

ARTICLE II.
BUILDING CODE

Section 150.015 ADOPTED.

(a) The International Building Code, ~~2015~~ ~~2012~~ edition, including Appendix C and Appendix I as published by the International Code Council Inc., and amendments and additions thereto as provided in this article are hereby adopted as the building code by the city for regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area, and maintenance of all buildings and structures in the city providing for the issuance of permits and collection of fees therefor.

(b) The adoption of the International Building Code, 2015 edition will become effective May 1, 2016. The minimum building standards in the 2015 edition of the *International Residential Code* and amendments thereto shall be applied to any building permit issued after April 30, 2016.

(c) The city shall publish this ordinance, without attachments, after its passage. The attachments are on file and available for inspection in the office of the city clerk.

Section 150.017 AMENDMENTS, ADDITIONS, AND DELETIONS TO THE 2015 INTERNATIONAL BUILDING CODE.

The following sections and subsections of the 2015 International Building Code adopted in this article shall be amended, added, or not adopted by the city as follows. All other sections or subsections of the 2015 International Building Code as published shall remain the same.

[A] **101.1 Title.** These regulations shall be known as the *Building Code of [the city of Sioux Falls](#)*, hereinafter referred to as “this code.”

Commentary: This simply inserts that these local modifications are applicable to the “City of Sioux Falls”.

[A] **101.4.3 Plumbing.** The provisions of the ~~*International Plumbing Code*~~ shall apply to the installation, *alteration, repair* and replacement of plumbing systems, including equipment, appliances, fixtures, fittings and appurtenances, and where connected to a water or sewage system and all aspects of a medical gas system. ~~The provisions of the *International Private Sewage Disposal Code* shall apply to private sewage disposal systems.~~

Commentary: Section 101.4 of the IBC references those codes that are adopted accessory to the building code. Because the City does not utilize the International Plumbing Code or the International Private Sewage Disposal Code, the references are eliminated and instead simply refer to the plumbing ordinance, which adopts the Uniform Plumbing Code mandated by the State Plumbing Commission.

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101.4.8 Electrical. The provisions of the *NFPA 70* shall apply to the installation of electrical systems, including alterations, repairs, replacement, equipment, appliances, fixtures, fittings, and appurtenances thereto.

Commentary: Section 101.4 of the IBC references those codes that are adopted accessory to the building code. International Code Council does not publish the National Electrical Code (NEC) and therefore does not reference the national model code standard. This inserts the reference to the NEC, which is mandated by the State Electrical Commission.

[A] **103.1 Creation of enforcement agency.** ~~The Department of Building~~ Building Services in charge thereof shall be known as the *building official*.

Commentary: This inserts the correct title of the office that enforces minimum building standards, Building Services.

[A] **103.2 Appointment.** ~~The building official shall be appointed by the chief appointing authority of the jurisdiction.~~ Not adopted by the city.

Commentary: This is eliminated because the building official is not an appointed position.

[A] **104.8.1 Legal defense.** Any suit or criminal complaint instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be afforded all the protection provided by the city's insurance pool and any immunities and defenses provided by other applicable state and federal law and defended by legal representatives of the jurisdiction until the final termination of the proceedings. The *building official* or any subordinate shall not be liable for cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this code.

This code shall not be construed to relieve or lessen the responsibility of any person owning, operating, or controlling any building or structure for any damages to persons or property caused by defects, nor shall the city, or its officers and employees, be held as assuming any such liability by reason of the inspections authorized by this code or any permits or certificates issued under this code.

Commentary: This amendment inserts that an employee who enforces the code is protected from liability within the limitations of the City's insurance pool or any other applicable state or federal law. The second paragraph maintains language from the legacy codes as it relates to assuming liability in the enforcement of the minimum building standards of the code.

[A] **105.1 Required.** Any *owner* or owner's authorized agent who intends to construct, enlarge, alter, *repair*, move, demolish or change the occupancy of a building or structure, or to erect, install, enlarge, alter, *repair*, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be performed, shall first make application to the *building official* and obtain the required *permit*. The building official may exempt permits for minor work.

Commentary: This gives the authority to exempt permits for work that is considered minor enough to not require inspections.

[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:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area is not greater than 200 +20 square feet (18.6 ++ m²). placement permit is required by the zoning division.
2. Fences not over 7 feet (2134 mm) high. A fence permit is required by the zoning division.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom grade elevation 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 (18,927 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*. A driveway permit is required by the zoning division.
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 18 24 inches (457 610 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. Swings 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.

Electrical:

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

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.

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.

Gas:

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

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.

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 such repairs do not involve or require the replacement or rearrangement of valves, pipes, or fixtures.

Commentary: The exemption for permit issuance for small storage sheds is not consistent with the Residential Code, such that the same area exemption for commercial storage sheds as for residential storage sheds is applicable, 200 square feet. Even though a building permit is not required, a zoning placement permit is nevertheless required; fences do not require a building permit, but there is a reference that a zoning permit is nevertheless required; the height of a retaining wall that is exempt from permit issuance is clarified as the amount of grade that it supports, not from the bottom of the footing; the Zoning division requires permits for driveways; based on established ordinances for fence enclosures for pools, the exemption is 18 inches in water depth.

[A] 107.1 **General.** Submittal documents consisting of one complete set of hard copy plans with an additional hard copy site submittal and an electronic submittal in PDF format along with other construction documents, statement of *special inspections*, geotechnical report and other data shall be submitted ~~in two or more sets~~ with each *permit* application. The *construction documents* shall be prepared by a *registered design professional* where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the *building official* is authorized to require additional *construction documents* to be prepared by a *registered design professional*.

Exception: The *building official* is authorized to waive the submission of *construction documents* and other data not required to be prepared by a *registered design professional* if it is found that the nature of the work applied for is such that review of *construction documents* is not necessary to obtain compliance with this code.

Commentary: Upon new commercial submittals, this is to require not only a hard copy set of plans to accommodate the actual code review, but to include an electronic copy to insert into the electronic building plans file to be consistent with the new land management software systems.

[A] 107.3.1 **Approval of construction documents.** When the *building official* issues a *permit*, the *construction documents* shall be ~~approved, in writing or by stamp, as "Reviewed for Code Compliance."~~ reviewed for compliance. One set of *construction documents* so reviewed shall be retained by the *building official*. ~~The other set shall be returned to the applicant, shall be kept at the site of work and shall be open to inspection by the building official or a duly authorized representative.~~

Commentary: Building Services documents a written plan review and does not require that a second copy be returned to the permit holder.

[A] 108.1 **General.** The *building official* is authorized to issue a *permit* for temporary structures and temporary uses. Such *permits* shall be limited as to time of service, but shall not be permitted for more than ~~365~~ 180 days. ~~The building official is authorized to grant extensions for demonstrated cause.~~

13. When submittal documents are required by Section 106, a plan review fee shall be paid when it is deemed that a plan review is required. Said plan review fee shall be 25 percent of the building permit fee as specified on Table 1-B. The plan review fee specified herein is a separate fee from the building permit fee and is in addition to the building permit fee. When submittal documents are incomplete or changed so as to require additional plan review or when a project involves deferred submittals as defined in Section 106.3.4.2, an additional plan review fee may be charged at 25 percent of the building permit fee specified on Table 1-B.

Exception: Group R Division 3 and Group U occupancies.

109.7 Delinquent accounts. The city may refuse to issue permits or conduct inspections for any person or business whose account is delinquent.

Commentary: This inserts those fees to cover the costs of the work expended by Building Services staff, which includes plan review, inspections, administering permit issuance, and department overhead. No fee increases are included for this code cycle.

[A] **110.3.1 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. If an inspection is required ~~For~~ 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.

Commentary: The reference to foundation inspections is eliminated because foundation inspections do not occur.

[A] **111.2 Certificate issued.** After the *building official* inspects the building or structure and does not find violations of the provisions of this code or other laws that are enforced by the department of building safety, the *building official* shall issue a certificate of occupancy that contains the following:

1. The building *permit* number.

2. The address of the structure.

~~3. The name and address of the owner or the owner's authorized agent.~~

~~§ 3.~~ A statement that the described portion of the structure has been inspected for compliance with the requirements of this code for the occupancy and division of occupancy and the use for which the proposed occupancy is classified.

