUCTIONAL ANTI-TERMITE treatment and creating a continuous chemical barrier under and all around the column pits, wall trenches, basement excavation, top surface of plinth filling, junction of wall & floor, along the external perimeter of building, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surroundings of pipes and conduits, etc complete as per specifications (Plinth area of the building at ground floor only shall be measured for payment)	1500	sqm	88.25	132375.00
8	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.				
(a)	Concrete grade M15 .	20	cum	4514.05	90281.00
(b)	1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size)	10	cum	4024.00	40240.00
(c)	1:4:8(1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	200	cum	3593.30	718660.00
9	Providing and laying damp proof course 50mm thick cement concrete 1:1.5:3 (1 Cement:1.5 coarse sand : 3 graded stone aggregate 12.5 mm nominal size) .	100	sqm	278.63	27863.00
10	Extra for providing and mixing water proofing material of zydex,sika or similar make in cement concrete work @ 1kg per 50kg of cement.	250	per 50kg cement	35.35	8837.50
11	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including 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 Engineer-in-charge. (Note :- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/recoverable separately).				
(a)	All works upto plinth level	800	cum	5242.15	4193720.00
(b)	All works above plinth level upto floor V level	1200	cum	5781.50	6937800.00

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12	Add for using extra cement in the items of design mix over and above the specified cement content therein.	600	quintal	589.80	353880.00
13	Providing and laying M20 reinforced cement concrete in ground floor grade slab excluding the cost of centring,shuttering, finishing and reinforcement.	400	cum	5094.85	2037940.00
14	Providing ,laying and compacting 230mm thick stone base under the floors as per direction of Engineer-in-Charge.	400	cum	749.30	299720.00
15	Centering and shuttering including strutting, propping, etc., and removal of form at all heights for.				
(a)	Foundations, footings, bases of columns, etc., for mass concrete.	500	sqm	166.90	83450.00
(b)	Columns, Pillars, Piers, Abutments, Posts and Struts	2200	sqm	365.60	804320.00
(c)	RCC walls at all levels (any thickness).	100	sqm	285.15	28515.00
(d)	Suspended floors, roofs, landings, balconies and access platform	2200	sqm	311.20	684640.00
(e)	Lintels, beams, plinth beams, girders, bressumers and cantilevers	2500	sqm	262.25	655625.00
(f)	Stairs (excluding landing)	200	sqm	326.30	65260.00
16	Steel reinforcement -Cold twisted bars /TMT/HCR				
(a)	Including supply, straightning, cutting and bending, binding (i/c cost of binding wire), placing in position, etc., all labour & material, complete.	2000	kg	62.25	124500.00
(b)	Excluding supply but including straightning, cutting, bending, binding (i/c cost of binding wire), placing in position, etc., all labour & material, complete. (Reinforcement steel shall be supplied by BHEL free of cost)	168000	kg	10.00	1680000.00
17	Extra over item 16 (a) & (b) for providing FUSION BONDED EPOXY COATING as per IS:13620 including the transportation of reinforcement steel to bidder's plant and bringing back to site and special handling during straightening,cutting,bending ,placing and providing PVC coated binding wire.	170000	kg	10.00	1700000.00
18	Brickwork with Fly ash bricks of class designation 75 in foundation and plinth in:				
(a)	Cement mortar 1:5 (1 cement : 5 coarse sand)	100	cum	3412.40	341240.00

