506.4.1

**Area determination.** In addition to the floor-area limits placed on each story of a building, the entire building is also limited in size. For multistory buildings other than those consisting of only two stories, the IBC permits the total combined floor area to be three times the total allowable area permitted per floor. Two-story structures are limited in size to a total combined floor area of twice that permitted per floor. Examples of these limitations are shown in Figure 506-5.

The general limitation on allowable building area is not applicable to unlimited-area buildings in compliance with Section 507. In addition, four-story residential occupancies provided with an NFPA 13R automatic sprinkler system are permitted additional allowable area beyond that permitted under the general provisions. As the installation of a 13R sprinkler system in a residential occupancy does not provide for an increase in allowable area for sprinklered buildings, and the use of an NFPA 13R system is limited to buildings no more than four stories in height, it is considered appropriate to permit the maximum allowable area per story for each of the stories in the residential building. This would include four-story structures as depicted in Figure 506-6.

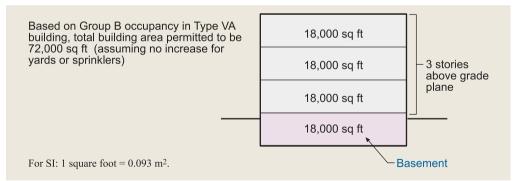
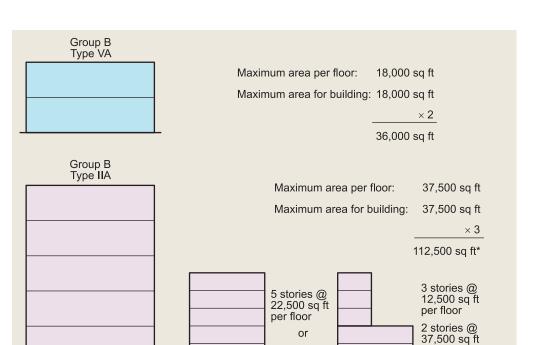


Figure 506-4 Allowable area basement.



\*Assuming no frontage or sprinkler increases  $\begin{array}{c} \text{or} \\ \text{other} \\ \text{combinations} \\ \text{up to 5 stories and} \\ \text{65 ft in height with} \\ \text{no story exceeding} \\ 37,500 \text{ sq ft} \end{array}$ 

Figure 506-5
Building area
limitations.