~~6 4.~~ The name of the *building official*.

~~7 5.~~ The edition of the code under which the *permit* was issued.

~~8~~ 6. The use and occupancy, in accordance with the provisions of Chapter 3.

~~9~~ 7. The type of construction as defined in Chapter 6.

~~10~~ 8. The design *occupant load*.

~~11~~ 9. If an *automatic sprinkler system* is provided, whether the sprinkler system is required.

~~12~~ 10. Any special stipulations and conditions of the building *permit*.

Commentary: This clarifies what is included on a Certificate of Occupancy for a new structure and is consistent with what Building Services has included from the legacy codes.

[A] **113.1 General.** In order to hear and decide appeals of orders, decisions or determinations made by the *building official* relative to the application and interpretation of this code and the fire code, to review all prospective changes to the respective codes and to submit recommendations to the responsible official and the city council, to review requests for house moves, and to examine applicants for licensing and to investigate matters brought before the board, there shall be and is hereby created a building board of appeals and examiners. The board of appeals shall be appointed by the mayor with consent of the city council applicable governing authority and shall hold office at its pleasure. The board shall adopt rules of procedure for conducting its business and shall render all decisions in writing to the appellant with a duplicate copy to the building and/or fire official.

Commentary: Whereas the primary purpose of the Building Board of Appeals and Examiners is to review interpretations of the Building and Fire Officials, these modifications include the additional responsibilities of the Board, which relates to review of ordinances, review of residential house moves, and review of residential licensure. This also clarifies that the members are appointed by the Mayor with the advice and consent of the Council and that any findings are referred to the appellant in writing.

[A] **113.2 Limitations on authority.** An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply or an equally good or better form of construction is proposed. The board shall not have authority relative to the administrative provisions of this code nor shall the board be empowered to waive requirements of this code.

Commentary: This language was in the legacy codes but not included in the International Codes. The purpose of the Board is to review technical determinations by the Building and Fire Code Officials, not administrative provisions.

[A] **114.3 Prosecution of violation.** If the notice of violation is not complied with promptly, the *building official* is authorized to request the legal counsel of the jurisdiction to deem the violation as a strict liability offense and institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the unlawful

occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto.

Commentary: The reference to strict liability offense is referenced in only one of the I-Codes but is legally applicable to any violation of a building code provision.

201.1 Scope. Unless otherwise expressly stated, the following words and terms shall, for the purposes of this code, have the meanings shown in this chapter. In addition, the following words and terms are being added and/or modified to the defined terms already incorporated by reference in Section 150.017 of this code.

FIRE AREA. The aggregate floor area enclosed and bounded by *fire walls, fire barriers, exterior walls or horizontal assemblies* of a building. ~~Areas of the building not provided~~

Commentary: A requirement to install automatic sprinkler systems is based on the fire area concept. Under the definition prior to the 2006 IBC, exterior walls were considered as the perimeter boundary for fire area compartments. The 2006 IBC included those areas beyond the exterior wall that are covered by a floor or roof above, such as a canopy extending from a building. The significance of the change could require an existing building to be sprinklered by a proposal to construct a covered roof or canopy, because additional fire area would be created. This continues the elimination of the requirement for the installation of an automatic fire-extinguishing system on an existing building that exceeds the threshold for sprinklers based on fire area where an open roofed structure or a canopy is constructed on a building that does not have sprinklers installed.

STRICT LIABILITY OFFENSE. An offense in which the prosecution in a legal proceeding is not required to prove criminal intent as a part of its case. It is enough to prove that the defendant either did an act which was prohibited or failed to do an act which the defendant was legally required to do.

Commentary: This term brings the code in line with the current legal terminology used in other codes with regard to the prosecution of violations. With this term, the prosecutor is not required to prove that code violations were intended by a defendant or were even due to negligence. It is difficult to prove such intentions or negligence in a court of law. This provision is located only in the Property Maintenance Code but is inserted into all of the adopted Building Services codes.

SWIMMING POOL. Any structure intended for swimming, recreational bathing or wading that contains water over ~~18.24~~ inches (~~457.610~~ mm) deep. This includes in-ground, aboveground and on-ground pools; hot tubs; spas and fixed-in place wading pools.

Commentary: This changes the national code to a local ordinance that mandates fence enclosures for swimming pools from a pool depth of 24 to 18 inches.

305.2.2 Twelve ~~Five~~ or fewer children. A facility having ~~twelve five~~ or fewer children receiving such day care shall be classified as part of the primary occupancy.

305.2.3 Twelve ~~Five~~ or fewer children in a dwelling unit. A facility such as the above within a dwelling unit and having ~~twelve five~~ or fewer children receiving such day care shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

308.6.4 Twelve Five or fewer persons receiving care in a dwelling unit. A facility such as the above within a *dwelling unit* and having ~~twelve~~ **five** or fewer persons receiving *custodial care* shall be classified as a Group R-3 occupancy or shall comply with the *International Residential Code*.

Commentary: This changes the threshold from 5 to 12 children that are allowed in a residential care facility to be consistent with the South Dakota State Division of Child Care Services.

[F] 501.2 Address identification. New and existing buildings shall be provided with *approved address identification*. The *address identification* shall be *legible* and *placed* in a *position that is visible from the street or road fronting the property*. *Address identification characters shall contrast with their background*. *Address numbers shall be Arabic numbers or alphabetical letters*. *Numbers shall not be spelled out*. Each character shall be a minimum of 4 inches (102 mm) *high with a minimum stroke width of 1/2 inch (12.7 mm)*. Where required by the *fire code official*, *address identification* shall be provided in additional approved locations to facilitate emergency response. **Multi-building campus/complex developments addressed on private or public streets shall be provided with signage at the entrance to the campus/complex indicative of the address ranges within.** Where access is by means of a private road and the building address cannot be viewed from the public way, a monument, pole or other approved sign or means shall be used to identify the structure. *Address identification* shall be maintained.

Commentary: To facilitate emergency response, this is intended to provide directional signage at the entrance for multi-building developments.

507.2.2 Property lines. Portions of an unlimited area building may be divided by *platted property lines* without requiring the construction of party walls if the whole building has:

1. Permanent open space on all sides as required by Sections 507.3, 507.4, 507.5; and
2. Proper legal agreements are submitted and approved by the building official and are recorded with the deed for each of the separate properties. These recorded agreements shall require that the buildings, as divided by property lines, be in conformance with the applicable provisions of the building and fire codes, as if the buildings were a single building on a single piece of property. In addition, the agreement must state that no individual building or property owner may modify any portion of the building in any way that would not be in compliance with the building and fire codes.

Commentary: The platting of a property line within an unlimited area building is outside of the scope of the IBC. If a building meets all of the requirements based on height, use, sprinklers, and fire access, this will allow the use of separate ownership and a platted property line to be utilized and not compromise the unlimited area provisions of the building code consistent with an otherwise allowable unlimited area building.

706.6.2 Buildings with sloped roofs. Where a *fire wall* serves as an interior wall for a building, and the roof on one side or both sides of the fire wall slopes toward the fire wall at a slope greater than 2 units vertical in 12 units horizontal (2:12), the *fire wall* shall extend to a height equal to the height of the roof located 4 feet (1219 mm) from the *fire wall* plus 30 inches (762 mm). In no case shall the extension of the fire wall be less than 30 inches (762 mm).

Exceptions: The fire wall may terminate at the underside of the roof sheathing, deck or slab of the lower roof, provided:

1. The roof assemblies within 10 feet (3048 mm) of the wall has not less than a 1-hour fire resistance rating and the entire length and span of supporting elements for the rated roof assembly has a fire-resistance rating of not less than 1 hour.
2. Openings in the roof on each side of the fire wall shall not be located within 10 feet (3048 mm) of the fire wall.

Commentary: Instead of mandating a parapet that would extend perpendicular to the slope of a roof to protect the possibility of fire spread over the top of a fire wall, this local provision will provide an alternate consistent with the same type of protection for a fire wall in a stepped building.

