

Price Bid Format
Schedule of Quantities & Rates
Abstract of Cost

Name of Work: "TSS SP SSP Works for Birlanagar-Etawah, Jhansi Division (Gr. 239), Electrification of Railway Lines of the section Birlanagar-Etawah, Bhandai-Udi and Farrukhabad-Shikohabad including Mainpuri-Etawah of North Central Railway 386 RKM/440 TKM"

SL. No.	Description	UOM	Quantity	Unit Rate	Total Amount (Rs.)	Weightage	Remarks
A	B	C	D	E	F	G	H
1	TSS-Electrical Works (Total no. of TSS = 2, one with Single T/f and other with 2 T/f arrangement)	SET	1	Bidders not to quote or write anything here	Bidders not to quote or write anything here	25.71%	Refer Annex-1
2	SP/SSP-Electrical Works	SET	10			10.12%	Refer Annex-2
3	TSS, SP & SSP-Civil Works	SET	1			59.81%	Refer Annex-3
4	TSS-Illumination Works	SET	1			1.22%	Refer Annex-4
5	SP/SSP-Illumination Works	SET	10			0.60%	Refer Annex-5
6	Manning of TSS	Each Per Month	12			0.62%	Refer-Annex-6
7	Manning of SP SSP	Each Per Month	60			1.92%	Refer-Annex-6
	Total					100.00%	

Note:

1	Bidders should quote only the Total Amount both in figures & words in the specified place. They should not fill/quote/write anything in col. (E) & (F) of Abstract sheet as well as Annexures - 1 to 6. These rates & amount will be derived from the Total amount quoted and weightage factor assigned against respective items indicated in col. G.
2	Evaluation Shall be based on total amount quoted by bidder.

3	The rate and amount are inclusive of all applicable taxes, except for the GST. For details of taxes, clause no. 13.0 of the SCC will be applicable.
4	Details of BOQ items shall be read in conjunction with the corresponding specifications, drawings and other tender terms.

Annexure-1

**Section-01 Schedule of Quantities & Rates for Electrical Works (Excl. Illuminati
on) of Traction Sub-Station (TSS) for each section**

Item No.	Item Description (Explanatory Notes mentioned in TCC to be read alongwith)	UOM	Qty	Unit Rate	Total Amount (Rs.)	Weightage
A	B	C	D	E	F	G
1	Design, Preparation, Submission and Approval of Drawings and supply of As Erected Drawings for:			Bidders not to quote or write anything here	Bidders not to quote or write anything here	
1.01	Traction Sub-Station (TSS)	Each	0			0.0000%
1.02	Feeding Post (FP)	Each	0			0.0000%
1.03	Shunt Capacitor Banks in TSS	Each	0			0.0000%
2	Supply, Erection, Testing and Commissioning of Steel Structures					
2.01	Rolled traction masts galvanized steel structures	Tonne	12.5			3.6473%
2.02	Fabricated and galvanized steel structures	Tonne	65			21.3124%
2.03	Fabricated and galvanized steel work other than masts including SPS	Tonne	12.5			4.2130%
3	Erection, Testing and Commissioning of 132 kV double pole SF-6 circuit breaker.	Each	3			0.0795%
4	Supply, Erection, Testing and Commissioning of 132 kV double pole isolator (manually operated)	Each	7			4.0916%
4.01	#REF!	Each	3			0.3468%
5	Supply, Erection, Testing and Commissioning of 132 kV current transformers.	Each	12			5.8912%
6	Supply, Erection, Testing and Commissioning of 132 kV Potential transformers.	Each	6	3.5515%		
7	Supply, Erection, Testing and Commissioning of 132 kV lightning arrestors	Each	12	1.9374%		
8	Erection, Testing and Commissioning of 25kV single pole Vacuum Type Circuit Breaker.	Each	9	0.1658%		
9	Erection, Testing and commissioning of 25kV single pole Vacuum Type Interrupters	Each	6	0.0746%		
10	Supply, Erection, Testing and Commissioning of 25kV Isolators:			Bidders not to quote or write anything here	Bidders not to quote or write anything here	
10.01	25KV single pole isolators (1600A)	Each	16			1.1099%
10.02	25KV double pole isolators (1600A)	Each	6			0.9037%
10.03	#REF!	Each	5			0.0033%
11	Supply, Erection, Testing and Commissioning of 25kV P.T(Type-II)	Each	11			2.4591%
12	Supply, Erection, Testing and Commissioning of 25kV P.T(Type-I)	Each	4			0.9389%

13	Supply, Erection, Testing and Commissioning of 25KV C.T. (1500/750/5A)	Each	7			1.9769%
14	Supply, Erection, Testing and Commissioning of 42kV Lightning Arrestors.	Each	9			0.9034%
15	Erection, Testing and Commissioning of Control & Relay panel (board) for 25kV TSS	Each	2			0.0985%
16	Erection, Testing and Commissioning of 25kV/240V Auxiliary power supply transformers (25 kVA capacity) Oil type along with hardware.	Each	4			0.1189%
17	Supply, Erection, Testing and Commissioning of 25 KV Drop out fuse switches for 10/25 KVA Auxiliary Supply Transformer	Each	4			0.2863%
18	Supply, Erection, Testing and Commissioning of tubular Aluminium busbars 50x39mm dia.	Meter	300			0.8606%
19	Supply, Erection, Testing and Commissioning of ZEBRA ACSR Conductor.	Meter	900			1.5276%
20	Supply, Erection, Testing and Commissioning of Terminals and Connectors:					
20.01	Rigid bimetallic terminal connector suitable for 50 dia Aluminium tubular busbar to terminal pad of 25kV Isolator/CT (ID-11090).	Each	28			0.3397%
20.02	Details of expansion type terminal connector to suit 50 dia Aluminium tubular busbar, terminal pad of 25kV CT/Isolator (ID-11060).	Each	20			0.3686%
20.03	25kV system rigid Bus splice connector to suit 50 O/D Aluminium tube on both ways (ID- 11180).	Each	15			0.1660%
20.04	25kV system TEE connector to suit 50 O/D Aluminium tubular Busbar (ID-11150).	Each	9			0.1057%
20.05	Rigid through connector to suit 50 dia Aluminium tubular Busbar & SPIDER AAC conductor for 25kV P.T. Type-II (ID-11110).	Each	20			0.2090%
20.06	25kV system expansion Bus coupler on SI to suit 50 O/D Al.tube (ID-11210).	Each	6			0.1497%
20.07	25kV system Tee connector to suit 50, O/D Aluminium tubular Spider AAC conductor (ID-11140).	Each	4			0.0421%
20.08	25kV system Tee to suit ZEBRA (28.58 dia) ACSR conductor on both ways (ID-11040).	Each	15			0.1688%

