

ESTIMATE

Name of work :- Proposed Construction of 1000MT Warehouse Unit Building In G.no.185 Paiki, For Sayaji Agro Producer Co. Ltd., At- Shelka Dhanora, Tal-Kalamb, Dist: Usmanabad (MH)

Estimated Cost of Works (Rs.) :- 12058282.00

Rupees One Crore Twenty Lakh Fifty Eight Thousand Two Hundred Eighty Two Only.



SAI CONSULTANT'S

Consulting Civil Engineer, Builders & Developers,
Approved Valuers, Chartered Engineer & Govt. Contractors.

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Ref no.


Date:-

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G.no.185 Paiki, For Sayaji Agro Producer Co. Ltd., At- Shelka Dhanora, Tal-Kalamb,
Dist: Usmanabad (MH)

RECAPITULATION SHEET

1	Work Portion (Part A)	Rs.	9546095.00
2	Add Royalty	Rs.	141270.00
3	Add Testing Charges	Rs.	15025.00
4	Add. 1.00 % Insurance on Part A	Rs.	95461.00
5	Add. Electrification Charges	Rs.	190922.00
6	Add.18.00 % GST Part A	Rs	1718297.00
	Total Rs.		11707070.00
7	Add. 3% Contigencies on Total	Rs	351212.00
	Say Rs.		12058282.00

Rupees One Crore Twenty Lakh Fifty Eight Thousand Two Hundred Eighty Two Only.


Chartered Engineer
Gaurav Rajendra Bhaskar
B.E.(Civil) A.M.I.E.
Chartered Engineer
AM3023117

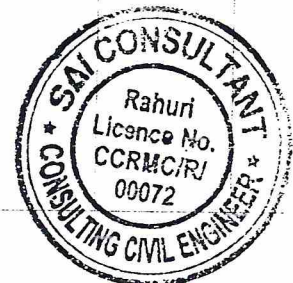

Consulting Engineer
SAI CONSULTANT
Consulting Civil Engineer
Rahuri, Dist. Ahmednagar



Name of work :- Proposed Construction of 1000MT Warehouse Unit Building In G.no.185 Paiki, For Sayaji Agro Producer Co. Ltd., At- Shelka Dhanora, Tal-Kalamb, Dist: Usmanabad (MH)

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
183.90	1	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m.beyond the building area & stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering Including shoring and strutting etc. complete. (LIFT UPTO 1.5 M.) By Mechanical Means	207.00	Cubic Metre	38067.30
104.94	2	Excavation for foundation in Hard murum in cluding removing the excavated material upto adistance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m.) By Mechanical Means	284.00	Cubic Metre	29802.96
149.30	3	Providing dry trap/ granite/ quartzite/ gneiss rubble stone soiling 15 cm to 20 cm thick including hand packing and compacting complete. Spec.No. : Bd.A.12 Page No. 264 ;	1884.27	Cubic Metre	281321.51
288.84	4	Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layersincluding watering and compacting etc. complete.	120.00	Cubic Metre	34660.80
225.02	5	Filling in plinth and floors with contractors material/ brought from outside and approved by Engineer in charge in layers of 15 cm to 20 cm including watering and compaction etc.complete.	1047.22	Cubic Metre	235645.44
30.09	6	Providing and filling in the foundation with sand of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer)	2505.15	Cubic Metre	75379.96
67.24	7	Providing and laying Cast in situ/ Ready Mix cement concrete in M-10 of trap/granite/quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete ,with fully automatic microprocess or base dPLCwith SCADA enable dreversible Drum Type mixer/ concrete Batch mix plant (Panmixer) etc.complete. With fine aggregate (Crushed sand VSI Grade)	6349.36	Cubic Metre	426930.97



Quantity	I.No	Item of work	Rate	unit	Amount
45.12	8	Providing and laying in situ cement concrete of M-25 grade of trap / granite/quartzite/gneiss metal for R.C.C. work like raft, grillages, strips, foundations and footings of R.C.C.columns and steel stanchions including bailing-out water manually, including centering formwork of plywood / steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc complete. (Excluding reinforcement) The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. (Wooden planks / shuttering will not be allowed) Spec.No.:Bd.F.2 Page No. 298 /IS 456 (1978)	7792.79	Cubic Metre	351610.68
23.01	9	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete,(Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	14472.79	Cubic Metre	333018.90
25.26	10	Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)	12940.02	Cubic Metre	326864.91



