

City of Flagstaff

Building Safety & Code Compliance

2024 Building Code Update: What's Changing (IBC 2018 → IBC 2024)

Why This Matters

The City of Flagstaff is preparing to adopt the 2024 International Building Code (IBC) to ensure buildings are safer, more resilient, and aligned with modern construction practices.

Key Change	Impact
Mass Timber Expansion	Allows taller wood buildings; faster construction; possible cost savings but requires specialized design.
Updated Structural Loads	More accurate snow, wind, seismic design; increases safety but may raise construction costs.
Extreme Weather Provisions	Improves resilience; may add cost for certain building types.
Occupancy & Roof Use Changes	More rooftop amenities; may require additional structural and egress design.
Fire & Life Safety Updates	Expanded detection systems; increases safety with moderate cost impact.
Temporary Structures	Improved construction safety requirements; minor cost increases.

What This Means

Contractors & Developers: Updated requirements and new design opportunities.

Property Owners: Safer buildings with potential cost changes.

Community: Increased resilience and sustainability.

Contact Information

City of Flagstaff – Building Safety & Code Compliance
Amy Tressler, Building Official
Phone: 928-213-2604
Website: flagstaff.az.gov

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2024 Existing Building Code Update: Key Changes (IEBC 2018 → 2024)

Why This Matters

The City of Flagstaff is preparing to adopt the 2024 International Existing Building Code (IEBC) to improve safety while providing flexibility for renovations, alterations, and reuse of existing buildings.

Key Change	Impact
Expanded Compliance Options	Clarifies prescriptive, work area, and performance methods; provides more flexibility in how existing buildings comply.
Change of Occupancy Updates	Refined requirements when buildings change use; may require additional life safety upgrades depending on risk level.
Energy Efficiency Coordination	Better alignment with energy codes; may trigger upgrades to insulation, lighting, or systems during renovations.
Accessibility Improvements	Expanded requirements for accessibility upgrades during alterations; improves access but may increase project scope.
Structural Evaluation Triggers	Updated thresholds for when structural evaluation is required; improves safety but may add engineering costs.
Historic Buildings Flexibility	Maintains flexibility for historic structures; allows preservation while meeting safety goals.

What This Means

Contractors & Designers: Greater flexibility in compliance methods, but potential for additional upgrades.

Property Owners: Easier reuse of existing buildings with improved safety requirements.

Community: Supports adaptive reuse while maintaining safety and accessibility.

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City of Flagstaff – Building Safety & Code Compliance
Amy Tressler, Building Official
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2024 Residential Code Update: Key Changes (IRC 2018 → 2024)

Why This Matters: The City of Flagstaff is preparing to adopt the 2024 IRC to improve safety, energy efficiency, and housing flexibility.

Key Change	Impact
Energy Efficiency Updates (IECC Alignment)	Improved insulation, air sealing, and system efficiency requirements; increases upfront construction cost but lowers long-term utility expenses.
Electric Vehicle (EV) Readiness	New provisions for EV charging infrastructure; may require dedicated circuits and panel capacity planning.
Deck Construction & Guards	Updated deck ledger, guard, and connection requirements improve safety; may increase material and inspection requirements.
Wall Bracing & Lateral Design	Refined bracing provisions improve structural performance in wind/seismic conditions; may affect framing layouts.
Habitable Attics & Loft Spaces	Clarifications for habitable attics and egress improve usability; may require stairs or emergency escape openings.
Solar-Ready Provisions	Encourages future solar installation; may require conduit pathways or roof planning.
Plumbing & Mechanical Coordination	Better alignment with IPC/IMC; may affect routing and equipment placement.
Fire Protection & Safety	Clarifications for smoke alarms and fire separation improve life safety; minimal cost impact.
Window Opening Control Devices	Expanded safety provisions reduce fall risks; may require additional hardware.
Accessory Dwelling Units (ADUs)	Improved clarity and flexibility; supports housing but requires coordination.
Frost Protection & Foundations	Important for Flagstaff climate; may affect footing depth and insulation.
Air Sealing & Moisture Control	Enhanced requirements reduce air leakage and moisture; improves durability and comfort.

What This Means: Builders/designers will see updates to energy, structural, and future-ready systems. Homeowners benefit from safer, more efficient homes with possible upfront cost increases. The community benefits from resilience and sustainability.

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2024 Fuel Gas Code Update: Key Changes (IFGC 2018 -> 2024)

Why This Matters

The City of Flagstaff is preparing to adopt the 2024 International Fuel Gas Code (IFGC) to improve safety, align with modern fuel gas system practices, and ensure proper installation and operation of gas piping and appliances.

