

## ***INTERNATIONAL BUILDING CODE***

### **§ 150.015 ADOPTED.**

- (a) The *International Building Code*, 2021 edition, including Appendix C, Appendix I, and Appendix O 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*, 2021 edition, will become effective January 1, 2022. The minimum building standards in the 2021 edition of the *International Building Code* and amendments thereto shall be applied to any building permit issued after December 31, 2021.
- (c) The city shall publish this ordinance, without attachments, after its passage. The attachments are on file and available for inspection at the office of the city clerk.

### **§ 150.016 CONFLICTS.**

In the event of any conflict between the provisions of the code adopted by this subchapter and applicable provisions of this Code of Ordinances, state law or city ordinance, rule or regulation, the provisions of this Code of Ordinances, state law or city ordinance, rule or regulation shall prevail and be controlling.

### **§ 150.017 AMENDMENTS, ADDITIONS, AND DELETIONS TO THE 2021 *INTERNATIONAL BUILDING CODE.***

The following sections and subsections of the 2021 *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 2021 *International Building Code* as published shall remain the same.

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

***Commentary: This is a carryover from the 2018 code. This simply inserts that these local modifications are applicable to the “city of Sioux Falls.”***

[A] **101.4.1 Gas.** The provisions of the *International Fuel Gas Code* [or the plumbing code](#) shall apply to the installation of gas piping from the point of delivery, gas appliances, and related accessories as covered in this code. These requirements apply to gas piping systems extending from the point of delivery to the inlet connections of appliances and the installation and operation of residential and commercial gas appliances and related accessories.

***Commentary: This allows the contractor to utilize either the International Fuel Gas Code or the Uniform Plumbing Code.***

[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: This is a carryover from the 2018 code. 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.*

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: This is a carryover from the 2018 code. Section 101.4 of the IBC references those codes that are adopted accessory to the building code; however, the 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~~ Building services is hereby created and the official in charge thereof shall be known as the *building official*. The function of the agency shall be the implementation, administration, and enforcement of the provisions of this code.

*Commentary: This is a carryover from the 2018 code. 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 a carryover from the 2018 code. This is eliminated because the building official is not an appointed position.*

[A] **104.8 Liability.** The building official, member of the board of appeals, or employee charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be civilly or criminally rendered liable personally and is hereby relieved from personal liability for any damage accruing to persons or property as a result of any act or by reason of an act or omission in the discharge of official duties.

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: 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] **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.

***Commentary: This is a carryover from the 2018 code. 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.***

[A] **104.10.1 Flood hazard areas.** The ~~building official~~ [floodplain administrator](#) shall not grant modifications to any provision required in flood hazard areas as established by ~~Section 1612.3~~ [Chapter 156: Floodplain Management](#), unless a determination has been made that:

1. A showing of good and sufficient cause that the unique characteristics of the size, configuration, or topography of the site render the elevation standards of ~~Section 1612~~ [Chapter 156: Floodplain Management](#), inappropriate.
2. A determination that failure to grant the variance would result in exceptional hardship by rendering the lot undevelopable.
3. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, cause fraud on or victimization of the public, or conflict with existing laws or ordinances.
4. A determination that the variance is the minimum necessary to afford relief, considering the flood hazard.
5. Submission to the applicant of written notice specifying the difference between the design flood elevation and the elevation to which the building is to be built, stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation, and stating that construction below the design flood elevation increases risks to life and property.

***Commentary: This is a carryover from the 2018 code. This inserts the Floodplain Administrator, not the Building Official, has the ability to grant modifications; and that the floodplain management ordinance overrides any provision found in the building 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 is a carryover from the 2018 code. 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 that the floor area is not greater than ~~120-200~~ square feet (~~11-18.6~~ m<sup>2</sup>). [A placement permit is required by the zoning division.](#)
2. Fences not over 7 feet (2,134 mm) high. [A fence permit is required by the zoning division.](#)
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1,219 mm) in height measured from the bottom of the ~~footing~~ [grade elevation](#) to the top of the wall, unless supporting a surcharge or impounding Class I, II, or IIIA liquids.
5. Water tanks supported directly on grade if the capacity is not greater than 5,000 gallons (18,925 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Sidewalks and driveways not more than 30 inches (762 mm) above adjacent grade, and not over any basement or *story* below and are not part of an *accessible route*. [A driveway permit is required by the zoning division.](#) [A sidewalk permit is required by the engineering division.](#)
7. Painting, papering, tiling, carpeting, cabinets, countertops, and similar finish work.
8. Temporary motion picture, television, and theater stage sets and scenery.
9. Prefabricated *swimming pools* accessory to a Group R-3 occupancy that are less than 24 inches (610 mm) deep, ~~are not greater than 5,000 gallons (18,925 L) and are installed entirely above ground.~~
10. Shade cloth structures constructed for nursery or agricultural purposes, not including service systems.
11. 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 (1,372 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 (1,753 mm) in height.

**Electrical:**

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

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

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

***Commentary: This is a carryover from the 2018 IBC. 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 24 inches in water depth. The Engineering Division requires a permit for sidewalks.**

**105.3 Application for permit.** To obtain a *permit*, the applicant shall first file an application therefor in writing on a form ~~furnished by the department of building safety~~ for that purpose. Such application shall:

1. Identify and describe the work to be covered by the *permit* for which application is made.
2. Describe the land on which the proposed work is to be done by legal description, street address, or similar description that will readily identify and definitely locate the proposed building or work.
3. Indicate the use and occupancy for which the proposed work is intended.
4. Be accompanied by *construction documents* and other information as required in Section 107.
5. State the valuation of the proposed work.
6. Be signed by the applicant, or the applicant's authorized agent.
7. Give such other data and information as required by the *building official*.