Quantity	I.No	Item of work	Rate	unit	Amount
1.99	11	Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap / granite/gneiss/ quartzite metal for R.C.C. fins of required thickness in positions as shown on the drawings or as directed by Engineer -in-charge including steel centering, plywood / steel form work, steel props, laying/ pumping, compaction ,finishing uneven and honey combed surface with C.M.1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block) Newly laid concrete shall be covered by gunny bag, plastic, tarp aulin etc. with fully automatic microprocess or based PLC with SCADA enable reversible Drum Type mixer/ concrete Batchmix plant (Panmixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)	18086.41	Cubic Metre	35991.96
2.98	12	Providing and casting in situ cement concrete of M-25 grade of trap granite / quartzite / gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings or as directed including fixing plastic cover block of required size at 27 Nos in per 10 Sqm to reinforcement to give a clear cover of 15mm in RCC slabs, fixing fan hook box of 100mm diameter PVC or MS material with required depth with holes or notches as required, bottom with 12mm diameter M.S. bar bend to shape with hooked ends for fan hook and painting to exposed surface, centering, formwork of steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement. The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Wooden planks / shuttering will not be allowed). Bd.F.8 Page No. 302 / IS 456:2000	14621.79	Cubic Metre	43572.93
9.93	13	Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	89703.00	Metric Tonne	890750.79



Quantity	I.No	Item of work	Rate	unit	Amount
58.68	14	Providing dry rubble stone pitching 23cm (about 9) thick including all material, quarry spalls, labour etc.complete.	915.27	Square Metre	53708.04
10.33	15	Providing Brick masonry in cement mortal 1:6 using second Class Burnt Bricks in foundation and plinth of inner walls/ in plinth of external walls including bailing out water manually, striking joints on unexposed faces ,watering and scaffolding complete Bd. G. 1, Page No.313,	7873.70	Cubic Metre	81335.32
81.95	16	Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete	8112.70	Cubic Metre	664835.77
1345.52	17	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.	651.70	Square Metre	876875.38
37.84	18	Providing and fixing steel ventilat or fully glazed partly fixed as per detailed drawing with hot dip zinc coating including fabricating glazing with plain/ obscured glass pans 5mm thick and approved type quality and iron oxidized fixtures and fastening with guards quare bars 12mm 10cmc /cand oil painting 2coats etc. complete.	4827.00	Square Metre	182653.68
1345.52	19	Providing and applying white-wash in one coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.	8.00	Square Metre	10764.16
1345.52	20	Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. (excluding the primer coat) etc. complete.	80.00	Square Metre	107641.60



Quantity	I.No	Item of work	Rate	unit	Amount
25.20	21	Providing and fixing rolling shutter fabricated from steel at hsofminimum thickness 0.9mm with lock plate of 3.15 mm thickness reinforced with 35x35x5mm angle section fitted with sliding bolts and handles for both sides, deep M.S.channel section of depth and thickness not less than 65mm and 3.15mm respectively with hold fastarr angements, M.S.Bracket plate 300x300x3.15mm minimum size and shape with square bar, suspension shaft of minimum 32mm diameter, hood cover of M.S. sheet not less than 0.9mm thickness and of any size attopand safety device sincluding mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade castir on or mild steel and one coat of redlead primer etc. complete.(I.S.62481979) (Without mechanical gear)	4829.00	Square Metre	121690.80
549.76	22	Providing and laying in situ cement concrete M20 with tremix treatment for 100 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.	845.96	Square Metre	465074.97
23.96	23	Providing structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting fixing in position, Making riveted/ bolted/ welded connection and one coat of anti corrosive paint and over it 2 coats of oil painting approved quality and shade etc. complete.	119459.00	Metric Tonne	2862237.64
749.23	24	Providing and fixing colour coated Zinalume (R) AZ 150 (min150 gms /sq.mt. total on each side) profiled sheets for roofing. The feed materialis manufactured out of nominal 0.45mm Base Metal Thickness (BMT) (0.5mm TCT), Hi-strength steel with min. 550 MP a yield strength, metallic hot dip coated with Aluminium-Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLOR BOND (R) steel quality super durable polyester paint coat (with in organic pigment). The paint shall have a total coating thickness of nominal 35um, comprising of nominal 25 um exterior coat on top surface and nominal 10um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with subtles quare flutingin the five panat nominal 180-250 mm center-to-center. The endrib shall be designed for anti-capillary groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. Including fasteners with min. fastened with min. 25um Zinc-Tinalloy coated, Hexhead, self-drilling screw etc. complete. (weight of profile 4.52Kilogram / Square Metre).	1173.00	Square Metre	878846.79



Quantity	I.No	Item of work	Rate	unit	Amount
9.00	25	Turbo ventilator 24" MATERIAL RATES FOR SSR For Year 2021-22,Page no. 374, Building (Bd-R : Roofing and ceiling)	9702.00	No.	87318.00
31.05	26	Providing and fixing UPVC Roof made up of 3 layers roofing material of thickness 2mm having width of 1130mm and of required Length having Tensile strength not less than 330Kilo gram/ cm ² , including fastening with self drilling screw having washers made of stainless steel etc. complete.	1594.00	Square Metre	49493.70
				Total Rs.	9546094.96
			Part A)	Say Rs.	9546095.00
200.80	27	Royalty Charges for sand	237.37	Cum	47663.90
433.00		Royalty Charges for Rubble and HM	216.18	Cum	93605.94
1.00	28	Material Testing Charges	15025.00		15025.00
				Total Rs.	156294.84
			Part B)	Say Rs.	156295.00

Gaurav Rajendra Bhaskar

Chartered Engineer

Gaurav Rajendra Bhaskar

B.E.(Civil) A.M.I.E.

