

levelling of site

S N	DESCRIPTION OF ITEM	QTY	UNIT
I	II	III	IV
1	1.18 Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc complete. [PWD S.O.R.P-11/I-1.18]		
	total	1200.00	cum

Sd/-

Executive Engineer
Municipal Corporation
Ambikapur

DETAILED ESTIMATE FOR CONSTRUCTION OF WHOLESALE VEGETABLE MARKET
BLOCK A-Shops

SN	DESCRIPTION OF ITEM	QTY	UNIT
I	II	III	IV
1	1.1 Excavation for all types and sizes of foundations, trenches and drains or for any other purpose including disposal of excavated stuff upto 1.5 m lift and lead upto 50m (at least 5m away from the excavated area), including dressing and level 1.1.1 In all types of soils. [PWD S.O.R. P-9/I-1.1.1]		
	total	163.65	cum
	1.6 Extra for every additional lift of 1.5 m or part thereof. 1.6.1 All types of soils [PWD S.O.R. P-10/I-1.6.1]		
	total(185.00+26.50)	48.60	cum
2	1.18 Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc complete. [PWD S.O.R.P-11/I-1.18]		
	total	7.84	cum
3	3.1 Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work. 3.1.3 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size). PWD S.O.R.-P-23/I-3.1.3		
	total	15.67	cum
4	2.1 Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal 2.1.1 Foundations, footings, bases of columns plinth beam, curtain wall in any shape and size and all type of wall below plinth level. PWD S.O.R.-P-16/I-2.1.1		
	total	483.24	sqm
5	3.2 Providing and laying nominal mix reinforced cement concrete with crushed stone aggregate using concrete mixer in all works up to plinth level excluding cost of form work 3.2.1 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size). PWD S.O.R.-P-23/I-3.2.1		
	Subtotal C	35.18	
	total	67.58	cum
6	3.12 Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete: 3.12.1 Thermo-Mechanically treated bars FE 415 PWD S.O.R.-P-24/I-3.12.1		
	total	9418.04	Kg
7	1.17 Filling from available excavated stuff (Excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering with a lead upto 50 M. [PWD S.O.R.P-11/I-1.17]		
	total	65.98	cum
8	7.5 Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in: 7.5.4 Cement Mortar 1:6 (1 cement : 6 coarse sand) PWD S.O.R.-P-44/I-7.5.4		
	total	36.86	cum

9	1.18 Providing and filling in plinth with sand/ Crusher dust and hard moorum under floor in layers not exceeding 20cm in depth consolidating each deposited layer by ramming and watering, including dressing etc complete. [PWD S.O.R.-P-11/I-1.18]		
	total	163.49	cum
10	3.1 Providing and laying nominal mix plain cement concrete with crushed stone aggregate using concrete mixer in all works upto plinth level excluding cost of form work. 3.1.3 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size). PWD S.O.R.-P-23/I-3.1.3		
	total	40.87	cum
11	2.1 Providing and fixing form work including centring, shuttering, strutting, staging, propping bracing etc. complete and including its removal Column 2.1.5 Columns, Pillars, Piers and likes- rectangular or square in shape PWD S.O.R.-P-16/I-2.1.5		
	total	138.60	sqm
	Roof Beam		
	total	137.79	sqm
	2.1.7 Suspended floors, roofs, access platform, balconies (plain surfaces) and shelves (cast in situ) PWD S.O.R.-P-16/I-2.1.7		
	total	456.18	sqm
12	3.2 Providing and laying nominal mix reinforced cement concrete with crushed stone aggregate using concrete mixer in all works up to plinth level excluding cost of form work 3.4 Extra for laying PCC/RCC of any grade in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth: 3.2.1 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size). PWD S.O.R.-P-23/I-3.2.1		
	total	86.48	cum
13	3.12 Providing and placing in position reinforcement for R.C.C. work including straightening, cutting, bending, binding etc. complete as per drawings including cost of binding wire in foundation and plinth all complete: 3.12.1 Thermo-Mechanically treated bars FE 415 PWD S.O.R.-P-24/I-3.12.1		
	total	9846.47	Kg
14	9.37 Providing and fixing M.S. fan clamp/hook for ceiling fan made out of 16 mm dia M.S. bar bent to shape with hooked ends in R.C.C. slabs, beams during laying including painting the exposed PWD S.O.R.-P-84/I-9.37	18.00	
	total	18.00	each
15	7.5 Brick work with modular fly-ash lime bricks (FaLG Bricks) confirming to IS:12894-2002 of class designation 4.0 in foundation and plinth in: 7.5.4 Cement Mortar 1:6 (1 cement : 6 coarse sand) 7.6 Extra for brick work in superstructure above plinth level for every floor or part thereof in addition to rate for foundation and plinth: PWD S.O.R.-P-45/I-7.5.4+7.6(3350.00+121.00)		
	total	102.02	cum
16.1	11.2 Providing and making 12mm thick cement plaster of mix: 11.2.4 In Cement Mortar 1:6 (1 cement : 6 fine sand) PWD S.O.R.-P-103/I-11.2.4		
	total	697.84	sqm
16.2	11.3 Providing and making 15mm thick cement plaster on the rough side of single or half brick wall 11.3.3 In Cement Mortar 1:5 (1 cement : 5 fine sand) PWD S.O.R.-P-103/I-11.3.3	697.84	
	total	697.84	sqm

