



City of Alamosa
Building Department
300 Hunt Avenue
Alamosa CO 81101
(719) 589-6631

Building Code Adoption

Effective Date: TBD, 2023

Council Workshop: March 1st, 2023

The following Q&A is intended to help provide information to frequently asked questions. Please contact the Building Department if you have additional questions or Concerns.

Questions and Answers:

What Codes will be adopted?

2018 International Building Code, IBC

2018 International Existing Building Code, IEBC

2018 International Residential Code, IRC

2018 International Mechanical Code, IMC

2018 International Property Maintenance Code,

2018 International Energy Conservation Code

2018 International Fire Code

2018 International Fire Protection Association and Combustible Liquids, NFPA 30

What is the San Luis Valley Cohort for 2018 code adoption?

The SLV Cohort was formed from surrounding participating counties, towns, and cities with local jurisdictional authority to adopt and enforce building codes. The group has a vested interest to provide uniformity in a current code adoption process to provide consistency in regulations for contractors, property owners, and other stockholders that are vested throughout the valley.

Why is the City of Alamosa proposing to make a code adoption change?

Influenced by requirements found in the Colorado House Bill 22-1362. It is the intent of the City of Alamosa to adopt the 2018 ICC code in conjunction with surrounding building jurisdictions prior to the mandated adoption of 2021 or greater ICC Energy Code and Model Electric Ready and Solar Ready Code or thereafter July 1, 2023.

Will updated energy codes be cost effective?

According to the [U.S. DOE](#), updating 2009 IECC to the 2018 IECC is cost-effective and would save buildings 30 percent in site energy use and 32 percent in energy costs, based on a weighted average for all building types.

What are the implications that I might notice with a 2018 ICC Code adoptions?

**International Code Council- The following list of changes has been taken from the periodicals provided by ICC.

<https://www.iccsafe.org/about/periodicals-and-newsroom/key-changes-in-the-2018-ic-codes>

2009 to the 2018 International Energy Conservation Code® (IECC®)

- Section C403.1 Economizers added.
- Additional Lighting controls.
- Automatic time switch control device added.
- Occupant sensors required in specified named types of spaces (ie classrooms, lunchrooms, exc..).
- Daylight Zone Controls added.
- Section 402.4.2 Air leakage Mandatory, Visual inspection relocated to ensure that air leak test be satisfied.
- Duct sealant is mandatory. Duct insulation required even within the building envelope.
- R-3 hot water piping required.
- Revisions to interior and exterior lighting power budgets and better clarity for lighting controls.
- Clarity that regardless of design methodology, system commissioning is required.
- New limits on heated or cooled vestibules.
- Mechanical provisions reorganized based on equipment type rather than design methodology.
- The maximum allowable fenestration *U*-factors in Table R402.1.2 (for the prescriptive compliance path) for climates zones 3 through 8 have been reduced from the values in the 2009 edition.
- The ICC/RESNET 380 standard has been included as one of standards that can be used for determining the air leakage rate of a building or dwelling unit.

- The Energy Rating Index compliance alternative index values have been increased slightly however, the method for determining an index is now required to be in accordance with standard ICC/RESNET 301.

2015 to the 2018 International Building Code® (IBC®)

- Accessory storage spaces of any size are now permitted to be classified as part of the occupancy to which they are accessory.
- New code sections have been introduced addressing medical gas systems and higher education laboratories.
- Use of firewalls to create separate buildings is now limited to only the determination of permissible types of construction based on allowable building area and height.
- Where an elevator hoist way door opens into a fire-resistance-rated corridor, the opening must be protected in a manner to address smoke intrusion into the hoist way.
- The occupant load factor for business uses has been revised to one occupant per 150 square feet.
- Live loads on decks and balconies increase the deck live load to one and one-half times the live load of the area served.
- The minimum lateral load that firewalls are required to resist is five pounds per square foot.
- Wind speed maps updated, including maps for the state of Hawaii. Terminology describing wind speeds has changed again with ultimate design wind speeds now called basic design wind speeds.
- Site soil coefficients now correspond to the newest generation of ground motion attenuation equations (seismic values).
- Five-foot tall wood trusses requiring permanent bracing must have a periodic special inspection to verify that the required bracing has been installed.
- New alternative fastener schedule for construction of mechanically laminated decking is added, giving equivalent power-driven fasteners for the 20-penny nail.
- Solid sawn lumber header and girder spans for the exterior bearing walls reduce span lengths to allow #2 Southern Pine design values.

2015 to the 2018 International Residential Code® for One- and Two-Family Dwellings (IRC®)

- An updated seismic map reflects the most conservative Seismic Design Category (SDC) based on any soil type and a new map reflects less conservative SDCs when Site Class A, B, or D is applicable.
- The townhouse separation provisions now include options for using two separate fire-resistant-rated walls or a common wall.

- An emergency escape and rescue opening is no longer required in basement sleeping rooms where the dwelling has an automatic fire sprinkler system and the basement has a second means of egress or an emergency escape opening.
- The exemption for interconnection of smoke alarms in existing areas has been deleted.
- New girder/header tables have been revised to incorporate the use of #2 Southern Pine in lieu of #1 Southern Pine.
- New tables address alternative wood stud heights and the required number of full height studs in high wind areas.

