

2021 International Building Code



Meeting Purpose

To present proposed changes to the 2021 International Building Code.



Reduce Local Amendments

GOAL: To minimize the number of amendments and return to published code.

Amendments were reduced by more than 50% compared to the 2015 adoption process. The following slides detail some of the major changes proposed in the ordinance.

Reasons for amendments:

- 1. Council mandated
- 2. Business needs (chapter 1)
- 3. Additional options for the public with exempts from permitting
- 4. Clarification purposes
- 5. ISO rating



101.4.8 Building Criteria Manual. Additional information on procedures and rules for administration of this code is available in the Building Criteria Manual.

Note: Created pointer to BCM to facilitate the process for changes.



- **103.1 Authority.** The building official is the City official responsible for administering, implementing, and enforcing the Building Code. The building official may appoint one or more deputy building officials.
- 103.1 Building Official. The building official administers, enforces, and interprets this code. The building official may designate one or more deputy building officials.

Note: Modified to create consistency with the other codes.



105.1.1.1 Authorized Scope of Work. See Building Criteria Manual, section 1.1.2 Building Inspection Processes for authorized work under the annual permit.

Note: Created pointer to BCM to facilitate the process for changes.



105.2 Work Exempt from Permit

- One-story detached accessory structures used as tool and storage sheds, playhouses, shade cloth structures constructed for outdoor covered areas that are not A2 or E occupancies, and similar uses, provided the floor area is not greater than 120 square feet (11 m²); provided they are not located within a flood hazard area.
- Repair <u>and replacement</u> to gypsum board <u>and backer board</u> that is <u>are</u> not part of a fire-resistance-rated wall, a shear assembly, or wet areas; provided it is limited to a maximum of 32 96 square feet.
- Repair to exterior siding that is not part of a fire-rated assembly wall or shear assembly; provided that it is limited to a maximum of 96 square feet.
- Other work as determined by the building official.

Note: Added additional exemptions from permitting.



105.5 Time Limits. City Code Chapter 25-12, Article 13 (Administration of Technical Codes) establishes permit application time limits and requirements applicable to permit expiration and reactivation, including a review fee for expired permits.

Note: Modified to maintain consistency with other codes.



109.7 Plan Review Fees. An applicant must pay a plan review fee, adopted by separate ordinance, when plans and specifications are submitted for review under Section 107 (Submittal Documents). The building official shall compute the building plan review fees using the total value of all construction work for which the permit is issued as well as the value of all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire-extinguishing systems, and other permanent equipment. The building official shall charge an additional plan review fee if plans are incomplete or changed so as to require additional plan review. The plan review fees referenced in this section are in addition to the permit fees referenced in Section 109.1 (Payment of fees).

Note: Updated to current business practices.



110.3 The building official, upon notification, shall make inspections set forth in the Building Criteria Manual.

110.3.1 Building pre-construction inspection. This is the first inspection conducted. The inspector verifies the permits that were issued for work at a site and meets with the contractor or owner at the site to review plans and identify potential issues. The inspector notifies the contractor of the inspector's work hours and identifies required inspections.

110.3.1.1 Layout Inspection. A layout inspection shall be made after all foundation forms have been erected and are in place, but before any concrete is placed.

[A] 110.3.1.2 Footing and foundation inspection. Footing and foundation inspections shall be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms shall be in place prior to inspection. Materials for the foundation shall be on the job, except where concrete is ready mixed in accordance with ASTM C 94, the concrete need not be on the job.

[A] 110.3.5 Lath, gypsum board and gypsum panel product inspection. Lath, gypsum board and gypsum panel product inspections shall be made after lathing, gypsum board and gypsum panel products, interior and exterior, are in place, but before any plastering is applied or gypsum board and gypsum panel product joints and fasteners are taped and finished.

Exception: Gypsum board and gypsum panel products that are not part of a fire-resistance-rated assembly, a shear assembly, or part of a shower or water closet surround; provided it is limited to a maximum of 32 square feet.

110.3.7 Energy efficiency inspections. Inspections shall be made to determine compliance with the energy efficiency requirements of the Energy Code, as adopted by Chapter 25-12, Article 12 (Energy Code), and shall include, but not be limited to, inspections for: envelope insulation R- and U-values, fenestration U-value, duct system R-value, and HVAC and water-heating equipment efficiency.

