

SAI CONSULTANT'S

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

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Date:-


Name of work :- Proposed Construction of 1000MT Warehouse Building Unit In
G.No.152 & 153, For Swamimauli Farmers Producer Company Limited, At-Sakurli, Tal-
Shahapur, Dist: Thane (MH)

RECAPITULATION SHEET

1	Work Portion (Part A)	Rs.	9710571.00
2	Add Royalty	Rs.	147064.00
3	Add. 1.00 % Insurance on Part B	Rs.	97106.00
4	Add Testing Charges	Rs.	15025.00
5	Add. Electrification Charges	Rs.	291317.00
6	Add.12.00 % GST Part A	Rs	1165269.00
	Total Rs.		11426352.00
7	Add. 5% Contingencies on Total	Rs	571318.00
	Say Rs.		11997670.00

Rupees One Crore Ninteen Lack Ninty Seven Thousand Six Hundred Seventy Only.


Chartered Engineer


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



Name of work :- Proposed Construction of 1000MT Warehouse Building Unit In G.No.152 & 153, For Swaminmauli Farmers Producer Company Limited, At-Sakurli, Tal-Shahapur, Dist:Thane (MH)

ABSTRACT

Quantity	L.No	Item of work	Rate	unit	Amount
235.23	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	193.00	Cubic Metre	45399.39
117.61	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	265.00	Cubic Metre	31166.65
155.79	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 ;	1728.92	Cubic Metre	234770.05
352.84	4	Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layersincluding watering and compacting etc. complete.	113.00	Cubic Metre	39870.92
236.52	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.	837.34	Cubic Metre	198047.66
29.54	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)	2471.33	Cubic Metre	73017.86
61.62	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 balling 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)	6108.64	Cubic Metre	376414.40

Quantity	U.No	Item of work	Rate	unit	Amount
78.46	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)	7390.49	Cubic Metre	579857.85
23.85	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)	13711.49	Cubic Metre	327019.04
36.83	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, compaction and 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)	12184.74	Cubic Metre	448763.97



Rate	Unit	Amount
17744.36	Cubic	41344.36

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 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 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 (Pannixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)

14668.49	Cubic	50166.24
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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 /

71778.00	Metre	1071645.54
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13 Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams column, canopies, staircase, newels, chajjas, lintels party, 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.

820.92	Square	52571.72
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14 Providing dry rubble stone pitching 23cm (about 9) thick including all material, quarry spalls, labour etc. complete.



Quantity	L.No	Item of work	Rate	unit	Amount
21.47	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 Hd. G. 1, Page No.313,	7446.46	Cubic Metre	159875.50
104.35	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	7673.46	Cubic Metre	800725.55
1281.23	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.	610.08	Square Metre	781652.80
40.97	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.	4449.00	Square Metre	182275.53
1281.23	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.	7.00	Square Metre	8968.61
1281.23	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.	70.00	Square Metre	89686.10



Sl. No.	Item of work	Rate	Unit	Amount
21	Providing and fixing roller shutter fabricated from steel at maximum 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 fasten angement, 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 including 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.(L.S.62481979) (Without mechanical gear)	4310.00	Square Metre	90510.00
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.	800.78	Square Metre	368126.57
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.	105909.00	Metric Tonne	2801293.05
24	Providing and fixing colour coated Zincalume (R) AZ 150 (min)150 gms/sq.mt. total on each side) profiled sheets for roofing. The feed materials 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 live panel 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 / Square Metre)	1095.00	Square Metre	705369.85



Quantity	LN	Item of work	Rate	unit	Amount
11.00	25	Turbo ventilator 24" MATERIAL RATES FOR SSR For Year 2021-22, Page no. 174, Building (Bd-R Roofing and ceiling)	8680.00	No.	95480.00
37.85	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.	1477.00	Square Metre	56052.15
				Total Rs.	9710571.36
			Part A)	Say Rs.	9710571.00
222.14	27	Royalty Charges for sand	237.37	Cum	52734.12
406.35		Royalty Charges for Rubble and HM	216.18	Cum	94330.14
1.00	28	Material Testing Charges	15025.00		15025.00
				Total Rs.	162089.26
			Part B)	Say Rs.	162089.00

Ceshakar
Chartered Engineer
Gaurav Rajendra Bhoskar
B.Engg. (C.E.)
Chartered Engineer
AM2023322

Soelha
Consulting Engineer
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Rahuri, Dist. Ahmednagar



