

NO. F. CE/RD/MGNREGA (TECH)/15-16 Dt, 29-01-16
GOVERNMENT OF TRIPURA
RURAL DEVELOPMENT DEPARTMENT
OFFICE OF THE CHIEF ENGINEER
GURKHABASTI, AGARTALA

✓ To
The Director
Agriculture Department
Government of Tripura.

Subject: - Sending of technically sanctioned 2nos model estimates prepared and technically sanctioned by Chief Engineer, Agriculture Department.

Reference: Your Letter No.F.21 (12) Agri (SS)/2015-16/2828-28 dated 18.01.15

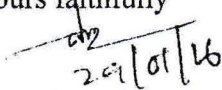
Sir,

I am directed to inform you that RD Department has accepted the following 2nos estimates as model estimate alongwith specification to be taken up the convergence programme under MGNREGA during the year 2015-16.

Sl No	Name of work	Estimated cost
1	Model estimate for medium size Vermi Compost Pit at different places in Tripura	Rs.38,375.00
2	Model estimate for construction of water storage structure on ground with UV flim over lining work at different places in Tripura	Rs.70,000.00

This is for your kind information and necessary action.

Enclo: As stated.

Yours faithfully

(Er. S. Bhattacharyya)
Executive Engineer-II
Office of the Chief Engineer (RD)
Agartala

GOVERNMENT OF TRIPURA
DEPARTMENT OF AGRICULTURE,
(ENGINEERING WING)

HISTORY SHEET

Revised Estimate T.S No:- 17 CE/AGRI/DA/MGNREGA/TS/2015-16 DT, 16/01/2016.

Name of work:- MODEL ESTIMATE FOR CONSTRUCTION OF A MEDIUM SIZE VERMI COMPOST PIT AT DIFFERENT PLACES IN TRIPURA UNDER MGNREGA DURING 2015-16.

Department: - Agriculture.

Scheme: - MGNREGA.

Administrative Approval & Expenditure Sanction given: - As per communication of concern DM & Collector.

Fund available/Not available: - Fund available under MGNREGA

Mention reference on which estimate is prepared: - As per discussion held in the Monthly Review Meeting for Agriculture, Horticulture & Agri. Engineering Wing Horticulture, held on 18/12/2015 at Bhagat Sing conference hall, Agartala.

Estimate is revised: - Yes.

If yes, mention the earlier T.S. No: - 14/CE/Agri/DA/MGNREGA/TS/2015-16

If yes, brief description of such revision of estimate:-

Report:-

This estimate has been prepared as per discussion held in the Monthly Review Meeting for Agriculture, Horticulture & Agri. Engineering Wing held on 18/12/2015 at Bhagat Sing conference hall, Agartala. All necessary items has been included in the estimate based on RD current approved rate (HPC approved), beside this, 3% contingency and 1% labour cess are considered in the estimate.

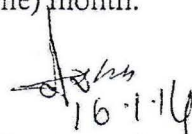
Estimated cost: - Rs.38,375.00 (Rupees Thirty eight thousand three hundred seventy five) only

Method: - Departmental Execution.

Availability of site: - As per proposal given by PRI Body.

Time of completion : - 1 (One) month.


16/1/2016
Junior Engineer
Department of Agriculture


16.1.16
Executive Engineer
Department of Agriculture


16/01/16
Superintending Engineer
Department of Agriculture


16/1/16
Chief Engineer
Department of Agriculture

NAME OF THE WORK:- MODEL ESTIMATE FOR CONSTRUCTION OF A MEDIUM SIZE VERMI COMPOST PIT AT DIFFERENT PLACES IN TRIPURA UNDER MGNREGA DURING 2015-16.

