

Cost Estimate (based on DSR 2021/ Market rate basis)		₹ 395,956,365	
Name of work: Construction of Eklavya Model Residential School (EMRS) at Dudhnoi Distt. Golpara, Assam			
S. No.	PARTICULARS	AMOUNT (IN Rs.)	
		DSR	NON DSR
<b>CIVIL WORKS</b>			
1	Earth Work	5836055.76	
2	Concrete Work	10788170.99	
3	Reinforced Cement Concrete	140722672.43	
4	Masonry Work	25372363.70	
5	Stone Work	0.00	
6	Cladding Work	4778842.70	
7	Wood & PVC Work	3576107.40	
8	Steel Work	13067506.09	
9	Flooring	17757418.25	
10	Roofing	2525886.40	
11	Finishing	24957474.55	
12	Aluminium Work	279542.85	
13	Water Proofing	5525450.65	
14	Road Work	4432318.81	
15	Non-Schedule Items		3480210.10
<b>TOTAL AMOUNT (DSR)</b>		<b>259619811.00</b>	
<b>TOTAL AMOUNT (NON DSR)</b>			<b>3480210.10</b>
	Add provisional enhancement @ 25 % due to increase in Cost Index of available station i.e. Nalbari as 125 as on 01-10-2022 based on DPAR 2021 (with base 100) considered for district Nalbari as per CPWD letter under file No. 17(6)/अ.महानि(गु.क्ष.)/कार्य/2022/4133(H) dated 17-11-2022.	<b>64904953.00</b>	
<b>GRAND TOTAL (CIVIL WORKS) (In Rs)</b>		<b>324524764.00</b>	
<b>PLUMBING WORKS</b>			
16	Sanitary Installations	2315781.80	611390.35
17	Drainage Installations	626709.10	1276936.15
18	Water supply Installations	1295045.15	17406.80
19	External Sewage Drainage System	3621822.15	
20	External Storm Water Drainage System	2342532.47	
21	External Fresh Water Supply System	1236125.00	
22	Bore well	308150.60	
<b>TOTAL AMOUNT (DSR)</b>		<b>11746166.28</b>	
<b>TOTAL AMOUNT (NON DSR)</b>			<b>1905733.30</b>
	Add provisional enhancement @ 25 % due to increase in Cost Index of available station i.e. Nalbari as 125 as on 01-10-2022 based on DPAR 2021 (with base 100) considered for district Nalbari as per CPWD letter under file No. 17(6)/अ.महानि(गु.क्ष.)/कार्य/2022/4133(H) dated 17-11-2022.	<b>2936542.00</b>	
<b>FIRE FIGHTING WORKS</b>			
23	Piping & Valves	638306.30	2046.00
24	Fire Hydrant Accessories	156150.00	
25	Fire Extinguishers & Miscellaneous Items		164945.00
26	Fire Pumps & Accessories	313341.00	111852.00
<b>TOTAL AMOUNT (DSR)</b>		<b>1107797.30</b>	
<b>TOTAL AMOUNT (NON DSR)</b>			<b>278843.00</b>
	Add provisional enhancement @ 25 % due to increase in Cost Index of available station i.e. Nalbari as 125 as on 01-10-2022 based on DPAR 2021 (with base 100) considered for district Nalbari as per CPWD letter under file No. 17(6)/अ.महानि(गु.क्ष.)/कार्य/2022/4133(H) dated 17-11-2022.	<b>276949.00</b>	
<b>GRAND TOTAL (FIRE FIGHTING WORKS) (In Rs)</b>			

Cost Estimate (based on DSR 2021/ Market rate basis)		₹ 395,956,365	
Name of work: Construction of Eklavya Model Residential School (EMRS) at Dudhnoi Distt. Golpara, Assam			
S. No.	PARTICULARS	AMOUNT (IN Rs.)	
		DSR	NON DSR
<b>ELECTRICAL WORKS (Internal)</b>			
27	Internal Wiring	9340146.00	34335.00
28	Distribution Boards & MCB's	993412.00	54575.00
29	Telephone, Television & Data System (socket,wiring & conduting only)	782345.00	17600.00
30	Light Fixtures & Fan	593241.00	1946720.00
<b>TOTAL AMOUNT (DSR)</b>		<b>11709144.00</b>	
<b>TOTAL AMOUNT (NON DSR)</b>			<b>2053230.00</b>
	Add provisional enhancement @ 25 % due to increase in Cost Index of available station i.e. Nalbari as 125 as on 01-10-2022 based on DPAR 2021 (with base 100) considered for district Nalbari as per CPWD letter under file No. 17(6)/अ.महानि(गु.क्ष.)/कार्य/2022/4133(H) dated 17-11-2022.	<b>2927286.00</b>	
<b>GRAND TOTAL (ELECTRICAL WORKS INTERNAL) (In Rs)</b>			
<b>ELECTRICAL WORKS (External)</b>			
31	Transformer and HT Panel		1234006.00
32	LT Panel, Feeder Pillar and Capacitor Panels		1425157.00
33	LT Cables	1367394.00	2294093.00
34	HT Cables	99982.00	219120.00
35	Miscellaneous	9277.00	20063.00
36	Earthing	402718.00	
37	Pole Erection	387300.00	
38	External Lighting System	560290.00	1750824.00
39	UPS - 10 kVA		237111.00
40	Lightning Arrestor System for Transformer		12021.00
41	Pumps		284396.00
42	CCTV System	156385.00	456020.00
43	Lightning Conductor	344322.00	
44	62.5 KVA DG Set and associated works		773738.00
<b>TOTAL AMOUNT (DSR)</b>		<b>3327668.00</b>	
<b>TOTAL AMOUNT (NON DSR)</b>			<b>8706549.00</b>
	Add provisional enhancement @ 25 % due to increase in Cost Index of available station i.e. Nalbari as 125 as on 01-10-2022 based on DPAR 2021 (with base 100) considered for district Nalbari as per CPWD letter under file No. 17(6)/अ.महानि(गु.क्ष.)/कार्य/2022/4133(H) dated 17-11-2022.	<b>831917.00</b>	
<b>GRAND TOTAL (ELECTRICAL WORKS EXTERNAL) (In Rs)</b>		<b>359388233.58</b>	<b>16424565.40</b>
<b>Total Estimated Cost with 18% GST (in Rs.)</b>		<b>378651442.90</b>	<b>17304922.11</b>
<b>Multiplying factor 1.0536 (Refer CPWD OM dated 10-08-2022)</b>			
			<b>395956365.00</b>

**SCHEDULE OF QUANTITIES**

S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		<b>CIVIL WORKS</b>				
1	2	<b>Earth Work</b>				
				0		
1.01	2.1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, as directed by Engineer-in- Charge:	Cum	5800	107	620600
1.02	2.6	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means <b>over areas</b> (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50m and for all lift as directed by Engineer-in-charge.		0		
1.02.1	2.6.1	All kinds of soil	Cum	14852	149	2212948
				0		
1.02	2.7	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means <b>over areas</b> (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50m and lift upto 1.5m, as directed by Engineer-in-charge.				
1.02.1	2.7.1	Ordinary Rock	Cum	0	412.95	0
1.02.02	2.7.3	Hard rock (blasting prohibited)	Cum	0	1184.3	0
1.03	2.8	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in <b>foundation trenches</b> or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, 1 for all lift, including getting out the excavated soil and disposal of surplus excavated soil as directed within a lead of 50m		0		
1.03.01	2.8.1	All kinds of soil.	Cum	933.6	218.6	204084.96
				0		
1.04	2.9	Excavation work by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5m, including getting out the excavated soil and disposal of surplus excavated soils as directed within a lead of 50m.		0		
1.04.01	2.9.1	Ordinary Rock	Cum	87	523.5	45544.5
1.04.02	2.9.3	Hard rock (blasting prohibited)	Cum	0	1258.6	0
1.05	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50m and for all lift.	Cum	8440	161.6	1363904
				0		
	2.25(a)	Excavating, supplying, stacking and filling of local earth (including royalty) by mechanical transport upto a lead of 5km also including ramming and watering of the earth in layers not exceeding 20cm in foundation trenches, plinth, sides of foundation etc. complete for	Cum	0	564	0
1.07	2.27	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	Cum	565	2161.2	1221078
1.08	2.31	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50m outside the periphery of the area cleared.	Sqm	0	14.5	0
1.09	2.36	Extra for levelling & neatly dressing of disposed soil completely as directed by Engineer-in-charge.	Cum	2189	76.7	167896.3

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		<b>Total of sub-head (1.0)</b>			<b>5836055.76</b>	<b>5836055.76</b>
2	4	<b>Concrete Work</b>				
2.01	4.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
2.01.1	4.1.8	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	Cum	9	6326.05	56934.45
2.01.2	4.1.10	1:5:10 (1 cement : 5 coarse sand (zone-III) derived from natural sources: 10 graded stone aggregate 40 mm nominal size derived from natural sources)	Cum	1251.1	6050.65	7569968.215
2.01.3	4.1.3	1:2:4 (1 Cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 40 mm nominal size)	Cum	129.787	7365.15	955900.7231
				0		
2.06	Derived from basic rates of DSR 2021	Providing and laying broken autoclaved aerated cement (AAC) blocks and/or bats (light weight, having density 550-650 kg/m <sup>3</sup> ) of nominal size 25mm to 65mm in the sunken portion of toilets upto floor five level all complete as per the direction of Engineer-in-charge.	Cum	243	2488.2	604632.6
2.02	4.2	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level excluding the cost of centering, shuttering and		0		
2.02.1	4.2.3	1:2:4 (1 Cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	73	9047.3	660452.9
				0		
2.03	4.3	Centering and shuttering including strutting, propping etc. and removal of form work for :		0		
2.03.1	4.3.1	Foundations, footings, bases for columns	Sqm	489	332.1	162396.9
				0		
2.04	4.1	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources: 4 graded stone aggregate 12.5mm nominal size derived from natural sources)	Sqm	477	370.85	176895.45
				0		
2.05	4.13	Providing & applying a coat of residual petroleum bitumen of grade of VG-10 of approved quality using 1.7kg per square metre on damp proof course after cleaning the surface with brushes and finally with a piece of cloth lightly soaked in kerosene oil.	Sqm	477	113.85	54306.45
2.07	4.17	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth	Sqm	802	681.65	546683.3
		<b>Total of sub-head (2.0)</b>			<b>10788170.99</b>	<b>10788170.99</b>
3	5	<b>Reinforced Cement Concrete</b>				
3.01	5.9	Centering and shuttering including strutting, propping etc. and removal of form for :				
3.01.1	5.9.1	Foundations, footings, bases of columns, etc. for mass concrete	Sqm	3334	332.1	1107221.4

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
3.01.2	5.9.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	Sqm	1746	702	1225692
3.01.3	5.9.3	Suspended floors, roofs, landings, balconies and access platform	Sqm	8593	766.55	6586964.15
3.01.4	5.9.4	Shelves (Cast in situ)	Sqm	428	766.55	328083.4
3.01.5	5.9.5	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	8792.5	608.35	5348917.375
3.01.6	5.9.6	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	8324	804.25	6694577
3.01.7	5.9.7	Stairs, (excluding landings) except spiral-staircases	Sqm	252	657.75	165753
3.01.7A	5.9.14	Extra for shuttering in circular work(20% of respective centering and shuttering items)	Sqm	42	160.85	6755.7
3.01.8	5.9.15	Small lintels not exceeding 1.5 m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like	Sqm	23	332.1	7638.3
3.01.9	5.9.16	Edges of slabs and breaks in floors and walls				
	5.9.16.1	Under 20 cms wide	Metre	374.4	181.9	68103.36
3.01.10	5.9.19	Weather shade, Chajjas, corbels etc., including edges	Sqm	974	814.95	793761.3
3.02	5.11	Extra for additional height in centering, shuttering where ever required with adequate bracing, propping etc., including cost of de-shuttering and decentering at all levels, over a height of 3.5 m, for every additional height of 1 metre or part thereof (Plan area to be				
3.02.1	5.11.1	Suspended floors, roofs, landing, beams and balconies (Plan area to be measured)	Sqm	3234	319.25	1032454.5
3.03	5.16	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete in shelves, including setting in cement mortar 1:3 (1cement : 3 coarse sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but , excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from	Cum	46	18038.25	829759.5
3.03	5.22	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.		0		
3.03.1	5.22.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	259110	89.65	23229211.5
3.04	5.22A	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
3.04.1	5.22A.6	Thermo-Mechanically Treated bars of grade Fe-500D or more.	kg	474655	89.65	42552820.75
3.05	5.3	Add for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	Metre	850	64.7	54995
3.06	5.33	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).				
	5.33.1	All works upto plinth level				

**SCHEDULE OF QUANTITIES**

S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
3.06.1	5.33.1.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	Cum	2502.554695	8683.8	21731684.46
				0		
	5.33.1.2	Concrete of M30 grade with minimum cement content of 350 kg /cum	Cum	226	8825.35	1994529.1
				0		
3.06.2	5.33.2	All works above plinth level upto floor V level.				
	5.33.2.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	Cum	2696.116	8964.75	24170005.91
				0		
	5.33.2.2	Concrete of M30 grade with minimum cement content of 350 kg /cum	Cum	94	9106.35	855996.9
3.07	5.34.1 (Modified)	Deduct for providing M-20 grade concrete instead of M-25 grade machine batched and machine mixed design mix for reinforced cement concrete work (Note:- Cement content considered in M-25 and M-20 is @ 330 kg/cum and 300 kg/cum respectively) (this item is applicable for RCC in grade slab only)	Cum	229.9545	-229.85	-52855.04183
3.08	5.35	Add for using extra cement in the items of design mix over and above the specified cement content therein.	quintal	1736.603049	688.45	1195564.369
3.09	5.43	Providing and fixing in position Stainless steel Grade 304 plate-1.0 mm thick as per design for expansion				
3.09.1	5.43.1	200 mm wide.	Metre	49	747.25	36615.25
3.1	5.44	Providing and fixing of expansion joint system related with floor location as per drawings and direction of Engineer-In-Charge. The joints system will be of extruded aluminum base members, self aligning / self centering arrangement and support plates etc. as per ASTM B221-02. The system shall be such that it provides floor to floor /floor to wall expansion control system for various vertical localtion in load application areas that accommodates multi directional seismic movement without stress to it's components. System shall consist of metal profiles with a universal aluminum base member designed to accommodate various project conditions and finish floor treatments.				
		The cover plate shall be designed of width and thickness required to satisfy projects movement and loading requirements and secured to base members by utilizing manufacturer's pre-engineered self- centering arrangement that freely rotates / moves in all directions. The Self - centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. Provision of Moisture Barrier Membrane in the Joint System to have watertight joint is mandatory requirement all as per the manufactures design and as approved by Engineer -in-Charge. (Material shall conform to ASTM 6063)				
3.10.1	5.44.1	Floor Joint of 100 mm gap	Metre	49	5800.15	284207.35
				0		

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
3.11	5.45	Providing and fixing of expansion joint system related with wall joint (internal/ external) location as per drawings and direction of Engineer-In- Charge. The joints shall be of extruded aluminum base members, self aligning / centering arrangement and support plates as per ASTM B221- 02. The material shall be such that it provides an Expansion Joints System suitable for vertical wall to wall/ wall to corner application, both new and existing construction in office Buildings & complexes with no slipping down tendency amongst the components of the Joint System. The Joint System shall utilize light weight aluminum profiles exhibiting minimal exposed aluminum surfaces mechanically snap locking the multicellular to facilitate movement. (Material shall confirm to ASTM 6063.)		0		
3.11.1	5.45.1	Wall Joint of 100 mm gap	Metre	79	4835.5	382004.5
				0		
3.12	5.46	Providing and fixing of expansion joint system of approved make and manufactures for various roof locations as per approved drawings and direction of Engineer-In-Charge. The joints shall be of extruded aluminum base members with, self aligning and self centering arrangement support plates asper ASTM B221- 02. The system shall be such that it provides watertight roof to roof/roof to corner joint cover expansion control system that is capable of accommodating multidirectional seismic movement without stress to its components. System shall consist of metal profile that incorporates a universal aluminum base member designed to accommodate various project conditions and roof treatments.		0		
		The cover plate shall be designed of width and thickness required to satisfy movement and loading requirements and secured to base members by utilizing manufacturer's preengineered self-centering arrangement that freely rotates / moves in all directions. The Self centering arrangement shall exhibit circular sphere ends that lock and slide inside the corresponding aluminum extrusion cavity to allow freedom of movement and flexure in all directions including vertical displacement. The Joint System shall resist damage or deterioration from the impact of falling ice, exposure to UV, airborne contaminants and occasional foot traffic from maintenance personnel. Provision of Moisture Barrier Membrane in the Joint System to have water tight joint is mandatory requirement. (Material shall confirm to ASTM 6063)				
3.12.1	5.46.1	Roof Joint of 100 mm gap	Metre	17	5424.2	92211.4
		<b>Total of sub-head (3.0)</b>			<b>140722672.4</b>	<b>140722672.4</b>
4	6	<b>Masonry Work</b>				
4.01	6.1	Brick work with common <b>burnt clay</b> F.P.S. (non modular) bricks of class designation 7.5 <b>in foundation and plinth in:</b>				
4.01.1	6.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	538	6658.25	3582138.5
4.03	6.4	Brick work with common <b>burnt clay</b> F.P.S. (non modular) bricks of class designation 7.5 <b>in superstructure</b> above plinth level up to floor V level <b>in all shapes and sizes in :</b>				
4.03.1	6.4.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	2062	8288.35	17090577.7
4.04	6.34	Brick work with <b>non modular fly ash bricks</b> conforming to IS:12894, class designation 10 average compressive strength <b>in super structure</b> above plinth level up to floor V level in :				

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S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
4.04.1	6.34.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum		7676.3	0
4.05	6.13	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.				
4.05.1	6.13.2	Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	4255	1018.05	4331802.75
4.06	6.45	<b>Half brick</b> masonry with <b>non modular fly ash bricks</b> of class designation 10, conforming IS :12894, in super structure above plinth and upto floor V level.				
4.06.1	6.45.2	Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	0	969.65	0
4.07	6.15	Extra for providing and placing in position 2 Nos 6mm dia. M.S. bars at every third course of half brick masonry.	Sqm	4255	86.45	367844.75
		<b>Total of sub-head (4.0)</b>		<b>25372363.7</b>		<b>25372363.7</b>
5		<b>Stone Work</b>				
5.01	7.1	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) upto plinth level with :				
5.01.1	7.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	0	6653.45	0
5.02	7.2	Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at sindow sills, ceiling				
5.02.1	7.2.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	0	8275.7	0
		<b>Total of sub-head (5.0)</b>		<b>0</b>		<b>0</b>
6	8	<b>Cladding Work</b>				
6.01	8.2	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				
6.01.1	8.2.2	Granite of any colour and shade		0		
6.01.2	8.2.2.1	Area of slab upto 0.50 sqm	Sqm	37	4679.35	173135.95
6.01.3	8.2.2.2	Area of slab over 0.50 sqm	Sqm	219	4425.35	969151.65
				0		
6.02	8.4	Extra for fixing marble /granite stone, over and above corresponding basic item, in facia and drops of width upto 150 mm with epoxy resin based adhesive, including cleaning etc. complete.	Metre	221	475.55	105096.55
				0		
6.03	8.5	Extra for providing opening of required size & shape for wash basin/ kitchen sink in kitchen platform, vanity counter and similar location in marble/ Granite/ stone work, including necessary holes for pillar taps etc. including moulding, rubbing and polishing of cut edges etc. complete.	Each	51	808.15	41215.65
				0		
				0		