Key Change	Impact
Corrugated Stainless Steel Tubing (CSST) Bonding Updates	Clarified bonding and grounding requirements improve protection from lightning-related damage; may require additional bonding connections during installation.
Hydrogen Blending Provisions	Introduces considerations for hydrogen blending in fuel gas systems; supports future energy transitions but may affect material compatibility and system design.
Appliance Installation & Clearances	Refined clearance and installation requirements improve safety and accessibility; may impact equipment layout in mechanical rooms and exterior installations.
Venting System Clarifications	Updated venting provisions for appliances improve performance and safety; may require revised vent sizing or routing.
Gas Piping Materials & Standards	Updates to approved materials and installation standards reflect modern products; may influence material selection and contractor practices.
Outdoor Appliance Installations	Clarifications for outdoor appliances and gas systems improve safety in exterior environments; may impact design of outdoor kitchens and heating features.

What This Means

Contractors & Designers: Updated requirements for gas piping, appliance installation, and system safety.

Property Owners: Safer and more reliable gas systems with potential minor installation cost impacts.

Community: Improved safety and readiness for evolving energy systems.

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City of Flagstaff - Building Safety & Code Compliance
Amy Tressler, Building Official
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2024 Mechanical Code Update: Key Changes (IMC 2018 -> 2024)

Why This Matters

The City of Flagstaff is preparing to adopt the 2024 International Mechanical Code (IMC) to improve safety, support modern mechanical system design, and coordinate with current efficiency, ventilation, and equipment standards.

Key Change	Impact
Updated Ventilation Requirements	Refinements to outdoor air and exhaust provisions improve indoor air quality and system performance; some projects may require revised duct layouts or larger equipment.
Commercial Kitchen and Exhaust Clarifications	Updated language for hoods, grease ducts, and related exhaust systems provides clearer design direction; can affect restaurant tenant improvement cost and coordination.
Refrigeration System Revisions	Changes to refrigerant-related provisions align with current safety standards and newer equipment types; may influence equipment selection and installation methods.
Duct System and Smoke Control Clarifications	Refined requirements for duct construction, fire and smoke dampers, and related protection features improve life safety but may add detail to design and inspections.
Appliance and Equipment Access	Clarifications for access, service space, and installation locations help ensure maintainability and safety; may affect roof layouts, attic access, or equipment room design.
Coordination With Newer Efficiency Standards	Mechanical designs are expected to better align with newer energy and equipment performance requirements; may increase upfront equipment cost but improve long-term operating efficiency.

What This Means

Contractors & Designers: More current rules for ventilation, equipment installation, and mechanical coordination.

Property Owners: Safer, more maintainable systems with possible upfront cost impacts depending on project scope.

Community: Better indoor air quality, improved life safety, and more efficient building systems.

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2024 Plumbing Code Update: Key Changes (IPC 2018 -> 2024)

Why This Matters

The City of Flagstaff is preparing to adopt the 2024 International Plumbing Code (IPC) to improve public health, water efficiency, and system reliability while aligning with modern materials and plumbing practices.

Key Change	Impact
Water Efficiency & Fixture Updates	Refinements to fixture flow rates and efficiency standards help reduce water use; may influence fixture selection and upfront costs but lower long-term utility expenses.
Backflow Prevention Clarifications	Updated requirements for backflow devices improve protection of potable water systems; may increase installation and testing requirements.
Water Heater & Expansion Control	Clarified requirements for thermal expansion and water heater installation improve system longevity and safety; may require additional components.
Drainage & Venting Updates	Revisions to venting methods and drainage design provide more flexibility in system layout; may simplify design in some applications.
Materials & Pipe Standards	Updated approved materials and installation standards reflect modern products; may impact material selection and availability.
Storm Drainage & Roof Systems	Improved provisions for stormwater drainage and roof systems enhance performance during heavy precipitation events; may affect sizing and design.

What This Means

Contractors & Designers: Updated standards for water systems, materials, and design flexibility.

Property Owners: More efficient and reliable plumbing systems with potential upfront cost changes.

Community: Improved water conservation, safety, and long-term infrastructure performance.

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City of Flagstaff - Building Safety & Code Compliance
Amy Tressler, Building Official
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2023 National Electrical Code Update: Key Changes (NEC 2017 → 2023)

Why This Matters: The City of Flagstaff is preparing to adopt the 2023 National Electrical Code (NEC) to improve electrical safety, support modern technologies, and address evolving electrical system demands in residential and commercial buildings.

