the cell, which forms one side of the door opening. Notice how the width of the top left corner block becomes part of the wall length, and how the half-block in the fourth row down from the top becomes part of that row's wall length to the door opening.

So what does all this mean? One linear half-block in a wall shortens the wall by 0.15-inches, whereas one corner block lengthens the wall by 0.2125-inches. When setting the wall segment length, simply use the virtual half-block length value for all linear half-blocks and corner blocks (15.7 divided by 2 = 7.85-inches rounded up to 7.9 inches) on the initial floor plans, and when a corner block is involved, simply add 0.2125 rounded up to 0.25-inches, to the final wall dimension for each corner block involved. This method allows the rows with linear half-blocks to be stretched a little while stacking, and also allows the wall dimension with corner blocks to be lengthened a little to make room for the wider corner blocks.

Remember, slight gaps between

Figure 39. Corner blocks and linear half blocks.

the adjacent blocks will not weaken the surface-bonded cement (SBC) wall strength. This is because the SBC simply grips into the slight void, making the void disappear. The SBC achieves its strength by bonding the individual wall blocks into one integral unit of wall plane, one plane on each side of the block wall. Small gaps between the blocks do not affect

this strength because the continuous fiber reinforced cement wall surface coating, bridges these small gaps.

Of course, knowing where the half blocks fall on a wall, is required for determining accurate floor plans. To achieve this knowledge, you must think in half-block dimensions. If a wall needs to be 15 feet long, the nearest half block dimension would be 11.5 blocks (15.7 x 11) plus a linear half-block (7.9) = 180.6" = 15'-0.6". If the half-block on this wall were a corner block, then the wall would require 11.5+ blocks. The "+" tells you that you have added 0.25-inches to the wall, which changes the wall dimension to 15'-0.85" (11.5+). Spreadsheet tables can be found in Appendix "A", which allow easy selection of the closest half block wall dimension. We will discuss these tables later in this chapter, after we cover additional dimensioning issues first.

Placement of Corner Blocks
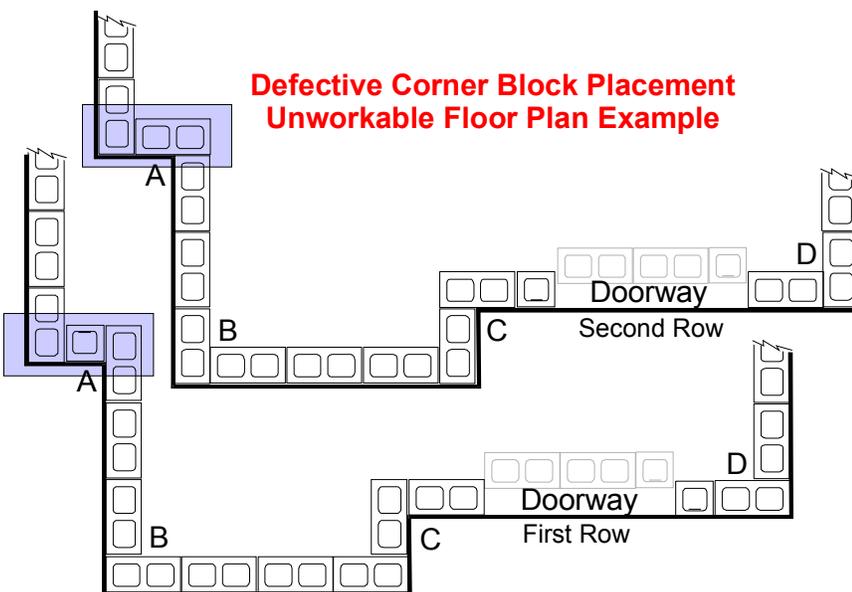
Figure 40. Bad corner block placement.