



BUILDING CODE UPDATE



"TOP 10 CHANGES"

International Residential Code



2021 IRC - INTERNATIONAL RESIDENTIAL CODE

APPLIES TO ONE- AND TWO-FAMILY RESIDENCES

Code Section	Section Description	Change Summary
R302.5.1	Dwelling - Garage Opening Protection	The door between the garage and dwelling must be self - closing and self - latching.
R310.2	Emergency Escape and Rescue Openings	Emergency escape openings under decks, porches and cantilevers require a path not less than 36 inches wide. Opening dimensions have been clarified.
R310.5 R310.6 R310.7	Emergency Escape and Rescue Openings in Existing Buildings	Opening dimensions have been reduced for emergency escape and rescue openings for a basement remodel, basement addition and for a change of occupancy.
R314.3	Smoke Alarm Locations	A new location requirement for smoke alarms addresses high ceilings adjacent to hallways serving bedrooms.
R315.2.2	Carbon Monoxide Alarms	Repairs to an existing fuel-fired mechanical system now trigger the retroactive requirements for carbon monoxide alarms.



International Residential Code



Code Section	Section Description	Change Summary
R326	Habitable Attics	The habitable attic provisions have been placed in a new section and new restrictions limit their area and require an automatic fire sprinkler system.
R506.2.3	Vapor retarders under concrete slabs	Thicker vapor retarders are now required below slabs-on-grade. A minimum 10-mil (0.010 inch).
R507.3.1	Deck Footings	Minimum footing size for decks has been clarified in table R507.3.1.
R609.4.1	Garage Doors	All garage doors must have a permanent label identifying wind pressure among other information.
R702.7	Vapor Retarders	The vapor retarder section is reorganized for clarity and ease of use, including spray foam.



International Building Code



2021 IBC - INTERNATIONAL BUILDING CODE

APPLIES TO ALL BUILDING OCCUPANCIES OTHER THAN ONE- AND TWO-FAMILY RESIDENCES

Code Section	Section Description	Change Summary
110.3.7	Inspection of Weather-Exposed Balconies	Impervious moisture barriers at weather-exposed locations require inspection prior to concealment.
202	Definition of Mass Timber	Mass Timber types (IV-A, IV-B and IV-C) added to construction Type IV, Heavy Timber revised to Type IV-HT.
506.3.2	Allowable Area Frontage Increase	Method for determining allowable area increase for frontage has been simplified.
Table 509.1	Storage Battery Systems as Incidental Uses	602.4ry storage battery systems have been removed from Table 509.1 and moved to Section 1207 of the International Fire Code .
602.4	Mass Timber Type IV Buildings	Three new Construction Types have been introduced to account for mass timber products, Types IV-A, IV-B and IV-C



International Building Code



Code Section	Section Description	Change Summary
705.5	Exterior Wall Ratings	Table 602 moved and incorporated into Section 705, Table 705.5 and now includes mass timber construction types.
707.5	Enclosure of Exit Passageways	Fire barriers creating an exit passageway may terminate at a fire-resistance-rated top (lid) instead of continuing to the underside of the roof above.
1006.3.4	Single Exit Stories	For single-exit stories, the travel distance limits are now based on the exit access travel distance as opposed to the common path of egress travel.
1009.6.3	Area of Refuge Floor Space	The minimum required size of the clear floor space for a wheelchair has been increased to 30 inches in width and by 52 inches in length.
1031	Emergency Escape and Rescue Openings	Coordinates requirements of IBC with IRC and provides additional requirements for steps out of wells.



