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Planning and Comparison of Costing for various Types of Residential Building

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***Abstract:** As we all know that food, shelter & clothes are the basic fundamental requirement of man. The possession of shelter besides being a basic, used, gives a feeling of security, responsibility and shown the social status of man. For the successful execution of a project, effective planning is essential. However, all building construction projects include some elements in common design, financial, estimating and legal constructions. We all have studied the Planning and Comparison of Costing for Various Types of Residential Building.*
In conclusion section we have correlated the comparison between the two concepts of theoretical and practical knowledge of any structure.
***Keywords:** Planning of Residential Building, Cost Comparison of Residential Building when different grades of materials are used, Basic Rates of Material, requirement of material, Labour Rate of work,*

I. INTRODUCTION

In today's world almost every person requires a structure for different purposes like for shelter i.e Residential Structure, for school or colleges i.e. Educational Buildings, for medical purposes i.e. Institutional Structures, for shops, markets & stores i.e. Mercantile Buildings, & and some other structures like Industrial and Storage Buildings. The design and planning of such building depends upon the nature of the building and the function to be carried out within it.

Every building should be constructed by keeping in mind the new techniques of planning, i.e. "Form follows function". In other words structure of building should fulfill the function should be carried out in it. While designing and planning public buildings the different units of its utility are planned and then they are joined as a whole.

Unlike residential building, it is must to be considering the number of persons working and furniture arrangements required for public buildings. In public buildings the space required for movement and circulations is very important. With proper composition the planning may be symmetrical and balanced then it is called as formal planning. Irrespective of formal or informal composition balance must be there in planning.

While planning the most important point to be kept in mind is financial budget, i.e. complete estimation of that structure, in our case it's a Reesidential Building structure.

However, with the help of costing of materials like Sand, Metal, Bricks, Tiles, Binding Wires and Steel collected from their respective distribution centers and the cost of labour in that particular location we had estimated the costing of residential building structure in Rate Per Square Feet format.

II. FINDINGS

A. Requirement of Material

Steel-40kg/m²-2000 per m²
Cement- 5kg per m²- rs. 1350/- per m²
Brick
15 nos 6" per m²= 90/-
30 nos 4.5" per m²= 120/-
RCC work (column plus slab) = Rs3500/-per m²

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B. Labour Rate of Work

WORK	In per sq. m	In per sq. Ft.
Upto plinth work Labour(total filling materials & slab)	Rs1500/- per m^2	Rs150/- per sq. Ft.
RCC frame labour	Rs1500/- per m^2	Rs150/- per sq. Ft.
Frame & brick work, plastering floor tiles etc	Rs2700/- per m^2	Rs270/- per sq. Ft.
Labour putty finish, oil bound, paintings	Rs500/- per m^2	Rs50/- per sq. Ft.
Fully panel aluminium Windows(with material)	Rs 2000/- per m^2	Rs 200/- per sq. Ft.
Grill (ms) with material in 1 m^2 @ 15 kg steel required = Rs1000/- per m^2	Rs65/- per kg steel	

III. COMPARISION OF COSTING

A. Rate Rs. 1100/- Per Sq.ft for Super Structure Rs. 280/- Per sq. ft for up to Plinth level (Measurement of total slab at this level will be consider)

1) Conditions

a) Ground floor Constructions only.
b) Foundation: Piles foundations 1 m. depth in case of column footing foundations.
c) Floor height: 2.85 M. only.
d) Cement: Local, Costing Rs. 210/- Per bag
e) Steel: Local, steel costing @ Rs. 40000/- Per Ton.
f) R.C.C. Door Frame.
g) Colour Washing internally & externally.
h) Tiles 2' *2' Vetrified costing @ Rs. 30/- Per sq. ft. & for Toilet bath room @ Rs. 250/- Per Box (box contining 10 sq.ft)
i) Local Cement for brick work & Plastering
j) Local Senitory & Electric fiting.
k) No POP/ Modular kitchen.
l) Compound wall Charges Extra @ Rs. 900/- Per running ft. height up to 4 ft.

2) Note

a) Choukider Hut, Choukider Charges will be extra.
b) SNDL/ Electric Meter Charge born by owner.
c) Water (bore well /well) by owner.
d) Contractor Builder will not be responsible for any deviation/ violation of work.
e) Any additional work will be charge extra with prevailing Market rate plus 10% contractor profit.

