

**Model estimate of roof top rain water harvesting scheme for 10000 litre capacity reservoir ( Plastic, Sintex) under NREGA**

**Calculation of Quantities of different Items.**

Sl. No.	Description of Item	No.	Length	Breadth	Height	Quantity	Total Quantity
1	Earthwork in excavation (ordinary mixed soil) in foundation as required complete @ 2.49 m <sup>3</sup> / male USK & 2.12 m <sup>3</sup> / female USK		PI x 2.050 x 0.600 x 0.450 =			1.739 m <sup>3</sup>	<b>1.739 m<sup>3</sup></b>
2	Cement Concrete (1:4:8) to foundation and below reservoir bed. @ 2 skilled & 3 unskilled / 2 m <sup>3</sup> (i)		PI x 2.050 x 0.600 x 0.150 =			0.580 m <sup>3</sup>	<b>0.852 m<sup>3</sup></b>
	(ii)		PI x (2.150) <sup>2</sup> x 0.075/4 =			0.272 m <sup>3</sup>	
3	Brickwork with Cement Mortar(1:4) in foundation and plinth @ 1 skilled & 2 unskilled / 1.1 m <sup>3</sup> (i)		PI x 2.275 x 0.375 x 0.750 =			2.010 m <sup>3</sup>	<b>3.848 m<sup>3</sup></b>
	(ii)		PI x 2.400 x 0.250 x 0.975 =			1.838 m <sup>3</sup>	
4	Earth filling above G.L. (i)		PI x (1.900) <sup>2</sup> x 0.450 /4=			1.276 m <sup>3</sup>	<b>3.817 m<sup>3</sup></b>
	(ii)		PI x (2.150/4) <sup>2</sup> x 0.70 =			2.541 m <sup>3</sup>	
5	Silversand filling below P.C.C		PI x (2.150) <sup>2</sup> x 0.20 / 4			0.726 m <sup>3</sup>	<b>0.726 m<sup>3</sup></b>
6	12 mm thick plastering (1:4)	1	PI x 2.650 x 1.50 =			12.49 m <sup>2</sup>	<b>12.49 m<sup>2</sup></b>

**Total Labours Required**

Sl. No.	Items	Quant ity of work	Unit	Skilled (Nos)	Semi Skilled (Nos)	Unskilled (Nos)
1	Earthwork in excavation (ordinary mixed soil) in foundation as required complete	1.739	m <sup>3</sup>	0	0	1
2	Cement Concrete (1:4:8) to foundation and below reservoir bed. @ 2 skilled & 3 unskilled / 2 m <sup>3</sup>	0.852	m <sup>3</sup>	1	0	1.5
3	Brickwork with Cement Mortar(1:4) in foundation and plinth @ 1 skilled & 2 unskilled / 1.1 m <sup>3</sup>	3.848	m <sup>3</sup>	3.5	0	7
4	Earth filling above G.L.(compacting every 150 mm height)	3.817	m <sup>3</sup>	0	0	2
5	Silversand filling below P.C.C	0.726	m <sup>3</sup>	0	0	0.3
6	12 mm thick plastering (1:4), ( 2 skilled & 3 unskilled per 18 m <sup>2</sup> )	12.49	m <sup>2</sup>	1.3	0	2
<b>Total =</b>				5.8	0	13.8
				<b>( Say 6 Nos.)</b>		<b>(Say 14 Nos.)</b>