2015 to the 2018 International Mechanical Code® (IMC®)

- Added coverage of pollution control units.
- A new exception was added to recognize Type I kitchen hoods listed for clearances to combustibles of less than 18 inches.
- Added coverage for a newer type of non-metallic duct, phenolic duct.
- New coverage for high volume large diameter fans (HVLD), also referred to as high volume low speed (HVLS) fans.
- Relaxed requirements for sealing of duct joints and seams for Snap- and Button-lock duct joints located within the thermal envelope.

2015 to the 2018 International Fire Code® (IFC®)

- New provisions address hazards related to outdoor pallet storage, higher education laboratories, mobile food trucks and plant processing and extraction activities.
- Mass Notification Requirements for college and university buildings have been added to the code.
- Sprinkler protection is now required in existing Group A-2 occupancies having an occupant load of 300 or more where alcoholic beverages are consumed.
- A new chapter has been added to address issues related to Energy Systems.
- Integrated testing requirements for fire protection and life safety systems have been added for high rise buildings and smoke control systems.
- The requirements for gas detection systems have been revised throughout the code to be more reflective of industry practice.
- Required sprinkler protection of Group E occupancies has been expanded through the introduction of new thresholds related to fire areas.
- Manual fire alarm systems in Group A occupancies are now required not only when the occupant load is 300 or more but also where the occupant load exceeds 100 above or below the lowest level of exit discharge.
- A manual fire alarm system and an automatic smoke detection system are no longer required in Group R-4 occupancies.

- New provisions require illumination for the exit discharge path of travel to the public way or to a safe dispersal area for all occupancies.
- Provisions have been added to address the hazards associated with outdoor assembly events, indoor trade shows and exhibitions.
- The fire watch requirements for construction and demolition activities have been enhanced.
- The provisions for the maintenance of fire and smoke protection features in Chapter 7 have been enhanced and reorganized.
- The applicability of the decorative materials requirements in Chapter 8 have been clarified.

2015 to the 2018 International Fuel Gas Code® (IFGC®)

- A new Section was added to recognize arc-resistant CSST products.
- The code now allows Schedule 10 steel pipe to be used, whereas previously, Schedule 40 was the lightest steel pipe material allowed. Schedule 10 steel pipe joints are allowed to be welded, brazed, flanged or assembled with press-connect fittings. Schedule 10 pipe cannot be threaded.
- The code clarifies that appliance shutoff valves located behind movable appliances, such as ranges and clothes dryers, are considered to be provided with the required access.
- The code now calls for the plastic vent pipe material to be labeled as complying with the standards for the specific pipe material as called out by the manufacturer.
- The clearances between direct-vent appliance vent terminals and openings in the building exterior that could allow combustion products to enter the building have been revised.

What is required by House Bill 22-1362 for Code Adoption?

The Colorado House Bill 22-1362 requires that after July 1 of 2023 all jurisdictions that adopt and enforce one or more building code shall adopt and enforce an energy code that achieves equivalent or better energy performance than the 2021 international energy conservation code and model electric ready and solar ready code language developed for adoption by the energy code board pursuant to section 24-38.5-401(5) at the same time other building codes are updated.

With adoption of the 2018 IECC, will existing buildings undergoing renovations and/or additions have to meet the adopted building code such as that like new construction?

Additions and alterations, to an existing building, or building system or portion thereof shall conform to the provisions of chapter 5 IECC as those provisions relate to new construction without requiring the unaltered portion of the existing building or building system to comply.

Can anyone perform an air leakage test to report on the Building thermal envelope air leakage rate?

The testing shall be conducted in accordance with RESNET/ICC 380, ASTM E779 or ASTM E1827. Results of the test must be reported to the code official. Currently there are no requirements for third party certification of the tester. (R402.1.2 Testing IECC).

Where can I find a copy of the proposed adoption ordinance?

The most recent revision or copy of the live document can be obtained by emailing your request to scopley@ci.alamosa.co.us. A copy will be returned via email.

Are the 2018 Code books available to be reviewed?

Yes, the city of Alamosa has a digital copy and will soon have hard copies available at the office of Development Services/Public Works. A copy is available for review at the following link: <https://codes.iccsafe.org/codes>

Why is the City of Alamosa Choosing to adopt the 2018 Existing Building Code Book?

The International Existing Building Code is a model code in the International Code family of Codes intended to provide alternative approaches to repair, alteration and additions to existing buildings. The International Code Council membership of 2015 voted to remove Chapter 34, Existing Structures, from the IBC and in its place with a separate code book reference the IEBC. The provisions that were found in Chapter 34 of the 2012 IBC now appear in the IEBC as chapter 4 and chapter 14. With the adoption of the 2018 IBC without the adoption of the 2018 IEBC, there are no code references or sections dedicated to addressing the repair or alterations to existing structures and are often required to be constructed under the same regulations of new construction.

The IEBC provides three main options for a designer in dealing with alterations of existing buildings.

Option1: work shall be done in accordance with a prescriptive compliance method.

Option 2: work shall be performed with a work area compliance method. By classification of the work of the alteration levels can be established and allow for specified levels of requirements.

Option 3: work shall be done in a performance compliance method.

In addition there is provision, with limited circumstances, that allows for alteration to comply with the laws under which the original building was built under, as long as there has been no substantial structural damage and there will be limited structural alteration.