ANNEXURE-II

SI No	Description	Activity	Materials	Labour
1	Earth work in excavation in foundation trenches not exceeding 1.50m in width or 10 sqm on plan or drains not exceeding 1.50m in width or 10 sqm on plan including dressing of sides and ramming of bottoms lift up to 1.50m including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m Ordinary Soil.	$1 \times 2(3.00+2.00) \times 0.40 \times 0.45 \text{m} = 1.80 \text{cum}$ $1 \times 6 \times 0.50 \text{m} \times 0.50 \text{m} \times 0.60 \text{m} = 0.90 \text{cum}$ 2.70cum		U.S = 1.45
2.	Filling available excavated earth (excluding rock) in trenches, plinth sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering lead upto 50 mtr. & lift upto 1.5 mtr.	1/3 Qty. of item no. 1 i.e 1/3 x 2.70 cum = 0.90 cum		U.S = 0.247
3.	Filling in plinth with local sand under floors in/c watering ramming consolidating & dressing complete	$1 \times 2(3.00+2.00) \times 0.40 \text{m} \times 0.075 \text{m} = 0.300 \text{cum}$ $1 \times 6 \times 0.50 \text{m} \times 0.50 \text{m} \times 0.075 \text{m} = 0.112 \text{cum}$ 0.412cum	Local Sand = 0.473 cum	U. S = 0.129 Nos
4.	Providing & laying in foundations and plinth cement concrete 1: 5: 10 (1 cement: 5 river sand): 10 Jhama brick aggregate 40 mm nominal size) excluding the cost of centering and shuttering.	$1 \times 2(3.00+2.00) \times 0.40 \text{m} \times 0.075 \text{m} = 0.300 \text{cum}$	i) Cement = 0.804 bag. ii) Sand = 0.162 cum iii) Brick aggregate = 0.267 cum iv) St pkt. = 80Nos.	H.S = 0.174 Nos. S.K = 0.174 Nos. SSK = 0.240 Nos. U.S = 0.549 Nos. SSK(breaking) = 1.488 nos.
5.	Providing & laying cement concrete 1: 2: 4 (1 cement: 4 Jhama brick aggregate 20 mm nominal size) excluding the cost of centering and shuttering. a. Independent piers columns and pillars to 1 st floor level.	$6 \times 0.25 \times 0.25 \times 0.60 \text{m} = 0.225 \text{cum}$	i) Cement = 1.44 bag. ii) Sand = 0.111 cum iii) Brick aggregate = 0.200 cum iv) St pkt. = 60Nos.	SSK = 0.24 Nos. U.S = 0.549 Nos. HS = 0.174 SK = 0.174 SSK (Breaking) = 1.80

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5.	Centering shuttering in/c strutting propping etc. and removal of fronts for a. Foundation, footings, bases of columns etc. & mass concrete.	$6 \times 4 \times 0.25 \text{m} \times 0.60 \text{m} = 3.60 \text{ sqmt.}$	i) Hiring charge for centering/shuttering = 3.6 sqmt Polythene = 1.00 kg iii) Black wire = 0.5 kg iv) Muli bamboo = 5 nos.	S.K = 0.522 Nos. U.S = 0.604 Nos.
7.	First class brick work in foundation in cement mortar 1:4 (1cement:4 river sand).	$1 \times 2(3.00+2.00) \times 0.30 \text{m} \times 0.254 \text{m} = 0.762 \text{ cum}$	i) 1 st class Bricks = 297 Nos. ii) Cement = 1.274 bag. iii) Sand = 0.197 cum	H.S = 0.293 Nos. S.K = 0.293 Nos. U.S = 1.20 Nos.
8	Extra for brick work for square and rectangular pillar.	$6 \times 0.254 \text{m} \times 0.254 \text{m} \times 0.90 \text{m} = 0.348 \text{ cum}$	i) 1 st class Bricks = 136 Nos. ii) Cement = 0.382 bag. iii) Sand = 0.890 0.089 cum	H.S = 0.137 Nos. S.K = 0.137 Nos. U.S = 0.56 Nos.
9.	Half brick masonry (1 st class) in cement mortar 1:4 (1 cement : 4 river sand) in foundation & plinth.	$\{1 \times 2(3.00+2.00) - 6 \times 0.254\} \times 0.90 \text{m} = 7.65 \text{ sqm}$	i) 1 st class bricks = 398 Nos. ii) Cement = 1.377 bag. Sand = 0.289 cum	H.S = 1.866 Nos. U.S = 2.677 Nos. SK = 1.836
10.	Providing & fixing of tubular truss in/c fitting fixing of all relative members.	i) Post 32 mm NB = $2 \times 2.60 \text{m} = 5.20 \text{ mtr.}$ $2 \times 2.50 \text{m} = 5.00 \text{ mtr.}$ $2 \times 2.4 \text{m} = 4.80 \text{ mtr.}$ 15.00 mtr. ii) Post plate 25 mm NB = $2 \times 3.60 \text{m} = 7.20 \text{ mtr.}$ iii) Purlin 25 mm NB = $3 \times 3.20 \text{m} = 9.60 \text{ mtr.}$ 16.80m	i) 32 mm NB B.I pipe = 15.00 mtr. ii) 25 mm NB B.I pipe = 16.80 mtr.	Hs=1 US=1
11.	Providing MS bolts in/c nuts and washers complete as per standard design or post and wall tie.	$6 \times 4 \times 0.20 \text{m} = 4.80 \text{m} (12 \text{mm dia})$	4.26 Kg.	
12.	Providing corrugated G.C sheet roofing fixed with galvanized iron J or L hooks, bolts and nuts 8 mm dia meter with bitumen, and G.I. limpet washers complete excluding the cost of purlins, rafters and trusses. a. 0.50 mm thick sheet.	$1 \times 4.20 \text{m} \times 3.20 \text{ mtr.} = 13.44 \text{ sqmt.}$ @ 5.25kg/sqm including lapping = 70.56kg ii) Limpet washer = 60 nos. iii) Bituman washer = 60 nos. iv) J or L hooks = 59 nos say 60 nos	i) 0.50mm th, G.C.I Sheet = ii) Wt. @ 5.25kg/sqm i/c lapping = 70.56kg = 0.705MT	H.S = 0.215 Nos. S.K = 2.62 Nos. U.S = 3.024 Nos.
13.	Flat Brick flooring with 1 st class brick in cement mortar 1: 4 (1cement : 4 river sand)	$1 \times 2(3.00+2.00 \times 0.60) \times 0.60 \text{m} = 8.40 \text{ sqm}$ $2 \times 2.00 \text{m} \times 0.60 \text{m} = 2.40 \text{ sqm}$ 10.80 sqm	i) 1 st Class Brick = 346 Nos. ii) Cement = 0.170 bag. iii) Sand = 0.025 cum	S.K = 1 No. U.S = 1.83 Nos.