714.4.1.2 Through-penetration firestop system. *Through penetrations of the fire-resistive membrane shall be protected by an approved through-penetration firestop system installed and tested in accordance with ASTM E 814 or UL 1479, with a minimum positive pressure differential of 0.01 inch of water (2.49 Pa). The system shall have an F rating/T rating of not less than 1 hour but not less than the required rating of the floor penetrated.*

Exceptions: 1. Floor penetrations contained and located within the cavity of a wall above the floor or below the floor do not require a T rating.

2. Floor penetrations by floor drains, tub drains or shower drains contained and located within the concealed space of a horizontal assembly do not require a T rating.

3. Floor penetrations of maximum 4-inch (102 mm) nominal diameter penetrating directly into metal-enclosed electrical power switchgear do not require a T rating.

Commentary: *This clarifies the local policy, that through-penetration firestop systems are required at the fire-resistive membrane of a horizontal assembly, not at the floor. This will eliminate intumescent fire-stops at the floor such as plumbing drains.*

716.5.9 Door closing. *Fire doors shall be latching and self- or automatic-closing in accordance with this section.*

Exceptions: 1. *Fire doors* located in common walls separating *sleeping units* in Group R-1 shall be permitted without automatic- or *self-closing* devices.

2. The elevator car doors and the associated hoistway enclosure doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I emergency recall operation.

3. Interior doors located in exit enclosures, smoke proof enclosures, and exit passageways in Group R and I-1 occupancies shall be automatic closing fire door assemblies in accordance with NFPA 80 and controlled in accordance with NFPA 72.

Commentary: The Fire Prevention Division, which upon inspections of multi-story residential occupancies, continually finds stair enclosure doors held open by wood wedges. This proposes to require any door that serves as the last defense to prevent fire and/or smoke from entering into a vertical stair and smoke proof enclosures to be provided with an automatic door closing device that is either tied into a fire alarm or a smoke detector in the vicinity of the door. This provision will be applicable to stair enclosure doors in transient or non-transient residential occupancies and assisted living centers in new construction only.

[F] **903.2.6 Group I.** An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

Exceptions: 1. An automatic sprinkler system installed in accordance with Section 903.3.1.1 ~~903.3.1.2 shall be permitted~~ is required in Group I-1 Condition 1 or 2 facilities.

2. An automatic sprinkler system is not required where Group I-4 day care facilities are at the level of exit discharge and where every room where care is provided has not fewer than one exterior exit door.

3. In buildings where Group I-4 day care is provided on levels other than the level of exit discharge, an automatic sprinkler system in accordance with Section 903.3.1.1 shall be installed on the entire floor where care is provided, all floors between the level of care and the level of exit discharge, and all floors below the level of exit discharge other than areas classified as an open parking garage.

Commentary: This mandates that an automatic fire-extinguishing system that is installed in an assisted living center which houses elderly individuals to be a complete system, an NFPA 13 system, instead of a partial sprinkler system, an NFPA 13R system, that is allowed in a conventional apartment. The clientele in an assisted living center typically do not have the same capability of emergency response as compared to a conventional apartment, or for that matter an independent living center.

[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~~ Groups R-1 and R-4 fire areas and R-2 multifamily residences having a fire area of six or more dwelling units.

Commentary: Instead of requiring an automatic fire extinguishing system in all Group R occupancies which is required at the national level, this maintains the requirement to sprinkler all transient living facilities, Group R-1's, all assisted care living facilities up to 16 individuals, Group R-4's, all non-transient multi-housing facilities where there are six or more dwelling units in a fire area for Group R-2 occupancies.

[F] **903.3.1.1.1 Exempt locations.** Automatic sprinklers shall not be required in the following rooms or areas where such rooms or areas are protected with an approved automatic fire detection system in accordance with Section 907.2 that will respond to visible or invisible

particles of combustion. Sprinklers shall not be omitted from a room merely because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. A room where the application of water, or flame and water, constitutes a serious life or fire hazard.
2. A room or space where sprinklers are considered undesirable because of the nature of the contents, where approved by the fire code official. Such rooms shall be separated from the remainder of the building by fire barrier walls and horizontal assemblies having a fire-resistance rating of not less than two hours.
3. Generator and transformer rooms separated from the remainder of the building by walls and floor/ceiling or roof/ceiling assemblies having a *fire-resistance rating* of not less than two hours.
4. Rooms or areas that are of noncombustible construction with wholly noncombustible contents.
5. Fire service access elevator machine rooms and machinery spaces.
6. Machine rooms, machinery spaces, control rooms and control spaces associated with occupant evacuation elevators designed in accordance with Section 3008.

Commentary: In order to eliminate sprinklers in a room where the contents are not compatible with water, this modification requires that the room at least have a fire-resistive separation from the sprinklered to the nonsprinklered areas.

[F] **904.12.2 System interconnection.** The actuation of the fire suppression system shall automatically shut down the fuel and/or electrical power supply to the cooking equipment and all electrical receptacles located beneath the hood. The fuel and electrical supply reset shall be manual.

Commentary: This clarifies that the actuation of the fire suppressant in a Type I hood must shut down all electrical power to the cooking equipment and the electrical power supply to the hood.

[F] **907.2.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more.** Activation of the fire alarm in Group A occupancies with an *occupant load* of 1,000 or more shall initiate a signal using an emergency voice/alarm communications system in accordance with Section 907.5.2.2.

Exceptions: 1. Group A-3 occupancies used for religious worship.

2. Where *approved*, the prerecorded announcement is allowed to be manually deactivated for a period of time, not to exceed three minutes, for the sole purpose of allowing a live voice announcement from an *approved, constantly attended location*.

Commentary: This exempts the emergency voice/alarm communication system for a place of worship.

[F] 907.2.2 **Group B.** A manual fire alarm system shall be installed in Group B occupancies where one of the following conditions exists:

1. The combined Group B *occupant load* of all floors is 500 or more.
2. The Group B *occupant load* is more than 100 persons above or below the lowest *level of exit discharge*.
3. The *fire area* contains an ambulatory care facility.

4. The Group B occupancy has more than two occupied levels.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

Commentary: This mandates pull stations or manual fire alarms at the exit doors of office occupancies that exceed more than two occupied levels. This maintains the provision from the legacy code.

[F] 907.2.6.2 **Group I-2.** An automatic smoke detection system shall be installed in *corridors* in Group I-2 Condition 1 facilities and spaces permitted to be open to the *corridors* by Section 407.2. The system shall be activated in accordance with Section 907.4. Group I-2 Condition 2 occupancies shall be equipped with an automatic smoke detection system as required in Section 407.

Exception: ~~+~~ Corridor smoke detection is not required in smoke compartments that contain sleeping units where such units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each sleeping unit and shall provide an audible and visual alarm at the care providers' station attending each unit.

Smoke detectors installed as part of an intelligent or addressable fire alarm system capable of annunciation of room origin at a constantly attended location shall be acceptable.

~~2. Corridor smoke detection is not required in smoke compartments that contain sleeping~~

Commentary: This clarifies that smoke detectors tied into a technologically advanced intelligent or addressable fire alarm is an acceptable alternative for corridor smoke detection in a hospital or similar use.

[F] 907.2.8.2 **Automatic smoke detection system.** An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed throughout all interior *corridors* serving *sleeping units* and at the top of each stairwell.

Exception: An automatic smoke detection system is not required in buildings that do not have interior *corridors* serving *sleeping units* and where each *sleeping unit* has a *means of egress* door opening directly to an *exit* or to an exterior *exit access* that leads directly to an *exit*.

Commentary: A critical location for a smoke detector that provides emergency notification is in either the exit access stair or the stair exit. This requires an additional smoke detector at the top of a stairwell in transient residential occupancies, hotels, and motels.

[F] 907.2.8.4 Heat detectors. Heat detectors shall be installed in each attic subdivision or similar areas not otherwise covered by an automatic fire-extinguishing system.

Exceptions:

1. Heat detection is not required in areas protected by an automatic fire-extinguishing system installed in accordance with Section 903.3.1.1 or in addition to the requirements of Section 903.3.1.2.
2. Heat detectors are not required where the fire partitions extend into and through the interstitial attic space.

Commentary: This maintains the local amendment for heat detector requirements except where sprinklers are installed, and additionally clarifies the policy that heat detectors are not required in an attic area where the fire partitions that separate the dwelling units extend into and through the attic area.

