



You are cordially invited to join us on **July 12, 2022, at 8:00 a.m.** for a

DISCUSSION OF AMENDMENTS TO THE 2021 INTERNATIONAL CODES

When: July 12, 2022 at 8:00 a.m.

Where: Littleton Center
2255 W. Berry Avenue
Littleton, CO 80120
Location: **City Council Chambers**

The City of Littleton Building and Code Compliance Division will present the list of International Codes proposed for adoption and the proposed amendments to those codes on **July 12, 2022, at 8:00 a.m.** in the City Council Chambers. The presentation will include a discussion of significant differences between the currently adopted 2012 International Codes and the proposed 2021 International Codes with amendments.

Attached to this invitation is a copy of the proposed code amendments for your review. Sections in **red** indicate language to be amended. Directly below, in **green**, is the proposed altered or new language. Below that, in **blue**, is a brief explanation of the proposed change.

The event will be an informal, open discussion of the adoption process and the proposed amendments. Your feedback is welcomed and valued by the city and your attendance and participation at the meeting would be greatly appreciated.

We understand that this is a busy time. If you are unable to attend the meeting but would like to provide feedback or commentary based on the attached proposed amendments, please submit your thoughts or comments directly to jschumacher@littletongov.org.

****Light breakfast and beverages will be provided. To assist in with ordering, please RSVP to jschumacher@littletongov.org no later than Sunday, July 10, 2022, if you plan to attend. We look forward to working with you to ensure an inclusive and comprehensive process.****

2021 International Building Code (IBC)

[A]101.1 Title.

These regulations shall be known as the *Building Code* of **[NAME OF JURISDICTION]**, hereinafter referred to as “this code.”

[A]101.1 Title.

These regulations shall be known as the *Building Code* of **City of Littleton, Colorado**, hereinafter referred to as “this code.”

[A]103.1 Creation of enforcement agency.

The **[INSERT NAME OF DEPARTMENT]** is hereby created and the official in charge thereof shall be known as the *building official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]103.1 Creation of enforcement agency.

The **City of Littleton Building Division** is hereby created and the official in charge thereof shall be known as the *building official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]105.1.1 Annual permit.

Instead of an individual *permit* for each *alteration* to an already *approved* electrical, gas, mechanical or plumbing installation, the *building official* is authorized to issue an annual *permit* upon application therefor to any person, firm or corporation regularly employing one or more qualified tradespersons in the building, structure or on the premises owned or operated by the applicant for the *permit*.

[A]105.1.1 Annual permit.

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This section is **DELETED**

[A]105.1.2 Annual permit records.

The person to whom an annual *permit* is issued shall keep a detailed record of *alterations* made under such annual *permit*. The *building official* shall have access to such records at all times or such records shall be filed with the *building official* as designated.

[A]105.1.2 Annual permit records.

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This section is **DELETED**

[A]105.2 Work exempt from permit.

Exemptions from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. *Permits* shall not be required for the following:

1. Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided that the floor area is not greater than 120 square feet (11 m²).
2. Fences not over 7 feet (2134 mm) high.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any *basement* or *story* below and are not part of an *accessible route*.
7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
8. Temporary motion picture, television and theater stage sets and scenery.
9. Prefabricated *swimming pools* accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, are not greater than 5,000 gallons (18 925 L) and are installed entirely above ground.
10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
11. Swing and other playground equipment accessory to detached one- and two-family *dwelling*s.
12. Window awnings in Group R-3 and U occupancies, supported by an *exterior wall* that do not project more than 54 inches (1372 mm) from the *exterior wall* and do not require additional support.
13. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

1. Electrical:

1. **Repairs and maintenance:** Minor repair work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.

2. **Radio and television transmitting stations:** The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for a power supply and the installations of towers and antennas.
3. **Temporary testing systems:** A *permit* shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

1. Gas:

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

1. Mechanical:

1. Portable heating appliance.
2. Portable ventilation equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any part that does not alter its approval or make it unsafe.
6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (0.75 kW) or less.

1. Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe, provided, however, that if any concealed trap, drain pipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a *permit* shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures and the removal and reinstallation of water closets, provided that such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

[A]105.2 Work exempt from permit.

Exemptions from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. *Permits* shall not be required for the following:

2. Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided that the floor area is not greater than 120 square feet (11 m²) or the height of the highest point of the roof measured from grade does not exceed eight (8) feet.
2. ~~Fences not over 7 feet (2134 mm) high. DELETED~~
3. Oil derricks.
4. Retaining walls that are not over 2 feet (609 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or IIIA liquids.
5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18 925 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any *basement* or *story* below and are not part of an *accessible route*.

7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work *that are not required to comply with other portions of this or other adopted codes or are not a part of another project or the scope of which requires a permit in accordance with 105.1.*
8. Temporary motion picture, television and theater stage sets and scenery.
9. Prefabricated *swimming pools* accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, are not greater than 5,000 gallons (18 925 L) and are installed entirely above ground.
10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
11. Swing and other playground equipment accessory to detached one- and two-family *dwellings*.
12. Window awnings in Group R-3 and U occupancies, supported by an *exterior wall* that do not project more than 54 inches (1372 mm) from the *exterior wall* and do not require additional support.
13. Nonfixed and movable fixtures, cases, racks, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

2. Electrical:

1. **Repairs and maintenance:** Minor repair work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.
2. **Radio and television transmitting stations:** The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for a power supply and the installations of towers and antennas.
3. **Temporary testing systems:** A *permit* shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

2. Gas:

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

2. Mechanical:

1. *Portable heating appliances.*
2. *Portable ventilation appliances and equipment.*
3. *Portable cooling units.*
4. *Steam, hot water or chilled water piping within any heating or cooling equipment or appliances regulated by this code.*
5. *The replacement of any minor part that does not alter the approval of equipment or an appliance or make such equipment or appliance unsafe.*
6. *Portable evaporative coolers.*
7. *Self-contained refrigeration systems that contain 10 pounds (4.5 kg) or less of refrigerant, or that are actuated by motors of 1 horsepower (0.75 kW) or less.*
8. *Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.*

2. Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe, provided, however, that if any concealed trap, drain pipe, water, soil, waste or vent pipe becomes defective and it becomes

- necessary to remove and replace the same with new material, such work shall be considered as new work and a *permit* shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures and the removal and reinstallation of water closets, provided that such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

Amendments in this section are proposed to coordinate with requirements in the ULUC and public works design standards and requirements, language in similar sections of other codes, and to ensure that all work requiring inspection is properly permitted

[A]105.5 Expiration.

Every *permit* issued shall become invalid unless the work on the site authorized by such *permit* is commenced within 180 days after its issuance, or if the work authorized on the site by such *permit* is suspended or abandoned for a period of 180 days **after the time the work is commenced**. The *building official* is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

[A]105.5 Expiration.

Every *permit* issued shall become invalid unless the work on the site authorized by such *permit* is commenced within 180 days after its issuance, or if the work authorized on the site by such *permit* is suspended or abandoned for a period of 180 days, **and shall expire 365 days after issuance, regardless of activity, unless an extension of the permit is granted by the Building Official**. The *building official* is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

This change extends the initial expiration date of permits and clarifies that permits are not extended automatically by inspection activity

[A]106.1 Live loads posted.

In commercial or industrial buildings, for each floor or portion thereof designed for *live loads* exceeding 50 psf (2.40 kN/m²), such design *live loads* shall be conspicuously posted by the owner or the owner's authorized agent in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.

[A]106.1 Live loads posted.

~~In commercial or industrial buildings, for each floor or portion thereof designed for *live loads* exceeding 50 psf (2.40 kN/m²), such design *live loads* shall be conspicuously posted by the owner or the owner's authorized~~

~~agent in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.~~

This section is **DELETED**

[A]106.2 Issuance of certificate of occupancy.

A certificate of occupancy required by Section 111 shall not be issued until the floor load signs, required by Section 106.1, have been installed.

[A]106.2 Issuance of certificate of occupancy.

~~A certificate of occupancy required by Section 111 shall not be issued until the floor load signs, required by Section 106.1, have been installed.~~

This section is **DELETED**

[A]109.3 Permit valuations.

The applicant for a *permit* shall provide an estimated *permit* value at time of application. *Permit* valuations shall reflect the total value of **work, including materials and labor, for which the *permit* is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems.** If, in the opinion of the *building official*, the valuation is underestimated on the application, the *permit* shall be denied, unless the applicant can show detailed estimates to meet the approval of the *building official*. Final building *permit* valuation shall be set by the *building official*.

[A]109.3 Permit valuations.

The applicant for a *permit* shall provide an estimated *permit* value at time of application. *Permit* valuations shall reflect the total value of **all work, including materials and labor, for which the *permit* is being issued, such as electrical, gas, mechanical, plumbing equipment, permanent systems and all finish work.** If, in the opinion of the *building official*, the valuation is underestimated on the application, the *permit* shall be denied, unless the applicant can show detailed estimates to meet the approval of the *building official*. Final building *permit* valuation shall be set by the *building official*.

This clarifies what is to be included in permit valuations and coordinates language in other codes

[A]115.2 Issuance.

The stop work order shall be in writing and shall be given to the *owner* of the property, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall

immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work is authorized to resume.

[A]115.2 Issuance.

The stop work order shall be in writing and shall be given to the *owner of the property, the owner's authorized agent or the person performing the work or, if the owner, owner's agent or person performing the work is not present, the stop work order shall be posted on the structure or property.* Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work is authorized to resume.

This clarifies the ability to post a Stop Work order or placard on a property where work is underway but no one is present

[F]903.2.8 Group R.

An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

[F]903.2.8 Group R.

