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## Building Height Area FAQs

### 1. IBC 503.1 and 508.4.3 – 9/1/2011

**Q: Specific to the construction of a new multi-story building that is to have multiple uses, how do the separated use provisions prescribed in IBC 508.4.3 interact with the story above grade plane limitations of Table 504.4?**

**A:** This is an instance where the intent of the code is to allow the limitation for the building to be based on what might be viewed as a less restrictive provision for the various uses located within the building. The uses that have a more restrictive limit are in compliance by being restricted to the fire area that corresponds to the story above grade plane in the building that matches up with the limitation in Table 504.4. For example an un-sprinkled building of Type VB construction that is of a 2-story above grade plane configuration can be designed to include mixed uses of Mercantile (M) and Business (B) within. To comply, a horizontal fire barrier of 2-hour fire-resistance rating must be provided between the first and second stories above grade plane and the M uses must be limited to locations on the first story above grade plane, or below, as specified in Table 504.4. The same methodology can be used for other mixes of use and classes of construction.

### 2. IBC 503.1 – 6/30/2008

**Q: Is the area of an occupied roof counted as part of the building area, in determining the maximum building area permitted by IBC chapter 5?**

**A:** No. The area calculations in IBC chapter 5 only include areas within stories, and a roof is not a story. However, the number of occupants for a roof must be included in establishing compliance with the means-of-egress requirements for the building.

### 3. IBC 506.3 – 9/1/2011

**Q: What are the required characteristics for a fire lane that provides access to an open space along the side of a building, in order to include that side's perimeter when calculating a building-area increase for frontage?**

**A:** According to IBC 507.2, the open space shall be a public way and/or a yard. See IBC 202 for definitions. By definition in [SPS 362.0202\(2\)\(a\)](#), "approved" means acceptable to the department, and the department will accept any proposed fire lane that is acceptable to the local fire department as meeting the requirements of [SPS 314.001](#) or the locally adopted fire code..

### 4. IBC Table 506.2 – 6/30/2008

**Q: Can an automatic fire sprinkler system that complies with NFPA 13R be used to obtain the building area increase for sprinklering that is permitted by IBC chapter 5?**

**A:** No, while footnotes from IBC Table 506.2 allows for building area increase taking advantage of a NFPA 13R sprinkler systems in R occupancies, only an NFPA 13 automatic sprinkler system can be used to obtain a building-area increase for sprinklering for all other occupancies.

### 5. IBC Table 509 – 9/1/2011

**Q: Does IBC Table 509 require the creation of a furnace room for a furnace that has an input greater than 400,000 Btu per hour, or the creation of a boiler room for a boiler over 15 psi and 10 horsepower?**

**A:** IBC Table 509 does not require the creation of a furnace room for a furnace of this capacity, but if a furnace room is provided for such a furnace, the room must either have a fire-separation rating of one hour or be protected by an automatic fire-extinguishing system. The same relationship exists for boiler rooms and boilers. If a boiler room is provided for boilers over 15 psi and 10 horsepower the room must either have a fire-separation rating of one hour or be protected by an automatic fire-extinguishing system. However, a manufacturer's listing for a specific furnace or boiler may include additional enclosure requirements.

See IMC section 202 for definitions of furnace room and boiler room.

Where a fire-resistance rated separation is required, the incidental use must be separated from other portions of the building with fire barriers that comply with Section 707, horizontal assemblies complying with Section 711, or both. Where Table 509 permits protection by an automatic sprinkler system without fire barriers, the construction enclosing the incidental use must resist the passage of smoke in accordance with Section 509.4.2. Where the construction surrounding an incidental use is only required to be 1 hour, and the building is of nonrated construction (Type IIB, IIIB or VB), the rated construction does not need to be supported by 1-hour fire-resistance-rated construction. In all other instances, the construction supporting incidental occupancy separations must be supported by construction with at least the same rating as the separations.