Key Change	Impact
Expanded GFCI Protection Requirements	Ground-fault protection expanded to additional locations (including 125–250V receptacles); increases safety but may add device costs.
Expanded AFCI Protection	Arc-fault protection clarified and expanded; improves fire prevention but may increase panel and breaker costs.
Surge Protection Requirements	Surge protective devices (SPDs) required for more dwelling and service equipment; adds upfront cost but protects equipment.
Electric Vehicle (EV) Charging Infrastructure	New and expanded EV charging requirements; requires panel capacity and dedicated circuits, impacting design and cost.
Energy Storage Systems (ESS)	New provisions for battery storage systems improve safety and installation standards; may require additional equipment and space planning.
Outdoor Emergency Disconnects	New requirement for readily accessible outdoor disconnects for one- and two-family dwellings; increases safety for first responders.
Load Calculations & Demand Factors	Updated calculation methods reflect modern electrical usage patterns; may impact service sizing and equipment selection.
Renewable Energy & Solar Integration	Expanded provisions for solar PV systems and interconnection; improves clarity but requires coordination with design and utilities.
Working Space & Equipment Access	Clarifications for working clearances and equipment access improve safety and maintainability; may affect layout of electrical rooms.
Lighting & Controls Coordination	Better coordination with energy codes for lighting controls; may increase design coordination but improves efficiency.

What This Means: Designers and contractors will see updated safety and technology-driven requirements, particularly for EVs, energy storage, and surge protection. Property owners may experience higher upfront costs but benefit from improved safety and equipment protection. The community benefits from safer, more resilient electrical systems.

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2024 Swimming Pool & Spa Code Update: Key Changes (ISPSC 2018 → 2024)

Why This Matters

The City of Flagstaff is preparing to adopt the 2024 International Swimming Pool and Spa Code (ISPSC) to improve safety, align with modern standards, and enhance long-term durability and energy efficiency.

Key Change	Impact
Barrier & Safety Updates	Clarifications to barrier requirements and safety features to reduce drowning risks; may impact fence design and layout.
Entrapment Protection	Updated suction outlet and drain requirements; improves safety but may require additional equipment or design changes.
Energy Efficiency	New requirements for pumps, heaters, and controls; may increase upfront cost but reduce long-term operating expenses.
Water Quality & Circulation	Improved circulation and filtration standards; enhances water quality and user safety.
Electrical & Bonding Updates	Revised bonding and grounding requirements; increases safety and coordination with NEC updates.
Splash Pads & Aquatic Features	Expanded provisions for modern aquatic features; provides clearer guidance for design and permitting.

What This Means

Contractors & Designers: Updated requirements for safety, energy, and system design.

Property Owners: Safer pools with potential upfront cost increases but improved efficiency.

Community: Increased safety, especially for children and public pool users.

Contact Information

City of Flagstaff – Building Safety & Code Compliance

Amy Tressler, Building Official

Phone: 928-213-2604

Website: flagstaff.az.gov

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2024 Energy Code Update: Key Changes (IECC 2018 → 2024)

Why This Matters: The City of Flagstaff is preparing to adopt the 2024 IECC to improve energy efficiency, reduce consumption, and support long-term sustainability.

Residential (IRC / IECC) Changes

Key Change	Impact
Stronger Insulation & Envelope Requirements	Higher insulation levels and improved air sealing reduce heat loss; increases upfront cost but lowers long-term energy bills.
Heat Pump Adoption	Encourages high-efficiency heat pumps; increases upfront cost but improves efficiency and electrification readiness.
Electric Readiness	Requires capacity for EVs and future electrification; minor upfront cost with long-term flexibility.
Enhanced Air Sealing & Testing	Stricter blower door testing improves comfort and durability; requires verification testing.
Duct Sealing & Testing	Stricter duct leakage limits improve HVAC efficiency; may increase installation/testing costs.

Commercial (IECC) Changes

Key Change	Impact
Building Performance Path Expansion	More performance-based compliance options; increases flexibility but may require energy modeling.
Lighting Efficiency & Controls	Updated lighting standards reduce energy use; may increase design coordination but lower operating costs.
Mechanical System Efficiency	Higher HVAC efficiency requirements; increases upfront cost but reduces long-term energy use.
Commissioning Requirements	Expanded commissioning ensures systems perform as designed; adds cost but improves performance.
Envelope Commissioning & Testing	Improved verification of building envelope performance; enhances durability and efficiency.
On-Site Renewable Readiness	Encourages solar readiness; may require roof space planning and conduit pathways.

What This Means: Designers/builders will see increased coordination and efficiency requirements. Property owners may see higher upfront costs but lower long-term energy expenses. The community benefits from reduced energy use and improved sustainability.

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