

BILL OF QUANTITY- CUM - RATE SCHEDULE**Name of Project : 400kV CSR Project at Dhule.****Name of Work : Civil Works of Yard**

S.No.	Description of Item	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
1	Carriage of surplus excavated earth beyond initial lead of 50m by mechanical transport not necessarily all the time on pucca roads, for the following additional leads including loading, unloading, dressing of excavated material etc. completed as per specifications lead upto 1.0 km.				
(a)	Earth	cum	855	34.77	29728.35
(b)	Excavated rock	cum	100	56.64	5664.00
2	Earth work in excavation over areas (Exceeding 30 cms in depth, 1.5 m in width as well as 10 sq mtrs on the plan) including disposal of the excavated earth, lead upto 100 m and lift upto 3.5 m, disposed earth to be levelled and neatly dressed:				
(a)	All kinds of soil	cum	1850	91.50	169275.00
(b)	Ordinary rock	cum	50	139.30	6965.00
(c)	Hard rock (blasting prohibited)	cum	50	293.75	14687.50
3	Earthwork in excavation 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 3.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50m.				
(a)	All kinds of soil	cum	60	93.55	5613.00
(b)	Ordinary rock	cum	10	153.90	1539.00
(c)	Hard rock (blasting prohibited)	cum	5	303.10	1515.50
4	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, for all lifts and all leads	cum	1070	30.25	32367.50
5	Supplying & filling in plinth with local sand underfloors including watering, ramming, consolidating & dressing complete.	cum	10	213.30	2133.00
6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering all work upto plinth level.				
(a)	1:4:8 (1 Cement : 4 coarse sand: 8 graded stone aggregate 40mm nominal size)	cum	103	1404.70	144684.10
7	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for RCC structural elements 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. - M25 grade				
(a)	All works upto plinth level.	cum	620	2368.05	1468191.00

S.No.	Description of Item	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
(b)	All works above plinth level i/c columns, lintel beams, roof beams & slabs, etc..	cum	50	2602.25	130112.50
8	Centering and shuttering including strutting, propping etc and removal of form for :				
(a)	Foundations, footings, bases of columns etc for mass concrete	sqm	1065	61.10	65071.50
(b)	Walls (any thickness) including attached pilasters, buttresses plinth and string courses etc.	sqm	735	106.40	78204.00
(c)	Suspended floors, roofs, landings, balconies and access platforms.	sqm	100	111.20	11120.00
(d)	Lintels, beams, plinth beams, girders, bressumers and cantilevers.	sqm	220	87.95	19349.00
(e)	Columns, pillarspiers, Abutments, Posts and Struts	sqm	374	135.80	50789.20
9	Steel reinforcement -Cold twisted bars /TMT				
(a)	Including supply and bending, binding (i/c cost of binding wire), placing in position, etc., all labour & material, complete.	Kg	50000	21.85	1092500.00
10	Providing and fixing (all dia & length) GI foundation bolts in position with help of proper templates including supply of templates, nuts and washers all complete as per specs, drawings & directions of Engr-in-Charge. (Mass of zinc coating = 610gms/sqm)	kg	2200	45.15	99330.00
11	Structural steelwork welded in built up sections like monorails, channel/beam supports for roofing & trfr/reactor gratings, edge protection angles/insert plates with lugs & framed work including providing, cutting, hoisting, fixing in position/ embedding in concrete and applying a priming coat of approved steel primer all complete.	kg	3600	24.30	87480.00
12	Steelwork welded in built up sections/framed work including providing, cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc., as required, in trfr/reactor gratings, frames, guard bar, ladders, railings, brackets, gates and similar works.	kg	15000	29.15	437250.00
13	Providing & fixing in position precast cement concrete trench covers, coping, roof units, fascia, RCC grills, etc., at various elevations in all kinds of work including moulding, formwork, mixing, laying out, compacting and curing, storing, transportation, erection without damage, setting in position with cement and sand mortar, grouting etc all as per specs, drawings and directions of Engr-in-Charge but excluding the cost of reinforcement, inserts, edge angles, etc, and of following grade:				
(a)	M25	cum	30	3100.00	93000.00