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19	Brickwork with Fly ash bricks of class designation 75 in superstructure above plinth level upto V level in all shapes and sizes:				
(a)	Cement mortar 1:5 (1 cement : 5 coarse sand)	800	cum	3972.00	3177600.00
20	Half brick masonry with Fly ash bricks of class designation 75 in foundation and plinth in:				
(a)	Cement mortar 1:4 (1 cement : 4 coarse sand)	50	sqm	416.95	20847.50
21	Half brick masonry with Fly Ash bricks of class designation 75 in superstructure above plinth upto floor V level.				
(a)	Cement mortar 1:4 (1 cement : 4 coarse sand)	100	sqm	476.85	47685.00
22	20 mm cement external (or rough side) plaster in two coats under layer 12 mm thick cement plaster 1:3 (1 cement : 3 coarse sand) finished with a top layer 8 mm thick cement plaster 1:2 (1 cement : 2 fine sand).	2200	sqm	198.25	436150.00
23	12mm cement plaster internal (or even side) of the walls in the mix:				
(a)	1:3 (1cement :3coarse sand)	2800	sqm	164.50	460600.00
24	6mm cement plaster to ceiling of mix.				
(a)	1:3 (1 cement : 3 fine sand)	2000	sqm	101.00	202000.00
25	2mm thick plaster of paris punning over the plastered surfaces on wall surfaces as directed by engineer-in-charge.	7000	sqm	83.80	586600.00
26	Plaster drip course /groove in plastered surface or moulding to RCC projections:	275	meter	22.25	6118.75
27	Applying priming coat				
(a)	With zinc silicate primer of approved brand and manufacture on steel works.	300	sqm	20.70	6210.00

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S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
28	Providing and fixing 18 mm thick gang saw cut, mirror polished, premoulded and prepolished, machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand), joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
(a)	Granite of any colour and shade	60	sqm	3041.15	182469.00
29	Structural steelwork welded in built up sections like edge protection angles,insert plates with lugs & framed work including providing, cutting, hoisting, fixing in position/ embedding in concrete and applying a priming coat of approved steel primer all complete.	3000	kg	59.90	179700.00
30	Steelwork welded in built up sections/framed work including providing ,cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc., as required.				
(a)	In covering of floors/trenches inside the buildings with chequered plates, stringers, treads, landings etc of staircases involving use of chequered plates, wherever required, all complete.	10000	kg	67.20	672000.00
(b)	In gratings, rails ,mono rails, frames, ladders, stair railings, gates(including pipe) ,gantry girder(beams,channels etc), and similar works.	32000	kg	77.90	2492800.00
31	Cement concrete flooring 1:2:4 (1cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps, etc., complete.				
(a)	50mm thick with 12.5mm nominal size stone aggregate.	100	sqm	350.06	35006.00
32	52mm thick CC flooring with concrete hardner topping under layer 40mm thick CC 1:2:4 (1cement:2 coarse sand: 4 stone aggregate 20mm nominal size) and top layer 12 mm thick Hardcrete cement hardner consisting of mix 1:2 (1 cement hardner mix: 2 stone aggregate 6mm nominal size) by volume with which hardening compound of approved quality is mixed @ 2 liter per 50 Kg of cement including cement slurry, but excluding the cost of nosing of steps etc., complete.	1800	sqm	420.50	756900.00

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33	Cement plaster skirting (upto 30cm height) with cement mortar 1:3 (1cement: 3 coarse sand) finished with a floating coat of neat cement.				
(a)	18mm thick	80	sqm	258.20	20656.00
34	Precast terrazo tiles 22 mm thick with graded marble chips of size upto 12mm laid in floors,and landings,jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete with precast tiles on 30mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand)				
	Light shade using white cement	100	sqm	769.35	76935.00
35	Precast terrazo tiles 22 mm thick with graded marble chips of size upto 12mm laid in skirting and risers of steps not exceeding 30 cm in height on 12mm cement plaster 1:3(1 cement :3 coarse sand),jointed with neat cement slurry mixed with pigment to match the shade of the tiles including rubbing and polishing complete with precast tiles of :				
	Light shade using white cement	40	sqm	966.85	38674.00
36	Marble chips skirting rubbed and polished to granolithic finish, top layer 6 mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from smallest to 4 mm nominal size, laid in cement (white or with pigment) marble powder mix 3:1 (3 cement : 1 marble powder) by weight in proportion of 4:7 (4 cement marble powder mix : 7 marble chips) by volume :				
	25 mm thick with under layer 19 mm thick in cement plaster 1:3 (1 cement : 3 coarse sand) :	60	sqm	619.75	37185.00
37	Providing & fixing chemical resistant (Acid & Alkali) Tiles as per IS 4457 of minimum thickness 25mm thick in flooring/Dado. The tiles shall be abrasion resistant and durable. The potassium silicate as per IS 4832, 6mm thick mortar used for setting or for under bed shall be durable strong and chemical resistant epoxy mortar including pointing etc. after laying bitumen primer as per IS 158 and 12mm thick bitumastic complete as per IS 9510 and IS 412 and as per specification.	150	sqm	2689.00	403350.00