**Commentary: This paragraph was modified as many times the information needed for the permit is submitted on forms that are not furnished by building services.**

[A] **107.1 General.** Submittal documents consisting of one complete set of plans in 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 or in a digital format where allowed by the building official,~~ 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 commercial submittals, this is to require a set of electronic plans in a PDF format to accommodate the actual code review. This removes the requirement to submit hard copies of plans. This is in line with the advancements that building services has made in the electronic plan review process.**

[A] **107.3.1 Approval of construction documents.** When the *building official* issues a *permit*, the *construction documents* shall be reviewed for compliance. ~~approved, in writing or by stamp, as~~

~~“Reviewed for Code 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] **109.2 Schedule of permit fees.** On buildings, structures, electrical, gas, mechanical, and plumbing systems or *alterations* requiring a *permit*, a fee for each *permit* shall be paid as required, in accordance with the schedule as established by the applicable governing authority.

The fee schedules for the issuance of a building permit shall be as follows:

**Table No. 1-A. Residential Building Permit Fees**  
**Residential Building Permit Fees Group R Division 3s and Accessory Group U Occupancies**

<u>Total Valuation</u>	<u>Fee</u>
<u>\$1.00 to \$1,100.00</u>	<u>\$20.00</u>
<u>\$1,100.01 to \$2,000.00</u>	<u>For valuation in excess of \$1,100.00, \$10.00 for the first \$500.00, plus \$1.50 for each additional \$100.00 or fraction thereof, to and including \$2,000.00</u>
<u>\$2,000.01 to \$25,000.00</u>	<u>\$32.50 for the first \$2,000.00, plus \$6.00 for each additional \$1,000.00 or fraction thereof, to and including \$25,000.00</u>
<u>\$25,000.01 to \$50,000.00</u>	<u>\$170.50 for the first \$25,000.00, plus \$4.50 for each additional \$1,000.00 or fraction thereof, to and including \$50,000.00</u>
<u>\$50,000.01 to \$100,000.00</u>	<u>\$283.00 for the first \$50,000.00, plus \$3.00 for each additional \$1,000.00 or fraction thereof, to and including \$100,000.00</u>
<u>Greater than \$100,000.00</u>	<u>\$433.00 for the first \$100,000.00, plus \$2.50 for each additional \$1,000.00 or fraction thereof</u>

**Table No. 1-B. Commercial Building Permit Fees**  
**Commercial Building Permit Fees Groups A, B, E, F, H, I, M, S, Group R Divisions 1, 2, and 4 (including Group U’s accessory to the R-1, R-2, and R-4 occupancies)**

<u>\$1.00 to \$700.00</u>	<u>\$20.00</u>
<u>\$700.01 to \$2,000.00</u>	<u>For values in excess of \$700.00, \$15.00 for the first \$500.00 plus \$2.00 for each additional \$100.00 or fraction thereof, to and including \$2,000.00</u>
<u>\$2,000.01 to \$25,000.00</u>	<u>\$45.00 for the first \$2,000.00 plus \$9.00 for each additional \$1,000.00 or fraction thereof, to and including \$25,000.00</u>
<u>\$25,000.01 to \$50,000.00</u>	<u>\$252.00 for the first \$25,000.00 plus \$6.50 for each additional \$1,000.00 or fraction thereof, to and including \$50,000.00</u>
<u>\$50,000.01 to \$100,000.00</u>	<u>\$414.50 for the first \$50,000.00 plus \$4.50 for each additional \$1,000.00 or fraction thereof, to and including \$100,000.00</u>

<u>\$100,000.01 to \$500,000.00</u>	<u>\$639.50 for the first \$100,000.00 plus \$3.50 for each additional \$1,000.00 or fraction thereof, to and including \$500,000.00</u>
<u>Greater than \$500,000.00</u>	<u>\$2,039.50 for the first \$500,000.00 plus \$3.00 for each additional \$1,000.00 or fraction thereof</u>

**Table No. 1-C. Other Inspections and Fees**

1. Inspections outside of normal business hours, per hour\* (minimum charge one hour) .....\$70.00.
2. Reinspection fees, per hour\* (minimum charge one hour) .....\$70.00.
3. Inspections for which no fee is specifically indicated, per hour\* (minimum charge one-half hour) .....\$70.00.
4. Additional plan review required by changes, additions, or revisions to approved plans, per hour\* (minimum charge one-half hour) .....\$70.00.

\*Or the total hourly cost to the jurisdiction, whichever is the greater. This cost shall include supervision, overhead, equipment, hourly wages, and fringe benefits of the employees involved.

5. Wrecking (razing) permit .....\$20.00.
6. Swimming pool fence enclosures .....\$20.00.
7. Residential reshingle .....\$20.00.
8. Residential reside (Group R and U occupancies) .....\$20.00.
9. Residential window replacements with no structural modifications (Group R and U occupancies) .....\$20.00.
10. Board of appeals fees. Before the board takes any action, the party or parties requesting such hearing shall deposit with the secretary of the board, or authorized agent, \$65.00 to cover the approximate cost of the procedure. Under no condition shall said sum or any part thereof be refunded for failure of said request to be approved.

**Exception.** Appeals referred to the board from the *International Property Maintenance Code*.

11. A mileage fee based on the current rate per mile authorized by the Internal Revenue Service shall be charged for any inspection occurring outside city limits.
12. Residential contractor's license examination fee .....\$75.00
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.

14. Fee for late corrections. A \$100.00 administrative fee may be charged for failure to correct violations within the time specified on a contractor's correction report.

15. Fee for failure to request a required inspection. Where building construction work is completed without a request for an inspection, an administrative fee of \$250.00 may be charged.

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 is a carryover from the 2018 IBC. 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 C94, the concrete need not be on the job.

**Commentary: This is a carryover from the 2018 IBC. 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.~~

~~4. A description of that portion of the structure for which the certificate is issued.~~

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.