17	12.13 Providing and laying vitrified floor tiles with double charge/ multi charge printing with water absorption less than 0.5% and conforming to IS :15622 of approved make in all colours and shades and size mentioned below (+/- 10mm), 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. 12.13.1 Size 600x600mm PWD S.O.R.-P-112/I-12.12		
	total	410.40	sqm
18	12.46 15 mm thick Table rubbed polished Granite stone slab in risers and treads of steps skirting dado and pillars laid on 12mm (Average) thick base of cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with grey cement slurry including rubbing and polishing etc. complete (single stone is to be used for risers and treads of steps and width of stone for skirting and dado shall be equal to the height of skirting & dado and length of 1.0 m) 12.46.1 Granite stone grey/pink PWD S.O.R.-P-118/I-12.46.1		
	total	114.75	sqm
19	9.13 Providing and fixing steel door/ window with M.S. sheet 1mm thick, frame of angle iron, diagonal braces of angle/ flat iron of suitable size, 3.00 mm M.S. gusset plates at junctions and corners, all necessary fittings complete including applying a priming coat of red oxide zinc chromate primer. PWD S.O.R.-P-81/I-9.13		
	@35.0Kg/sqm approx	0.00	
	total	0.00	Kg
20	9.10 Providing and fixing M.S. grill of approved pattern made of M.S. flats or square or round bars welded to steel frame of windows etc. including applying a priming coat of red oxide zinc PWD S.O.R.-P-86/I-9.10		
	total	54.75	Kg
21	9.27 Supplying and fixing rolling shutter of approved makes made of 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 out side locking with push and pull arrangement complete but excluding the cost of top cover and spring. 9.27.1 80x1.25mm M.S. Laths PWD S.O.R.-P-83/I-9.27.1		
	total	116.10	sqm
22	9.28 Providing and fixing 27.5cm long wire spring for rolling shutters. PWD S.O.R.-P-83/I-9.28		
	total	18.00	each
23	9.29 Providing and fixing M.S. sheet top cover for rolling shutter 9.29.1 1.25mm thick PWD S.O.R.-P-83/I-9.29.1		
	total	38.70	sqm
24	9.30 Providing and fixing ball bearing for rolling shutters PWD S.O.R.-P-83/I-9.30		
	total	18.00	each
25	9.31 Providing and fixing mechanical device chain and crank operation for operating rolling shutters.		
	total	9.00	set
26	14.13 Providing and applying 2mm thick ready mix exterior grade approved make putty (like Birla wall care, Alltek Superfine W/R of (NCL), Asian, ICI, Nerolac, J.K. wall putty) on walls to make the surface smooth and even. PWD S.O.R.-P-133/I-14.13		
	total	1851.85	sqm