[F] 907.2.9 Group R-2. Fire alarm systems and smoke alarms shall be installed in Group R-2 occupancies as required in Sections 907.2.9.1 through ~~907.2.9.3~~ 907.2.9.5.

Commentary: This simply adds the two sections that are locally added to the section that defines fire alarm and smoke alarm systems in apartments.

[F] 907.2.9.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-2 occupancies where any of the following conditions apply:

1. Any *dwelling unit* or *sleeping unit* is located three or more *stories* above the lowest level of exit discharge.
2. Any *dwelling unit* or *sleeping unit* is located more than one *story* below the highest level of exit discharge of exits serving the *dwelling unit* or *sleeping unit*.
3. The building contains more than 16 *dwelling units* or *sleeping units*.

4. The building contains four or more *dwelling units* or *sleeping units* above the level of exit discharge.

Exceptions: 1. A fire alarm system is not required in buildings not more than two *stories* in height where all *dwelling units* or *sleeping units* and contiguous *attic* and *crawl* spaces are separated from each other and public or common areas by not less than 1-hour *fire partitions* and each *dwelling unit* or *sleeping unit* has an *exit* directly to a *public way*, *egress court* or *yard*.

2. Manual fire alarm boxes are not required where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2 and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler water flow.

3. A fire alarm system is not required in buildings that do not have interior *corridors* serving *dwelling units* and are protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that *dwelling units* either have a *means of egress* door opening directly to an exterior *exit access* that leads directly to the *exits* or are served by open-ended *corridors* designed in accordance with Section 1027.6, Exception 3.

Commentary: This maintains the local requirement to install smoke and fire alarm notification for the residents where there are more than four dwelling units located above the level of exit discharge. This is carried over from previous legacy codes.

907.2.9.4 Smoke detectors. System smoke detection shall be provided in each stairway and all exit corridors.

Commentary: A critical location for a smoke detector which provides emergency notification is in either the exit access stair or the stair exit. This requires an additional smoke detector at the top of a stairwell in non-transient residential occupancies and multi-family apartments.

907.2.9.5 Heat detectors. Heat detectors shall be installed in each attic subdivision, any attached garages and similar areas not otherwise covered by an automatic fire-extinguishing system.

Exceptions:

1. Heat detection is not required in areas protected by an automatic fire-extinguishing system installed in accordance with Section 903.3.1.1 or in addition to the requirements of Section 903.3.1.2.
2. Heat detectors are not required where the fire partitions extend into and through the interstitial attic space.

Commentary: Heat detectors will no longer be required based on the installation of automatic fire-extinguishing systems within the dwelling units. In those areas that are not covered by an NFPA 13R, such as attics and garages, heat detectors will still be required. This also clarifies that heat detectors are not required in attics where a fire partition extends into and through the attic.

[M] **907.2.13.1.2 Duct smoke detection.** Duct smoke detectors complying with Section 907.3.1 shall be located as follows:

1. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm) (0.94 m³/s). Such detectors shall be located in a serviceable area downstream of the last duct inlet.

2. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-1 and R-2 occupancies, a smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cfm (2.4 m³/s) and serving not more than 10 air-inlet openings.

3. Duct smoke detectors installed more than 10 feet above a finished floor, above a ceiling, or on a rooftop shall be installed with remote test/indicators in an approved location below and in proximity to the unit served.

Commentary: To accommodate maintenance testing where a duct smoke detector is not located in an accessible location, this provision requires a remote test indicator to be placed in an approved location.

[F] **912.2.1 Visible location.** Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise *approved* by the fire chief code official. A weather-rated connected to the fire detection or sprinkler system shall be located not lower than 8 feet above the fire department connection and within 10 feet horizontally of the connection. The weather-rated horn/strobe must be visible from the fire lane or street.

Commentary: This defines the location of an exterior audible and visual alarm above the fire department connection and requires it to be visible from the street.

1005.3.1 Stairways. The capacity, in inches, of *means of egress stairways* shall be calculated by multiplying the *occupant load* served by such *stairways* by a means of egress capacity factor of 0.3 inch (7.6 mm) per occupant. Where *stairways* serve more than one story, only the occupant load of each story considered individually shall be used in calculating the required capacity of the *stairways* serving that story.

~~**Exceptions:** 1. For other than Group H and I-2 occupancies, the capacity, in inches, of *means of egress stairways* shall be calculated by multiplying the *occupant load* served by such *stairways* by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance~~

~~12. Facilities with *smoke-protected assembly seating* shall be permitted to use the factors in Table 1029.6.2 indicated for stepped aisles for *exit access* or *exit stairways* where the entire path for *means of egress* from the seating to the *exit discharge* is provided with a smoke control system complying with Section 909.~~

~~23. Facilities with outdoor *smoke-protected assembly seating* shall be permitted to the capacity factors in Section 1029.6.3 indicated for stepped aisles for *exit access* or *exit stairways* where the entire path for *means of egress* from the seating to the *exit discharge* is open to the outdoors.~~

1005.3.2 Other egress components. The capacity, in inches, of *means of egress* components other than *stairways* shall be calculated by multiplying the *occupant load* served by such component by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant.

Exceptions: ~~1. For other than Group II and I-2 occupancies, the capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.15 inch (3.8 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.~~

1.2. Facilities with *smoke-protected assembly seating* shall be permitted to use the capacity factors in Table 1029.6.2 indicated for level or ramped *aisles for means of egress* components other than *stairways* where the entire path for *means of egress* from the seating to the *exit discharge* is provided with a smoke control system complying with Section 909.

2.3. Facilities with outdoor *smoke-protected assembly seating* shall be permitted to the capacity factors in Section 1029.6.3 indicated for level or ramped *aisles for means of egress* components other than *stairways* where the entire path for *means of egress* from the seating to the *exit discharge* is open to the outdoors.

Commentary: The previous legacy codes never had a provision for reduced exit widths. The 2000 through the 2006 IBC reduced exit widths in buildings provided with an automatic fire extinguishing system, which was amended locally because there are emergency situations requiring rapid exiting for other than fire events. The 2009 IBC eliminated the exit width reduction and was consistent with our local amendment. The 2012- and 2015 IBC inserted the exit width reductions in sprinklered buildings with emergency voice communication alarms. This local amendment maintains that there is no reduction in required exit widths regardless of sprinklers or voice alarm communication systems.

1007.1.1 Two exits or exit access doorways. Where two *exits, exit access doorways, exit access stairways or ramps*, or any combination thereof **including the exit access**, are required from any portion of the *exit access*, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between them. Interlocking or *scissor stairways* shall be counted as one *exit stairway*.

Exceptions: 1. Where interior *exit stairways* or *ramps* are interconnected by a 1-hour fire-resistance-rated corridor conforming to the requirements of Section 1020, the required exit separation shall be measured along the shortest direct line of travel within the corridor.

2. Where a building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance shall be not less than one-third of the length of the maximum overall diagonal dimension of the area served.

Commentary: This maintains the clarification that where two means of exiting are required from an area, not only the doorways but the entire exit access is required to be remotely located such that if one door or exit access is blocked the other exit is available.

1007.1.2 Three or more exits or exit access doorways. Where access to three or more *exits* is required, not less than two *exit* or *exit access doorways* including the exit access shall be arranged in accordance with the provisions of Section 1007.1.1. Additional required *exit* or *exit access doorways* shall be arranged a reasonable distance apart so that if one becomes blocked, the others will be available.

Commentary: This maintains the clarification that where two means of exiting are required from an area, not only the doorways but the entire exit access is required to be remotely located such that if one door or exit access is blocked the other exit is available.

1010.1.7 Thresholds. Thresholds at doorways shall not exceed 3/4 inch (19.1 mm) in height above the finished floor or landing for sliding doors serving *dwelling units* or 1/2 inch (12.7 mm) above the finished floor or landing for other doors. Raised thresholds and floor level changes greater than 1/4 inch (6.4 mm) at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal (50-percent slope).