4. The name of the *building official*.

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

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

7. The type of construction as defined in Chapter 6.
8. The design *occupant load*.
9. If an *automatic sprinkler system* is provided, whether the sprinkler system is required.
10. Any special stipulations and conditions of the building *permit*.

**Commentary: This is a carryover from the 2018 IBC. This clarifies what is included on a Certificate of Occupancy for a new structure.**

[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 building official shall be an ex officio member of said board but shall not have a vote on any matter before the board. The board of appeals shall be appointed by the mayor with the 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 officials.

**Commentary: This is a carryover from the 2018 IBC. 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] **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: This is a carryover from the 2018 IBC. 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.

[BF] **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 with~~

~~surrounding walls shall be included in the fire area if such areas are included within the horizontal projection of the roof or floor next above.~~

**Commentary:** This is a carryover from the 2018 IBC. 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 is a carryover from the 2018 IBC. 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.

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

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

**308.5.4 ~~Five~~ Twelve or fewer persons receiving care in a dwelling unit.** A facility such as the above within a *dwelling unit* and having ~~five~~ twelve 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 is a carryover from the 2018 IBC. 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.

**310.4.2 Lodging houses.** Owner-occupied lodging houses with five or fewer guest rooms and 10 or fewer total occupants shall be permitted to be constructed in accordance with the *International Residential Code*, ~~provided that an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or Section P2904 of the International Residential Code.~~

**Commentary:** The last sentence was added in the 2021 IBC that requires a sprinkler system whereas SD Codified Law has taken the ability for us to require a sprinkler in this instance.

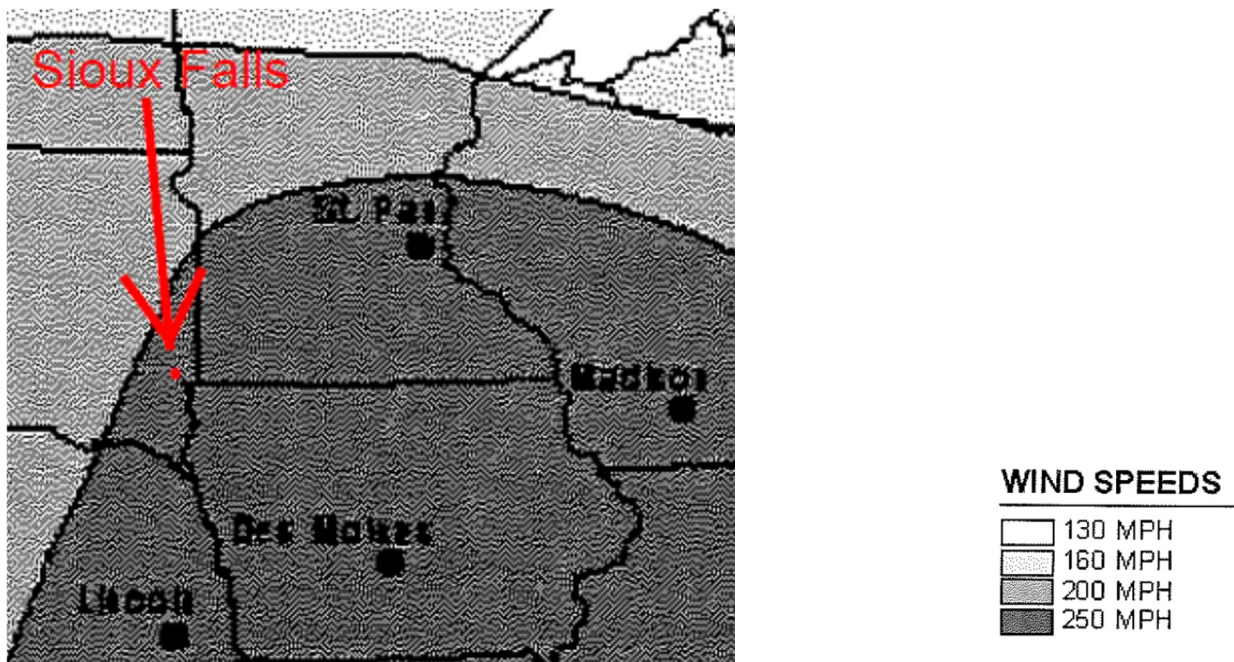
**423.5 Group E occupancies.** ~~In areas where the shelter design wind speed for tornadoes is 250 mph in accordance with Figure 304.2(1) of ICC 500,~~ All Group E occupancies with an occupant load of 50 or

more shall have a storm shelter constructed ~~in accordance with ICC 500~~ [to withstand a wind of 200 mph.](#)

**Exceptions:**

1. Group E day care facilities.
2. Group E occupancies accessory to places of religious worship.
3. Buildings meeting the requirements for shelter design in ICC 500.

**Commentary: This is a carryover from the 2018 IBC. The code would require a storm shelter to be installed for all Group E buildings constructed in Sioux Falls. The city of Sioux Falls is on the edge of the 250 mph wind category in accordance with Figure 304.2(1) of ICC 500. The storm shelter is to be constructed for 200 mph wind versus 250 mph wind.**



**[F] 502.1 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. [Multibuilding 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: This is a carryover from the 2018 IBC. To facilitate emergency response, this is intended to provide directional signage at the entrance for multibuilding developments.**

**603.1.2 Piping.** The use of combustible piping materials shall be permitted where installed in accordance with the limitations of the *International Mechanical Code* and the ~~International~~ Plumbing Code.

**Commentary:** This takes out the reference to the IPC as the state mandates the use of the UPC.

**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 ~~two~~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 (1,219 mm) from the *fire wall* plus 30 inches (762 mm). The extension of the *fire wall* shall be not less than 30 inches (762 mm).

Exception: 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 (3,048 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 (3,048 mm) of the fire wall.