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38	Providing and laying 1st quality ceramic glazed tiles 300X300 mm conforming to IS:15622 of minimum thickness 7 mm of approved make and colours laid over 20 mm thick bed of Cement mortar 1:4 (1 Cement:4 coarse sand) including pointing in white cement mixed with pigment of matching shade complete.	100	sqm	764.55	76455.00
39	Providing and fixing 1st quality ceramic glazed tiles conforming to IS:15622 of minimum thickness 5 mm of approved make and colours in skirting,risers of steps and dados over 12 mm thick bed of Cement mortar 1:3 (1 Cement:3 coarse sand) and jointing with grey cement slurry @3.3 kg/sqm including pointing in white cement mixed with pigment of matching shade complete.	125	sqm	724.25	90531.25
40	Providing and laying of minimum 7.5 mm thick pre-polished vitrified tiles conforming to IS 15622 in different sizes of approved make and colours laid over 20 mm thick bed of Cement mortar 1:4 (1 Cement:4 coarse sand) including pointing in white cement mixed with pigment of matching shade complete as per direction of Engineer-in charge.				
(a)	Size of Tile 60X60 cm.	100	sqm	1337.10	133710.00
41	Providing and fixing pre polished vitrified tiles minimum thickness 7.5 mm of approved make and colours in skirting,risers of steps and dados over 12 mm thick bed of Cement mortar 1:3 (1 Cement:3 coarse sand) and jointing with grey cement slurry @3.3 kg/sqm including pointing in white cement mixed with pigment of matching shade complete.	10	sqm	1339.20	13392.00
42	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.				
(a)	On steel work	300	sqm	105.50	31650.00
(b)	On concrete work	1600	sqm	108.55	173680.00

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S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
43	Providing and fixing door shutters 35 mm thick, with Pre-laminated medium density fibre board (MDF exterior grade) having one side decorative lamination and other side balancing lamination, including IInd class teak wood lipping of 35 mm wide x12 mm thick with necessary screws and bright finished stainless steel piano hinges, complete as per direction of the Engineer-in-Charge	20	sqm	2019.92	40398.40
44	Providing and fixing pressed steel door frames conforming to IS:4351 manufactured from commercial mild steel sheet of 1.25mm thickness including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50X25mm, or base ties of 1.25mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with spit end tail to each jamb including steel butt hinges 2.5mm thick with mortar guards, lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-Charge:				
	Profile C	50	RM	370.00	18500.00
45	Providing & fixing 45mm steel door shutter made of double sheet 18G steel suitably reinforced and filled with mineral wool, including frame, etc., all complete as per drawing and instruction of Engineer -in-Charge.	25	sqm	6500.00	162500.00
46	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
(a)	For fixed portion	1200	kg	358.30	429960.00
(b)	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)	1500	kg	406.50	609750.00