B. Rate Rs. 1250/- Per Sq.ft for Super Structure Rs. 325/- Per sq. ft for up to Plinth level. (Measurement of total slab at this level will be consider)

1) Conditions: Ground Plus One Floor Constructions only(Two storey)
a) Foundation:- Pile /2m depth in case of Column Footing foundations
b) Floor height 2.85m only.
c) Cement:- Birla Gold/Manikgarh @ Rs. 230/- Per bag.
d) R. C.C. Door Frame.
e) Puty Painting internally & Oil bound distemper.
f) Tiles 2'* 2' Vetrified Tiles in all room costing @40/- per Sq.ft. And for Toilet bathroom @ Rs. 300/- Per box (box containing 10 Sq.ft. tiles)

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g) Local Cement for brick work & Plastering.
h) Moderate sanitary & Electric Fitting.
i) PO P in Drawing Hall/ Moderate Modular kitchen.
j) Steel used:- Local T.M.T. costing @ Rs. 42000/- Per ton.
k) Compound wall charges Extra Rs. 900/- Per running ft. Height up to 5 ft.
l) 10% extra cost for each above floor.

2) Note
a) Choukider Hut, Choukider Charges will be extra.
b) SNDL/ Electric Meter Charge born by owner.
c) Water (bore well /well) by owner.
d) Contractor/ Builder will not be responsible for any deviation /violation of work.
e) Any additional work will be charge extra with prevailing market rate plus 10% contractor profit.

C. Rate Rs. 1350/- Per Sq.ft for Super Structure. Rs. 350/- Per Sq ft upto Plinth level. (Measurement of total slab at this level will be consider)
1) Conditions: Ground plus Two Floor only (Three story building)
a) Floor height 3m only.
b) Cement:- Ultra Tech/ Ambuja Costing @ Rs 250/- per beg .
c) Steel:- T.M.T Goel costing @ Rs. 43000/- per ton.
d) R.C.C Door frame, 4'* 5' aluminum windows.
e) Putty Paint internal walls with oil bound cement distempering.
f) 2'*2' Vetrfied double charged Tile in all room casting @ Rs. 45/- Per sq.ft. and for Toilet/ bathroom tiles Rs. 275/- per box (Box containing Ten Sq.ft tiles)
g) Local Cement for brick work & Plastering.
h) Moderate Sanitary & Electric Fitting.
i) P o P in drawing hall & Moderate Modular kitchen.
j) Steel used Kamdhenu TMT costing @ Rs. 44000/- Per ton.
k) Compound wall Charges Extra @Rs. 1200/- Per running ft. & Height upto 6 ft,
l) 10% extra cost for each above floor.

2) Note
a) Choukider Hut, Choukider Charges will be extra.
b) SNDL/ Electric Meter Charge born by owner.
c) Water (bore well/ well) by owner.
d) Contractor Builder will not be responsible for any deviation/ violation of work.
e) Any additional work will be charge extra with prevailing market rate plus 10% contractor profit

D. Rate Rs. 1500/- Per sq. ft for Super Structure. Rate. 400/- Per sq.ft upto Plinth level. (Measurement of total slab at this level will be consider)
1) Condition: Ground Plus Two or More Floor (Three or Four story building)
a) Plinth height upto 800 mm.
b) Floor height 3m only
c) Cement:- Ambuja cost. Rs.@ 270/- Per sq.ft
d) Steel:- T M T Kamdhenu costing @ Rs. 45000/- per ton.
e) R.C.C Door frame 4'* 6' aluminum window.
f) Putty Painting internal wall and quality oil bond coloring.
g) 2½ *2½ vetrified Tile costing @Rs. 60/- per sq.ft in all rooms And for Toilet /Both room. Tiles about @ Rs. 350/- per box (Box containing Ten Sq.ft tiles.)
h) Ambuja Cement for brickwork & plastering.

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i) Quality Sanitary (Jaguar fitting for tabs) & Electric Fitting.
j) PO P in Hall & Moderate Modular Kitchen.
k) Compound wall charges extra @ Rs. 1500/- Per running ft. And height as mention in architectural drawing.
l) Moderate architectural elevation can be executed.
m) 10% Hike at every floor.

2) Note
a) Choukider Hut, Choukider Charges will extra.
b) SNDL/ Electric Meter Charge born by owner.
c) Water (bore well/ well by owner.
d) Contractor /Builder will not be responsible for any deviation/ violation of work
e) Any additional work will be charge extra with prevailing market rate plus 10% contractors profit.