**SCHEDULE OF QUANTITIES**

S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
6.04	8.31	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, 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 @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete	Sqm	3282	1063.45	3490242.9
				0		
		<b>Total of sub-head (6.0)</b>		<b>4778842.7</b>		<b>4778842.7</b>
				0		
7	9	<b>Wood Work &amp; PVC Work</b>		0		
7.01	9.12	Extra for providing frosted glass panes 4 mm thick instead of ordinary float glass panes 4 mm thick in doors, windows and clerestory window shutters. (Area of opening for glass panes excluding portion inside rebate shall be measured).	Sqm	112	148.5	16632
				0		
7.02	9.21	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:		0		
7.02.1	9.21.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	416	2015.75	838552
				0		
7.03	9.23	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be	Sqm	656	401.4	263318.4
				0		
7.04	9.26	Extra for cutting rebate in flush door shutters (Total area of the shutter to be measured).	Sqm	228	93.65	21352.2
				0		
7.05	9.47	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets :		0		
7.05.1	9.47.2	25 mm dia (heavy type)	Metre	1017	159.35	162058.95
				0		
7.06	9.48	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete		0		
7.06.1	9.48.1	Fixed to steel windows by welding	kg	7745	181	1401845
				0		
7.07	9.24	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured):		0		
7.07.1	9.24.1	Rectangular or square	Sqm	408	173.95	70971.6
				0		
7.08	9.55	Deduction for not providing and fixing ISI marked M.S. pressed butt hinges bright finished with necessary screws etc. complete :		0		
7.08.1	9.55.2	100x58x1.90 mm	Each	2646	-39.05	-103326.3
				0		
7.09	9.96	Providing and fixing aluminium sliding door bolts, ISI marked 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.		0		
7.09.1	9.96.1	300x16 mm	Each	146	260.3	38003.8
7.09.2	9.96.2	250x16 mm	Each	365	234.9	85738.5
7.1	9.68	Providing and fixing oxidised M.S. casement stays (straight peg type) with necessary screws etc. complete.		0		
7.10.1	9.68.1	300 mm weighing not less than 200 gms	Each	2510	59.25	148717.5
				0		
				0		

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
7.11	9.84	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 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	Each	70	856.3	59941
				0		
7.12	9.85	Providing and fixing bright finished brass casement window fastener with necessary screws etc. complete.	Each	2510	76.3	191513
				0		
				0		
7.13	9.97	Providing and fixing aluminium tower bolts, ISI marked, 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.		0		
7.13.1	9.97.1	300x10 mm	Each	659	117.65	77531.35
7.13.2	9.97.4	150x10 mm	Each	423	75.55	31957.65
				0		
7.13	9.1	Providing and fixing aluminium handles, ISI marked, 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 :		0		
7.13.1	9.100.1	125 mm	Each	1198	60.05	71939.9
7.13.2	9.100.2	100 mm	Each	156	53.25	8307
				0		
7.14	9.101	Providing and fixing aluminium hanging floor door stopper, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.		0		
17.4.1	9.101.2	Twin rubber stopper	Each	599	62.05	37167.95
				0		
7.15	9.154	Providing and fixing frame work for partitions/ wall lining etc. made of 50x50x1.6 mm hollow MS tube, placed along the walls, ceiling and floor in a grid pattern with spacing @ 60 cm centre to centre both ways (vertically & horizontally) or at required spacing near opening, with necessary welding at junctions and fixing the frame to wall/ ceiling/ floors with steel dash fasteners of 8 mm dia, 75 mm long bolt, including making provision for opening for doors, windows, electrical conduits, switch boards etc., including providing with two coats of approved steel primer etc. complete. all as per direction of Engineer-in-charge.	kg	1154	133.35	153885.9
				0		
		<b>Total of sub-head (7.0)</b>		<b>3422221.5</b>		<b>3576107.4</b>
				0		
<b>8</b>	<b>10</b>	<b>Steel Work</b>		0		
				0		
8.01	10.3	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	Sqm	63	9397.35	592033.05
				0		
8.02	10.6	Supplying and fixing rolling shutters of approved make, made of required size M.S. 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 push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. for cover of required thickness for rolling.		0		
8.02.1	10.6.1	80x1.25 mm M.S. laths with 1.25 mm thick top cover	Sqm	27	3008.8	81237.6
				0		

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
8.03	10.7	Providing and fixing ball bearing for rolling shutters.	Each	3	424.2	1272.6
				0		
8.04	10.8	Extra for providing mechanical device chain and crank operation for operating rolling shutters		0		
8.04.1	10.8.1	Exceeding 10.00 sqm and upto 16.80 sqm in the area	Sqm	15	1108.7	16630.5
				0		
8.05	10.11.2 (Modified)	Providing and fixing factory made M.S. Tubular shutter for doors, windows and ventilators side /top /centre hung, with Z / T and like tubular profile of required size, made of 1.60mm thick M.S. sheet, joints mitred and flash butt welded, including providing and fixing 95mm long ball type hinges of diameter 16mm, including priming coat of approved steel primer, but excluding the cost of other fittings, all complete as per approved design (sectional weight of only M.S. tubular profile shall be measured for payment).		14219.86	109	1549964.74
	10.12	Providing and fixing steel beading of size 10 x 10 x 1.6 mm (box type), approved shape and section with screws in steel doors, windows, ventilators, composite units and M.S. tubular frame etc.	kg	1155	109	125895
8.06	10.13	Providing and fixing T-iron frames for doors of mild steel Tee-sections, joints mitred and welded, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer.		0		
8.06.1	10.13.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	kg	9293	114.65	1065442.45
8.07	10.15	Providing and fixing M.S. Tubular frames for doors, windows, ventilators and cupboard with rectangular/ L-Type sections, made of 1.60 mm thick M.S. Sheet, joints mitred, welded and grinded finish, with profiles of required size, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel				
8.07.1	10.15.1	Fixing with 15x3 mm lugs 10 cm long embedded in cement concrete block 15x10x10 cm of C.C. 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).	kg	14121	146.55	2069432.55
				0		
8.08	10.16	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc.		0		
8.08.1	10.16.1	Hot finished welded type tubes	kg	22857	154.9	3540549.3
				0		
8.09	10.25	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.		0		
	10.25.1	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all	kg	100	102.25	10225
8.09.1	10.25.2	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	kg	3752	142.3	533909.6
8.1	10.26	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer.		0		
8.10.1	10.26.1	M.S. tube	kg	1259	157.15	197851.85
				0		

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
8.11	10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	kg	2773	612.25	1697769.25
				0		
8.12	10.29	Providing & fixing fly proof wire gauze to windows, clerestory windows & doors with M.S. Flat 15x3 mm and nuts & bolts complete.		0		
8.12.1	10.29.2	Stainless steel (grade 304) wire gauze of 0.5 mm dia wire and 1.4 mm aperture on both sides	Sqm	570	971.55	553783.5
				0		
8.13	10.3	Providing & fixing glass panes with putty and glazing clips in steel doors, windows, clerestory windows, all complete with :		0		
8.13.1	10.30.1	4.0 mm thick glass panes	Sqm	1097	940.3	1031509.1
				0		
	10.30.2	5.0 mm thick glass panes (weights not less than 12.50 kg/ sqm)	Sqm	81	1243.5	100723.5
		<b>Total of sub-head (8.0)</b>		<b>13067506.09</b>		<b>13067506.09</b>
				0		
<b>9</b>	<b>11</b>	<b>Flooring</b>		0		
9.01	11.3	Cement concrete flooring 1:2:4 (1 cement : 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.		0		
9.01.1	11.3.1	40 mm thick with 20 mm nominal size stone aggregate	Sqm	69	545	37605
9.03	11.13	Providing and fixing glass strips in joints of terrazo/ cement concrete floors.		0		
9.03.1	11.13.1	40 mm wide and 4 mm thick	Metre	203	79.5	16138.5
9.01.2	11.5	62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate, 6mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacture's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	Sqm	1316	928.65	1222103.4
9.02	11.8	Extra for making chequers of approved pattern on cement concrete floors, steps, landing, pavements etc.	Sqm	1216	69.3	84268.8
				0		
9.04	11.23	Marble stone flooring with 18 mm thick marble stone, as per sample of marble approved by Engineer-in-charge, over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with grey cement slurry, including rubbing and polishing complete with :		0		
9.04.1	11.23.3	Note : Qty. shall be executed in marble strips of width Agaria White	Sqm	474	2608.15	1236263.1

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
				0		
9.04.2	11.23.5	Udaipur green marble	Sqm	0	2100.4	0
				0		
9.05	11.26	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :		0		
9.05.1	11.26.1	25 mm thick.	Sqm	5387	1706.6	9193454.2
				0		
9.06	11.27	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	693	2038.55	1412715.15
				0		
9.07	11.31	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	Metre	1032	157.35	162385.2
				0		0
9.08	11.21	Providing and fixing 10 mm thick acid and/or alkali resistant tiles of approved make and colour using acid and/or alkali resisting mortar bedding, and joints filled with acid and/or alkali resisting cement as per IS : 4457, complete as per the direction of Engineer-in-				
	11.21.1	In flooring on a bed of 10 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)				
	11.21.1.1	Acid and alkali resistant tile	Sqm	0	1515.45	0
9.09	11.21.2	In dado/skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand)				
	11.21.2.1	Acid and alkali resistant tile	Sqm		1637.7	0
9.08	11.4	Providing and laying rectified Glazed Ceramic floor tiles of size 300x300 mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4Coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including pointing the joints with white cement and matching pigments etc. complete	Sqm	1015	1225.1	1243476.5
				0		
9.09	11.41	Providing and laying full body (Homogeneous) Vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and		0		
9.09.1	11.41.2	Size of Tile 600x600 mm	Sqm	1641	1416.65	2324722.65
				0		
9.1	11.46	Providing and laying full body (Homogeneous) Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joint with white cement & matching pigments etc. complete		0		
9.10.1	11.46.2	Size of Tile 600x600 mm	Sqm	170	1466.5	249305
				0		
				0		

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
9.11	16.89	Providing and laying matt finished vitrified tile of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge	Sqm	369	1250.75	461526.75
				0		
9.12	16.9	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS:15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of	Sqm	66	1719	113454
		<b>Total of sub-head (9.0)</b>		<b>17757418.25</b>		<b>17757418.25</b>
				0		
10	12	<b>Roofing</b>		0		
				0		
10.01	12.21	Providing gola 75x75 mm in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 stone aggregate 10 mm and down gauge), including finishing with cement mortar 1:3 (1 cement : 3 fine sand) as per standard design :		0		
10.01.1	12.21.1	In 75x75 mm deep chase	Metre	15	260.2	3903
				0		
10.02	12.22	Making khurras 45x45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1 m x1 m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, <del>rounding the edges and making and finishing the outlet</del>	Each	151	266.6	40256.6
10.03	12.47	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866.The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.		0		
10.03.1	12.47.2	2 mm thick flat	Sqm	35	1048.5	36697.5
				0		

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
10.04	12.5	Providing and fixing pre-coated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) of total coated thickness 0.50 mm (base metal of minimum 0.45mm thickness with total coating thickness of 0.05 mm) with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces excluding the cost of painting softens	Sqm	1492	671.55	1001952.6
10.05	12.51	Providing and fixing pre-coated galvanised steel sheet roofing accessories of total coated thickness 0.50 mm (base metal of minimum 0.45mm thickness with total coating thickness of 0.05 mm) 0.50 mm with Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :		0		
10.05.1	12.51.2	Flashings/ Aprons.( Upto 600 mm)	Metre	62	412.85	25596.7
10.05.2	12.51.4	Barge board (upto 300 mm)	Metre	46	384.2	17673.2
10.05.3	12.51.6	Gutter (600 mm over all girth)	Metre	78	1110.6	86626.8
				0		
10.06	12.52	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections ( galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanized butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all		0		
10.06.1	12.52.2	GI Metal Ceiling Lay in perforated Tegular edge global white color tiles of size 595x595 mm and 0.5 mm thick with 8 mm drop; made of GI sheet having galvanizing of 100 gms/sqm (both sides inclusive) and 20% perforation area with 1.8 mm dia holes and having NRC (Noise Reduction Coefficient ) of 0.5, electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending and perforation and backed with a black	Metre	752	1746.25	1313180
		<b>Total of sub-head (10.0)</b>		<b>2525886.4</b>		<b>2525886.4</b>
				0		
11	13	<b>Finishing</b>		0		
				0		

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
11.01	13.4	12 mm cement plaster of mix		0		
11.01.1	13.4.2	1:6 (1 cement: 6 coarse sand)	Sqm	12601	294.35	3709104.35
				0		
11.02	13.5	15 mm cement plaster on rough side of single or half brick wall of mix:		0		
11.02.1	13.5.2	1:6 (1 cement: 6 coarse sand)	Sqm	14357	339.1	4868458.7
11.03	13.16	6 mm cement plaster of mix				
11.03.1	13.16.1	1:3 (1 cement : 3 fine sand)	Sqm	12369	253.05	3129975.45
11.04	13.18	Neat cement punning	Sqm	130	67.8	8814
11.05	13.11	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand)	Sqm	9495	442.75	4203911.25
11.06	13.21	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers.	per bag of 50kg cement used in the mix	1262	60.55	76414.1
11.07	13.37	White washing with lime to give an even shade :				
11.07.1	13.37.1	New work (three or more coats)	Sqm	340	32.45	11033
11.08	13.42	Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gms/litre, of approved manufacturer, of required shade and colour complete, as per manufacturer's specification.				
11.08.1	13.42.1	Two or more coats on new work	Sqm	33201	92.75	3079392.75
11.09	13.43	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface :				
11.09.1	13.43.1	Water thinnable cement primer	Sqm	33201	64.45	2139804.45
11.1	13.47	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:				
11.10.1	13.47.1	New work (Two or more coats applied @ 1.43 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	Sqm	15522	162.35	2519996.7
11.11	13.5	Applying priming coat:				
11.11.1	13.50.3	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	Sqm	518	55.5	28749
11.12	13.52	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.				
11.12.1	13.52.2	On concrete work	Sqm	1996	198.4	396006.4
11.13	13.61	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
11.13.1	13.61.1	Two or more coats on new work	Sqm	4447	131.45	584558.15
11.14	13.8	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	1625	123.85	201256.25
		<b>Total of sub-head (11.0)</b>		<b>24957474.55</b>		<b>24957474.55</b>
12	21	<b>Aluminium Work</b>				



SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
12.01	21.1	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) :				
12.01.1	21.1.1	For Fixed Portion				
12.01.2	21.1.1.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	212	466.3	98855.6
12.02	21.1.2	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)				
12.02.1	21.1.2.2	Powder coated aluminium (minimum thickness of powder coating 50 micron)	kg	232	553.55	128423.6
12.03	21.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge .(Cost of aluminium snap beading				
12.03.1	21.3.1	With float glass panes of 4.00 mm thickness	Sqm	22	1325.55	29162.1
12.03.2	21.3.2	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm)	Sqm	16		0
12.03.3	21.3.3	With float glass panes of 8 mm thickness (weight not less than 20 kg/ sqm)	Sqm	4	1496.15	5984.6
				0		
12.04	21.4	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		0		
12.04.1	21.4.1	With stainless steel cover plate minimum 1.25 mm thickness	Each	6	2448.85	14693.1
				0		
12.05	21.13	Providing and fixing Brass 100mm mortice latch and lock with 6 levers without pair of handles (best make of approved quality) for aluminium doors including necessary cutting and making good etc. complete.	Each	3	449.55	1348.65
				0		
12.06	21.16	Providing and fixing aluminium round shape handle of outer dia 100 mm with SS screws etc. complete as per direction of Engineer-in-charge		0		
12.07	21.16.2	Powder coated minimum thickness 50 micron	Each	12	89.6	1075.2
				0		
		<b>Total of sub-head (12.0)</b>		<b>279542.85</b>		<b>279542.85</b>
13	22	<b>Water Proofing</b>				
13.01	22.3	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:				

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		(i) Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.				
		(ii) IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface.				
		(iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area.				
		(iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7	Sqm	1217	774.25	942262.25
13.02	22.4	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 :				
13.02.1	22.4.1	Serrated with central bulb (225 mm wide, 8-11 mm	Sqm		285.6	0
13.03	22.7	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:				
		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				
		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 including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep.				
		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-				
13.03.1	22.7.1	With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	Sqm	2732	1522.95	4160699.4
						0

**SCHEDULE OF QUANTITIES**

S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
13.05	22.23	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-				0
13.05.1	22.23.1	For vertical surface two coats @ 0.70 kg per sqm	Sqm	744	406.25	302250
13.05.2	22.23.2	For horizontal surface one coat @1.10 kg per sqm.	Sqm	386	311.5	120239
		<b>Total of sub-head (13.0)</b>		5525450.65		<b>5525450.65</b>
<b>14</b>	<b>16</b>	<b>Road Work</b>				
14.01	16.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with all lead and	Sqm	7330	180.5	1323065
14.02	16.7.1	Brick edging in full brick width and half brick depth including excavation, refilling and disposal of surplus earth lead upto 50 metres.	mtr	536	179.5	96212
						0
14.03	16.6.1	Supplying, stacking and Spreading 6 mm thick red bajri, watering and rolling complete including preparation of the surface and rolling.	sqm	700	21.8	15260
14.04	16.11	Dry stone pitching 22.5 cm thick including supply of stones and preparing surface complete.	Sqm	0	821.95	0
				0		
14.05	16.11 (Modified)	Deduct for using available stone of size 15 cm x 22.5 cm for dry stone pitching. (Rate is below relevant item)		0	-279.1	0
14.05	16.43.2 (M)	Making provision for contraction/ expansion, construction & longitudinal joints of sixe 10 mm wide x 50 mm deep by groove cutting machine. As per direction of Engineer-in-charge.	Cum	150	141.8	21270
				0		
14.06	16.46	Providing and filling in position rubberized bitumen hot sealing compound for sealing of expansion joints in roads / pavements all complete as per direction of the Engineer-in-Charge.		0		
	16.46.1	Using grade 'A' sealing compound conforming to IS: 1834.	per cm depth per cm width	1529	7.5	11467.5