Bidders not to quote or write anything here

Bidders not to quote or write anything here

20.09	Rigid terminal conductor suitable for 20 dia Al. conductor to terminal pad of 132/66 kV CB, Isolator & 25kV PT Type I & II (ID-11120).	Each	12	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.1087%
20.10	Rigid connector on SI to suit 50 mm O/D Al. Bus bar (ID-11200).	Each	32			0.1433%
20.11	Sliding clamp for 50mm O/D Al. busbar (ID-11190).	Each	6			0.0398%
20.12	Rigid connector on SI to suit ZEBRA (28.58 dia) ACSR conductor (ID-11050).	Each	18			0.0857%
20.13	25kV system TEE connector to suit 36 O/D Al. Busbar to 50mm O/D Al. Busbar (ID-11240)	Each	2			0.0235%
20.14	Al. Busbar connectors:- Bus terminal (6480)	Each	16			0.1259%
20.15	Al. busbar connectors:- Bus splice (6490)	Each	8			0.0695%
20.16	Al. busbar connectors:- Bus TEE connector (6500).	Each	15			0.1312%
20.17	Al. Busbar connectors:- terminal connector 36/20 (6530)	Each	2			0.0158%
20.18	Al. Busbar connectors:- Tap connector 36/15 (6520).	Each	3			0.0237%
20.19	Al. busbar connectors:- Flexible bus splice (6550).	Each	6			0.1368%
20.20	Al. Busbar connectors:- terminal connector Bolted Type (6830-I).	Each	12			0.0753%
21	Supply, Erection, Testing and Commissioning of Al. Busbar 36mm x 28mm.	Metre	25			0.0328%
22	Supply, Erection, Testing and Commissioning of all Al. 25kV Feeder/Return (SPIDER) conductor	KM	0.2	0.1045%		
23	Supply, Erection, Testing and Commissioning of terminations and Insulators:					
23.01	132kV Support Insulators	Each	7	0.4844%		
23.02	25kV Support Insulator with hardware	Each	28	0.6757%		
23.03	132 KV termination with disc insulator with adjuster.	Each	30	1.8207%		
23.04	132 KV termination with disc insulator without adjuster.	Each	6	0.3423%		
23.05	Material for termination of all aluminium 25KV Feeder / return conductor with 9T porcelain insulators	Each	4	0.1330%		
23.06	Material for termination of all aluminium 25KV Feeder / return conductor with 9T composite insulators	Each	4	0.1163%		
23.07	Solid core suspension Insulators along with hardware	Each	4	0.0681%		
24	Supply, Erection, Testing and Commissioning Jumpers					

24.01	105 Sq. mm large copper jumpers	Each	4	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.0654%
24.02	50sqmm small copper jumpers	Each	4			0.0126%
24.03	All aluminium feeder jumper	Each	25			0.2021%
24.04	Large copper jumper 160 Sq. mm with accessories	Each	4			0.1111%
25	Supply, Erection, Testing and Commissioning of 110V, 200 AH, Low maintenance Lead Acid Batteries.	Set	2			2.3296%
26	Erection, Testing and Commissioning of Battery Chargers for 110V, 200 AH Low maintenance Batteries.	Each	4			0.0136%
27	Supply, Erection, Testing and Commissioning of 240V L.T. Distribution Boards in the control room for 25 kVA L.T supply transformer.	Each	2			0.4320%
28	Supply, Erection, Testing and Commissioning of 110V DC distribution boards.	Each	2			0.1955%
29	Supply, Laying, Termination and Testing of Cables for:					
29.01	Circuit breakers & Interrupter control and indication circuits. (7x2.5sq mm copper)	Mtrs.	3200			1.7570%
29.02	Transformer alarm/trip circuits & tap changer control.(10x2.5 sqmm copper)	Mtrs.	300	0.2217%		
29.03	Transformer bushing CT circuits & 110V DC circuits.(4Cx4sqmm copper)	Mtrs.	300	0.1443%		
29.04	Current transformer circuits 110V DC & 240V AC supply circuits. (2Cx4sqmm copper)	Mtrs.	1000	0.3023%		
29.05	Potential transformer and 240V AC Supply Circuits.(2Cx2.5 sqmm copper)	Mtrs.	1100	0.2642%		
29.06	240V Heater Circuit(2Cx4 sqmm Aluminium)	Mtrs.	900	0.1904%		
29.07	L.T. Power supply to control room.(2Cx150 sqmm Al.)	Mtrs.	480	0.4998%		
30	Supply, Erection, Testing and Commissioning of Earthing System					
30.01	Earth electrode as per RDSO Standards.	Each	60	0.9776%		
30.02	Earth leads 75mm x 8mm mild steel laid in the ground.	Mtrs.	200	0.2234%		
30.03	Earth leads 50mm x 6mm mild steel laid in the ground.	Mtrs.	400	0.2411%		
30.04	Earth leads 75mm x 8mm mild steel flat laid exposed.	Mtrs.	200	0.2108%		
30.05	Earth leads 50mm x 6mm mild steel flat laid exposed.	Mtrs.	200	0.1155%		
30.06	8 SWG G.I Wire for earthing.	Mtrs.	200	0.0277%		
30.07	32mm dia MS Rod for earth mat.	Mtrs.	2400	2.5576%		
30.08	Copper Strips 25x3 for Equipment Earthing	Mtrs.	200	0.3610%		
30.09	Earth screen wires.	Mtrs.	1000	1.1658%		
				Bidders not to quote or write anything here	Bidders not to quote or write anything here	

31	Supply, Erection, Testing and Commissioning of Fencing:			Bidders not to quote or write anything here	Bidders not to quote or write anything here	
31.01	Fencing panels at sub-stations.	Mtrs.	570			4.5441%
31.02	Fencing uprights.	Tonne	8			2.6231%
31.03	Anti-climbing device at sub-stations.	Mtrs.	570			0.7287%
32	Erection, Testing and Commissioning of 132/27kV, 21.6/30.24 MVA single phase power transformer.	Each	2			1.9538%
33	Supply, Erection, Testing and Commissioning of shunt capacitor banks of 5500 KVAR at 40 KV	Each	2			5.2899%
34	Supply, Erection, Testing and Commissioning of low loss series reactor suitable for shunt capacitor banks of 5500 KVAR at 40kV.	Each	2			6.2515%
35	Supply, Erection, Testing and Commissioning of 25KV current transformers(200-100/5A)	Each	2			0.5182%
36	Supply, Erection, Testing and Commissioning of 25KV neutral current transformers.	Each	2			0.5322%
37	Supply, Fabrication and Erection of steel Checquered Plate for trench covers inside control room	MT	0.8			0.2623%
38	Supply, Erection, Testing and Commissioning of Insulating Rubber Mat (1x5m)	No.	4	0.0664%		
39	Supply and Fixing of Fire Fighting System:			Bidders not to quote or write anything here	Bidders not to quote or write anything here	
39.01	Fire extinguisher (CO2 type – cap 9 Kg) with Trolley mounting inside TSS building.	Each	8			0.1632%
39.02	Fire extinguisher (DCP type – cap 6 Kg) with suitable wall mounting inside TSS building.	Each	8			0.0347%
39.03	Fire buckets stand with 04 Nos fire buckets filled with sand, with suitable stand / locking arrangement & MS sheet canopy as per drawing approved by Railway.	Each	4			0.0775%
40	Supply and Installation of First Aid Box complete with medicines.	Each	2			0.0192%
41	Supply, Erection, Testing and Commissioning of Various Boards:					
41.01	Caution Board/Danger boards	Each	20			0.0600%
41.02	25 kV Shock Treatment Charts & Do and Don't Charts/Warning & Information Board (Framed Flax Print Type) with aluminum bit, Size (2 feet x 3 feet)	Each	4			0.0055%
41.03	Number Plates on Structure	Each	100			0.1564%
41.04	Number Plates on Equipments.	Each	100			0.1714%