**Commentary:** This is a carryover from the 2018 IBC. 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.

**714.5.1.2 Through-penetration fire-stop system.** Through penetrations of the fire-resistive membrane shall be protected by an *approved through-penetration fire-stop system* installed and tested in accordance with ASTM E814 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 metal conduit or tubing penetrating directly into metal-enclosed electrical power switchgear do not require a *T rating*.

**Commentary:** This is a carryover from the 2018 IBC. This clarifies the local policy that through-penetration fire-stop 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.

**716.2.6.1 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:** *This is a carryover from the 2018 IBC. The Fire Prevention Division, which upon inspections of multistory 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 smokeproof 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 nontransient residential occupancies and assisted living centers in new construction only.*

**717.5.2 Fire barriers.** Ducts and air transfer openings of fire barriers shall be protected with listed fire dampers installed in accordance with their listing. Ducts and air transfer openings shall not penetrate enclosures for interior exit stairways and ramps and exit passageways, except as permitted by Sections 1023.5 and 1024.6, respectively.

**Exceptions:** Fire dampers are not required at penetrations of fire barriers where any of the following apply:

1. Penetrations are tested in accordance with ASTM E119 or UL 263 as part of the fire-resistance-rated assembly.
2. Ducts are used as part of an approved smoke control system in accordance with Section 909 and where the use of a fire damper would interfere with the operation of a smoke control system.
3. Such walls are penetrated by fully ducted HVAC systems, have a required fire-resistance rating of 1 hour or less, are in areas of other than Group H<sub>2</sub> and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a fully ducted HVAC system shall be a duct system for conveying supply, return, or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than No. 26 gage thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals. Nonmetal flexible air ~~connectors~~ ducts shall be permitted in the following locations:

- 3.1. At the duct connection to the air handling unit or equipment located within the mechanical room in accordance with Section 603.9 of the *International Mechanical Code*.
- 3.2. From an overhead metal duct to a ceiling diffuser within the same room in accordance with Section 603.6.2 of the *International Mechanical Code*.

**Commentary:** *This is amended to match the requirements in the mechanical code that does not allow flexible air connectors, but does allow flexible air ducts.*

**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 903.3.1.2 ~~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 is a carryover from the 2018 IBC. This mandates that an automatic fire-extinguishing system that is installed in an assisted living center that 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-1 and R-4 fire areas and Group R-2 multifamily residences having six or more dwelling units.

**Commentary:** *This is a carryover from the 2018 IBC. 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-1s, all assisted care living facilities up to 16 individuals, Group R-4s, all nontransient multihousing facilities where there are six or more dwelling units in Group R-2 occupancies. The previous code amendments mentioned a fire area of six or more dwelling units that is eliminated as to maintain consistency with what was intended by the South Dakota Fire Marshal's office interpretation when it was originally put into the Administrative Rules of South Dakota.*

**ARSD 61:15:01:19. Automatic sprinkler system requirements.** An automatic sprinkler system shall be installed throughout any new hotel, motel, and multifamily residence housing six or more families as specified in Section 903 of the *International Building Code*, 2015 edition.

**[F]903.2.10 Group S-2 parking garages.** An *automatic sprinkler system* shall be provided throughout buildings classified as parking garages where any of the following conditions exists:

1. Where the fire area of the enclosed parking garage in accordance with Section 406.6 exceeds 12,000 square feet (1,115 m<sup>2</sup>).
2. Where the enclosed parking garage in accordance with Section 406.6 is located beneath other groups.

**Exception:** Enclosed parking garages located beneath Group R-3 occupancies.

- ~~3. Where the fire area of the open parking garage in accordance with Section 406.5 exceeds 48,000 square feet (4460 m<sup>2</sup>).~~

**Commentary:** Working in conjunction with Fire Prevention, it was determined that this is a bad requirement for our climate. Condensate will form over the years and eventually freeze and set off a head. In addition, there is a proposal to remove this in the 2024 codes.

**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 2 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 2 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:** This is a carryover from the 2018 IBC. 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] 903.3.1.2 NFPA 13R sprinkler systems.** Automatic sprinkler systems in Group R occupancies shall be permitted to be installed throughout in accordance with NFPA 13R where the Group R occupancy meets all of the following conditions:

1. Four stories or fewer above grade plane.
2. The floor level of the highest story is ~~30~~ 60 feet (~~9144~~ 18,288 mm) or less above the lowest level of fire department vehicle access.
3. The floor level of the lowest story is ~~30~~ 60 feet (~~9144~~ 18,288 mm) or less below the lowest level of fire department vehicle access.

The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 shall be measured from grade plane.

*Commentary: The 2021 IBC and IFC put a limitation in height of 30 feet and four stories for a NFPA-13R automatic sprinkler system to be utilized. Table 504.4 has always had a maximum height of four stories allowed and by changing the 30 feet to 60 feet matches up with Table 504.3 that has been the maximum height allowed for years. In addition, if the sprinkler contractor cannot provide hydraulic calculations where this wouldn't work, it wouldn't be allowed. This will also help keep the costs down for an apartment building.*

**[F] 903.3.5 Water supplies.** Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section and the ~~International~~ Plumbing Code. For connections to public waterworks systems, the water supply test used for design of fire protection systems shall be adjusted to account for seasonal and daily pressure fluctuations based on information from the water supply authority and as approved by the fire code official.

*Commentary: This takes out the reference to the IPC as the state mandates the use of the UPC.*

**[F] 904.13.2 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 is a carryover from the 2018 IBC. 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 3 minutes, for the sole purpose of allowing a live voice announcement from an *approved, constantly attended location*.

**Commentary:** *This is a carryover from the 2018 IBC. This exempts the emergency voice/alarm communication system for a place of worship.*

**907.2.2 Group B.** A manual fire alarm system, which activates the occupant notification system in accordance with Section 907.5, 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 is a carryover from the 2018 IBC. This mandates pull stations or manual fire alarms at the exit doors of office occupancies that exceed more than two occupied levels.*

**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.

**Exceptions:**

1. ~~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 units where sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.~~

**Commentary:** *This is a carryover from the 2018 IBC. 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:** This is a carryover from the 2018 IBC. 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] 907.2.9 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 907.2.9.34.