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
14.06	16.53	Providing and fixing concertina coil fencing with punched tape concertina coil 600 mm dia 10 metre openable length (total length 90 m), having 50 nos rounds per 6 metre length, upto 3 m height of wall with existing angle iron 'Y' shaped placed 2.4m or 3.00 m apart and with 9 horizontal R.B.T. reinforced barbed wire, stud tied with G.I. staples and G.I. clips to retain horizontal, including necessary bolts or G.I. barbed wire tied to angle iron, all complete as per direction of Engineer-in-charge, with reinforced barbed tape(R.B.T.) / Spring core (2.5mm thick) wire of high tensile strength of 165 kg/ sq.mm with tape (0.52 mm thick) and weight 43.478 gm/metre (cost of M.S	Metre	700	303.65	212555
14.07	16.19	Supplying at site Angle iron post & strut of required size including bottom to be split and bent at right angle in opposite direction for 10 cm length and drilling holes upto 10 mm dia. etc. complete.	kg	1825	99.95	182408.75
14.08	16.62	Providing and applying 2.5 mm thick road marking strips (retro- reflective) of specified shade/ colour using hot thermoplastic material by fully/ semi automatic thermoplastic paint applicator machine fitted with profile shoe, glass beads dispenser, propane tank heater and profile shoe heater, driven by experienced operator on road surface including cost of material, labour, T&P, cleaning the road surface of all dirt, seals, oil, grease and foreign material etc. complete as per direction of Engineer-in-charge and accordance with applicable specifications	Sqm	165	623.8	102927
14.09	16.66	Excavating holes upto 0.10 cum, including getting out the excavated soil, then returning the soil as deported in layers not exceeding 20 cm in depth, including consolidating and deposited layer by ramming watering etc., disposing of surplus excavated soil as directed with in a lead of 50 mm and lift upto 1.5 m.				
14.09.1	16.66.1	All kind of soil	each	16	29.95	479.2
14.1	16.68	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M-30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of	Sqm	50	951	47550
14.11	16.69	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment) (Precast C.C. kerb	Cum	38	8613.55	327314.9
14.12	16.75	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. (The panel shuttering work shall be paid for separately). (Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable	Cum	55	8964	493020
				0		

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
14.13	16.76	Deduct for using of M-20 grade concrete instead of M-25 grade concrete in C.C. pavement.	Cum	-319	191.1	-60960.9
				0		
14.14	16.3	Supplying and stacking at site.				
14.14.1	16.3.2	63 mm to 45 mm size stone aggregate	Cum	332	1624.5	539334
14.15	16.3.3	53 mm to 22.4 mm size stone aggregate	Cum	125	1837.25	229656.25
14.16	16.3.10	Moorum	Cum	125	888.3	111037.5
14.17	16.3.9	Good Earth	Cum	118	624.55	74095.61
14.18	16.4	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density.	Cum	815	865.8	705627
		<b>Total of sub-head (14.0)</b>		11119532.09		<b>4432318.81</b>
15		<b>Non-Schedule Items - Civil</b>				
15.01	MR 1	Providing signage viz display/name plate and like of required size made out of 20 guage thick stainless steel (304 grade) including engraved subject matter, message (Hindi/English and / or bilingual), symbols, borders and logo etc. The engraved letter, borders etc. to be furnished with paint etc. of reqyured colour scheme and the plate to be fixed to wooden/wall surface with 25mm long stainless steel spacer/stud all complete as per direction of Engineer in Charge.	Sq. inch	2882	17	48999.3
15.02	MR 2	Providing and fixing factory made prelamated flush door comprises core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters conforming to IS: 2202 (part 1) followed with machine pressed 1.00mm thick lamination on both faces of shutter in required finish and shade with suitable adhesive including providing and fixing 3 to 5 mm thick teak lipping along edges of shutter all complete as per direction of Engineer-in- charge. a) 35 mm thick including ISI marked Stainless Steel butt hinges (heavy weight) 100mm x 60mm x 2.5mm with necessary screws.	Sqm	559	5220	2917980
				0		0
15.03	MR 3	Providing & fixing G.I. chicken wire mesh of nominal size upto 20mm having 24 gauge thick with G.I. nails etc. to wall surface of dissmilar material viz RCC and brick work etc.all complete.	Sqm	472	155.15	73230.8
				0		0
		<b>Total of sub-head (15.0) (Non DSR)</b>		<b>1101910.8</b>		<b>3040210.1</b>
<b>PLUMBING WORKS</b>						
16		<b>Sanitary Installation (As per D.S.R.)</b>				

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
16.01	8.10	Providing & fixing stone slab table rubbed, edges rounded and polished of size 75 X 50 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 chase with epoxy grout or with cement concrete 1:2:4 ( 1 cement : 2 coarse sand : 4 graded stone aggregate 6mm nominal size) as per Engineer-in-charge and finished smooth				
16.01.1	8.10.2	Granite Stone of approved shade	sqm	6	3542.85	21257.10
16.02	17.1	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS: 13983 with CI brackets and stainless steel waste with plug 40mm including painting of fittings and brackets, cutting and making good the walls wherever required.				0
16.02.1	17.10.2	Sink without drain board				0
16.02.2	17.10.2.2	610X460 mm bowl depth 200mm.	Each	57	3337.85	190257.45
16.03	17.11	Providing and fixing white vitreous china <b>laboratory sink</b> with C.I. brackets, C.P. brass chain with rubber plug, 40 mm C.P brass waste and 40mm C.P. brass trap with necessary C.P. brass unions complete, including painting of fittings and brackets, cutting and making good the wall wherever required :				
16.03.1	17.11.2	Size 600x450x200 mm	Each	12	5610.85	67330.20
16.04	17.2	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :		0		
16.04.1	17.2.1	W.C. pan with ISI marked white solid plastic seat and	Each	57	5540.55	315811.35
16.05	17.16A	Providing and fixing 8 mm dia C.P./S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in-charge	Each	57	299.35	17062.95
16.06	17.7	Providing and fixing PTMT Bottle Trap for Wash basin and sink.				
16.06.1	17.70.1	Bottle trap 31mm single piece moulded with height of 270 mm, effective length of tail pipe 260 mm from the centre of the waste coupling, 77 mm breadth with 25 mm minimum water seal, weighing not less than 260	Each	66	325.1	21456.60
16.07	17.5.1 (M)	Providing and fixing single white vitreous china flat back half stall urinal of size 580x380x350 mm with spreaders, unions, waste fitting and other couplings (all in C.P. brass) including making good the walls	Each	19	3257.8634	61899.4046
16.08	17.72	Providing & fixing PTMT towel ring trapezoidal shape 215 mm long 200 mm wide with minimum distance of 37 mm from wall face with concealed fittings arrangement of approved quality and colour weighing not less than 88 gms	Each	92	204.7	18832.40
16.09	18.49	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :		0		0
16.09.1	18.49.1	15mm nominal bore	Each	166	434.2	72077.20
16.1	18.5	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.				0
16.10.1	18.50.1	15mm nominal bore	Each	321	715.05	229531.05
16.11	18.54	Providing and fixing PTMT bib cock of approved quality and colour.				0

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
16.11.1	18.54.1	15mm nominal bore, 86 mm long, weighing not less than 88 gms	Each		156.65	0
16.11.2	18.54.3	15 mm nominal bore, 165 mm long, weighing not less than 110 gms	Each		109.85	0
						0
16.12	18.55	Providing and fixing PTMT stop cock of approved quality and colour.				
16.12.1	18.55.3	Concealed stop cock, 15 mm nominal bore, 108 mm long, weighing not less than 108 gms (For Shower)	Each		183.4	0
16.13	18.52	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.				
16.12.1	18.52.1	15 mm nominal bore (For Shower)	Each	136	594.75	80886
16.14	18.53	Providing and fixing C.P. brass angle valve for basin mixer and points of approved quality conforming to IS:8931				
16.14.1	18.53.1	15 mm nominal bore (For Shower)	Each	439	500.35	219653.65
16.15	18.63	Providing and fixing PTMT angle stop cock 15 mm nominal bore, weighing not less than 85 gms	Each	0	136.6	0
				0		0
16.14.2	18.75	Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour. a) 25mm nominal bore, weighing not less than 62 gms	Each		100.55	0
16.16	17.7	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
16.16.1	17.7.4	White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap	Each	138	1679.6	231784.8
16.17	17.7B	Providing and fixing wash basin with C.I. brackets, 15 mm PTMT pillar cock, 32 mm PTMT waste coupling of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required. White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm PTMT pillar cock.	Each	0	1404	0
				0		0
16.18	17.28	Providing & fixing PVC waste pipe for sink including PVC waste fitting Complete		0		0
16.18.1	17.28.2	Flexible Pipe		0		0
16.18.2	17.28.2.1	32mm Dia	Each	248	104.35	25878.8
				0		0
16.19	17.34	Providing and fixing toilet paper holder :		0		0
	17.34.1	C.P. brass	Each	57	680.8	38805.6
16.19.1				0		0
16.2	18.21	Providing and fixing uplasticised PVC connection pipe with brass unions		0		0
16.20.1	18.21.2	45 cm length		0		0
16.20.2	18.21.2.1	15 mm nominal bore	Each	428	85.2	36465.6
				0		0
16.21	17.1	Providing and fixing water closet squatting pan (Indian type W.C. pan ) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:		0		0
16.21.1	17.1.1	White Vitreous china Orissa pattern W.C. pan of size 580 x 440 mm with integral type foot rests	Each	109	5781.35	630167.15
				0		0

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
16.22	18.65	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	Each	101	96.75	9771.75
				0		0
16.23	17.71	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	Each	24	146.3	3511.2
16.24	17.73	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.		0		0
16.24.1	17.73.2	600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms.	Each	9	600.35	5403.15
				0		
16.25	17.69	Providing and fixing PTMT Waste Coupling for wash basin and sink, of approved quality and colour.		0		
16.25.1	17.69.1	Waste coupling 31 mm dia of 79 mm length and 62mm breadth weighing not less than 45 gms	Each	34	103	3502
				0		
16.26	18.56	Providing and fixing PTMT pillar cock of approved quality and colour.		0		
16.26.1	18.56.1	15 mm nominal bore, 107 mm long, weighing not less than 110 gms	Each	0	180.8	0
				0		
16.27	18.22	Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms	Each	136	106.15	14436.4
16.27.1	18.22.1	100 mm diameter				
		<b>Sanitary Installations work (Non-Scheduled Items)</b>		0		
				0		
16.28	MR 4	Providing and fixing U-shaped stainless steel grab bar (for differently abled person) of size 600mm wall mounted, movable (horizontally and vertically) with necessary dash fastener etc. all complete. (Basic rate of material shall not be less than Rs.3900 each)	Each	5	5703	28515
				0		
16.29	MR 5	Providing and fixing white vitreous china oval shape wash basin (counter top) of size 560x400mm with C.I. brackets/rag bolt of required size, 32 mm C. P. brass waste coupling of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require complete as per direction of Engineer in Charge	Each	34	6298	214132
				0		
16.3	MR 6	Providing and fixing 600 x 450 mm beveled edge mirror of superior glass (of approved quality) fixed with stainless steel studs, complete with cutting, making holes, studs, all fittings, screws, washers and	Each	178	1507	268246
16.32	MR 7	Providing and fixing C.P. brass swan neck foam flow pillar cock of approved quality and conforming to IS standards. a) 15mm nominal bore	Each	34	930.05	31621.7
16.31	MR 8	Providing & fixing stainless steel robe plate/pegs (hook) having three pegs (hook) in one strip (weight shall not be less than 120 grams) of superior quality with necessary screws etc. complete.	Each	144	285	41040
	MR 9	Providing and fixing C.P. brass long body nozzle bib cock (two way) of approved quality conforming to IS standards and weighing not less a) 15 mm nominal bore	Each	29	959.85	27835.65
		<b>Total of sub-head (16.0) (DSR)</b>			0	<b>2315781.805</b>



SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		<b>Total of sub-head (16.0) (Non DSR)</b>				<b>611390.35</b>
					0	
17		<b>Internal Drainage Installations (As per D.S.R.)</b>				
17.01	18.58	Providing and fixing PTMT grating of approved quality and colour		0	0	
17.01.1	18.58.1	Circular type		0		
17.01.2	18.58.1.1	100 mm nominal dia	Each	197	33.2	6540.4
				0		
17.01.3	18.58.1.2	125 mm nominal dia with 25mm waste hole.	Each	211	45.25	9547.75
				0	0	
17.02	12.41	Providing & fixing on wall face unplasticised -Rigid PVC rain water pipes conforming to IS:13592 Type A included jointing with seal ring conforming to IS:5382 leaving 10 mm gap for thermal expansion. (i)Single		0	0	
17.02.1	12.41.2	110 mm diameter	Metre	1105	319.75	353323.75
				0	0	
17.03	12.42.	Providing, fixing on wall face unplasticised - PVC moulded fittings /accessories for 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.		0	0	
17.03.1	12.42.1.2	Coupler -110 mm diameter	Each	30	119.95	3598.5
17.03.2	12.42.5.2	Bend -87.5 deg -110 mm diameter	Each	266	132	35112
17.03.3	12.42.6.2	Shoe -110mm shoe	Each	30	115.95	3478.5
				0		
18	12.43	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc.		0		
18.01	12.43.2	110mm	Each	692	310.85	215108.2
19	MR 10	Providing, fixing, jointing and testing in position of ISI marked UV stabilized uPVC pipes for soil, waste, and vent, Type-B as per IS : 13592 suitable for rubber ring joints, including all necessary specials and fittings (confirming to IS:14735) i.e. bends, tees, junctions (with or without doors), reducers, WC connectors, couplers, expansion joints / bellows, cowels, clamps, rubber rings, clean outs etc. fixing at wall/ ceiling/ floor level supported by clamp & hangers etc. in concealed / inside duct / under floor & basement ceiling / external work etc. including chase cutting as required, excavation and back filling in all kind of soils, suspended from floor under false ceiling or embedding the pipes laid under floors / building in 75 mm. around 1:2:4 cement concrete (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including cost of shuttering for proper completion of the work, breaking and making good the walls and floors etc. after pipes have been duly laid and tested. The rubber ring shall confirm to IS:5382. The Pipes will be supported with threaded G I rods & U clamps with nuts, washers etc on 50x50x5 mm slotted angle. The cost will include all support arrangements. The work includes commissioning of all pipes lines as per				
		a) 110 mm dia (Wall Thickness - 3.2 to 3.8 mm)	Metre	1667	617	1028539
		b) 75 mm dia (Wall Thickness - 3.2 to 3.8 mm)	Metre	190	483	91770
19.01	MR 11	Providing and fixing UPVC, P or S trap of self cleaning design with / without vent arm setting in cement concrete 1:2:4 mix complete including cost of cutting & making good the wall and floors wherever				
		110 mm inlet & 110 mm outlet	Each	116	235	27260

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
19.02	MR 12	Providing and fixing uPVC inlet fitting (Hopper) maximum with 2 or 3 inlets of 40 to 63 mm OD size fabricated from 110 OD uPVC pipe fixed to uPVC trap jointing with solvent cement joint and set in a cement concrete 1:2:4 mix complete including cost of cutting and making good the walls and floors wherever	Each	87	340.1	29588.7
19.03	MR 13	Providing and fixing uPVC floor drain with uPVC reducing elbow including all fitting and accessories fixed in cement mortar complete in all respect.				
		110 mm OD x 63 mm OD	Each	94	177.4	16675.6
19.04	MR 14	Providing and fixing of uPVC Waste pipes 6 kg/cm <sup>2</sup> (IS: 4985:2000) including with all fittings e.g. couplings, tees, bends, reducers and screwed adoptors jointing with solvent cement as per Manufacturer's specifications complete including cutting holes or chases in wall and making good the same wherever required. (Waste pipe from fixtures).				
		a) 40 mm Outer Diameter	Metre	225	268	60300
19.05	MR 15	Providing and fixing uPVC cleanout plug conforming to IS:14735 – 1999 complete with all fitting and accessories all complete. a) 100 mm	Each	127	179.55	22802.85
		<b>Total of sub-head (17.0) (DSR)</b>				<b>626709.1</b>
		<b>Total of sub-head (17.0) (Non DSR)</b>				<b>1276936.15</b>
20		<b>Water Supply Installations (As per D.S.R.)</b>				
				0	0	
20.01	18.7	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00 m spacing. this includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete as per direction of engineer in		0	0	
		Internal work -Exposed on Wall		0	0	
20.01.1	18.7.3	25 mm nominal dia pipes	Metre	359	408.55	146669.45
20.01.2	18.7.4	32 mm nominal dia pipes	Metre	243	500.95	121730.85
20.01.3	18.7.5	40 mm nominal dia pipes	Metre	174	674.35	117336.9
20.01.4	18.7.6	50 mm nominal dia pipes	Metre	6	927	5562
21	18.8	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes having the thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamps at 1.00 m spacing. this includes jointing of pipes and fittings with one step CPVC solvent cement and the cost of cutting chases and making good the wall same including testing of joints complete as per the direction of engineer incharge		0	0	
		Concealed work including cutting chases and making good the wall etc.		0	0	
21.01.1	18.8.2	20 mm nominal dia pipes	Metre	777	513.75	399183.75
21.01.03	18.8.3	25 mm nominal dia pipes	Metre	301	626.05	188441.05
	18.8.4	32 mm nominal dia pipes	Metre	198	712.75	141124.5
				0		
22	18.1	Providing and fixing G.I. pipes complete with GI fittings and clamps including cutting and making good the walls etc. (internal work)		0		
		Internal work - Exposed on wall		0		
22.01.1	18.10.3	25 mm dia, nominal bore	Metre	0	491.2	0
22.01.2	18.10.4	32 mm dia, nominal bore	Metre	25	563.6	14090
22.01.3	18.10.5	40 mm dia, nominal bore	Metre	15	725.15	10877.25
22.01.4	18.10.6	50 mm dia, nominal bore	Metre	10	893.2	8932
18.03.5	18.12.7	65 mm dia, nominal bore	Metre	25	1007	25175
18.03.6	18.12.8	80mm nominal bore	Metre	0	1158	0
				0	0	0