S.No.	Description of Item	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
14	Grouting of block outs, pockets, foundations, bolts holes and underside of base plates with ready mixed grout or grout consisting of 2 parts by weight of sand, 1 part by weight of cement including approved plasticizer, non-shrink admixture, in the required proportion as recommended by manufacturer/Engineer, including placing, curing, cleaning, surface preparation, testing, etc. complete with labour, materials, equipment, handling, testing, etc. all complete as per specifications, drawings and instructions of the Engineer.	cum	2	2800.00	5600.00
15	Fixing (all dia & length) foundation bolts in position with help of proper templates(to be supplied by contractor) including nuts and washers all complete as per specs, drawings & directions of Engr-in-Charge.Bolts to be provided by BHEL free of cost.	kg	500	3.00	1500.00
16	Providing gravel/metal spreading 150mm thick consisting of layers of stone dust and 40 & 20mm size machine crushed stone as per normal switchyard practice including preparation of surface, etc., all complete as per directions of Engr-in-Charge..	sqm	2700	90.00	243000.00
17	Brick work with F.P.S bricks of class designation 75 in foundation and plinth in				
(a)	Cement mortar 1:6 (1 cement : 6 coarse sand)	cum	70	1384.50	96915.00
18	Extra for brick work in superstructure above plinth level up to floor five level	cum	62	206.40	12796.80
19	12mm cement plaster of mix				
(a)	1:6 (1 cement : 6 fine sand)	sqm	270	44.00	11880.00
20	15mm cement plaster on rough side of single or half brick wall of mix				
(a)	1:6 (1 cement : 6 coarse sand)	sqm	270	54.15	14620.50
21	6mm cement plaster to ceiling of mix				
(a)	1:4 (1 cement : 4 fine sand)	sqm	100	40.00	4000.00
22	52 mm thick cement concrete flooring with "Hardcrete" concrete hardener topping under layer 40 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick metallic concrete hardener consisting of mix 1: 2 (1 cement hardener mix : 2 stone aggregate 6 mm nominal size) by volume with which "Hardcrete" hardening compound of "Snowcem India Ltd" or equivalent is mixed @ 2 litre "hardcrete" per 50kg of cement including cement slurry, but excluding the cost of nosing of steps etc. complete.	sqm	72	172.40	12412.80

S.No.	Description of Item	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
23	Cement plaster skirting (up to 30 cm height) with cement mortar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement.				
(a)	21 mm thick	sqm	12	110.20	1322.40
24	Providing and fixing steel glazed doors, windows and ventilators of standard rolled steel sections, joints mitred and welded with 15X3mm lugs 10cm long, embedded in cement concrete blocks 15X10X10cm of 1:3:6 (1 cement : 3 coarse sand : 6 gradititting except necessary hinges or pivots as required.ed stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required, including providing and fixing of glass panes with glazing clips and special metal sash putty of approved make complete including applying a priming coat of approved steel primer, excluding the cost of metal beading and other fitting except necessary hinges or pivots as required.				
(a)	Windows side hung	sqm	12	1065.75	12789.00
25	Providing and fixing pressed steel door frames manufactured from commercial mild steel sheet of 1.25 mm thickness including hinges jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50 x 25 mm, or base ties of 1.25 mm pressed mild steel welded or rigidly mixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 2.5 mm thick with mortar guards, lock strike-plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surface as directed by Engineer-in-Charge.				
	Profile A	RM	34	166.35	5655.90
26	Providing, supplying, fitting, erecting and fixing in position fireproof steel doors at various levels and elevations, as per drawings, specifications and directions of the Engineer-in-charge.				
(a)	Hollow double sheet plain shutters including sound deadened by filling mineral wool inside the voids. - 45mm thk	sqm	30	1250.00	37500.00
27	White washing with lime to give an even shade:				
(a)	New work (three or more coats)	sqm	80	4.65	372.00
28	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 priming coat with cement primer.	sqm	270	29.70	8019.00
29	Finishing walls with Acrylic Smooth exterior paint "Trump" of M/s Snowcem India Ltd, or equivalent of required shade:				

S.No.	Description of Item	Unit	Quantity	Unit Rate (Rs)	Amount (Rs)
(a)	New work (Two or more coats applied @ 1.67 kg/10 Sq mtrs over and including base coat of water-proofing cement paint Snowcem Plus or equivalent applied @ 2.20 Kg/ 10 sq mtrs).	sqm	270	40.85	11029.50
30	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
(a)	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture.	sqm	72	37.35	2689.20
31	Making plinth protection 50 mm thick of cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone) aggregate 20 mm nominal size) over 75 mm bed of dry brick ballast 40 mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth.	sqm	50	143.95	7197.50
					4535868.75