Name of work :- Proposed Construction of 1000MT Warehouse Building Unit In G.No.152 & 153, For Swamimauli Farmers Producer Company Limited, At-Sakurli, Tal-Shahapur, Dist:Thane (MH)

MEASUREMENT SHEET

L.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	2.00	x	2.00	x	1.80	=	144.00	Cum
For RCC Coloumn Type C2	4	x	2.00	x	2.00	x	1.80	=	28.80	
For RCC Coloumn Type C4	4	x	1.70	x	1.70	x	1.80	=	20.81	
For RCC Coloumn Type C5	8	x	1.70	x	1.70	x	1.80	=	41.62	
Total Qty								=	235.23	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	2.00	x	2.00	x	0.90	=	72.00	Cum
For RCC Coloumn Type C2	4	x	2.00	x	2.00	x	0.90	=	14.40	
For RCC Coloumn Type C4	4	x	1.70	x	1.70	x	0.90	=	10.40	
For RCC Coloumn Type C5	8	x	1.70	x	1.70	x	0.90	=	20.81	
Total Qty								=	117.61	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	2.00	x	2.00	x	0.23	=	18.40	Cum
For RCC Coloumn Type C2	4	x	2.00	x	2.00	x	0.23	=	3.68	
For RCC Coloumn Type C4	4	x	1.70	x	1.70	x	0.23	=	2.66	
For RCC Coloumn Type C5	8	x	1.70	x	1.70	x	0.23	=	5.32	
Ware House Unit No.2 Plinth	1	x	44.16	x	10.41	x	0.23	=	105.73	
Total Qty								=	135.79	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 Quantity = 352.84 cum

Item no.1 & 2

Total Qty = 352.84 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 Unit No 2 Plinth 1 x 44.16 x 10.41 x 0.60 = 275.82 cum

Deduction Internal side WH. 2 x 44.16 x 0.60 x 0.60 = 31.80

Periphery Rubble fillig 2 x 10.41 x 0.60 x 0.60 = 7.50

39.30

Total Qty = 236.52 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 W1 Periphery Rubble filling	2	x	44.16	x	0.60	x	0.10	=	5.30	cum
	2	x	10.41	x	0.60	x	0.10	=	1.25	
Ware House Unit no 2 Flooring Soling	1	x	44.16	x	10.41	x	0.05	=	22.99	
Total Qty =									29.54	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 microprocessor or base dPLC with SCADA enable reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc complete. With fine aggregate (Crushed sand VSI Grade)

For RCC Column Type C1	20	x	2.00	x	2.00	x	0.10	=	8.00	cum
For RCC Column Type C2	4	x	2.00	x	2.00	x	0.10	=	1.60	
For RCC Column Type C4	4	x	1.70	x	1.70	x	0.10	=	1.16	
For RCC Column Type C5	8	x	1.70	x	1.70	x	0.10	=	2.31	
Ware House Unit No.2 Plinth	1	x	44.62	x	10.88	x	0.10	=	48.55	cum
Total Qty =									61.62	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 /15

1st Step of Footing

For RCC Column Type C1	20	x	1.70	x	1.70	x	0.60	=	34.68	cum
For RCC Column Type C2	4	x	1.70	x	1.70	x	0.60	=	6.94	
For RCC Column Type C4	4	x	1.40	x	1.40	x	0.45	=	3.53	
For RCC Column Type C5	8	x	1.40	x	1.40	x	0.45	=	7.06	

2nd Step of Footing

For RCC Column Type C1	20	x	1.40	x	1.40	x	0.45	=	17.64	
For RCC Column Type C2	4	x	1.40	x	1.40	x	0.45	=	3.53	
For RCC Column Type C4	4	x	1.10	x	1.10	x	0.35	=	1.69	
For RCC Column Type C5	8	x	1.10	x	1.10	x	0.35	=	3.30	
Total Qty =									78.46	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, 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)

