

ESTIMATE

Name of Work :- Proposed Construction of Machinery Plant Shed For BBP Barshi Taluka Agro Processing & Agro Producer Co.ltd, In Gat no.210/1, At-Raleras ,Tq-Barshi, Dist-Solapur (MH)

Estimated Cost of Works (Rs.) :- 3533476.00

Rupees thirty-five lakhs thirty-three thousand four hundred seventy-six and paise nil only



SAI CONSULTANT'S

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

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Ref no.

Date:-

Name of Work :- Proposed Construction of Machinery Plant Shed For BBP Barshi
Taluka Agro Processing & Agro Producer Co.ltd, In Gat no.210/1, At-Raleras ,Tq-
Barshi, Dist-Solapur (MH)

RECAPITULATION SHEET

1	S.W.I - Machinery Plant Shed Construction	Rs.	2726279.00
2	Add Royalty	Rs.	38915.00
3	Add Testing Charges	Rs.	32820.00
4	Add. 1.00 % Insurance	Rs.	27263.00
5	Add.18.00 % GST	Rs	490730.00
	Total Rs.		3316007.00
6	Add. 3% Contingencies on Total	Rs	99480.00
	A) Total Rs.		3415487.00
7	Sub Work No:-II Electrification	Rs.	99991.00
	Total Rs.		99991.00
8	Add.18.00 % GST On Electrical Work	Rs	17998.00
	B) Total Rs.		117989.00
	Grand Total (A+B) Rs.		3533476.00
	Say Rs.		3533476.00

Rupees thirty-five lakhs thirty-three thousand four hundred seventy-six and paise nil only


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


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



Name of Work :- Proposed Construction of Machinery Plant Shed For BBP Barshi Taluka Agro Processing & Agro Producer Co.ltd, In Gat no.210/1, At-Raleras ,Tq-Barshi, Dist-Solapur (MH)

S.W.I - Machinery Plant Shed Construction

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
23.33	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	4829.31
58.32	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	16562.88
42.87	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 ;	1724.62	Cubic Metre	73934.46
81.65	4	Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layersincluding watering and compacting etc. complete.	120.00	Cubic Metre	9798.00
130.49	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	136651.74
25.83	6	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)	6119.92	Cubic Metre	158077.53



Quantity	I.No	Item of work	Rate	unit	Amount
16.20	7	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)	7570.06	Cubic Metre	122634.97
4.28	8	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)	14250.06	Cubic Metre	60990.26
11.47	9	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)	12721.05	Cubic Metre	145910.44



Quantity	I.No	Item of work	Rate	unit	Amount
2.51	10	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	225154.53
1.91	11	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,	7847.47	Cubic Metre	14988.67
18.43	12	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	8086.47	Cubic Metre	149033.64
183.66	13	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.	649.00	Square Metre	119195.34
10.80	14	Providing and fixing steel window of various sizes as per detailed drawing without hotdip zinc coating, with out ventilators, including fabricating/ glazing with plain/ obscured glass panels of approved type and quality, iron oxidised fixtures and fastenings, finishing with oil painting two coats complete (with guard bars 12 mm square at 10 cm c/c.)	4827.00	Square Metre	52131.60
183.66	15	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	1469.28
183.66	16	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	14692.80



Quantity	I.No	Item of work	Rate	unit	Amount
10.50	17	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)	5308.00	Square Metre	55734.00
186.41	18	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.	835.76	Square Metre	155794.02
4.55	19	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	543538.45
489.30	20	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	573948.90



Quantity	I.No	Item of work	Rate	unit	Amount
6.00	21	Turbo ventilator 24" MATERIAL RATES FOR SSR For Year 2021-22,Page no. 374, Building (Bd-R : Roofing and ceiling)	9702.00	No.	58212.00
20.70	22	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	32995.80
				Total Rs.	2726278.62
			Part A)	Say Rs.	2726279.00
6.06	23	Royalty Charges for sand	237.37	Cum	1438.46
173.36		Royalty Charges for Rubble and HM	216.18	Cum	37476.96
				Total Rs.	38915.42
			Part B)	Say Rs.	38915.00

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S.W.I - Machinery Plant Shed Construction