**Commentary:** This is a carryover from the 2018 IBC. 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 is a carryover from the 2018 IBC. 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.

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

**Commentary:** This is a carryover from the 2018 IBC. 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 nontransient residential occupancies and multifamily apartments.

**[F] 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 m<sup>3</sup>/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 m<sup>3</sup>/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:** This is a carryover from the 2018 IBC. 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] 907.5 Occupant Notification.** Occupant notification by fire alarms shall be in accordance with Sections 907.5.1 through 907.5.2.3.3. Occupant notification by smoke alarms in Group R-1 ~~and R-2~~ occupancies shall comply with Section 907.5.2.1.3.2.

**[F] 907.5.2.1.3 Audible signal frequency in Group R-1 ~~and R-2~~ sleeping rooms.** Audible signal frequency in Group R-1 ~~and R-2~~ occupancies shall be in accordance with Sections 907.5.2.1.3.1 and 907.5.2.1.3.2.

**[F] 907.5.2.1.3.1 Fire alarm system signal.** In sleeping rooms of Group R-1 ~~and R-2~~ occupancies, the audible alarm activated by a fire alarm system shall be a 520-Hz low-frequency signal complying with NFPA 72.

**[F] 907.5.2.1.3.2 Smoke alarm signal in sleeping rooms.** In sleeping rooms of Group R-1 ~~and R-2~~ occupancies that are required by Section 907.2.8 or 907.2.9 to have a fire alarm system, the audible alarm signal activated by single- or multiple-station smoke alarms in the dwelling unit or sleeping unit shall be a 520-Hz signal complying with NFPA 72. Where a sleeping room smoke alarm is unable to

produce a 520-Hz signal, the 520-Hz alarm signal shall be provided by a listed notification appliance or a smoke detector with an integral 520-Hz sounder.

**Commentary: This was an addition to the 2021 IBC that requires a lower alarm signal for hotels, motels, and apartment sleeping rooms. It is our desire to not implement this on apartment sleeping units because of the cost of these devices. It is our intent to implement this in the next code cycle with the hopes that the industry will have a less expensive option.**

**[F] 912.2.1 Visible location.** Fire department connections shall be located on the street side of buildings or facing approved fire apparatus access roads, fully visible and recognizable from the street, fire apparatus access road or nearest point of fire department vehicle access, or as otherwise approved by the fire code official. A weather-rated horn/strobe 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 is a carryover from the 2018 IBC. 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 or fire apparatus access road.**

**TABLE 1004.5 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT**

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR <sup>a</sup>
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
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Exhibit gallery and museum	30 net
Assembly with fixed seats	See Section 1004.6
Assembly without fixed seats	
Concentrated (chairs only—not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	150 gross
Concentrated business use areas	See Section 1004.8
Courtrooms—other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross

Educational	
Classroom area	<del>20</del> 25 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
Group H-5 fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mall buildings—covered and open	See Section 402.8.2
Mercantile	60 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m<sup>2</sup>

a. Floor area in square feet per occupant

**Commentary:** This is a carryover from the 2018 IBC. This change is for a Group E occupancy to change from 20 square feet per person to 25 square feet per person. After talking to architects and school officials, the 25 square feet per person was a more realistic value of how many children are in a typical classroom.

**1010.1.6 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~~ 1 unit vertical in ~~two~~ 2 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 ~~7<sup>3</sup>/<sub>4</sub>~~ 8 inches (~~197~~ 203 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*.
2. In *Type B units*, where Exception 5 to Section 1010.1.5 permits a 4-inch (102 mm) elevation change at the door, the threshold height on the exterior side of the door shall not exceed 4 3/4 inches (120 mm) in height above the exterior deck, patio or balcony for sliding doors or 4 1/2 inches (114 mm) above the exterior deck, patio, or balcony for other doors.

**Commentary: This is a carryover from the 2018 IBC. 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.**

**1011.5.2 Riser height and tread depth.** *Stair* riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum or between the *stairway* landing and the adjacent tread. The riser height shall be measured vertically between the *nosings* of adjacent treads or between the stairway and the adjacent tread. 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 1029.14.2.
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 ~~7<sup>3</sup>/<sub>4</sub>~~ 8 inches (~~197-203~~ 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 503.1 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 m<sup>2</sup>) 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 is a carryover from the 2018 IBC. 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 ~~4~~5 inches (~~102~~127 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  $4\frac{3}{8}$  inches (111 mm) in diameter.~~
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.
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.
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.
5. In assembly seating areas, *guards* required at the end of aisles in accordance with Section 1029.17.4 shall not have openings that allow passage of a sphere ~~4~~5 inches (~~102~~127 mm) in diameter up to a height of 26 inches (660 mm). From a height of 26 inches (660 mm) to 42 inches (1,067 mm) above the adjacent walking surfaces, *guards* shall not have openings that allow passage of a sphere 8 inches (203 mm) in diameter.
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  $4\frac{3}{8}$ 5 (~~111~~127 mm) inches in diameter.

**Commentary:** This is a carryover from the 2018 IBC. 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.

**1020.5 Dead ends.** Where more than one *exit* or *exit access doorway* is required, the *exit access* shall be arranged such that dead-end *corridors* do not exceed 20 feet (6,096 mm) in length.

**Exceptions:**

1. In Group I-3, Condition 2, 3, or 4, occupancies, 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, 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. In occupancies in Groups I-1 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 30 feet (9,144 mm).
- ~~3.~~ 4. 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*.



4. ~~5.~~ In Group I-2, Condition 2 occupancies, the length of dead-end *corridors* that do not serve patient rooms or patient treatment spaces shall not exceed 30 feet (9,144 mm).