41.05	Section diagram board for Operating control (size 3 x 6 feet)	Each	2	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.0779%
41.06	Name plate of traction substation	Each	2			0.1389%
41.07	Name Board (M.S. Sheet painted with M.S.frame) on Fencing panel	Each	2			0.0484%
41.08	First Aid staff & nearest doctor name board (300x500mm)	Each	2			0.0076%
41.09	Narest Fire fighting authority name & adress board (250x500mm)	Each	2			0.0108%
42	Supply, Erection, Testing and Commissioning of Burried Rail 13M long 2nd class 52KG	Each	2			0.4316%
43	Supply and Installation of Furniture					
43.01	Office furniture-Steel cane Chairs of Godrej/Venus/other reputed make	Each	8			0.0527%
43.02	Office furniture-Writing table with 3drawers one side and shelf on other side of Godrej/Venus/other reputed make	Each	2			0.0641%
43.03	Office furniture-Cupboard steelwith 4Shelves of Godrej/Venus/other reputed make	Each	2			0.0870%
43.04	Office furniture-Workman GI Steel Table 4Ft height with bench wise.	Each	2	0.1444%		
43.05	Office furniture-Wooden key box with glass front in frame, with hinges and locking arrangements 18x24x6inch	Each	4	0.0521%		
Total Amount						100.0000%

Note:

1 BHEL LPOs are considered for the purpose of price estimation. Wherever, BHEL LPOs are not available, LOAs of CORE/Railways a

Annexure-2 :: Schedule of Quantities & Rates for Electrical Works (Excl. Illumination) of Each Switching Posts (SP/SSP)								
Item No.	Item Description (Explanatory Notes mentioned in TCC to be read alongwith)	UOM	Qty	Unit Rate	Total Amount (Rs.)	Weightage %		
A	B	C	D	E	F	G		
1	Design, Preparation, Submission and Approval of Drawings and supply of As Erected Drawings for Switching/Sub-Switching Posts (SP/SSP)	Each	0	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.0000%		
2	Supply, Erection, Testing and Commissioning of Steel Structures							
2.01	Rolled traction masts galvanized steel structures	MT	0.5					3.7054%
2.02	Fabricated and galvanized steel structures	MT	1					8.3275%
2.03	Fabricated and galvanized steel work other than masts including SPS	MT	0.5					4.2801%
3	Erection, Testing and Commissioning of 25kV Single Pole Vacuum Interrupters 1600A	Each	1					0.3158%
4	Supply, Erection, Testing and Commissioning of 25kV P.T(Type-I)	Each	2					11.9236%
5	Supply, Erection, Testing and Commissioning of 42kV Lightning Arrestors	Each	2					5.0985%
6	Supply, Erection, Testing and Commissioning of 25kV Isolators:							
6.01	25KV single pole isolators (1600A)	Each	1					1.7619%
6.02	25KV double pole isolators (1600A)	Each	1					3.8254%
7	Erection, Testing and Commissioning of 25 KV/240 V Auxiliary Supply Transformer (10 kVA capacity) Oil type	Each	1					0.7549%
8	Supply, Erection, Testing and Commissioning of 25 KV Drop out fuse switches for 10/25 KVA Auxiliary Supply Transformer	Each	1			Bidders not to quote or write anything here	Bidders not to quote or write anything here	1.8177%
9	Supply, Erection, Testing and Commissioning of Al. Busbar 36mm x 28mm	Mtr.	50					1.6656%
10	Supply, Erection, Testing and Commissioning of Terminals and Connectors:							
10.01	Al. Busbar connectors:- Bus terminal (6480)	Each	2					0.3996%
10.02	Al. busbar connectors:- Bus splice (6490)	Each	2					0.4411%
10.03	Al. busbar connectors:- Bus TEE connector (6500)	Each	2					0.4443%
10.04	Al. Busbar connectors:- terminal connector 36/20 (6530)	Each	2					0.4014%
10.05	Al. Busbar connectors:- Tap connector 36/15 (6520)	Each	2					0.4020%
10.06	Al. busbar connectors:- Flexible bus splice (6550)	Each	2					1.1584%
10.07	Al. Busbar connectors:- terminal connector Bolted Type (6830-I)	Each	2					0.3185%
11	Supply, Erection, Testing and Commissioning of 25kv post insulator with hardware	Each	6			3.6773%		
12	Supply, Erection, Testing and Commissioning of 110 V,40 AH Low Maintenance Lead Acid Batteries	Each	1			8.4392%		
13	Erection, Testing and Commissioning of Battery Charger for 40 AH, 110 V lead acid Battery	Each	1	ing here	ing here	0.0690%		
14	Supply, Erection, Testing and Commissioning of Terminal Boards in control cubicles	Each	1					0.8624%
15	Supply, Erection, Testing and Commissioning of an iron clad 110 V D.C. fuse box	Each	1					0.2686%