For RCC Column Type C1	20	x	0.23	x	0.45	x	7.50	=	15.53	cum
For RCC Column Type C2	4	x	0.23	x	0.45	x	7.50	=	3.11	
For RCC Column Type C4	4	x	0.23	x	0.38	x	7.50	=	2.62	
For RCC Column Type C5	8	x	0.23	x	0.38	x	3.70	=	2.59	
Total Qty =									23.85	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, compaction and 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	22	x	3.81	x	0.23	x	0.60	=	11.57
Short Wall Ground Beams	6	x	3.32	x	0.23	x	0.60	=	2.75
Varandah Plinth Beams Long	4	x	3.97	x	0.23	x	0.45	=	1.64
Varandah Plinth Beams Short	8	x	1.60	x	0.23	x	0.45	=	1.32
Long & Short Wall above V2	48	x	0.95	x	0.23	x	0.15	=	1.57
Long Wall Lintel Beams	22	x	3.81	x	0.23	x	0.38	=	7.33
Long Wall Beams Above RS	4	x	3.81	x	0.23	x	0.45	=	1.58
Long Wall Floor Beams	22	x	3.81	x	0.23	x	0.38	=	7.33
Short Wall Ground Beams	6	x	3.32	x	0.23	x	0.38	=	1.74
Total Qty								=	36.83 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 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 dreversible Drum Type mixer/ concrete Batchmix plant (Panmixer) etc. complete. With fine aggregate (Crushed sand VSI Grade)

Long Wall Ventilators V2 Top	24	x	1.56	x	0.45	x	0.100	=	1.68
Long Wall Ventilators V2 Sides	48	x	0.45	x	0.30	x	0.100	=	0.65
Total Qty								=	2.33 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	4.27	x	1.60	x	0.125	=	3.42
Total Qty								=	3.42 cum

- 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.

For RCC Footing	78.46	@	90.00	Kg	=	7061.40	Kg
For RCC Coloumn	23.85	@	120.00	Kg	=	2862.00	Kg
For RCC Beam	36.83	@	120.00	Kg	=	4419.60	Kg
For RCC Fins	2.33	@	90.00	Kg	=	209.70	Kg
For RCC Slab	3.42	@	110.00	kg	=	376.20	kg
				Total Qty	=	14928.90	Kg
				Say	=	14.93	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	44.16		x	0.60	=	52.99	Sqm
Short Wall Internal Side Over size Metal in 2 Layers	2	x	9.21		x	0.60	=	11.05	
					Total Qty		=	64.04	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	22	x	3.81	x	0.23	x	0.90	=	17.35	cum
Short Wall Ground Beams	6	x	3.32	x	0.23	x	0.90	=	4.12	
					Total			=	21.47	
					Total Qty		=	21.47	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	22	x	3.81	x	0.23	x	4.79	=	92.34	cum
Short Wall Superstructure	6	x	3.32	x	0.23	x	4.79	=	21.95	cum
Short Gable Wall	2	x	5.21	x	0.23	x	1.80	=	4.31	
					Total			=	118.60	
Deduction For V2	48	x	0.60	x	0.60	x	0.23	=	3.97	
Deduction For V1	28	x	1.41	x	0.60	x	0.23	=	5.45	
Deduction For RS	4	x	2.10	x	2.50	x	0.23	=	4.83	
					Total			=	14.25	
					Total Qty		=	104.35	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	44.62		x	5.88	=	524.73	Sqm
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Short Wall	2	x	10.87				
Long Wall	2	x	44.62	x	5.88	=	127.83
Short Wall	2	x	10.87	x	4.88	=	435.49
Short Span Gable Walls External	2	x	5.21	x	1.80	=	18.74
Short Span Gable Walls Internal	2	x	5.21	x	1.80	=	18.74
Long Wall Coloumn Offsets C1	20	x	0.44	x	5.88	=	51.74
Long Wall Coloumn Offsets C2	4	x	0.44	x	5.88	=	10.35
Long Wall Coloumn Offsets C4	4	x	0.53	x	4.88	=	10.35
Long Wall Coloumn Offsets C5	8	x	1.22	x	1.00	=	9.76
Verandah Slab	4	x	4.73	x	1.83	=	34.62
Verandah Slab Sides	8	x	1.83	x	0.30	=	4.39
Verandah Slab Front	4	x	4.73	x	0.30	=	5.68
V2 Top	48	x	1.56	x	0.45	=	33.70
V2 Sides	96	x	0.45	x	0.30	=	12.96
					Total		1405.17
Deduction							
Deduction For V2 Both Side	96	x	0.60	x	0.60	=	34.56
Deduction For V1 Both Side	56	x	1.41	x	0.60	=	47.38
Deduction For RS Both Side	8	x	2.10	x	2.50	=	42.00
					Total		123.94
					Total Qty	=	1281.23 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	48	x	0.60	x	0.60	=	17.28	Sqm
V1	28	x	1.41	x	0.60	=	23.69	
					Total Qty	=	40.97	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						=	1281.23	Sqm
					Total Qty	=	1281.23	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						=	1281.23	Sqm
					Total Qty	=	1281.23	Sqm