27	14.10 Wall painting with acrylic premium emulsion (plastic) paint of required shade to give an even shade. 14.10.1 On new work (two or more coats) PWD S.O.R.-P-133/I-14.10.1		
	total	1155.14	sqm
28	14.21 Applying priming coat on steel work with red oxide zinc chromate primer. PWD S.O.R.-P-134/I-14.21		
	total	348.30	sqm
29	14.22 Painting on new work (two or more coats) to give an even shade with: 14.22.1 Satin synthetic enamel paint PWD S.O.R.-P-134/I-14.22.1		
	total	353.77	sqm
30	14.14 Finishing walls with water proofing cement paint of required shade to give an even shade. 14.14.1 On new work (Two or more coats applied @ 3.84 kg/10 sqm) PWD S.O.R.-P-133/I-14.14.1		
		696.71	
	total	696.71	sqm

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EXTERNAL DEVELOPMENT-INTERNAL ROAD AND PATHWAY

SN	DESCRIPTION OF ITEM	RATE	UNIT
I	II	III	IV
1	Construction of sub-grade with Material Obtained from Borrow Pits/Borrow Area (Construction of sub-grade with approved material/selected soil having C.B.R.>8 (unless specified otherwise in the contract) obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2) SOR PAGE NO. 12 I.No. 3.13		
total		268.00	cum
2	Construction of granular sub-base by providing graded Material, carriage of mixed Material to work site, spreading in uniform layers with motor grader on prepared surface watering, rolling and compacting with vibratory power roller at OMC to achieve the desired density, complete as per clause 401 [a] Plant mix method (with Mechanically crushed stone only) (i) Grading-III Material SOR PAGE NO. 17 I.No. 4.1		
total		1,568.00	cum
3	Dry Lean Cement Concrete Sub-base as per IRC:SP-49 (Construction of dry lean cement concrete Sub-base over a prepared sub-grade with coarse and fine aggregate conforming to IS: 383, the size of coarse aggregate not exceeding 26.5 mm, aggregate cement ratio not to exceed 15:1, aggregate gradation after blending to be as per table 600-1, cement content not to be less than 150 kg/cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a paver with electronic sensor, compacting with 8-10 tonnes vibratory roller, finishing and curing as per clause 601.) [PWD SOR Page No. 32 I.No. 6.1]		
total		2,562.00	cum
4	Cement Concrete Pavement (Construction of un-reinforced, dowel jointed, plain cement concrete pavement over a prepared sub-base, coarse and fine aggregate conforming to IS:383, and graded as per table 600-3, mixed as per approved mix design at site, laid, spread, vibrated, compacted and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, sealant primer, joint sealant, de-bonding strip, dowel bar, tie rod, admixtures as approved, curing compound, finishing to lines and grades as per drawing as per clause 602.) (ii) With Cement concrete grade M-30 and minimum cement content @ 375 kg/cum. [PWD SOR Page No. 32 I.No. 6.2]		
total		5,163.00	cum
5	Providing & laying precast interlocking concrete blocks of minimum compressive strength of 300 kg/sq.cm and approved size, shape/ pattern over coarse sand bed of thickness upto 40 mm and joints thick filled with fine sand including leveling with surface vibrator, temping and sweeping etc. complete as per IRC-SP-63-2004. ii) 80mm thick Polymer coated coloured precast interlock concrete blocks SOR PAGE NO. 20 I.No. 4.14 B-ii		
		871.00	SQM