16	Supply, Erection, Testing and Commissioning of iron clad 230 V A.C. fuse box	Each	1	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.2963%		
17	Supply, Laying, Termination and Testing of Cables for:							
17.01	Control and Indication Circuit (7x 2.5 sq.mm cu)	Mtr	50					0.6973%
17.02	Heater Supply 2x 4 sq.mm (Al.)	Mtr	50					0.2687%
17.03	Catenary Indication 2x 2.5 sq.mm (copper)	Mtr	50					0.3050%
17.04	Aluminium Armoured PVC Insulated PVC sheathed cable of size 2 x 70 sq.mm 1.1 kV grade	Mtr	50					0.7464%
17.05	110 V DC /240V AC Supply 2x 4 sq.mm (Copper)	Mtr	50					0.3839%
18	Supply, Erection, Testing and Commissioning of Earthing System							
18.01	Earth electrode as per RDSO Standards	Each	6					2.4828%
18.02	Earth Bus (75x8 mm) MS Flat	Mtr	15					0.4255%
18.03	Earth Bus (50x6 mm) MS Flat	Mtr	150					2.2962%
18.04	Earth leads 75mm x 8mm mild steel flat laid exposed	Mtr	10					0.2677%
18.05	Earth leads 50mm x 6mm mild steel flat laid exposed	Mtr	50					0.7334%
18.06	Structure Bonds 50 x 6	Each	6					0.4087%
18.07	Copper Strips 25x3mm for equipment earthing	Mtr	10					0.4585%
19	Supply, Erection, Testing and Commissioning of Burried Rail 13 Mtr long complete with trench & back filling.	Each	1					5.4812%
20	Supply, Erection, Testing and Commissioning of Fencing:							
20.01	Fencing Panel	Mtr	50			10.1238%		
20.02	Fencing uprights.	MT	0.6			4.9965%		
20.03	Anti-climbing device at sub-stations/SP/SSP	Mtr	50			1.6235%		
21	Supply, Erection, Testing and Commissioning of Various Boards:							
21.01	Caution Board/Danger boards	Each	5			0.3810%		
21.02	25 kV Shock Treatment Charts & Do and Don't Charts/Warning & Information Board (Framed Flax Print Type) with aluminum bit, Size (2 feet x 3 feet)	Each	1			0.0347%		
21.03	Number Plates on Structure	Each	6			0.2384%		
21.04	Number Plates on Equipments.	Each	6			0.2612%		
21.05	Name Plate of switching station (SP/SSP)	Each	1			2.4577%		
22	Supply and Installation of First Aid Box complete with medicines.	Each	1			0.2442%		
23	Supply and Fixing of Fire Fighting System:							
23.01	Fire extinguisher (CO2 type – cap 9 Kg) with Trolley mounting inside TSS building.	Each	2			1.0361%		
23.02	Fire extinguisher (DCP type – cap 6 Kg) with suitable wall mounting inside TSS building.	Each	2			0.2205%		
23.03	Fire buckets stand with 04Nos fire buckets filled with sand, with suitable stand / locking arrangement & MS sheet canopy as per drawing approved by Railway.	Each	1			0.4923%		
24	Supply, Fabrication and Erection of Steel Checquered Plate for trench covers inside control room	MT	0.15			1.2491%		
25	Supply and Installation of Office furniture- Wooden key box with glass front in frame, with hinges and locking arrangements 18x24x6inch	Each	1			0.3307%		
26	Supply, Erection, Testing and Commissioning of Jumpers					0.0000%		
26.01	105 Sq. mm (19/7/1.02 mm) Large copper jumpers	Each	1			0.4152%		
26.02	50 Sq.mm(19/1.8 mm) small copper jumpers.	Each	1			0.0801%		
26.03	All aluminium jumper.	Each	1			0.2053%		

	Total Amount ₹	-	100.0000%
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Annexure-3 ::

Schedule of Quantities & Rates for Civil Works of TSS,SP,SSP

Item No	Item Description	UOM	Qty	Rate(Rs)	Total Amount (Rs.)	Weightage
A	B	cum	D	E	F	G
1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30cm in depth. 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50m and lift upto 1.5m, disposed earth to be levelled and neatly dressed. All kinds of soil(DSR: 2.6.1)	cum	6556	Bidders not to quote or write anything here	Bidders not to quote or write anything here	1.4915%
2	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed as per direction of Engineer-in -charge. Ordinary rock(DSR:2.7.1)	cum	727			0.3204%
3	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5m in width as well as 10 sqm on plan) including disposal of excavated earth, lead upto 50 m and lift upto 1.5 m, disposed earth to be levelled and neatly dressed as per direction of Engineer-in -charge. Hard rock (Blasting prohibited)(DSR:2.7.3)	cum	363			0.4619%
4	Extra for every additional lift of 1.5 m or part thereof in excavation /banking excavated or stacked materials. All kinds of soil (DSR:2.26.1)	cum	900			0.1018%
5	Extra for every additional lift of 1.5 m or part thereof in excavation /banking excavated or stacked materials. Ordinary or hard rock (DSR:2.26.2)	cum	900			0.1825%
6	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 up to 50 m and lift upto 1.5 m.(DSR:2.25)	cum	3713			1.0203%
7	Back filling upto any depth below ground level around foundations, plinths, trenches, drains etc to proper grade and level in layers not exceeding 200 mm thickness using/with approved borrowed CNS soil (borrowed soil to be arranged by the bidder) and compacted as specified including supplying borrowed soil, royalty (if any), watering, ramming/compaction by manual/mechanical means, dressing etc all complete for the following. Each layer compacted so as to achieve at least 95% maximum dry density as per IS-2720 (Part-VII)	cum	17486			8.7709%
8	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth upto 30 cm measured at a height of 1 m above ground level and removal of rubbish upto a distance of 50 m outside the periphery of the area cleared.(DSR:2.31)	sqm	900			0.0141%
9	Clearing grass and removal of the rubbish upto a distance of 50 m outside the periphery of the area cleared.(DSR:2.32)	sqm	900			0.0072%
10	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material:Beyond 30 cm girth upto and including 60 cm girth (DSR:2.33.1)	each	30			0.0143%
11	Supplying and stacking of hard stone (for stone pitching) 22.5 cm thick at site.(DSR 16.72)	cum	895			1.0818%
12	Dry stone pitching 22.5 cm thick laid in courses and required profile with hammer dressed stones having no side less than 15 cm, with minimum depth of 20 cm including preparing the bedding surface etc. all complete. (Payment for Stone to be made separately).(DSR 16.73)	sqm	90			0.0549%
13	75 mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with :Moorum (DSR 16.74.1)	sqm	90			0.0083%

14	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size).(DSR:4.1.5)	cum	50	Bidders not to quote or write anything here	0.3915%
15	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:3:6 (1 Cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size).(DSR:4.1.6)	cum	486		3.7238%
16	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) (DSR:4.1.3)	cum	1261		10.7086%
17	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level Like fencing footing etc : 1:1½:3 (1 Cement: 1½ coarse sand: 3 graded stone aggregate 20 mm nominal size).(DSR:4.1.2)(OR DESIGN MIX AS PER APPROVAL)	cum	200		1.8042%
18	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level : (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size).(DSR 5.1.2)	cum	300		2.8968%
19	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. All works upto plinth level.(DSR:5.33.1)	cum	860		8.6005%
20	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. All works above plinth level upto floor V level.(DSR: 5.33.2)	cum	1226		14.4239%
21	Centering and shuttering including strutting, propping etc., and removal of form for at all heights and levels for Footing, foundations, septic tank, soak pit, bases of columns etc for mass concrete at all height and levels(DSR 5.9.1)	sqm	2763		0.9846%
22	Centering and shuttering including strutting, propping etc. and removal of form for :Columns, pillars, piers, abutments, posts and struts etc., at all height and levels(DSR 5.9.6)	sqm	1381		1.2680%
23	Centering and shuttering including strutting, propping etc. and removal of form for :Lintels, Beams, plinth beams, girders, bressumers and cantilevers etc., at all height and levels(DSR 5.9.5)	sqm	691		0.4770%
24	Centering and shuttering including strutting, propping etc. and removal of form for :Roofs, Suspended floors, landings, balconies & access platform etc., at all height and levels(DSR 5.9.3)	sqm	150		0.1301%
25	Centering and shuttering including strutting, propping etc. and removal of form for :Staircases at all height and levels(DSR 5.9.7)	sqm	150		0.1168%
26	Steel reinforcement for R.C.C. work including straightening, cutting, bending, binding wire, placing in position and binding all complete upto plinth level. And above plinth Mild steel and Medium Tensile steel bars (DSR 5.22.1)	kg	150		0.0154%
27	Steel reinforcement for R.C.C. work including straightening, cutting, bending, binding wire, placing in position and binding all complete upto plinth level. And above plinth Hot rolled deformed bars (DSR 5.22.4)	kg	6050		0.6320%

