

Construction of Horizontal Roughing Filter cum slow sand filter under MGNREGA fund

Item No./Page No.	Sl. No.	Specification of item	Quantity	Rate	Amount (Rs.)
	1	Earth work in excavation of foundation trenches or drains in all sorts of soil (including mixed soil but excluding laterite or sand stone) including removing, spreading and stacking the spoils with in a lead of 75 mtr. As directed and including trimming sides of trenches, levelling, dressing the bottom bailing out water etc. As required complete. Depth of excavation not exceeding 1.5m. 250 mm th. Wall – $14.35 \times 0.750 \times 0.775 = 8.34 \text{ cum.}$ 125 mm th. Wall – $4.950 \times 0.500 \times 0.550 = 1.36 \text{ cum}$ Total = 9.70 cum	9.70 cum	120.47/m ³	1169.00
				Skill – Unskill -	1 no. 10 nos.
	2	Earth in filling in foundation trenches or plinth with good earth in layers not exceeding 15 cm. Including watering and ramming etc. Layer by layer complete with earth obtained from excavation of foundation. 1/5 th of excavation = $9.70/5 = 1.94 \text{ cum}$	1.94 m ³	78.31/m ³	152.00
				Unskill -	02 nos.
	3	Single brick flat soiling of picked Jhama bricks including ramming and dressing and bedding to proper level, filling joints with powered earth or local sand. $14.35 \times 0.750 = 10.76 \text{ m}^2$ $4.950 \times 0.500 = 2.47 \text{ m}^2$ $4.700 \times 1.000 = 4.70 \text{ m}^2$ $0.850 \times 4.700 = 3.99 \text{ m}^2$ Total = 21.92 m²	21.92 sqm	365/m ²	8001.00
				Skill – Unskill -	2 nos. 8 nos.
	4	Cement concrete (1:3:6) with graded stone chips (20 mm dn) excluding shuttering and reinforcement.	1.5 cum	5248/m ³	7872.00
				Skill – Unskill -	2 nos. 3 nos.
	5	250 mm thick first class brick work in cement mortar (1:4) A) in foundation & plinth $14.35 \times 0.750 \times 0.150 = 1.34 \text{ cum}$ $14.35 \times 0.500 \times 0.150 = 1.07 \text{ cum}$ $14.35 \times 0.375 \times 0.150 = 0.80 \text{ cum}$ $14.35 \times 0.250 \times 0.150 = 0.53 \text{ cum}$ $4.950 \times 0.375 \times 0.175 = 0.27 \text{ cum}$ $4.950 \times 0.250 \times 0.150 = 0.18 \text{ cum}$ $4.950 \times 0.125 \times 0.100 = 0.06 \text{ cum}$ Total = 4.25 cum B) in super structure $14.35 \times 0.250 \times 1.90 = 6.81 \text{ cum}$	11.06 cum	5562/m ³	61516.00
				Skill – Unskill -	10 nos. 20 nos.
	6	12.5 cm thick first class brick work in cement sand mortar (1:4) A) in super structure $4.950 \times 1.90 = 9.40 \text{ m}^2$	18.61 m ²	765/m ²	14237.00