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 | 12 | x | 1.80 | x | 1.80 | x | 0.60 | = | 23.33 | Cum |
| | | | | | | | | | Total Qty | = 23.33 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
- | | | | | | | | | | | |
|-------------------------|----|---|------|---|------|---|------|---|------------------|--------------------|
| For RCC Coloumn Type C1 | 12 | x | 1.80 | x | 1.80 | x | 1.50 | = | 58.32 | Cum |
| | | | | | | | | | Total Qty | = 58.32 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 ;
- | | | | | | | | | | | |
|--------------------------------|---|---|-------|---|------|---|------|---|------------------|--------------------|
| Cleaning & Grading Shed Plinth | 1 | x | 19.54 | x | 9.54 | x | 0.23 | = | 42.87 | Cum |
| | | | | | | | | | Total Qty | = 42.87 Cum |
- 4 Filling in plinth and floors with approved excavated material in 15cm. to 20cm. layersincluding watering and compacting etc. complete.
- | | | | | | | | | | | |
|-----------------------------|--|--|--|--|--|--|--|---|------------------|--------------------|
| Qty As per Exavated Quatity | | | | | | | | = | 81.65 | cum |
| Item no.1 & 2 | | | | | | | | | Total Qty | = 81.65 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.
- | | | | | | | | | | | |
|--------------------------------|---|---|-------|---|------|---|------|---|------------------|---------------------|
| Cleaning & Grading Shed Plinth | 1 | x | 19.54 | x | 9.54 | x | 0.70 | = | 130.49 | cum |
| | | | | | | | | | Total Qty | = 130.49 cum |
- 6 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 | 12 | x | 1.80 | x | 1.80 | x | 0.15 | = | 5.83 | cum |
| Cleaning & Grading Shed Plinth | 1 | x | 20.00 | x | 10.00 | x | 0.10 | = | 20.00 | |
| | | | | | | | | | Total Qty | = 25.83 cum |



- 7 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)

For RCC Coloumn Type C1	12	x	1.50	x	1.50	x	0.60	=	16.20	cum
									Total Qty	= 16.20 cum

- 8 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 Coloumn Type C1	12	x	0.23	x	0.45	x	3.45	=	4.28	cum
									Total Qty	= 4.28 cum

- 9 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	8	x	4.71	x	0.23	x	0.60	=	5.20	
Short Wall Ground Beams	4	x	4.43	x	0.23	x	0.60	=	2.45	
Long Wall Lintel Beams Over	8	x	4.71	x	0.23	x	0.30	=	2.60	
Short Wall Lintel Beams BBM	4	x	4.43	x	0.23	x	0.30	=	1.22	
									Total Qty	= 11.47 cum

- 10 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	16.20	@	70.00	Kg	=	1134.00	Kg
For RCC Coloumn	4.28	@	80.00	Kg	=	342.40	Kg
For RCC Beam	11.47	@	90.00	Kg	=	1032.30	Kg
						Total Qty	= 2508.70 Kg
						Say	= 2.51 MT



- 11 Providing Brick masonry in cement mortar 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	8	x	4.71	x	0.23	x	0.15	=	1.30	cum
Short Wall Ground Beams	4	x	4.43	x	0.23	x	0.15	=	0.61	
									Total	1.91
									Total Qty	= 1.91 cum

- 12 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 Ground Beams	8	x	4.71	x	0.23	x	2.10	=	18.20	cum
Short Wall Ground Beams	4	x	4.43	x	0.23	x	2.10	=	8.56	
									Total	= 26.76

Deduction

Deduction For RS	2	x	2.10	x	0.23	x	2.10	=	2.03	
Deduction For Long side Lintel	8	x	4.71	x	0.23	x	0.30	=	2.60	
Deduction For Short side Lintel	4	x	4.43	x	0.23	x	0.30	=	1.22	
Deduction For W1	6	x	1.50	x	0.23	x	1.20	=	2.48	
									Total	= 8.33
									Total	= 18.43
									Total Qty	= 18.43 cum

- 13 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 up to Plinth	2	x	20.00	x	1.20	=	48.00	Sqm
Short Wall up to Plinth	2	x	10.00	x	1.20	=	24.00	
Long Wall Above Plinth	2	x	20.00	x	2.52	=	100.60	
Short Wall Above Plinth	2	x	10.00	x	2.52	=	50.30	
							Total	222.90

Deduction

Deduction For RS Both Side	4	x	2.10	x	2.10	=	17.64	
Deduction For W1	12	x	1.50	x	1.20	=	21.60	
							Total	39.24
							Total Qty	= 183.66 Sqm

- 14 Providing and fixing steel window of various sizes as per detailed drawing without hotdip zinc coating, with out ventilators, including fabricating/ glazing with plain/ obscured glass panels of approved type and quality, iron oxidised fixtures and fastenings, finishing with oil painting two coats complete (with guard bars 12 mm square at 10 cm c/c.)

W1	6	x	1.50	x	1.20	=	10.80	Sqm
							Total Qty	= 10.80 Sqm



- 15 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.14	=	183.66	Sqm
Total Qty	=	183.66	Sqm

- 16 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.14	=	183.66	Sqm
Total Qty	=	183.66	Sqm

- 17 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 atopand 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	2	x	2.10	x	2.50	=	10.50	Sqm
Total Qty						=	10.50	Sqm

- 18 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.