- 21 Providing and fixing rolling shutter fabricated from steel at haso minimum 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 suncluding 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)

88 = 21.00 Sgm
 = 21.00 Sgm
 Total Qty = 21.00 Sgm

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

88 = 459.71 Sgm
 = 459.71 Sgm
 Total Qty = 459.71 Sgm

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, bolting, erecting, fixing in position. Making riveted/ bolted/ welded connection and one coat of anti corrosive paint and over a 2 coats of oil painting approved quality and shade etc. complete.

Total No. of Truss With Purlin 10 x 2465.00 = 24650.00 MT
 Veranda Canopy 4 x 450.00 = 1800.00 MT
 Total Qty = 26.45 MT

24 Providing and fixing colour coated Zincalume (R) AZ 150 (mini 150 gms/sq.mt. total on each side) profiled sheets for roofing. The feed materials 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 fluting in the five panel 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/ Square Metre).

Roof Slope 2 x 7.30 x 44.16 = 644.74 Sgm
 Verandah 4 x 4.73 x 2.00 = 37.84 Sgm
 Total 682.58 Sgm
 Deduction For Turbo Ventilator & Sky Light (pvc roof) 11.00 x 3.00 x 1.150 = 37.95 Sgm
 Total Qty = 644.63 Rmt

25 Turbo ventilator 24 MATERIAL KATES FOR 59R For Year 2021-22, Page no. 374, Building (Bd-R : Roofing and ceiling)

At Roof Level Ventilation = 11.00 No.
 Total Qty = 11.00 No.

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

88 = 37.95 Sgm
 = 37.95 Sgm
 Total Qty = 37.95 Sgm
 Qty of Material Cum

6	Providing and filling in the foundation	1	x	29.54	x	1.000	=	29.54	Cum	
7	Providing and laying Cast in situ/R	1	x	61.62	x	0.470	=	28.96		
8	Providing and laying in situ cement	1	x	78.46	x	0.425	=	33.35		
9	Providing and laying Cast in situ/Rc	1	x	23.85	x	0.425	=	10.14		
10	Providing second class Burnt Brick	1	x	36.83	x	0.425	=	15.65		
11	Providing sand faced plaster extern	1	x	2.33	x	0.425	=	0.99		
12	Providing and casting in situ cemen	1	x	3.42	x	0.425	=	1.45		
13	Providing Brick masonry in cement	1	x	21.47	x	0.320	=	6.87		
16	Providing second class Burnt Brick	1	x	104.35	x	0.320	=	33.39		
17	Providing sand faced plaster extern	1	x	1281.23	x	0.033	=	42.28		
22	Providing and laying in situ cement	1	x	459.71	x	0.043	=	19.54		
						Sand	Total Qty	=	222.16	Cum
3	Providing dry trap/ granite/ quartzit	1	x	135.79	x	1.00	=	135.79		
5	Filling in plinth and floors with con	1	x	236.52	x	1.00	=	236.52		
14	Providing dry rubble stone pitching	1	x	64.04	x	1.00	=	64.04		
						Hm and Rubble	Total Qty	=	436.35	Cum