28	Steel reinforcement for R.C.C. work including straightening, cutting, bending, binding wire, placing in position and binding all complete upto plinth level. And above plinth Thermo-Mechanically Treated bars of grade Fe-500D or more.(DSR:5.22.6)	kg	206600	Bidders not to quote or write anything here	Bidders not to quote or write anything here	21.5824%
29	Brick work with common burnt clay F.P.S.bricks of class designation 7.5 in superstructure above plinth level up to floor V level including scaffolding etc, in all shapes and sizes in Cement mortar 1:6 (1 cement : 6 coarse sand) (DSR: 6.4.2)	cum	478			4.5392%
30	Brick work with common burnt clay F.P.S. bricks of class designation 7.5 in foundation and plinth including scaffolding etc,in:Cement mortar 1:6 (1 cement : 6 coarse sand) DSR: 6.1.2)	cum	112			0.8592%
31	Providing Half brick masonry 115 thick brickwork in CM (1:4) with bricks of class designation 7.5 at all levels including , providing scaffolding curing, removing scaffolding etc., complete work as per direction of Engineer-in-charge. at all height and level(DSR 6.13.2)	Sqm	150			0.1749%
32	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size).with waterproofing compound(DSR 4.10)	Sqm	150			0.0653%
33	15 mm cement plaster of mix : 1:6 (1 cement: 6 fine sand)(DSR:13.2.2)	sqm	1304			0.4778%
34	15 mm cement plaster of mix : 1:6 (1 cement: 6 coarse sand)(DSR:13.3.2)	sqm	1094			0.4731%
35	6 mm cement plaster of mix : (1 cement : 3 fine sand) (DSR 13.16.1)	sqm	350			0.0996%
36	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade New work (two or more coats) over and including water thinnable priming coat with cement primer.(DSR:13.41.1)	sqm	2680			0.5145%
37	Finishing walls with water proofing cement paint of required shade : New work (Two or more coats applied @ 3.84 kg/10 sqm) (DSR 13.44.1)	sqm	2680			0.3060%
38	Providing and applying plaster of paris putty of two coats over plastered surface 2mm thickness to prepare the surface even and smooth complete as per direction of Engineer-in-charge. Plaster of Paris conforming to IS:2547 shall be used for punning as per direction of Engineer-in-charge at all height and level(DSR 13.26)	sqm	2680			0.6595%
39	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. 40 mm thick with 20 mm nominal size stone aggregate(DSR 11.3.1)	Sqm	150			0.0935%
40	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption's 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) including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600x600 mm (DSR 11.41.2)	sqm	250	0.4693%		
41	Providing and laying Vitrified 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 brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately). Size of Tile 600x600 mm (DSR 11.47.2)	sqm	30	0.0651%		
42	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge. Size of Tile 600x600 mm (DSR 11.48.2)	sqm	30	0.0091%	write anything here	write anything here

43	Providing and laying rectified Glazed Ceramic floor tiles 300x300 mm or more (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make i, laid on 20 mm thick Cement Mortar 1:4 (1 Cement : 4 Coarse sand) including pointing the joints with white cement and matching pigments etc., complete. as per direction of Engineer-in-charge(DSR 11.40)	Sqm	300	Bidders not to quote or \	Bidders not to quote or \	0.4394%
44	Providing and fixing 1st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacturer) of approved make 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. as per direction of Engineer-in-charge(DSR 8.31)	Sqm	500			0.6445%
45	Providing and fixing 10mm 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- Charge. In dado/skirting on 12 mm thick mortar 1:4 (1 acid proof cement : 4 coarse sand).(DSR 11.21.2.1)	sqm	150			0.3017%
46	Supply, Fabrication and erection of Structural steel work any kind of section riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete: (DSR: 10.2)	kg	5000			0.6365%
47	Supplying and fixing turn buckles and straining bolts for barbed wire fencing.(DSR:16.16)	each set	60			0.0179%
48	Fencing with R.C.C. post placed at required distance, embedded in cement concrete blocks, every 5th post, last but one end post and corner post shall be strutted on both sides and end post one side only, provided with horizontal lines and two diagonals of barbed wire weighing 9.38 kg per 100metres (minimum), between the two posts fitted and fixed with G.I. staples on wooden plugs or G.I. binding wire tied to 6 mm bar nibs fixed while casting the post (cost of R.C.C. posts, struts, earth work and concrete to be paid for separately) :- Payment to be made per metre cost of totallength of barbed wire used. With G.I. barbed wire(DSR:16.17.1)	meter	300			0.0045%
49	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters. 30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws (DSR: 9.20.2)	sqm	51			0.1759%
50	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: 30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws (DSR: 9.21.2)	sqm	28			0.0637%
51	Providing and fixing pressed steel door frames conforming to IS: 4351 manufactured from commercial mild steel sheet of 1.60 mm thickness including hinges, jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50x25mm, or base ties of 1.60 mm pressed mild steel welded or rigidly fixed together by mechanical means, including M.S. pressed butt hinges, 2.5mm thick with mortar guards, lock strike-plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-charge: Fixing with adjustable lugs with split tail end to each jamb (profile E) as per direction of Engineer-in-charge(DSR 10.14.3.1)	meter	15	0.0091%		

52	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.(DSR 9.84)	Each	6		0.0064%
53	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately). Second class teak wood (DSR 9.1.1)	cum	0.30		0.0489%
54	Providing 40x5 mm flat iron hold fast 40 cm long including fixing to frame with 10 mm diameter bolts, nuts and wooden plugs and embedding in cement concrete block 30x10x15cm 1:3:6 mix (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size). (DSR 9.53)	each	8.00		0.0018%
55	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) : For fixed portion: Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)(DSR 21.1.1.1)	kg	250		0.1326%
56	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.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). Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)(DSR 21.1.2.1)	Kg	75		0.0482%
57	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge.(DSR 21.17)	kg	15		0.0098%
58	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 shall be paid in basic item): With float glass panes of 5 mm thickness (weight not less than 12.50 kg/ sqm) (DSR 21.3.2)	sqm	14		0.0227%