Chartered Engineer

AM3023322

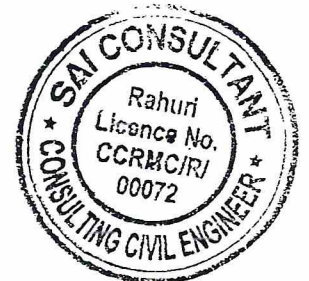
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Consulting Engineer

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Rahuri, Dist. Ahmednagar



Name of work :- Proposed Construction of 1000MT Warehouse Unit Building In G.no.185 Paiki, For Sayaji Agro Producer Co. Ltd., At- Shelka Dhanora, Tal-Kalamb, Dist: Usmanabad (MH)

MEASUREMENT SHEET

I.No.

- 1 Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 m.beyond the building area & stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering Including shoring and strutting etc. complete. (LIFT UPTO 1.5 M.) By Mechanical Means

For RCC Coloumn Type C1	20	x	1.90	x	1.90	x	1.50	=	108.30	Cum
For RCC Coloumn Type C2	6	x	1.80	x	1.80	x	1.50	=	29.16	
For RCC Coloumn Type C4	4	x	1.80	x	1.80	x	1.50	=	19.44	
For RCC Coloumn Type C5	8	x	1.50	x	1.50	x	1.50	=	27.00	
Total Qty									=	183.90 Cum

- 2 Excavation for foundation in Hard murum in cluding removing the excavated material upto adistance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary backfilling, ramming, watering including shoring and strutting etc. complete. (Lift from 1.5 to 3.0m.) By Mechanical Means

For RCC Coloumn Type C1	20	x	1.90	x	1.90	x	0.90	=	64.98	Cum
For RCC Coloumn Type C2	6	x	1.80	x	1.80	x	0.90	=	17.50	
For RCC Coloumn Type C4	4	x	1.80	x	1.80	x	0.90	=	11.66	
For RCC Coloumn Type C5	8	x	1.50	x	1.50	x	0.60	=	10.80	
Total Qty									=	104.94 Cum

- 3 Providing dry trap/ granite/ quartzite/ gneiss rubble stone soiling 15 cm to 20 cm thick including hand packing and compacting complete. Spec.No. : Bd.A.12 Page No. 264 ;

For RCC Coloumn Type C1	20	x	1.90	x	1.90	x	0.23	=	16.61	Cum
For RCC Coloumn Type C2	6	x	1.80	x	1.80	x	0.23	=	4.47	
For RCC Coloumn Type C4	4	x	1.80	x	1.80	x	0.23	=	2.98	
For RCC Coloumn Type C5	8	x	1.50	x	1.50	x	0.23	=	4.14	
Ware House Plinth	1	x	35.10	x	15.00	x	0.23	=	121.10	
Total Qty									=	149.30 Cum

- 4 Filling in plinth and floors with approved excavated material in 15cm to 20cm. layers including watering and compacting etc. complete.

Qty As per Exavated Quatity Item no.1 & 2									=	288.84	cum
Total Qty									=	288.84 cum	



- 5 Filling in plinth and floors with contractors material/ brought from outside and approved by Engineer in charge in layers of 15 cm to 20 cm including watering and compaction etc.complete.

Ware House Plinth	1	x	33.90	x	13.80	x	0.55	=	257.30	cum
Deduction Internal side WH.	2	x	35.10	x	0.60	x	0.55	=	23.17	
Periphery Rubble fillig	2	x	13.80	x	0.60	x	0.55	=	9.11	
										32.28
Total Qty									=	225.02 cum

- 6 Providing and filling in the foundation with sand of approved quality including watering, compacting etc. complete. (To be executed with prior approval of Superintending Engineer)

Deduction Internal side WH. Periphery Rubble fillig	2	x	35.10	x	0.60	x	0.10	=	4.21	cum
	2	x	13.80	x	0.60	x	0.10	=	1.66	
Ware House Flooring Soling	1	x	35.10	x	13.80	x	0.05	=	24.22	
Total Qty =									30.09	cum

- 7 Providing and laying Cast in situ/ Ready Mix cement concrete in M-10 of trap/granite/quartzite/ gneiss metal for foundation and bedding including bailing out water, Steel centering, formwork, laying/pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete ,with fully automatic microprocess or base dPLCwith SCADA enable dreversible Drum Type mixer/ concrete Batch mix plant (Panmixer) etc.complete. With fine aggregate (Crushed sand VSI Grade)

