

BILL OF QUANTITY-CUM-PRICE SCHEDULE

Name of Project : 400KV SERIES CAPACITOR INSTALLATION
Name of Work : CIVIL WORKS OF YARD
AT WARDHA.

S.No.	Description of Item	Quantity	Unit	Unit Rate(Rs)	Amount(Rs)
1	Earthwork in excavation by mechanical means(Hydraulic excavator)/manual means over areas (exceeding 30cm in depth 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rain water/subsoil seepage water and disposal of excavated earth upto 100m and lift upto 3.5m, disposed earth to be levelled and neatly dressed.				
(a)	All kinds of soil .	6000	cum	101.85	611100.00
2	Earthwork in excavation by mechanical means (Hydraulic excavator)/manual means in foundation trenches or drains (not exceeding 1.5m in width as well as 10sqm on plan) including dewatering as necessary of rain water/subsoil seepage water and dressing of sides and ramming of bottoms, lift upto 3.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 100m.				
(a)	All kinds of soil .	400	cum	103.40	41360.00
3	Filling available excavated earth (including rock) in trenches, plinth, sides of foundations, etc., in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead upto 100m and lift upto 3.5m.	2700	cum	45.70	123390.00
4	Carriage & disposal of surplus excavated earth/rock beyond initial lead by mechanical means not necessarily all the times on pucca roads, including loading, unloading, dressing of excavated material, etc., complete as per specifications -.				
(a)	Lead upto 1 km.	2400	cum	49.42	118608.00
(b)	Lead upto 3 km.	800	cum	63.32	50656.00
5	Supplying and filling local sand under floors including watering, ramming, consolidating and dressing complete.	10	cum	301.50	3015.00

6	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work upto plinth level.				
(a)	1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	90	cum	3257.45	293170.50
(b)	1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40mm nominal size)	180	cum	2449.00	440820.00
7	Providing and laying in position specified grade of reinforced cement concrete excluding the cost of centering, shuttering, finishing and reinforcement-All work(rafts,column,walls etc.) upto plinth level:				
(a)	1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)	600	cum	3732.00	2239200.00
8	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments,posts and struts etc. from plinth to floor five level excluding cost of centering, shuttering, finishing and reinforcement:				
(a)	1:1.5:3 (1 cement: 1.5 coarse sand: 3 graded stone aggregate 20mm nominal size)	75	cum	4092.35	306926.25
9	Centering and shuttering including strutting, propping, etc., and removal of form at all heights for.				
(a)	Foundations, footings, bases of columns, etc., for mass concrete.	500	sqm	119.25	59625.00
(b)	Columns, Pillars, Piers, Posts and Struts .	1250	sqm	238.40	298000.00
(c)	RCC walls at all levels (any thickness).	3100	sqm	180.40	559240.00
10	Steel reinforcement -Cold twisted bars /TMT/HCR				
(a)	Including supply and bending, binding (i/c cost of binding wire), placing in position, etc., all labour & material, complete.	1500	kg	42.70	64050.00
(b)	Excluding supply but including bending, binding (i/c cost of binding wire), placing in position, etc., all labour & material, complete. (See Note No:1)	66500	kg	6.50	432250.00
11	Providing & fixing gate including all allied activities, all complete as per Customer's specification (Clause 9, Technical Specification Section: Civil Works), drawing and directions of Engineer-in-charge. (Rate shall be inclusive of all items like MS channels, pipes, plates, PCC, painting etc.).Width of gate shall be 3m	2	No	50000.00	100000.00

12	Structural steelwork welded in built up sections like edge protection angles,insert plates with lugs & framed work including providing, cutting, hoisting, fixing in position/ embedding in concrete and applying a priming coat of approved steel primer all complete.	8000	kg	46.35	370800.00
13	Providing and fixing (all dia & length) 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	3000	kg	62.75	188250.00
14	Extra over Item above for providing galvanised bolts (Mass of zinc coating = 610gms/sqm), nuts & washer .	3000	kg	8.00	24000.00
15	Fixing (all dia & length) foundation bolts in position with help of proper templates(template to be supplied by contractor) all complete as per specs, drawings & directions of Engr-in-Charge.Bolts to be provided by BHEL free of cost.	200	kg	7.00	1400.00
16	Preparation and consolidation of subgrade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5cm 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 lead upto 50m.	1125	sqm	33.90	38137.50
17	Extra for compaction of earthwork in embankment under optimum moisture conditions to give at least 95% of the maximum dry density (Proctor density)	1125	sqm	4.50	5062.50
18	Supplying and stacking at site				
	90mm to 45 mm size stone aggregate	300	cum	742.30	222690.00
	63 mm to 45 mm size stone aggregate	220	cum	768.45	169059.00
	53 mm to 22.4 mm size stone aggregate	200	cum	810.55	162110.00
19	Laying spreading and compacting stone aggregate of WBM with specified stone aggregate including spreading in uniform thickness, hand picking, rolling with 3 wheeled road/ vibratory roller 8-10 tonne 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 (payment for stone aggregate, screenings, kankar, moorum and red bajri etc., to be made separately)	700	cum	192.55	134785.00
20	Supplying and stacking of stone screenings/chippings				
(a)	13.2 mm nominal size (Type A)	105	cum	892.25	93686.25
(b)	11.2 mm nominal size (Type B)	25	cum	979.40	24485.00

