LOW COST HOUSING

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Abstract - Housing is a basic need of human being. But this is out of the means of low income householder who constitute majority of the population in the country. Low cost housing become must in civil engineering. In this report some methods of low cost housing given.

First of all in this report present situation present trends and future tends about low costing hosting in India is given. This report is mainly concentrated on chapter construction materials. A few low cost materials are developed and discussed in this report. The report are also includes an important chapter as specification. The material needs for real construction of house are specified. For example, use of solid blocks or low cost housing and bricks for common housing.

Keywords- Housing, construction, material

I.INTRODUCTION

The construction established by modular planning. Use of locally available material and by manipulating still to reduce cost is low cost housing.

One can say that low cost housing will be the construction using law cost material and only for the less income group. But it is not so. As explained above low housing implies availably material thus cutting the transportation and structure cost. When housing for millions of infrastructure material and other deep economic consideration take astronomical properties so essential it is through of as social housing for a use of people living in slums who cannot purchase housing of their own but not as a natural policy.

I. MODULAR PLANNING

Standardization and dimensional co-ordination have been recognized to efficiency and economic construction. It is necessary to plain house on modular basis so that the dimension of structure will confirm to the standard dimensions of modular product without cutting and patching at site. The convenient module which is increasingly being used in this country for concrete hollow blocks and other building units in 4 inch. So, if size of the all the rooms and the height of flours are made multiple of 4 inch there would be no need oh having to cut and patch blocks which would mean an appreciable saving in cost of material and labors. In modular construction it is required to make openings for doors and windows can firming to the principles.

II. SHAPE OF HOUSE

The shape of house as an important bearing on its cost of the construction due to the amount of outside wall and roof area required to in close given amount of space. The square is most economical shape since it provides the maximum amount of floor area with the list amount of wall area. Corner construction cost is more than standard wall construction due to extra expenditure in corner and increasing the length of wall with conclusion that the square and rectangular shaped plans are most costly shapes. Economy in construction can also be affected by building small 1&2 room house is rows on account of saving in more numbers of wallpaper from saving the construction cost the low houses are characterized by economy in land use.

A. ROOM SIZE:-

A definite saving cab is made in cost of constructing house by reducing the size of room. By paying proper attention to position of furniture , location of doors, the windows, size of room can be reduced without effect of the committee of experts for building work in their recent report has stated that minimal size of living room should be 120 sq. feet

B. BASIC REQUIREMENT:-

Before considering the designing of house it is described to study the basic requirement in house designing.

- Strength and stability
- Comfort and convenience
- Protection
- Resistance to moisture penetration
- Thermal insulation

- Durability
- Safety against fire

C. **STRENGTH AND STABILITY:-**

Every house like any other structure should be strong enough to support the loads that come in it can be stable under all the condition. The load coming classified into 3 types.

D. **COMFORT AND CONVENIENCE:-**

The low cost house should be planned with such a room relationship that occupants can move about the house without inter feeing with one another. Room need not necessarily be to capacious but case of passage between room is important to avoided confusion and to ensure individual privacy and convenience this should be accessible from every bedroom to bathroom and to the house entrance without passing through another room. Whenever possible rooms or spaces should be stay apart for caring on various activity such as studies dining hobbies in which the family members engage in.

VI. CONCRETE HOLLOW BLOCKS

Concrete Hollow Blocks masonry has been used at large in America and Europe for many years. The reason for its popularity is optimum cost at which it provides desirable properties in masonry construction such as strength durability, resistance to fire and good appearance.

This type of masonry is not yet mostly used in our country, it has been adopted for some buildings since 40 years and those buildings are standing still very well but after last was it has been famous on account of its comparative economy the advantages.

VII. BAMBOO BASED TECHNOLOGY

Considering of these properties asbestos cement covering is commonly adopted as roofing material for factories workshop offices, garages & residential building. The two types of sheets commonly used are Box Six & Trafford sheet, available in 2 to 2m length.

VIII. LOW COST HOUSING FOR RURAL AREAS

Most developing countries are situated in the tropical zone of the world. In many of those countries shelter situation is constantly increasing & the deficit of housing is one of the most urgent & different problem

In rural areas the expected addition to the POP nation in developing countries. But the issue of housing is still these although not so clear as it is in the cities. The existing situation in the rural areas is poor, with more than 80% of people in village. Research in low cost housing was accepted as one of the major goal of the United Nations development decade & year 1987 was declared the international year of shelter for the homeless. For many people throughout the world their shelter consists of merely the temporary roof & over 100 million people have no shelter at all. Low cost housing is a step towards better housing technology for tackling the shelter problem of million of homeless..

IX. ECONOMIC MEASURES TO CONTROL COST

The measures to be taken be the private and government agencies to economize the cost of the housing project are given below.

a. The cost of land should be changed less making on attempt to reduce the development charges of organization concerned. The plan of house should be simple to minimal the length of wall and number of doors and windows.
b. The use of scarier material like cement and steel should be reduced and specification should be slightly lower down to reduce the cost.
c. The overhangs and decorative work using cement and steel should reduce.
d. The build-up area of the house should also reduce without affecting the utility of building.

A. **ADVANTAGES**

- Less use of cement and steel for any given section compared with rcc with a corresponding reduction in self weight.
- A major cutting in cost expenses in cost expenses compared to rcc.
- An easy manufacturing process requiring only semi-skilled labour.
- The technique & cheaper installation practice compared to rcc.
- The technique requires neither scaffolding, a shuttering, a concrete mixer nor a vibrator.
- They have a high degree of permeability& resistance to cracking.
- They require minimal maintenance.
- They are economical compared to components built with steel, concrete, or brick walls.

B. **DISADVANTAGES**

- The need of a casting & working area to prefabricated the element & cure them. This may be hard or expensive especially in an urban setting.
- The need for a control for ensuring quality products.

- The need for a proper applied curing method usually overlooked in any building construction activities.
- If the element are not manufactured on the site they will have to be carried which may add to the cost. Care should be taken not to damage the elements during transportation.

C. **DURABILITY**

It is a quality cannot be assessed as briefly as those criteria discussed already. The laboratory investigations and short period test make it possible to distinguish new material and method which will be short lived from thus which are likely to lost reasonably well but any estimate of length of roof of latter must be problematical much may depend upon the maintenance between upon them. Thus the durability through house defined as the length of time over which it will remain or it can be made to remain efficient can be assessed by as estimate of the probable maintenance which will be necessary. The durability of a house is also dependent upon the practice of profound building construction.

D. **SAFETY AGAINST FIRE**

It is important that a house should be built with fire resistant material and in such a manner that offered satisfactory protection against fire the most serious threats to the personal safety other occupant in case of fire occurs if there escape from house is prejudice. To facility escape their condition should observed.

1. The structure should not ignite easily.

2. The structure must be such that a fire, once started does not spared rapidly from one room to another on in staircase or passage

3. There must be sufficient means of escape, especially in the case of multistoried buildings.

CONCLUSION

It at all the shortage of housing is to be wiped out then it is necessary to move away from the connectional approaches. It is necessary to adopt the construction methods using locally available material. Also the engineer must have a adequate knowledge of properties of locally available economy can be achieve by using low cost building material. A saving of nearly Rs.40 to Rs.50 per sq. ft. can be achieved by using low cost & locally available materials. Thus fresh & new, innovative ideas at the technological, administrative, and financial and management levels should be quickly executed.

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