C. P. Shabkar
Chartered Engineer
Gaurav Rajendra Bhoskar
Rajendra Bhoskar
Chartered Engineer
AMC/2012/12

B. B. Bhal
Consulting Engineer
S. H. B. Bhal
Consulting Eng. Engineer
Rahuri, Dist. Ahmednagar



RATE ANALYSIS AS PER PWD SSR 2021-22 For MAHARASHTRA STATE

Sl. No.	Description of Item	SSR Page No. & B. No.	Basic Rate	Add extra lead charges for							Total Lead charges	Gross Rate		
				Rubble/Cr Metal		Sand	Cr Metal	Marble	Cement/Good					
				434.92	434.92					299.83			/M ³	434.92
1	Providing and laying in situ concrete in earth, soil or all types sand p...	21.07	193.00									0.00	193.00	
2	Providing and laying in situ concrete in lined masonry or chaling mason...	21.08	265.00									0.00	265.00	
3	Providing dry trap granite granite gneiss rubble stone so...	21.88	1294.00	1.00	434.92							434.92	1728.92	
4	filling in plinth and floors with approved cemented material brough...	21.36	113.00									0.00	113.00	
5	Providing and filling in the foundation with sand of approved...	21.37	550.00									0.00	550.00	
6	Providing and laying cast in situ Ready Mix cement concrete...	21.39	2172.00			1.00	299.83			1.00	287.34	287.34	2464.64	
7	Providing and laying in situ cement concrete of M-25 grade...	24.01	5538.00			0.47	140.92	0.940	408.82		4.40	20.90	570.64	6108.64
8	Providing and laying cast in situ Ready Mix cement concrete...	25.13	6836.00			0.425	127.43	0.90	391.43		7.50	35.63	554.49	7390.49
9	Providing and laying cast in situ Ready Mix cement concrete...	25.33	13157.00			0.425	127.43	0.90	391.43		7.50	35.63	554.49	13711.49
10	Providing and laying cast in situ Ready Mix cement concrete...	25.52	11652.00			0.425	127.43	0.85	369.68		7.50	35.63	552.74	12204.74
11	Providing and casting in situ cement concrete of M-25 grade...	26.31	17214.00			0.425	127.43	0.85	369.68		7.00	33.25	530.34	17744.34
12	Providing and casting in situ cement concrete of M-25 grade...	25.72	14114.00			0.425	127.43	0.90	391.43		7.50	35.63	554.49	14668.49
13	Providing and fixing in situ concrete Chd T - FE - 500 bar reinfoc...	26.33	71778.00									0.00	71778.00	
14	Providing dry rubble masonry including 15cm (about 9) thick and...	2.34	386.00	1.00	434.92							434.92	820.92	
15	Providing brick masonry in cement mortar 1:5 using second...	27.01	7343.00			0.32	95.95				1.58	7.51	103.46	7446.46
16	Providing second class burnt brick masonry with conventio...	27.05	7570.00			0.32	95.95				1.58	7.51	103.46	7673.46
17	Providing and fixing plaster externally in cement mortar usi...	32.11	599.00			0.033	9.89				0.25	1.19	11.08	610.08
18	Providing and fixing neat cement or full ground partly fixe...	39.30	4449.00									0.00	4449.00	
19	Providing and applying white-wash in one coat on old/new...	36.02	7.00									0.00	7.00	
20	Providing and applying plastic emulsion paint of approved q...	36.12	70.00									0.00	70.00	
21	Providing and fixing roofing drifter fabricated from steel at...	39.24	4310.00									0.00	4310.00	
22	Providing and laying in situ cement concrete MC20 with treat...	33.30	746.00			0.043	12.74	0.089	38.71		0.70	3.33	54.78	800.78
23	Providing structural steel work in trusses, other similar truss...	23.04	105909.00									0.00	105909.00	
24	Providing and fixing colour coated Zinc-alume (R) AZ 150 (C...	38.34	1095.00									0.00	1095.00	
25	Turbo ventilator 24" MATERIAL RATES FOR SSR For Ye...	SSR 21-22, Page no. 174 to 174.42	8680.00									0.00	8680.00	
26	Providing and fixing UPVC Roof made up of 3 layers made...	38.37	1477.00									0.00	1477.00	
27	Roadly Charges for Rubble and PMF		216.18									0.00	216.18	

CS Shreekrishna
Chartered Engineer

Sanku
Consulting Engineer
SANKU CONSULTANTS
Consulting Civil Engineers
Rahuri, Fort, Anandnagar



Name of work :- Proposed Construction of 1000MT Warehouse Building Unit In G.No.152 & 153, For Swaminathall Farmers Producer Company Limited, At-Sakurli, Tal-Shahapur, Dist:Thane (MH)

Appendix - I
Lead Chart

Sl. 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	Local	Local	Local	
1	Average lead as per Quantity chart in km	15.00	10.00	15.00	15.00	10.00	1.00	1.00	
2	Lead charges	434.92	287.34	434.92	434.92	299.83	95.07	95.07	
4	Extra lead charges	434.92	287.34	434.92	434.92	299.83	95.07	95.07	
5	Extra lead charges per bag cement						4.75		

C. Bhaskar
Chartered Engineer
Gaurav Rajendra Bhaskar
D.E., M.A., M.I.C.E.
Chartered Engineer
AM3022332

Sadhai
Consulting Engineer
SAY CONSULTANT
Consulting Civil Engineer
Rahuri, Dist. Ahmednagar