*An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area *other than Group R-3.**

This removes the requirement for fire sprinklers in group R-3 structures (single-family and two-family residential and townhouses)

**TABLE 1507.1.1(2)
UNDERLAYMENT APPLICATION**

ROOF COVERING	SECTION	MAXIMUM BASIC DESIGN WIND SPEED, $V < 140$ MPH	MAXIMUM BASIC DESIGN WIND SPEED, $V \geq 140$ MPH
Asphalt shingles	<u>1507.2</u>	<i>Ice barrier requirement language added</i> For roof slopes from 2 units vertical in 12 units horizontal (2:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be two layers applied as follows: Apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet. Distortions in	Same as Maximum Basic Design Wind Speed, $V < 140$ mph except all laps shall be not less than 4 inches

		the underlayment shall not interfere with the ability of the shingles to seal. For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied as follows: Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches, Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.	
Clay and concrete tile	<u>1507.3</u>	<p>Ice barrier requirement language added</p> <p>For roof slopes from 2½ units vertical in 12 units horizontal (2½:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be not fewer than two layers applied as follows: Starting at the eave, a 19-inch strip of underlayment shall be applied parallel with the eave. Starting at the eave, a 36-inch-wide strip of underlayment felt shall be applied, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet.</p> <p>For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied as follows: Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches. End laps shall be 4 inches and shall be offset by 6 feet.</p>	Same as Maximum Basic Design Wind Speed, V < 140 mph except all laps shall be not less than 4 inches
Metal roof panels	<u>1507.4</u>	<p>Ice barrier requirement language added</p> <p>Apply in accordance with the manufacturer's installation instructions</p>	<p>For roof slopes from 2 units vertical in 12 units horizontal (2:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be two layers applied as follows: Apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet.</p> <p>For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied as follows: Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 4 inches. End laps shall be 4 inches and shall be offset by 6 feet.</p>
Metal roof shingles	<u>1507.5</u>		
Mineral-surfaced roll roofing	<u>1507.6</u>		
Slate shingles	<u>1507.7</u>		
Wood shingles	<u>1507.8</u>		
Wood shakes	<u>1507.9</u>		

Photovoltaic shingles	<u>1507.16</u>	<p>Ice barrier requirement language added</p> <p>For roof slopes from 3 units vertical in 12 units horizontal (3:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be two layers applied as follows: Apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet. Distortions in the underlayment shall not interfere with the ability of the shingles to seal.</p> <p>For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied as follows: Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>	Same as Maximum Basic Design Wind Speed, $V < 140$ mph except all laps shall be not less than 4 inches
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For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm; 1 mile per hour = 0.447 m/s.

TABLE 1507.1.1(2)
UNDERLAYMENT APPLICATION

ROOF COVERING	SECTION	MAXIMUM BASIC DESIGN WIND SPEED, $V < 140$ MPH	MAXIMUM BASIC DESIGN WIND SPEED, $V \geq 140$ MPH
Asphalt shingles	<u>1507.2</u>	<p>For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.</p> <p>For roof slopes from 2 units vertical in 12 units horizontal (2:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be. a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied as follows: Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches,</p>	Same as Maximum Basic Design Wind Speed, $V < 140$ mph except all laps shall be not less than 4 inches

		Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.	
Clay and concrete tile	1507.3	<p>For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.</p> <p>For roof slopes from 2½ units vertical in 12 units horizontal (2½:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be not fewer than two layers applied as follows: Starting at the eave, a 19-inch strip of underlayment shall be applied parallel with the eave. Starting at the eave, a 36-inch-wide strip of underlayment felt shall be applied, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet.</p> <p>For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied as follows: Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches. End laps shall be 4 inches and shall be offset by 6 feet.</p>	Same as Maximum Basic Design Wind Speed, V < 140 mph except all laps shall be not less than 4 inches
Metal roof panels	1507.4	<p>For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.</p> <p>Apply in accordance with the manufacturer's installation instructions</p>	<p>For roof slopes from 2 units vertical in 12 units horizontal (2:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be two layers applied as follows: Apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet.</p> <p>For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied as follows: Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 4 inches. End laps shall be 4 inches and shall be offset by 6 feet.</p>
Metal roof shingles	1507.5		
Mineral-surfaced roll roofing	1507.6		
Slate shingles	1507.7		
Wood shingles	1507.8		
Wood shakes	1507.9		

Photovoltaic shingles	1507.16	<p>For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.</p> <p>For roof slopes from 3 units vertical in 12 units horizontal (3:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be two layers applied as follows: Apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet. Distortions in the underlayment shall not interfere with the ability of the shingles to seal.</p> <p>For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied as follows: Underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>	Same as Maximum Basic Design Wind Speed, $V < 140$ mph except all laps shall be not less than 4 inches
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For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm; 1 mile per hour = 0.447 m/s.

The added language clarifies the requirement for ice barrier for each roof covering type

1507.1.2 Ice barriers.

In areas where there has been a history of ice forming along the eaves causing a backup of water, an ice barrier shall be installed for asphalt shingles, *metal roof shingles*, mineral-surfaced roll roofing, slate and slate-type shingles, wood shingles, and wood shakes. The ice barrier shall consist of not less than two layers of *underlayment* cemented together, or a self-adhering polymer modified bitumen sheet shall be used in place of normal *underlayment* and extend from the lowest edges of all roof surfaces to a point not less than 24 inches (610 mm) inside the *exterior wall* line of the building.

Exception: Detached accessory structures that do not contain conditioned floor area.

1507.1.2 Ice barriers.

Ice barrier shall be installed for asphalt shingles, *metal roof shingles*, mineral-surfaced roll roofing, slate and slate-type shingles, wood shingles, wood shakes and photovoltaic shingles when not prohibited by manufacturer's installation instructions. The ice barrier shall consist of not less than two layers of *underlayment* cemented together, or a self-adhering polymer modified bitumen sheet shall be used in place

of normal *underlayment* and extend from the lowest edges of all roof surfaces to a point not less than 24 inches (610 mm) inside the *exterior wall* line of the building.

Exception: Detached accessory structures that do not contain conditioned floor area.

This clarifies that ice barrier installation is required for the listed roof covering types

1507.2.6 Attachment.

Asphalt shingles shall have the minimum number of fasteners required by the manufacturer, but not less than **four** fasteners per strip shingle or two fasteners per individual shingle. Where the roof slope exceeds 21 units vertical in 12 units horizontal (21:12), shingles shall be installed as required by the manufacturer.

1507.2.6 Attachment.

Asphalt shingles shall have the minimum number of fasteners required by the manufacturer, but not less than **six (6)** fasteners per strip shingle or two fasteners per individual shingle. Where the roof slope exceeds 21 units vertical in 12 units horizontal (21:12), shingles shall be installed as required by the manufacturer.

This requires six (6) nails per shingle for asphalt shingles, which is a high wind installation requirement (and industry standard but not requirement)

1507.2.7 Ice barrier.

Where required, ice barriers shall comply with Section 1507.1.2.

1507.2.7 Ice barrier.

Ice barrier is required and shall comply with Section 1507.1.2.

Requires ice barrier (i.e., ice and water shield) for asphalt shingle roofs

1507.3.3.1 Ice barrier **NEWLY ADDED SECTION**

1507.3.3.1 Ice barrier

Ice barrier is required and shall comply with Section 1507.1.2.

Requires ice barrier (i.e., ice and water shield) for clay and concrete tile roofs

1507.4.5.1 Ice barrier ****NEWLY ADDED SECTION****

1507.4.5.1 Ice barrier

Ice barrier is required and shall comply with [Section 1507.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for metal panel roofs

1507.5.4 Ice barrier.

Where required, ice barriers shall comply with [Section 1507.1.2.](#)

1507.5.4 Ice barrier.

Ice barrier is required and shall comply with [Section 1507.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for metal shingle roofs

1507.6.4 Ice barrier.

Where required, ice barriers shall comply with [Section 1507.1.2.](#)

1507.6.4 Ice barrier.

Ice barrier is required and shall comply with [Section 1507.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for mineral-surfaced rolled roofs

1507.7.4 Ice barrier.

Where required, ice barriers shall comply with [Section 1507.1.2.](#)

1507.7.4 Ice barrier.

Ice barrier is required and shall comply with [Section 1507.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for slate shingle roofs

1507.8.4 Ice barrier.

Where required, ice barriers shall comply with [Section 1507.1.2.](#)

1507.8.4 Ice barrier.

Ice barrier is required and shall comply with [Section 1507.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for wood shingle roofs

1507.9.4 Ice barrier.

Where required, ice barriers shall comply with [Section 1507.1.2.](#)

1507.9.4 Ice barrier.

Ice barrier is required and shall comply with [Section 1507.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for wood shake roofs

1507.16.4 Ice barrier.

Where required, ice barriers shall comply with [Section 1507.1.2.](#)

1507.16.4 Ice barrier.

Ice barrier is required and shall comply with [Section 1507.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for photovoltaic shingle roofs

1507.17.4.2 Ice barrier.

In areas where there has been a history of ice forming along the eaves causing a back-up of water, an ice barrier consisting of not fewer than two layers of *underlayment* cemented together or of a self-adhering polymer modified bitumen sheet shall be used instead of normal *underlayment* and extend from the lowest edges of all roof surfaces to a point not less than 24 inches (610 mm) inside the *exterior wall* line of the building.

Exception: Detached accessory structures that do not contain conditioned floor area.

1507.17.4.2 Ice barrier.

Ice barrier is required and shall comply with [Section 1507.1.2.](#)

Exception: Detached accessory structures that do not contain conditioned floor area.

Requires ice barrier (i.e., ice and water shield) for building-integrated photovoltaic panel roofs

1512.2.1.1 Exceptions.

A *roof recover* shall not be permitted where any of the following conditions occur:

1. Where the existing roof or *roof covering* is water soaked or has deteriorated to the point that the existing roof or *roof covering* is not adequate as a base for additional roofing.
2. Where the existing *roof covering* is slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of *roof covering*.
4. **NEWLY ADDED SECTION**

1512.2.1.1 Exceptions.

A *roof recover* shall not be permitted where any of the following conditions occur:

1. Where the existing roof or *roof covering* is water soaked or has deteriorated to the point that the existing roof or *roof covering* is not adequate as a base for additional roofing.
2. Where the existing *roof covering* is slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of *roof covering*.
4. The roof has one or more existing layers of asphalt shingles.

Prohibits the overlay, or application of a second layer, of asphalt shingles over an existing layer

APPENDIX J – GRADING

APPENDIX B – GRADING – Adoption without amendment is recommended

2021 International Residential Code (IRC)

R101.1 Title.

These provisions shall be known as the *Residential Code for One- and Two-family Dwellings* of **[NAME OF JURISDICTION]**, and shall be cited as such and will be referred to herein as “this code.”

R101.1 Title.

These provisions shall be known as the *Residential Code for One- and Two-family Dwellings* of **City of Littleton, Colorado**, and shall be cited as such and will be referred to herein as “this code.”

R105.2 Work exempt from permit.

Exemption from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this *jurisdiction*. *Permits* shall not be required for the following:

- **Building:**

1. Other than *storm shelters*, one-story detached *accessory structures*, provided that the floor area does not exceed 200 square feet (18.58 m²).
2. Fences not over 7 feet (2134 mm) high.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. Decks not exceeding 200 square feet (18.58 m²) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a dwelling and do not serve the exit door required by [Section R311.4](#).

- **Electrical:**

1. *Listed* cord-and-plug connected temporary decorative lighting.
2. Reinstallation of attachment plug receptacles but not the outlets therefor.
3. Replacement of branch circuit overcurrent devices of the required capacity in the same location.
4. Electrical wiring, devices, *appliances*, apparatus or *equipment* operating at less than 25 volts and not capable of supplying more than 50 watts of energy.
5. Minor repair work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.