**Commentary:** This section was changed in the 2021 IBC adding the last exception. Previously I-1 occupancies were exempted locally whereas exception #3 was added to match what is provided in NFPA 101 and maintain consistency between the two codes.

**1023.8 Barrier at level of exit discharge.** 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 is a carryover from the 2018 IBC. 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.

**1031.3.1 Minimum size.** *Emergency escape and rescue openings* shall have a minimum net clear opening of ~~5.7~~5.0 square feet (0.53-46 m<sup>2</sup>).

~~—Exception: The minimum net clear opening for grade-floor emergency escape and rescue openings shall be 5 square feet (0.46 m<sup>2</sup>).~~

**1031.3.3 Maximum height from floor.** *Emergency escape and rescue openings* shall have the bottom of the clear opening not greater than ~~44~~48 inches (~~1118~~1,219 mm) measured from the floor.

**1031.5.2 Ladders or steps.** Area wells with a vertical depth of more than ~~44~~48 inches (~~1118~~1,219 mm) shall be equipped with an approved permanently affixed ladder or steps. The ladder or steps shall not be obstructed by the emergency escape and rescue opening when the window or door is in the open position. Ladders or steps required by this section shall not be required to comply with Section 1011.

**Commentary:** This is a carryover from the 2018 IBC. 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*, *mezzanine*, and occupied roofs 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 ~~to stories, mezzanines and occupied roofs that have an aggregate area of not more than 3,000 square feet (278.7 m<sup>2</sup>)~~ per story. ~~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).
  - 1.4 Government buildings.
  - 1.5 Structures with four or more dwelling units.
2. *Stories, mezzanines,* or occupied roofs 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: This is a carryover from the 2018 IBC. 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 based upon stories and square footage.***

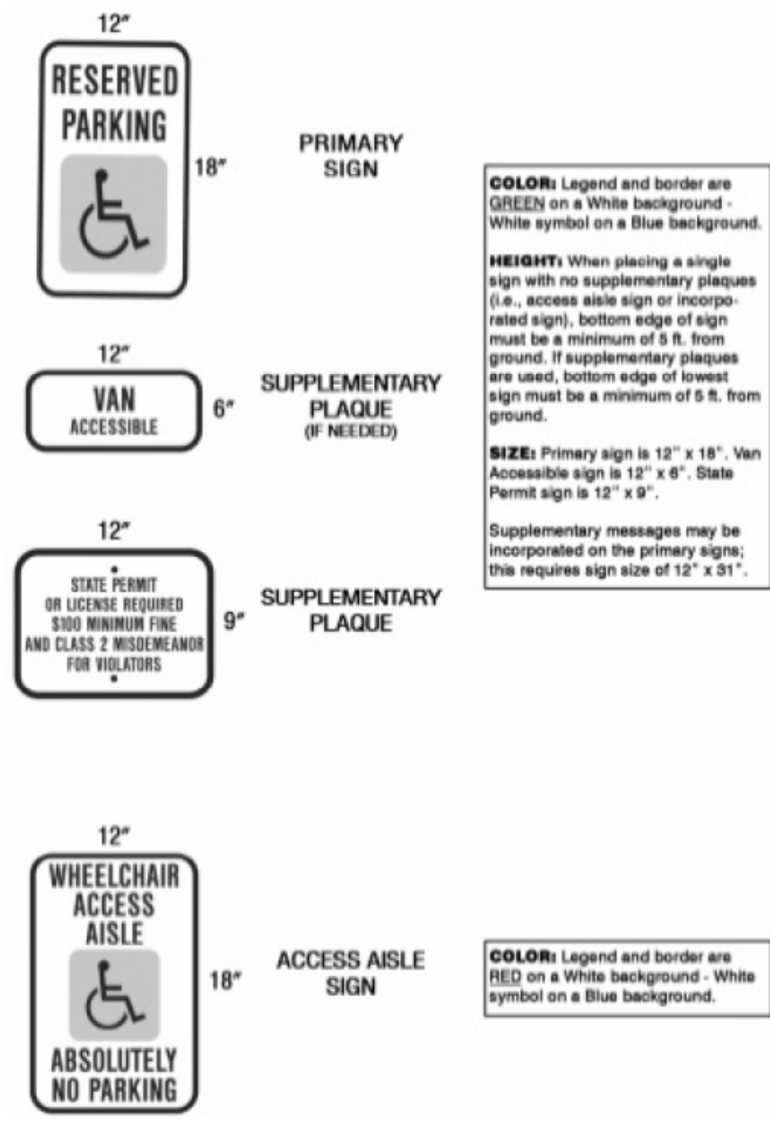
**1106.10 Signage.** Accessible parking spaces and access aisles are required to be identified by signs. Signs shall be located at the head of accessible parking stalls and access aisles. The bottom of the lowest signs shall be located at least 60 inches above the pavement.

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.”

**1106.11 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 (1,219 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 is a carryover from the 2018 IBC. This provides clarification for the signage required by the City of Sioux Falls for accessible parking spaces and their associated access aisles.

**1108.6.2.2.1 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.

**Exceptions:**

1. The number of Type A units is permitted to be reduced in accordance with Section 1108.7.
2. Existing structures on a site shall not contribute to the total number of units on a site.
3. [The following provisions of the 2017 ICC/ANSI A117.1-2017 referenced in Section 1103 Type A Dwelling are applicable.](#)

[3.1 A work surface in the kitchen referenced in Section 1103.12.3 Clear Floor Space of ICC/ANSI A117.1-2017 is not required.](#)

[3.2 The reduced work height of the kitchen sink at 34 inches referenced in Section 1103.12.4.2 ICC/ANSI A117.1-2017 is not required.](#)

[3.3 Appliances referenced in Section 1103.12.5 Appliances ICC/ANSI A117.1-2017 and Laundry Equipment requires only the clear floor space referenced in Section 305 Clear Floor Space of ICC/ANSI A117.1-2017.](#)

***Commentary: This is a carryover from the 2018 IBC. 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.***

**1112.2 Signs identifying toilet or bathing rooms.** Signs required in Section 403.4 of the ~~International~~ Plumbing Code identifying toilet rooms and bathing rooms shall be visual characters, raised characters, and braille complying with ICC A117.1. Where pictograms are provided as designations for toilet rooms and bathing rooms, the pictograms shall have visual characters, raised characters, and braille complying with ICC A117.1.