International Mechanical Code



2021 IMC - INTERNATIONAL MECHANICAL CODE

Code Section	Section Description	Change Summary
307.2.1.1	General Regulations Condensate drainage	Clarifies that condensate drains cannot drain to any plumbing drain waste or vent. Should only discharge into fixtures listed and within same occupancy or dwelling unit.
403.3.1.3	Ventilation Demand control ventilation	Clarifies that mechanical ventilation air cannot reduce below the rate established by the actual occupancy rate of space.
403.3.2.1	Ventilation Outdoor air for dwelling units	Grants a reduction in the required ventilation rate by 30% for high efficiency balanced ventilation systems in dwelling units R2, R3, R4.
401.4.3	Ventilation Intake opening location	Clarifies that the minimum separation of 3 foot /10 foot clearance between an intake opening (i.e. kitchen hood make air) does not apply to concentric vents
504.6	Exhaust Systems Booster fans prohibited	Cloths dryer booster fans no longer allowed



International Mechanical Code



Code Section	Section Description	Change Summary
604.3	Duct System Insulation coverings and linings	Polyurethane spray foam insulation applied to ducts shall comply with the flame and smoke test index and ignition barrier requirements per the IBC
905.1	Specific Appliances, Fire Places, Solid Fuel Equipment Fire places and room heaters	Residential wood burning hydronic heaters shall be EPA approved.
Table 1103.1	Refrigeration Table of Refrigerants, classification, amount and Occupant Exposure Limit	40 percent increase in the number of refrigerants, industry is moving toward use of gasses that are less destructive to atmosphere.
1107 1108 1109	Refrigeration Piping material Joints & Connections Pipe installation	Entire section rewritten and renumbered to reflect refrigerant piping, joints & connections and pipe installation for other than ammonia systems.
1400	Solar Thermal Systems	Design of systems significantly increased to define; pressures, protection from freezing, protect water supply, protect structure, equipment, ducts, piping, water heaters, storage tanks and labeling of equipment.



National Electrical Code



2023 NEC - NATIONAL ELECTRICAL CODE

APPLIES TO ALL RESIDENTIAL AND COMMERCIAL CONSTRUCTION.

Code Section	Section Description	Change Summary
210.8(A)(6)	GFCI Protection	GFCI protection required in Kitchens AND breakrooms, regardless of location or purpose.
		GFCI protection to be provided for the branch circuit or the outlet supplying listed appliances rated 150V to ground and 60A or less. This rule previously referenced other Sections to determine if protection was required. Now you can just read the list.
210.8(D)	Specific Appliances	Note: The appliances in list items Sec. 210.8(D)(8) through (12) are commonly installed as hardwired outlets, and the GFCI protection requirements of Sec. 210.8(A) and (B) only apply to receptacles. The shock hazards exist whether appliances are hardwired, or cord- and plugconnected; therefore, GFCI protection must be provided for the appliance branch circuit or outlet.



National Electrical Code



Code Section	Section Description	Change Summary
210.8(F)	Outdoor Dwelling Unit Outlets	The rule in Sec. 210.8(F) for outdoor outlets was new in the 2020 Code, and its introduction caused a big problem with air-conditioning units in areas outside of dwelling units. The battle over its introduction continued during the 2023 Code cycle and ultimately resulted in a new exception for listed HVAC equipment. In addition, the dwelling unit receptacles rated 50A or less in garages, accessory buildings, outdoors, and boathouses that already had GFCI protection requirements now require the outlet to be protected, and GFCI protection must be added for unprotected existing equipment that is replaced.
220.7	Energy Management Systems (EMSs)	Digital control has become a big part of electrical systems these days. A new Sec. 220.70 was added for energy management systems that can control the maximum load of a service.
225.41	Emergency Disconnects	A new Sec. 225.41 requires outside emergency disconnects for feeders supplied to one- and two-family dwelling units. This mirrors the requirements in Sec. 230.85 for service-supplied dwelling units so first responders are always able to shut off the power on the exterior of a dwelling regardless of how it is supplied. Section 225.41(B) requires the identification of the location of other isolation disconnects for other power sources where those disconnects are not located adjacent to the emergency disconnect.