Dal & Besan Mill Machinery Shed Flooring	1	x	19.54	x	9.54	=	186.41	Sqm
Total Qty						=	186.41	Sqm

- 19 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,Rafter Purlin,Vertical Member,Runner & etc.	5	x	790.00	x		=	3950.00	MT
Varandah Canopy	2	x	300.00	x		=	600.00	
							4550.00	
Total Qty						=	4.55	MT



- 20 Providing and fixing colour coated Zinalume (R) AZ 150 (min 150 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 / Square Metre).

Roof Slop	2	x	6.50	x	20.00	=	260.00	Sqm
Verandah	2	x	2.50	x	2.00	=	10.00	
Vertical Sheets Long Wall	2	x	20.00	x	4.00	=	160.00	
Vertical Sheets Short Wall	2	x	10.00	x	4.00	=	80.00	
Vertical Gable Wall	2	x	5.00	x	1.50	=	15.00	
						Total	=	525.00
Deduction For Turbo Ventilator & Sky light Upvc roof	6.00	x	3.00	x	1.15	=	20.70	
Deduction For RS	2.00	x	2.10	x	1.00	=	4.20	
W1	6.00	x	1.50	x	1.20	=	10.80	
						Total	=	35.70
						Net Qty	=	489.30 Rmt

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

At Roof Level Ventilation

	=	6.00	No.
Total Qty	=	6.00	No.

- 22 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.

6.00	x	3.00	x	1.15	=	20.70	Sqm
					Total Qty	=	20.70 Sqm

- 23 Royalty Charges

Material	Qty	Qty of Material	Cum
13 Providing sand faced plaster external	1 x 183.66	x 0.033	6.06
		Sand Total Qty	= 6.06 Cum
3 Providing dry trap/ granite/ quartzite/	1 x 42.87	x 1.00	= 42.87
5 Filling in plinth and floors with contr	1 x 130.49	x 1.00	= 130.49
	Hm and Rubble	Total Qty	= 173.36 Cum

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AM3023322

Saakhe
Consulting Engineer
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Name of Work :- Proposed Construction of Machinery Plant Shed For BBP Barshi Taluka Agro Processing & Agro Producer Co.ltd, In Gat no.210/1, At-Raleras ,Tq-Barshi, Dist-Solapur (MH)

S.W.I - Machinery Plant Shed Construction

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

Sr. No.	Description of Item	S.S.R. Page No. & It. No.	Basic Rate	Add extra lead charges for.....						Total Lead charges	Deduction For Scada	Gross Rate
				Rubble/Cr. Metal	Sand	Cr. Metal	Murum	Cement/Steel				
1	Excavation for foundation in earth, soil of all types, sand, gr	21.02	207.00	342.62	263.19	280.05	252.22	5.22	0.00	0.00	207.00	
2	Excavation for foundation in Hard murum in cluding remov	21.08	284.00						0.00	0.00	284.00	
3	Providing dry trap/ granite/ quartzite/ gneiss rubble stone soi	21.38	1382.00	1.00	342.62				342.62		1724.62	
4	Filling in plinth and floors with approved excavated material	21.36	120.00						0.00		120.00	
5	Filling in plinth and floors with contractors material/brough	21.37	795.00				1.00	252.22	252.22		1047.22	
6	Providing and laying Cast in situ/ Ready Mix cement concre	24.01	5830.00		0.47	0.940	263.25	4.40	22.97	409.92	6119.92	
7	Providing and laying in situ cement concrete of M-25 grade	25.13	7287.00		0.425	0.90	252.05	7.50	39.15	403.06	7570.06	
8	Providing and laying Cast in situ/Ready Mix cement concre	25.33	13967.00		0.425	0.90	252.05	7.50	39.15	403.06	14250.06	
9	Providing and laying Cast in situ/Ready Mix cement concre	25.52	12452.00		0.425	0.85	238.04	7.50	39.15	389.05	12721.05	
10	Providing and fixing in position TMT - FE - 500 bar reinfor	26.33	89703.00						0.00	0.00	89703.00	
11	Providing Brick masonry in cement mortar 1.6 using second	27.01	7755.00		0.32	84.22		1.58	8.25	92.47	7847.47	
12	Providing second class Burnt Brick masonry with conventio	27.05	7994.00		0.32	84.22		1.58	8.25	92.47	8086.47	
13	Providing sand faced plaster externally in cement mortar usi	32.11	639.00		0.033	8.69		0.25	1.31	10.00	649.00	
14	Providing and fixing steel window of various sizes as per de	39.20	4827.00						0.00	0.00	4827.00	
15	Providing and applying white-wash in one coat on old/ new	36.02	8.00						0.00	0.00	8.00	
16	Providing and applying plastic emulsion paint of approved q	36.12	80.00						0.00	0.00	80.00	
17	Providing and fixing rolling shutter fabricated from steel at	39.25	5308.00						0.00	0.00	5308.00	
18	Providing and laying in situ cement concrete M20 with trem	33.30	796.00		0.043	11.19	0.089	24.92	0.70	3.65	835.76	
19	Providing structural steel work in trusses, other similar truss	23.04	119459.00						0.00	0.00	119459.00	
20	Providing and fixing colour coated Zincalume (R) AZ 150 (f	38.34	1173.00						0.00	0.00	1173.00	
21	Turbo ventilator 24" MATERIAL RATES FOR SSR For Year 2021-22, Page no. 374, Building (Bd-R : Roofing and ceiling)	SSR 22-23, Page no. 374 I.no.42	9702.00						0.00	0.00	9702.00	
22	Providing and fixing UPVC Roof made up of 3 layers roofir	38.37	1594.00						0.00	0.00	1594.00	
23	Royalty Charges for Rubble and HM		216.18						0.00	0.00	216.18	



