

CHANGE TYPE: Clarification

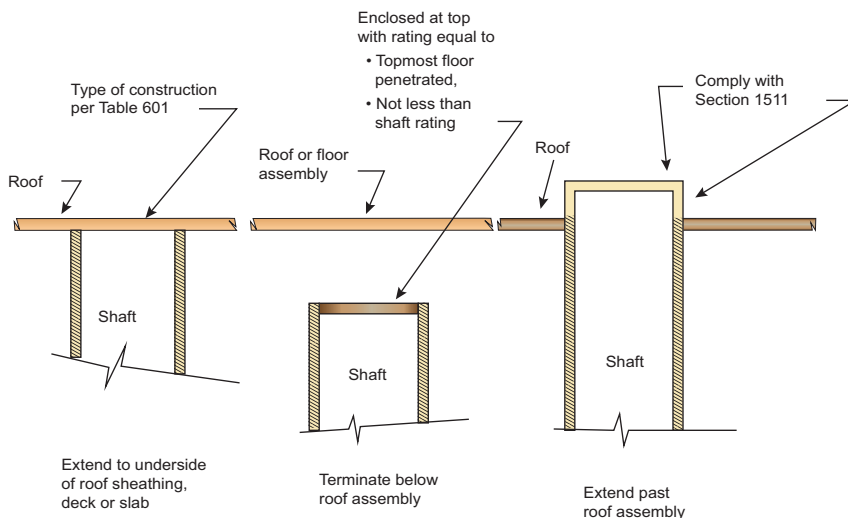
CHANGE SUMMARY: The three options for termination at the top of a shaft enclosure have been clarified.

2021 CODE TEXT: **713.12 Enclosure at top**—~~A shaft enclosure that does not~~ The top of shaft enclosures shall comply with one of the following:

1. Extend to the underside of the roof sheathing, deck or slab of the building, and the roof assembly shall comply with the requirements for the type of construction as specified in Table 601.
2. Terminate below the roof assembly and shall be enclosed at the top with construction of the same fire-resistance rating as the top-most floor penetrated by the shaft, but not less than the fire-resistance rating required for the shaft enclosure.
3. Extend past the roof assembly and comply with the requirements of Section 1511.

713.12.1 Penthouse mechanical rooms. A fire/smoke damper shall not be required at the penetration of the rooftop structure where shaft enclosures extend up through the roof assembly into a rooftop structure conforming to Section 1511. Ductwork in the shaft shall be connected directly to HVAC equipment.

CHANGE SIGNIFICANCE: Revisions shown in Section 713.12 help clarify how the top of a shaft is permitted to be terminated. The format is intended to mirror Section 713.11 for the bottom of the shaft and identify the common termination conditions and their requirements. These three termination conditions already exist in the code, therefore, this revision does not create any technical change to the code requirements. While conditions 1 and 2 are clearly created from existing text, Item



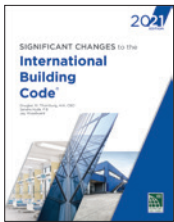
Enclosure options at the top of a shaft.

713.12

Top of Shaft Enclosure

1 now references the Table 601 roof construction provisions. Item 3 points to penthouse provisions in Section 1511. The definition for a penthouse indicates it is “an enclosed, unoccupied rooftop structure used for sheltering...vertical shaft openings.” Adding this third condition provides details for the top of the shaft whether it terminates at, below, or above the roof.

The new Section 713.12.1 recognizes that not every penetration or opening that pierces a roof requires protection. The IBC typically does not address conditions where a fire spreads from the interior of the building to the exterior as illustrated in the acceptance of unprotected roof openings for penetrations (Section 714.5), ducts (Section 717.6), and skylights (Section 712.1.15). Where a mechanical penthouse provides an extension of a shaft enclosure from below, it has been clarified that neither a fire nor smoke damper is required at such penetrations provided all ductwork in the shaft enclosure is directly connected to heating, ventilation and air-conditioning (HVAC) equipment.



This excerpt is taken from *Significant Changes to the International Building Code®*, 2021 Edition. The Significant Changes series takes you directly to the most important changes that impact projects. Key changes are identified then followed by in-depth discussion of how the change affects real-world application. Photos, tables and illustrations are included to further clarify application. Available for the IBC, IRC, IFC, IECC and IPC/IMC/IFGC, the Significant Changes publications are very useful training and review tools for transitioning to a new code edition.