National Electrical Code



Code Section	Section Description	Change Summary
406.12	Tamper-Resistant Receptacles	Additional locations (such as boathouses, mobile homes, motel rooms, dorms, and childcare facilities to name a few) will now require tamper-resistant receptacles per Sec. 406.12. Exception No. 3 was clarified to say that a single receptacle for a single appliance or a duplex receptacle for two appliances, not readily accessible and located within the space designated for the appliance(s) are exempt from this rule.
440.11	Disconnects in Residential Spaces	To prevent a hazard from energized parts, Sec. 440.11 was revised to require disconnecting means with doors that can open to expose live parts to be lockable or require tools to open them when installed in areas readily accessible to unqualified persons.
625.4	Emergency Disconnects	A new Exception in Sec. 625.40 permits multiple units of EVSE drawing 16A or less, at 120V, to share a circuit. Some EVSE systems use load management systems that limit the combined current draw on the circuit, allowing multiple systems to be supplied by a single circuit without causing an overload.



National Electrical Code



Code Section	Section Description	Change Summary
680.22	Receptacles, Luminaires, and Switches	The requirements for GFCI protection of receptacles in (A)(4) were expanded this cycle in Sec. 680.22 to include all receptacles rated 60A or less within 20 ft of a pool wall. This previously only applied to 15A and 20A, 125V receptacles. This Section also required GFCI protection for specific equipment installed in the area between 5 ft and 10 ft horizontally from the inside walls of a pool. New language in (B)(4) expands the required protection by adding an SPGFCI requirement that will allow equipment operating above 150V to ground to also be protected.
706.7	Commissioning and Maintenance of Energy Storage Systems	The title of Sec. 706.7 was changed to recognize performance tests and a new subdivision (A) requires ESSs to be commissioned upon installation in other than one- and two-family dwellings. The maintenance requirements became subdivision (B).



International Energy Conservation Code



20 21 IECC - INTERNATIONAL ENERGY CONSERVATION CODE

APPLIES TO MOST ALL BUILDINGS IN ILLINOIS (WITH VERY LIMITED EXCEPTIONS).

Code Section	Section Description	Change Summary
C402.1.3 C402.1.4	R/U-Values for Building Envelope	R-values increase for attics, floors and walls. U-values decrease for attics, floors and walls.
C402.5.1.2	Air Barrier Compliance	All commercial buildings in Illinois must now be pressure tested.
C402.5.3	Building Thermal Envelope Testing	<ul style="list-style-type: none">• Measured air leakage not to exceed 0.40 cfm/sf of thermal envelope area @ 0.3 inch water gauge (75 Pa) for whole building test.• Alternative sampling approach for larger buildings:<ul style="list-style-type: none">○ Area-weighted average can't exceed the whole building air leakage limit.○ Required testing samples:<ul style="list-style-type: none">▪ Entire envelope area of spaces directly under a roof.▪ Entire envelope area of spaces with building entrance, exposed floor, loading dock, or below grade.○ 25% or more representative sample of remaining thermal envelope.• If total leakage between 0.40 cfm/sf and 0.60 cfm/sf, allowed to complete diagnostic testing and non-destructive remediation without additional testing.<ul style="list-style-type: none">○ Must submit report of corrective actions.



International Energy Conservation Code



Code Section	Section Description	Change Summary
R202	Definitions	Definitions revised (Demand Recirculation Water System, Roof Re-cover) and added [On-site Renewable Energy, Renewable Energy Certificate (REC), Renewable Energy Resources].
R401.3	Energy Certificate	Added requirement to list on-site PV capacity, inverter efficiency, and panel tilt/orientation if installed.
R402.2.8	Basement Walls	Large portion added explaining insulation for unconditioned basements: <ul style="list-style-type: none">• Insulate floor over basement, including stairwell stringers• Ensure no uninsulated ducts or hydronic systems, and no supply/return diffusers• Walls surrounding stairway to be insulated• Door insulated per R402.1.3 / R402.2 and weather stripped
R402.4.6	Electrical and Communication Outlet Boxes	New section outlining air-sealing requirements for electrical and communications outlet boxes installed within the thermal envelope. <ul style="list-style-type: none">• Outlet boxes shall be tested in accordance with NEMA OS 4• The tested air leakage rate shall not exceed 2.0 cfm at 75 Pa• The outlet boxes shall be marked 'NEMA OS 4' or 'OS 4' and be installed per manufacturers instructions to achieve NEMA OS 4 compliance