For RCC Coloumn Type C1	20	x	1.90	x	1.90	x	0.10	=	7.22	cum
For RCC Coloumn Type C2	6	x	1.80	x	1.80	x	0.10	=	1.94	
For RCC Coloumn Type C4	4	x	1.80	x	1.80	x	0.10	=	1.30	
For RCC Coloumn Type C5	8	x	1.50	x	1.50	x	0.10	=	1.80	
Ware House Plinth	1	x	35.56	x	15.46	x	0.10	=	54.98	cum
Total Qty =									67.24	cum

- 8 Providing and laying in situ cement concrete of M-25 grade of trap / granite/quartzite/gneiss metal for R.C.C. work like raft, grillages, strips, foundations and footings of R.C.C.columns and steel stanchions including bailing-out water manually, including centering formwork of plywood / steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc complete. (Excluding reinforcement) The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. (Wooden planks / shuttering will not be allowed) Spec.No.:Bd.F.2 Page No. 298 /IS 456 (1978)

1st Step of Footing

For RCC Coloumn Type C1	20	x	1.60	x	1.60	x	0.45	=	23.04	cum
For RCC Coloumn Type C2	6	x	1.50	x	1.50	x	0.45	=	6.08	
For RCC Coloumn Type C4	4	x	1.50	x	1.50	x	0.38	=	3.42	
For RCC Coloumn Type C5	8	x	1.20	x	1.20	x	0.38	=	4.38	

2nd Step of Footing

For RCC Coloumn Type C1	20	x	1.30	x	1.30	x	0.15	=	5.07	
For RCC Coloumn Type C2	6	x	1.20	x	1.20	x	0.15	=	1.30	
For RCC Coloumn Type C4	4	x	1.20	x	1.20	x	0.15	=	0.86	
For RCC Coloumn Type C5	8	x	0.90	x	0.90	x	0.15	=	0.97	
Total Qty =									45.12	cum

- 9 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. columns as per detailed designs and drawing or as directed including steel centering, formwork, concrete blocks, laying/pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc complete,(Excluding reinforcement and structural steel).with fully automatic micro process or base dPLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)

For RCC Coloumn Type C1	20	x	0.23	x	0.45	x	7.07	=	14.63	cum
For RCC Coloumn Type C2	6	x	0.23	x	0.45	x	7.07	=	4.39	



For RCC Coloumn Type C4	4	x	0.23	x	0.38	x	7.07	=	2.47
For RCC Coloumn Type C5	8	x	0.23	x	0.38	x	2.17	=	1.52
							Total Qty	=	23.01 cum

- 10 Providing and laying Cast in situ/Ready Mix cement concrete M-25 of trap / granite /quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compactionand roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel). with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Natural Sand / Crushed sand VSI Grade finely washed etc)

Long Wall Ground Beams	16	x	3.77	x	0.23	x	0.45	=	6.24
	2	x	3.44	x	0.23	x	0.45	=	0.71
Short Wall Ground Beams	4	x	3.64	x	0.23	x	0.45	=	1.51
Varandah Plinth Beams Long	4	x	3.51	x	0.23	x	0.38	=	1.23
Varandah Plinth Beams Short	8	x	1.60	x	0.23	x	0.38	=	1.12
Long & Short Wall above V2	44	x	0.95	x	0.23	x	0.38	=	3.65
Long Wall Lintel Beams	12	x	3.77	x	0.23	x	0.30	=	3.12
Long Wall Beams Above RS	4	x	3.27	x	0.23	x	0.38	=	1.14
Long Wall Floor Beams	16		3.77		0.23		0.38	=	5.27
Short Wall Floor Beams	4	x	3.64	x	0.23	x	0.38	=	1.27
							Total Qty	=	25.26 cum

- 11 Providing and laying Cast in situ/Ready Mix cement concrete in M-20 of trap / granite/gneiss/ quartzite metal for R.C.C. fins of required thickness in positionas shown on the drawings or as directed by Engineer -in-charge including steel centering, plywood / steel form work, steel props, laying/ pumping, compaction ,finishing uneven and honey combed surface with C.M.1:3 of sufficient minimum thickness to give a smooth and even surface or roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement, including cover block) Newly laid concrete shall be covered by gunny bag, plastic, tarp aulin etc. with fully automatic microprocess or based PLC with SCADA enable dreversible Drum Type mixer/ concrete Batchmix plant (Panmixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)

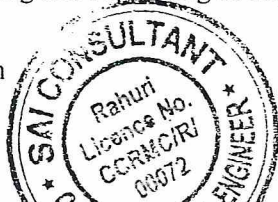
Long Wall Ventilators V2 Top	22	x	1.56	x	0.45	x	0.100	=	1.54
Long Wall Ventilators V2 Sides	44	x	0.45	x	0.30	x	0.075	=	0.45
							Total Qty	=	1.99 cum