- **Gas:**

1. Portable heating, cooking or clothes drying *appliances*.
2. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.

3. Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

- **Mechanical:**

1. Portable heating *appliances*.
2. Portable ventilation *appliances*.
3. Portable cooling units.
4. Steam, hot- or chilled-water piping within any heating or cooling *equipment* regulated by this code.
5. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
6. Portable evaporative coolers.
7. Self-contained refrigeration systems containing 10 pounds (4.54 kg) or less of refrigerant or that are actuated by motors of 1 horsepower (746 W) or less.
8. Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

- **Plumbing:**

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a *permit* shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

R105.2 Work exempt from permit.

Exemption from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this *jurisdiction*. *Permits* shall not be required for the following:

- **Building:**

1. Other than *storm shelters*, one-story detached *accessory structures*, provided that the floor area does not exceed 120 square feet (18.58 m²) or the height of the highest point of the roof measured from grade does not exceed eight (8) feet.
- ~~2. Fences not over 7 feet (2134 mm) high. DELETED~~
3. Retaining walls that are not over 2 feet (609 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways that are not part of an accessible route.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work that are not required to comply with other portions of this or other adopted codes or are not a part of another project the scope of which requires a permit in accordance with 105.1.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.

9. Window awnings supported by an exterior wall that do not project more than 54 inches (1372 mm) from the exterior wall and do not require additional support.
10. ~~Decks not exceeding 200 square feet (18.58 m²) in area, that are not more than 30 inches (762 mm) above grade at any point, are not attached to a dwelling and do not serve the exit door required by Section R311.4. DELETED~~

- **Electrical:**

1. *Listed* cord-and-plug connected temporary decorative lighting.
2. Reinstallation of attachment plug receptacles but not the outlets therefor.
3. Replacement of branch circuit overcurrent devices of the required capacity in the same location.
4. Electrical wiring, devices, *appliances*, apparatus or *equipment* operating at less than 25 volts and not capable of supplying more than 50 watts of energy.
5. Minor repair work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.

- **Gas:**

1. Portable heating, cooking or clothes drying *appliances*.
2. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
3. Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

- **Mechanical:**

1. Portable heating *appliances*.
2. Portable ventilation *appliances*.
3. Portable cooling units.
4. Steam, hot- or chilled-water piping within any heating or cooling *equipment* regulated by this code.
5. Replacement of any minor part that does not alter approval of *equipment* or make such *equipment* unsafe.
6. Portable evaporative coolers.
7. Self-contained refrigeration systems containing 10 pounds (4.54 kg) or less of refrigerant or that are actuated by motors of 1 horsepower (746 W) or less.
8. Portable-fuel-cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

- **Plumbing:**

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a *permit* shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided such repairs do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

Amendments in this section are proposed to coordinate with requirements in the ULUC and public works design standards and requirements, and to ensure that all work requiring inspection is properly permitted

R105.5 Expiration.

Every *permit* issued shall become invalid unless the work on the site authorized by such *permit* is commenced within 180 days after its issuance, or if the work authorized on the site by such *permit* is suspended or abandoned for a period of 180 days **after the time the work is commenced**. The *building official* is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

R105.5 Expiration.

Every *permit* issued shall become invalid unless the work on the site authorized by such *permit* is commenced within 180 days after its issuance, or if the work authorized on the site by such *permit* is suspended or abandoned for a period of 180 days, **and shall expire 365 days after issuance, regardless of activity, unless an extension of the permit is granted by the Building Official**. The *building official* is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

This change extends the initial expiration date of permits and clarifies that permits are not extended automatically by inspection activity

R108.3 Building permit valuations.

Building *permit* valuation shall include total value of the work for which a *permit* is being issued, such as electrical, gas, mechanical, plumbing equipment and other permanent systems, including materials and labor.

R108.3 Building permit valuations.

The applicant for a *permit* shall provide an estimated *permit* value at time of application. *Permit* valuations shall reflect the total value of all work, including materials and labor, for which the *permit* is being issued, such as electrical, gas, mechanical, plumbing equipment, permanent systems and all finish work. If, in the opinion of the *building official*, the valuation is underestimated on the application, the *permit* shall be denied, unless the applicant can show detailed estimates to meet the approval of the *building official*. Final building *permit* valuation shall be set by the *building official*.

This clarifies what is to be included in permit valuations and coordinates language in other codes

R109.1.5.2 NEWLY ADDED SECTION

R109.1.5.2 Preliminary inspection.

Before a permit is issued, the *code official* is authorized to inspect and evaluate the systems, *equipment*, buildings, devices, premises and spaces or areas to be used.

This coordinates language in other codes and establishes the ability of the Building Division to require a preliminary inspection prior to permit issuance which is beneficial in determining the full scope of work to be included on a permit for work that has been performed without a permit

R114.2 Issuance.

The stop work order shall be in writing and shall be given to the *owner* of the property, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work is authorized to resume.

R114.2 Issuance.

The stop work order shall be in writing and shall be given to the *owner* of the property, the owner's authorized agent or the person performing the work or, if the owner, owner's agent or person performing the work is not present, the stop work order shall be posted on the structure or property. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work is authorized to resume.

This clarifies the ability to post a Stop Work order or placard on a property where work is underway but no one is present

R301.2 Climatic and geographic design criteria.

Buildings shall be constructed in accordance with the provisions of this code as limited by the provisions of this section. Additional criteria shall be established by the local *jurisdiction* and set forth in Table R301.2.

TABLE R301.2
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD ^a	WIND DESIGN				SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
	Speed ^d (mph)	Topographic effects ^k	Special wind region ^l	Windborne debris zone ^m		Weathering ^a	Frost line depth ^b	Termite ^c				
-	-	-	-	-	-	-	-	-	-	-	-	-
MANUAL J DESIGN CRITERIAⁿ												
Elevation		Altitude correction factor ^e	Coincident wet bulb	Indoor winter design dry- bulb temperature	Indoor winter design dry-bulb temperature			Outdoor winter design dry-bulb temperature		Heating temperature difference		

-	-	-	-	-	-	-
Latitude	Daily range	Indoor summer design relative humidity	Summer design gains	Indoor summer design dry-bulb temperature	Outdoor summer design dry-bulb temperature	Cooling temperature difference
-	-	-	-	-	-	-

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

R301.2 Climatic and geographic design criteria.

Buildings shall be constructed in accordance with the provisions of this code as limited by the provisions of this section. Additional criteria shall be established by the local *jurisdiction* and set forth in Table R301.2.

TABLE R301.2
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA

GROUND SNOW LOAD ^a	WIND DESIGN				SEISMIC DESIGN CATEGORY ^f	SUBJECT TO DAMAGE FROM			ICE BARRIER UNDERLAYMENT REQUIRED ^h	FLOOD HAZARDS ^g	AIR FREEZING INDEX ⁱ	MEAN ANNUAL TEMP ^j
	Speed ^a (mph)	Topographic effects ^k	Special wind region ^l	Windborne debris zone ^m		Weathering ^a	Frost line depth ^b	Termite ^c				
30 PSF	Footnote A	No	Yes	No	B	Yes	36 in	Footnote B	Yes	Footnote C	532	50.2° F
MANUAL J DESIGN CRITERIAⁿ												
Elevation		Altitude correction factor ^e	Coincident wet bulb	Indoor winter design dry-bulb temperature	Indoor winter design dry-bulb temperature		Outdoor winter design dry-bulb temperature		Heating temperature difference			
5374		0.82	59° F	59° F	70° F		1° F		69° F			
Latitude		Daily range	Indoor summer design relative humidity	Summer design gains	Indoor summer design dry-bulb temperature		Outdoor summer design dry-bulb temperature		Cooling temperature difference			
35.3952°		H	45%	45%	70° F		90° F		20° F			

For SI: 1 pound per square foot = 0.0479 kPa, 1 mile per hour = 0.447 m/s.

A. Wind speed is determined using the most recent version of the Colorado Wind Gust Map as approved by the Structural Engineer's Association of Colorado but shall not be less than 105 mph at any location within the jurisdiction of the City of Littleton.

B. Termite hazard is slight to moderate

C. Entered National Flood Insurance Program 1978; Flood Insurance Study for Arapahoe County and Incorporated Areas – September 4, 2020

Entry of data is required for complete and accurate design of structures and projects in the City and is derived from various data sources

R313.1 Townhouse automatic fire sprinkler systems.

An automatic sprinkler system **shall** be installed in *townhouses*.

Exception: An automatic sprinkler system shall not be required where *additions* or *alterations* are made to existing *townhouses* that do not have an automatic sprinkler system installed.

R313.1 Townhouse automatic fire sprinkler systems.

An automatic sprinkler system **may** be installed in *townhouses*.

Exception: An automatic sprinkler system shall not be required where *additions* or *alterations* are made to existing *townhouses* that do not have an automatic sprinkler system installed.

This removes the requirement for installation of fire sprinklers in townhouses. Amendment in lieu of deletion is necessary to insure compliant installation for those who choose to install fire sprinklers

R313.1.1 Design and installation.

Automatic sprinkler systems for *townhouses* shall be designed and installed in accordance with Section P2904 or NFPA 13D.

R313.1.1 Design and installation.

Automatic sprinkler systems for *townhouses*, **when installed**, shall be designed and installed in accordance with Section P2904 or NFPA 13D.

This amendment establishes a requirement for optional fire sprinklers that are installed in townhouses to be compliant with established design requirements

R313.2 One- and two-family dwellings automatic sprinkler systems.

An automatic sprinkler system **shall** be installed in one- and two-family *dwellings*.

Exception: An automatic sprinkler system shall not be required for *additions* or *alterations* to existing buildings that are not already provided with a sprinkler system.

R313.2 One- and two-family dwellings automatic sprinkler systems.

An automatic sprinkler system **may** be installed in one- and two-family *dwellings*.

Exception: An automatic sprinkler system shall not be required for *additions* or *alterations* to existing buildings that are not already provided with a sprinkler system.

This removes the requirement for installation of fire sprinklers in One- and two-family dwellings. Amendment in lieu of deletion is necessary to ensure compliant installation for those who choose to install fire sprinklers

R313.2.1 Design and installation.

Automatic sprinkler systems shall be designed and installed in accordance with Section P2904 or NFPA 13D.

R313.2.1 Design and installation.

Automatic sprinkler systems, **when installed**, shall be designed and installed in accordance with Section P2904 or NFPA 13D.

This amendment establishes a requirement for optional fire sprinklers that are installed in one- and two-family dwellings to be compliant with established design requirements

R324.6. Pathways.