Exceptions: 1. In occupancy Group R-2 or R-3, threshold heights for sliding and side hinged exterior doors shall be permitted to be up to 8 73/4 inches (203 497 mm) in height if all of the following apply:

- 1.1. The door is not part of the required *means of egress*.
- 1.2. The door is not part of an *accessible route* as required by Chapter 11.
- 1.3. The door is not part of an *Accessible unit, Type A unit* or *Type B unit*.

Commentary: This maintains an 8-inch rise consistent with the Residential Code for the allowable height of a step down on an exterior door serving a dwelling unit.

1010.1.9.3 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exist:

1. Places of detention or restraint.

2. In buildings in occupancy Group A having an *occupant load* of 300 or less, Groups B, F, M and S, ~~and~~ in places of religious worship, and exterior decks allowed to have one exit where the exit access from the deck extends back into the building, the main door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:

2.1. The locking device is readily distinguishable as locked.

2.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background.

2.3. The use of the key-operated locking device is revocable by the *building official* for due cause.

3. Where egress doors are used in pairs, *approved* automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts does not have a doorknob or surface-mounted hardware.

4. Doors from individual *dwelling* or *sleeping units* of Group R occupancies having an *occupant load* of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.

5. *Fire doors* after the minimum elevated temperature has disabled the unlatching mechanism in accordance with *listed fire door* test procedures.

Commentary: *Exit access doors are required to be operable from an occupied space to allow exiting. Where a design provides exterior decks on commercial buildings, the code requires that the door be operable from the deck back into the building if there is no other exit access off the deck. This provides for a locking mechanism for security back into the building on a deck that does not require two means of exit access.*

1011.5.2 Riser height and tread depth. *Stair* riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum. The riser height shall be measured vertically between the *nosings* of adjacent treads. Rectangular tread depths shall be 11 inches (279 mm) minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's *nosing*. *Winder* treads shall have a minimum tread depth of 11 inches (279 mm) between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline and a minimum tread depth of 10 inches (254 mm) within the clear width of the *stair*.

Exceptions: 1. *Spiral stairways* in accordance with Section 1011.10.

2. *Stairways* connecting stepped *aisles* to cross *aisles* or concourses shall be permitted to use the riser/tread dimension in Section 1029.13.2.

3. In Group R-3 occupancies; within *dwelling units* in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual *dwelling units* in Group R-2 occupancies; the maximum riser height shall be ~~8 73/4~~ inches (203 497 mm); the minimum tread depth shall be 10 inches (254 mm); the minimum *winder* tread depth at the walkline shall be 10 inches (254 mm); and the minimum *winder* tread depth shall be 6 inches (152 mm). A *nosing* projection not less than 3/4 inch (19.1 mm) but not more than 1 1/4 inches (32 mm) shall be provided on *stairways* with solid risers where the tread depth is less than 11 inches (279 mm).

4. See Section 403.1 of the *International Existing Building Code* for the replacement of existing *stairways*.

5. In Group I-3 facilities, *stairways* providing access to guard towers, observation stations and control rooms, not more than 250 square feet (23 m²) in area, shall be permitted to have a maximum riser height of 8 inches (203 mm) and a minimum tread depth of 9 inches (229 mm).

Commentary: This maintains a maximum 8-inch rise consistent with the Residential Code for the allowable height of a stair tread serving a dwelling unit.

1015.4 Opening limitations. Required *guards* shall not have openings that allow passage of a sphere 5 4 inches (127 402 mm) in diameter from the walking surface to the required *guard* height.

Exceptions: ~~1. From a height of 36 inches (914 mm) to 42 inches (1067 mm), *guards* shall not have openings that allow passage of a sphere 43/8 inches (111 mm) in diameter.~~

1 2. The triangular openings at the open sides of a *stair*, formed by the riser, tread and bottom rail shall not allow passage of a sphere 6 inches (152 mm) in diameter.

2 3. At elevated walking surfaces for access to and use of electrical, mechanical or plumbing systems or equipment, *guards* shall not have openings that allow passage of a sphere 21 inches (533 mm) in diameter.

3 4. In areas that are not open to the public within occupancies in Group B, I-3, F, H, M or S, and for *alternating tread devices* and ships ladders, *guards* shall not have openings that allow passage of a sphere 21 inches (533 mm) in diameter.

4 5. In assembly seating areas, *guards* required at the end of aisles in accordance with Section 1029.16.4 shall not have openings that allow passage of a sphere 5 4 inches (127 402 mm) in diameter up to a height of 26 inches (660 mm). From a height of 26 inches (660 mm) to 42 inches (1067 mm) above the adjacent walking surfaces, *guards* shall not have openings that allow passage of a sphere 8 inches (203 mm) in diameter.

5 6. Within individual *dwelling units* and *sleeping units* in Group R-2 and R-3 occupancies, *guards* on the open sides of *stairs* shall not have openings that allow passage of a sphere 5 4 3/8 inches (127 411 mm) in diameter.

Commentary: This maintains the allowable opening dimension of a guard from a maximum of 4 inches in the IBC to 5 inches locally and is intended to be consistent with the Residential Code.

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 (6096 mm) in length.

Exceptions: 1. In occupancies in Group I-3 of Condition 2, 3 or 4, the dead end in a *corridor* shall not exceed 50 feet (15 240 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, 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*.

Commentary: Dead ends in corridors and passageways can seriously increase the time period for an occupant to locate the exits in an emergency situation. More importantly, dead ends will allow a single fire event to eliminate access to all of the exits by trapping the occupants in the dead-end area. Because assisted living centers, Group I-1, and group homes for the disabled, Group R-4, house individuals that may not be capable of responding adequately to an emergency evacuation due to age or disability, the increased dead-end corridor dimension is eliminated locally.

1023.8 Discharge identification. An interior exit stairway and ramp shall not continue below its level of exit discharge unless an approved barrier or a directional exit sign is provided at the level of exit discharge to prevent persons from unintentionally continuing into levels below. Directional exit signs shall be provided as specified in Section 1013.

Commentary: This maintains the elimination of a redundant gate or barrier at a landing where a stair continues below the level of exit discharge due to the installation of an exit sign over the exterior door.

1030.2 Minimum size. Emergency escape and rescue openings shall have a minimum net clear opening of 5.0 ~~5.7~~ square feet (0.46 ~~0.53~~ m²).

~~**Exception:** The minimum net clear opening for grade floor emergency escape and rescue openings shall be 5 square feet (0.46 m²).~~

1030.3 Maximum height from floor. Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 48 ~~44~~ inches (1219 ~~1118~~ mm) measured from the floor.

1030.5.2 Ladders or steps. Window wells with a vertical depth of more than 48 ~~44~~ inches (1219 ~~1118~~ mm) shall be equipped with an approved permanently affixed ladder or steps. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76 mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center (o.c.) vertically for the full height of the window well. The ladder or steps shall not encroach into the required dimensions of the window well by more than 6 inches (152 mm). The ladder or steps shall not be obstructed by the *emergency escape and rescue opening*. Ladders or steps required by this section are exempt from the *stairway* requirements of Section 1011.

Commentary: These provisions maintain the local amendments consistent with the Residential Code that defines a 5 square foot openable area instead of multiple required areas for egress depending on the location of the window and maintains the 48-inch sill height and 48-inch height of the window well before a ladder is required.

1104.4 Multistory buildings and facilities. At least one *accessible route* shall connect each accessible story and mezzanine in multilevel buildings and facilities.

Exceptions: 1. An accessible route from an accessible level is not required in facilities that are less than three stories in height or have less than 3000 square feet (279 m²) per story to stories and mezzanines that have an aggregate area of not more than 3,000 square feet (278.7 m²) and are located above and below accessible levels. This exception shall not apply to:

1.1. Multiple tenant facilities of Group M occupancies containing five or more tenant spaces used for the sales or rental of goods and where at least one such tenant space is located on a floor level above or below the accessible levels;

1.2. Stories or mezzanines containing offices of health care providers (Group B or I);

1.3. Passenger transportation facilities and airports (Group A-3 or B); or

1.4. Government buildings.

2. Stories or mezzanines that do not contain accessible elements or other spaces as determined by Section 1107 or 1108 are not required to be served by an accessible route from an accessible level.

3. In air traffic control towers, an accessible route is not required to serve the cab and the floor immediately below the cab.