- 12 Providing and casting in situ cement concrete of M-25 grade of trap granite / quartzite / gneiss metal for R.C.C. slabs and landings as per detailed designs and drawings or as directed including fixing plastic cover block of required size at 27 Nos in per 10 Sqm to reinforcement to give a clear cover of 15mm in RCC slabs, fixing fan hook box of 100mm diameter PVC or MS material with required depth with holes or notches as required, bottom with 12mm diameter M.S. bar bend to shape with hooked ends for fan hook and painting to exposed surface, centering, formwork of steel, compaction, covering newly laid concrete by gunny bag, plastic or tarpaulin, finishing the formed surface with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete. (Excluding reinforcement. The cement mortar 1:3 plaster is considered for rendering uneven and honeycombed surface only. Wooden planks / shuttering will not be allowed). Bd.F.8 Page No. 302 / IS 456:2000

Varandah Plinth Slab	4	x	3.73	x	1.60	x	0.125	=	2.98
							Total Qty	=	2.98 cum

- 13 Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels pardis, copings, fins, arches etc. as per detailed designs, drawings and schedules. including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.

For RCC Footing	45.12	@	90.00	Kg	=	4060.80	Kg
For RCC Coloumn	23.01	@	100.00	Kg	=	2301.00	Kg
For RCC Beam	25.26	@	120.00	Kg	=	3031.20	Kg



For RCC Fins	1.99	@	90.00	Kg	=	179.10	Kg
For RCC Slab	2.98	@	120.00	kg	=	357.60	kg
				Total Qty	=	9929.70	Kg
				Say	=	9.93	MT

- 14 Providing dry rubble stone pitching 23cm (about 9) thick including all material, quarry spalls, labour etc.complete.

Long Wall Internal Side Over size Metal in 2 Layers	2	x	35.10		x	0.60	=	42.12	Sqm
Short Wall Internal Side Over size Metal in 2 Layers	2	x	13.80		x	0.60	=	16.56	
				Total Qty	=	58.68		Sqm	

- 15 Providing Brick masonry in cement mortal 1.6 using second Class Burnt Bricks in foundation and plinth of inner walls/ in plinth of external walls including bailing out water manually, striking joints on unexposed faces ,watering and scaffolding complete Bd. G. 1, Page No.313,

Long Wall Ground Beams	16	x	3.77	x	0.23	x	0.60	=	8.32	cum
Short Wall Ground Beams	4	x	3.64	x	0.23	x	0.60	=	2.01	
									Total	10.33
									Total Qty	= 10.33 cum

- 16 Providing second class Burnt Brick masonry with conventional/ I.S. type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding etc. Complete

Long Wall Superstructure	16	x	3.77	x	0.23	x	5.20	=	72.14	cum
Short Wall Superstructure	4	x	3.64	x	0.23	x	5.20	=	17.41	cum
Short Gable Wall	2	x	7.50	x	0.23	x	2.00	=	6.90	
									Total	= 96.45
Deduction For V2	44	x	0.60	x	0.60	x	0.23	=	3.64	
Deduction For V1	26	x	1.41	x	0.60	x	0.23	=	5.06	
Deduction For RS	4	x	2.10	x	3.00	x	0.23	=	5.80	
									Total	= 14.50
									Total Qty	= 81.95 cum

- 17 Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 mm thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc.complete.

Long Wall	2	x	35.56				x	6.50	=	462.28	Sqm
Short Wall	2	x	15.46				x	6.50	=	200.98	
Long Wall	2	x	35.56				x	5.50	=	391.16	
Short Wall	2	x	15.46				x	5.50	=	170.06	
Short Span Gable Walls External	2	x	7.50				x	2.00	=	30.00	
Short Span Gable Walls Internal	2	x	7.50				x	2.00	=	30.00	
Long Wall Coloumn Offsets C1	20	x	0.44				x	6.50	=	57.20	
Long Wall Coloumn Offsets C2	6	x	0.44				x	6.50	=	17.16	
Long Wall Coloumn Offsets C4	4	x	0.29				x	2.10	=	2.44	



Long Wall Coloumn Offsets C5	8	x	1.36	x	1.20	=	13.06
Verandah Slab	4	x	4.19	x	1.83	=	30.67
Verandah Slab Sides	8	x	1.83	x	0.38	=	5.56
Verandah Slab Front	4	x	4.19	x	0.38	=	6.37
V2 Top	44	x	1.56	x	0.45	=	30.89
V2 Sides	88	x	0.45	x	0.60	=	23.76
							Total 1471.59

Deduction

Deduction For V2 Both Side	88	x	0.60	x	0.60	=	31.68
Deduction For V1 Both Side	52	x	1.41	x	0.60	=	43.99
Deduction For RS Both Side	8	x	2.10	x	3.00	=	50.40
							Total 126.07

Total Qty = 1345.52 Sqm

- 18 Providing and fixing steel ventilat or fully glazed partly fixed as per detailed drawing with hot dip zinc coating including fabricating glazing with plain/ obscured glass pans 5mm thick and approved type quality and iron oxidized fixtures and fastening with guards quare bars 12mm 10cmc /cand oil painting 2coats etc. complete.