International Energy Conservation Code



Code Section	Section Description	Change Summary
R403.3.6	Duct Testing and Leakage	<p>R403.3.6 Duct Leakage</p> <ul style="list-style-type: none">• 4.0cfm/100sf floor area with air handler, 3.0 cfm without• NEW REQUIREMENT:8.0 cfm/100sf floor area for ducts entirely within thermal envelope. <p>DUCT TESTING NOW REQUIRED REGARDLESS OF LOCATION!</p>
R403.7	HVAC Load and Sizing Calculation	<p>All HVAC systems required to have load calculation per ACCA Manual J. All Systems required to be sized per ACCA Manual S. Manual J determines building loads, and should be conducted for all new construction and renovation projects Manual S uses Manual J results to determine properly sized HVAC system Manual D sizes duct systems. Required by International Residential Code (Section M1601.1). Be sure to use approved software or spread sheets!</p>
R404.1	Interior Lighting	<p>2018 IECC: 90%+ of permanent lighting shall be high-efficacy 2021 IECC: 100% of permanent lighting shall be high efficacy Does not impact plug-in lighting sources like floor and desk lamps</p>



State Of Illinois Vehicle Charging Act



STATE OF ILLINOIS VEHICLE CHARGING ACT (PUBLIC ACT 103-0053)

Applies to new Single-Family Residences and 2-4 Unit Multi-Family Residential buildings that have parking spaces and are constructed after January 1, 2024 (and to Multi-Family Residential buildings with 5 or more units that have parking spaces and are constructed after April 1, 2024).

SIGNIFICANT IMPACTS

SINGLE FAMILY & 2-4 UNIT MULTI-FAMILY: Must provide at least one EV-capable parking space for each residential unit that has a parking space.

MULTI-FAMILY - 5 UNITS & LARGER (NEW AND/OR RENOVATED BY DEVELOPER) : 100% of the total parking spaces must be EV-capable.

DEFINITIONS

EV-CAPABLE: Parking spaces that have the panel capacity and conduit installed during construction to support future implementation of electric vehicle charging with 208-volt or 240-volt or greater, 40-ampere or greater circuits. Each EV-capable space shall have a continuous raceway or cable assembly installed between an enclosure or outlet located within 3 feet of the EV-capable space and a suitable panelboard or other onsite electrical distribution equipment. The electrical distribution equipment shall have sufficient dedicated space and spare electrical capacity for a 2-pole circuit breaker. Reserve capacity shall be as noted above unless the EV-capable spaces will be controlled by an energy management system providing load management in accordance with NFPA 70. "EV-capable" shall not be construed to require a developer or builder to install or run wire or cable from the electrical panel through the conduit or raceway to the terminus of the conduit.



State Of Illinois Vehicle Charging Act



OTHER ITEMS

The Act also includes exceptions for developers converting large Multi-Family properties to an Association to not install EV-capable parking stalls if it would require excavation of an existing surface lot or other parking facility in order to retro-fit the parking lot with the necessary conduit and wiring.

The Act contains provisions for affordable housing developments which are not covered in this document due to the high level of specificity in the Act for such units. If you propose to develop affordable housing, please reference the requirements in the Act and contact the City of Park Ridge Building Division if you have any questions or require further clarification.

The Act also contains provisions that apply to Home Owners Associations, Condominium Associations and landlords. If you fall into one or more of these categories, it is recommended that you familiarize yourself with these sections of the Act to be best equipped to understand what requirements may apply to your specific conditions.





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APRIL 2024