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47	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions, etc., with PVC/neoprene gasket, etc., complete as per the architectural drawings and directions of Engineer-in-charge. (Cost of aluminium snap beading shall be paid in basic item).				
(a)	With float glass panes of 6 mm thickness.	20	sqm	988.09	19761.82
(b)	With float glass panes of 4 mm thickness.	200	sqm	725.35	145070.00
(c)	With frosted glass panes of 4 mm thickness.	20	sqm	725.35	14507.00
48	Providing and fixing fire proof door with panic devices as per IS:3614 (part-I & part-II) and manufacturer design with minimum fire rating of 2 hours and double cover plated type with mineral wool insulation all complete as per direction of Engineer-in-Charge.	20	sqm	12470.63	249412.61
49	Providing & fixing double glazed hermetically sealed glazing in aluminium windows, ventilators and partitions, etc, with 6mm thick toughened safety glass conforming to IS: 2553 on both sides having 12mm air gap including providing EPDM gasket, perforated aluminium spacers, dessicants, sealants (both primary & secondary sealant) etc. as per specifications, drawings & direction of Engineer-in-charge complete.	50	sqm	3328.40	166420.00
50	Providing and fixing factory made P.V.C. door frame of size 50x47 mm with a wall thickness of 5 mm, made out of extruded 5 mm rigid PVC foam sheet, mitred at corners and joined with 2 nos of 150 mm long bracket of 15x15 mm M.S. square tube, the vertical door frame profiles to be reinforced with 19x19 mm M.S. square tube of 19 gauge, EPDM rubber gasket weather seal to be provided through out the frame. The door frame to be fixed to the wall using M.S. screws of 65/100 mm size, complete as per manufacturer's specification and direction of Engineer-in-charge.	25	m	404.60	10115.00

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51	Providing and fixing factory made panel PVC door shutter consisting of frame made out of M.S. tubes for styles, top & bottom rails. M. S. frame covered with 5 mm thick heat moulded PVC 'C' channel of size 30 mm thickness forming styles, top & bottom rail and 115 mm wide lock rail on both side of the panel. panelling of 5 mm thick both side PVC sheet to be fitted in the M.S. frame welded/ sealed to the styles & rails with 7 mm (5 mm + 2 mm) thick x 15 mm wide PVC sheet beading on inner side, and joined together with solvent cement adhesive. An additional 5 mm thick PVC strp of 20 mm width is to be stuck on the interior side of the 'C' channel using PVC solvent adhesive etc. complete as per direction of Engineer-in-charge, manufacturer's specification & drawing.				
(a)	30 mm thick plain PVC door shutters	25	sqm	2499.20	62480.00
(b)	30 mm thick pre laminated PVC door shutters	25	sqm	2958.00	73950.00
52	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logoembossed 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.	16	each	1953.10	31249.60
53	Providing and fixing aluminium sliding door bolts anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with nuts and screws etc., complete.				
(a)	300 X 16mm	20	each	203.80	4076.00
(b)	250 X 16 mm	10	each	168.95	1689.50
54	Providing and fixing aluminium tower bolts anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc., complete.				
(a)	300 X 10mm	20	each	100.40	2008.00
(b)	250 X 10 mm	10	each	86.45	864.50
55	Providing and fixing aluminium handles anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc., complete.				
	125mm	25	each	62.50	1562.50

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56	Providing and fixing IS:3564 marked aluminium die cast body tubular type universal door closer of approved quality and make with accessories and screws complete.	5	each	662.80	3314.00
57	Supplying and fixing rolling shutters of approved make, made of required size MS laths interlocked together through their entire length and jointed together at the end by end locks mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with mechanical arrangement for operation complete including the cost of providing and fixing necessary 27.5cm long wire springs grade no. 2 and MS top cover of required thickness for rolling shutters.				
	80X1.20 mm MS laths with 1.2mm thick top cover.	40	sqm	1583.40	63336.00
58	Providing and fixing ball bearing for rolling shutters.	4	each	429.85	1719.40
59	Extra for providing mechanical device chain and crank operating rolling shutters. operation for				
	Exceeding 10.00 sqm and upto 16.80 sqm in the area	4	each	627.35	2509.40
60	Providing and fixing M.S. grills of required pattern in frames of windows etc. with MS flats,square or round bars etc. including priming coat with approved steel primer all complete.all complete.	4500	kg	98.20	441900.00
61	White washing with lime to give an even shade				
	New work (3 or more coats)	300	sqm	11.75	3525.00
62	Distemping with 1st quality acrylic distemper (ready mixed) of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.				
	Two or more coats on new work	3000	sqm	37.35	112050.00
63	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade :				
	Two or more coats on new work.	1000	sqm	60.25	60250.00
64	Finishing walls with water proofing cement paint of required shade :				
	New work : Two or more coats applied @3.84kg/10sqm.	3000	sqm	44.95	134850.00
65	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade:				
	Two or more coats on new work.	200	sqm	53.85	10770.00