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
22.01	18.38	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade		0	0	0
		Two more coat on new work	sqm	0		0
22.01.1	18.38.3	25 mm dia, nominal bore	Metre	0	25.6	0
22.01.2	18.38.4	32 mm dia, nominal bore	Metre	25	30.7	767.5
22.01.3	18.38.5	40 mm dia, nominal bore	Metre	15	36.05	540.75
						0
				0	0	0
22.02	18.17	Providing and fixing gun metal gate valve with CI wheel of approved quality (screwed ends)		0	0	0
22.02.1	18.17.1	25mm dia, nominal bore	Each	15	532.35	7985.25
22.02.2	18.17.2	32 mm dia, nominal bore	Each	5	589.9	2949.5
22.02.3	18.17.3	40 mm dia, nominal bore	Each	0	707.3	0
22.02.4	18.17.4	50 mm dia, nominal bore	Each	0	878.25	0
				0	0	
22.03	18.19	Providing and fixing gun metal non- return valve of approved quality (screwed end)		0	0	
22.03.1	18.19.3.1	25 nominal bore	Each	15	815.05	12225.75
22.03.2	18.19.4.1	32 nominal bore	Each	5	1173.65	5868.25
22.03.3	18.19.6.1	40 nominal bore	Each	0	3536.15	0
				0	0	
22.04	18.16	Providing and fixing brass stop cock of approved		0	0	
22.04.1	18.16.1	15mm nominal bore	Each	18	303.85	5469.3
22.04.2	18.16.2	20mm nominal bore	Each	38	327.95	12462.1
22.05	ELECT. DSR 2018 / 16.11	Supplying, fixing, testing and commissioning of following valves, gauges and strainers for condenser water circulation as per specifications.		0	0	
22.05.1	16.11.1	BUTTERFLY VALVE (MANUAL) with C I body SS Disc, Nitrile Rubber Seal & O- Ring PN 16 pressure rating for chilled water/hot eater circulation as		0	0	
22.05.2	16.11.1.6	65 nominal bore	Each	5	3821	19105
22.05.3	16.11.1.5	80 nominal bore	Each	6	4055	24330
22.05.4	16.11.1.4	100 nominal bore	Each	3	5412	16236
				0		
22.06	18.18	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats		0		
22.06.1	18.18.3	25 mm nominal bore	Each	20	399.15	7983
		<b>Water Supply Internal Work (Non Scheduled)</b>				
22.07	MR 16	Providing and fixing C.P.V.C. ball valve in C.P.V.C. pipe including jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. (Astral/Prince/Prakash make or equivalent)				
22.07.1		a) 15 mm dia nominal bore	Each	0	228	0
22.07.2		b) 20 mm dia nominal bore	Each	0	276.15	0
22.07.3		c) 25 mm dia nominal bore	Each	37	377.4	13963.8
	MR 17	Providing and fixing PTMT extension nipple for water tank pipe, fittings of approved quality and colour.		0		
		a) 32 mm nominal bore	Each	10	142.05	1420.5
		b) 40 mm nominal bore	Each	10	202.25	2022.5
		<b>Total of sub-head (18.0) (DSR)</b>				<b>1295045.15</b>
		<b>Total of sub-head (18.0) (Non DSR)</b>				<b>17406.8</b>
						0
23		<b>EXTERNAL SEWERAGE SYSTEM</b>				0
						0

**SCHEDULE OF QUANTITIES**

S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
23.01	2.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, by mechanical/manual means ramming of bottoms, for all depth, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus excavated soil as directed, within a lead of 50 m :				
23.01.1	2.10.1	All kinds of soils				
23.01.2	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	Metre	816	293.4	239414.4
23.02	19.1	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :		0	0	0
23.02.1	19.1.2	150 mm diameter	Metre	634	591.4	374947.6
23.02.2	19.1.4	250 mm diameter	Metre	182	1293.9	235489.8
				0		0
23.03	19.3	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design :		0		0
23.03.1	19.3.2	150 mm dia S.W pipe	Metre	317	689.75	218650.75
23.03.2	19.3.4	250 mm dia S.W pipe	Metre	91	943.9	85894.9
23.04	19.2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :		0		0
23.04.1	19.2.2	150 mm diameter S.W. pipe	Metre	317	1095.15	347162.55
23.04.2	19.2.4	250 mm diameter S.W. pipe	Metre	91	1476.35	134347.85
						0
23.05	19.7	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:1.5:3 mix (1cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominalsize), inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement andmaking channels in cement concrete 1:2:4 (1 cement : 2 coarsesand : 4 graded stone aggregate 20 mm nominal size) finished witha floating coat of neat cement complete as per				0
23.05.1	19.7.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) :				0
23.05.2	19.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	73	11687.1	853158.3
	19.7.2	Inside size 120x90 cm and 90 cm deep including C.I. Cover with frame (medium duty) 500 mm internal diameter, total weight of cover and frame to be not less than 116 kg (weight of cover 58 kg and weight of frame 58 kg) :				
	19.7.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	14	24405.9	341682.6
						0

**SCHEDULE OF QUANTITIES**

S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
23.06	19.9	Constructing brick masonry circular type manhole 0.91 m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement : 4 coarse sand), inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per				0
23.06.1	19.9.1	0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external				0
23.06.2	19.9.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	7	11886.45	83205.15
				0	0	0
23.07	19.8	Extra for depth for manhole with F.P.S. bricks		0	0	0
23.07.1	19.8.1	Size 90 X 80 cm				0
23.07.2	19.8.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	5	8127.45	40637.25
	19.8.2	Size 120x90 cm				0
	19.8.2.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre		9744.25	0
23.08	19.1	Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91 m to 1.67 m				0
23.08.1	19.10.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	10	6986.8	69868
	19.11	Constructing brick masonry circular manhole 1.22 m internal dia at bottom and 0.56 m dia at top in cement mortar 1:4 (1 cement :4coarse sand) inside cement plaster 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement foundation concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement, all complete as per standard design :				
	19.11.1	1.68 m deep with SFRC Cover and frame (heavy duty HD- 20 grade designation) 560 mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182 kg. fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12 mm thick cement plaster at the external surface shall be paid for separately) :				
	19.11.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each		22951.95	0
	19.12	Extra depth for circular type manhole 1.22 m internal dia (at bottom) beyond 1.68 m to 2.29 m :				
	19.12.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	metre		9068.35	0
				0	0	0

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
23.09	19.16	Providing orange colour safety foot rest of minimum 6 mm thick plastic encapsulated as per IS : 10910, on 12 mm dia steel bar conforming to IS : 1786, having minimum cross section as 23 mmx25 mm and over all minimum length 263 mm and width as 165 mm with minimum 112 mm space between protruded legs having 2 mm tread on top surface by ribbing or chequering besides necessary and adequate anchoring projections on tail length on 138 mm as per standard drawing and suitable to with stand the bend test and chemical resistance test as per specifications and having manufacture's permanent identification mark to be visible even after fixing, including fixing in manholes with 30x20x15 cm cement concrete block 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size) complete as per design.	each	105	487.1	51145.5
				0	0	0
23.1	19.4	Providing and fixing square-mouth S.W. gully trap class SP-I complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70kg as per standard design:		0	0	0
23.10.1	19.4.3.1	180x150 mm size P type With FPS bricks	each	56	2534	141904
						0
23.11	19.19	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and				
23.11.1	19.19.1	HD - 10				
23.11.2	19.19.1.1	Circular shape 500 mm internal diameter		6	1494.2	8965.2
				0		
23.12	19.32	Making soak pit 2.5 m diameter 3.0 metre deep with 45 x 45 cm dry brick honey comb shaft with bricks and S.W. drain pipe 100 mm diameter, 1.8 m long complete as per standard design.		0		
23.12.1	19.32.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	14	28029.15	392408.1
	19.33	Constructing soak pit 1.20x1.20x1.20 m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	Each	1	2940.2	2940.2
24.12	19.21.1	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1cement: 2 coarse sand : 4 graded stone aggregate 20mm nominal size) cement plastered on both sides with cement mortar 1:3 (1cement : 3 coarse sand) finished with a floating coat of neat cement and making necessary channels for the drain etc. complete for	each	0	683.7	0
		<b>Total of sub-head (19.0) (DSR)</b>				<b>3621822.15</b>
25		<b>External Storm Water Drainage System</b>				
25.01	2.1	Excavating trenches of required width for pipes, cables, etc including excavation for sockets, and dressing of sides, by mechanical/manual means ramming of bottoms, for all depth, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth, including consolidating each deposited layer by ramming, watering, etc. and disposing of surplus				
25.01.1	2.10.1	All kinds of soil				
25.01.2	2.10.1.2	Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia	Metre	315	293.4	92421
25.01.3	2.10.1.3	Pipes, cables etc. exceeding 300 mm dia but not exceeding 600 mm	Metre	23	458.1	10536.3

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
25.02	2.13	Excavating trenches of required width for pipes, cables, etc, including excavation for sockets, depth upto 1.5 m, including getting out the excavated materials, returning the soil as required in layers not exceeding 20 cm in depth, including consolidating each deposited layers by ramming, watering etc., stacking serviceable material for measurements and disposal of unserviceable material as directed. within a				
25.02.1	2.13.1	Ordinary rock				
25.02.2	2.13.1.2	Pipes, cables etc. exceeding 80 mm dia but not exceeding 300 mm dia	Metre	35	825.3	28885.5
25.02.3	2.13.1.3	Pipes, cables exceeding 300 mm dia but not exceeding 600 mm dia	Metre	3	949.6	2848.8
25.03	19.6	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. (for storm drainage)				
25.03.1	19.6.2	150 mm dia RCC pipe	Metre	150	493.1	73965
25.03.2	19.6.3	250 mm dia RCC pipe	Metre	100	811.15	81115
25.03.3	19.6.4	300 mm dia RCC pipe	Metre	100	902.05	90205
25.03.4	19.6.5	450 mm dia RCC pipe	Metre	25	1481.55	37038.75
25.04	19.3	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design :				
25.04.1	19.3.2	150 mm diameter S.W. pipe	Metre	75	629.3	47197.5
25.04.2	19.3.4	250 mm diameter S.W. pipe	Metre	50	861.15	43057.5
25.04.3	19.3.5	300 mm diameter S.W. pipe	Metre	100	993.65	99365
25.03.4	analysed	450 mm dia RCC pipe	Metre	25	1155	28875
25.05	19.2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design :				
25.05.1	19.2.2	150 mm diameter S.W. pipe	Metre	75	1095.15	82136.25
25.05.2	19.2.4	250 mm diameter S.W. pipe	Metre	50	1476.35	73817.5
25.06	19.27	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as		0		
25.06.1	19.27.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	79	5589.45	441566.55
25.06.2				0	0	
25.07	9.5	Providing and fixing hard drawn steel wire fabric 75x25 mm mesh of weight not less than 7.75 Kg per sqm to window frames etc. including 62x19 mm beading of second class teak wood and priming coat with approved steel primer all complete.	Sqm	28.26	1484.7	41957.622
25.08	12.41	Providing & fixing on wall face unplasticised -Rigid PVC rain water pipes conforming to IS:13592 Tyape A included jointing with seal ring conforming to IS:5382 leaving 10 mm gap for thermal expansion. (i)Single socketed pipes.		0	0	
25.08.1	12.41.2	110 mm diameter	Metre	60	319.75	19185
25.09	23.1	<b>Boring/drilling bore well</b> of required dia for casing/strainer pipe, by suitable method prescribed in IS:2800(Part I ), including collecting sample from different strata , preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer-in-charge upto 90m depth below ground level		0	0	
25.09.1	23.1.1	All types of Soil		0	0	
25.09.1.1	23.1.1.1	300 mm dia	Metre	180	592.05	106569

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
				0		
25.1	23.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC. medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer-in-charge.		0		
25.11.1	23.3.2	150mm nominal size dia	Metre	100	668.5	66850
				0		
25.11	23.4	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC. medium well screen(RMS) pipes with ribs, conforming to IS: 12818, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer-in-charge.		0		
25.12.1	23.4.2	150 mm nominal size dia	Metre	80	681.9	54552
				0		
25.12	23.5	Supplying, filling, spreading & levelling <b>stone boulders</b> of size range 5cm to 20cm, in recharge pit, in the required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	cum	4	1302.3	5209.2
				0		
25.13	23.6	Supplying, filling, spreading & levelling <b>gravel</b> of size range 5mm to 10mm, in recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-	cum	4	1309	5236
				0		
25.14	23.7	Supplying, filling, spreading & levelling <b>coarse sand</b> of size range 1.5mm to 2mm, in recharge pit, in required thickness over gravel layer, for all leads & lifts, all complete as per direction of Engineer-in-	cum	4	1309	5236
25.15	23.9	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete. all as per direction	Each	300	1213.25	363975
				0		
25.16	23.15	Providing and fixing <b>Bail plug/ Bottom plug</b> of required dia to the bottom of pipe assembly of tube well as per IS:2800 (part D).		0	0	
25.17.1	23.15.1	150 mm dia	each	6	228.25	1369.5
25.17	Derived from DSR 2019	Constructing brick masonry open surface drain with bricks of class designation 75 in cement mortar 1:4 (1 cement : 4 fine sand) including 10 cm thick bed concrete 1:5:10 (1 cement: 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and 25 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5 mm nominal size) for filling haunches including 12 mm cement plaster 1:4 (1 cement : 4 coarse sand) with a floating coat of neat cement inside the drain, its top and exposed side including disposal of surplus earth, complete as per a) 25 cm drain 30 cm average depth, With F.P.S. bricks	each	300	1452.25	435675
25.18	Derived from DSR 2019	Extra for additional depth for brick masonry open surface drain : a) 25 cm drain 30 cm depth, with common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Metre	10	368.75	3687.5
		<b>Total of sub-head (20.0) (DSR)</b>				<b>2342532.472</b>
					0	
26		<b>EXTERNAL WATER SUPPLY SYSTEM AND PUMPS</b>			0	
		<b>DISTRIBUTION NETWORK FOR FRESH WATER SUPPLY</b>			0	



SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
					0	
26.01	18.12	Providing and fixing G.I. pipes complete with G.I. fittings including ,trenching and refilling etc.			0	
		external works			0	
26.01.1	18.12.3	25mm nominal bore	Metre	175	417.95	73141.25
26.01.2	18.12.4	32mm nominal bore	Metre	292	457.7	133648.4
26.01.3	18.12.5	40mm nominal bore	Metre	315	558.35	175880.25
26.01.4	18.12.6	50mm nominal bore	Metre	138	654.2	90279.6
26.01.5	18.12.7	65mm nominal bore	Metre	123	768.6	94537.8
26.01.6	18.12.8	80mm nominal bore	Metre	95	919.1	87314.5
					0	
26.02	18.4	Painting GI pipes and fittings with two coats of anti corrosive bitumastic paint of approved quality			0	
26.02.1	18.40.3	25 mm dia, nominal bore	Metre	175	15.25	2668.75
26.02.2	18.40.4	32 mm dia, nominal bore	Metre	292	18.4	5372.8
26.02.3	18.40.5	40mm nominal bore	Metre	315	20.95	6599.25
26.02.4	18.40.6	50 mm dia, nominal bore	Metre	138	25.25	3484.5
26.02.5	18.40.7	65 mm dia, nominal bore	Metre	123	31.3	3849.9
26.02.6	18.40.8	80mm nominal bore	Metre	95	36.4	3458
					0	
26.03	18.17	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :			0	
		external works			0	
26.03.1	18.17.1	25mm nominal bore	Each	15	532.35	7985.25
26.03.2	18.17.2	32 mm dia, nominal bore	Each	5	589.9	2949.5
26.03.3	18.17.3	40mm nominal bore	Metre	5	707.3	3536.5
26.03.4	18.17.4	50mm nominal bore	Each	3	878.25	2634.75
26.03.5	18.17.5	65mm nominal bore	Each	2	1490.7	2981.4
26.03.6	18.17.6	80mm nominal bore	Each	2	2227.6	4455.2
					0	
26.04		Providing and filling sand of grading zone V or coarser grade all-round the G.I. pipes in external work.			0	
26.04.1	18.41.3	25mm dia pipe	Metre	175	164.1	28717.5
26.04.2	18.41.4	32mm dia pipe	Metre	292	168.35	49158.2
26.04.3	18.41.5	40mm dia	Metre	315	170.5	53707.5
26.04.4	18.41.6	50mm dia pipe	Metre	138	176.9	24412.2
26.04.5	18.41.7	65mm dia pipe	Metre	123	279.2	34341.6
26.04.6	18.41.8	80mm dia pipe	Metre	95	287.7	27331.5
					0	
26.05	18.59	Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately) :			0	
26.05.1	18.59.1	50 mm dia	Each	1	5171.75	5171.75
26.05.2	18.59.2	80 mm dia	Each	1	6255.45	6255.45
26.05.3	18.59.3	100 mm dia	Each		8214.1	0
					0	
26.06	18.31.1	Providing & Fixing C.I.sluiice valve(with cap) complete with bolts,nuts,rubber insertions etc.(the tail pieces if required will be paid separately)			0	
26.06.1	18.31.1.1	100 mm dia.pipe Class I	Each	1	4097.9	4097.9
					0	
26.06.2	18.32.1	Constructing masonry chamber 30x30x50 cm,inside with 75 class designation brick work in cement mortar 1:4 (1 cement:4 coarse sand) for stop cock complete with C.I. surface box 100x100x75mm (inside) with locking arrangement and RCC top slab 1:2:4 mix (1 cement : 2 corase sand: 4 graded stonr aggregate 20mm nominal size) necessary excavation foundation concret 1:5:10 (1 cement:5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortor 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard desiam	Each	2	1712.15	3424.3
					0	
					0	

SCHEDULE OF QUANTITIES						
S. No.	DSR 2019	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
26.07	18.33	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep ( inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size ) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard		0	0	
26.07.1	18.33.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	4	10102.5	40410
26.08	18.34	Constructing masonry Chamber 90x90x100 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100 mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size ) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size ) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard		0	0	
26.08.1	18.34.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	1	17577.9	17577.9
				0	0	
26.09	18.13	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc.				
26.09.1	18.13.2	50 to 80 mm nominal bore	Item	8	1513.7	12109.6
				0	0	
26.1	ELECT. DSR 2018/ 16.11.1	BUTTERFLY VALVE (MANUAL) with C I body SS disc nitrile sheet & O - ring & PN 16 pressure rating as specified.		0	0	
26.10.1	16.11.1.6	65 nominal bore	Each	2	3821	7642
26.10.2	16.11.1.5	80 nominal bore	Each	4	4055	16220
				0		
26.11	ELECT. DSR 2018 / 16.11.2	NON - RETURN VALVE with dual plate of C I body SS plates vulcanized NBR seal flanged end & PN 16 pressure rating as specified.		0		
26.11.1	16.11.2.2	150 nominal bore	Each	2	7899	15798
26.11.2	16.11.2.4	100 nominal bore	Each	2	5094	10188
26.11.3	16.11.2.5	80 nominal bore	Each	2	3477	6954
				0		
26.12	ELECT. DSR 2018 / 14.13	Providing and fixing GI pipes medium class conforming to IS 1239 with GI fittings including cutting hole chase painted with primer, two coats of		0		
26.12.1	14.13.3	100 mm dia, NB	Metre	55	1806	99330
26.12.2	14.13.4	150 mm dia, NB	Metre	25	2740	68500
					0	
		<b>Total of sub-head (21.0) (DSR)</b>				<b>1236125</b>
					0	
27		<b>Bore Well Installations (As per D.S.R)</b>			0	
					0	
27.01	23.1	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, upto 90 metre depth below ground level			0	
27.01.1	23.1.1	All types of soil			0	
27.01.2	23.1.1.1	300 mm dia	metre	100	592.05	59205
27.01.3	23.1.2	Rocky strata including Boulders		0		