		$1.00 \times 1.90 \times 4 \text{ nos} = 7.6 \text{ m}^2$ $0.850 \times 1.90 = 1.61 \text{ m}^2$ Total = 18.61 m²		Skill - Unskill -	2 nos. 3 nos.
		Ordinary cement concrete M-20 grade(3:1. 5:1) with graded stone chips 20mm down excluding shuttering and reinforcement. $4.700 \times 1.00 \times 0.150 = 0.70 \text{ cum}$ $4.700 \times 0.850 \times 0.150 = 0.59 \text{ cum}$ Slab = $5.20 \times 2.475 \times 0.100 = 1.28 \text{ cum}$ Total = 2.57 cum	2.57 cum	7543.64/m ³	19387.00
	7	Mils steel reinforcement for reinforced concrete work distribution bar ,stirrups, binders etc. including supply of rods, straightening of rods and including straightening of coils and removal of loose rust if necessary, cutting of requisite length, hooking and binding to correct shape, placing proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing. 1.2% of Volume of concrete. $2.57 \times 1.2 / 100 \times 7850 = 242.09 \text{ kg}$	242.09 kg	68.633/Kg	16615.00
	8	19 mm thick plaster with neat cement with wall inside and outside and top of wall of the unit with cement sand mortar.(1:6) Outside- $5.20 \times 2 \times 2.0 = 20.8 \text{ Sqm}$ $2.475 \times 2 \times 2.0 = 9.9 \text{ Sqm}$ Inside- $2(0.600+1.00) \times 1.90 \times 2 = 12.16 \text{ Sqm}$ $2(1.00+1.00) \times 1.90 \times 3 = 22.80 \text{ Sqm}$ $2(0.600+0.850) \times 1.90 \times 1 = 5.51 \text{ Sqm}$ $2(3.975+0.850) \times 1.90 \times 1 = 18.33 \text{ Sqm}$ Ceiling - $0.600 \times 1.00 \times 2 = 1.2 \text{ Sqm}$ $1.00 \times 1.00 \times 3 = 3.0 \text{ Sqm}$ $0.600 \times 0.850 = 0.51 \text{ Sqm}$ $3.975 \times 0.850 = 3.37 \text{ Sqm}$ Total = 97.58 Sqm	97.58 Sqm	170/m ²	16589.00
	9	25 mm thick artificial stone flooring with cement concrete (1:1.5:3) with graded stone chips laid in including materials and lab our and 3mm thick topping with ordinary cement. $0.600 \times 1.00 \times 2 = \text{sqm}$ $1.00 \times 1.00 \times 3 = 3.0 \text{ sqm}$ $0.600 \times 0.850 = 0.51 \text{ sqm}$ $3.975 \times 0.850 = 3.37 \text{ sqm}$ Total = 8.08 sqm In Wall $2(0.600+1.00) \times 1.90 \times 2 = 12.16 \text{ sqm}$ $2(1.00+1.00) \times 1.90 \times 3 = 22.80 \text{ sqm}$ $2(0.600+0.850) \times 1.90 \times 1 = 5.51 \text{ sqm}$ $2(3.975+0.850) \times 1.90 \times 1 = 18.33 \text{ sqm}$ Total = 58.80 sqm	66.88 Sqm	297/m ²	19863.00
	10	Covered drain with first class brick work (1:4) for internal drainage purpose and drainage from platform as per drawing	0.14 cum	5911/m ³	828.00