V2	44	x	0.60	x	0.60	=	15.84	Sqm
V1	26	x	1.41	x	0.60	=	22.00	
							Total Qty = 37.84	Sqm

- 19 Providing and applying white-wash in one coat on old/ new plastered or masonry surfaces and asbestos cement sheets including scaffolding and preparing the surface by brushing and brooming down etc. complete.

Qty.As per Item no.17						=	1345.52	Sqm
							Total Qty = 1345.52	Sqm

- 20 Providing and applying plastic emulsion paint of approved quality, colour and shade to old and new surfaces in two coats including scaffolding, preparing the surface. (excluding the primer coat) etc. complete.

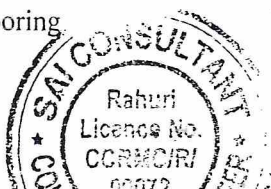
Qty.As per Item no.17						=	1345.52	Sqm
							Total Qty = 1345.52	Sqm

- 21 Providing and fixing rolling shutter fabricated from steell at hsofminimum thickness 0.9mm with lock plate of 3.15 mm thickness reinforced with 35x35x5mm angle section fitted with sliding bolts and handles for both sides, deep M.S.channel section of depth and thickness not less than 65mm and 3.15mm respectively with hold fastarr angements, M.S.Brace plate 300x300x3.15mm minimum size and shape with square bar, suspension shaft of minimum 32mm diameter, hood cover of M.S. sheet not less than 0.9mm thickness and of any size attopand safety device sincluding mechanical gear operation arrangement consisting of worm gear wheels and worms of high grade castir on or mild steel and one coat of redlead primer etc. complete.(I.S.62481979) (Without mechanical gear)

RS	4	x	2.10	x	3.00	=	25.20	Sqm
							Total Qty = 25.20	Sqm

- 22 Providing and laying in situ cement concrete M20 with tremix treatment for 100 mm thickness for flooring with groove cutting of 4mm wide and 20mm deep with necessary refilling with bitumen etc. complete.

Warehouse Flooring	1	x	35.56	x	15.46	=	549.76	Sqm
							Total Qty = 549.76	Sqm



- 23 Providing structural steel work in trusses, other similar trussed purlins and members with all bracing, gusset plates etc. as per detailed designs and drawings or as directed including cutting, fabricating, hoisting, erecting fixing in position, Making riveted/ bolted/ welded connection and one coat of anti corrosive paint and over it 2 coats of oil painting approved quality and shade etc. complete.

Total No. of Truss With Purlin	8	x	2770.00	x	=	22160.00	MT
Varandah Canopy	4	x	450.00	x	x	=	1800.00
							<u>23960.00</u>
Total Qty						=	23.96 MT

- 24 Providing and fixing colour coated Zinalume (R) AZ 150 (min150 gms /sq.mt. total on each side) profiled sheets for roofing. The feed material is manufactured out of nominal 0.45mm Base Metal Thickness (BMT) (0.5mm TCT), Hi-strength steel with min. 550 MP a yield strength, metallic hot dip coated with Aluminium- Zinc alloy (55% aluminium 43.4% zinc 1.6% silicon) with COLOR BOND (R) steel quality super durable polyester paint coat (with in organic pigment). The paint shall have a total coating thickness of nominal 35um, comprising of nominal 25 um exterior coat on top surface and nominal 10um reverse coat on back surface. Profile sheet shall have nom. 950-1050 mm effective cover width and nominal 25-30 mm deep ribs with subtle square fluting in the five panat nominal 180-250 mm center-to-center. The endrib shall be designed for anti-capillary groove. and return leg. The feed material should have coil manufacturers product details marked a regular interval. Including fasteners with min. fastened with min. 25um Zinc-Tin alloy coated, Hexhead, self-drilling screw etc. complete. (weight of profile 4.52Kilogram /

Roof Slop	2	x	10.50	x	35.56	=	746.76	Sqm
Verandah	4	x	4.19	x	2.00	=	33.52	
						Total	780.28	
Deduction For Turbo Ventilator & Sky light Upvc roof	9.00	x	3.00	x	1.150	=	31.05	
						Total	<u>31.05</u>	
Total Qty						=	749.23	Rmt

- 25 Turbo ventilator 24" MATERIAL RATES FOR SSR For Year 2021-22, Page no. 374, Building (Bd-R : Roofing and ceiling)

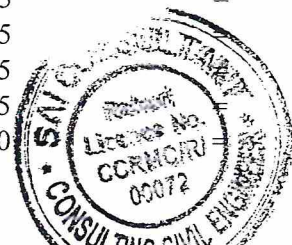
At Roof Level Ventilation						=	9.00	No.
						Total Qty	=	9.00 No.

