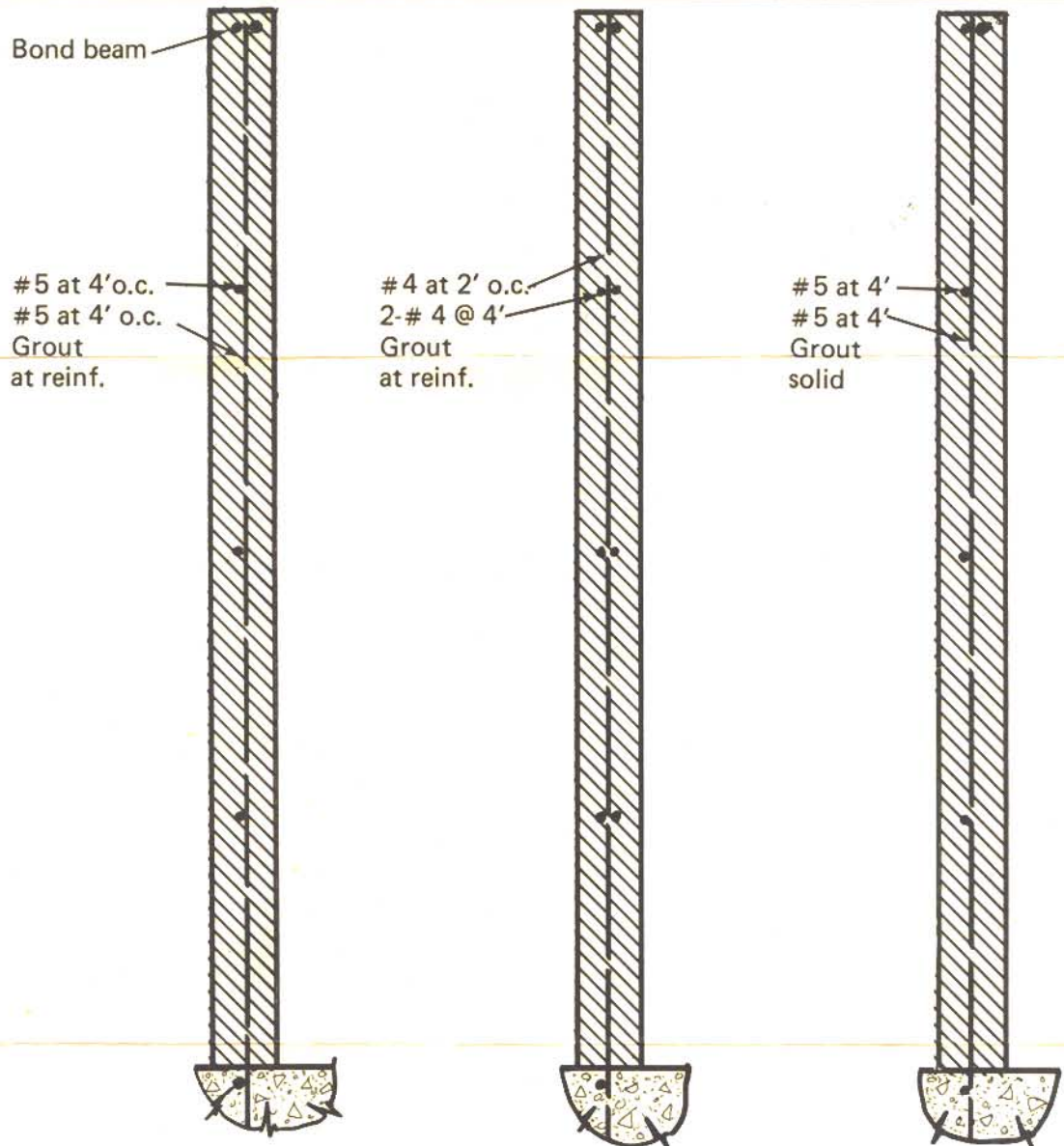


ENERGY CONSERVATION AND CONSTRUCTION ECONOMY BY PROPER STEEL SPACING



WALL

| | "A" | "B" | "C" |
|---------------------------|-----|-----|-----|
| Cost Index | 100 | 105 | 114 |
| "U" Value | .43 | .44 | .48 |
| Weight, psf | 50 | 58 | 80 |
| Add Loose Insulating Fill | | | |
| Cost Index | 114 | 114 | — |
| "U" Value | .28 | .32 | — |

(turn page)

For
Engineering Information
and Details
contact

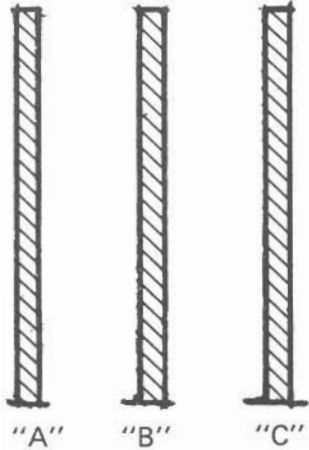
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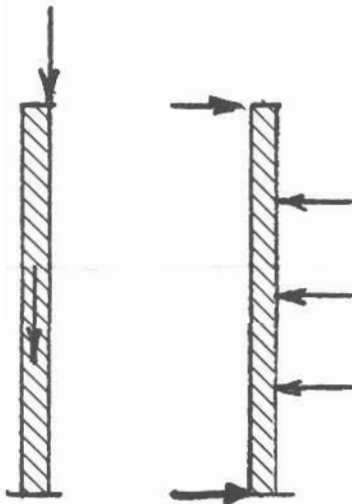
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The typical wall sections on opposite side show the effect on energy conservation and construction cost of using maximum steel spacing. The steel spacing shown is for typical 8" thick by 16' high walls of concrete block and is according to Uniform Building Code. Unusually heavy or eccentric loads or long span non-bearing walls may require an increase of steel, such as vertical bars from #5 @ 4' to #6 @ 4'.

The savings that may be gained by proper spacing of steel is shown by the relative costs of the wall sections shown. These comparisons are based on the cost of the wall with #5 bars grouted at 4' o.c. each way as an index of 100 and the others compared to that. The U factor is also shown and is significantly increased when the amount of grout is greater. These U values are for medium weight block (115 lbs./cu.ft.) with normal weight grout.



Walls that require solid grout, such as fire rated walls, may need special consideration to meet the energy requirements. One method of energy conservation would be the use of lightweight block (105 lbs./cu.ft. or less) grouted solid with lightweight grout (100 lbs./cu.ft.). The cost index would be 125 with a U factor of .34. If a lower U factor is required, a wall using medium weight block grouted solid with normal weight grout can be reduced to .18. This can be accomplished by the application of foil backed gypsum board on 3/4" furring strips. The cost index would be 148.

Better steel spacing makes wall section "A" the most economical as well as a better wall for energy conservation.