

Nepal - LangTang – Thuman Rebuilding project of the School Earthquake resistance

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NEPAL – LANGTANG – SCHOOL THUMAN – REBUILDING PROJECT

ESTIMATE CONSTRUCTION COST : material unit price of march 2016 (source : Saraswati),

MATERIELS + TRANSPORATION (KTM- Syaphru)					TRANSPORTATION CARRIER (Syaphru – Thuman)			TOT Cost (Rs)			
Designation	Volume	Unit	Unit price (Rs)	Cost (Rs)	Weight (kg)	No,Tr/ 20 kg	Cost (Rs) 1000				
Cement	17 700	kg	35	619 500	17 700	885	885 000	1 504 500			
Gravel	29 887	kg	10	298 870	29 887	1 494	1 494 350	1 793 220			
Sand	63 856	kg	14	893 984	63 856	3 193	3 192 800	4 086 784			
Iron bar : 0,236"	200	kg	4	800	200	10	10 000	10 800			
Iron bar : 0,39"	300	kg	4	1 200	300	15	15 000	16 200			
Plywood	2 800	sq ft	66	184 800	925	46	46 250	231 050			
Door size : 7' x 3'	13	U	5 000	65 000	650	33	32 500	97 500			
Window size : 4,6' x 6'	65	U	3 000	195 000	1 950	98	97 500	292 500			
Metal framing : 3'' x 3''	3 848	ft	180	692 640	5 772	289	288 600	981 240			
CGI sheet 1,5 kg/sq ft	6 157	sq ft	120	738 828	2 832	142	141 609	880 437			
Electric instalation	13	U	10 000	130 000	650	33	32 500	162 500			
Sanitary instalation	2	U	25 000	50 000	500	25	25 000	75 000			
TOT				3 870 622	124 072	6 204	6 203 609	10 131 731			
							TOT/house RS	779 364			
							TOT/house €	6 495			
LABOR											
Designation	No. worker	Time/ house	Unit	Tot x 13	Unit	Daily price	Unit	Tot cost			
LABOR (daily price : 1 200 Rs)											
Excavation	5	5,0	j	65,0	j	6 000	Rs	390 000			
Fundation	5	5,0		65,0		6 000		390 000			
Wall	4	10,0		130,0		4 800		624 000			
WOOD structural frame	4	5,0		65,0		4 800		312 000			
Roof : CGI-sheet :	4	2,0		26,0		4 800		124 800			
Topping concrete	5	1,0		13,0		6 000		78 000			
Plywood ceiling	4	1,0		13,0		4 800		62 400			
Door and windows	4	2,0		26,0		4 800		124 800			
Electric instalation	1	2,0		26,0		1 200		31 200			
Sanitary instalation	2	4,0		52,0		2 400		124 800			
TOT		31				403					2 262 000
								TOT/house RS	174 000		
								TOT/house €	1 450		
SUMMARY											
DECOMPOSITION	TOT/house		%	TOT/houses		Rs	953 364				
MATERIAL + TRANSP (KTM-SYAPHRU)	2 481 €		31%	TOT		Rs	12 393 731				
TRANSPORTATION (SYAPHRU - THUMAN)	3 977 €		50%								
LABOR	1 450 €		18%	TOT/houses		€	7 945				
		7 975 €		TOT		€	103 281				

Important notes :

- *Material unit price of march 2016 (source saraswati : factory to Trisuli),*
- *Exchange rate : 120 Rs = 1€,*
- *Taxes of constructor no included,*
- *Study and administrative costs no included,*
- *Daily cost labor : 1 200 Rs,*
- *Labor : accomodation and food non incuded,*
- *Weight per transportation from syaphru to Thuman : 20 kg,*
- *Daily cost per transportation per people from syaphru to Thuman : 1 000 Rs (local source)*

<i>Schedule</i>

Input data of estimate construction cost :

- *No. worker per house : 5*
- *No. days per house : 31*

Estimate schedule :

*Important notes : Construction advancements **are limited by the transportation of materials.***

This estimate is based on current 4 houses with 5 workers on each :

- *No. worker per house : 20*
- *No. days per 4 houses : 31,*
- ***No. days per 13 houses : 100 = 16 weeks = 4 month***