4. Where a two-story building or facility has one story or mezzanine with an occupant load of five or fewer persons that does not contain public use space, that story or mezzanine shall not be required to be connected by an accessible route to the story above or below.

Commentary: Instead of the more stringent scoping requirement for an accessible route to all floors of a building, this amendment matches the Americans with Disabilities Act to require an elevator or other means of providing an accessible route to all floors of a building.

1106.8 Signage. Accessible parking spaces and access aisles are required to be identified by signs. Signs shall be located at the head of accessible parking stalls and access aisles. The bottom of the lowest signs shall be located at least 60 inches above the pavement.

As referenced below, standard and van accessible parking space signs shall state, "RESERVED PARKING" and include the International Symbol of Accessibility; supplemental signage must additionally state, "STATE PERMIT OR LICENSE REQUIRED. \$100 MINIMUM FINE AND CLASS 2 MISDEMEANOR FOR VIOLATORS." A van accessible parking space must have additional signage stating, "VAN ACCESSIBLE." A van accessible access aisle must be provided with signage including the International Symbol of Accessibility which states, "WHEELCHAIR ACCESS AISLE. ABSOLUTELY NO PARKING."

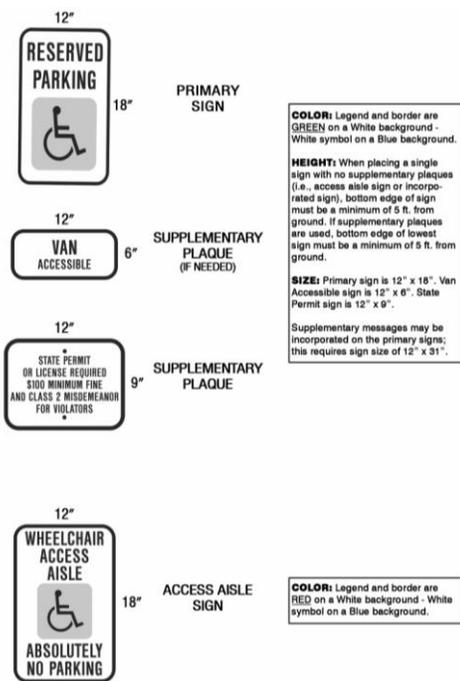
1106.9 Access aisles and markings. Each access that is part of an accessible route shall extend the full length of the parking space it serves. The aisle must have diagonally striped markings

spaced every 4 feet (1219 mm). Boundaries of the access aisle must be marked. The end may be a squared or curved shape. Two parking spaces may share an access aisle.

Access aisles shall be placed on a level surface with a slope not to exceed 1:48.

Where an access aisle is located immediately adjacent to a sidewalk that provides the closest accessible route, the sidewalk must be provided with a curb ramp access to serve the access aisle.

Commentary: *This maintains the local signage requirements for accessible parking stalls and access aisles.*



1107.6.2.2.1 Type A units. In Group R-2 occupancies containing more than 20 *dwelling units* or *sleeping units*, at least 2 percent but not less than one of the units shall be a *Type A unit*. All Group R-2 units on a *site* shall be considered to determine the total number of units and the required number of *Type A units*. *Type A units* shall be dispersed among the various classes of units. Bedrooms in monasteries and convents shall be counted as *sleeping units* for the purpose of determining the number of units. Where the *sleeping units* are grouped into suites, only one *sleeping unit* in each suite shall count towards the number of required *Type A units*.

Exceptions: 1. The number of *Type A units* is permitted to be reduced in accordance with Section 1107.7.

2. Existing structures on a site shall not contribute to the total number of units on a site.

3. The following provisions of the 2009 ICC/ANSI A117.1-2009 referenced in Section 1003 Type A Dwelling are applicable.

3.1 A work surface in the kitchen referenced in Section 1003.12.3 Clear Floor Space of ICC/ANSI A117.1-2009 is not required.

3.2 The reduced work height of the kitchen sink at 34 inches referenced in Section 1003.12.4.2 ICC/ANSI A117.1-2009 is not required.

3.3 Appliances referenced in Section 1003.12.5 Appliances ICC/ANSI A117.1-2009 and Laundry Equipment requires only the clear floor space referenced in Section 305 Clear Floor Space of ICC/ANSI A117.1-2009.

Commentary: Type A dwelling units incorporate certain features that provide more accessibility than a Type B dwelling unit. These amendments maintain certain items that the Multi-Housing Association requested as a compromise to better allow the use of the apartment for an individual with or without a disability.

1206.3.3 Court drainage. The bottom of every court shall be properly graded and drained to a public sewer or other approved disposal system complying with the ~~International~~ Plumbing Code.

Commentary: The IBC references court drainage requirements from the International Plumbing Code, which the City does not adopt. The Plumbing Code in ordinance references the adopted Uniform Plumbing Code.

[E] 1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the 2009 International Energy Conservation Code.

Commentary: This clarifies that the less stringent energy conservation provisions of the 2009 International Energy Conservation Code is the applicable standard for determining energy efficiency standards.

[P] 1503.4 Roof drainage. Design and installation of roof drainage systems shall comply with Section 1503 of this code ~~and Sections 1106 and 1108, as applicable, of the International shall be sized and discharge in accordance with the Plumbing Code. Unless roofs are sloped to drain over roof edges, roof drains or scuppers shall be installed at each low point of the roof.~~

Roofs shall be sloped a minimum of 1 unit vertical in 48 units horizontal (2 percent slope) for drainage unless designed for water accumulation in accordance with Section 1611.2 Ponding Instability.

Roof drainage water from a building shall not be allowed to flow over public property.

[P] 1503.4.1 Secondary (emergency overflow) drains or scuppers. Where roof drains are required, secondary (emergency overflow) roof drains or scuppers shall be provided where the roof perimeter construction extends above the roof in such a manner that water will be entrapped if the primary drains allow buildup for any reason. The installation and sizing of secondary emergency overflow drains, leaders and conductors shall comply with ~~Sections 1106 and 1108, as applicable, of~~ the ~~International Plumbing Code~~.

Commentary: The IBC references roof drainage requirements from the International Plumbing Code which the City does not adopt. The Plumbing Code in ordinance references the adopted Uniform Plumbing Code. The local modifications of 1503.4 inserts legacy code language relating to roof drains, roof slope, ponding, and flow over public property.

1601.1 Scope. The provisions of this chapter shall govern the structural design of buildings, structures, and portions thereof regulated by this code.

[It shall not be the responsibility of the building official to determine engineering requirements of this code. Exclusive of conventional light-frame wood construction provisions referenced in Section 2308, the method to resist loads as referenced in this chapter is the responsibility of a structural engineer or other qualified design professional.](#)

Commentary: Carries over clarification that other than “light-frame wood construction,” it is the responsibility of the structural engineer or other qualified design professional to determine structural analysis of a building.

1612.3 Establishment of flood hazard areas. To establish *flood hazard areas*, the applicable governing authority shall adopt a flood hazard map and supporting data. The flood hazard map shall include, at a minimum, areas of special flood hazard as identified by the Federal Emergency Management Agency in an engineering report entitled “The Flood Insurance Study for [the City of Sioux Falls](#)” dated [September 17, 1979](#), as amended or revised with the accompanying Flood Insurance Rate Map (FIRM) and Flood Boundary and Floodway Map (FBFM) and related supporting data along with any revisions thereto. The adopted flood hazard map and supporting data are hereby adopted by reference and declared to be part of this section. [If there is a conflict between the provisions of this code and the city’s floodplain management ordinance, the provisions of the floodplain management ordinance shall prevail.](#)

Commentary: This simply inserts “the City of Sioux Falls,” the date of the adopted flood-plain map, and a reference that the floodplain management ordinance overrides any provision found in the building code.

1703.1 Approved agency. An approved agency [or the design professional of record](#) shall provide all information as necessary for the *building official* to determine that the agency meets the applicable [requirements specified in Sections 1703.1.1 through 1703.1.3.](#)

Commentary: Instead of only the third-party special inspector submitting documentation which designates that the special inspection meets the provisions of the building code, this allows the design professional who ultimately needs to review and approve the special inspections to submit such documentation.