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59	35 mm thick factory made Solid panel PVC Door shutter made out of single piece extruded solid PVC profiles, 5 mm (± 0.2mm) thick, having styles & rails (except lock rail) of size 95 mm x 35 mm x 5 mm, out of which 75 mm shall be flat and 20 mm shall be tapered (on both side), having one side thickness of 15 mm integrally extruded on the hinge side of the profile for better screw holding power, including reinforcing with MS tube of size 40 mm X 20 mm x 1 mm, joints of styles & rails to be mitered cut & joint with the help of PVC solvent cement, self driven self tapping screws & M.S. rectangular pipes bracket of size 190 mm X 100 mm of cross section size 35 mm x 17 mm x 1 mm at each corner. Single piece extruded 5mm thick solid PVC Lock rail of size 115 mm x 35 mm x 35 mm, out of which 95 mm to be flat and 20 mm to be tapered at both ends, having 15 mm solid core in middle of rail section integrally extruded, fixing the styles & rails with the help of solvent and self driven self tapping screws of 125 mm x 11 mm, including providing 5 mm Single piece solid PVC extruded sheet inserted in the door as panel, all complete as per manufacturer's specification and direction of Engineer-in-charge. Non decorative finish (matt finish).(DSR 9.142.1)	Sqm	12			0.0487%
60	Providing and Fixing factory made uPVC door frame made of uPVC extruded sections , of size 65 mm x 55 mm with wall thickness 2.0 mm (± 0.2 mm) , corners of the door frame to be mitred cut and jointed with plastic brackets and stainless steel screws, reinforcing hinge side vertical of the frames with PVC profile of Size 28 mm x 30 mm having wall thickness 2 mm (±0.2 mm), including providing & fixing 3 nos. of 125 mm long stainless steel hinges to the frame, fixing the frame with jamb with required number & size of anchor dash fastners, all complete as per manufacturer's specification and direction of Engineer-in-charge.(DSR 9.143)	meter	12			0.0079%
61	Providing and fixing aluminium ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) ISI marked tower bolts of size 250 X 10 mm size with nuts & screws.(DSR 9.97.2)	Each	12			0.0016%
62	Providing and fixing aluminium ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium handles of 125 mm size with nuts & screws etc., all complete.(DSR 9.100.1)	Each	30			0.0022%
63	Providing and fixing aluminium ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868) aluminium hanging floor door stopper of single rubber stopper with screws for fixing stopper.(DSR 9.101.1)	Each	15			0.0006%
64	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. complete : 250x16 mm(DSR 9.96.2)	Each	15			0.0043%
65	Providing and fixing bright finished brass 100 mm mortice latch and lock ISI marked with six levers and a pair of anodized (anodic coating not less than grade AC 10 as per IS : 1868) aluminium lever handles with necessary screws etc complete (best make of approved quality)(DSR 9.103)	Each	12			0.0112%
66	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work.(DSR:13.61.1)	sqm	150			0.0228%
67	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor: With Chlorpyriphos/Lindane E.C. 20% with 1% concentration (DSR 2.35.3.1)	sqm	40			0.0114%
68	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos/ Lindane emulsifiable concentrate of 20% (DSR 2.34.1)	litre	80			0.0201%

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69	Providing and fixing Granite slab table rubbed, edges rounded and polished of size 75x50 cm deep and 1.8 cm thick fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer-in-charge and finished smooth.(DSR 8.10.2)	Sqm	30	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.1207%
70	Providing and fixing 18mm thick gang saw cut mirror polished premoulded and prepolished) machine cut Granite Slabs (Area of slab over 0.50 sqm) for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels. as per direction of Engineer-in-charge(DSR 8.2.2.2)	Sqm	6			0.0301%
71	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer, 3 mm thick water proofing membrane, black finished reinforced with glass fibre matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufactured of density at 25°C, 0.87 - 0.89 kg/litre and viscosity 70 - 160 cps. Over the primer coat the layer of membrane shall be laid using butane torch and sealing all joints etc., and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 350/300 N/5 cm. Tear strength in longitudinal and transverse direction as 60/80N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto - 2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane : 3 mm thick (DSR 14.90.1)	sqm	60			0.0385%
72	Providing and laying brick tiles over mumty roofs, grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% of integral water proofing compound by weight of cement, over 12 mm layer of cement mortar 1:3 (1 cement : 3 fine sand) and finished neat :With common burnt clay F.P.S. (non modular) brick tiles of class designation 10 (DSR 12.19.1)	sqm	60			0.0386%
73	Providing and fixing on wall face un plasticised rigid PVC rain water pipe 110 mm dia conforming to IS 13592 type A including jointing with seal ring conforming to IS 5382 leaving 10 mm gap for the thermal expansion (i) Single socketed pipes. (DSR 12.41.2)	meter	150			0.0572%
	Providing and 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.					0.0000%
	a. Coupler - 110 mm (DSR 12.42.1.2)	each	34			0.0050%
	b. Single tee with door - 110x110x110 mm (DSR 12.42.3.2)	each	34	0.0086%		
	c. Bend 87.5° - 110 mm (DSR 12.42.5.2)	each	34	0.0055%		
	d. Shoe (Plain) - 110 mm (DSR 12.42.6.2)	each	34	0.0048%		
74	Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 : 100 mm dia pipe (DSR 18.27.1)	metre	15	0.0226%		
75	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 : 100 mm diameter (DSR 19.1.1)	metre	300	0.1190%		
76	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 : 150 mm diameter (DSR 19.1.2)	metre	150	0.0939%		
77	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. 20 mm dia. nominal bore (DSR 18.12.2)	meter	150	0.0533%		

78	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. 25 mm dia. nominal bore (DSR 18.12.3)	meter	150			0.0684%
79	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. 50mm dia. nominal bore (DSR 18.12.6)	meter	150			0.1061%
80	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work – Exposed on wall. 20 mm dia. nominal bore (DSR 18.10.2)	meter	150	Bidders not to quote or write anything here	Bidders not to quote or write anything here	0.0646%
81	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work – Exposed on wall. 25 mm dia. nominal bore (DSR 18.10.3)	meter	150			0.0822%
82	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cutting and making good the walls etc. Internal work – Exposed on wall. 50mm dia. nominal bore (DSR 18.10.6)	meter	150			0.1476%
83	Providing and fixing brass bib cock of approved quality : 15 mm nominal bore (DSR 18.15.1)	Each	15			0.0057%
84	Providing and fixing brass bib cock of approved quality : 20mm nominal bore (DSR 18.15.2)	Each	15			0.0061%
85	Providing and fixing brass stop cock of approved design, quality and make 15 mm NB (DSR 18.16.1)	Each	15			0.0057%
86	Providing and fixing brass stop cock of approved design, quality and make 20 mm NB (DSR 18.16.2)	Each	15			0.0061%
87	Providing and fixing brass ball valve with C I wheel of approved quality (screwed end) for 25 mm dia nominal bore with reducer if necessary at all heights & levels (DSR 18.17.1)	Each	15			0.0093%
88	Providing and fixing brass ball valve with C I wheel of approved quality (screwed end) for 50 mm dia nominal bore with reducer if necessary at all heights & levels (DSR 18.17.4)	Each	15			0.0163%
89	Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality and colour. 600mm long towel rail with total length of 645mm, width 78mm and effective height of 88mm, weighing not less than 190gms all complete as directed by the Engineer-in-charge.. (DSR 17.73.2)	Each	15			0.0112%
90	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS 13983 with C.I. brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required, 510x1040 mm bowl depth 200mm (DSR 17.10.1.3)	Each	6			0.0419%
91	Providing and fixing wash basin above platform 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 : White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap. all complete as directed by the Engineer-in-charge.. (DSR 17.7.4)	Each	6			0.0188%
92	Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground fixed to wooden cleats with C.P. brass screws and washers all complete as directed by the Engineer-in-charge.. (DSR 17.31)	each	6			0.0096%
93	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : W.C. pan with ISI marked white solid plastic seat and lid (DSR 17.3.1)	each	9			0.0753%
94	Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : One urinal basin with 5 litre white P.V.C. automatic flushing cistern (DSR 17.4.1)	each	9	0.0561%		