**1205.3.3 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: This is a carryover from the 2018 IBC. 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 is a carryover from the 2018 IBC. 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] **1502.1 General.** Design and installation of roof drainage systems shall comply with this section, Section 1611 of this code, and [shall be sized and discharge in accordance with Chapter 11 of the International 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] **1502.2 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 Section 1611 of this code and ~~Chapter 11 of~~ the *International* Plumbing Code.

**Commentary:** *This is a carryover from the 2018 IBC. The IBC references roof drainage requirements from the International Plumbing Code that the City does not adopt. The Plumbing Code in ordinance references the adopted Uniform Plumbing Code. The local modifications of 1502.1 inserts 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:** *This is a carryover from the 2018 IBC. This gives 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 ~~INSERT NAME OF JURISDICTION],~~”the City of Sioux Falls dated ~~INSERT DATE OF ISSUANCE],~~ 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 Chapter 156: Floodplain Management, shall prevail.

**Commentary:** *This is a carryover from the 2018 IBC. This simply inserts “the City of Sioux Falls,” the date of the adopted floodplain 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:** *This is a carryover from the 2018 IBC. Instead of only the third-party special inspector submitting documentation that 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 2211.1.2 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, 1705.5.3, 1705.6, 1705.7, and 1705.8 are considered as guidelines.

**Commentary:** This is a carryover from the 2018 IBC. 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 ~~2,500~~ 3,000 pounds per square inch (psi) (~~17.2~~ 20.6 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 (1.03 MPa).
4. Concrete foundation walls constructed in accordance with Table 1807.1.6.2.

5. Concrete patios, driveways, and sidewalks, on grade.

*Commentary: This is a carryover from the 2018 IBC. 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 walls for light-frame wood construction less than three stories in height.*

**[BF] 1705.18 Fire-resistant penetrations and joints.** In high-rise buildings, or in buildings assigned to Risk Category III or IV, ~~or in fire areas containing Group R occupancies with an occupant load greater than 250,~~ special inspections for through-penetrations, membrane penetration fire-stops, fire-resistant joint systems, and perimeter fire containment systems that are tested and listed in accordance with Sections 714.4.1.2, 714.5.1.2, 715.3.1, and 715.4 shall be in accordance with Section 1705.18.1 or 1705.18.2.

*Commentary: The requirement for special inspections on a Group R occupancy is new this. Currently, the building inspectors are doing these inspections and it was felt that they could continue to do them.*

**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 1 unit vertical to 5 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 m<sup>3</sup>) 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 is a carryover from the 2018 IBC. 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 is a carryover from the 2018 IBC. This calls for verification of soils capacity by a soils test when there is an engineered presumption of 3,000 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 ~~600~~ 1,500 square feet (~~56~~ 139 m<sup>2</sup>) or less for light-frame construction or 400 square feet (37 m<sup>2</sup>) or less for other than light-frame construction.
3. Eave height of 10 feet (3,048 mm) or less.

Shallow foundations shall not bear on frozen soil unless such frozen condition is of a permanent character.

**Commentary:** This is a carryover from the 2018 IBC. 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 design, construction, erection, and installation of plumbing components, appliances, equipment, and systems used in *buildings* and structures covered by this code. Toilet and bathing rooms shall be constructed in accordance with Section 1209. Private sewage disposal systems shall conform to the ~~International Private Sewage Disposal~~ Plumbing Code. The *International Fire Code*, the *International Property Maintenance Code*, and the ~~International~~ Plumbing Code shall govern the use and maintenance of plumbing components, appliances, equipment, and systems. The *International Existing Building Code* and the ~~International~~ Plumbing Code shall govern the *alteration, repair, relocation, replacement, and addition* of plumbing components, *appliances, equipment, and systems*.

**Commentary:** This is a carryover from the 2018 IBC. This eliminates the reference to the *International Plumbing Code* and the *International Private Sewage Disposal Code*.

TABLE 2902.1 [P] TABLE 2902.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES<sup>a</sup> (See Sections 2902.1.1 and 2902.2)