		1.00x 0.150 x 0.150 x3 nos = 0.06 Cum 3.975 x 0.150 x0.150 x 1 no = 0.08 Cum Total = 0.14 Cum		Skill- Unskill-	1no 1no
	11	Supplying of gravels of size 15 mm washing of gravels, screening of the same and loading into the HRF unit as per drawing and direction (Natural gravels from Tista River with carrying). 1.00 x1.00 x1.40 = 1.4 Cum	1.4 Cum	7102/m³ Unskill-	9943.00 2nos
	12	Supplying of gravels of size 10 mm washing of gravels, screening of the same and loading into the HRF unit as per drawing and direction (Natural gravels from Tista River with carrying). 1.00 x1.00 x1.40 = 1.4 Cum	1.4 Cum	7102/m³ Unskill-	9943.00 2nos
	13	Supplying of gravels of size 5 mm washing of gravels, screening of the same and loading into the HRF unit as per drawing and direction. 1.00 x1.00 x1.40 = 1.4 Cum 3.975 x 0.850 x 0.300 = 1.01 cum	2.41 Cum	7102/m³ Unskill-	17116.00 3nos
	14	The supply and cleaning of medium sand and loading into SSF unit (Uc-2.4 D10- 0.26) as per drawing and direction. 3.975 x 0.850 x0.500 =1.68 cum	1.68 cum	1668/m³ Unskill-	2802.00 1no
	15	Supplying and laying of 40 mm dia. PVC pipe including fitting and fixing the same in position (40 Schedule).	40 m	219 /m Skill-	8760.00 1no
	16	Supplying and fixing of valves, PVC pipe etc. with Brass check valve – 40 mm dia.	1 No	771/No.	771.00
	17	Supplying and fixing of valves, PVC pipe etc. with PVC pipe – 25 mm dia.	4m	219/m Skill-	876.00 1no
	18	Supplying and fixing of valves, PVC pipe etc. with PVC pipe – 40 mm dia (40 Schedule).	2 m	298/m Skill-	596.00 1no
	19	Supplying and fixing of valves, PVC pipe etc. with 40 mm dia. C.P. Bib cook.	4 nos	648 /pcs Skill-	2592.00 3nos
	20	Supplying and fixing of valves, GI pipe etc. with 50 mm dia. GI pipe with socket piug....	2.5 m	453.00/m Skill-	1132.50 3nos
	21	Supplying and fixing of valves, GI pipe etc. with 25 mm dia GI elbow/PVC	8nos	80/ pcs	640.00
	22	Supplying and fixing erectly 1 H.P. pump Crompton greaves model with switch board etc complete	1 No	8000/pc Skill- Unskill-	8000.00 1nos 2nos
	23	Fibre glass corrugated sheet 6 mm th. Work fitted & fixed with 9.5 mm dia J or L hook bolt & nuts limped between washer & puty with 150 mm end lap & corrugated minimum side lap comp. 3 nos (1.00m x 1.00m) =3 sqm	3 Sqm	515.98//m² Skill- Unskill-	1547.94 1nos 2nos
	24	Reducing Socket	2nos	50.00 per	100.00
	25	Labour charges for boring tubewell by water jet system through any type of soil strata in/c hire & labour charges for boring pipes scaffolding other tools and plants as necessary & taking out them & lowering pipes, strainers blind pipes etc & fitting fixing the same, comp. in/c bucket, washing & other incidental works in connection. The tube well should have a minimum 50m gap in between the outside of the tube well pipe & the bore . a) For depth more than 150 m for 40 mm	36m	307.00/m Skill- Unskill-	7000.00 3nos 12nos



		dia tubewell with top enlargement of 100 mm dia. b) 100mm dia boring form 0 to 36 mtr. OR Labour charges for pipe connection from the pond including strainer, full valve, plug, net, socket, brass check valve, 25mm dia PVC pipe length 50m etc. One set to water tank via pump : I Set @Rs. 7000/- including 200mm Hose pipe.			
	26	75mm PVC pipe for collection of water from tubewell to intake well	20m	196.30/m L.S. Skill	3926.00 2nos
	27	Colour & Tiles		L.S.	5000.00
	28	Permanent wall writing		L.S.	1500.00
		Total			248473.94
		Say, Total Rs.			248474.00

Labour

Skilled : 61 nos. @348.00, Rs. 21228.00
Unskilled : 120 nos. @174.00, Rs. 20880.00

Material Cost : Rs. 206366.00

PREPARED &
VETTED

B. S. S.
19.5.2015

**Sub-Assistant Engineer,
(W.R.D.D.) Contai-II
Dev. Block**

B. S. S.
19.5.15

Block Development Officer
Contai-III Dev. Block



PLOT-NO:

**MODEL PLAN FOR THE CONSTRUCTION OF WATER CONSERVATION TANKS-
FROM TECHNICAL METHODS UNDER CONTA-III DEVELOPMENT BLOCK AT MOUZA-**

TI -NO: , PURBAMEDINIPUR. PLINTH AREA=12.50M2



ON REQUEST

Block Development Officer,

Signature of Engineer

S. K. BALA

Sub-Asystant Engineer
With Dew Block

Dov. Bloch