95	Providing and fixing constructing road gully chamber 50 x 45 x 60 cm with bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 fine sand) including 500 x 450 mm pre cast RCC horizontal grating with frame complete as per standard design with FPS bricks. all complete as directed by the Engineer-in-charge.. (DSR 19.27.1)	each	15	0.0978%
96	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank. (DSR 18.48)	Ltr	2000	0.0220%
97	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size), inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement complete as per standard design : Inside size 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) : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 (DSR 19.7.1.1)	Each	12	0.1637%
98	Extra for depth for manholes Size 90x80 cm With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 (DSR 19.8.1.1)	meter	12	0.1126%
99	Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56m dia at top in cement mortar 1:4 (1 cement :4 coarse sand), in side 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 40mm nominal size), and making necessary channel in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement, all complete as per standard design : 0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182kg., 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 surface shall be paid red shade according to IS: 1868, Minimum anodic coating of grade AC 15)(DSR 21.1.2.1) as panel, all complete a	Each	6	0.0829%
100	Extra depth for circular type manhole 0.91m internal dia (at bottom) beyond 0.91m to 1.67m With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 (DSR 19.10.1)	meter	6	0.0484%
101	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. (DSR 19.33)	Each	6	0.0196%
102	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 to achieve 95% or more of standard proctor's MDD, including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres. (DSR 16.1)	sqm	617	0.1211%
103	Banking excavated earth/ moorum in layers not exceeding 20 cm in depth, breaking clods, watering, rolling each layer with ½ tonne roller, or wooden or steel rammers, and rolling every 3rd and top-most layer with power roller of minimum 8 tonnes to achieve 95% or more of standard proctor's MDD and dressing up, in embankments for roads, flood banks, marginal banks, and guide banks etc., lead upto 500 m and lift upto 1.5 m (All kinds of soil) DSR 2.3.1)	cum	87	0.0513%

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104	Providing and laying 75 mm thick compacted bed of dry brick aggregate of 40 mm thick nominal size including spreading, well ramming, consolidating and grouting with jamuna sand, including finishing smooth etc. complete as per direction of Engineer-in-charge. (DSR 16.64)	sqm	559			0.1235%
105	Providing, laying and fixing rails and guide rails in concrete for transformer, rail track including cutting of rails, joining of rails, anchoring lugs etc all complete.	MT	24			3.5640%
106	Supply and laying approved quality Stone aggregate 40mm size in transformer yards.	cum	648			1.4784%
Total Amount						100%

Annexure-4 ::

Schedule of Quantities & Rates for Illumination works of Traction Sub-Station (TSS) for the section

Item	Item Description	UOM	Qty	Unit Rate	Total Amount	Weightage
1	Supply, Erection, testing & commissioning of Point Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated, flexible, multistranded Cu conductor single core cable in recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box, 5A Socket and earthing the point with 1.5 sq.mm FRLS PVC insulated, flexible, multistranded Cu conductor single core cable etc. as required.	Each	50			3.0670%
2	Supply, Erection, testing & commissioning of Point Wiring for light/ power plug with 2x4 sq. mm FRLS PVC insulated, flexible, multistranded Cu conductor single core cable in surface/ recessed medium class PVC conduit along with 1 No. 4 sq. mm. FRLS PVC insulated, flexible, multistranded Cu conductor single core cable for loop earthing as required.	Meter	50			0.6209%
3	Supply, Erection, testing & commissioning of outdoor 1X60W LED Street Light fitting complete. Connection of light from junction box will be done by 2x2.5 Sq.mm FRLS PVC insulated Cu conductor single core cable and 1x2.5Sqmm FRLS PVC insulated Cu conductor single core cable for Earthing in GI Pipe with Clamp.	Each	32			11.1962%
4	Supply, Erection testing & commissioning of outdoor 1X150W LED Flood Light. Connection of light from junction box will be done by 2x2.5 Sq.mm FRLS PVC insulated Cu conductor single core cable and 1x2.5Sqmm FRLS PVC insulated Cu conductor single core cable for Earthing in GI Pipe with Clamp.	Each	8			5.5981%
5	Supply, Erection testing & commissioning of Box Type LED tube light fitting 1x18/20 W Complete with all required mounting hardware etc.	Each	32			2.2392%
6	Supply, Erection testing & commissioning of C/Fan 1400mm complete with D/Rod, canopy and Step type Electronic regulator (Appr. 300-600 W). Make - Bajaj, Crompton, Khaitan, Orient, Usha, Havells. Ceiling Hooks is also to be supplied.	Each	8			0.8787%
7	Supply, Erection testing & commissioning of Exhaust Fan as per IS-2312, Single phase, 380 mm sweep, 1400 RPM complete with mounting arrangement, grills etc. for TSS battery room	Nos	2			1.0946%
8	Supply, Erection, testing & commissioning of Air circulators as per IS-2997, Single phase, 30" sweep, 3-Blade type, wall mounted with base plate complete with wire guard, mounting arrangement etc.	Nos	12			15.2863%
9	Supply, Erection, testing & commissioning of 2X15/5A Power socket 6/3 Pin Piano type complete with LED indicator. Make - Anchor, Reador, Roma.	Each	12			0.4199%
10	Supply & Erection of Fireproof LED Light Fitting with Lamp 5/8 W complete with suitable holder	Each	4			0.4976%
11	Supply, Erection, testing & commissioning of Point Wiring for circuit/ sub-main wiring along with earth wire with 2 x 6 sq. mm + 1 x 6 sq. mm earth wire of FRLS PVC insulated, flexible, multistranded Cu conductor, single core cable in recessed medium class PVC conduit as required.	Meter	10			0.1546%
12	Supply, Erection, testing & commissioning of Sheet enclosed 20A MCB Controlled 3-Pin 20A Plug socket	Each	12			1.1663%
13	Supply, Erection, Testing & Commissioning of Sheet steel Distribution board with 1 no. 63A DP incoming Switch and 4 nos. 32A SP, 7 NOs. 16A SP, 2 Nos 6 A SP outgoing MCB with 1+1 Copper Busbars and 2 ON/OFF timers with DP 6A contactors for two Circuits & earth Busbar. Panel shall be suitable for wall cum floor mounting arrangements. Door shall be hinge type with suitable locking arrangement. Indication Neon lamp shall be provided for each MCB. Panel shall be fabricated using 14 SWG MS sheet and shall be powder coated confirming to relevant IS.	Nos	2			4.4646%