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66	Painting with chlorinated rubber based acid proof paint of approved brand and manufacture of required colour to give an even shade.				
	Two or more coats on new work.	125	sqm	50.50	6312.50
67	Providing and fixing white vitreous china water closet squatting pan (Indian type W.C. pan) as per IS 2556 with 100 mm sand cast iron P or S trap, 10 litre low level P.V.C. flushing cistern (of approved make) with fittings, C.I./M.S. brackets, 32 mm diameter flush pipe with fittings and clamps, overflow arrangement with specials and mosquito proof coupling of approved municipal design including painting of fittings and brackets, cutting and making good the walls and floors wherever required.				
	Orissa pattern W.C. Pan of size 580 x 440 mm with integral type foot rests flush pipe and overflow arrangement.	2	each	2964.10	5928.20
68	Providing and fixing white vitreous china pedestal type water closet (European type W.C. Pan) as per IS 2556 with seat and lid, C.P. Brass hinges and rubber buffers, 10 litre low level flushing cistern with fittings & CI/MS brackets 40mm dia flush bend , overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
	W.C. pan with black solid plastic seat and lid with white vitreous china flushing cistern and CP flush bend.	3	each	4220.80	12662.40
69	Providing and fixing vitreous china flat back urinal basin as per IS: 2556 Part 6 sec 1 with photo voltaic control flushing cistern complete, including fittings, painting of fittings and brackets, cutting and making good the walls and floors wherever required:	5	each	2641.04	13205.22
70	Providing and fixing granite stone slab with table rubbed, edges rounded and polished, of size 75x50 cm deep and 1.8 cm thick, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.	4	each	2942.05	11768.20

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71	Providing and fixing vitreous china under counter wash basin in oval shape of approved colour and size with 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings etc. cutting and making good the walls/stone wherever required:	5	each	1848.35	9241.75
72	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS : 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :				
	Kitchen sink with drain board 510x1040 mm bowl depth 250 mm	1	each	6743.55	6743.55
73	Providing and fixing 100 mm sand cast iron grating for gully, floor or Nahani trap.	5	each	24.60	123.00
74	Providing and fixing 600 x 450 x6 mm bevelled edge mirror of float glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. Brass screws and washers complete.	1	each	674.05	674.05
75	Providing and fixing 1200 x 900 x6 mm bevelled edge mirror of float glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. Brass screws and washers complete.	2	each	1348.10	2696.20
76	Providing and fixing 600 x 120 x 5 mm glass shelf with edges rounded off supported on anodised aluminium angle frame with C.P. Brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc. complete.	2	each	341.25	682.50
77	Providing and fixing 600 X 20 mm Stainless steel towel rail complete with fitting arrangement of approved quality and make.	5	each	373.04	1865.19
78	Providing and fixing Stainless steel liquid soap holder cum dispenser complete with fitting arrangement of approved colour, quality and make.	5	each	151.20	756.02
79	Providing and fixing toilet paper holder.				
	CP brass.	3	each	250.95	752.85
80	Providing and fixing soil, waste and vent pipes:				

BILL OF QUANTITY-CUM-PRICE SCHEDULE

Name of Project : 400KV GIS SUBSTATION AT ENNORE SEZ
Name of Work : CIVIL WORKS OF GIS & CRB BUILDING