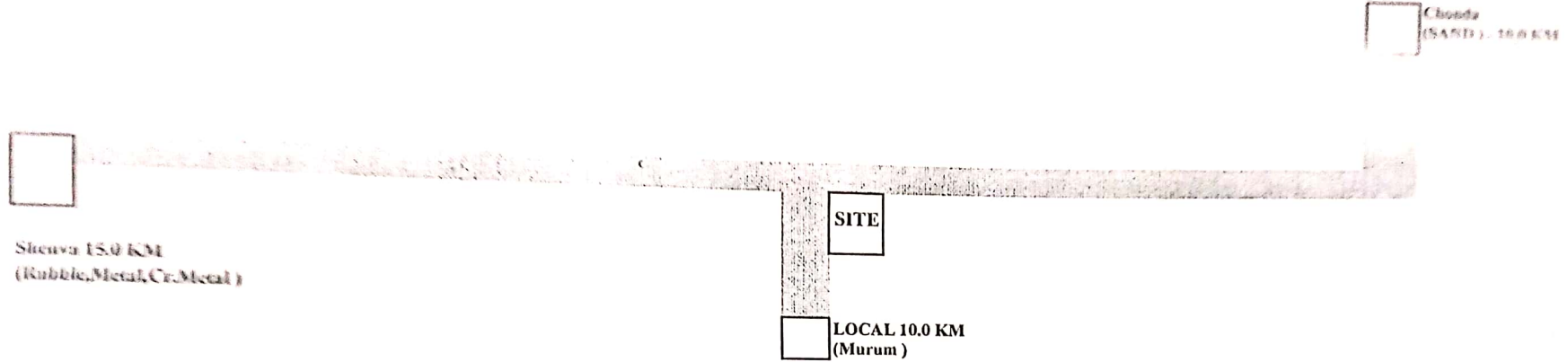


Name of work - Proposed Construction of 1000MT Warehouse Building Unit In G.No.152 & 153, For Swamimauli Farmers Producer Company Limited, At-Sabarli,Tal-Shahapur,Dist:Thane (MH)

TESTING CHART

Sl. No.	Description	Quantity	Material			Frequency	Total Test	At Site	At Lab	Rate	Amount		
			Cement	Sand	Agg								
M 10		61.67	13.56	28.56	57.92								
M 20		48.30	16.91	2.05	43.47	Comp. Strength- Cube	9	5	4	690.00	2760.00		
M 25		142.56	53.46	6.06	128.30					0.00			
Total		252.48	83.92	37.07	229.70	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

Quarry Chart



LEAD STATEMENT

Material	Quarry	Lead in Km.
Rubble	Shenva	15.00
Metal	Shenva	15.00
Crushed Metal	Shenva	15.00
Murum	Local	10.00
Sand	Chonda	10.00

CERTIFICATE.

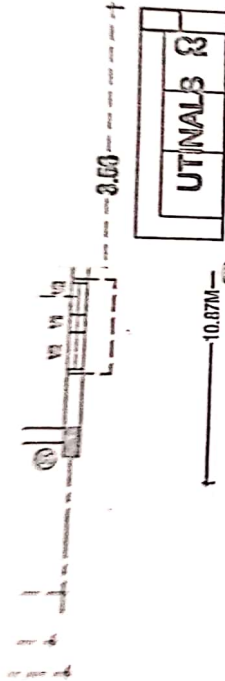
- 1 Certified that the quarries shown on the quarry chart for metal & murum are inspected by me & they are nearest & economical to the work & contain sufficient & good quality material required for the work.
- 2 Certified that lead for quarries shown and accounted in the estimate is as per nearest route.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

G. Bhaskar
 Chartered Engineer
Gaurav Rajendra Bhaskar
 B.E.(Civil) A.M.I.E.
 Chartered Engineer
 AM3023322

Zadhwa
 Consulting Engineer
PAI CONSULTANT
 Consulting Civil Engineer
 Rahur, Dist Ahmednagar

NARE HIG UNIT 1/1000 MT.

Proposed Co-Operative Warehouse Building Unit In
No.152 & Multi Farmers Producer Company
nited, At-Gr., Dist:Thane (MH)



ctor : Mr.Pram

Sadhu

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Registration/ License no of
Arch./Lic.Eng./Supervisor



SAI CONSULTANTS

CONSULTING CIVIL ENGINEERS &
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L.C.NO.ADTP-AC-5/111.

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