



**Figure 6-2**  
**Minimum NFIP A-zone requirements:** The lowest floors of buildings in Zones AE, A1-A30, and A must be at or above the BFE. Foundation walls below the BFE must be equipped with openings that allow the entry of flood waters so that interior and exterior hydrostatic pressures can equalize.



**NOTE**

For new, substantially damaged, and substantially improved **non-residential** buildings in A zones, the NFIP regulations allow dry-floodproofing as an alternative to elevating the lowest floor to or above the BFE or base flood depth. Dry-floodproofing refers to making the portion of a building below the BFE or base flood depth watertight, with walls substantially impermeable to the passage of water and with structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. The design, specifications, and construction plans for all dry-floodproofing projects must be certified by a registered professional engineer or architect. Additional information is available in *Non-Residential Floodproofing — Requirements and Certification for Buildings Located in Special Flood Hazard Areas*, FEMA's NFIP Technical Bulletin 3 (FEMA 1993d).

**Building Elevation in Zone A**

FIRMs do not present BFEs in SFHAs designated Zone A (i.e. unnumbered A zones). The lowest floors of buildings in Zone A must be elevated to or above the BFE whenever BFE data are available from other sources. If no BFE data are available, communities must ensure that the building is constructed with methods and practices that minimize flood damage.

**Building Elevation in Zone AO**

Zone AO designates areas where flooding is characterized by shallow depths (averaging 1–3 feet) and/or unpredictable flow paths. In Zone AO, the top of the lowest floor, including the basement floor, of all newly constructed, substantially damaged, and substantially improved buildings must be above the highest grade adjacent to the building by at least the depth of flooding in feet shown on the FIRM. For example, if the flood depth shown on the FIRM is 3 feet, the top of the lowest floor must be at least 3 feet above the highest grade adjacent to the building. If no depth is shown on the FIRM, the minimum required height above the highest adjacent grade is 2 feet.

Note that areas adjacent to V zones—behind bulkheads or on the back sides of dunes—are sometimes designated Zone AO. For these areas, this manual encourages the use of open foundations, as required in V zones (see Section 6.4.3.3), in Zone AO.