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Name of Work :- Proposed Construction of Machinery Plant Shed For BBP Barshi Taluka Agro Processing & Agro Producer Co.ltd, In Gat no.210/1, At-Raleras ,Tq-Barshi, Dist-Solapur (MH)

S.W.I - Machinery Plant Shed Construction

Appendix - I

Lead Chart

Sr. No.	Description	Rubble	Murum	Crush metal	Crush metal 40 mm above	Sand	Cement	Steel	
1	2	3	4	4	4	5	6	7	
	Source	Restricted	Local	Restricted	Restricted	Local	Local	Local	
1	Average lead as per Quarry chart in km	6.00	5.00	6.00	6.00	5.00	1.00	1.00	
2	Lead charges	342.62	252.22	280.05	268.39	263.19	104.39	104.39	
4	Extra lead charges	342.62	252.22	280.05	268.39	263.19	104.39	104.39	
5	Extra lead charges per bag of cement						5.22		

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Quarry Chart



LEAD STATEMENT

Material	Quarry	Lead in Km.
Rubble	Vairag	6.00
Metal	Vairag	6.00
Crushed Metal	Vairag	6.00
Murum	Local	5.00
Sand	Local	5.00

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



Name of Work :- Proposed Construction of Machinery Plant Shed For BBP Barshi Taluka Agro Processing & Agro Producer Co.ltd, In Gat no.210/1, At-Raleras ,Tq-Barshi, Dist-Solapur (MH)

S.W.1 - Machinery Plant Shed Construction

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	25.83	5.68	12.14		24.28	Comp. Strength- Cube		9	5	4	690.00	2760.00
M 20	18.64	6.99	0.79		16.78							
M 25	31.95	11.98	1.36		28.76							
Total	76.42	24.65	14.29		69.81	Crush Metal-Basic Test	1/1000 Cum	3	2	1	2600.00	2600.00
		MT	Cum		Cum	Gradation	1/100 Cum	3	2	1	745.00	745.00
						Comboned Flakiness & Elongation of single	1/400 Cum	2	1	1	850.00	850.00
						Cement-Fineness,consistency-Setting	1/50 MT	1	1	1	3770.00	3770.00
						time.Compressive strength.Specific Gravity	1/ Source	1	1	1	1380.00	1380.00
						Sand-Fineness Modulus.Silt Content	Set of 5 Bricks	1	1	1	2175.00	2175.00
						Water Absorption (Set of 5 Bricks),						
						Compressive Strength(Set of 5 Bricks),						
						Efflorescence (Set of 5 Bricks).						
						Concrete Mix Design (With all Tests on basic materials)	1/ Design	2	1	1	13755.00	13755.00
						Murum In Plinth	Plasticity Index	1	1	1	1170.00	1170.00
						RUBBLE						
						Crushing Value/Compressive Strength, Water Absorption & Specific Gravity	1/1000 Cum	1	1	1	2020.00	2020.00
						STEEL						
						Tensile strength Yield stress, ultimate tensile stress. %elongation, weight per running meter,Bend/Rebend test. (Set of 3 Bars) UP to 16mm		1	1	1	1595.00	1595.00
											Total	32820.00



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Name of Work :- Proposed Construction of Machinery Plant Shed For BBP Barshi Taluka Agro Processing & Agro Producer Co.ltd, In Gat no.210/1, At-Raleras ,Tq-Barshi, Dist-Solapur (MH)