Note: Relocated inspections to BCM as they do not exist in published code.



111.5 Maintenance of records. The building owner, or the owner's authorized agent, must maintain a copy of the certificate of occupancy on the premises and provide it to an authorized official on request.

Note: Deleted because IBC requires an occupant load card which provides the same information.



112.3 Authority to Disconnect Service Utilities. The building official shall have the authority to authorize disconnection of utility service to the building, structure or service system regulated by this code and the codes referenced under this section. City Code Chapter 15-9, Article 7 (Limitation on City's Liability; Release) establishes liability from property damage, personal injury, business damage or other loss resulting from a negligent or non-negligent act of the City.

Note: Modified to create a pointer to the language that provides authority to disconnect utilities.



SECTION 113 BUILDING AND FIRE CODE BOARD OF APPEALS. The Building and Fire Code Board of Appeals must comply with Chapter 2-1 (Boards and Commissions).

113 Building and Fire Code Board of Appeals. Regulations regarding the Building and Fire Code Board of Appeals are found in Chapter 2-1 of the City Code.

Note: Modified for clarification.



403.2.1 Reduction in fire-resistance rating

403.2.1.1 Type of construction

403.3 Automatic sprinkler system

403.5.3.1 Stairway communications system



406.4.3 Ramps. Vehicle ramps shall not serve as an exit element unless pedestrian facilities are provided. Such pedestrian facilities shall meet the minimum exit width requirements of Section 1005, exclusive of parking spaces and vehicle circulation aisles. The minimum width and depth of parking spaces and vehicle circulation aisles shall be in accordance with the Austin Transportation Criteria Manual, Table 9-1 or Table 9-2 (residential and low-use garages only). Vehicle ramps that serve as an exit element shall not exceed a slope of 1:8 (12.5 percent). Vehicle ramps that serve as part of an accessible route shall not exceed a slope of 1:20 (5% percent). Vehicle ramps shall not be considered as required exits unless pedestrian facilities are provided. Vehicle ramps that are utilized for vertical circulation as well as for parking shall not exceed a slope of 1 unit vertical in 15 unit's horizontal (6.67-percent slope).

Note: Modified for clarification.



406.5.7 Means of egress. Where persons other than parking attendants are permitted, open parking garages shall meet the means of egress requirements of Chapter 10 (Means of Egress). Lifts shall be permitted to be installed for use of employees only, provided they are completely enclosed by noncombustible materials.



503.1.4 Occupied Roofs. A roof level or portion thereof shall be permitted to be used as an occupied roof provided the occupancy of the roof is an occupancy that is permitted by Table 504.4 for the story immediately below the roof. The area of the occupied roofs shall not be included in the building area as regulated by Section 506. An occupied roof shall not be included in the building height or number of stories as regulated by Section 504, provided that the penthouses and other enclosed rooftop structures comply with Section 1511.

Exceptions:

- 1. The occupancy located on an occupied roof shall not be limited to the occupancies allowed on the story immediately below the roof where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and occupant notification in accordance with Sections 907.5.2.1 and 907.5.2.3 is provided in the area of the occupied roof. Emergency voice/alarm communication system notification per Section 907.5.2.2 shall also be provided in the area of the occupied roof where such system is required elsewhere in the building.
- 2. Assembly occupancies shall be permitted on roofs of open parking spaces of Type I or Type II construction, in accordance with the exception to Section 903.2.1.6.
- 3. An open noncombustible trellis or similar overhead shading device complying with the structural requirements of this code shall not be considered as a covering or roof provided that the trellis or shade has an evenly distributed net free area of 50 percent or greater.

Note: Language from published code added to ordinance to incorporate exception #3.



427.5 Interstitial Spaces. When decks or other walking surfaces are constructed above a roof to facilitate rooftop occupancy, the space between the roof/ceiling assembly and the deck or surface shall be constructed in a manner that precludes the accumulation of material between the roof/ceiling assembly and the deck or walking surface and that prevents the introduction of ignition sources to the space.

503.1.4.2 Interstitial Spaces beneath Rooftop Occupancies. When decks or other walking surfaces are constructed above a roof to facilitate rooftop occupancy, the space between the roof surface and the deck or walking surface shall be constructed in a manner that precludes the accumulation of material between the roof surface and the deck or walking surface, and that prevents the introduction of ignition sources to the space and allows for proper roof drainage.

