

EFFECT OF BRICK SIZE ON CONSTRUCTION COST

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Most of the common bricks produced in Sri Lanka are smaller than those conforming to standard dimensions. This results in escalation of construction costs due to the increase in material and labour required for a given job.

Theoretical computation shows that the number of bricks required for a given volume of brickwork is not directly proportional to the volume of bricks used. Sand and cement quantities required for the mortar will depend mainly on -

- a) the number of bed joints required, which will again depend on the height of bricks used
- b) lack of compatibility between length and width of bricks
- c) use of excess mortar as infill to achieve a specified wall thickness.

A mathematical relationship between the cost of brickwork and size of bricks has been derived. It shows that with present day bricks (the average size of which has been found to be 185 mm x 90 mm x 50 mm) the cost of brickwork would be 47% more than the cost of the same brick work using bricks of standard size.

On the otherhand, the use of modular bricks (190 mm x 90 mm x 90 mm) could give rise to a saving of 16% in construction cost.