Sub Work No:-II Electrification

ABSTRACT

Quantity	I.No	Item of work	Rate	unit	Amount
10.00	1	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 6 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL 7-1-9	137.00	Running Meter	1370.00
5.00	2	Making trench in soft soil having 0.75 m depth and minimum 0.3 m width for laying provided cables up to voltage level of 1.1kV complete As per specification No. CW-EXN-CTR 16-1-1	161.00	Running Meter	805.00
4.00	3	Making trench in Hard murum/Tar road having 0.75 m depth and minimum 0.3mtr width as per IS for laying provided cables up to voltage level 1.1Kv cable complete as per specification No. CW-EXN-CTR 7-2-5	199.00	Running Meter	796.00
20.00	4	Supplying and erecting mains with 3x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW 5-12-1	93.00	Running Meter	1860.00
1.00	5	Supplying & erecting CRCA sheet metal enclosures of 1.2mm thickness with 10A, 2 pin plug & earth socket and 10A, 3 pin plug top with 10A single pole MCB having rated short - circuit breaking capacity (Icn) 10kA complete erected on angle iron / GI frame. 5-4-10	800.00	Number	800.00
14.00	6	Point wiring for light/fan/bell in 20 mm FRLS grade HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire with flush type switch and required accessories as per specification No: WG-PW/SW 1-7-3	1929.00	Number	27006.00
4.00	7	Supplying & erecting 10-12W, 230V integral type LED Lamp suitable for B-22 /E-27 base. 2-8-11	230.00	Number	920.00



Quantity	L.No	Item of work	Rate	unit	Amount
6.00	8	Supplying and erecting integrated LED street light fitting 18 to 22W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 1800 Lumens, min. efficacy of 100 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.95, operating range of 140- 270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty as per specification No FGODF/ FLS2. 2-4-1	1929.00	Number	11574.00
2.00	9	Supplying and erecting Street light bracket made from 40 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-2	736.00	Number	1472.00
1.00	10	Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP 9-1-1	4714.00	Number	4714.00
1.00	11	Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per specification no. EA-EP 9-1-4	1500.00	Number	1500.00
1.00	12	Supplying, erecting & marking DPMCB 6A to 32A, C-series with rated short -circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-6	535.00	Number	535.00
1.00	13	Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-3	173.00	Number	173.00
1.00	14	Supplying and erecting GI sheet 1.6 mm (16 SWG) having zinc coating of 350 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. 6-1-6	2560.00	Square Metre	2560.00



Quantity	I.No	Item of work	Rate	unit	Amount
1.00	15	Supplying and erecting marine (Waterproof) plywood 18/19 mm thick fixed to wall or on provided panel board with necessary materials such as screws, wall fasteners, supports, nut bolts etc. complete with compliance to IS 720:2010 6-1-14	1471.00	Square Metre	1471.00
1.00	16	Supplying & erecting triple pole and neutral distribution board (TPNDB), 3 pole/ 4 pole MCCB as incomer & outgoing SP MCB (12 poles) or TP MCB of 4 ways (12 poles), with door, 1.2mm thickness, surface/flush mounted, on iron/GI frame (vertical busbar type) as per specification no.SW-SWR/MCBDB1 5-4-15	6568.00	Number	6568.00
1.00	17	Supplying & erecting G.I. pipe 'A' class 25 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-1	217.00	Running Meter	217.00
4.00	18	Supplying & erecting G.I. pipe 'A' class 40 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-2	337.00	Running Meter	1348.00
2.00	19	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 75 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete. 7-6-10	241.00	Running Meter	482.00
2.00	20	Supplying & erecting 18 gauge M.S. Box powder coated (4"x4") 3 way for mains connection. MR	500.00	Number	1000.00
4.00	21	Supplying & erecting single compression type brass cable glands for 3 to 4 core 6 sq mm /2 to 4 core 10 sq mm for XLPE armoured cable as per specification No.CB-GL 7-7-2	87.00	Number	348.00
2.00	22	Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. 1-5-7	39.00	Number	78.00
2.00	23	Point wiring for independent plug in 20 mm metal conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW 1-7-2	941.00	Number	1882.00



Quantity	I.No	Item of work	Rate	unit	Amount
2.00	24	Wiring for plug on board with Switch socket surface/concealed type, copper wiring and earthing and with modular accessories as per specification No: WGPW/ CW 1-7-26	386.00	Number	772.00
10.00	25	Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-2	62.00	Running Meter	620.00
8.00	26	Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-3	89.00	Running Meter	712.00
1.00	27	Supplying and erecting modular type D.P. switch 32A with indicator, duly erected on provided plate and box with wiring connections complete. 1-6-8	210.00	Number	210.00
1.00	28	Supplying, erecting and marking double pole isolator only switch version of miniature circuit breaker of 40A with required wiring connections and lugs etc.in provided distribution board. 5-3-14	310.00	Number	310.00
2.00	29	Supplying & erecting 3W, 230V integral type LED Lamp suitable for B-22 / E- 27 base. 2-8-9	126.00	Number	252.00
6.00	30	Supplying and erecting IP65 and IK08 rated UV shielded polycarbonate waterproof and dustproof industrial grade LED fitting (4 feet) max. 36W with high transitivity diffuser with system lumens output of min. 4300 lumens , min. efficacy of 120 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., Ripple<5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50 , IP20 rated, including driver with auto cutoff & auto restart feature at 325V with end caps on PVC lock/wooden board with 3 years warranty. 2-2-1	3396.00	Number	20376.00
1.00	31	Supplying and erecting regular/ standard model ceiling fan of 900 /1050 mm. sweep complete erected in position as per specification no. FG-FN/CF 2-10-2	2092.00	Square Meter	2092.00