**SCHEDULE OF QUANTITIES**

<b>S. No.</b>	<b>DSR 2019</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate (In Rs)</b>	<b>Amount (In Rs)</b>
27.01.4	23.1.2.1	300 mm dia	metre	30	1416.3	42489
				0		
27.02	23.3	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.	Meter			
27.02.1	23.3.3	200mm nominal dia	Meter	80	951.95	76156
27.03	23.4	Supplying, assembling, lowering and fixing in vertical position in bore well unplasticized PVC medium well screen (RMS) pipes with ribs, conforming to IS: 12818, including hire & labour charges, fittings & accessories etc. all complete, for all depths, as per direction of		0		
27.03.1	23.4.3	200 mm nominal size dia	metre	40	1099.25	43970
27.04	23.8	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge.	cum	8	1479.25	11834
				0	0	
				0	0	
27.05	23.12	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc. all as per	hour	72	916.8	66009.6
27.06	23.13	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:				
27.07.1	23.13.3	200 mm nominal size dia	Each	2	280.95	561.9
				0	0	
27.07	23.14	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.		0	0	
27.08.1	23.14.3	200 mm clamp	Each	4	1827	7308
				0	0	
27.08	23.15	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).		0	0	
27.09.1	23.15.3	200 mm dia	Each	2	308.55	617.1
		<b>Total of sub-head (22.0) (DSR)</b>				<b>308150.6</b>

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)

### Electrical Works

23	FF-DSR 2022 / Elec DSR-2022	<b>PIPING &amp; VALVES</b>				
23.01	18.7	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 :				
	18.7.1	25 mm dia.	Metre	18	744	13392
	18.7.5	65 mm dia.	Metre	60	1614	96840
	18.7.6	80 mm dia.	Metre	170	1885	320450
	18.7.7	100mm dia	Metre	45	2555	114975
23.02	18.14	Providing, installation, testing and commissioning of non-return valve of following sizes conforming to IS:5312 complete with rubber gasket, GI bolts, nuts,washers etc.as required :				
	18.14.4	80mm dia	Nos	3	7691	23073
23.03	Civil DSR- 18.17	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :				
	18.17.1	25 mm dia.	Nos	18	532.35	9582.3
23.04	18.11	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 :				
	18.11.5	100 mm dia.	Nos	6	6667	40002
23.05	18.15	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.				
	18.15.2	100mm dia	Each	3	6664	19992
23.06	MR 1	Providing and fixing 150 mm dial diameter size <b>Pressure gauge</b> (0-15 Kg/Cm2) complete with shut off valve duly calibrated before installation complete as required & as per enclosed specification.	Nos	3	682	2046
		<b>Total of sub-head (23.0) (DSR)</b>				<b>638306.3</b>
		<b>Total of sub-head (23.0) (NON DSR)</b>				<b>2046</b>
24		<b>FIRE HYDRANT ACCESSORIES</b>				
24.01	18.17	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipments on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket.				
	18.17.1	30m	Nos	18	8675	156150
		<b>Total of sub-head (24.0) (DSR)</b>				<b>156150</b>
25		<b>FIRE EXTINGUISHERS &amp; MISC. ITEMS</b>				

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
25.01	MR 2	Providing and fixing Carbon-di-oxide fire extinguishers consisting of welded M.S cylindrical body, squeeze lever discharge valve fitted with internal discharge tube, 30cms long high pressure discharge hose, discharge nozzle, suspension bracket, conforming to IS : 15683 finished externally with red enamel paint and fixed to wall with brackets with rawl plug/dash fasteners complete with internal charge. Capacity 4.5 kg. ISI Marked.( Contractor should submit test certificate form manufacturer along with serial number of every extinguishers )	Nos	2	8228	16456
25.02	MR 3	Providing and fixing (ABC Dry Chemical Powder ) type Fire Extinguisher of Capacity 6 kg Confirms to IS 15683, bearing ISI mark complete with brass forged squeeze grip type valve fitted with pressure gauge , pressurize with dry Nitrogen gas filled, with discharge nozzle with wall mounting bracket (rubber gripped) complete with internal charges. ( Contractor should submit test certificate form manufacturer along with serial number of every extinguishers supplied )	Nos	43	3261	140223
25.03	MR 4	Providing and fixing water Carbon-di-oxide (ISI marked) extinguishers including all accessories as per IS specification with wall bracket with rawl plug complete as reqd.( Contractor should submit test certificate form manufacturer along with serial number of every extinguishers supplied ) Capacity 9 Litres	Nos	2	4133	8266
<b>Total of sub-head (25.0) (Non DSR)</b>						<b>164945</b>
26	<b>FIRE PUMPS &amp; ACCESSORIES</b>					
26.01	18.4	Supplying, installation, testing and commissioning of electric driven terrace pump suitable for automatic operation and consisting of following, complete in all respects, as required: (Terrace Pump)				
		(a) Horizontal type, multistage, centrifugal, split casing pump of cast iron body & bronze impeller with stainless steel shaft, mechanical conforming to IS : 1520				
		b) Suitable HP squirrel cage induction motor TEFC type suitable for operation on 415 volts, 3 phase, 50 Hz, AC supply with IP55 class of 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 and with anti vibration pads.				
	18.4.2	<b>450 lpm at 35 m Head</b>	Set	3	86203	258609
26.02	MR 5	Providing and fixing rubber expansion joint (to provide relief from stresses at pipe flanges) as per specification of the manufacturers and direction of Engineer in chief PN-16 rating				
		(a) 100 mm dia	Nos	3	560	1680
26.03	18.2	Supplying and fixing air vessel made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved	Nos	3	18244	54732

**SCHEDULE OF QUANTITIES**

S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
26.04	MR 6	"Providing, fixing, testing and commissioning of control panel for Terrace Booster pumps. Incoming: MCCB 35A 1 set of Phase indicating lamps, 1 set of 35A Al bus bars, 1No Ammeter, 1No Voltmeter with phase selector switch Feeder for Booster Pumps - 1 No. 1 No. 32A TP MCCB without releases. DOL starter with over load relay, single phase preventor and indicating lamps with ON/OFF push buttons. 1 No. Automanual selector switch. Suitable for booster pumps"	Nos	3	36724	110172
		<b>Total of sub-head (26.0) (DSR)</b>				<b>313341</b>
		<b>Total of sub-head (26.0) (Non DSR)</b>				<b>111852</b>
		<b>Electrical Works Internal</b>				
27		<b>Internal Wiring</b>				
		<b>Point wiring in PVC conduit, with modular type switch :-</b>				
27.01	1.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated <del>conner conductor single core cable etc. as required</del>				
	1.10.1	Group A	Point	1089	1015	1105335
	1.10.2	Group B	Point	78	1182	92196
	1.10.3	Group C	Point	413	1467	605871
27.02	1.55	Wiring for group controlled (looped) light point/ fan point/ exhaust fan point/ call bell point (without independent switch etc) with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed PVC conduit, and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc as required. <b>(Note: To be provided in class rooms in school bldg./ common areas/ toilets/ corridors etc.)</b>				
	1.55.1	Group A	Point	221	649	143429
	1.55.2	Group B	Point	6	753	4518
	1.55.3	Group C	Point	207	858	177606
27.03	1.11	Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required	Point	40	1562	62480
		<b>Power plug wiring in PVC conduit (2 x 4 Sq.Mm.) :-</b>				
27.04	1.12	Wiring for light/ power plug with 2X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit alongwith 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	Metre	4420	334	1476280
		<b>Circuit / Sub main wiring in PVC conduit :-</b>				
27.05	1.14	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
	1.14.1	2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire.	Metre	4643	233	1081819
	1.14.2	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire.	Metre	4647	275	1277925
	1.14.4	2 x 6 sq.mm. + 1 x 6 sq.mm. Earth wire	Metre	1140	439	500460
	1.14.5	2 x 10 sq.mm. + 1 x 6 sq.mm. Earth wire	Metre	1330	570	758100
	1.14.10	4 x 10 sq.mm. + 2 x 6 sq.mm. Earth wire	Metre	1295	1005	1301475
	1.14.11	4 x 16 sq.mm. + 2 x 6 sq.mm. Earth wire	Metre	25	1365	34125

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		<b>S/F light plug point Modular Type Accessories :-</b>				
27.06	1.31	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	Each	931	477	444087
		<b>S/F power plug point modular Type Accessories :-</b>				
27.07	1.32	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	Each	377	586	220922
27.08	2.18	Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top along with 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required	Each	31	1621	50251
27.09	1.38	Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as require	Each	33	99	3267
27.1	MR	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 nos. of 3 pin 5/6 A modular socket outlet and 2 nos. of 5/6 A modular switch, connections etc. as required.		45	763	34335
		<b>Total of sub-head (27.0) (DSR)</b>				<b>9340146</b>
		<b>Total of sub-head (27.0) (NON DSR)</b>				<b>34335</b>
28		<b>Distribution Boards &amp; MCB'S</b>				
28.01	2.1	Supplying and fixing <b>5 A to 32 A rating, 240/415 V, 10 kA, "C" curve</b> , miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as Required.				
	2.10.1	Single pole	Each	1212	256	310272
	2.10.5	Triple pole and neutral	Each	10	1228	12280
28.02	2.11	Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required.	Each	148	13	1924
28.03	2.4	Supplying and Fixing Following way, Horizontal Type <b>Three Pole and Neutral, Sheet Steel, MCB Distribution Board, 415 V</b> , on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
	2.4.2	6 Way (4 + 18), Double Door	Each	7	4974	34818
	2.4.3	8 Way (4 + 24), Double Door	Each	30	5967	179010
28.04	2.3	Supplying and fixing following way, <b>Single Pole and Neutral</b> , sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator).				
	2.3.1	6 Way Double door.	Each	5	2206	11030
	2.3.2	8 Way Double door.	Each	4	2573	10292
	2.3.3	12 Way Double door.	Each	32	2315	74080
		<b>S/F DP MCB Isolator</b>				
28.05	2.12	Supplying and fixing following Rating, Double pole, 240 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as Required.				
	2.12.1	40 Amps	Each	15	435	6525
	2.14.3	63 Amps	Each	26	527	13702

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		<b>S/F 4P MCB Isolator</b>				
28.06	2.13	Supplying and fixing following rating, four pole, 415 V, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as Required.				
	2.13.2	63 Amps	Each	29	1034	29986
	2.13.3	100 Amps	Each	7	1227	8589
		<b>S/F DP (RCCB)</b>				
28.07	2.14	Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as Required.				
	2.14.2	40 Amps	Each	18	2642	47556
	2.14.3	63 Amps	Each	26	2722	70772
28.08	2.15	Supplying and fixing following rating, Four pole, (Three phase and neutral), 415 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
	2.15.2	40 Amps		1	3188	3188
	2.15.3	63 Amps	Each	19	2872	54568
28.09	2.5	Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) <b>(It may be used as emergency DB )</b>	Each			
	2.5.1	4 way (4 + 12), Double door		5	7512	37560
28.1	2.23	Supplying and fixing Cable End Box (Loose Wire Box) suitable for following single pole and neutral, sheet steel, MCB distribution board, 240 Volts, on surface/ recess, complete with testing and commissioning etc. as required.	Each			
	2.23.1	For 6 way, Double door SPN MCBDB	Each	5	752	3760
	2.23.2	For 8 way, Double door SPN MCBDB	Each	4	832	3328
	2.23.3	For 14 way, Double door SPN MCBDB	Each	32	902	28864
28.11	2.24	Supplying and fixing Cable End Box (Loose Wire Box) suitable for following tripole pole and neutral, sheet steel, MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc. as required.				
	2.24.1	For 4 way, Double door TPN MCBDB	Each	3	1080	3240
	2.24.2	For 6 way, Double door TPN MCBDB	Each	7	1124	7868
	2.24.3	For 8 way, Double door TPN MCBDB	Each	30	1340	40200
28.12	MR	Supplying and fixing following rating, Single/ double/ three pole, 230/ 415 volts, MCB "C" curve in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
		63 amps FP MCB	Each	37	1475	54575
		<b>NOTE : ONE DB MUST BE USED FOR EMERGENCY SUPPLY ON EACH FLOOR</b>				
		<b>Total of sub-head (28.0) (DSR)</b>				<b>993412</b>
		<b>Total of sub-head (28.0) (Non-DSR)</b>				<b>54575</b>
29		<b>Telephone, Television &amp; Data System (Socket,Wiring &amp; Conduiting Only)</b>				
		S/F Modular Boxes, Base & Cover Plate :-				



SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
29.01	1.27	Supplying and Fixing Following Size/ Modules, GI Box Alongwith Modular Base & Cover Plate for Modular Switches in Recess etc.as Required.				
	1.27.1	1 or 2 Module (75 mm x 75 mm)	Each	182	298	54236
	1.27.2	3 Module (100mmX75mm)	Each	45	327	14715
		S/F Modular Type Switch / Socket :-				
29.02	1.24	Supplying and Fixing Following Modular Switch/ Socket on The Existing Modular plate & Switch Box including connections But Excluding Modular Plate etc. as required.				
	1.24.6	Telephone Socket outlet.	Each	61	148	9028
	1.24.7	TV Antenna socket outlet.	Each	42	148	6216
	1.24.8	Bell push	Each	6	140	840
29.03	1.21	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
	1.21.1	20 mm.	Metre	3265	128	417920
	1.21.2	25 mm.	Metre	480	145	69600
29.04	1.18	Supplying and drawing following pair 0.5 mm dia FRLS PVC insulated annealed copper conductor, Unarmored Telephone cable in the existing surface/ recessed steel/ PVC conduit as				
	1.18.2	2 Pair	Metre	1355	38	51490
29.05	1.19	Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface/ recessed steel/ PVC conduit as required.	Metre	700	47	32900
29.06	1.53	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.				
	1.53.1	1 run of cable	Metre	2200	57	125400
29.07	MR 1	SITC Modular Type Computer jack <b>RJ 45</b> ISI mark 1 Module on existing Mounting plate and box Complete.	Each	88	200	17600
		<b>Total of sub-head (29.0) (DSR)</b>				<b>782345</b>
		<b>Total of sub-head (29.0) (Non DSR)</b>				<b>17600</b>
30		<b>Internal Lighting Fixtures &amp; Fans</b>				
30.01	MR 2	Supply of 20 Watt LED light Wall Mounted BRACKET light fitting Sutable for 220 volts Single Phase A C Supply complete with all accessories as required.	Each	1	963	963
30.02	MR 3	Supply of Surface Mounted Energy Efficient, LED Luminaires 12W LED DOWN LIGHT (Round) Sutable for 220v Single Phase Supply complete with driver circuit including making connections etc.as required. (Technical Data - System power 12W, CRI ≥80, Power Factor ≥0.95, System Luminous Efficacy >94)	Each	60	896	53760
30.03	MR 4	Supply of Surface Mounted Energy Efficient, LED Luminaires 15W LED DOWN LIGHT (Round) Sutable for 220v Single Phase Supply complete with driver circuit including making connections etc.as required. (Technical Data - System power 15W, CRI ≥80, Power Factor ≥0.95, System Luminous Efficacy >94)	Each	35	960	33600
30.04	MR 5	Supplying of brass batten/ angle holder including 20 w LED Lamp, connection etc. as required.	Each	451	320	144320

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
30.04	MR 5	Supply, of Linear & Compact 10W Mirror Light with Decorative Grey Caps, Polycarbonate Body & Ribbed Opal Diffuser. (Technical Data - System power 10W, CRI ≥80, Power Factor >0.95, System Luminous Efficacy >100)	Each	1	330	330
30.05	MR 6	Supply of LED Luminaires BATTEN 40W LED Tube Light of Box Type prewired Indoor Luminaire with Energy Efficient Electronic Ballast, with End Caps Complete as Required. (Technical Data - System power 40W, CRI ≥80, Power Factor >0.95, System Luminous Efficacy >95)	Each	170	1089	185130
30.06	MR 7	Supply of LED Luminaires BATTEN 20W LED Tube Light of Box Type Prewired Indoor Luminaire with Energy Efficient Electronic Ballast, with End Caps Complete as Required. (Technical Data - System power 20W, CRI ≥80, Power Factor >0.95, System Luminous Efficacy >100)	Each	719	459	330021
30.07	MR 8	Supplying and fixing of Bulk Head with 10 Watt LED lamp fitting Suitable for 230 volts Single Phase A C Supply complete with all accessories as required.		27	1203	32481
		<b>SUPPLY FANS &amp; EXHAUST FANS</b>				
30.08	MR 8	Supply, of following size sweep, BEE 5 star rated, white colour ceiling fan with all accessories i.e. 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, safety pin, nut bolts, washers, , suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required. (a) 1200 mm Sweep	Each	449	2151	965799
30.09	MR9	Supply of following sweep heavy duty metal body exhaust fan/wall fan/ fresh air ( ventilating ) plastic body fan with guard suitable operation on single phase 230 V, 50Hz. AC Supply, with lowers / shutters in the existing opening. (Crompton - Trans Air 300/200mm/Approved Equivalent in (a) 200 mm sweep 900 RPM ( in plastic body) Ventilating fan (b) 300 mm sweep 900 RPM ( in plastic body) Ventilating fan (c) 300 mm sweep 900 RPM ( In metal body) exhaust fan (d) 450 mm sweep 900 RPM ( In metal body) exhaust fan (e) 400 mm sweep oscillating type four speed wall mounting fan	Nos	19	1252	23788
			Nos	52	1870	97240
			Nos	9	2902	26118
			Nos	10	4576	45760
			Nos	3	2470	7410
		<b>Erection Of Lighting Fixtures And Fans</b>				
30.1	1.41	Installation, testing and commissioning of pre-wired, fluorescent fitting / compact fluorescent fitting of all types, complete with all accessories and tube/lamp etc. directly on ceiling/ wall, including connections with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable and	Each	986	206	203116
30.11	1.45	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the Fan Box etc. as Required.	Each	449	339	152211
30.12		Installation of Exhaust/wall fan in the existing opening, including making good the damage, Connection, Testing, Commissioning etc. as Required.				
	1.50.1	Upto 450 mm sweep	Each	93	450	41850
		S/F modular type electronic fan regulator:				
30.13	1.25	Supplying and fixing Two Module Stepped Type Electronic Fan Regulator on the existing modular plate switch box including connections but excluding modular plate etc. as	Each	449	369	165681
		Fixing Louvers / Shutters for Exhaust Fan:				

