

Ordinance 23-008

An Ordinance Amending Article II of Chapter 22 of The Code of Ordinances of the City of Brookings and Pertaining to the Adoption of the 2021 International Building Code, the 2021 International Residential Code, the 2021 International Mechanical Code, the 2021 International Fire Code, the 2021 International Existing Building Code, and the 2021 International Property Maintenance Code with Certain Amendments Thereto.

Be It Ordained by the City of Brookings that Article II of Chapter 22 of the Code of Ordinances of the City of Brookings be amended to read as follows:

I.

Article II. Building Code

Sec. 22-31. Adoption.

There is adopted by the City those certain codes known as the 2021 Edition of the International Building Code, the 2021 International Residential Code, the 2021 International Mechanical Code, the 2021 International Fire Code, 2021 International Existing Building Code, and the 2021 International Property Maintenance Code collectively referred to as the “International Building Code”, “building code” or “code”. A copy of the building code is on file in the office of the City Engineer and is available for inspection.

Sec. 22-32. Conflicts.

In the event of any other conflict between the provisions of the International Building Code adopted by this article and other provisions of city ordinance, state law or rules or regulations of the city, the provisions of city ordinance, state law or the rules or regulations of the city shall prevail and be controlling.

Sec. 22-33. Definitions.

The following words, terms and phrases, when used in the building code adopted in section 22-31, shall be defined, except where the context clearly indicates a different meaning, as follows:

Municipality means the City of Brookings.

Sec. 22-34. Establishment of office of building official.

The office of building official is created, and the city manager shall designate the executive official in charge, who shall be known as the building official and whose duties shall be as outlined in the International Building Code adopted in section 22-31.

Sec. 22-35. Fees; permits.

- (a) No permit required by the building code shall be issued until the fee prescribed by resolution shall have been paid. No amendment to a permit shall be approved until

the additional fee, if any, resulting from an increase in the estimated cost of the building or structure, shall have been paid.

- (b) For the demolition or removal of a building that is furnished with water and/or sewer, a permit may be granted; provided, however, that in such case, a deposit guaranteeing the abandonment of the water services and guaranteeing the abandonment of the sewer services shall be deposited at the time of application for such permit, the deposit to be in an amount to be determined by policy of the utility board. Such deposit, but not the fees, will be refunded upon completion of the work or the city will arrange for such work at actual cost, plus ten percent to be paid from such deposit. The demolition or removal shall be completed within 30 days after the issuance of the permit. If water and sewer services are to be reused or new services required for a new structure in the immediate future at the same location, deposits may be waived by the building official.

Sec. 22-36. Amendments.

The following amendments to the 2021 International Residential Code are adopted and incorporated into the building code:

R105.2 Work exempt from permit. Exemption from permit requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction. Permits shall not be required for the following:

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11.15 m²).
2. Fences not over 6 feet (1,829 mm) high.
3. Retaining walls that are not over 4 feet (1,219mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon grade if the capacity is not greater than 5,000 gallons (18,927 L) and the ratio of height to diameter or width is not greater than 2 to 1.
5. Sidewalks
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall that do not project more than 54 inches (1,372 mm) from the exterior wall and do not require additional support.

R105.5 Expiration. Every permit issued shall become invalid unless the work authorized by such permit is commenced within 180 days after its issuance or after commencement of work if more than 180 days pass between inspections. The building official is authorized to grant, in writing, one or more extensions of time, for periods not

more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

Exception: Every permit issued shall become invalid 2 years from date of issuance.

R106.2 Site plan or plot plan. The construction documents submitted with the application for permit shall be accompanied by a site plan showing the size and location of new construction, erosion and sediment controls in accordance with Chapter 72 of the Code of Ordinances, lowest allowable building opening, and existing structures on the site and distances from lot lines. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The building official is authorized to waive or modify the requirement for a site plan where the application for permit is for alteration or repair or where otherwise warranted.

R108.6 Work commencing before permit issuance. Any person who commences work requiring a permit on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to an investigation fee established by the applicable governing authority that shall be in addition to the required permit fees. The minimum investigation fee shall be equal to the amount of the permit fee required by this code. The payment of such fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

R301.2 Climatic and Geographic Design Criteria.

1. Ground Snow Load 40 psf contour

Roof slopes with a rise of three inches (76.2 mm) or less to 12 inches (305 mm) shall be designed for a full or unbalanced snow load of not less than 30 pounds per square foot (1.44kN/square meter) of horizontal projection. Where a roof system is designed to slope less than one-quarter inch (6.35 mm) per 12 inches (305 mm), a surcharge load of not less five pounds per square foot (0.24kN/square meter) in addition to the required live load due to snow shall be designed for.

Roof slopes with over three inches (76.2 mm) of rise per 12 inches (305 mm) shall be designed for a full or unbalanced snow load of not less than 25 pounds per square foot (1.2kN/square meter) of horizontal projection.

Potential unbalanced accumulation of snow at valleys, parapets, roof structures, and offsets in roofs of uneven configuration shall be considered.