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EXTERNAL DEVELOPMENT-DRAIN

SN	DESCRIPTION OF ITEM	QTY	UNIT
I	II	III	IV
1	Excavation in all types of soil for all types and sizes of foundation and drains including disposal of excavation start upto 50m lead and left upto 1.5m dressing and levelling of pits and disposed stalf as directed by engineer in charge. [PWD S.O.R. P-8/I-1.1.1]		
	total	579.15	cum
2	Providing and filling in plinth with sand/crushed dust and hard moorum under floor, including watering, ramming, consolidating, dressing and cost of all labour, materials, T & P etc. complete [PWD S.O.R.P-9/I-1.18]		
	total	22.28	cum
3	3.1 Providing and laying nominal mix cement concrete with crushed stone aggregate using concrete mixer in foundation, plinth and at ground level excluding cost of form work. 3.1.3 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size). PWD S.O.R.-P-22/I-3.1.3		
	total	44.55	cum
4	3.4 Providing and laying nominal mix reinforcement cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of 3.4.2 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size). PWD S.O.R.-P-23/I-3.2.3		
	total	57.92	cum
5	2.1 Providing and fixing formwork including centering, shuttering, strutting, staging, propping bracing etc. complete and including its removal at all levels, for: 2.1.1 foundation, footings, base of column and plinth beam in any shape and size upto plinth level PWD S.O.R.-P-15/I-2.1.1		
	total	1098.90	sqm
6	3.4 Providing and laying nominal mix reinforcement cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of 3.4.2 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size). PWD S.O.R.-P-23/I-3.2.3		
	total	151.47	cum
7	3.4 Providing and laying nominal mix reinforcement cement concrete with crushed stone aggregate using concrete mixer in all works upto floor five level excluding cost of 3.4.2 1:1½:3 (1 cement : 1½ coarse sand : 3 graded stone aggregate 20mm nominal size). PWD S.O.R.-P-23/I-3.4.2		
	total	57.92	cum
8	3.11 Extra for precast PCC/ RCC work of any mix including form work, hoisting and fixing in Cement Mortar. 1:2 (1 Cement : 2 coarse sand) and finishing with cement plaster in Cement Mortar 1:3 (1 Cement : 3 coarse sand) but excluding reinforcement. PWD S.O.R.-P-24/I-3.4		
	total	57.92	cum

9	Providing and placing in position cold tor steel and hot rolled deform steel reinforcement of R.C.C. work including cutting binding etc. complete as per drawing including cost of binding wire and all wastages etc. complete. PWD S.O.R.-P-24/I-3.14.1		
	total	14813.50	Kg

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ESTIMATE/NIT SCHEDULE FOR PROVIDING STREET LIGHTING WORK AT WHOLESALE VEGETABLE MARKET

S. NO.	Page No./ SOR I.No.	Particulars of Items	Qty	Unit
1	2	3	4	5
1	21.7	Supply of hot dipped galvanized (in single dip to average 65 micron) octoganal pole made of 3mm thick steel sheet having window and flush cover with locking arrangement at suitable height from base for cable termination block, pole suitably reinforced with welded steel section at window cut section to make the strength of pole unaffected, with following minimum specifications including 3mm thick anchor plate, 4 nos 20mm dia foundation bolts of EN8 grade. (designed for wind speed upto 150km/hr)		
	19.8.1	9 metre high, dia 155mm at bottom and 90mm at top, base plate size 260x260x16mm, foundation bolts 750mm long	12.00	Each
2	19.28	Supplying and fixing of double over hang 50 mm dia decorative GI street light pole bracket made out of GI "A" Class pipe welded to 300 MM Long GI Pole canopy of suitable dia at angle of 102.50 Degree including having GI triangular stiffner and making arrangement for tightening the bracket with pole by providing suitable size heavy duty nuts and bolts in canopy including FRP Dome on existing pole etc. as per enclosed drawing and as per direction of engineer-in-charge. Double Over Hang 0.75 metre Long	12.00	Each
3	19.11	Erection of GI octogonal/ tubular/conical pole on existing cement concrete foundation having grouted bolts and nuts, aligning in true vertical position as per specification.		
	19.11.7	9 metre high	12.00	Each
4	19.12	Designing and providing suitable RCC foundation in Cement Concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20 mm nominal size) for 3 mere to 12 metre high GI octagonal pole including steel reinforcement form work, embedding 2 nos 50mm dia PVC pipe for cable entry in each foundation, excavation disposal of surplus soil and curing etc. as per specification.	12.00	cum
5	32.13	Providing and laying Cast-in-situ cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm including mixing with mechanical mixer, compacting with vibrator, finishing and currying etc. complete but excluding form work.	12.00	cum
6	16.3	Supplying and laying following size medium class G.I. pipe in ground below road, path etc at a depth not less than 40 cm and upto 90 cm including excavation, dismantling of road if required and refilling the trench with excavated material, ramming and making the surface good etc. as required.		
	16.3.1	50 mm internal dia	300.00	Metre