- 26 Providing and fixing UPVC Roof made up of 3 layers roofing material of thickness 2mm having width of 1130mm and of required Length having Tensile strength not less than 330Kilo gram/ cm², including fastening with self drilling screw having washers made of stainless steel etc. complete.

	9.00	x	3.00	x	1.15	=	31.05	Sqm
						Total Qty	=	31.05 Sqm

- 27 Royalty Charges

	Material		Qty			Qty of Material	Cum
6	Providing and filling in the foundation	1	x	30.09	x	1.000	= 30.09 Cum
7	Providing and laying Cast in situ/ R	1	x	67.24	x	0.470	= 31.60
8	Providing and laying in situ cement	1	x	45.12	x	0.425	= 19.18
9	Providing and laying Cast in situ/R	1	x	23.01	x	0.425	= 9.78
10	Providing second class Burnt Brick	1	x	25.26	x	0.425	= 10.74
11	Providing sand faced plaster external	1	x	1.99	x	0.425	= 0.85
12	Providing and casting in situ cement	1	x	2.98	x	0.425	= 1.27
15	Providing Brick masonry in cement	1	x	10.33	x	0.320	= 3.31



16	Providing second class Burnt Brick	1	x	81.95	x	0.320		26.22		
17	Providing sand faced plaster extern:	1	x	1345.52	x	0.033		44.40		
22	Providing and laying in situ cement	1	x	549.76	x	0.043		23.36		
						Sand	Total Qty	=	200.80	Cum
3	Providing dry trap/ granite/ quartzit	1	x	149.30	x	1.00		=	149.30	
5	Filling in plinth and floors with con	1	x	225.02	x	1.00		=	225.02	
14	Providing dry rubble stone pitching	1	x	58.68	x	1.00			58.68	
						Hm and Rubble	Total Qty	=	433.00	Cum

Geshaska

Chartered Engineer

Gaurav Kajendra Bhaskar

B.E.(Civil) A.M.I.E.

Chartered Engineer

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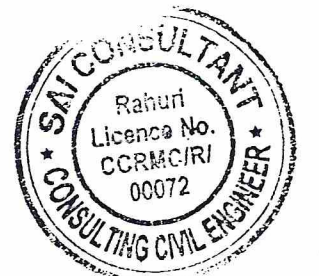
Sadha

Consulting Engineer

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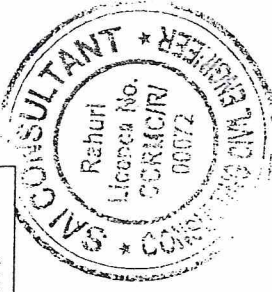
Consulting Civil Engineer

Rahuri, Dist. Ahmednagar



RATE ANALYSIS AS PER PWD SSR 2022-23 For MAHARASTRA STATE

Sr. No.	Description of Item	S.S.R. Page No. & It. No.	Add extra lead charges for.....						Basic Rate	Total Lead charges	Gross Rate
			Rubble/Cr. Metal	Sand	Cr. Metal	Murum	Cement/Steel				
1	Excavation for foundation in earth, soil of all types, sand, g	21.02	502.27	345.15	355.50	252.22	5.22	207.00	0.00	207.00	
2	Excavation for foundation in Hard murum in cluding remov	21.08						284.00	0.00	284.00	
3	Providing dry trap/ granite/ quartzite/ gneiss rubble stone so	21.38	1.00					1382.00	502.27	1884.27	
4	Filling in plinth and floors with approved excavated materi	21.36						120.00	0.00	120.00	
5	Filling in plinth and floors with contractors material/ broug	21.37				1.00	252.22	795.00	252.22	1047.22	
6	Providing and filling in the foundation with sand of approv	21.39						2160.00	345.15	2505.15	
7	Providing and laying Cast in situ/ Ready Mix cement concr	24.01		1.00				5830.00	4.40	6349.36	
8	Providing and laying in situ cement concrete of M-25 grade	25.13		0.47				7287.00	7.50	7792.79	
9	Providing and laying Cast in situ/Ready Mix cement concr	25.33		0.425				13967.00	7.50	14472.79	
10	Providing and laying Cast in situ/Ready Mix cement concr	25.52		0.425				12452.00	7.50	12940.02	
11	Providing and laying Cast in situ/Ready Mix cement concr	26.31		0.425				17601.00	7.50	18086.41	
12	Providing and casting in situ cement concrete of M-25 grad	25.72		0.425				14116.00	7.50	14621.79	
13	Providing and fixing in position TMT - FE - 500 bar reinfor	26.33		0.425				89703.00	0.00	89703.00	
14	Providing dry rubble stone pitch - g 23cm (about 9) thick in	2.34						413.00	502.27	915.27	
15	Providing Brick masonry in cement mortar 1:6 using second	27.01						7755.00	1.58	7873.70	
16	Providing second class Burnt Brick masonry with conventio	27.05		0.32				7994.00	1.58	8112.70	
17	Providing sand faced plaster externally in cement mortar us	32.11		0.32				639.00	0.25	651.70	
18	Providing and fixing steel ventilat or fully glazed partly fixe	39.30		0.033				4827.00	0.00	4827.00	
19	Providing and applying white-wash in one coat on old/ new	36.02						8.00	0.00	8.00	
20	Providing and applying plastic emulsion paint of approved	36.12						80.00	0.00	80.00	
21	Providing and fixing rolling shutter fabricated from steell at	39.24						4829.00	0.00	4829.00	
22	Providing and laying in situ cement concrete M20 with tren	33.30						796.00	0.00	796.00	
23	Providing structural steel work in trusses, other similar truss	23.04		0.043				119459.00	0.70	119459.00	
24	Providing and fixing colour coated Zincalume (R) AZ 150 (38.34						1173.00	0.00	1173.00	
25	Turbo ventilator 24" MATERIAL RATES FOR SSR For Y	SSR 22-23, Page no. 374 I.no.42						9702.00	0.00	9702.00	
26	Providing and fixing UPVC Roof made up of 3 layers roofi	38.37						1594.00	0.00	1594.00	
27	Royalty Charges for Rubble and HM							216.18	0.00	216.18	