1704.2 Special inspections and tests. Where application is made to the building official for construction as specified in Section 105, the owner or the owner's authorized agent, other than the contractor, shall employ one or more approved agencies to provide special inspections and tests during construction on the types of work specified in Section 1705 and identify the approved agencies to the building official. These special inspections and tests are in addition to the inspections by the building official that are identified in Section 110.

Exceptions: 1. Special inspections and tests are not required for construction of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official.

2. Unless otherwise required by the building official, special inspections and tests are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.

3. Special inspections and tests are not required for portions of structures designed and constructed in accordance with the cold-formed steel light-frame construction provisions of Section 2211.7 or the conventional light-frame construction provisions of Section 2308.

4. The contractor is permitted to employ the approved agencies where the contractor is also the owner.

5. The frequency and amount of special inspections shall be as determined by the design professional of record. The continuous and periodic inspections referenced in Tables 1705.2.3, 1705.3, 1705.6, 1705.7 and 1705.8 are considered as guidelines.

Commentary: *This references the frequency of special inspections as a guideline.*

1705.3 Concrete construction. Special inspections and tests of concrete construction shall be performed in accordance with this section and Table 1705.3.

Exception: Special inspections and tests shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above grade plane that are fully supported on earth or rock.

2. Continuous concrete footings supporting walls of buildings three stories or less above grade plane that are fully supported on earth or rock where:

2.1. The footings and foundation walls support walls of light-frame construction.

2.2. The footings are designed in accordance with Table 1809.7.

2.3. The structural design of the footing is based on a specified compressive strength, $f'c$, not more than 3,000 2,500 pounds per square inch (psi) (20.6 17.2)

MPa), regardless of the compressive strength specified in the approved construction documents or used in the footing construction.

3. Nonstructural concrete slabs supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi (1.0 MPa).
4. Concrete foundation walls constructed in accordance with Table 1807.1.6.2.
5. Concrete patios, driveways and sidewalks, on grade.

Commentary: This increases the compressive strength from 2,500 psi to 3,000 psi to determine when mandatory concrete cylinder testing is required. It also references that special inspections of concrete wall reinforcing are not required for not only the footings but also the foundations for light-frame wood construction less than three stories in height.

1804.8 Grading permits required. No person shall excavate or grade without first obtaining a permit from the city engineer. If a building permit is not obtained, a separate grading permit must be obtained from the city engineer for each site and may cover both excavations and fills.

Exceptions:

1. A separate grading permit is not required from the city engineer where a site plan for a new building, structure, or addition is submitted for plan review where an excavation below finished grade for basements, footings, and foundations of a building, retaining wall, or other structure is authorized by a valid building permit.
2. A fill of less than 1 foot in depth and placed on natural terrain with a slope flatter than one unit vertical to five units horizontal (20 percent slope), or less than 3 feet (914 mm) in depth not intended to support structures, which does not exceed 300 cubic yards (229 m³) on any one lot and does not obstruct a drainage course.
3. Excavation, removal, or stockpiling of rock, sand, dirt, clay, or other like material as may be required by the state, county, or city authorities in connection with the construction or maintenance of roads and highways. This shall not exempt work for street construction when such work is performed by private developers. When the private developer has obtained a permit to perform site grading, a second permit will not be required for street grading.
4. When approved by the city engineer, grading in an isolated, self-contained area if there is no danger to public or private property.
5. Cemetery graves.
6. Refuse disposal sites controlled by other regulations.
7. Excavations for wells, tunnels, or utilities.

8. Mining, quarrying, excavating, processing, or stockpiling of rock, sand, gravel, aggregate, or clay where established and provided for by law, provided such operations do not affect the lateral support or increase the stresses in or pressure upon any adjacent or contiguous property.
9. Exploratory excavations under the direction of soils engineers or engineering geologists.
10. An excavation that (1) is less than 2 feet (610 mm) in depth; or (2) does not create a cut slope of less than 5 feet (1,524 mm) in height and steeper than 1 unit vertical in 1 1/2 units horizontal (66.7 percent slope).

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

1804.8.1 Grading permit requirements. Grading shall be performed in accordance with a grading plan approved by the city engineer. Submitted plans shall indicate existing elevations, proposed elevations, method of erosion control, and shall include the legal description.

Commentary: This defines the grading permit process that the city engineers utilize and is carried over from code cycle to code cycle.

1806.2 Presumptive load-bearing values. The load-bearing values used in design for supporting soils near the surface shall not exceed the values specified in Table 1806.2 unless data to substantiate the use of higher values are submitted and *approved*. Where the *building official* has reason to doubt the classification, strength or compressibility of the soil, the requirements of Section 1803.5.2 shall be satisfied.

Presumptive load-bearing values shall apply to materials with similar physical characteristics and dispositions. Where a presumed soil-bearing capacity is in excess of 3,000 psf (471 kPa/m) data to substantiate the use of the presumed higher value must be submitted from a soils engineer for approval from the building official. Mud, organic silt, organic clays, peat or unprepared fill shall not be assumed to have a presumptive load-bearing capacity unless data to substantiate the use of such a value are submitted.

Exception: A presumptive load-bearing capacity shall be permitted to be used where the *building official* deems the load-bearing capacity of mud, organic silt or unprepared fill is adequate for the support of lightweight or temporary structures.

Commentary: This calls for verification of soils capacity by a soils test when there is an engineered presumption of 3000 psf or greater.

1809.5 Frost protection. Except where otherwise protected from frost, foundations and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

1. Extending below the frost line of the locality.

2. Constructing in accordance with ASCE 32.

3. Erecting on solid rock.

Exception: Free-standing buildings meeting all of the following conditions shall not be required to be protected:

1. Assigned to *Risk Category I*.
2. Area of ~~1500~~ square feet (~~139.56~~ m²) or less for light frame construction or 400 square feet (37 m²) or less for other than light-frame construction.
3. Eave height of 10 feet (3048 mm) or less. Shallow foundations shall not bear on frozen soil unless such frozen condition is of a permanent character.

Commentary: This increases the threshold for a floating slab to not require frost depth footings for an unoccupied building from 400 square feet to 1,500 square feet.

[P] 2901.1 Scope. The provisions of this chapter and the *International Plumbing Code* shall govern the erection, installation, *alteration*, repairs, relocation, replacement, addition to, use or maintenance of plumbing equipment and systems. Toilet and bathing rooms shall be constructed in accordance with Section 1210. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the *International Plumbing Code*. Private sewage disposal systems shall conform to the *International Private Sewage Disposal Plumbing Code*.

Commentary: This eliminates the reference to the International Plumbing Code.

**[P] TABLE 2902.1
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES ^a
(See Sections 2902.1.1 and 2902.2)**

NO.	Classification	Occupancy	Description	Water Closet		Lavatories		Bathtubs/ Showers	Drinking Fountain	Other
				Male	Female	Male	Female			
1	Assembly	A-4	Coliseums, arenas, skating rinks, pools, and tennis courts for indoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,500 and 1 per 60 for the remainder exceeding 1,500	1 per 200	1 per 150	—	1 per 1,000	1 service sink
		A-4	Stadiums, amusement parks, bleachers, and grandstands for outdoor sporting events and activities	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,500 and 1 per 60 for the remainder exceeding 1,500	1 per 200	1 per 150	—	1 per 1,000	1 service sink

Commentary: This is intended to simplify how the minimum number of plumbing fixtures is determined and reduces the cost burden on smaller facilities. The code without the local amendment calls for more plumbing fixtures in an arena or grandstand where the seating does not exceed 1500,

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such as a high school or college venue, but reduces the fixture count for anything larger. This simply mandates the same fixture count for a smaller venue as a larger venue.

[P] 2902.1.2 Unisex and family or assisted-use toilet and bath fixtures. Fixtures located within unisex and family or assisted-use toilet and bathing rooms required by Section 1109.2.1 are permitted to be included in the number of required fixtures for either the male or female occupants ~~in assembly and mercantile occupancies.~~

2902.1.3 Substitution for water closets. In a toilet room or bathroom, urinals shall not be substituted for more than 67 percent of the required water closets.

2902.1.4 Drinking fountains. Where water is served in restaurants or where bottled water is served in other occupancies, drinking fountains shall not be required. Drinking fountains shall not be installed in public restrooms.

