

STATE BUILDING CODE INTERPRETATION NO. I-16-00

March 10, 2000

The following is offered in response to your letter in which you request formal interpretation of questions having to do with Section 302.1.1.1 of the BOCA National Building Code/1996 portion of the 1999 State Building Code as it applies to smoke partitions.

Question 1: Does a single layer of gypsum wallboard tight to the underside of the roof or floor deck meet the requirement?

Answer 1: Smoke partitions, as required in conjunction with automatic fire suppression systems to provide protection of certain specific occupancy areas as set forth in Table 302.1.1 must, according to Section 302.1.1.1 extend from the floor to the underside of the fireresistance rated floor/ceiling or roof/ceiling assembly or to the underside of the floor or roof deck above. In addition, they must be capable of resisting the passage of smoke. The intent of the code is to contain any smoke within the specific occupancy area in the event of fire, and to allow the build up of heat within the specific occupancy area to cause activation of the automatic fire suppression system. A single layer of gypsum wallboard tight to the underside of the roof or floor deck above meets this requirement as long as the joint between the wallboard and the roof or floor deck is sealed to insure that smoke cannot pass through the joint.

Question 2: If a room has a suspended gypsum board ceiling and gypsum board walls, do the walls need to extend above the ceiling?

Answer 2: If the suspended gypsum board ceiling is part of a fireresistance rated floor/ceiling or roof/ceiling assembly in accordance with the requirements of Table 602 and the applicable sections of Chapter Seven, a smoke partition extending to the underside of the assembly, and sealed smoke tight, is code-compliant. If the suspended ceiling were not part of a rated assembly, the smoke partition would be required to extend to the underside of the floor or roof deck above.

Question 3: If a room has a suspended acoustical tile ceiling that "resists the passage of smoke," do the enclosing walls need to extend beyond the ceiling plane?

Answer 3: The answer to question 2 applies to this question also.