14.	12 mm cement plaster 1: 4 (1 cement : 64river sand)	$1 \times 2(3.00+2.00) \times 0.90m = 9.00sqm$ $1 \times 2(3.00+2.00) \times 0.127m = 1.27sqm$ 10.27sqm	i) Sand = 0.177 cum ii) Cement = 1.12 bag.	S.K = 1.31 Nos. U.S = 2.25Nos.
15.	15 mm cement plaster 1: 4 (1 cement : 4 river sand) on the rough side of brick wall.	$1 \times 2(3.00+2.00) \times 0.90m = 9.00sqm$	i) Cement = 1.17Beg. ii) Sand = 0.162 cum	S.K = 1.404 Nos. U.S = 2.34 Nos.
16.	Net cement punning.	$(10.27 + 9.00) sqmt = 19.27 sqmt.$	Cement = 0.84 bag.	S.K = 0.82 Nos. U.S = 1.06 Nos.
17.	Painting two or more coats with synthetic enamel paint of approved quality in all sheds on new work to give an even shed.	Lum sum = 5.00 sqmt.	Enamel paint = 0.50lit.	S.K = 0.41No. U.S = 0.46No.
18.	Supplying of earth warn / lively vermin for vermin compost pit	1(One) Job	earth warn / lively vermin = 1(One) Job	
19.	Supply & collection of raw materials like cow dung etc. preparation of production bed.	$1 \times 2.85m \times 1.85m \times 0.75m = 3.954cum$ @ 660.00 Kg per/cum=2610.00kg	2610.00kg	

Note: -This is a model estimate. As per site condition, measurement of work will be taken into consideration for actual execution and accordingly, recorded in MB/Field book and wages component to be fixed for corresponding volume of work for generation of FTO.

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16/11/2016

Junior Engineer

O/O the superintending Engineer
Department of Agriculture

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16.1.16

Executive Engineer

O/O the superintending Engineer
Department of Agriculture

NAME OF THE WORK:- MODEL ESTIMATE FOR CONSTRUCTION OF A MEDIUM SIZE VERMI COMPOST PIT AT DIFFERENT PLACES IN TRIPURA UNDER MGNREGA DURING 2015-16.

