



## Hermon, Maine Contractor Cheat Sheet: Key Changes from 2015 to 2021 MUBEC/IBC/IRC

This cheat sheet provides an overview of significant changes in the Maine Uniform Building and Energy Code (MUBEC) as Hermon transitions from the 2015 to the 2021 editions of the International Residential Code (IRC) and International Building Code (IBC). These updates impact single-family, two-family, and small multi-family (2–4 units) residential new construction.

**This document is not a comprehensive list of all updated to the 2021 building codes. It is intended to highlight some of the significant changes to residential construction and assist contractors in adapting to the MUBEC requirements. Always reference the 2021 IRC, IBC, and IECC to ensure compliance with the applicable standards.**

### 1. Energy Efficiency Requirements

- Ceilings: Minimum R-60 (was R-49 in 2015). Note: This may require revised roof truss designs to accommodate added insulation depth.
- Walls: Minimum R-20 + R-5 continuous insulation or R-13 + R-10 continuous insulation.
- Floors: R-30 for framed floors over unconditioned spaces.
- Air Leakage: Maximum air changes per hour (ACH50) reduced to 3 (was 5 in 2015).
- Blower door testing is now mandatory.
- U-factor for fenestration reduced to 0.30 (was 0.32).
- Skylight U-factor reduced to 0.55 (was 0.60).
- Ducts located in conditioned space are highly encouraged.
- High-efficiency HVAC systems with minimum SEER 14 for air conditioners and AFUE 90% for furnaces.
- Basement Walls: R-15 continuous insulation or R-19 cavity insulation (was R-13).
- Slab-on-Grade Floors: R-10 insulation required.
- Crawl Spaces: R-15 continuous or R-19 cavity insulation.
- Vapor barrier required in unvented crawl spaces.

### 2. Mechanical Ventilation Systems (Air Exchangers)

- Required when blower door test results are 3 ACH50 or lower (per 2021 IECC).
- Must comply with IRC Section M1505 or ASHRAE 62.2.
- Balanced systems such as HRVs or ERVs are strongly recommended in cold climates like Hermon.

### 3. Structural Changes

- Wind load design must accommodate a 115 mph zone.



- Roof tie-down and uplift protection required for 50 psf snow load.
- Ledger attachment to rim joists: 1/2-inch lag screws or bolts, 4" on center.

#### **4. Fire Safety**

- Smoke and CO alarms: Interconnected, hardwired with battery backup.
- CO detectors required outside each sleeping area and on each floor.
- Garage-to-home doors: 1-3/8 inch solid wood or steel, or 20-minute fire-rated; must be self-closing.
- Bilco doors are not an acceptable means of egress for basements. Basements must include a dog house egress or other code-compliant emergency escape and rescue opening.

#### **5. Plumbing Updates**

- Lead-free certification required.
- Updated pipe sizing for efficiency.
- Lower flow rates for faucets, showers, and toilets.

#### **6. Electrical Code Updates**

- GFCI required: Outdoor outlets, garages, basements.
- AFCI required: Kitchens, laundry rooms, living rooms (120V, 15- and 20-amp circuits).
- LED lighting required in all permanent fixtures.

#### **7. Radon Mitigation Systems**

- Required in Hermon (EPA Zone 1).
- Passive radon mitigation systems must include a vent pipe from the sub-slab area through the roof (passive system), installed in accordance with ASTM E1465-08a – Standard Practice for Radon Control Options for the Design and Construction of New Low-Rise Residential Buildings.
- Electrical junction box near the vent pipe recommended.

#### **8. Multi-Family (2–4 Units) Requirements**

- 1-hour fire-resistance between units and garage separations.
- Direct exterior egress required for each unit.
- STC and IIC ratings of 50+ required.
- Separate electrical panels per unit.
- Separate water meters only if served by public water.