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Gaurav Rajendra Bhaskar
B.E. (Civil) A.M.I.E.
Chartered Engineer
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Name of work :- Proposed Construction of 1000MT Warehouse Unit Building In G.no.185 Paiki, For Sayaji Agro Producer Co. Ltd., At- Shelka Dhanora, Tal-Kalamb, Dist: Usmanabad (MH)

Appendix - I

Lead Chart

Sr. No.	Description	Rubble	Murum	Crush metal	Crush metal 40 mm above	Sand	Cement	Steel	Asphalt
1	2	3	4	4	4	5	6	7	8
	Source	Restricted	Local	Restricted	Restricted	Restricted	Local	Local	
1	Average lead as per Quarry chart in km	15.00	5.00	15.00	15.00	15.00	1.00	1.00	
2	Lead charges	502.27	252.22	355.50	410.55	345.15	104.39	104.39	
4	Extra lead charges	502.27	252.22	355.50	410.55	345.15	104.39	104.39	
5	Extra lead charges per bag of cement						5.22		

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Chartered Engineer

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Name of work :- Proposed Construction of 1000MT Warehouse Unit Building In G.no.185 Paiki, For Sayaji Agro Producer Co. ltd., At- Shelka Dhanora, Tal-Kalamb, Dist: Usmanabad (MH)

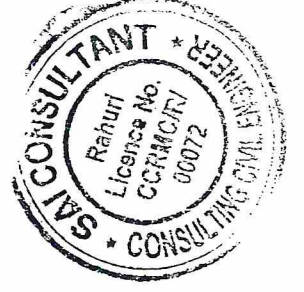
TESTING CHART

Item	Qty	Soil/HM	Bitumen	Metal	Agg.	Tests	Frequency	Total Test	At Site	At Lab	Rate	Amt
Concrete												
		Cement	Sand		Agg							
M 10	38.20	8.40	17.95		35.91	Comp. Strength- Cube		9	5	4	690.00	2760.00
M 20	54.98	19.24	2.34		49.48							0.00
M 25	78.05	29.27	3.32		70.25							
Total	171.23	56.91	23.61		155.63	Crush Metal-Basic Test	1/1000 Cum	3	2	1	2600.00	2600.00
		MT	Cum		Cum	Gradation	1/100 Cum	3	2	2	745.00	1490.00
						Comboned Flakiness & Elongation of single metal	1/400 Cum	2	1	1	850.00	850.00
						Cement-Fineness, consistency. Setting time, Compressive strength, Specific Gravity	1/50 MT	1	1	1	3770.00	3770.00
						Sand-Fineness Modulus, Silt Content	1/ Source	1	1	1	1380.00	1380.00
						Water Absorption (Set of 5 Bricks), Compressive Strength(Set of 5 Bricks), Efflorescence (Set of 5 Bricks).	Set of 5 Bricks	1	1	1	2175.00	2175.00
											Total	15025.00

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Name of work :- Proposed Construction of 1000MT Warehouse Unit Building In G.no.185 Paiki, For Sayaji Agro Producer Co. Ltd., At- Shelka Dhanora, Tal-Kalamb, Dist: Usmanabad (MH)

Quarry Chart



LEAD STATEMENT

Material	Quarry	Lead in Km.
Rubble	Kalamb	15.00
Metal	Kalamb	15.00
Crushed Metal	Kalamb	15.00
Murum	Local	5.00
Crush Sand	Kalamb	15.00

CERTIFICATE.

- 1 Certified that the quarries shown on the quarry chart for metal & murum are inspected by me & they are nearest & economical to the work & contain sufficient & good quality material required for the work.
- 2 Certified that lead for quarries shown and accounted in the estimate is as per nearest route.
- 3 Certified that leads considered are found to be correct.

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