Commentary: This carries over the legacy provisions to be able to count the fixtures located within a unisex bathroom for the total fixtures required for each sex; defines that not more than two-thirds of the required toilet fixtures are allowed to be urinals for men; and clarifies the location of drinking fountains and that drinking fountains are not required in restaurants.

[P] 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 less.

4. Separate facilities shall not be required in office occupancies in which the maximum occupant load is 25 or less.

Commentary: This eliminates the requirement for separate toilet facilities for each sex in a small office space. The threshold for separate facilities is increased from 1500 square feet to 2500 square feet locally.

3109.1 General. Swimming pools shall comply with the requirements of Sections 3109.2 through 3109.5 and other applicable sections of this code. These requirements shall be applicable to all new swimming pools hereafter constructed and shall apply to all existing pools that have a depth of 18 inches or more of water. No person in possession of land within the city, either as an owner, purchaser, lessee, tenant, or a licensee, upon which is situated a swimming pool having a depth of 18 inches or more, shall fail to provide and maintain such a fence or wall as herein provided.

3109.4.1 Barrier height and clearances. The top of the barrier shall be not less than ~~42~~ ⁴⁸ (1,066 ~~1,219~~ mm) above grade measured on the side of the barrier that faces away from the pool. The vertical clearance between grade and the bottom of the barrier shall be not greater than 2 inches (51 mm) measured on the side of the barrier that faces away from the swimming pool. Where the top of the pool structure is above grade, the barrier is authorized to be at ground level or mounted on top of the pool structure, and the vertical clearance between the top of the pool structure and the bottom of the barrier shall be not greater than 4 inches (102 mm).

3109.4.1.3 Closely spaced horizontal members. ~~Not adopted by the city. Where the barrier is~~

3109.4.1.4 Widely spaced horizontal members. ~~Not adopted by the city. Where the barrier is~~

3109.4.1.5 Chain-link dimensions. ~~Not adopted by the city. Mesh size for chain link fences~~

3109.4.1.6 Diagonal members. ~~Not adopted by the city. Where the barrier is composed of~~

3109.4.1.7 Gates. Access doors or gates shall comply with the requirements of Sections

3109.4.1.1 through 3109.4.1.6 and shall be equipped to accommodate a locking device.

Pedestrian access doors or gates ~~shall open outward away from the pool and~~ shall be self-closing and have a self-latching device. Doors or gates other than pedestrian access doors or gates shall have a self-latching device. ~~Release mechanisms shall be in accordance with Sections 1010.1.9 and 1109.13. Where the release mechanism of the self-latching device is located less than 54 inches (1372 mm) from the bottom of the door or gate, the release mechanism shall be located on the pool side of the door or gate 3 inches (76 mm) or more, below the top of the door or gate, and the door or gate and barrier shall be without openings greater than 1/2 inch (12.7 mm) within 18 inches (457 mm) of the release mechanism.~~

3109.4.1.8 Dwelling wall as a barrier. ~~Not adopted by the city. Where a wall of a dwelling~~

~~3. Other means of protection, such as self-closing doors with self-latching devices, which are~~

3109.4.4 Modifications. Modification in individual cases, upon a showing of good cause with respect to height, nature, or location of a fence, wall, gates, or latches, or the necessity thereof, may be made by the building official, provided the protection as sought hereunder is not reduced thereby. The building official may grant permission for other protective devices or structures to be used as long as the degree of protection afforded by this substitute device or structure is not less than the protection afforded by the wall, fence, gate, or latch described herein. A reasonable period within which to comply with the requirements of this section for existing swimming pools shall be allowed, which period shall not exceed 90 days after notification by the building official.

Commentary: This carries over the requirement of a minimum 42-inch-high barrier including self-closing and self-latching gates for swimming pools and is consistent with the Residential Code.

Section 3112. Prefabricated construction.

3112.1. General.

3112.1.1 Purpose. The purpose of this section is to regulate materials and establish methods of safe construction where any structure or portion thereof is wholly or partially prefabricated.

3112.1.2 Scope. Unless otherwise specifically stated in this section, all prefabricated construction and materials used therein shall conform to all the requirements of this code.

3112.1.3 Definitions.

Prefabricated assembly is a structural unit, the integral parts of which have been built or assembled prior to incorporation in the building.

Prefabricated structures are structures, the parts of which are fabricated and assembled in a central assembly point, where on-site building, electrical, plumbing, and mechanical rough-in inspections occur at the assembly location.

3112.2 Tests of materials. Every approval of a material not specifically mentioned in this code shall incorporate as a proviso the kind and number of nationally recognized tests to be made.

3112.3 Tests of assemblies. The building official may require special tests to be made on assemblies to determine their durability and weather resistance.

3112.4 Connections. Every device used to connect prefabricated assemblies shall be designed as required by this code and shall be capable of developing the strength of the members connected, except in the case of members forming part of a structural frame as specified in Chapter 16. Connections shall be capable of withstanding uplift forces as specified in this code and in Chapter 16.

3112.5 Pipes and conduits. In structural design, due allowance shall be made for any material to be removed for the installation of pipes, conduit, and other equipment.

3112.6. Permits, materials, plans, fees, certificate, and inspections.

3112.6.1 Materials. Materials and the assembly thereof shall be inspected to determine compliance with this code. Every material shall be graded, marked, or labeled as required elsewhere in this code.

3112.6.2 Plans. One complete set of plans and specifications shall be submitted to the building inspection division of planning and building services for approval prior to issuing a building permit for a prefabricated structure. Plans shall be of sufficient detail and clarity to indicate compliance with all applicable codes (electrical, plumbing, building, mechanical, and zoning).

3112.6.3 Permits and fees. Permit fees shall be as follows:

1. The fee for a building permit shall conform to Tables 1-A and 1-B, and the plan review fee, if applicable, shall be in accordance with Table 1-C.
2. Electrical, plumbing, and mechanical permits and fees shall conform to the respective permit requirements and fee schedules.

3112.6.4 Certificate. A certificate of approval shall be furnished with every prefabricated assembly and prefabricated structure, except where the assembly is readily accessible to inspection at the site. The certificate of approval shall certify that the assembly in question has

been inspected and meets all the requirements of this code. When mechanical equipment is installed so that it cannot be inspected at the site, the certificate of approval shall certify that such equipment complies with the laws applying thereto.

3112.6.5 Certifying agency. To be acceptable under this code, every certificate of approval shall be made by the approved agency.

3112.6.6 Field erection. The building official shall inspect placement of prefabricated assemblies at the building site to determine compliance with this code. Installation and finishing work at the building site must be performed by locally licensed contractors where required. Final inspections are to be made after the installation and finishing work has been completed and the building is ready for occupancy.

3112.6.7 Continuous inspection. If continuous inspection is required for certain materials where construction takes place on the site, it shall also be required where the same materials are used in prefabricated construction.

Exception: Continuous inspection will not be required during prefabrication if the approved agency certifies to the construction and furnishes evidence of compliance.

3112.6.8 Moving permits. A moving permit shall be obtained for each prefabricated structure being moved within the city in accordance with Section 3404 Moved Buildings. No person except a building mover licensed pursuant to subsection 3404.2 of Section 150.017 of the Code of Ordinances of Sioux Falls shall move a prefabricated structure or part thereof across, along, or over public property.

Commentary: This carries over the legacy code standards relating to prefabricated construction being located within the city limits.

3303.1 Construction documents. No person shall demolish or wreck a building or structure without first obtaining a razing permit. Permit fees shall be paid in accordance with Item 5 of Table 3-C. Construction documents and a schedule for demolition shall be submitted where required by the building official. Where such information is required, no work shall be done until such construction documents or schedule, or both, are approved. The applicant shall secure insurance covering any possible liability that could incur during demolition.

3303.6 Utility connections. Service utility connections shall be discontinued and capped in accordance with the approved rules and the requirements of the applicable governing authority.

Before a razing permit can be issued, the applicant must furnish approval from the city engineering department that applicable permits have been secured to ensure that all utilities will be properly disconnected and inspected as per city engineer's specifications. The applicant shall be responsible for notifying other utilities of such anticipated demolition.

Commentary: This clarifies the process for the issuance of a razing permit.