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
30.14	1.51	Extra for Fixing the Louvers/ Shutters Complete with Frame for a Exhaust Fan of all sizes.	Each	47	207	9729
		Extra Down GI Pipe 15mm Dia:				
30.15	1.47	Supplying and Fixing Extra Down Rod of 10 cm Length G.I. pipe, 15 mm dia, heavy gauge including painting etc. as required. (Note : More than 5 cm length shall be rounded to the nearest 10 cm and 5 cm or less shall be ignored).	Each	449	46	20654
		<b>Total of sub-head (30.0) (Non DSR)</b>				<b>1946720</b>
		<b>Total of sub-head (30.0) (DSR)</b>				<b>593241</b>
		<b>Electrical Works External</b>				
<b>31</b>		<b>Transformer and HT Panel</b>				
31.01	MR 1	<b>11KV HT VCB PANEL - IN DOOR TYPE</b>				
		Supplying, installation, testing and commissioning of IN DOOR Type, floor mounting, 11KV HT panel unit made out of M.S sheet steel clad dust and vermin proof with necessary control fuses/MCBs, Termination arrangements for Incoming and Outgoing Cable of 3Cx120 Sq.mm ALHT XLPE cable, and earthed cable, Terminal Blocks, Earthing, Powder coated painting, Sign writing and Base channels etc. with complete all accessories as required as per Requirements comprising of the				
		INCOMING :				
		i) 630Amps, 11kV, 3 phase 50Hz, 21KA / 3Sec, Draw-out type Vacuum Circuit Breaker. fitted with 230V AC spring charging motor, 110V DC tripping and closing coils, 8NO+8NC Aux. conductor mechanical on off indicator, spring charging / discharge Indication, automatic safety shutter and with anti-rumpling feature with necessary required accessories				
		ii) 3 phase 11 KV/110 Volts PT, class 1 accuracy and 100 VA burden with 1 No Voltmeter (0-15 kV), Digital type, selector switch for voltmeter and protection fuses for HT metering upto 12 kV on incomer.				
		iii) Dual core dual ratio 3 CTs 400/200/5+5A of 15 VA burden and accuracy class 1.0 for metering and class 5P10 for				
		iv) (0-400 A) Ammeter, digital type with selector switch for Ammeter.				
		v) Digital Multifunction Meter.				
		vi) Microprocessor based numerical relay for Over current and Earth fault protection with directional control.				
		vii) Phase indicating lamps with HRC fuses.				
		viii) Indicating lamps to indicate, RYB, ON, OFF, OPEN, CLOSE, TRIP, SPRING CHARGED, TRIP CIRCUIT HEALTHY				
		ix) Test terminal block				
		x) Trip/Neutral/close switch				
		xi) Copper bus bar for earthing (common)				
		xii) master trip relay & trip circuit healthy supervision relay.				
		BusBar: 630 Amps, 11kV, 50Hz, 3Phase, 25 KA / 3Sec. Copper busbars.				
		The 11KV HT VCB PANEL shall be complete with as per SLD and specifications.	set	1	473557	473557
31.02	MR 2	11KV TRANSFORMER (11 KV /0.433 KV) (250 KVA)				

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		Supplying, installation, testing and commissioning of 250 kVA, (Energy efficiency Level -2) 11kV / 433 Volts, 3 phase, 50Hz,vector group Dyn11 (delta -star connected), Indoor 'ONAN' type, copper wound transformer with OFF load tap changing arrangement on HV side in steps of +/- 2.5%, +/- 5% & +/- 7.5%, on H.V. side with HT cable chamber suitable for Heat shrinkable joint with XLPE cable (cable entry from bottom) and LT connection chamber suitable for connecting Bus duct arrangement and equipped with other essential accessories including providing complete with all fittings, accessories etc. and lifting lugs i/c first filling of filtered dehydrated oil, supplying grouting suitable MS Channel on the plinth for placing the transformer etc., complete and confirming to IS 1180 (Part-1): 2014, level - 2 & section 3 of CPWD	set	1	760449	760449
		(PLEASE NOTE THE TRASNFOREMR SHALL BE IN COMPLINACE WITH NEW REGUALTION IS 1180 or Equivalent IEC Standard FOR LOSSES AND EFFICIENCY and ammended upto date)				
		<b>Total of sub-head (31.0) (Non DSR)</b>				<b>1234006</b>
<b>32</b>		<b>Panels</b>				
32.01	MR3	<b>EM. SUPPLY PANEL</b>				
		Supply , installation, testing, Design, manufacture, supply inspection, handling, assembling, affecting proper connections, testing and commissioning of 1.6/2mm CRCA sheet steel fabricated cubical type Main L.T. Panel floor mounting Extensible Type, dust & vermin proof, front operated construction, enclosure class - IP 42, As per IEC 60439 after proper treatment with 9 tank process with top/bottom removable gland plates, as required, double compression type cable glands, earth bus, hinged and lockable doors to achieve dust and vermin proof complete with all inter connections small wiring by min. 1.5-2.5 sq. mm. FR copper wires, ckt labels etc. The panel feeders shall be suitable for terminating				
		<b>INCOMING:</b>				
		1 nos. 100A 415V, 4P MCCB of 25kA with thermal magnetic release, overload, short circuit and Earth fault protection.				
		1 no. 100A 17KA rating Automatic Transfer Switch (ATS) must comply with IEC60947-6-1 standards.				
		1 no. Digital type Multifunction Meters to show (V, A, kWh, KVAh, KW, KVA, KVAR, PF, Hz.) with cast resin CTs.				
		1 Set of phase indicating lamps with MCB protection.				
		<b>OUTGOING</b>				
		1 nos. 100A 415V, TP MCCB of25 KA with O/L and S/C protection.( For pump set)				
		6 nos. 63A 4P MCB (For Toilets, commaon areas of School bldg., Both hostels, Kitchen & dining)				
		2 nos. 63A , 4P MCB only Space.				
		2 nos. 40A 415V, 4P MCB of 10kA with 40A 4P Contactor & timer switch .				
		2 nos. 25A 415V, 4P MCB (SPARE)	Each	1	174429	174429
32.02	MR 4	<b>Main LT PANEL</b>				
		<b>NOTE:- MCCB's wherever specified upto 250A shall be Thermal Magnetic &amp; Above 250A will be Microprocessor based inbuilt protections.</b>				

**SCHEDULE OF QUANTITIES**

<b>S. No.</b>	<b>FF-DSR 2022 / Elec DSR-2022</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate (In Rs)</b>	<b>Amount (In Rs)</b>
		Supply , installation, testing, Design, manufacture, supply inspection, handling, assembling, affecting proper connections, testing and commissioning of 1.6/2mm CRCA sheet steel fabricated cubical type Main L.T. Panel floor mounting Extensible Type, dust & vermin proof, front operated construction, enclosure class - IP 42, As per IEC 60439 after proper treatment with 9 tank process with top/bottom removable gland plates, as required, double compression type cable glands, earth bus, hinged and lockable doors to achieve dust and vermin proof complete with all inter connections small wiring by min. 1.5-2.5 sq. mm. FR copper wires, ckt labels etc. The panel feeders shall be suitable for terminating with 2.5/4 core enamelled aluminium cable as required				
		All MCCB's shall be Ics = 100% Icu, with rotary handle & pad locking arrangement. All TP MCCB shall be with heavy duty solid isolable neutral link.				
		The breaking capacity specified for all MCCB's breakers is Ics value (service rating).				
		Each Incoming (ACB/MCCB) shall have ON/OFF/Trip/ LED indication on panel Front door.				
		The incoming MCCB shall be Microprocessor based with inbuilt O/L & S/C release with E/F protection and all Outgoings MCCB's shall be thermal-magnetic based with				
		<b>Incoming From TRANSFORMER (250 KVA) - 1 NOS.</b>				
		<b>Incomer : 1 Nos 400A TP MCCB 36KA with Thermal Magnetic Release</b>				
		1 No. Digital Ammeter				
		1 No. Digital Voltmeter				
		1 set of 3 CT's of ratio 400/5A, Class 1.0 accuracy 15 VA burden for Metering.				
		1 set of 3 CT's of ratio 400/5A, Class 1.0 accuracy 15 VA burden for APFCR.				
		3 Nos. LED Type phase indicating lamps, each lamp shall be with backup MCB				
		3 Nos. LED Type Indicating lamp for indicating the status of feeder - ON / OFF / TRIP. Each lamp shall be with backup 6A SP 10KA MCB				
		<b>Incoming From Supply Source-2 - 1 Nos 400A TP MCCB 36KA with Thermal Magnetic Release (Phase II) - for future Feeder</b>				
		<b>BUS COUPLER : 1 Nos 400A TP MCCB 36KA . It should be positioned in such manner so that all emergency loads and normal loads are separated by separate bus bar chamber in the panel</b>				
		<b>Interlocking : Electrical as well as Mechanical Interlocking between incomers and bus coupler as per requirement</b>				
		<b>BUS BAR</b>				
		TPN Aluminium Bus Bars of Minimum 500 Amp with Heat shrinkable coloured sleeves , Shrouds at Joints and including DMC/SMC bus bars supports at required interval complete for cross section, side supports and their spacing etc.				
		<b>OUT GOING</b>				
		21 Nos. Outgoing Feeders :-				
		1 Nos. 250A, TP 25KA MCCB (CAPACITOR PANEL)				
		1 Nos. 250A, FP 25KA MCCB (TYPE II METER BOARD PANEL)				
		1 Nos. 200A, FP 25KA MCCB (TYPE III METER BOARD PANEL - BLOCK 1)				
		1 Nos. 160A, FP 25KA MCCB (TYPE III METER BOARD PANEL - BLOCK 2)				

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		1 No 160 AMP 4P 25KA MCCB (SCHOOL BUILDING PANEL)				
		1 No 160 AMP 4P 18KA MCCB (Girls Hostel-II)				
		1 No 160 AMP 4P 25KA MCCB (FIRE FIGHTING)				
		1 No 100 AMP 4P 18KA MCCB (Pump Room Panel)				
		1 No 100 AMP 4P 18KA MCCB (EXTERNAL LIGHTING - 1)				
		1 No 100 AMP 4P 18KA MCCB (EXTERNAL LIGHTING - 2)				
		1 No 63 AMP 4P 10KA MCCB (Spare)				
		1 Nos. 160A, FP 18KA MCCB (BOYS HOSTEL-I & WARDEN BLOCK PANEL)				
		1 Nos. 160A, FP 18KA MCCB (GIRLS HOSTEL-I & WARDEN BLOCK PANEL)				
		1 Nos. 100A, FP 18KA MCCB (PRINCIPAL QUARTER PANEL)				
		1 Nos. 200, FP 25KA MCCB (To Emergency MV Panel)				
		1 Nos. 160, FP 25KA MCCB (Boys Hostel-II)				
		3 No 63 AMP 4P 10KA MCCB (Spare)				
		Spare space for MCCB - 02 Nos.				
		Spare space for MCCB - 02 Nos.				
		<b>Complete Panel as Above and complete</b>	set	1	475713	475713
32.03	MR 5	<b>AUTOMATIC POWER FACTOR CORRECTION PANEL (CAPACITOR PANEL) - 90 KVAR</b>				
		Supplying, Installation, Testing and Commissioning of cubicle type capacitor panel suitable for 415 & 3 phase 50 HZ A.C. supply System fabricated in design from CRCA Sheet Steel of 2 mm thick for frame work and cover, 3 mm thick for gland plates i/c powder coating in approve shade having 200 AMP capacity TPN Aluminium bus bar DMC/SMC bus bar support entire pannel should have common Al. earth bar for size 50 mm x 5 mm i/c Providing & fixing following switch gear mounting there on fans.grills for propor ventillation complete with gaskets & inner connection i/c connection with existing CTS in the main CT Panel complete as reqd. The panel board shall be <del>of dust and waterproof with degree of protection IP 42)</del>				
		a) 250 Amps TP MCCB with Thermal Magnetic Based release (Ics=100% Icu) - 1 No.				
		b) 250A, 4 strip Tinned Aluminium busbar -1 Set				
		c) Micro processor based automatic Power factor control relay i/c power factor metre in 8 steps				
		d) Multi functional meters with suitable CTS and protection MCBS 1 set.				
		e) 3 Nos. Phase indicating light (lamp) with MCBs protection.				
		<b>OUTGOINGS -</b>				
		2 Set - 63A Amp TP MCB 10 KA and Capacitor duly switching contactor for 20 KVAR capacity auto manual selector switch start/stop puch button on/off indicatting lamp with protection MCB & delay timer complete i/c 20 KVAR Normal Duty 440V capacitor bank with inter Connection				
		4 Set -32 Amp TP MCB 10 KA and Capacitor duly switching contactor for 10 KVAR capacity auto manual selector switch start/stop puch button on/off indicatting lamp with protection MCB & delay timer complete i/c 10 KVAR Normal Duty 440V capacitor bank with inter Connection				
		2 Set - 16 Amp TP MCB 10 KA and Capacitor duly switching contactor for 5 KVAR capacity auto manual selector switch start/stop puch button on/off indicatting lamp with protection MCB & delay timer complete i/c 5 KVAR Normal Duty 440V capacitor bank with inter Connection				
		<b>Capacitor panel should switch OFF when DG starts.</b>				
		<b>Control wiring should be done for it.</b>				
		<b>complete panel as above and complete</b>	set	1	174240	174240

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
32.04	MR 6	<b>SCHOOL BUILDING MAIN DISTRIBUTION PANEL</b>				
		Design, manufacture, supply, installation, testing and commissioning of cubicle type panel fabricated out of CRCA sheet steel, floor mounted totally enclosed switchboard suitable for use of 415 volts, 3 phase, 50 HZ complete with aluminium bus bar and all accessories including supply and fixing of following incoming and outgoing switchgears, Panel Should Have Double Earthing Provision which connected to the nearest earth grid.				
		NOTE:- MCCB's wherever specified upto 250A shall be Thermal Magnetic & Above 250A will be Microprocessor based inbuilt protections.				
		<b>INCOMER : 160 AMP FP MCCB</b>				
		3 Nos. Phase Indication light (lamp) with MCBs protection.				
		Multi functional meters (VAF) with suitable CTS and protection MCBS 1 set.				
		<b>BUS BAR : 200 AMP, 500 Volts, 3 phase 50 HZ 4P high conductivity electrolytic Aluminium bus bar of suitable length, insulated by heat shrinkable sleeves. The current density of bus bar shall be minimum 0.6 sq mm / amp.</b>				
		The Maximum allowable temperature for the Bus bar to be restricted to 90 deg C. The temperature rise should be restricted to 45 deg C above ambient temperature.				
		<b>OUT GOINGS :</b>				
		1 No 63 AMP FP MCCB (UPS PANEL)				
		1 No 63 AMP FP MCCB (GROUND FLOOR LIGHT + POWER DB 1)				
		1 No 63 AMP FP MCCB(GROUND FLOOR LIGHT + POWER DB 2)				
		1 No 63 AMP FP MCCB (GROUND FLOOR LIGHT + POWER DB 3)				
		1 No 63 AMP FP MCCB (GROUND FLOOR LIGHT + POWER DB 4)				
		1 No 63 AMP FP MCCB (FIRST FLOOR LIGHT + POWER DB 1)				
		1 No 63 AMP FP MCCB(FIRST FLOOR LIGHT + POWER DB 2)				
		1 No 63 AMP FP MCCB (FIRST FLOOR LIGHT + POWER DB 3)				
		1 No 63 AMP FP MCCB (FIRST FLOOR LIGHT + POWER DB 4)				
		1 No 63 AMP FP MCCB (SECOND FLOOR LIGHT + POWER DB 1)				
		1 No 63 AMP FP MCCB (SECOND FLOOR LIGHT + POWER DB 2)				
		1 No 63 AMP FP MCCB (SECOND FLOOR LIGHT + POWER DB 3)				
		1 No 63 AMP FP MCCB (SECOND FLOOR LIGHT + POWER DB 4)				
		1 No 63 AMP FP MCCB ( SPARE)				
		<b>complete panel as above and complete</b>	set	1	74665	74665
32.05	MR 7	<b>UPS PANEL</b>				
		Design, manufacture, supply, installation, testing and commissioning of cubicle type panel fabricated out of CRCA sheet steel, floor mounted totally enclosed switchboard suitable for use of 415 volts, 3 phase, 50 HZ complete with aluminium bus bar and all accessories including supply and fixing of following incoming and outgoing switchgears, Panel Should Have Double Earthing Provision which connected to the nearest earth grid.				