Not fewer than two pathways, on separate roof planes from lowest roof edge to ridge and not less than 36 inches (914 mm) wide, shall be provided on all buildings. Not fewer than **one pathway** shall be provided on the street or driveway side of the roof. For each roof plane with a photovoltaic array, a pathway not less than 36 inches wide (914 mm) shall be provided from the lowest roof edge to ridge on the same roof plane as the photovoltaic array, on an adjacent roof plane, or straddling the same and adjacent roof planes. Pathways shall be over areas capable of supporting fire fighters accessing the roof. Pathways shall be located in areas with minimal obstructions such as vent pipes, conduit, or mechanical equipment.

R324.6. Pathways.

Not fewer than two pathways, on separate roof planes from lowest roof edge to ridge and not less than 36 inches (914 mm) wide, shall be provided on all buildings. Not fewer than **two (2)** pathways shall be provided on the street or driveway side of the roof. For each roof plane with a photovoltaic array, a pathway not less than 36 inches wide (914 mm) shall be provided from the lowest roof edge to ridge on the same roof plane as the photovoltaic array, on an adjacent roof plane, or straddling the same and adjacent roof planes. Pathways shall be over areas capable of supporting fire fighters accessing the roof. Pathways shall be located in areas with minimal obstructions such as vent pipes, conduit, or mechanical equipment.

Provides additional access from the street or driveway side of the roof

R324.6.2 Setback at ridge.

For photovoltaic arrays occupying not more than 33 percent of the plan view total roof area, not less than an 18-inch (457 mm) clear setback is required on both sides of a horizontal ridge. For photovoltaic arrays occupying more than 33 percent of the plan view total roof area, not less than a 36-inch (914 mm) clear setback is required on both sides of a horizontal ridge.

R324.6.2 Setback at ridge, eaves and rakes.

For photovoltaic arrays, not less than a 36-inch (914 mm) clear setback is required on both sides of a horizontal ridge and from the roof eaves and rakes.

Provides consistent setback requirements from all roof edges allowing greater access

R324.6.2.1 Alternative setback at ridge.

Where an automatic sprinkler system is installed within the dwelling in accordance with NFPA 13D or Section P2904, setbacks at ridges shall comply with one of the following:

1. 1. For photovoltaic arrays occupying not more than 66 percent of the plan view total roof area, not less than an 18-inch (457 mm) clear setback is required on both sides of a horizontal ridge.
2. 2. For photovoltaic arrays occupying more than 66 percent of the plan view total roof area, not less than a 36-inch (914 mm) clear setback is required on both sides of a horizontal ridge.

R324.6.2.1 Alternative setback at ridge.

~~Where an automatic sprinkler system is installed within the dwelling in accordance with NFPA 13D or Section P2904, setbacks at ridges shall comply with one of the following:~~

- ~~3. 1. For photovoltaic arrays occupying not more than 66 percent of the plan view total roof area, not less than an 18-inch (457 mm) clear setback is required on both sides of a horizontal ridge.~~
- ~~4. 2. For photovoltaic arrays occupying more than 66 percent of the plan view total roof area, not less than a 36-inch (914 mm) clear setback is required on both sides of a horizontal ridge.~~

The section is **DELETED**.

Provides consistent setback requirements from all roof edges regardless of installation of an automatic sprinkler system

TABLE R905.1.1(2)
UNDERLAYMENT APPLICATION

ROOF COVERING	SECTION	AREAS WHERE WIND DESIGN IS NOT REQUIRED IN ACCORDANCE WITH <u>FIGURE R301.2.1.1</u>	AREAS WHERE WIND DESIGN IS REQUIRED IN ACCORDANCE WITH <u>FIGURE R301.2.1.1</u>
Asphalt shingles	R905.2	<p>Ice barrier requirement language added</p> <p>For roof slopes from 2 units vertical in 12 units horizontal (2:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet. For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied in the following manner: underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches, Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>	<p>Ice barrier requirement language added</p> <p>Underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>
Clay and concrete tile	R905.3	<p>Ice barrier requirement language added</p> <p>For roof slopes from 2½ units vertical in 12 units horizontal (2½:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be not fewer than two layers applied as follows: starting at the eave, apply a 19-inch strip of underlayment parallel with the eave. Starting at the eave, apply 36-inch-wide strips of underlayment felt, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet. For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be not fewer than one layer of underlayment felt applied shingle fashion, parallel to and starting from the eaves and lapped 2 inches. End laps shall be 4 inches and shall be offset by 6 feet.</p>	<p>Ice barrier requirement language added</p> <p>Underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>
Metal roof shingles	R905.4	<p>Ice barrier requirement language added</p>	<p>Ice barrier requirement language added</p>

Mineral-surfaced roll roofing	R905.5	Apply in accordance with the manufacturer's installation instructions.	Underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet.
Slate and slate-type shingles	R905.6		
Wood shingles	R905.7		
Wood shakes	R905.8		
Metal panels	R905.10		
Photovoltaic shingles	R905.16	<p>Ice barrier requirement language added</p> <p>For roof slopes from 2 units vertical in 12 units horizontal (2:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet. For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied in the following manner: underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>	<p>Ice barrier requirement language added</p> <p>Underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s.

TABLE R905.1.1(2)
UNDERLAYMENT APPLICATION

ROOF COVERING	SECTION	AREAS WHERE WIND DESIGN IS NOT REQUIRED IN ACCORDANCE WITH FIGURE R301.2.1.1	AREAS WHERE WIND DESIGN IS REQUIRED IN ACCORDANCE WITH FIGURE R301.2.1.1
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Asphalt shingles	<u>R905.2</u>	<p>For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.</p> <p>For roof slopes from 2 units vertical in 12 units horizontal (2:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet. For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied in the following manner: underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches, Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>	<p>For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.</p> <p>Underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>
Clay and concrete tile	<u>R905.3</u>	<p>For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.</p> <p>For roof slopes from 2½ units vertical in 12 units horizontal (2½:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be not fewer than two layers applied as follows: starting at the eave, apply a 19-inch strip of underlayment parallel with the eave. Starting at the eave, apply 36-inch-wide strips of underlayment felt, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet. For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be not fewer than one layer of underlayment felt applied shingle fashion, parallel to and starting from the eaves and lapped 2 inches. End laps shall be 4 inches and shall be offset by 6 feet.</p>	<p>For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.</p> <p>Underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>

Metal roof shingles	R905.4		
Mineral-surfaced roll roofing	R905.5		
Slate and slate-type shingles	R905.6	For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.	For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.
Wood shingles	R905.7	Apply in accordance with the manufacturer's installation instructions.	Underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. End laps shall be 4 inches and shall be offset by 6 feet.
Wood shakes	R905.8		
Metal panels	R905.10		
Photovoltaic shingles	R905.16	<p>For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.</p> <p>For roof slopes from 2 units vertical in 12 units horizontal (2:12), up to 4 units vertical in 12 units horizontal (4:12), underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet. For roof slopes of 4 units vertical in 12 units horizontal (4:12) or greater, underlayment shall be one layer applied in the following manner: underlayment shall be applied shingle fashion, parallel to and starting from the eave and lapped 2 inches. Distortions in the underlayment shall not interfere with the ability of</p>	<p>For all roof slopes, an ice barrier shall be applied as follows: Apply ice barrier parallel to and starting at eaves in accordance with manufacturer's installation instructions in successive courses sufficient for ice barrier to extend up roof slope a minimum of 24 inches inside the exterior wall line.</p> <p>Underlayment shall be two layers applied in the following manner: apply a 19-inch strip of underlayment felt parallel to and starting at the eaves. Starting at the eave, apply 36-inch-wide sheets of underlayment, overlapping successive sheets 19 inches. Distortions in the underlayment shall not interfere with the ability of the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.</p>

		the shingles to seal. End laps shall be 4 inches and shall be offset by 6 feet.	
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For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 mile per hour = 0.447 m/s.

The added language clarifies the requirement for ice barrier for each roof covering type

R905.1.2 Ice barriers.

In areas where there has been a history of ice forming along the eaves causing a backup of water as designated in [Table R301.2](#), an ice barrier shall be installed for asphalt shingles, metal roof shingles, mineral-surfaced roll roofing, slate and slate-type shingles, wood shingles and wood shakes. The ice barrier shall consist of not fewer than two layers of *underlayment* cemented together, or a self-adhering polymer-modified bitumen sheet shall be used in place of normal *underlayment* and extend from the lowest edges of all roof surfaces to a point not less than 24 inches (610 mm) inside the exterior wall line of the building. On roofs with slope equal to or greater than 8 units vertical in 12 units horizontal (67-percent slope), the ice barrier shall also be applied not less than 36 inches (914 mm) measured along the roof slope from the eave edge of the building.

Exception: Detached *accessory structures* not containing conditioned floor area.

R905.1.2 Ice barriers.

Ice barrier shall be installed for asphalt shingles, *metal roof shingles*, mineral-surfaced roll roofing, slate and slate-type shingles, wood shingles, wood shakes and photovoltaic shingles when not prohibited by manufacturer's installation instructions. The ice barrier shall consist of not fewer than two layers of *underlayment* cemented together, or a self-adhering polymer-modified bitumen sheet shall be used in place of normal *underlayment* and extend from the lowest edges of all roof surfaces to a point not less than 24 inches (610 mm) inside the exterior wall line of the building. On roofs with slope equal to or greater than 8 units vertical in 12 units horizontal (67-percent slope), the ice barrier shall also be applied not less than 36 inches (914 mm) measured along the roof slope from the eave edge of the building.

Exception: Detached *accessory structures* not containing conditioned floor area.

This clarifies that ice barrier installation is required for the listed roof covering types

R905.2.7 Ice barrier.

Where required, ice barriers shall comply with [Section R905.1.2](#).

R905.2.7 Ice barrier.

Ice barrier is required and shall comply with [Section R905.1.2](#).

Requires ice barrier (i.e., ice and water shield) for asphalt shingle roofs

R905.3.3.1 Ice barrier. **NEWLY ADDED SECTION**

R905.3.3.1 Ice barrier.

Ice barrier is required and shall comply with [Section R905.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for clay and concrete tile roofs

R905.4.3.1 Ice barrier.

Where required, ice barriers shall comply with [Section R905.1.2.](#)

R905.4.3.1 Ice barrier.

Ice barrier is required and shall comply with [Section R905.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for metal shingle roofs

R905.5.3.1 Ice barrier.

Where required, ice barriers shall comply with [Section R905.1.2.](#)

R905.5.3.1 Ice barrier.

Ice barrier is required and shall comply with [Section R905.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for mineral-surfaced roll roofs

R905.6.3.1 Ice barrier.

Where required, ice barriers shall comply with [Section R905.1.2.](#)

R905.6.3.1 Ice barrier.

Ice barrier is required and shall comply with [Section R905.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for slate shingle roofs

R905.7.3.1 Ice barrier.

Where required, ice barriers shall comply with [Section R905.1.2.](#)

R905.7.3.1 Ice barrier.