Quantity	I.No	Item of work	Rate	unit	Amount
1.00	32	Supplying and erecting ding dong / electronic musical type call bell with heavy duty coil suitable to operate on 230V A.C. supply erected on olished double wooden block/sunmica block of suitable size. 2-3-13	140.00	Number	140.00
6.00	33	Supplying and erecting Street light bracket made from 25 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-1	655.00	Number	3930.00
1.00	34	Supplying & erecting CRCA sheet metal one way enclosures of 1.2mm thickness suitable for DP MCB /TP MCB/FP MCB/RCCB/RCBO complete erected on angle iron/GI frame. 5-4-13	400.00	Number	400.00
1.00	35	Supplying, erecting and marking four pole isolators only switch version of miniature circuit breakers of 40A in provided distribution board. 5-3-18	698.00	Number	698.00
				Total Rs.	99991.00
			Part A)	Say Rs.	99991.00

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Name of Work :- Proposed Construction of Machinery Plant Shed For BBP Barshi Taluka Agro Processing & Agro Producer Co.ltd, In Gat no.210/1, At-Raleras ,Tq-Barshi, Dist-Solapur (MH)

Sub Work No:-II Electrification

MEASUREMENT SHEET

Item. No.	Description of Items	NO.	LENTH	BREATH	DEPTH	TOTAL	UNIT			
1	Supplying, erecting & terminating FR XLPE insulated, galvanised steel formed wire armoured (strip) cable 1100 V, 3 core 6 sq. mm. aluminium conductor complete erected with glands & lugs, on wall/ trusses/pole or laid in provided trench/ pipe as per specification no. CB-LT/AL 7-1-9						Running Meter			
	Machinery Plant Shed	1	x	1	x	10.00	x	1	=	10.00
								Total		10.00
								Say		10.00
2	Making trench in soft soil having 0.75 m depth and minimum 0.3 m width for laying provided cables up to voltage level of 1.1kV complete As per specification No. CW-EXN-CTR 16-1-1							Running Meter		
	Machinery Plant Shed	1	x	1	x	5.00	x	1	=	5.00
								Total		5.00
								Say		5.00
3	Making trench in Hard murum/Tar road having 0.75 m depth and minimum 0.3mtr width as per IS for laying provided cables up to voltage level 1.1Kv cable complete as per specification No. CW-EXN-CTR 7-2-5							Number		
	Machinery Plant Shed	1	x	1	x	4.00	x	1	=	4.00
								Total		4.00
								Say		4.00
4	Supplying and erecting mains with 3x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places as per specification No: WG-MA/BW 5-12-1							Running Meter		
	Machinery Plant Shed	1	x	1	x	20.00	x	1	=	20.00
								Total		20.00
								Say		20.00
5	Supplying & erecting CRCA sheet metal enclosures of 1.2mm thickness with 10A, 2 pin plug & earth socket and 10A, 3 pin plug top with 10A single pole MCB having rated short - circuit breaking capacity (Icn) 10kA complete erected on angle iron / GI frame. 5-4-10							Number		
	Machinery Plant Shed	1	x	1	x	1.00	x	1	=	1.00
								Total		1.00
								Say		1.00
6	Point wiring for light/fan/bell in 20 mm FRLS grade HMS PVC conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire with flush type switch and required accessories as per specification No: WG-PW/SW 1-7-3							Number		
	Machinery Plant Shed	1	x	14	x	1.00	x	1	=	14.00
								Total		14.00
								Say		14.00
7	Supplying & erecting 10-12W, 230V integral type LED lamp suitable for E-27 base. 2-8-11							Number		
	Machinery Plant Shed	1	x	4	x	1.00	x	1	=	4.00
								Total		4.00



Say 4.00

- 8 Supplying and erecting integrated LED street light fitting 18 to 22W IP65 & IK08 class having single piece pressure die-cast aluminium housing, having system lumens output of Min. 1800 Lumens, min. efficacy of 100 lumen/W, CRI>70, CCT upto 6500K, THD<10%, p.f. >0.95, operating range of 140- 270V, inbuilt surge protection of 10 kV, Life class of 50,000 Hrs. at L70B50, including driver complete with 3 Years warranty as per specification No FGODF/ FLS2. 2-4-1 Number

Machinery Plant Shed	1	x	6	x	1.00	x	1	x	1	=	6.00
									Total		6.00
									Say		6.00

- 9 Supplying and erecting Street light bracket made from 40 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-2 Number

Machinery Plant Shed	1	x	2	x	1.00	x	1	x	1	=	2.00
									Total		2.00
									Say		2.00

- 10 Providing earthing with galvanized iron earth plate size 60 x 60 x 0.6 cm complete with all materials, testing & recording the results as per specification no. EA-EP 9-1-1 Number

Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total		1.00
									Say		1.00

- 11 Providing pipe type earthing with 40mm. dia. G.I. pipe or 20 mm dia. G.I. Rod complete with all materials testing and recording the results as per specification no. EA-EP 9-1-4 Number

Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total		1.00
									Say		1.00

- 12 Supplying, erecting & marking DPMCB 6A to 32A, C-series with rated short -circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-6 Number

Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total		1.00
									Say		1.00

- 13 Supplying, erecting & marking SPMCB 6A to 32A, B-series with rated short - circuit breaking capacity (Icn) 10kA in provided distribution board as per specification no. SW-SWR/MCB 5-3-3 Number

Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total		1.00
									Say		1.00

- 14 Supplying and erecting GI sheet 1.6 mm (16 SWG) having zinc coating of 350 microns with galvanization process compliance to IS 2629:1985 to be used for fabrication of boxes panel boards etc. including cutting, bending, drilling, welding, riveting etc. and painting with one coat of red lead paint and 2 coats of enamel paint. 6-1-6 Square Metre

Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total		1.00
									Say		1.00



15	Supplying and erecting marine (Waterproof) plywood 18/19 mm thick fixed to wall or on provided panel board with necessary materials such as screws, wall fasteners, supports, nut bolts etc. complete with									Square Metre
	Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1 = 1.00
										Total 1.00
										Say 1.00
16	Supplying & erecting triple pole and neutral distribution board (TPNDB), 3 pole/ 4 pole MCCB as incomer & outgoing SP MCB (12 poles) or TP MCB of 4 ways (12 poles), with door, 1.2mm thickness, surface/flush mounted, on iron/GI frame (vertical busbar type) as per specification no.SW-SWR/MCBDB1 5-4-15									Number
	Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1 = 1.00
										Total 1.00
										Say 1.00
17	Supplying & erecting G.I. pipe 'A' class 25 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-1									Running Meter
	Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1 = 1.00
										Total 1.00
										Say 1.00
18	Supplying & erecting G.I. pipe 'A' class 40 mm dia. erected for enclosing XLPE armoured cable on wall/pole as per specification no. CB-CE 7-6-2									Running Meter
	Machinery Plant Shed	1	x	4	x	1.00	x	1	x	1 = 4.00
										Total 4.00
										Say 4.00
19	Supplying and laying (including excavation of suitable width & depth up to 90 cm) 75 mm outside dia. double wall corrugated pipes (DWC) of HDPE for enclosing cable below ground/road surface, to required depth complete. 7-6-10									Running Meter
	Machinery Plant Shed	2	x	1	x	1.00	x	1	x	1 = 2.00
										Total 2.00
										Say 2.00
20	Supplying & erecting 18 gauge M.S. Box powder coated (4"x4") 3 way for mains connection. MR									Number
	Machinery Plant Shed	1	x	1	x	2.00	x	1	x	1 = 2.00
										Total 2.00
										Say 2.00
21	Supplying & erecting single compression type brass cable glands for 3 to 4 core 6 sq mm /2 to 4 core 10 sq mm for XLPE armoured cable as per specification No.CB-GL 7-7-2									Number
	Machinery Plant Shed	1	x	4	x	1.00	x	1	x	1 = 4.00
										Total 4.00
										Say 4.00