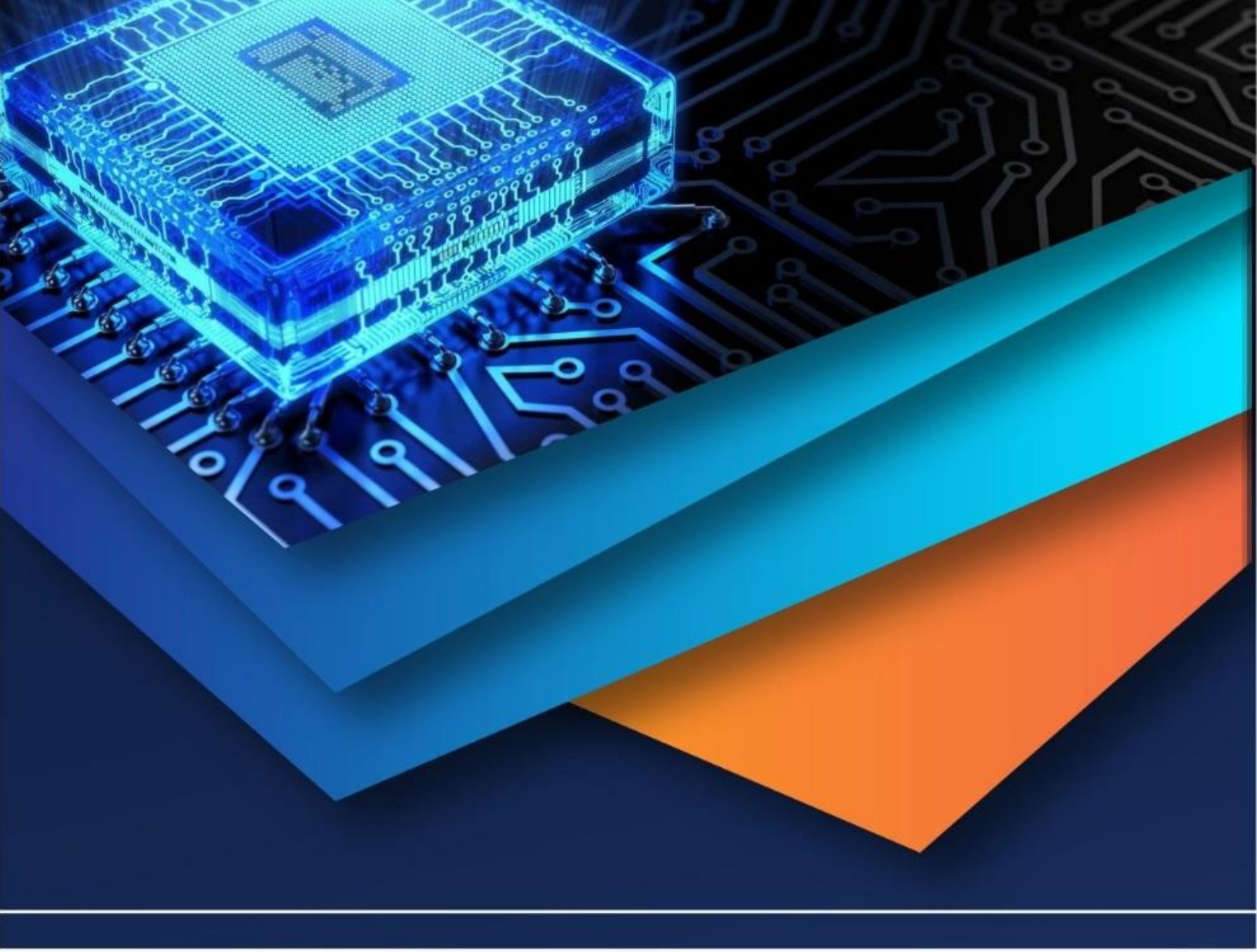
IV. CONCLUSION

We can conclude that theoretical knowledge and practical knowledge are two different sides of workdone. The practical understandings increases our much more knowledge with a great experience of rate analysis and work completion. So we can say that only theoretical knowledge is not sufficient for execution of work. So on the basis of knowledge collected we can say that the cost of various buildings varies with its specifications and its location. So on the basis of this project we can plan a building with the costing in proper way.

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