ANNEXURE-III

Requirement of Materials /Labour component and fund for the work

SL. NO	DESCRIPTION	UNIT	REQUIREMENT AS PER ANNEXURE-II	COST PER UNIT. (Rs.)	COST OF WORK(Rs.)
1	2	3	4	5	6
1.	Local Sand	Cum	0.473	385.00	182.00
2.	Cement	Bag	9.00	327.00	2943.00
3.	1 st class bricks	1000 Nos.	1177.00	7750.00	9,122.00
4.	St. picket	1000 Nos.	140.00	7455.00	1044.00
5.	0.50 mm thick G.C.I Sheet (8' - 0" Length)	MT	0.0705	68160.00	4,805.00
7.	M.S Bolts	Kg	4.26	72.00 (LMR)	308.00
8.	Coarse sand	Cum	1.212	445.00	539.00
9.	32mm NB B.I pipe	Mtr.	15.00	137.00	2,055.00
10.	25 mm NB B.I pipe	Mtr.	16.80	107.00	1,798.00
11.	J or L hooks	Kg	4.28	89.00	381.00
12.	Limpet washer	100 Nos.	60.00	31.00	19.00
13.	Bituman washer	100 Nos.	60.00	11.00	7.00
14.	Hiring charge of Centering & Shuttering	Sqmt.	3.60	86.00	310.00
15.	Polythine	Kg	1.00	75.00 (LMR)	75.00
16.	Black wire	Kg	0.50	68.00 (LMR)	34.00
17.	Muli Bamboo	Each	5.00	20.00 (LMR)	100.00
18.	Enamel paint	Ltr.	0.50	300.00 (LMR)	150.00
19.	Fabrication charge of Tubular truss	Kg.	92.99	12.00	1116.00
20.	Earth warn / lively vermi	Job	1(One)	2,000.00	2000.00
21.	Cow dung	Kg.	2610.00	0.50	1,305.00
TOTAL					28,293.00 (A)
LABOURS					
1.	U.S	Each	20.00	189.00	3,780.00
2.	SSK	Each	4.00	218.00	872.00
3.	S.K	Each	11.00	254.00	2,794.00
4.	H.S	Each	4.00	290.00	1160.00
TOTAL					8,606.00 (B)

Total (A+ B) = Rs.36,899.00
 Add: - 1% for Labour cess = Rs.369.00
 Add 3% for Contingency = Rs.1,107.00
Rs.38,375.00

(Rupees Thirty eight thousand three hundred seventy five) only
 Estimated prepared by

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 16/1/16
 Executive Engineer
 Department of Agriculture

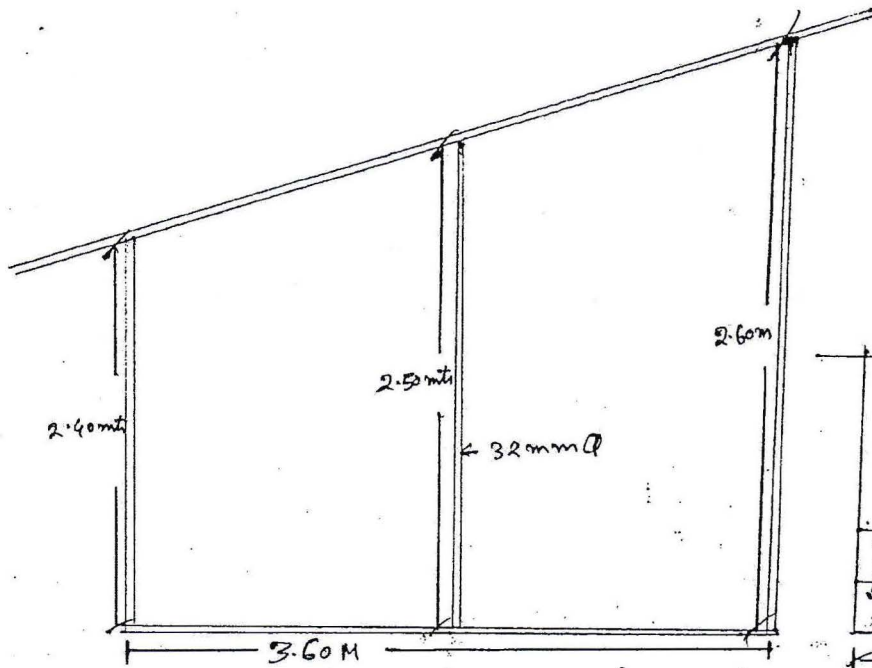
[Signature]
 16/01/16
 Superintending Engineer
 Department of Agriculture