Ice barrier is required and shall comply with [Section R905.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for wood shingle roofs

R905.8.3.1 Ice barrier.

Where required, ice barriers shall comply with [Section R905.1.2.](#)

R905.8.3.1 Ice barrier.

Ice barrier is required and shall comply with [Section R905.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for wood shake roofs

R905.16.3.1 Ice barrier.

Where required, ice barriers shall comply with [Section R905.1.2.](#)

R905.16.3.1 Ice barrier.

Ice barrier is required and shall comply with [Section R905.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for photovoltaic shingle roofs

R905.17.3.1 Ice barrier.

Where required, ice barriers shall comply with [Section R905.1.2.](#)

R905.17.3.1 Ice barrier.

Ice barrier is required and shall comply with [Section R905.1.2.](#)

Requires ice barrier (i.e., ice and water shield) for building-integrated photovoltaic panel roofs

R908.3.1.1 Roof recover not allowed.

A *roof recover* shall not be permitted where any of the following conditions occur:

1. Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
2. Where the existing roof covering is slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of roof covering
4. **NEWLY ADDED SECTION**

R908.3.1.1 Roof recover not allowed.

A *roof recover* shall not be permitted where any of the following conditions occur:

1. Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
2. Where the existing roof covering is slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of roof covering
4. **The roof has one or more existing layers of asphalt shingles.**

Prohibits the overlay, or application of a second layer, of asphalt shingles over an existing layer

G2417.4.1(406.4.1) Test pressure.

The test pressure to be used shall be not less than $1\frac{1}{2}$ times the proposed maximum working pressure, but not less than **3 psig** (20 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the *piping* greater than 50 percent of the specified minimum yield strength of the pipe.

G2417.4.1(406.4.1) Test pressure.

The test pressure to be used shall be not less than $1\frac{1}{2}$ times the proposed maximum working pressure, but not less than **10 psig** (20 kPa gauge), irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the *piping* greater than 50 percent of the specified minimum yield strength of the pipe.

Provides are greater level of safety at no additional cost to any customers

G2417.4.2(406.4.2) Test duration.

The test duration shall be not less than **10 minutes**.

G2417.4.2(406.4.2) Test duration.

The test duration shall be not less than 15 minutes.

Provides a greater level of safety at no additional cost to any customers and has been a long-time standard in the industry

P2603.5.1 Sewer depth.

Building sewers that connect to private sewage disposal systems shall be not less than [NUMBER] inches (mm) below finished grade at the point of septic tank connection. *Building sewers* shall be not less than [NUMBER] inches (mm) below grade.

P2603.5.1 Sewer depth.

Building sewer installation, material and standards shall conform to City of Littleton Engineering Design Standards and this code.

Coordinates building sewer installation requirements with adopted Public Works requirements

P2904.1.1 Required sprinkler locations.

Sprinklers shall be installed to protect all areas of a dwelling unit.

Exceptions:

1. *Attics*, crawl spaces and normally unoccupied concealed spaces that do not contain fuel-fired *appliances* do not require sprinklers. In *attics*, crawl spaces and normally unoccupied concealed spaces that contain fuel-fired equipment, a sprinkler shall be installed above the equipment; however, sprinklers shall not be required in the remainder of the space.
2. Clothes closets, linen closets and pantries not exceeding 24 square feet (2.2 m²) in area, with the smallest dimension not greater than 3 feet (915 mm) and having wall and ceiling surfaces of gypsum board.
3. Bathrooms not more than 55 square feet (5.1 m²) in area.
4. Garages; carports; exterior porches; unheated entry areas, such as mud rooms, that are adjacent to an exterior door; and similar areas.

P2904.1.1 Required sprinkler locations.

Fire sprinklers are not required in dwelling units. When fire sprinklers are installed in dwelling units optionally or to qualify for exceptions within or application of any section of this code requiring sprinkler installation, sprinklers shall be installed to protect all areas of a dwelling unit.

Exceptions:

1. *Attics*, crawl spaces and normally unoccupied concealed spaces that do not contain fuel-fired *appliances* do not require sprinklers. In *attics*, crawl spaces and normally unoccupied

concealed spaces that contain fuel-fired equipment, a sprinkler shall be installed above the equipment; however, sprinklers shall not be required in the remainder of the space.

2. 2.Clothes closets, linen closets and pantries not exceeding 24 square feet (2.2 m²) in area, with the smallest dimension not greater than 3 feet (915 mm) and having wall and ceiling surfaces of gypsum board.
3. 3.Bathrooms not more than 55 square feet (5.1 m²) in area.
4. 4.Garages; carports; exterior porches; unheated entry areas, such as mud rooms, that are adjacent to an exterior door; and similar areas.

This amendment removes the requirement for residential fire sprinklers and establishes a requirement for optional fire sprinklers that are installed to provide protection to all areas of a dwelling unit

P3103.1.1 Roof extension.

Open vent pipes that extend through a roof that do not meet the conditions of Section P3103.1.2 or P3103.1.3 shall terminate not less than 6 inches (150 mm) above the roof or 6 inches (150 mm) above the anticipated snow accumulation, whichever is greater.

P3103.1.1 Roof extension.

Open vent pipes that extend through a roof that do not meet the conditions of Section P3103.1.2 or P3103.1.3 shall terminate not less than 12 inches (150 mm) above the roof. ~~or 6 inches (150 mm) above the anticipated snow accumulation, whichever is greater.~~

This establishes a consistent requirement for plumbing vent pipes to extend 12 inches above the roof

APPENDIX AC – Exit Terminals of Mechanical Draft and Direct-vent Venting Systems

APPENDIX AC – Exit Terminals of Mechanical Draft and Direct-vent Venting Systems – Adoption without amendments

This appendix provides clarity for exhaust vent terminations in relation to proximity to openings within the structure

APPENDIX AQ – TINY HOUSES

APPENDIX AQ TINY HOUSES – Adoption without amendments

This appendix provides the best available guidance for construction and installation of tiny homes

2021 International Mechanical Code

[A]101.1 Title.

These regulations shall be known as the *Mechanical Code* of **[NAME OF JURISDICTION]**, hereinafter referred to as “this code.”

[A]101.1 Title.

These regulations shall be known as the *Mechanical Code* of **City of Littleton** hereinafter referred to as “this code.”

[A]103.1 Creation of agency.

The **[NAME OF DEPARTMENT]** is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]103.1 Creation of agency.

The **City of Littleton** is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]106.1.1 Annual permit.

Instead of an individual construction permit for each alteration to an already *approved* system or *equipment* or application installation, the code official is authorized to issue an annual permit upon application therefor to any person, firm or corporation regularly employing one or more qualified tradespersons in the building, structure or on the premises owned or operated by the applicant for the permit.

[A]106.1.1 Annual permit.

~~Instead of an individual construction permit for each alteration to an already *approved* system or *equipment* or application installation, the code official is authorized to issue an annual permit upon application therefor to any person, firm or corporation regularly employing one or more qualified tradespersons in the building, structure or on the premises owned or operated by the applicant for the permit.~~

This section is **DELETED**

[A]106.1.2 Annual permit records.

The person to whom an annual permit is issued shall keep a detailed record of alterations made under such annual permit. The code official shall have access to such records at all times or such records shall be filed with the code official as designated.

[A]106.1.2 Annual permit records.

~~The person to whom an annual permit is issued shall keep a detailed record of alterations made under such annual permit. The code official shall have access to such records at all times or such records shall be filed with the code official as designated.~~

This section is **DELETED**

[A]106.2 Permits not required.

Permits shall not be required for the following:

1. Portable heating *appliances*.
2. Portable ventilation *appliances* and *equipment*.
3. Portable cooling units.
4. Steam, hot water or chilled water piping within any heating or cooling *equipment or appliances* regulated by this code.
5. The replacement of any minor part that does not alter the approval of *equipment* or an *appliance* or make such *equipment or appliance* unsafe.
6. Portable evaporative coolers.
7. Self-contained refrigeration systems that contain 10 pounds (4.5 kg) or less of refrigerant, or that are actuated by motors of 1 horsepower (0.75 kW) or less.
8. Portable fuel cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

Exemption from the permit requirements of this code shall not be deemed to grant authorization for work to be done in violation of the provisions of this code or other laws or ordinances of this jurisdiction.

[A]106.2 Permits not required.

Permits shall not be required for the following:

9. Portable heating *appliances*.
10. Portable ventilation *appliances* and *equipment*.
11. Portable cooling units.
12. Steam, hot water or chilled water piping within any heating or cooling ~~*equipment or appliances*~~ regulated by this code.
13. The replacement of any minor part that does not alter the approval of *equipment* or an *appliance* or make such *equipment or appliance* unsafe.
14. Portable evaporative coolers.
15. Self-contained refrigeration systems that contain 10 pounds (4.5 kg) or less of refrigerant, or that are actuated by motors of 1 horsepower (0.75 kW) or less.
16. Portable fuel cell *appliances* that are not connected to a fixed piping system and are not interconnected to a power grid.

Exemption from the permit requirements of this code shall not be deemed to grant authorization for work to be done in violation of the provisions of this code or other laws or ordinances of this jurisdiction.

Amendments in this section are proposed to coordinate with permit exemptions in other codes

[A]106.4.3 Expiration.

Every permit issued by the code official under the provisions of this code shall expire **by limitation and become null and void if the work authorized by such permit is not commenced within 180 days from the date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work recommences, a new permit shall be first obtained and the fee therefor shall be one-half the amount required for a new permit for such work, provided that changes have not been made and will not be made in the original *construction documents* for such work, and provided further that such suspension or abandonment has not exceeded 1 year.**

[A]106.4.3 Expiration.

Every *permit* issued shall become invalid unless the work on the site authorized by such *permit* is commenced within 180 days after its issuance, or if the work authorized on the site by such *permit* is suspended or abandoned for a period of 180 days, and shall expire 365 days after issuance, regardless of activity, unless an extension of the permit is granted by the Building Official. The *building official* is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

This change extends the initial expiration date of permits and clarifies that permits are not extended automatically by inspection activity and coordinates language with other codes

108.2.6 NEWLY ADDED SECTION

108.2.6 Preliminary inspection.

Before a permit is issued, the *code official* is authorized to inspect and evaluate the systems, *equipment*, buildings, devices, premises and spaces or areas to be used.

This coordinates language in other codes and establishes the ability of the Building Division to require a preliminary inspection prior to permit issuance which is beneficial in determining the full scope of work to be included on a permit for work that has been performed without a permit

[A]109.3 Permit valuations

The applicant for a permit shall provide an estimated permit value at time of application. *Permit* valuations shall reflect the total value of **work, including materials and labor, for which the permit is being issued, such as mechanical equipment and permanent systems**. If, in the opinion of the code official, the valuation is underestimated on the application, the permit shall be denied unless the applicant can show detailed estimates to meet the approval of the code official. Final building permit valuation shall be set by the code official.