S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
	100 mm dia.				
	Sand cast iron S & S pipe.	10	RM	734.30	7343.00
81	Providing and fixing G.I. Pipes (medium grade) complete with G.I. Fitting and clamps , including cutting and making good the walls etc. (internal work).				
(a)	15 mm dia nominal bore.	25	RM	161.60	4040.00
(b)	20 mm dia nominal bore.	80	RM	188.05	15044.00
(c)	25 mm dia nominal bore.	50	RM	243.15	12157.50
(d)	32 mm dia nominal bore.	20	RM	296.50	5930.00
82	Providing and fixing G.I. Pipes (medium grade) complete with G.I. Fitting and clamps , including trenching and refilling, etc. (external work).				
(a)	15 mm dia nominal bore.	10	RM	142.25	1422.50
(b)	20 mm dia nominal bore.	50	RM	161.25	8062.50
(c)	32 mm dia nominal bore.	50	RM	248.55	12427.50
(d)	40 mm dia nominal bore.	30	RM	294.20	8826.00
83	Making connection of GI distribution branch with GI main of following sizes by providing and fixing tee, including cutting and threading the pipe etc., complete.				
	25 to 40mm nominal bore.	1	each	277.35	277.35
84	Providing and fixing C.P. brass bib cock of approved quality				
(a)	15mm nominal bore	6	each	205.60	1233.60
(b)	20mm nominal bore	2	each	266.15	532.30
85	Providing and fixing brass stop cock of approved quality				
(a)	15mm nominal bore	6	each	205.60	1233.60
(b)	20mm nominal bore	2	each	266.65	533.30
86	Providing and fixing gun metal gate valve with CI wheel of approved quality (screwed end)				
(a)	25mm nominal bore	2	each	372.95	745.90
(b)	40mm nominal bore	1	each	546.05	546.05
87	Providing and fixing ball valve (brass) of approved quality , high or low pressure with plastic floats complete.				
	25mm nominal bore	1	each	421.65	421.65

BILL OF QUANTITY-CUM-PRICE SCHEDULE

Name of Project : 400KV GIS SUBSTATION AT ENNORE SEZ
Name of Work : CIVIL WORKS OF GIS & CRB BUILDING

S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
88	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testiing of joints etc. complete.				
(a)	100 mm diameter.	5	RM	150.10	750.50
(b)	150 mm diameter.	10	RM	219.05	2190.50
(c)	200 mm diameter.	10	RM	323.05	3230.50
89	Providing and fixing square-mouth S.W. Gully trap grade 'A' complete with C.I. Grating brick masonry chamber with bricks of class designation 75 and water tight C.I. Cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as standard design.:				
	100 x 100 mm size P type				
	With F.P.S bricks	1	each	1256.35	1256.35
90	Providing and placing on terrace (at all floor levels) polyethylene water storage tank of approved brand and manufacture with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank. The tank should be ISI marked .	1000	per litre capacity	6.10	6100.00
91	Providing, laying and fixing Heavy duty roof water proofing treatment as per IS 1346 and clause no 18.07.00(d) of customer spec no. CE/C/P&E/EE/E/OT.No. 03/2013-14 including seven course of glass fire based felt as per IS:7193, foam concrete, cemen plater, chequered cement tiles etc. all complete and as per instruction of Engineer in Charge	1500	sqm	900	1350000.00
92	Providing and fixing on wall face unplasticised - Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.: Single socketed pipes all complete including clamps, bends etc making good the walls etc. wherever required				
(a)	110 mm diameter.	500	meter	206.90	103450.00
93	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	40	each	32.75	1310.00

BILL OF QUANTITY-CUM-PRICE SCHEDULE

Name of Project : 400KV GIS SUBSTATION AT ENNORE SEZ
Name of Work : CIVIL WORKS OF GIS & CRB BUILDING

