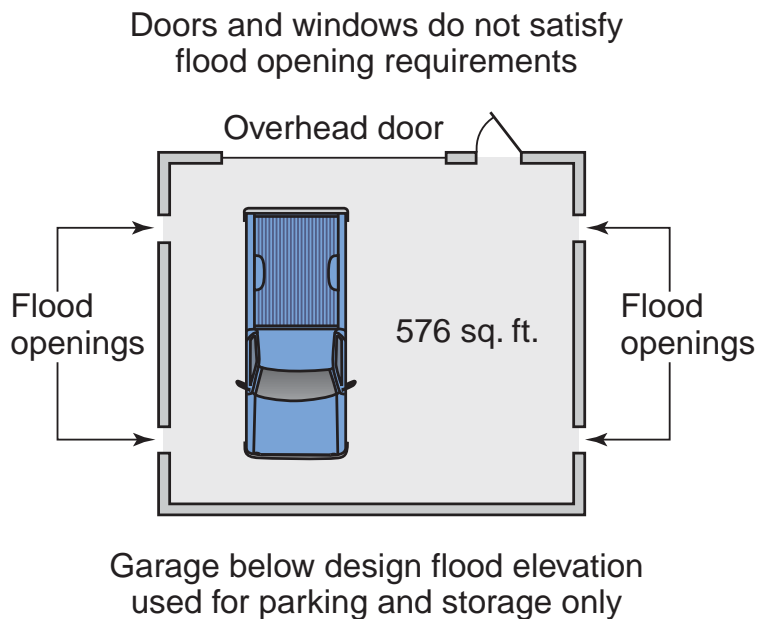


Floods

The IRC requires flood resistant construction for buildings located in flood hazard areas to minimize damage. Primary protection is achieved through elevation of the lowest floor of the building above the design flood elevation. Basements and spaces used only for storage or vehicle parking are permitted below the design flood elevation. Such enclosed areas require flood openings to allow flood waters to flow through the space and equalize hydrostatic pressure on both sides of the enclosing walls (Figure 4-16). The structural elements of these spaces, as well as building foundations, must effectively resist flood loads in addition to other applicable loads. Flood loads, velocities and hazards associated with floating debris are increased in floodways, the main channel boundaries of a river. Buildings located in a floodway must be designed and constructed in accordance with ASCE 24 to adequately resist these loads. [Ref. R301.2.4, R322]



Flood opening requirements:

- Two openings required on different sides
- Total 576 sq. in. net area (1 sq. in. per sq. ft. of enclosed area)
- $576/4 = 144$ sq. in. net area per opening
- The bottom of each opening no more than 12 in. above grade

FIGURE 4-16 Flood openings