Note: Modified for clarification.



427.6 Coverings above or around the occupants of an occupied rooftop

503.1.1 Special industrial occupancies

507.4 Sprinklered, one story

510.4 Parking beneath Group R

602.4.2 Cross-laminated timber in exterior walls

705.5 Fire-resistance ratings

714.4.1.2 Through-penetration firestop system



901.1 Scope. The provisions of this chapter shall specify where *fire protection* and *life safety systems* are required, and shall apply to the design, installation and operation of *fire protection* and *life safety systems*. For those requirements, refer to Chapter 25-12 Article 7 Fire Code for combined amendments and the 2021 International Fire Code Chapter 9.

Note: Pointer to Fire Code where Chapter 9 will be housed and managed by AFD.



TABLE 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

MAXIMUM FLOOR AREA ALLOWANCES FER OCCUPANT	
FUNCTION OF SPACE	OCCUPANT LOAD FACTOR ^a
Accessory storage areas, mechanical	
equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport Terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Exhibit Gallery and Museum	30 net
Assembly with fixed seats	See Section 1004.5
Assembly without fixed seats	
Concentrated	7 net
Standing space or queuing space	7 net
Unconcentrated (tables and chairs)	15 net

Note: Remains amended with 7 net due to concerns of allowing an A occupancy to potentially create an overcrowded situation in an emergency.



1006.3.2 Single exits

TABLE 1006.3(1) STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR R-2 OCCUPANCIES

TABLE 1006.3(2) STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES

1007.1.1. Two exits or exit access doorways



1010.1.2 Door Swing. Egress doors shall be of the pivoted or side-hinged swinging type.

Exceptions:

- 1. Private garages, office areas, factory and storage areas with an occupant load of 10 or less.
- 2. Group I-3 occupancies used as a place of detention.
- 3. Critical or intensive care patient rooms within suites of health care facilities.
- 4. Doors within or serving a single dwelling unit in Groups R-2 and R-3.
- 5. In other than Group H occupancies, revolving doors complying with Section 1010.3.1 (*Revolving doors*).
- 6.In other than Group H-1, H-2, H-3 and H-4 occupancies, horizontal sliding doors complying with Section 1010.1.4.3 (*Special purpose horizontal sliding, accordion or folding doors*) are permitted in a means of egress. In other than Group H-1, H-2, H-3, and H-4 occupancies, special purpose horizontal sliding, accordion or folding door assemblies complying with Section 1010.3.3.
- 7. Power-operated doors in accordance with Section 1010.3.2 (*Power-operated doors*).
- 8. Doors serving a bathroom within an individual sleeping unit in Group R-1.
- 9. In other than Group H occupancies, manually operated horizontal sliding doors are permitted in a means of egress from spaces with an occupant load of 10 or less.

Note: Modified for clarification.



1020.4 Dead ends. Where more than one exit or exit access doorway is required, the exit access shall be arranged such that there are no dead ends in corridors more than 20 feet (6,096 mm) in length.

Exceptions:

1.In occupancies in Group I-3 of Occupancy Condition 2, 3 or 4 (see Section 308.5 (Group I-3)), the dead end in a corridor shall not exceed 30 feet (9,144 mm).

2.In occupancies in Groups B, E, F, I-1, M, R-1, R-2, R-4, S and U, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 (NFPA 13 sprinkler systems), the length of the dead-end corridors shall not exceed 50 feet (15,240 mm).

3.A dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.



1027.3 Open side. Exterior exit stairways and ramps serving as an element of a required means of egress shall be open on not less than two sides, except for required structural columns, beams, handrails and guards. The open area shall not be less than 50% of the perimeter of the stairs excluding the main landing. The open area shall be so distributed as to minimize the accumulation of smoke or toxic gases.



1101.2 Design. Buildings and facilities that are not included in the scope of the Texas Accessibility Standards (TAS) shall be designed and constructed to be accessible in accordance with the Building Code and ICC A117.1. Buildings and facilities included in the scope of TAS shall be designed and constructed to be accessible in accordance with the Texas Accessibility Standards of the Architectural Barriers Act, Article 9102, Texas Civil Statutes, as amended. Where conflicts occur between this chapter and any scoping provisions of the Texas Accessibility Standards, the more stringent requirement shall apply.