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		<b>INCOMER : 1 No 63 AMP FP MCCB (Thru Bypass Switch 10 KVA UPS)</b>				
		<b>BUS BAR : 100 AMP, 500 Volts, 3 phase 50 HZ FP high conductivity electrolytic Aluminium bus bar of suitable length, insulated by heat shrinkable sleeves. The current density of bus bar shall be minimum 06 sq mm / amp.</b>				
		The Maximum allowable temperature for the Bus bar to be restricted to 90 deg C. The temperature rise should be restricted to 45 deg C above ambient temperature.				
		<b>OUT GOINGS :</b>				
		1 No 63 AMP DP MCB (GROUND FLOOR UPS DB 1)				
		1 No 40 AMP DP MCB (GROUND FLOOR UPS DB 2)				
		1 No 40 AMP DP MCB (FIRST FLOOR UPS DB 1)				
		1 No 40 AMP DP MCB (FIRST FLOOR UPS DB 2)				
		3 No 40 AMP DP MCB (SPARE)				
		<b>complete panel as above and complete</b>	set	1	53521	53521
32.06	MR 8	<b>BOYS HOSTEL MAIN DISTRIBUTION BOARD</b>				
		Design, manufacture, supply, installation, testing and commissioning of cubicle type panel fabricated out of CRCA sheet steel, floor mounted totally enclosed switchboard suitable for use of 415 volts, 3 phase, 50 HZ complete with aluminium bus bar and all accessories including supply and fixing of following incoming and outgoing switchgears, Panel Should Have Double Earthing Provision which connected to the nearest earth grid.				
		NOTE:- MCCB's wherever specified upto 250A shall be Thermal Magnetic & Above 250A will be Microprocessor based inbuilt protections.				
		<b>INCOMER : 160 AMP FP MCCB</b>				
		3 Nos. Phase Indication light (lamp) with MCBs protection.				
		Multi functional meters (VAF) with suitable CTS and protection MCBS 1 set.				
		<b>BUS BAR : 200 AMP, 500 Volts, 3 phase 50 HZ FP high conductivity electrolytic Aluminium bus bar of suitable length, insulated by heat shrinkable sleeves. The current density of bus bar shall be minimum 0.6 sq mm / amp.</b>				
		The Maximum allowable temperature for the Bus bar to be restricted to 90 deg C. The temperature rise should be restricted to 45 deg C above ambient temperature.				
		<b>OUT GOINGS :</b>				
		1 No 63 AMP FP MCCB (GROUND FLOOR LIGHT + POWER DB 1)				
		1 No 63 AMP FP MCCB (GROUND FLOOR LIGHT + POWER DB 2)				
		1 No 63 AMP FP MCCB (GROUND FLOOR LIGHT + POWER DB 3)				
		1 No 63 AMP FP MCCB (FIRST FLOOR LIGHT + POWER DB 1)				
		1 No 63 AMP FP MCCB (FIRST FLOOR LIGHT + POWER DB 2)				
		1 No 63 AMP FP MCCB (FIRST FLOOR LIGHT + POWER DB 3)				
		1 No 63 AMP FP MCCB (SECOND FLOOR LIGHT + POWER DB 1)				
		1 No 63 AMP FP MCCB (SECOND FLOOR LIGHT + POWER DB 2)				
		1 No 63 AMP FP MCCB (SECOND FLOOR LIGHT + POWER DB 3)				
		1 No 63 AMP FP MCCB (WARDEN BLOCK 1 DB)				
		2 No 63 AMP FP MCCB SPARE				
		<b>complete panel as above and complete</b>	set	1	72682	72682



SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
32.07	MR 9	<b>GIRLS HOSTEL MAIN DISTRIBUTION BOARD</b>				
		Design, manufacture, supply, installation, testing and commissioning of cubicle type panel fabricated out of CRCA sheet steel, floor mounted totally enclosed switchboard suitable for use of 415 volts, 3 phase, 50 HZ complete with aluminium bus bar and all accessories including supply and fixing of following incoming and outgoing switchgears, Panel Should Have Double Earthing Provision which connected to the nearest earth grid.				
		NOTE:- MCCB's wherever specified upto 250A shall be Thermal Magnetic & Above 250A will be Microprocessor based inbuilt protections.				
		<b>INCOMER : 160 AMP FP MCCB</b>				
		3 Nos. Phase Indication light (lamp) with MCBs protection.				
		Multi functional meters (VAF) with suitable CTS and protection MCBS 1 set.				
		<b>BUS BAR : 200 AMP, 500 Volts, 3 phase 50 HZ FP high conductivity electrolytic Aluminium bus bar of suitable length, insulated by heat shrinkable sleeves. The current density of bus bar shall be minimum 0.6 sq mm / amp.</b>				
		The Maximum allowable temperature for the Bus bar to be restricted to 90 deg C. The temperature rise should be restricted to 45 deg C above ambient temperature.				
		<b>OUT GOINGS :</b>				
		1 No 63 AMP FP MCCB (GROUND FLOOR LIGHT + POWER DB 1)				
		1 No 63 AMP FP MCCB (GROUND FLOOR LIGHT + POWER DB 2)				
		1 No 63 AMP FP MCCB (GROUND FLOOR LIGHT + POWER DB 3)				
		1 No 63 AMP FP MCCB (FIRST FLOOR LIGHT + POWER DB 1)				
		1 No 63 AMP FP MCCB (FIRST FLOOR LIGHT + POWER DB 2)				
		1 No 63 AMP FP MCCB (FIRST FLOOR LIGHT + POWER DB 3)				
		1 No 63 AMP FP MCCB (SECOND FLOOR LIGHT + POWER DB 1)				
		1 No 63 AMP FP MCCB (SECOND FLOOR LIGHT + POWER DB 2)				
		1 No 63 AMP FP MCCB (SECOND FLOOR LIGHT + POWER DB 3)				
		1 No 63 AMP FP MCCB (WARDEN BLOCK 1 DB)				
		2 No 63 AMP FP MCCB SPARE	set	1	72682	72682
		<b>complete panel as above and complete</b>				
32.08	MR 10	<b>TYPE -II &amp; III STAFF QTRS. DISTRIBUTION BOARD</b>				
		Design, manufacture, supply, installation, testing and commissioning of cubicle type panel fabricated out of CRCA sheet steel, floor mounted totally enclosed switchboard suitable for use of 415 volts, 3 phase, 50 HZ complete with aluminium bus bar and all accessories including supply and fixing of following incoming and outgoing switchgears, Panel Should Have Double Earthing Provision which connected to the nearest earth grid.				
		NOTE:- MCCB's wherever specified upto 250A shall be Thermal Magnetic & Above 250A will be Microprocessor based inbuilt protections.				
		<b>INCOMER : 125 AMP FP MCCB</b>				
		3 Nos. Phase Indication light (lamp) with MCBs protection. Multi functional meters (VAF) with suitable CTS and protection MCBS 1 set.				

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		<b>BUS BAR</b> : 160 AMP, 500 Volts, 3 phase 50 HZ 4P high conductivity electrolytic Aluminium bus bar of suitable length, insulated by heat shrinkable sleeves. The current density of bus bar shall be minimum 0.6 sq mm / amp The Maximum allowable temperature for the Bus bar to be restricted to 90 deg C. The temperature rise should be restricted to 45 deg C above ambient temperature				
		<b>OUT GOINGS :</b>				
		12 Nos 63 AMP DP MCB (For each Qtr.DBs and Spare )	set	3	48729	146187
		<b>complete panel as above and complete</b>				
32.09	MR 11	<b>EXTERNAL LIGHT FEEDER PILLAR</b>				
		Design, Manufacture, Supply, Installation, Testing and Commissioning of Panel Fabricated out of 16 SWG CRCA sheet steel, IP 54, wall / floor mounting type with rain canopy The sheet steel shall undergo minimum 7 tank treatment followed by finishing powder coating of min 60 micron thickness. the board includes 415 /240 V electrolytic Aluminium Bus Bar, removable gland plates, cable glands, including connection with outgoing feeders complete in all respect. Panel Should Have Double Earthing Provision Which				
		<b>INCOMER:</b>				
		1 no. 100A, 25KA 4P MCCB with Thermal Magnetic based releases, ON indication, + 3 Nos 63A DP MCB For each Phase.with 3 Nos Astronomical Weekly programmable time switch (SST- 1min) ON Phase for automaitc switching of landscape light fixtures at sun set and sun rise or twilight (auto on/ auto off and auto mode) with manual override faicity with 12/24 hour display format with suitable battery and indication for relay status i/c programming at site				
		<b>BUS BAR</b>				
		TPN Aluminium bus bar with heat Shrink Sleeve rated for				
		<b>OUTGOING</b>				
		18 nos 16A DP MCB (For Compound Group Light + Spare)				
		4 Nos 16KA 40A FP MCCB (Spare)				
		1 nos 40A FP MCCB (BORE WELL STAND BY)				
		Other items such as				
		1 Set of control wiring				
		1 Set of designation plates				
		<b>All Items complete as above</b>	set	2	90519	181038
		<b>Total of sub-head (32.0) (Non DSR)</b>				<b>1425157</b>
33		<b>LT Cable And Accessories</b>				
33.01		<b>Supply Of L.T. Cable:</b>				
		Supplying of Following Sizes of 1.1 kV Grade Multicore Aluminium Conductor XLPE Power Cable Insulated armoured cable conforming to IS:7098 (Part - I) or as per Relevant IS Code complete with all Amendments etc and should be NABL certified as required.				
	MR 12	3.5 C X 150 Sq.mm Al. XLPE arm.	Metre	22	924	20328
	MR 13	3.5 C X 120 Sq.mm Al. XLPE arm.	Metre	1275	794	1012350
	MR 14	3.5 C X 95 Sq.mm Al. XLPE arm.	Metre	1210	638	771980
	MR 15	3.5 C X 70 Sq.mm Al. XLPE arm.	Metre	110	507	55770
	MR 16	3.5 C X 50 Sq.mm Al. XLPE arm.	Metre	325	377	122525
	MR 17	3.5 C X 35 Sq.mm Al. XLPE arm.	Metre	520	292	151840
	MR 18	3.5 C X 25 Sq.mm Al. XLPE arm.	Metre	675	236	159300
	DSR 7	<b>LT Cable Laying</b>				
33.02	DSR 7.1	Laying of One Number PVC Insulated And PVC Sheathed / XLPE Power Cable of 1.1 kV Grade of Following Size Direct in Ground Including Excavation, Sand Cushioning, Protective Covering and Refilling the Trench etc. as required.				
	DSR7.1.1	Upto 35 sq. mm	Metre	735	387	284445

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
	DSR 7.1.2	Above 35 sq. mm and upto 95 sq. mm	Metre	1145	405	463725
	DSR 7.1.3	Above 95 sq. mm and upto 185 sq. mm	Metre	797	422	336334
33.03	DSR 7.2	Laying of one number additional PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
	DSR 7.2.1	Upto 35 sq. mm	Metre	160	269	43040
	DSR 7.2.2	Above 35 sq. mm and upto 95 sq. mm		150	286	42900
	DSR 7.2.3	Above 95 sq. mm and upto 185 sq. mm		200	304	60800
33.04	DSR 7.3	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation and refilling the trench etc as required, but excluding sand cushioning and protective				
	DSR 7.3.1	Upto 35 sq. mm	Metre	100	200	20000
	DSR 7.3.2	Above 35 sq. mm and upto 95 sq. mm	Metre	50	217	10850
	DSR 7.3.3	Above 95 sq. mm and upto 185 sq. mm		100	234	23400
33.05	DSR 7.5	Laying of one number PVC insulated & PVC sheathed/ XLPE Power cable of 1.1 KV grade of following size in the existing RCC/HUME/METAL pipe as required.				
	DSR 7.5.1	Upto 35 sq. mm	Metre	100	37	3700
	DSR 7.5.2	Above 35 sq. mm and upto 95 sq. mm	Metre	150	57	8550
	DSR 7.5.3	Above 95 sq. mm and upto 185 sq. mm	Metre	100	77	7700
33.06	DSR 7.7	Laying and fixing of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size on wall surface as required.				
	DSR 7.7.1	Upto 35 sq. mm (clamped with 1mm thick saddle)	Metre	100	55	5500
	DSR 7.7.2	Above 35 sq. mm and upto 95 sq. mm (clamped with 25x3mm MS flat clamp)	Metre	150	130	19500
	DSR 7.7.3	Above 95 sq. mm and upto 185 sq. mm (clamped with 25/40x3mm MS flat clamp)	Metre	100	153	15300
	DSR 9	<b>LT CABLE JOINTING &amp; END TERMINATION</b>				
33.07	DSR 9.1	Supplying and Making End Termination With Brass Compression Gland and Aluminium lugs for Following Size of PVC Insulated and PVC Sheathed / XLPE Aluminium Conductor Cable of 1.1 KV Grade as Required.				
	DSR 9.1.20	3½ X 25 sq. mm (28mm)	Each	20	313	6260
	DSR 9.1.21	3½ X 35 sq. mm (32mm)	Each	8	369	2952
	DSR 9.1.22	3½ X 50 sq. mm (35mm)	Each	4	413	1652
	DSR 9.1.23	3½ X 70 sq. mm (38mm)	Each	6	468	2808
	DSR 9.1.24	3½ X 95 sq. mm (45mm)	Each	2	588	1176
	DSR 9.1.25	3½ X 120 sq. mm (45mm)	Each	2	613	1226
	DSR 9.1.26	3½ X 150 sq. mm (50mm)	Each	8	697	5576
		<b>Total of sub-head (33.0) (Non DSR)</b>				<b>2294093</b>
		<b>Total of sub-head (33.0) (DSR)</b>				<b>1367394</b>
34		<b>HT Cable And Accessories</b>				
34.01	MR 19	<b>Supply of H.T. Cable</b>				
		Supply & Testing of following 11 KV( UE) grade multicore Aluminium conductor XLPE insulated cable, insulation screening with extruded semi conducting compound in combination with copper tape armoured cores laid up, inner sheath of PVC tape, galvanised steel flat strip armoured and overall PVC sheathed cable conforming to IS: 7098 (Part - II) and complete with all latest amendments etc. complete as				
		3 C x 120 Sq. mm 11 KV (UE)	Metre	165	1328	219120
34.02	DSR 8	<b>H.T. Cable Laying-DSR Item</b>				
	DSR 8.1	H V CABLE LAYING				

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
	DSR 8.1.1	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 11 KV grade of following size direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
	DSR 8.1.2	Upto 120 sq. mm	Metre	165	525	86625
	DSR 10.1	<b>H.T Termination: DSR Item</b>				
34.03	DSR 10.1	Supply and making Indoor cable end jointing with cast resin compound, including lugs and other jointing materials for following size of 3 core, XLPE aluminium conductor cable of 11KV (UE) grade as required.				
	10.1.1	3 C x 120 Sq.mm (11KV UE)	Sets	3	2653	7959
34.04	DSR 10.2	Supply and making Outdoor cable end jointing with cast resin compound, including lugs and other jointing materials for following size of 3 core, XLPE aluminium conductor cable of 11KV (UE) grade as required.				
	10.2.2	3 C x 120 Sq.mm (11KV UE)	Sets	1	5398	5398
		<b>Total of sub-head (34.0) (Non DSR)</b>				<b>219120</b>
		<b>Total of sub-head (34.0) (DSR)</b>				<b>99982</b>
35	DSR 2	<b>Miscellaneous Items - DSR</b>				
35.01	2.21	Providing and fixing M.V. danger notice plate of 200 mm X 150 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single red colour on front side as required.	Nos.	12	269	3228
35.02	2.22	Providing and fixing H.T. danger notice plate of 250 mm X 200 mm, made of mild steel, at least 2 mm thick, and vitreous enameled white on both sides, and with inscription in single Red colour on front side as required.	Nos.	2	292	584
35.03	7.9	Supplying and making cable route marker with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size ) of size 60 cm X 60 cm at the bottom and 50 cm X 50 cm at the top with a thickness of 10cm including inscription duly engraved as required.	Each	5	585	2925
35.04	7.1	Supplying and fixing cable route marker with 10 cm X 10 cm X 5 mm thick G.I. plate with inscription there on, bolted /welded to 35 mm X 35 mm X 6 mm angle iron, 60 cm long and fixing the same in ground as required.	Each	5	508	2540
		<b>Miscellaneous Items - MR Items</b>				
35.05	MR 20	SITC of shock treatment chart (prescribed under I.E.rules) duly framed with glass and supported from back with hard board with supply of all material labour T & P etc for proper completion of work. (Approx front area = 1.20 sq M)	Nos.	2	455	910
35.06	MR 21	SITC of First aid box as approved by Indian red cross conforming to IS : 2217.	Nos.	2	334	668
35.07	MR 22	SITC of Fire Bucket stand made of M S angle suitable for and with 4 Nos Fire Buckets of 9.5 Ltrs capacity filled with	Set	2	3277	6554
35.08	MR 23	SITC of rubber gloves of 11 KV grade as per IS : 4770.	Set	2	428	856
35.09	MR 24	Supplying and fixing of high voltage insulation mat of class B having 11 KV dielectric strength, 1000mm width and thickness of 2.5mm ISI approved as required including cutting to required lengths.	Metre	1	3650	3650
35.1	MR 25	Supplying and fixing of high voltage insulation mat of class B having 1.1 KV dielectric strength, 1000mm width and thickness of 2.0 mm ISI approved as required including cutting to required lengths.	Metre	3	2475	7425
		<b>Total of sub-head (35.0) (DSR)</b>				<b>9277</b>
		<b>Total of sub-head (35.0) (Non DSR)</b>				<b>20063</b>
36	DSR 5	<b>Earthing</b>				

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
36.01	5.4	Earthing with G.I. earth plate 600 mm X 600 mm X 6 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.. <b>(For BODY EARTHING of each Electrical Panels &amp; Generator Neutral &amp; Rods Earthing)</b>	Set	28	7472	209216
36.02	5.6	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 meter long etc. with charcoal/ coke and salt as required.. <b>( For Transformer BODY &amp; NEUTRAL EARTHING)</b>	Set	4	13838	55352
36.03	5.2	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. <u>with charcoal/ coke and salt as required</u>	SET	2	6855	13710
36.04	5.15	Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required.	Metre	265	244	64660
36.05	5.18	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	Metre	180	42	7560
36.06	5.14	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required.	Metre	40	1162	46480
36.07	5.12	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. thimble excavation and re-filling as required.	Metre	20	287	5740
		<b>Total of sub-head (36.0) (DSR)</b>				<b>402718</b>
37	DSR 11	<b>Pole Erection</b>				
37.01	11.3	Erection of metallic pole of following length in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.				
	11.3.1	Above 4.5 metre and upto 6.5 metre	Each	50	5121	256050
37.02	11.6	Supplying and embedding following dia G.I. pipe (medium class) in pole collar/ foundation (during casting) for cable entry including bending the pipe to the required shape , Hole Sealing to be done complete as required.				
	11.6.1	32 mm dia	Metre	250	525	131250
		<b>Total of sub-head (37.0) (DSR)</b>				<b>387300</b>
38		<b>External Lighting System</b>				
38.01	MR 26	Supply , Installation, Testing & Commissioning of Integrated Post Top Lantern With 45W LED Lamp including suitable size dia G.I.Pipe Pole i/c connection with 3 x 2.5 sq.mm single core PVC insulated copper conductor cable from junction box to fixture as required.	Nos.	2	5398	10796
38.02	MR 27	Supply , Installation, Testing & Commissioning of 60 W LED with complete with pot optic reflector i/c connection with 3x2.5sq.mm single core PVC insulated copper conductor cable from junction box to fixture as required	Nos.	37	3918	144966
38.03	MR 28	<b>Building Outer Light (60W LED) :-</b> Supply, fitting, fixing and testing of building outer lighting luminaire aerodynamically shaped single piece pressure die-cast Aluminum luminaire with high power LEDs as light source and electronic driver (IP66), along with <b>60W LED Lamp</b> as Energy saving as per drawing prescribed reflector and heat resistant toughened flat glass cover, with 5ft long 40mm dia G.I. pipe with 3 Nos. of iron clamps , anchor nut bolts with double washers as per direction of E/I or consultant as per drawing prescribed reflector and heat resistant toughened flat glass cover (Make: Philips/Excel/Luxella/Endura/Reed/No/Avira)	Each	20	5330	106600

