



2021 Significant Code Changes for Multifamily

This summary includes changes to the International Building Code (IBC), International Energy Conservation Code (IECC), International Fire Code (IFC) and International Mechanical Code (IMC) and International Plumbing Code (IPC). No significant changes were identified for the International Existing Building Code (IEBC). This is not all the changes that were approved.

2021 IBC

- **Section 504.3 Height in Feet.** Table 504.3 is revised to add allowable heights for three new types of mass timber construction: Type IV-A, IV-B and IV-C. Group R sprinklered buildings can be 270, 180 or 85 feet in height for the three new types, respectively.
- **Section 504.4 Number of Stories.** Table 504.4 is revised to add allowable stories for three new types of mass timber construction: Type IV-A, IV-B and IV-C. Group R sprinklered buildings can be 18, 12 or 8 stories for the three new types, respectively.
- **Section 506.2 Allowable Area Determination.** Table 506.2 is revised to add allowable area factors for three new types of mass timber construction: Type IV-A, IV-B and IV-C. For Group R sprinklered buildings the factor is up to 246,000 square feet for the first floor and 184,500 square feet for upper floors.
- **Section 1206 Sound Transmission.** The requirements for protecting against airborne or structure-borne sound transmission are expanded to apply to separations between dwelling or sleeping units and all public spaces, not just corridors and stairs.
- **Section 1604.5 Risk Category.** The list of buildings assigned to Risk Category III is revised to include buildings with one or more public assembly spaces with an occupant load exceeding 300 people and a cumulative public assembly occupant load of more than 2,500 people. The change allows more flexibility in what tenants could occupy commercial spaces in a mixed-use residential building.
- **Section 1609.2 Protection of Openings.** Wind-borne debris protection is now required for any site within one mile of the mean high-water line of an Exposure D condition instead of just one mile from a coastal mean high-water line. This will include buildings adjacent to wide rivers or large inland lakes but not directly fronting on the Atlantic Ocean or Gulf of Mexico.



2021 IECC

- **Table R402.1.2 Maximum Assembly U-Factors and Fenestration Requirements.** Prescriptive wall, ceiling and slab edge insulation levels are increased as follows:
 - Wall insulation in Climate Zones 4 and 5 increased from R-20 in the cavity to R-20 in the cavity +R-5 continuous.
 - Slab edges in Climate Zone 3 are required to be insulated with a minimum R-10 at 2-foot depth.
 - The depth of the required R-10 slab edge insulation for Climate Zone 4 and 5 is increased from 2 feet to 4 feet minimum.
 - Attic insulation levels are increased in Climate Zones 2 and 3 from R-38 to R-49, and in Climate Zones 4-8 from R-49 to R-60.
- **R403.3.5 Duct Testing.** Ducts located inside conditioned space are now required to be tested for air leakage. The maximum leakage threshold is set at 8.0 cfm per 100 square feet of conditioned floor area.
- **R404.1 Lighting Equipment.** 100% of permanent lighting fixtures must have high efficacy lamps with efficiency of 70 lumens per watt (most LED, some CFL, most florescent tubes will comply).
- **R404.2 Interior Lighting Controls.** With some exceptions such as in bathrooms and hallways, all permanent lighting fixtures must include dimmers or occupant sensor controls.
- **R405.2 Performance-Based Compliance.** A backstop is added in the performance path requiring the building thermal envelope to achieve equal or greater levels of energy efficiency to the 2009 IECC.
- **Table R406.5 Maximum Energy Rating Index.** The maximum Energy Rating Index (ERI) thresholds are lowered by 5-8 points (9-13% increase in stringency) depending on the climate zone. In addition, the amount of credits available for onsite renewable energy is limited.
- **R406.7.3 Renewable Energy Certificate (REC) Documentation.** A renewable energy certification must be given to the code official when on-site renewables are used in the ERI path. The certificate must demonstrate the homeowner owns the solar or that a certain quantity belongs to the homeowner.
- **R408.2 Additional Efficiency Package Options.** An additional efficiency package is required beyond base requirements. It is intended to increase stringency by about 5% of building energy use. For prescriptive or performance path, five individual packaged options are added: (1) insulation and glazing, (2) HVAC, (3) water heating, (4) ducts entirely within conditioned space, and (5) air sealing and ventilation. Performance path may choose a 5% modeled improvement in lieu the package requirement. ERI requires a 5% improvement over its baseline.



- **C402.5.1.2 Air Barrier Compliance.** Air-barrier testing for Group R and I occupancies are separated from the testing requirements for all other occupancies. New requirements are added for testing of non-residential buildings.
- **C402.5.2 Dwelling and Sleeping Unit Enclosure Testing.** Air-barrier testing of dwelling units and sleeping units in all buildings 4 or more stories in height is now required.
- **C403.7.4 Energy Recovery Systems.** Non-transient dwelling units are required to have outdoor energy recovery ventilation based on an enthalpy recovery ratio of not less than 50%.

2021 IFC

- **Section 903.3.1.2 [IBC [F] 903.3.1.2.3] NFPA 13R sprinkler systems.** The maximum floor level of the highest story where NFPA 13R systems in Group R occupancies can be used is reduced from 60 ft above grade to 30 ft above the lowest level of fire department access.

2021 IMC

- **Section 401.2 Ventilation Required.** Mechanical ventilation is now required for all multi-family dwelling units.