[A]109.3 Permit valuations

The applicant for a permit shall provide an estimated permit value at time of application. *Permit* valuations shall reflect the total value of **all work, including materials and labor, for which the permit is being issued, such as mechanical equipment, permanent systems and all finish work**. If, in the opinion of the code official, the valuation is underestimated on the application, the permit shall be denied unless the applicant can show detailed estimates to meet the approval of the code official. Final building permit valuation shall be set by the code official.

This clarifies what is to be included in permit valuations and coordinates language in other codes

SECTION 114 BOARD OF APPEALS

[A]114.1 Membership of board.

The board of appeals shall consist of five members appointed by the chief appointing authority as follows: one for 5 years; one for 4 years; one for 3 years; one for 2 years; and one for 1 year. Thereafter, each new member shall serve for 5 years or until a successor has been appointed.

SECTION 114 BOARD OF APPEALS

~~**[A]114.1 Membership of board.**~~

~~The board of appeals shall consist of five members appointed by the chief appointing authority as follows: one for 5 years; one for 4 years; one for 3 years; one for 2 years; and one for 1 year. Thereafter, each new member shall serve for 5 years or until a successor has been appointed.~~

This section is **DELETED**

[A]115.4 Violation penalties.

Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair mechanical work in violation of the *approved construction documents* or

directive of the code official, or of a permit or certificate issued under the provisions of this code, shall **be guilty of a [SPECIFY OFFENSE]**, punishable by a fine of not more than **[AMOUNT]** dollars or by imprisonment not exceeding **[NUMBER OF DAYS]**, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

[A]115.4 Violation penalties.

Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair mechanical work in violation of the *approved construction documents* or directive of the code official, or of a permit or certificate issued under the provisions of this code, **shall subject penalties as established in City of Littleton Municipal Code Title I, Chapter 4, Section 1-4-1 GENERAL PENALTIES.**

Refers violation penalties to the applicable City of Littleton Municipal Code section

Appendix A CHIMNEY CONNECTOR PASS-THROUGH

Appendix A CHIMNEY CONNECTOR PASS-THROUGH Adoption without amendments

This provides requirements for factory-made metal chimneys being vented through existing masonry fireplace chimneys

2021 International Plumbing Code

[A]101.1 Title.

These regulations shall be known as the *Plumbing Code* of **[NAME OF JURISDICTION]** hereinafter referred to as “this code.”

[A]101.1 Title.

These regulations shall be known as the *Plumbing Code* of **the City of Littleton** hereinafter referred to as “this code.”

[A]103.1 Creation of agency.

The **[INSERT NAME OF DEPARTMENT]** is hereby created and the official in charge thereof shall be known as the **code official**. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]103.1 Creation of agency.

The **City of Littleton Building Division** is hereby deemed the agency in charge of enforcement of this code and the official in charge thereof shall be known as the **code official**. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]106.1.1 Annual permit.

Instead of an individual construction permit for each alteration to an already *approved* system or equipment or appliance installation, the code official is authorized to issue an annual permit upon application therefor to any person, firm or corporation regularly employing one or more qualified tradespersons in the building, structure or on the premises owned or operated by the applicant for the permit.

~~[A]106.1.1 Annual permit.~~

~~Instead of an individual construction permit for each alteration to an already *approved* system or equipment or appliance installation, the code official is authorized to issue an annual permit upon application therefor to any person, firm or corporation regularly employing one or more qualified tradespersons in the building, structure or on the premises owned or operated by the applicant for the permit.~~

This section is DELETED

[A]106.1.2 Annual permit records.

The person to whom an annual permit is issued shall keep a detailed record of alterations made under such annual permit. The code official shall have access to such records at all times or such records shall be filed with the code official as designated.

[A]106.1.2 Annual permit records.

~~The person to whom an annual permit is issued shall keep a detailed record of alterations made under such annual permit. The code official shall have access to such records at all times or such records shall be filed with the code official as designated.~~

This section is DELETED

[A]106.5.3 Expiration.

Every permit issued by the code official under the provisions of this code shall expire by limitation and become null and void if the work authorized by such permit is not commenced within 180 days from the date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work can be recommenced, a new permit shall be first obtained and the fee therefor shall be one-half the amount required for a new permit for such work, provided that changes have not been made and will not be made in the original construction documents for such work, and provided further that such suspension or abandonment has not exceeded 1 year.

[A] 106.5.3 Expiration.

Every *permit* issued shall become invalid unless the work on the site authorized by such *permit* is commenced within 180 days after its issuance, or if the work authorized on the site by such *permit* is suspended or abandoned for a period of 180 days, and shall expire 365 days after issuance, regardless of activity, unless an extension of the permit is granted by the Building Official. The *building official* is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

This change extends the initial expiration date of permits and clarifies that permits are not extended automatically by inspection activity and coordinates language with other codes

[A]106.5.4 Extensions.

Any permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The code official shall extend the time for action by the permittee for a period not exceeding 180 days if there is reasonable cause. A permit shall not be extended more than once. The fee for an extension shall be one-half the amount required for a new permit for such work.

[A]106.5.4 Extensions.

~~Any permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The code official shall extend the time for action by the permittee for a period not exceeding 180 days if there is reasonable cause. A permit shall not be extended more than once. The fee for an extension shall be one half the amount required for a new permit for such work.~~

This section is **DELETED**

108.2.1.1 NEWLY ADDED SECTION

108.2.1.1 Preliminary inspection.

Before a permit is issued, the *code official* is authorized to inspect and evaluate the systems, *equipment*, buildings, devices, premises and spaces or areas to be used.

This coordinates language in other codes and establishes the ability of the Building Division to require a preliminary inspection prior to permit issuance which is beneficial in determining the full scope of work to be included on a permit for work that has been performed without a permit

SECTION114 BOARD OF APPEALS

[A]114.1 Membership of board.

The board of appeals shall consist of five members appointed by the chief appointing authority as follows: one for 5 years; one for 4 years; one for 3 years; one for 2 years; and one for 1 year. Thereafter, each new member shall serve for 5 years or until a successor has been appointed.

SECTION114 BOARD OF APPEALS

~~[A]114.1 Membership of board.~~

~~The board of appeals shall consist of five members appointed by the chief appointing authority as follows: one for 5 years; one for 4 years; one for 3 years; one for 2 years; and one for 1 year. Thereafter, each new member shall serve for 5 years or until a successor has been appointed.~~

This section is **DELETED**

[A]115.4 Violation penalties.

Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair plumbing work in violation of the *approved* construction documents or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be **guilty of a [SPECIFY OFFENSE], punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.**

[A]115.4 Violation penalties.

Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair mechanical work in violation of the *approved construction documents* or directive of the code official, or of a permit or certificate issued under the provisions of this code, **shall subject to penalties as established in City of Littleton Municipal Code Title I, Chapter 4, Section 1-4-1 GENERAL PENALTIES.**

Refers violation penalties to the applicable City of Littleton Municipal Code section

305.4.1 Sewer depth.

Building sewers that connect to private sewage disposal systems shall be installed not less than [NUMBER] inches (mm) below finished grade at the point of septic tank connection. Building sewers shall be installed not less than [NUMBER] inches (mm) below grade.

305.4.1 Sewer depth.

Building sewer installation, material and standards shall conform to City of Littleton Engineering Design Standards and this code.

Coordinates building sewer installation requirements with adopted Public Works requirements

903.1.1 Roof extension unprotected.

Open vent pipes that extend through a roof shall be terminated not less than **[NUMBER]** inches (mm) above the roof.

903.1.1 Roof extension unprotected.

Open vent pipes that extend through a roof shall be terminated not less than **twelve (12)** inches (304 mm) above the roof.

This establishes a requirement for plumbing vent pipes to extend 12 inches above the roof and coordinates with language in other codes

2021 International Fuel Gas Code (IFGC)

[A]101.1 Title.

These regulations shall be known as the Fuel Gas Code of **[NAME OF JURISDICTION]**, hereinafter referred to as “this code.”

[A]101.1 Title.

These regulations shall be known as the Fuel Gas Code of **City of Littleton**, hereinafter referred to as “this code.”

[A]103.1 Creation of agency.

The **[INSERT NAME OF DEPARTMENT]** is hereby created and the official in charge thereof shall be known as the *code official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]103.1 Creation of agency.

The **City of Littleton Building Division** is hereby deemed the agency in charge of enforcement of this code and the official in charge thereof shall be known as the *code official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]106.1.1 Annual permit.

Instead of an individual construction permit for each alteration to an already *approved* system or equipment or appliance installation, the code official is authorized to issue an annual permit upon application therefor to any person, firm or corporation regularly employing one or more qualified tradespersons in the building, structure or on the premises owned or operated by the applicant for the permit.

~~[A]106.1.1 Annual permit.~~

~~Instead of an individual construction permit for each alteration to an already *approved* system or equipment or appliance installation, the code official is authorized to issue an annual permit upon application therefor to any person, firm or corporation regularly employing one or more qualified tradespersons in the building, structure or on the premises owned or operated by the applicant for the permit.~~

This section is DELETED

[A]106.1.2 Annual permit records.

The person to whom an annual permit is issued shall keep a detailed record of alterations made under such annual permit. The code official shall have access to such records at all times or such records shall be filed with the code official as designated.

[A]106.1.2 Annual permit records.

~~The person to whom an annual permit is issued shall keep a detailed record of alterations made under such annual permit. The code official shall have access to such records at all times or such records shall be filed with the code official as designated.~~

This section is DELETED

106.5.3 Expiration.

Every permit issued by the *code official* under the provisions of this code shall expire by limitation and become null and void if the work authorized by such permit is not commenced within 180 days from the date of such permit, or is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such work recommences, a new permit shall be first obtained and the fee therefor shall be one-half the amount required for a new permit for such work, provided that changes have not been and will not be made in the original construction documents for such work, and further that such suspension or abandonment has not exceeded 1 year.

[A] 106.5.3 Expiration.

Every *permit* issued shall expire 365 days after the date of issuance and shall become invalid unless the work on the site authorized by such *permit* is commenced within 180 days after its issuance unless an extension of the permit is granted by the code official. The code official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

This change extends the initial expiration date of permits and clarifies that permits are not extended automatically by inspection activity

[A]106.5.4 Extensions.

A permittee holding an unexpired permit shall have the right to apply for an extension of the time within which he or she will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The *code official* shall extend the time for action by the permittee for a period not exceeding 180 days if there is reasonable cause. A permit shall not be extended more than once. The fee for an extension shall be one-half the amount required for a new permit for such work.

[A]106.5.4 Extensions.