7	15.1	Supplying and laying following sizes one number FRLS PVC insulated/XLPE, PVC sheathed, steel armoured, aluminium conductor power cable of 1.1 KV grade direct in ground at a depth not less than 40 cm and upto 90 cm including excavation, sand cushioning, protective covering and refilling the trench etc as per specification, IS: 1554 (1988, Part 1) & IS: 7098 (1988, Part 1).		
	15.1.22	4 x 10 sq. mm.	900.00	Metre
	15.1.23	4 x 16 sq. mm.	900.00	Metre
8	15.28	Supplying, fixing and cramping suitable size and all type aluminium ferule/ lugs to following size 1.1 KV grade power cable core / lead, pressed with high pressure cramping tool including connection to switch gear/ MCCB etc as per specification. .		
	15.28.2	10 sq. mm	180.00	Each
	15.28.3	16 sq. mm	30.00	Each
9	9.6	Supplying and fixing metal clad busbar chamber made of 1.6 mm thick CRCA sheet with 4 strip aluminium alloy or wrought aluminium busbars of following capacity and length, complete with all accessories, including earthing the body etc. as required.		
	9.6.2	100 amps x 450mm long	12.00	Each
10	9.10	Providing and fixing metal clad, TP&N switch fuse unit (re-wirable), 415/500 volts, with porcelain re-wireble fuses including drilling holes on the board, connections, earthing the body etc. as required. (Thimbeling shall be paid separately).		
	9.10.3	100 amps	20.00	Each
11	9.11	Providing and fixing porcelain re-wireble fuse carrier and base unit on wooden board including drilling holes on the board, screws, connections etc. as required. (Thimbeling shall be paid separately).		
	9.11.4	100 amps	20.00	Each
12	9.1	Providing and fixing following rating and breaking capacity MCCB in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as per specification, IS/ IEC: 60947-2 and Ics = 100 % Icu.		
	9.1.24	4 pole MCCB, 100A, Adjustable Thermal - Magnetic Release, 35KA	10.00	Each
13	7.1	Supplying and fixing wall/ floor mounted metal board of welded construction, fabricated with minimum 50mmX 50mm X 6mm angle iron frame work, with horizontal and vertical intermediate members of suitable angle/flat iron for mounting of switch gears including painting etc. as per specification.	20.00	sqm
14	2.13	Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FR PVC insulated copper conductor, single core cable in surface steel conduit including painting etc as required.		
	2.13.1	3 X 1.5 sq. mm in 20mm conduit	180.00	Metre

15	14.20	Providing maintenance free earthing with following size GI pipe including making bore pit of minimum 150mm dia, providing and laying approved make Earthing Electrode of Pipe-in-Pipe technology as per IS 3043-1987 made of corrosion free G.I. Pipes having outer pipe of 80mm dia and inner pipe of 50mm dia and filling with specified qty highly conductive compound around pipe and above that with soft soil in bore pit complete and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. as required:		
	14.20.1	With 3 metre long GI Pipes and 50 kg back filling compound.	1.20	Each
16	14.10	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing as required.	300.00	Metre
17	14.6	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including soldering, excavation and refilling the trench etc. as required.	150.00	Mtr.
18	32.1	Earth work in all type soil except soft rock / hard rock with all lead and 1.5 metre lift, dressing, stacking excavated strata including refilling of excavated soil in trench / pit to ground level complete as required.	300.00	Cum
19	6.28	Supplying, installation, testing and commissioning of following 230/250 volts LED street light fitting with all accessories like driver, heat sink made of die cast aluminium with IP 66 protection and 15 KV surge protection on pole bracket, including connection, earthing, Separate housing for driver etc complete as per specification and P.F. should be greater than 0.9. LED chip efficacy ratio ≥ 120 lumens /watt.		
	6.28.9	120 watt	20.00	each
20	10.19	Providing and fixing penal mounting digital type ammeter of size 100x100 (NS) in existing cubical panel including, connections, testing and commissioning etc. as per specification	6.00	each
21	10.20	Providing and fixing penal mounting 0-500 volt voltmeter of size 100x100 (NS) in existing cubical panel including, connections, testing and commissioning etc. as per specification.		
	10.20.2	Digital type	15.00	each
22	NON SOR ITEM	Supply and fixing of outdoor stand mounted feeder pillar with 63 A TPN MCB incomer, single dial time switch, 45 TP contactor for the automatic switching of luminaries, power tool control self starting timer switch box complete with connection testing and	2.00	Each

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