No.	CLASSIFICATION	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 424.2 2902.1.4 OF THE INTERNATIONAL PLUMBING CODE)		LAVATORIES		BATHTUBS/SHOWERS	DRINKING FOUNTAINS (SEE SECTION 410 2902.1.5 OF THE INTERNATIONAL PLUMBING CODE)	OTHER
			Male	Female	Male	Female			
1	Assembly	Theaters and other buildings for the performing arts and motion pictures <sup>d</sup>	1 per 125	1 per 65	1 per 200		—	1 per 500	1 service sink
		Nightclubs, bars, taverns, dance halls and buildings for similar purposes <sup>d</sup>	1 per 40	1 per 40	1 per 75		—	1 per 500	1 service sink
		Restaurants, banquet halls and food courts <sup>d</sup>	1 per 75	1 per 75	1 per 200		—	1 per 500	1 service sink
		Casino gaming areas	1 per 100 for the first 400 and 1 per 250 for the remainder exceeding 400	1 per 50 for the first 400 and 1 per 150 for the remainder exceeding 400	1 per 250 for the first 750 and 1 per 500 for the remainder exceeding 750		—	1 per 1,000	1 service sink
		Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums <sup>d</sup>	1 per 125	1 per 65	1 per 200		—	1 per 500	1 service sink
		Passenger terminals and transportation facilities <sup>d</sup>	1 per 500	1 per 500	1 per 750		—	1 per 1,000	1 service sink
		Places of worship and other religious services <sup>d</sup>	1 per 150	1 per 75	1 per 200		—	1 per 1,000	1 service sink
		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 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150	—	1 per 1,000	1 service sink
Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities <sup>f</sup>	1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500	1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520	1 per 200	1 per 150	—	1 per 1,000	1 service sink		
2	Business	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial, ambulatory care and similar uses	1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50		1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80		—	1 per 100	1 service sink
3	Educational	Educational facilities	1 per 50		1 per 50		—	1 per 100	1 service sink
4	Factory and industrial	Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials	1 per 100		1 per 100		—	1 per 400	1 service sink
5	Institutional	Custodial care facilities	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		Medical care recipients in hospitals and nursing homes <sup>b</sup>	1 per room <sup>c</sup>		1 per room <sup>c</sup>		1 per 15	1 per 100	1 service sink
		Employees in hospitals and nursing homes <sup>b</sup>	1 per 25		1 per 35		—	1 per 100	—
		Visitors in hospitals and nursing homes <sup>b</sup>	1 per 75		1 per 100		—	1 per 500	—
		Prisons <sup>b</sup>	1 per cell		1 per cell		1 per 15	1 per 100	1 service sink
		Reformatories, detention centers and correctional centers <sup>b</sup>	1 per 15		1 per 15		1 per 15	1 per 100	1 service sink
		Employees in reformatories, detention centers and correctional centers <sup>b</sup>	1 per 25		1 per 35		—	1 per 100	—
Adult day care and child day care	1 per 15		1 per 15		1	1 per 100	1 service sink		
6	Mercantile	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750		—	1 per 1,000	1 service sink <sup>g</sup>
7	Residential	Hotels, motels, boarding houses (transient)	1 per sleeping unit		1 per sleeping unit		1 per sleeping unit	—	1 service sink
		Dormitories, fraternities, sororities and boarding houses (not transient)	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		Apartment house	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units
		One- and two-family dwellings and lodging houses with five or fewer guestrooms	1 per dwelling unit		1 per 10		1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per dwelling unit
		Congregate living facilities with 16 or fewer persons	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
8	Storage	Structures for the storage of goods, warehouses, storehouses and freight depots, low and moderate hazard	1 per 100		1 per 100		—	1 per 1,000	1 service sink

- a. The fixtures shown are based on one fixture being the minimum required for the number of persons indicated or any fraction of the number of persons indicated. The number of occupants shall be determined by this code.
- b. Toilet facilities for employees shall be separate from facilities for inmates or care recipients.

- c. A single-occupant toilet room with one water closet and one lavatory serving not more than two adjacent patient sleeping units shall be permitted, provided that each patient sleeping unit has direct access to the toilet room and provisions for privacy for the toilet room user are provided.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e. For business and mercantile classifications with an occupant load of 15 or fewer, a service sink shall not be required.
- f. The required number and type of plumbing fixtures for outdoor swimming pools shall be in accordance with Section 609 of the *International Swimming Pool and Spa Code*.

**Commentary: This is a carryover from the 2018 IBC. 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 1,500, 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.**

**2902.1.4 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.

**2902.1.5 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 is a carryover from the 2018 IBC. This 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 fewer.
4. Separate facilities shall not be required in business occupancies in which the maximum *occupant load* is 25 or fewer.
5. Separate facilities shall not be required to be designated by sex where single-user toilet 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~~ 2903.1.4. 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.

*Commentary: The last two exceptions of 2902.2 were added this code cycle. Exception 6 referenced the IPC that is not adopted by the state. The section referenced in the IPC is the same as ~~Section~~ Section 2903.1.4; therefore, that code section was changed.*

[P] **2902.6 Small occupancies.** Drinking fountains and service sinks shall not be required for an occupant load of 15 or fewer.

*Commentary: It was felt that in small occupancies that if drinking fountains were not required, in addition service sinks shouldn't be required.*

**3111.2 Solar thermal systems.** Solar thermal systems shall be designed and installed in accordance with this section, ~~the International Plumbing Code~~, the *International Mechanical Code* and the *International Fire Code*. Where light-transmitting plastic covers are used, solar thermal collectors shall be designed in accordance with Section 2606.12.

*Commentary: This takes out the reference to the IPC as the state mandates the use of the UPC and there is no corresponding section in the UPC to reference.*

**Section 3114 PUBLIC USE RESTROOM BUILDINGS IN FLOOD HAZARD AREAS.** Not adopted by the city.

*Commentary: It was felt that this section should not be adopted in order not to confuse people with what has been adopted in Chapter 156: Floodplain Management in the City of Sioux Falls Code of Ordinances.*

## Section 3116 Prefabricated construction.

### 3116.1 General.

3116.1.1 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.

3116.1.2 Scope. Unless otherwise specifically stated in this section, all prefabricated construction and materials used therein shall conform to all the requirements of this code.

### 3116.1.3 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.

**3116.2 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.

**3116.3 Tests of assemblies.** The building official may require special tests to be made on assemblies to determine their durability and weather resistance.

**3116.4 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.

**3116.5 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.

**3116.6 Permits, materials, plans, fees, certificate, and inspections.**

**3116.6.1 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.

**3116.6.2 Plans.** One complete set of plans and specifications shall be submitted to the building inspection division of planning and development 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).

**3116.6.3 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.

**3116.6.4 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.

**3116.6.5 Certifying agency.** To be acceptable under this code, every certificate of approval shall be made by the approved agency.

**3116.6.6 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.

**3116.6.7 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.

**3116.6.8 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 is a carryover from the 2018 IBC. This carries over the 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 1-C. Construction documents and a schedule for demolition shall be submitted where required by the building official. Where such information is required, work shall not 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 division 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 is a carryover from the 2018 IBC. This clarifies the process for the issuance of a razing permit.**