~~Any permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The code official shall extend the time for action by the permittee for a period not exceeding 180 days if there is reasonable cause. A permit shall not be extended more than once. The fee for an extension shall be one half the amount required for a new permit for such work.~~

This section is **DELETED**

[A]109.3 Permit valuations.

The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall include total value of **work, including materials and labor, for which the permit is being issued, such as plumbing equipment and permanent systems.** If, in the opinion of the *code official*, the valuation is underestimated on the application, the permit shall be denied, unless the applicant can show detailed estimates to meet the approval of the *code official*. Final building permit valuation shall be set by the *code official*.

[A]109.3 Permit valuations.

The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall reflect the total value of **all work, including materials and labor, for which the permit is being issued, such as plumbing equipment, permanent systems and all related finish work.** If, in the opinion of the *code official*, the valuation is underestimated on the application, the *permit* shall be denied, unless the applicant can show detailed estimates to meet the approval of the *code official*. Final building *permit* valuation shall be set by the *code official*.

This clarifies what is to be included in permit valuations and coordinates language in other codes

112.2.1.1 NEWLY ADDED SECTION

112.2.1.1 Preliminary inspection.

Before a permit is issued, the *code official* is authorized to inspect and evaluate the systems, *equipment*, buildings, devices, premises and spaces or areas to be used.

This coordinates language in other codes and establishes the ability of the Building Division to require a preliminary inspection prior to permit issuance which is beneficial in determining the full scope of work to be included on a permit for work that has been performed without a permit

SECTION 114 BOARD OF APPEALS

[A]114.1 Membership of board.

The board of appeals shall consist of five members appointed by the chief appointing authority as follows: one for 5 years; one for 4 years; one for 3 years; one for 2 years; and one for 1 year. Thereafter, each new member shall serve for 5 years or until a successor has been appointed

SECTION 114 BOARD OF APPEALS

[A]114.1 Membership of board.

The board of appeals shall consist of five members appointed by the chief appointing authority as follows: one for 5 years; one for 4 years; one for 3 years; one for 2 years; and one for 1 year. Thereafter, each new member shall serve for 5 years or until a successor has been appointed

This section is **DELETED**

[A]115.4 Violation penalties.

Any person who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair plumbing work in violation of the *approved* construction documents or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall be **guilty** of a **[SPECIFY OFFENSE]**, punishable by a fine of not more than **[AMOUNT]** dollars or by imprisonment not exceeding **[NUMBER OF DAYS]**, or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

[A]115.4 Violation penalties.

Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter or repair mechanical work in violation of the *approved construction documents* or directive of the code official, or of a permit or certificate issued under the provisions of this code, shall **subject to penalties as established in City of Littleton Municipal Code Title I, Chapter 4, Section 1-4-1 GENERAL PENALTIES.**

Refers violation penalties to the applicable City of Littleton Municipal Code section

406.4.1 Test pressure.

The test pressure to be used shall be not less than $1\frac{1}{2}$ times the proposed maximum working pressure, but not less than **3 psig (20 kPa gauge)**, irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the *pipng* greater than 50 percent of the specified minimum yield strength of the pipe.

406.4.1 Test pressure.

The test pressure to be used shall be not less than $1\frac{1}{2}$ times the proposed maximum working pressure, but not less than **20 psig (137 kPa gauge)**, irrespective of design pressure. Where the test pressure exceeds 125 psig (862 kPa gauge), the test pressure shall not exceed a value that produces a hoop stress in the *pipng* greater than 50 percent of the specified minimum yield strength of the pipe.

Provides a greater level of safety at no additional cost to any customers and aligns with requirements in other jurisdictions

406.4.2 Test duration.

Test duration shall be not less than $\frac{1}{2}$ hour for each 500 cubic feet (14 m³) of pipe volume or fraction thereof. When testing a system having a volume less than 10 cubic feet (0.28 m³) or a system in a single-family dwelling, the test duration shall be not less than **10 minutes**. The duration of the test shall not be required to exceed 24 hours.

406.4.2 Test duration.

Test duration shall be not less than $\frac{1}{2}$ hour for each 500 cubic feet (14 m³) of pipe volume or fraction thereof. When testing a system having a volume less than 10 cubic feet (0.28 m³) or a system in a single-family dwelling, the test duration shall be not less than **15 minutes**. The duration of the test shall not be required to exceed 24 hours.

Provides a greater level of safety at no additional cost to any customers and has been a long-time standard in the industry

Appendix C (IFGS) EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS

Appendix C (IFGS) EXIT TERMINALS OF MECHANICAL DRAFT AND DIRECT-VENT VENTING SYSTEMS – Adoption without amendments

This appendix provides clarity for exhaust vent terminations in relation to proximity to openings within the structure

2021 International Energy Conservation Code (IECC)

C101.1 Title.

This code shall be known as the *Energy Conservation Code* of **[NAME OF JURISDICTION]**, and shall be cited as such. It is referred to herein as “this code.”

C101.1 Title.

This code shall be known as the *Energy Conservation Code* of **City of Littleton**, and shall be cited as such. It is referred to herein as “this code.”

C105.7 NEWLY ADDED SECTION

C105.7 Preliminary inspection.

Before a permit is issued, the *code official* is authorized to inspect and evaluate the systems, *equipment*, buildings, devices, premises and spaces or areas to be used.

This coordinates language in other codes and establishes the ability of the Building Division to require a preliminary inspection prior to permit issuance which is beneficial in determining the full scope of work to be included on a permit for work that has been performed without a permit

2021 International Property Maintenance Code (IPMC)

[A]101.1 Title.

These regulations shall be known as the *International Property Maintenance Code* of **[NAME OF JURISDICTION]**, hereinafter referred to as “this code.”

[A]101.1 Title.

These regulations shall be known as the *International Property Maintenance Code* of **City of Littleton** hereinafter referred to as “this code.”

[A]103.1 Creation of agency.

The **[INSERT NAME OF DEPARTMENT]** is hereby created and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]103.1 Creation of agency.

The **City of Littleton Building Division** is hereby deemed the agency in charge of enforcement of this code and the official in charge thereof shall be known as the code official. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]108.1 Membership of board.

The board of appeals shall consist of not less than three members who are qualified by experience and training to pass on matters pertaining to property maintenance and who are not employees of the jurisdiction. The *code official* shall be an ex-officio member but shall not vote on any matter before the board. The board shall be appointed by the chief appointing authority, and shall serve staggered and overlapping terms.

~~[A]108.1 Membership of board.~~

~~The board of appeals shall consist of not less than three members who are qualified by experience and training to pass on matters pertaining to property maintenance and who are not employees of the jurisdiction. The *code official* shall be an ex-officio member but shall not vote on any matter before the board. The board shall be appointed by the chief appointing authority, and shall serve staggered and overlapping terms.~~

This section is DELETED

111.7 Placarding.

Upon failure of the *owner*, *owner's* authorized agent or person responsible to comply with the notice provisions within the time given, the *code official* shall post on the *premises* or on defective equipment a placard bearing the word “Condemned” and a statement of the penalties provided for occupying the *premises*, operating the equipment or removing the placard. Such notice shall be posted in a conspicuous place in or about the structure affected by such notice. If the notice pertains to equipment, it shall be placed on the condemned equipment.

111.7 Placarding.

Upon failure of the *owner*, *owner's* authorized agent or person responsible to comply with the notice provisions within the time given, the *code official* shall post on the *premises* or on defective equipment a placard bearing language identifying the premises or structure as unsafe or unfit for habitation and a statement of the penalties provided for occupying the *premises*, operating the equipment or removing the placard. Such notice shall be posted in a conspicuous place in or about the structure affected by such notice. If the notice pertains to equipment, it shall be placed on the condemned equipment.

This allows flexibility in the language used on placards and removes the requirement for the word “condemned”

302.4 Weeds.

Premises and *exterior property* shall be maintained free from weeds or plant growth in excess of [JURISDICTION TO INSERT HEIGHT IN INCHES]. Noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, other than trees or shrubs provided; however, this term shall not include cultivated flowers and gardens.

Upon failure of the *owner* or agent having charge of a property to cut and destroy weeds after service of a notice of violation, they shall be subject to prosecution in accordance with [Section 109.3](#) and as prescribed by the authority having jurisdiction. Upon failure to comply with the notice of violation, any duly authorized employee of the jurisdiction or contractor hired by the jurisdiction shall be authorized to enter upon the property in violation and cut and destroy the weeds growing thereon, and the costs of such removal shall be paid by the *owner* or agent responsible for the property.

302.4 Weeds.

Premises and *exterior property* shall be maintained free from weeds or plant growth in excess of eight (8) inches. Noxious weeds shall be prohibited. Weeds shall be defined as all grasses, annual plants and vegetation, other than trees or shrubs provided; however, this term shall not include cultivated flowers and gardens.

Upon failure of the *owner* or agent having charge of a property to cut and destroy weeds after service of a notice of violation, they shall be subject to prosecution in accordance with [Section 109.3](#) and as prescribed by the authority having jurisdiction. Upon failure to comply with the notice of violation, any duly authorized employee of the jurisdiction or contractor hired by the jurisdiction shall be authorized to enter upon the

property in violation and cut and destroy the weeds growing thereon, and the costs of such removal shall be paid by the *owner* or agent responsible for the property.

Requirement established in the ULUC 7-4-2 Definitions

304.14 Insect screens.

During the period from [DATE] to [DATE], every door, window and other outside opening required for *ventilation* of habitable rooms, food preparation areas, food service areas or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with *approved* tightly fitting screens of minimum 16 mesh per inch (16 mesh per 25 mm), and every screen door used for insect control shall have a self-closing device in good working condition.

Exception: Screens shall not be required where other *approved* means, such as air curtains or insect repellent fans, are employed.

304.14 Insect screens.

~~During the period from [DATE] to [DATE],~~ Every door, window and other outside opening required for *ventilation* of habitable rooms, food preparation areas, food service areas or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged or stored shall be supplied with *approved* tightly fitting screens of minimum 16 mesh per inch (16 mesh per 25 mm), and every screen door used for insect control shall have a self-closing device in good working condition.

Exception: Screens shall not be required where other *approved* means, such as air curtains or insect repellent fans, are employed.

Requires screens throughout the year in lieu of a certain period of time

307.1 General.

Every exterior and interior flight of stairs having more than four risers shall have a handrail on one side of the stair and every open portion of a stair, landing, balcony, porch, deck, ramp or other walking surface that is more than 30 inches (762 mm) above the floor or grade below shall have *guards*. Handrails shall be not less than 30 inches (762 mm) in height or more than 42 inches (1067 mm) in height measured vertically above the nosing of the tread or above the finished floor of the landing or walking surfaces. *Guards* shall be not less than 30 inches (762 mm) in height above the floor of the landing, balcony, porch, deck, or ramp or other walking surface.