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14	Supplying and fixing of 32 mm dia X 2.00 metres long G.I. pipe (medium class) bracket for mounting of fluorescent / HPMV / HPSV street light fitting on pole including bending the pipe to the required shape, 2 nos 40 mm X 3 mm flat iron clamps with nuts, bolts and washer, painting the flat iron with primer and finish paint etc. as required.	Each	2
15	Supply & Erection of 11 Mtr Swaged tubelar pole (410SP54 as per IS 2713) with 1.5Mtr Arm. Holes for Junction box and Stud for earthing should be done before painting & erection.	Nos	6
16	Supply & Erection of 9 Mtr Swaged tubelar pole (410SP32 as per IS 2713) with 1.5Mtr Arm. Holes for Junction box and Stud for earthing should be done before painting & erection.	Nos	30
17	Supply, Erection, Testing & commissioning of FRP Switch boxes on Pole	Nos	33
18	Supply & embedding of 40mm dia GI Pipe (Medium class) during casting for Flood lighting & Street light pole as per RDSO drawing.	Meter	36
19	Supplying 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.	Meter	900
20	Supply, laying, testing & commissioning of 4Cx16Sqmm Aluminium cable with round steel GI armoured wire XLPE insulated and PVC sheathed for 1.1kV insulation to IS7098 (Part-1). Cable to be laid in trench/wall with suitable size clamps/GI pipes as per site requirement.	Meter	1000
21	Excavation of 450mm wide x750mm deep cable trench and refilling and resurfacing the same after laying of cable.	Meter	900
22	Supply & laying of RCC warning covers (including warning covers for 2.2kV cable laying) as per RDSO drawing ET/SK/767	Nos	1800
Total Amount			

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0.1254%
6.3662%
19.8500%
4.0454%
0.8209%
2.0413%
9.2157%
4.8320%
6.0192%
100.0000%

Annexure-5 ::

Section-05 Schedule of Quantities & Rates for Illumination works of Each Switching Post (SP/SSP)

Item No.	Item Description (Explanatory Notes mentioned in TCC to be read)	Unit	Qty	Unit Rate	Total Amount (Rs.)	Weightage %
A	B	C	D	E	F	G
1	Supply, Erection, testing & commissioning of Point Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated, flexible, multistranded Cu conductor single core cable in recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box, 5A Socket and earthing the point with 1.5 sq.mm FRLS PVC insulated, flexible, multistranded Cu conductor single core cable etc. as required.	Each	5			6.2462%
2	Supply, Erection, testing & commissioning of Point Wiring for light/ power plug with 2x4 sq. mm FRLS PVC insulated, flexible, multistranded Cu conductor single core cable in surface/ recessed medium class PVC conduit along with 1 No. 4 sq. mm. FRLS PVC insulated, flexible, multistranded Cu conductor single core cable for loop earthing as required.	Meter	10			2.5289%
3	Supply, Erection, testing & commissioning of outdoor 1X60W LED Street Light fitting complete. Connection of light from junction box will be done by 2x2.5 Sq.mm FRLS PVC insulated Cu conductor single core cable and 1x2.5Sqmm FRLS PVC insulated Cu conductor single core cable for Earthing in GI Pipe with Clamp.	Each	2			14.2512%
4	Supply, Erection testing & commissioning of Box Type LED tube light fitting 1x18/20 W Complete with all required mounting hardware etc.	Each	2			2.8502%
5	Supply, Erection testing & commissioning of C/Fan 1400mm complete with D/Rod, canopy and Step type Electronic regulator (Appr. 300-600 W). Make - Bajaj, Crompton, Khaitan, Orient, Usha, Havells. Ceiling Hooks is also to be supplied.	Each	1			2.2370%
6	Supply, Erection testing & commissioning of Exhaust Fan as per IS-2312, Single phase, 380 mm sweep, 1400 RPM complete with mounting arrangement, grills etc. for TSS battery room	Nos	1			11.1459%
7	Supply, Erection, testing & commissioning of 2X15/5A Power socket 6/3 Pin Piyano type complete with LED indicator. Make - Anchor, Reador, Roma.	Each	2			1.4251%
8	Supply & Erection of Fireproof LED Light Fitting with Lamp 5/8 W complete with suitable holder	Each	1			2.5335%
9	Supply, Erection, testing & commissioning of Point Wiring for circuit/ sub-main wiring along with earth wire with 2 x 6 sq. mm + 1 x 6 sq. mm earth wire of FRLS PVC insulated, flexible, multistranded Cu conductor, single core cable in recessed medium class PVC conduit as required.	Meter	5			1.5738%
10	Supply, Erection, testing & commissioning of Sheet enclosed 20A MCB Controlled 3-Pin 20A Plug socket	Each	1			1.9793%

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11	Supply, Erection, Testing & Commissioning of Sheet steel Distribution board with 1 no. 63A DP incoming Switch and 3 nos. 32A SP, 3 Nos 6 A SP outgoing MCB with 1+1 Copper Busbars and 1 ON/OFF timers with DP 6A contactors for one Circuits & earth Busbar. Panel shall be suitable for wall cum floor mounting arrangements. Door shall be hinge type with suitable locking arrangement. Indication Neon lamp shall be provided for each MCB. Panel shall be fabricated using 14 SWG MS sheet and shall be powder coated conforming to relevant IS.	Nos	1			26.0578%	
12	Supplying and fixing of 32 mm dia X 2.00 metres long G.I. pipe (medium class) bracket for mounting of fluorescent / HPMV / HPSV street light fitting on pole including bending the pipe to the required shape, 2 nos 40 mm X 3 mm flat iron clamps with nuts, bolts and washer, painting the flat iron with primer and finish paint etc. as required.	Each	1			1.2774%	
13	Supply & Erection of 9 Mtr Swaged tubular pole (410SP32 as per IS 2713) with 1.5Mtr Arm. Holes for Junction box and Stud for earthing should be done before painting & erection.	Nos	1	Bidders not to quote or write anything here	Bidders not to quote or write anything here	13.4753%	
14	Supply, Erection Testing & commissioning of FRP Switch boxes on Pole	Nos	1			2.4966%	
15	Supply & embedding of 40mm dia GI Pipe (Medium class) during casting for Flood lighting & Street light pole as per RDSO drawing.	Meter	1			0.4644%	
16	Supplying 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.	Meter	50			2.3096%	
17	Supply, laying, testing & commissioning of 4Cx16Sqmm Aluminium cable with round steel GI armoured wire XLPE insulated and PVC sheathed for 1.1kV insulation to IS7098 (Part-1).	Meter	25			4.6921%	
18	Excavation of 450mm wide x750mm deep cable trench and refilling and resurfacing the same after laying of cable.	Meter	10			1.0934%	
19	Supply & laying of RCC warning covers as per RDSO drawing	Nos	20			1.3621%	
Total Amount							100.0000%