December 23, 2013

Mr. Madani

RE: Florida Mechanical Code Declaration Requested for Hotel Ventilation

Core Question #1 - Can a hotel corridor be used to deliver ventilation air to a guest room.

FMC 401.2 Ventilation required. Every occupied space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403.

Premise #1 - We must assume the guest room ptac has a permanently sealed outside air intake damper. Thus it is not available to provide the ventilation.
Premise #2 - Natural ventilation per code section 402 is not possible.

Conclusion #1 - We must provide mechanical ventilation per code section 403.

FMC [B] 601.2 Air movement in egress elements. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

Exceptions:
1. Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted, provided that each such corridor is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.

Memo #1 - The guest bathrooms do not open directly onto the hotel corridor. Assume the bathroom door is closed for privacy and the corridor door into the guest room is also closed. The bathroom fan would be required to draft makeup air thru the undercut on two separate doors.
But the corridor door can not be undercut and still serve as a smoke barrier ... If air leaks past the corridor door is the door code compliant ??

Memo #2 - You cannot test and balance a system dependent on leakage around a corridor door.

Conclusion #2 - Corridor air leakage as a means of ventilation for a guest room cannot be verified to be code compliant.
Request #1 - I would ask for the board to issue a declaration that using a hotel corridor as an air duct to deliver guest room ventilation and or makeup air is not compliant with Florida Mechanical Code.

Memo #3 - Currently there is too much liberty given to local code officials. They allow the corridor to be used as the source for ventilation if an engineer seals the plans. And the general contractors know that. So they hire an engineers willing to seal plans using the corridor for ventilation. Meanwhile the engineer that was unwilling to seal such plans is made poorer for his understanding of Florida Code.

Sincerely,

[Signature]

Garland Patterson PE