21	Supplying,stacking, spreading of moorum at site.	100	cum	421.85	42185.00
22	2.5 cm premix carpet surfacing with 3 cum of stone chippings 10mm nominal size per 100sqm and bitumen emulsion (Min. 65% bitumen content) of approved quality using 96 kg per cum of chippings including a tack coat of 1 kg bitumen emulsion per sqm of road surface including consolidation with road roller of 6 to 9 tonne capacity etc., complete.	1125	sqm	105.70	118912.50
23	Providing and laying seal coat of premixed fine aggregate (passing 2.36 mm and retained on 180 micron sieve) with bitumen using 128 kg of bitumen of grade 80/100 bitumen per cum of fine aggregate and 0.60 cum of fine aggregate per 100 sqm of road surface including rolling and finishing with road roller all complete.	1125	sqm	36.85	41456.25
24	Providing and laying non-pressure NP2 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc., complete.				
(a)	250mm dia. RCC pipe	10	RM	258.20	2582.00
(b)	300mm dia. RCC pipe	10	RM	338.75	3387.50
©	450mm dia. RCC pipe	10	RM	499.55	4995.50
15	Providing and laying non-pressure NP3 class (light duty) RCC pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement: 2 fine sand) including testing of joints etc., complete.				
(a)	250mm dia. RCC pipe	10	RM	400.00	4000.00
(b)	300mm dia. RCC pipe	10	RM	600.00	6000.00
©	450mm dia. RCC pipe	10	RM	800.00	8000.00
26	Providing and placing in position suitable PVC water stops conforming to IS 12200 or equivalent for construction/expansion joints between two RCC members and fixed to the reinforcement with binding wire before pouring concrete etc. complete.				
	Serrated with central bulb(225mm wide,8-11mm thick)	800	meter	386.75	309400.00
27	Providing & fixing in position precast cement concrete trench covers or perforated covers wherever necessary 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.				
	Grade of concrete shall be M20	40	cum	5000.00	200000.00

28	Providing and laying stone aggregate in 100mm thick layer using 40 mm aggregates size .Before laying the stone aggregates , the yard surface shall be treated with antiweed treatment all complete as per direction of Engineer in Charge. Over the prepared sub grade, 75mm thick base layer of cement concrete in 1:5:10 (1 cement: 5 fine sand: 10 burnt brick aggregate) shall be provided with a layer of mix 1:6 (1 cement :6 fine sand) shall be laid uniformly over cement concrete layer as per (clause no. 4.0, Technical Specification Section: Civil Works). (The rate shall be inclusive of all materials ,labour,loading,unloading and surface preparation etc. required for aggregate laying and antiweed treatment)	4400	sqm	270.00	1188000.00
29	Providing & fixing chain link fencing including all allied activities, all complete as per Customer's specification (Clause 9.0, Technical Specification Section: Civil Works), drawing and directions of Engineer-in-charge. (Rate shall be inclusive of all items like chainlink fence, galvanised tubular posts, flats, PCC. painting etc.)	750	RM	1900.00	1425000.00
30	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.	2	cum	10000.00	20000.00
31	Providing and laying CNS material/locally available moorum for foundations and cable trenches.	1380	cum	421.85	582153.00
	Total Amount (Rs.)				11131947.75

NOTE

- 1** *Reinforcement steel shall be supplied by BHEL free of cost as per norms indicated in conditions of contract. The rate quoted against Item No: 10(b) above shall be deemed to be inclusive of cost against all activities required including transportation of material from SAIL stockyard.*