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 16/1/2016
 Junior Engineer

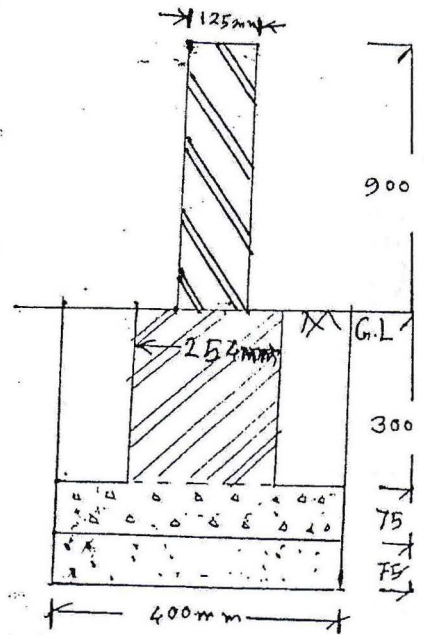
Revised Estimate T/S No:- 17/CE/AGRI/DAMGMNREGA/TS/2015-16 dated, 14/01/2016
 Technically approved for amounting to Rs 38,375/- (Thirty eight thousand three hundred seventy five only including 1% labour cess and 3% contingency

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 16/1/16
Chief Engineer
 Department of Agriculture

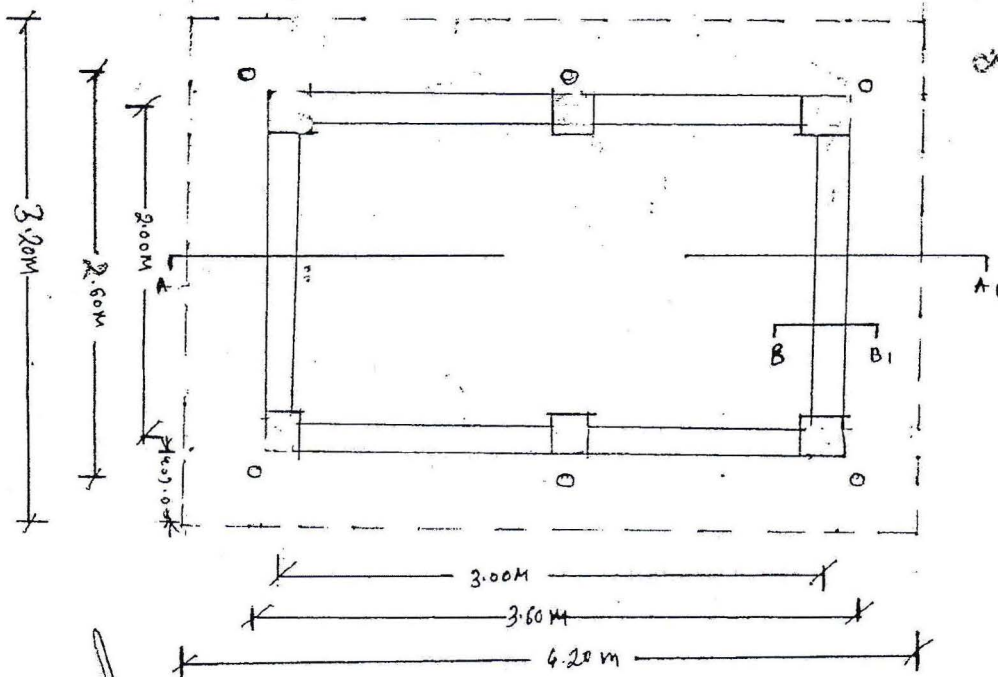
Work:- Model Drawing for construction a medium size verm
 compost pit at different places in Tripura under (6)
 MGNREGA during 2015-16.



CROSS SEC AT A-A₁



CROSS SEC OF FOUNDATION
 AT B-B₁



16/01/16
 S. S. Das
 S.E. (Civil)
 Civil Engineer (Govt)
 Agartala, Tripura.

16/1/2016

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