1101.2 Design. Buildings and facilities shall be designed and constructed to be accessible in accordance with this code and ICC A117.1.

Exception: Components of projects designed in accordance with and regulated by the Architectural Barriers Division of the Texas Department of Licensing and Regulation shall be deemed to be in compliance with the requirements of this chapter, provided the scope of accessible features complies with the building code.

Note: Modified for clarification.



1104.1 Site arrival points

1106.6 Location

1110.1 General



2901.1 Scope. The provisions of this chapter and the Uniform Plumbing Code shall govern the design, construction, erection and installation of plumbing components, appliances, equipment and systems used in buildings and structures covered by this code.

Table 2902.1, Column Header 4. Reference to Section 424.2 of the International Plumbing Code shall be replaced with the following: In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent of the required water closets in assembly and educational occupancies. Urinals shall not be substituted for more than 50 percent of the required water closets in all other occupancies.

<u>Table 2902.1, Column Header 7. Reference to Section 410 of the International Plumbing Code shall be replaced with Section 415 of the Uniform Plumbing code.</u>

Note: Modified Chapter 2901 to consolidate all design criteria sections into the Building Code.



2902.2 Separate Facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

- 1. Separate facilities shall not be required for *dwelling units* and *sleeping units*.
- 2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or fewer.
- 3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 100 or fewer.
- 4. Separate facilities shall not be required in business occupancies when the maximum occupant load is 50 or fewer.
- 5. Separate facilities shall not be required to be designated by sex where single-user toilets rooms are provided in accordance with Section 2902.1.2.
- 6. Separate facilities shall not be required where rooms having both water closets and lavatory fixtures are designed for use by both sexes and privacy for water closets are installed in accordance with Section 405.3.4 of the *International Plumbing Code*. Urinals shall be located in an area visually separated from the remainder of the facility or each urinal that is provided shall be located in a stall.

Note: Exception #4 modified maximum occupant load from 25 to 50 for small businesses. References to IPC made due to UPC not covering this type of facility.



2902.6 Small Occupancies. Drinking fountains shall not be required for an occupant load of 30 or fewer. For a business or a mercantile occupancy where the occupancy load is 30 or fewer, service sinks shall not be required.

Note: Providing some exceptions for the smaller business.



3102.1 General

3103.1.3 Permit expiration

3103.6 Moved residential buildings

3109.3 Public swimming pools

3112 AERIAL PASSAGEWAYS



<u>a public right-of-way and all associated utilities shall be subject to the approval of an encroachment agreement as per city code chapter 14-11- Use of Right-of-Way. The vertical clearance from the public right-of-way to the lowest part of a pedestrian walkway shall be not less than 16.5 feet over roadway and alley subject to truck traffic, and not less than 15'-0" over other areas in the right-of-way.</u>

Vertical Clearance Requirements	
2015 International Building Code Amendments	18 feet but not less than 17 feet
Austin Energy Criteria as outlined in the DCM as well as	13'6" for pedestrian walkways this is based on what is in
NEC, NESC requirements.	the NESC for pedestrian areas.
	18 over roadway and alley subject to truck traffic;
	16 over driveways and parking lots
2021 International Building Code	15'
2015 International Fire Code amendment	14'
TxDOT's Roadway Design Manual (Table 3-1: Geometric	16.5'
Design Criteria for Urban Streets)	
2021 International Building Code Amendment	16.5' feet over roadway and alley subject to truck traffic,
	and not less than 15' over other areas in the right-of-way.

Note: Modified to add vertical clearances for pedestrian walkways.



- ❖ The International Existing Building Code, 2015 2021 Edition ("2015 2021 Existing Building Code"), published by the International Code Council is adopted and incorporated by reference into this section with the deletions in Subsection (B) and amendments in Section 25-12-233 (Local Amendments to the 2015 2021 Existing Building Code).
- ❖ The following sections of the 20152021 Existing Building Code are deleted:

103 & Subsections, 105.1.1, 105.5, 106.2.6, 111.3, 112

Note: Existing building code also being adopted, and incorporated into this ordinance with changes pertaining only to administrative processes.



Part 3.

ARTICLE 13. - ADMINISTRATION OF TECHNICAL CODES.

The building and fire code board of appeals (2-21-121) as established by 2-1-3 shall be the board to hear and decide any changes to Article 13 Administration of Technical Codes.



Questions/Comments