Exception: *Guards* shall not be required where exempted by the adopted building code.

307.1 General.

Every exterior and interior flight of stairs having more than four risers shall have a handrail on one side of the stair and every open portion of a stair, landing, balcony, porch, deck, ramp or other walking surface that is more than 30 inches (762 mm) above the floor or grade below shall have *guards*. Handrails shall be not less than 34

inches (762 mm) in height or more than 38 inches (1067 mm) in height measured vertically above the nosing of the tread or above the finished floor of the landing or walking surfaces. *Guards* shall be not less than 36 inches (762 mm) in height above the floor of the landing, balcony, porch, deck, or ramp or other walking surface.

Exception: *Guards* shall not be required where exempted by the adopted building code.

Coordinates requirements with the IBC and IRC

602.3 Heat supply.

Every owner and operator of any building who rents, leases or lets one or more *dwelling units* or *sleeping units* on terms, either expressed or implied, to furnish heat to the *occupants* thereof shall supply heat during the period from [DATE] to [DATE] to maintain a minimum temperature of 68°F (20°C) in all habitable rooms, *bathrooms* and *toilet rooms*.

Exceptions:

1. When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity. The winter outdoor design temperature for the locality shall be as indicated in [Appendix D](#) of the *International Plumbing Code*.
2. In areas where the average monthly temperature is above 30°F (-1°C), a minimum temperature of 65°F (18°C) shall be maintained.

602.3 Heat supply.

Every owner and operator of any building who rents, leases or lets one or more *dwelling units* or *sleeping units* on terms, either expressed or implied, to furnish heat to the *occupants* thereof shall supply heat during the period from [DATE] to [DATE] to maintain a minimum temperature of 68°F (20°C) in all habitable rooms, *bathrooms* and *toilet rooms*.

Exceptions:

3. 1. When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity. The winter outdoor design temperature for the locality shall be as indicated in [Appendix D](#) of the *International Plumbing Code*.
4. 2. In areas where the average monthly temperature is above 30°F (-1°C), a minimum temperature of 65°F (18°C) shall be maintained.

Requires heat be available throughout the year in lieu of a certain period of time

[BE] 702.1 General.

A safe, continuous and unobstructed path of travel shall be provided from any point in a building or structure to the *public way*. Means of egress shall comply with the [International Fire Code](#).

[BE] 702.1 General.

A safe, continuous and unobstructed path of travel shall be provided from any point in a building or *structure* to the *public way*. Means of egress shall comply with the International Fire Code, International Building Code or the International Residential Code based on applicable scoping.

Allows for application of the requirements established in the applicable code based on occupancy type and scoping within the code.

[BE] 702.2 Aisles.

The required width of aisles in accordance with the International Fire Code shall be unobstructed.

[BE] 702.2 Aisles.

The required width of aisles in accordance with the International Fire Code, International Building Code or the International Residential Code based on applicable scoping shall be unobstructed.

Allows for application of the requirements established in the applicable code based on occupancy type and scoping within the code.

2021 International Existing Building Code (IEBC)

[A]101.1 Title.

These regulations shall be known as the *Existing Building Code* of [NAME OF JURISDICTION], herein-after referred to as “this code.”

[A]101.1 Title.

These regulations shall be known as the *Existing Building Code* of City of Littleton herein-after referred to as “this code.”

[A]103.1 Creation of agency.

The [INSERT NAME OF DEPARTMENT] is hereby created, and the official in charge thereof shall be known as the *code official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[A]103.1 Creation of agency.

The City of Littleton Building Division is hereby created, and the official in charge thereof shall be known as the *code official*. The function of the agency shall be the implementation, administration and enforcement of the provisions of this code.

[[A]105.1.1 Annual permit.

Instead of an individual permit for each *alteration* to an already *approved* electrical, gas, mechanical, or plumbing installation, the *code official* is authorized to issue an annual permit on application therefor to any person, firm or corporation regularly employing one or more qualified trade persons in the building, structure, or on the premises owned or operated by the applicant for the permit.

[A]105.1.1 Annual permit.

~~Instead of an individual permit for each *alteration* to an already *approved* electrical, gas, mechanical, or plumbing installation, the *code official* is authorized to issue an annual permit on application therefor to any person, firm or corporation regularly employing one or more qualified trade persons in the building, structure, or on the premises owned or operated by the applicant for the permit.~~

This section is DELETED

[A]105.2 Work exempt from permit.

Exemptions from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. *Permits* shall not be required for the following:

1. Building:

1. Sidewalks and driveways not more than 30 inches (762 mm) above grade and not over any basement or story below and that are not part of an accessible route.
2. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work **that are not required to comply with other portions of this or other adopted codes or are not a part of another project or the scope of which requires a permit in accordance with 105.1.**
3. Temporary motion picture, television, and theater stage sets and scenery.
4. Shade cloth structures constructed for nursery or agricultural purposes, and not including service systems.
5. Window awnings supported by an exterior wall of Group R-3 or Group U occupancies.
6. Nonfixed and movable cases, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

2. Electrical:

1. Repairs and maintenance: Minor *repair* work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.
2. Radio and television transmitting stations: The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for power supply, the installations of towers and antennas.
3. Temporary testing systems: A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

3. Gas:

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

4. Mechanical:

1. Portable heating appliance.
2. Portable ventilation equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any part that does not alter its approval or make it unsafe.
6. Portable evaporative cooler.
7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.

5. Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes

necessary to remove and replace the same with new material, such work shall be considered as new work, and a permit shall be obtained and inspection made as provided in this code.

2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided that such *repairs* do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

[A]105.2 Work exempt from permit.

Exemptions from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. *Permits* shall not be required for the following:

6. Building:

1. Sidewalks and driveways not more than 30 inches (762 mm) above grade and not over any basement or story below and that are not part of an accessible route.
2. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work **that are not required to comply with other portions of this or other adopted codes or are not a part of another project or the scope of which requires a permit in accordance with 105.1.**
3. Temporary motion picture, television, and theater stage sets and scenery.
4. Shade cloth structures constructed for nursery or agricultural purposes, and not including service systems.
5. Window awnings supported by an exterior wall of Group R-3 or Group U occupancies.
6. Nonfixed and movable cases, counters and partitions not over 5 feet 9 inches (1753 mm) in height.

7. Electrical:

1. Repairs and maintenance: Minor *repair* work, including the replacement of lamps or the connection of *approved* portable electrical equipment to *approved* permanently installed receptacles.
2. Radio and television transmitting stations: The provisions of this code shall not apply to electrical equipment used for radio and television transmissions, but do apply to equipment and wiring for power supply, the installations of towers and antennas.
3. Temporary testing systems: A permit shall not be required for the installation of any temporary system required for the testing or servicing of electrical equipment or apparatus.

8. Gas:

1. Portable heating appliance.
2. Replacement of any minor part that does not alter approval of equipment or make such equipment unsafe.

9. Mechanical:

1. Portable heating appliance.
2. Portable ventilation equipment.
3. Portable cooling unit.
4. Steam, hot or chilled water piping within any heating or cooling equipment regulated by this code.
5. Replacement of any part that does not alter its approval or make it unsafe.
6. Portable evaporative cooler.

7. Self-contained refrigeration system containing 10 pounds (4.54 kg) or less of refrigerant and actuated by motors of 1 horsepower (746 W) or less.

10. Plumbing:

1. The stopping of leaks in drains, water, soil, waste or vent pipe; provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work, and a permit shall be obtained and inspection made as provided in this code.
2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the removal and reinstallation of water closets, provided that such *repairs* do not involve or require the replacement or rearrangement of valves, pipes or fixtures.

[A]105.5 Expiration.

Every permit issued shall **become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The code official is authorized to grant, in writing, one or more extensions of time for periods not more than 180 days each.** The extension shall be requested in writing and justifiable cause demonstrated.

[A] 10.5. Expiration.

Every *permit* issued shall **expire 365 days after the date of issuance and shall become invalid unless the work on the site authorized by such *permit* is commenced within 180 days after its issuance unless an extension of the permit is granted by the code official. The code official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each.** The extension shall be requested in writing and justifiable cause demonstrated.

This change extends the initial expiration date of permits and clarifies that permits are not extended automatically by inspection activity

[A]108.3 Permit valuations.

The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall include total value of **work, including materials and labor for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems.** If, in the opinion of the *code official*, the valuation is underestimated on the application, the permit shall be denied unless the applicant can show detailed estimates to meet the approval of the *code official*. Final building permit valuation shall be set by the *code official*.

[A]108.3 Permit valuations

The applicant for a permit shall provide an estimated permit value at time of application. *Permit* valuations shall include the total value of **all work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems and all finish work.** If, in the

opinion of the code official, the valuation is underestimated on the application, the permit shall be denied unless the applicant can show detailed estimates to meet the approval of the code official. Final building permit valuation shall be set by the code official.

[A]109.3.12 Preliminary inspection.

NEWLY ADDED SECTION

[A]109.3.12 Preliminary inspection.

Before a permit is issued, the *code official* is authorized to inspect and evaluate the systems, *equipment*, buildings, devices, premises and spaces or areas to be used.

702.5 Replacement window for emergency escape and rescue openings.

Where windows are required to provide *emergency escape and rescue openings* in Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *International Residential Code*, replacement windows shall be exempt from the requirements of Section 1031.3 of the *International Building Code* and Section R310.2 of the *International Residential Code*, provided that the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening.
2. Where the replacement window is part of a *change of occupancy* it shall comply with Section 1011.5.6.

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3. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening and the net clear opening of the replacement window is not less than the previously existing window.
 4. Where the replacement window is part of a *change of occupancy* it shall comply with Section 1011.5.6.
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[BS]705.2.1.1 Exceptions.

A roof recover shall not be permitted where any of the following conditions occur:

1. The existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
2. The existing roof covering is slate, clay, cement or asbestos-cement tile.
3. The existing roof has two or more applications of any type of roof covering.
4. **NEWLY ADDED SECTION**

[BS]705.2.1.1 Exceptions.

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1. The existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
 2. The existing roof covering is slate, clay, cement or asbestos-cement tile.
 3. The existing roof has two or more applications of any type of roof covering.
 4. **The roof has one or more existing layers of asphalt shingles.**
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1001.4 Permit Required.

NEWLY ADDED SECTION

1001.4 Permit Required.

Any *owner* or owner's authorized agent who intends to change the occupancy of a building or structure or to cause any work to be performed that will change the occupancy group or classification of a building or structure, shall first make application to the *building official* and obtain the required *permit*.

Requires a building permit for a change of occupancy

APPENDIX B – SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS FOR EXISTING BUILDINGS AND FACILITIES

**APPENDIX B – SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS FOR EXISTING BUILDINGS AND FACILITIES –
Adoption without amendment is recommended**