S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
94	Providing & fixing Aluminum false ceiling system comprising of 84 mm wide 12.5 mm deep closed type plain panels of approved colour, roll formed out of 0.5 mm thick corrosion resistant aluminum alloy AA 5050 fixed on roll formed carriers. Additional hangers and height adjustment clips shall be provided for return air grills, supply air diffusers, light fixtures, AC ducts etc.in approved pattern all complete including fixing ,leaving cut out etc required for completion of works as per direction of Engineer-in -Charge.	450	sqm	1198.31	539239.50
95	Providing & fixing at all heights gypsum plaster board false ceiling system including leaving cut out for return air grills, supply air diffusers, light fixtures, AC ducts etc.in approved pattern all complete as per direction of Engineer-in -Charge.	50	sqm	691.40	34570.00
96	Providing and fixing thermal insulation of ceiling (under deck insulation) with PUF material of density 36 kg/cum, 50 mm thick wherever required, all complete as per customer's specification clause no. 26.09.00	500	sqm	431.00	215500.00
97	Constructing brick masonry manhole with 75 class designation bricks in cement mortar 1:4 (1 cement: 4 coarse sand) RCC top slab with 1:2:4 mix(1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) foundation concrete 1:4:8 (1 cement: 4 coarse sand: 8 graded stone aggregate 40mm nominal size) inside plastering 12mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 mix(1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design.				
	Inside size 90X80cm and 45cm deep including CI cover with frame (light duty) 455X610mm internal dimensions total weight of cover and frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg)				
	With FPS bricks	1	each	7132.00	7132.00
98	Extra for depth for manholes				
	Size 90X80cm With FPS bricks	2	RM	4061.70	8123.40
99	Making soak pit 2.5m diameter 3m deep with 45X45cm dry brick honeycomb shaft with bricks of class designation 75 and SW drain pipe 100mm diameter, 1.8m long complete as per standard design and specification.				

BILL OF QUANTITY-CUM-PRICE SCHEDULE

Name of Project : 400KV GIS SUBSTATION AT ENNORE SEZ
Name of Work : CIVIL WORKS OF GIS & CRB BUILDING

S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
	With FPS bricks	1	each	15228.15	15228.15
100	Providing and laying non-pressure NP2 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc., complete.				
(a)	150mm dia. RCC pipe	10	RM	254.50	2545.00
(b)	250mm dia. RCC pipe	20	RM	342.45	6849.00
(c)	300mm dia. RCC pipe	20	RM	422.90	8458.00
(d)	450mm dia. RCC pipe	20	RM	620.85	12417.00
101	Providing and laying non-pressure NP3 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc., complete.				
(a)	250mm dia. RCC pipe	10	RM	392.54	3925.40
(b)	300mm dia. RCC pipe	10	RM	544.97	5449.70
(c)	450mm dia. RCC pipe	10	RM	793.44	7934.40
102	Providing and placing in position suitable PVC water stops conforming to IS 12200 for construction/expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete.				
	Serrated with central bulb(225mm wide,8-11mm thick)	100	meter	459.15	45915.00
103	Providing and fixing in position 75mm thick bitumen impregnated fibre board / Duraboard HD100 conforming to IS:1838 including cost of primer, sealing compound in expansion joints.	100	per cm depth per 100m	2689.38	268937.50
104	Providing and fixing sheet covering over expansion joints with iron screws as per design to match the colour/ shade of wall treatment.				
a)	Aluminium fluted strips 3.15mm thick	100	kg	358.30	35830.00
105	Providing and applying two layers of residual petroleum bitumen of penetration 85/25 of approved quality using 1.7 kg per sqm on the side faces of foundations after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.(For all lifts and leads).	1500	sqm	190.00	285000.00

BILL OF QUANTITY-CUM-PRICE SCHEDULE

Name of Project : 400KV GIS SUBSTATION AT ENNORE SEZ
Name of Work : CIVIL WORKS OF GIS & CRB BUILDING

S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
106	Breaking of pile heads of exiting piles manually/ by mechanical means and preparing it in all respect for casting of the pile caps including disposal of dismantled material up to a lead of 100 meters, as per direction of Engineer-in-charge all complete.	225	cum	900.00	202500.00
107	Providing & fixing chicken wire mesh in plaster all complete as per specification and direction of Engineer - in - charge.	100	sqm	37.44	3743.69
108	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	5	cum	978.95	4894.75
109	Demolishing brick work in cement mortar manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.	5	cum	566.60	2833.00
110	Design, preperation of drawing, submission and approval from concerned authorities and construction of rain water harvesting system including all earthwork, brickwork, misc steel, gravel & boulder filling, drilling bore hole, supplying and installation of MS pipe etc. all complete as required for completion of work. Only concrete and reinforcement shall be paid seperately under respective items.	1	Lumpsum	191000.00	191000.00
					38694700