**SCHEDULE OF QUANTITIES**

<b>S. No.</b>	<b>FF-DSR 2022 / Elec DSR-2022</b>	<b>Description</b>	<b>Unit</b>	<b>Quantity</b>	<b>Rate (In Rs)</b>	<b>Amount (In Rs)</b>
38.04	MR 29	Supply, Installation, Testing and Commissioning of 200x160x98 (KVPC) Polycarbonate thermoplastics enclosure - junction box with IP - 65 Protection with Terminals & cable hinged cover of approved design complete having gasket of internally embedded & made of polyetherene & should be weather proof, rust proof, dust proof, water proof - box shall be tested as per IEC - 60670-2/60670-22. the box shall have self threaded holes & provision for mounting din rail. with 2 Nos cable gland including supplying & fixing crimping 2 nos lugs & 1 nos 32A connector 6 way for looping the incoming & outgoing cables and also connection of the street light one 6A SP-MCB Including Connection of 2x6 core Cable to it.	Nos.	74	1270	93980
38.05	MR 30	Supply of Single bracket type GI sewage tubular pole of 6 Metre Pole (Above Ground) with Top-70 mm, bottom-135 mm, Base Plate 220x220x12 mm, PCD-225 mm, Foundation Bolts-M20X700 - 4 Nos., Single arm Bracket - 1 mtr long, with 48.3 mm OD pipe suitable for LED fitting. The pole shall be provided with suitable base plate arrangement for fixing on pedestal and looping box complete with MCB, brass connectors etc complete as required. The street lighting pole shall be in accordance with IS 2713. ( For Road Street Light - 20		33	10811	356763
38.06	MR 31	Supply of Double bracket type GI sewage tubular pole of 6 Metre Pole (Above Ground) with Top-70 mm, bottom-135 mm, Base Plate 220x220x12 mm, PCD-225 mm, Foundation Bolts-M20X700 - 4 Nos., Double arm Bracket - 1 mtr long, with 48.3 mm OD pipe suitable for LED fitting. The pole shall be provided with suitable base plate arrangement for fixing on pedestal and looping box complete with MCB, brass connectors etc complete as required. The street lighting pole shall be in accordance with IS 2713. <i>(For Road street light)</i>		2	11362	22724
38.07	MR 32	SITC of Hybrid All In One Integrated Solar LED Street Light fitting rated for 40W output with integrated solar laminate of 80 Wp ( or more) based on Mono crystalline cell technology, along with battery of rating 12.8V 30Ah (or more) based on Lithium Ferro Phosphate Chemistry (LiFePO4), with a light output of greater than 6000 Lumens (>6000), LEDs with a life greater than >50000Hrs and Lumen efficacy greater than 150Lm/W , with an autonomy of 2 days ( 24 hrs.)or more with dimming. INBUILT PROTECTIONS FOR LONGER RELIABILITY - Over Charge Protection, Deep Discharge Protection, Battery Reverse Polarity Protection, Load Short Circuit Protection, Load Open Circuit Protection, Reverse Polarity Protection for Panel and Over Temperature Protection. Surge Protection for Hybrid Models. The housing of the street light should be made of Extruded Aluminium / Die Cast Aluminium, equipped with battery charge controller of efficiency greater than 92%, hybrid controller efficiency of greater than 85% and motion detection sensor with atleast 12mtr range. The light fitting shall be complete with all accessories in all respect as per manufacturer design. The light should also be tested for its performance (LM 79), Ingress protection( IP 65 or more), Impact resistance (IK08 or more) from 3rd party NABL Labs / TUV / UL / MNRE Authorised labs. (Note:- Inhouse labs approved by NABL will not be acceptable, only 3rd part labs shall be considered . <b>The lighting supplier should be able to provide immediate service support with a service centre on district level and must have a dedicated toll free number to register</b>		15	44470	667050

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		<p>( B ) The following certificates are mandatory at the time of supply and after installation as and where applicable :-</p> <ol style="list-style-type: none"> <li>1. EN50530 – MPPT Efficiency</li> <li>2. IEC61547</li> <li>3. IEC61000-3-2 – EMC</li> <li>4. IEC 60598 – Part 1 – General requirement</li> <li>5. IEC 62109</li> <li>6. LM 79 REPORT</li> <li>7. IK 08</li> <li>8. IP 65</li> </ol> <p>The Executant must submit the TDS, LM 79 report , IK 08 &amp; IP 65 report of third party NABL lab , LM80 report of chip manufacturer in the department for obtaining the approval from the authority prior to start of work/ procurement of Solar street lights. Reports of inhouse lighting company Lab having NABL accreditation will not be acceptable.</p> <p>Test reports like EN50530 – MPPT Efficiency , IEC61547 ,IEC61000-3-2 – EMC , IEC 60598 – Part 1 – General requirement , IEC 62109 obtained from Third party NABL Lab/ TUV/UL/MNRE Lab's test report are required to be submitted by the executant along with manufacturer's warranty certificate in the name of concerned department for providing 5 years complete system warranty &amp; providing immediate after sales service within the warranty period against manufacturing defects, LM 79 report,IP 65 report , IK 08 report against the</p>				
38.08	MR 33	Supplying of Following sizes 1100 volt grade XLPE insulated PVC sheathed aluminium conductor armoured cables as per specification in existing laid in ground including cost of digging upto required depth, 150 mm sand all around the cable, brick protection and back filling, clamped to wall with suitable clamps including saddles fixing bolts, Connection Testing and commissioning as Required				
		a) 2x6 sqmm	Metre	3445	101	347945
		Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of size up to 35 sq. mm				
38.09	7.3.1	( a ) direct in ground including excavation and refilling the trench etc. as required, but excluding sand cushioning and protective covering.	Metre	2475	200	495000
	7.7.1	( b ) On Surface	Metre	575	55	31625
38.1	7.5.1	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 kV grade of following size in the existing RCC/ HUME/ METAL pipe as required.				
		Upto 35 sq. mm	Metre	395	37	14615
38.11		Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. in the existing trench, complete as required.				
	14.15.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	Metre	150	127	19050
		<b>Total of sub-head (38.0) (DSR)</b>				<b>560290</b>
		<b>Total of sub-head (38.0) (Non DSR)</b>				<b>1750824</b>
39		<b>Uninterrupted Power Supply (UPS) - 10 kVA</b>				
39.01	MR 34	Supply of 10 kVA Online UPS, IGBT UPS (Transformer-less Design).				
		Supply of SMF Batteries (12Volt VRLA, 26 Ah, 40 Numbers or as per standard Nos to provide 30 Minutes Backup in total for 10 kVA UPS at 0.8PF and ECV=1.7V.				
		Fully rated Inbuilt static switch at the inverter output and 100% rated Inbuilt static switch at the static bypass line integrated in UPS module.				

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		Supply of Local Accessories (like Cabling Between UPS and the Battery onsidering Cable Routing ,Battery Interlinks ,Battery Rack etc).				
		Backfeed protection at Mains & Bypass (Inbuilt / External).				
		Installation and Commissioning of 10 kVA UPS, Battery and Accessories.	set	1	230193	230193
39.02	MR 35	Supply , installation , testing and commissioning 63A FP MCB of 10kA breaking Capacity in metal sheet enclosure with ON/OFF, TYB Indication lamps for Incoming of UPS Complete in All Respect as Required.	set	2	3459	6918
		<b>Total of sub-head (39.0) (Non DSR)</b>				<b>237111</b>
40	MR 36	<b>Lightening Arrester System For Transformer</b>				
		Supply, Installation, Testing & Commissioning of Lightening Arrester HT-12 kV expulsion type complete with all Fitting transission class discharge capacity 10 kA complete all as as specified	Each	3	4007	12021
		<b>Total of sub-head (40.0) (Non DSR)</b>				<b>12021</b>
41		<b>Pumps (Non Scheduled Items)</b>				
41.01	MR 37	<b>Borewell Submersible Pump</b>	Set	2	58620	117240
		Supplying & Installation of suitable borewell submersible pump set coupled with 6" motor and complete with lowering in existing borewell with the help of chain pulley block including supplying and fixing motor starter suitable for the selected pump complete as required.( Note : The suction/delievery pipe lines are not included in this item ) Flow Rate : 350 to 400 LPM min. Head : 60 M Min. Motor HP : 7.5 H.P.				
41.02	MR 38	Supplying and Fixing of PVC covered 6 mm dia flexible steel rope for handling/protecting the submersible Pump set including U-lock arrangement etc. complete as required.	Metre	300	59	17700
41.03	MR 39	Supplying and Fixing of suitable size of MS clamp set suitable for holding submersible pump & 40 mm dia pipe assembly lowered in bore well including suitable drilled hole and nut bolts etc. complete as required.	Each	4	735	2940
41.04	MR 40	Supplying and Fixing of following size of PVC insulated PVC sheathed Copper conductor flat submersible cable including fixing the cable with nylon tie along with GI pipes in existing borewell, connection with submersible pump cable with the help of water proof jointine kit provided with the pump. (a) 3 x 2.5 sqmm	Metre	290	124	35960
41.05	MR 41	S/Fixing of 8 " dia MS cover with locking arrangement i/c drilling hole and s/f nut bolts etc. complete as reqd.		2	1040	2080
41.06	MR 42	<b>Openwell Submersible Monobloc Pump Set</b>	Set	2	54238	108476
		S.I.T.C. of 7.5/5.5 (H.P./Kw) Openwell Submersible Monobloc Pump Set comprising of Electrical Driven inline pumping with all accessories as per manufacturer's design. such as C.I. Base, S.S /bronze impeller, shaft, mechanical seal, S.S. Shaft directly coupled to motor suitable for operation on 400/440 volts, 3 phase 50c/s A.C.Supply complete in the existing G.I.Pipelines fittings i/c s/fixing motor starter suitable for this pump set i/c connections testing, commissioning etc as reqd. ( Note : The suction/delievery pipe lines are not included in this item ) Flow Rate : 4.5 to 5.0 LPS Min. Head : 50 M				



SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		Min. Motor HP : 7.5 H.P. (Each)				
		<b>Total of sub-head (41.0) (Non DSR)</b>				<b>284396</b>
42		<b>CCTV SYSTEM</b>				
42.01	1.53	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.				
	1.53.1	1 run of cable	Mtr.	1230	57	70110
42.02	1.21	Supply and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required :				
	1.21.2	25 mm	Mtr.	595	145	86275
42.03	MR 43	1/2.8" Progressive Scan CMOS, PAL:1920 * 1080, 0.1 Lux/ F1.2 (0Lux, IR ON), 10~15 Meters (With Min. 24 units IR LED), 2 MP Fixed IR DOME CAMERA With Options Of 2.8mm , 4mm , 6mm Lens , IP66 , POE with installation. <i>(For Substation-2, At each hostel Gate-1 ,Kitchen in each hostel-2)</i>	Each	8	6488	51904
42.04	MR 44	1/2.8" Progressive Scan CMOS, PAL:1920 * 1080, 0.1 Lux/ F1.2 (0Lux, IR ON), 10~15 Meters (With Min. 24 units IR LED), 2 MP Fixed IR Bullet CAMERA With Options Of 2.8mm , 4mm , 6mm Lens , IP66 , POE with installation. <i>(For Main Gate-2, School-7, Boys Hostel-2, Girls Hostel-2, Kitchen in each hostel-2)</i>	Each	17	6488	110296
42.05	MR 45	Supplying, installation, fixing, testing and commissioning of 16 ch Linux, H. 264 / H.265 NVR with Minimum 1080p / UXGA / 720p / VGA / 4CIF / DCIF / 2CIF / CIF / QCIF rec. resolutions, 4 HDD slot supports upto 4 TB Each, RS 485 x 1 & USB2.0 x1, HDMI ,Local And Remote Access Over Internet In complete in all respect with installation (Make: - CP PLUS , Dahua ,Hikvision or equivalent ) <i>(For School, Main Gate, Substation-1,, Bosity hostel-1, Girls hostel-1)</i>	Each	4	28413	113652
42.06	MR 46	4 TB Surveillance Sata HDD (WD Purple , Seagate Surveillance or Equivalent)	Each	1	10526	10526
42.07	MR 47	16 Port POE Switch (Cisco , Netgear , Dlink or Equivalent)	Each	1	17716	17716
42.08	MR 48	Supply, installation, testing and commissioning of Independent 1 kVA UPS system with 230V single phase input and 230V Single phase output with all required accessories & battery bank for 30 mins back up with covered SMF battery and battery rack for all new required loads covered as required, including connections as per specifications etc. complete as required. <i>(for Server and CCTV - Boyshostel-1, Girls hostel-1, School-7)</i>	Each	3	28899	86697
42.09	MR 49	S.I.T.C.32" Color flat panel LED Monitor,Full HD Professional Series 1920 x 1080 resolution, inputs. 100-230VAC/50 Hz.	Each	3	21743	65229
		<b>Total of sub-head (42.0) (DSR)</b>				<b>156385</b>
		<b>Total of sub-head (42.0) (Non DSR)</b>				<b>456020</b>
43		<b>LIGHTNING CONDUCTOR</b>				
43.01	6.2	Providing and fixing of lightning conductor finial, made of 25mm dia 300mm long, G.I tube, having single prong at top with 85mm dia 6mm thick G.I base plate including holes etc. complete as required.	Each	32	518	16576

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
43.02	6.7	Providing and fixing G.I tape 20 mm x 3 mm thick on parapet or surface of wall for lightning conductor complete as required. (for horizontal run )	Mtrs.	1150	126	144900
43.03	6.8	Providing and fixing G.I tape 20 mm x 3 mm thick on parapet or surface of wall for lightning conductor complete as required. (for vertical run )	Mtrs.	265	197	52205
43.04	6.4	Jointing copper / G.I. tape (with another copper/ G I tape, base of the finial or any other metallic object) by riveting / nut bolting/ sweating and soldering etc as required.	Each	81	113	9153
43.05	6.12	Providing and fixing testing joint, made of 20 mm X 3 mm thick G.I. strip, 125 mm long, with 4 nos. of G.I. bolts, nuts, chuck nuts and spring washers etc. complete as required.	Each	16	121	1936
43.06	5.4	Earthing with G.I. earth plate 600mm x 600mm x 6mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7Mtr long etc. with charcoal/ coke and salt as required.	Set.	16	7472	119552
<b>Total of sub-head (43.0) (DSR)</b>						<b>344322</b>
44		<b>D.G.Set and associated works</b>				
44.01	MR 50	<b>D.G.Set 62.5 KVA</b>				
		Providing, Installing, Testing and Commissioning of 'Silent Type' Diesel Generating set alongwith having Prime Power Rating of 62.5 KVA, 415 volts at 1500 RPM, 0.8 lagging power factor at 415 V suitable for 50 Hz, 3 phase system & for 0.85 Load Factor and consisting of the followings				
		(a) Diesel Engine:				
		Diesel engine 4 stroke water cooled, electric start, of suitable BHP at 1500 RPM suitable for above output of alternator at 40 Degree C, 50% RH & at 1000 Meter MSL and conforming to BS 5514, BS 649, IS 10000, capable of taking 10% over loading for one hour after 12 hours of continuous operation. The engine will be fitted complete with all the required				
		(b) Engine mounted Instrument Panel fitted with and having digital display for following:				
		(i) Start-stop switch with key				
		(ii) Water temperature indication				
		(iii) Lubrication oil pressure indication				
		(iv) Lubrication oil temperature indication				
		(v) Battery charging indication				
		(vi) RPM indication				
		(vii) Over speed indication				
		(viii) Low lub. Oil trip indication				
		(ix) Engine Hours indication				
		(c) Alternator :				
		Synchronous alternator rated at 62.5 KVA, 415 volts at 1500 RPM, 3 phase 50 Hz, AC supply with 0.8 lagging power factor at 40 Degree C, 50% RH & at 1000 Meter MSL. The alternator shall be having SPDP enclosure, brushless, continuous duty, self-excited and self-regulated through AVR conforming to IS: 4722/BS 2613 suitable for tropical conditions and with class-E/H insulation				
		(d) Base Frame & Foundation:				
		Both the engine and alternator shall be mounted on suitable base frame made of MS channel with necessary reinforcement which shall be installed on suitable cement concrete foundation and vibration isolation arrangement as per recommendations of manufacturer.				
		(e) Fuel Tank:				

SCHEDULE OF QUANTITIES						
S. No.	FF-DSR 2022 / Elec DSR-2022	Description	Unit	Quantity	Rate (In Rs)	Amount (In Rs)
		Daily service fuel tank of 120 liters capacity fabricated out of 3 mm thick M.S. sheet complete with all standard accessories and fuel piping between fuel tank and diesel engine with MS class 'C' pipes of suitable dia. Complete with valves, level indications & accessories as required as per specifications.				
		(f) Exhaust System:				
		Dry exhaust manifold with hospital exhaust silencer and catalytic convertor.				
		(g) Starting System:				
		12V/24V DC starting system comprising of starter motors: voltage regulator and arrangement for initial excitation complete with suitable nos. of batteries (25 plates, 180 Amp. Hour capacity lead acid type) as required as per specifications.				
		(h) Acoustic and weather proof enclosure with arrangement for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air in to the atmosphere as per		1	633846	633846
44.02	MR 51	<b>AMF system for 62.5 KVA DG Set Part of DG.</b>				
		Fabricating, Installing, Testing & Commissioning of automatic mains failure control including auto by-pass panel, suitable for 62.5 KVA silent type DG set complete with relays, timers, set of CTs for metering & protection and energy analyser to indicate currents, phase and line voltages, frequency, power factor, KWH, KVARH & provision for overload, short circuit, restricted earth fault, under frequency, control cabling from AMF panel to diesel engine and elsewhere if required, all complete and inter locking including the following:				
		(a) (i) 1 No. 125 415V, 4P MCCB of 35kA.				
		(ii) 2 Nos. 125A, 415V 4P Contactor				
		(b) Auto/Manual/Test/Off selector switch				
		(c) 2 Nos over voltage relay, 2 Nos reverse power relay and 2 Nos under voltage relay.				
		(d) 3 Sets of current transformers 15 P 10 accuracy for protection and 15 VA class-I for metering				
		(e) Energy analyser unit to indicate current voltage frequency power factor and KWH				
		(f) Indicating lamps for load on mains and load on set				
		(g) Fuse for instruments				
		(h) Battery charger, complete with transformer/ rectifier, D.C. voltmeter and ammeter, selector switch for trickle, off and boost and current adjustment.				
		(i) Main supply failure monitor				
		(j) Supply failure timer				
		(k) Restoration timer				
		(l) Control unit with three impulse automatic engine start/stop and failure to start lockout				
		(m) Impulse counter with locking and reset facility.				
		(n) ON/OFF/Control circuit switch with indicator				
		(o) Audio/Video annunciation for				
		(i) High water temperature				
		(ii) Low lubricating oil pressure				
		(iii) Engine over speed				
		(iv) Engine fails to start				
		(v) Full load/maximum load warning		1	134524	134524
44.03	MR 52	Supplying and fixing exhaust gas piping of 75mm dia. welded black MS, B Class pipe conforming to IS:3589 cut to required lengths and installed with necessary bends, supports and clamps, anti-vibration mountings, insulation of exhaust system with mineral wool/Rockwool, 50 mm thick wiremesh & aluminum cladding etc. as required as per specifications.		4	1342	5368
		<b>Total of sub-head (44.0) (Non DSR)</b>				<b>773738</b>