- 22 Supplying and erecting Ceiling rose / Batten holder / Slanting holder / hanging cord switch / hanging bell push / pendant holder bakelite base 6A. erected on filled polypropylene board or polished double wooden block/ PVC junction box. 1-5-7 Number
- | | | | | | | | | | | | |
|----------------------|---|---|---|---|------|---|---|---|--------------|---|------|
| Machinery Plant Shed | 1 | x | 2 | x | 1.00 | x | 1 | x | 1 | = | 2.00 |
| | | | | | | | | | Total | | 2.00 |
| | | | | | | | | | Say | | 2.00 |
- 23 Point wiring for independent plug in 20 mm metal conduit with 1.5 sq.mm (2+1E) FRLSH grade copper wire, flush type switch, earthing and required accessories as per specification No: WG-PW/SW 1-7-2 Number
- | | | | | | | | | | | | |
|----------------------|---|---|---|---|------|---|---|---|--------------|---|------|
| Machinery Plant Shed | 1 | x | 2 | x | 1.00 | x | 1 | x | 1 | = | 2.00 |
| | | | | | | | | | Total | | 2.00 |
| | | | | | | | | | Say | | 2.00 |
- 24 Wiring for plug on board with Switch socket surface/concealed type, copper wiring and earthing and with modular accessories as per specification No: WGPW/ CW 1-7-26 Number
- | | | | | | | | | | | | |
|----------------------|---|---|---|---|------|---|---|---|--------------|---|------|
| Machinery Plant Shed | 1 | x | 2 | x | 1.00 | x | 1 | x | 1 | = | 2.00 |
| | | | | | | | | | Total | | 2.00 |
| | | | | | | | | | Say | | 2.00 |
- 25 Supplying and erecting mains with 2x2.5 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-2 Running Meter
- | | | | | | | | | | | | |
|----------------------|---|---|----|---|------|---|---|---|--------------|---|-------|
| Machinery Plant Shed | 1 | x | 10 | x | 1.00 | x | 1 | x | 1 | = | 10.00 |
| | | | | | | | | | Total | | 10.00 |
| | | | | | | | | | Say | | 10.00 |
- 26 Supplying and erecting mains with 2x4 sq.mm FRLSH copper PVC insulated wire laid in provided conduit/trunking/inside pole/Bus bars or any other places. as per specification No: WG-MA/BW 1-3-3 Running Meter
- | | | | | | | | | | | | |
|----------------------|---|---|---|---|------|---|---|---|--------------|---|------|
| Machinery Plant Shed | 1 | x | 8 | x | 1.00 | x | 1 | x | 1 | = | 8.00 |
| | | | | | | | | | Total | | 8.00 |
| | | | | | | | | | Say | | 8.00 |
- 27 Supplying and erecting modular type D.P. switch 32A with indicator, duly erected on provided plate and box with wiring connections complete. 1-6-8 Number
- | | | | | | | | | | | | |
|----------------------|---|---|---|---|------|---|---|---|--------------|---|------|
| Machinery Plant Shed | 1 | x | 1 | x | 1.00 | x | 1 | x | 1 | = | 1.00 |
| | | | | | | | | | Total | | 1.00 |
| | | | | | | | | | Say | | 1.00 |
- 28 Supplying, erecting and marking double pole isolator only switch version of miniature circuit breaker of 40A with required wiring connections and lugs etc.in provided distribution board. 5-3-14 Number
- | | | | | | | | | | | | |
|----------------------|---|---|---|---|------|---|---|---|--------------|---|------|
| Machinery Plant Shed | 1 | x | 1 | x | 1.00 | x | 1 | x | 1 | = | 1.00 |
| | | | | | | | | | Total | | 1.00 |
| | | | | | | | | | Say | | 1.00 |
- 29 Supplying & erecting 3W, 230V integral type LED Lamp suitable for B-22 / E- 27 base. 2-8-9 Number
- | | | | | | | | | | | | |
|----------------------|---|---|---|---|------|---|---|---|--------------|---|------|
| Machinery Plant Shed | 1 | x | 2 | x | 1.00 | x | 1 | x | 1 | = | 2.00 |
| | | | | | | | | | Total | | 2.00 |
| | | | | | | | | | Say | | 2.00 |



									Say	2.00		
30	Supplying and erecting IP65 and IK08 rated UV shielded polycarbonate waterproof and dustproof industrial grade LED fitting (4 feet) max. 36W with high transitivity diffuser with system lumens output of min. 4300 lumens , min. efficacy of 120 lumen/W, CRI>80, CCT upto 6500K, Beam Angle of 120 deg., Ripple<5%, THD<10%, p.f. >0.95, operating range of 120-270V, surge protection of 4 kV, Life class of 50,000 Hrs. at L70B50 , IP20 rated, including driver with auto cutoff & auto restart feature at 325V with end caps on PVC lock/wooden board with 3 years warranty. 2-2-1									Number		
	Machinery Plant Shed	1	x	6	x	1.00	x	1	x	1	=	6.00
									Total			6.00
									Say			6.00
31	Supplying and erecting regular/ standard model ceiling fan of 900 /1050 mm. sweep complete erected in position as per specification no. FG-FN/CF 2-10-2											Number
	Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total			1.00
									Say			1.00
32	Supplying and erecting ding dong / electronic musical type call bell with heavy duty coil suitable to operate on 230V A.C. supply erected on olished double wooden block/sunmica block of suitable size. 2-3-13											Square Meter
	Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total			1.00
									Say			1.00
33	Supplying and erecting Street light bracket made from 25 mm. dia 'B' class G.I. Pipe, 0.6m. in length along with pole cap of 300 mm length and 80 mm dia duly welded with provided leads as per specification no. FG-BKT/BPC 2-7-1											
	Machinery Plant Shed	1	x	6	x	1.00	x	1	x	1	=	6.00
									Total			6.00
									Say			6.00
34	Supplying & erecting CRCA sheet metal one way enclosures of 1.2mm thickness suitable for DP MCB /TP MCB/FP MCB/RCCB/RCBO complete erected on angle iron/GI frame. 5-4-13											Number
	Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total			1.00
									Say			1.00
35	Supplying, erecting and marking four pole isolators only switch version of miniature circuit breakers of 40A in provided distribution board. 5-3-18											Number
	Machinery Plant Shed	1	x	1	x	1.00	x	1	x	1	=	1.00
									Total			1.00
									Say			1.00

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