2. Wind Speed 115 mph
3. Seismic Design Category A
4. Weathering Severe
5. Frost Line Depth 42 inches
6. Termite Damage Severe to Moderate

7. Winter Design Temperature.....	-11 deg Fahrenheit
8. Ice barrier underlayment requirement.....	Yes
9. Air freezing index.....	3,000
10. Mean annual temperature	46 deg Fahrenheit

R302.13 Fire protection of floors. Floor assemblies that are not required elsewhere in this code to be fire-resistance rated shall be provided with a 1/2-inch (12.7 mm) gypsum wallboard membrane, 5/8-inch (16 mm) wood structural panel membrane, or equivalent on the underside of the floor framing member. Penetrations or openings for duct, vents, electrical outlets, lighting, devices, luminaires, wires, speakers, drainage, piping and similar openings or penetrations shall be permitted.

Exceptions:

1. Floor assemblies located directly over a space protected by an automatic sprinkler system in accordance with Section P2904, NFPA 13D, or other approved equivalent sprinkler system.
2. Floor assemblies located directly over a crawl space.
3. Portions of floor assemblies shall be permitted to be unprotected where complying with the following:
 - 3.1 The aggregate area of the unprotected portions does not exceed 80 square feet (7.4 m²) per story.
 - 3.2 Fire blocking in accordance with Section R302.11.1 is installed along the perimeter of the unprotected portion to separate the unprotected portion from the remainder of the floor assembly.
4. Wood floor assemblies using dimension lumber or structural composite lumber equal to or greater than 2-inch by 10-inch (50.8 mm by 254 mm) nominal dimension, or other approved floor assemblies demonstrating equivalent fire performance.
5. Floor assemblies installed over an unfinished basement.

R310.2.3 Maximum height from floor. Emergency escape and rescue openings shall have the bottom of the clear opening not greater than 48 inches above the floor.

R310.4.2.1 Ladder and steps. Area wells with a vertical depth greater than 48 inches 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 where the window or door is in the open position. Ladders or steps required by this section shall not be required to comply with Sections R311.7.

R310.2.4 Emergency escape windows under decks and porches. Emergency escape and rescue openings installed under decks, and porches and cantilevers shall be fully openable and provide a path not less than 80 inches in height and 36 inches (914 mm) in width to a yard or court.

R311.7.8.5 Grip-size. Required handrails shall be of one of the following types or provide equivalent grasp ability.

1. Type I. Handrails with a circular cross section shall have an outside diameter of not less than 1-1/4 inches (32 mm) and not greater than 2 inches (51 mm). If the handrail is not circular, it shall have a perimeter of not less than 4 inches (102 mm) and not greater than 6-1/4 inches (160 mm) and a cross section of not more than 2-1/4 inches (57 mm). Edges shall have a radius of not less than 0.01 inch (0.25 mm).
2. Type II. Handrails with a perimeter greater than 6-1/4 inches (160 mm) shall have a graspable finger recess area on both sides of the profile. The finger recess shall be within 3/4 inch (19 mm) measured vertically from the tallest portion of the profile and have a depth of not less than 5/16 inch (8 mm) within 7/8 inch (22 mm) below the widest portion of the profile. This required depth shall continue for not less than 3/8 inch (10 mm) to a level that is not less than 1-3/4 inches (45 mm) below the tallest portion of the profile. The width of the handrail above the recess shall be not less than 1-1/4 inches (32 mm) and not more than 2-3/4 inches (70 mm). Edges shall have a radius of not less than 0.01 inch (0.25 mm).

Exception: Exterior stairs not serving required egress door are allowed to have a horizontal 2x member to form a 1-1/2-inch graspable dimension in lieu of the above reference perimeter dimensions.

R313 Automatic Fire Sprinkler Systems. Not Adopted by the City

R314.3 Location. Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and habitable attics and not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided the lower level is less than one full story below the upper level.
4. Smoke alarms shall be installed not less than 3 feet (914) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section R314.3.
5. A smoke detector installed in a stairwell shall be so located as to ensure that smoke rising in the stairwell cannot be prevented from reaching the detector by an intervening door or obstruction.
6. A smoke detector installed to detect a fire in the basement shall be located in close proximity to the stairway leading to the floor above.
7. The smoke detector installed on a story without a separate sleeping area shall be located in close proximity to the stairway leading to the floor above.
8. Smoke detectors shall be mounted on the ceiling at least four inches (102 mm) from a wall or on a wall with the top of the detector not less than four inches (102 mm) nor more than 12 inches (305 mm) below the ceiling.

R401.1, Application. The provisions of this chapter shall control the design and construction of the foundation and foundation spaces for buildings. In addition to the provisions of this chapter, the design and construction of foundations in flood hazard areas as established by Table R301.2(1) shall meet the provisions of Section R322. Wood foundations shall be designed and installed in accordance with AWC PWF.

Exception: The provisions for this chapter shall be permitted to be used for wood foundations only in the following situations:

1. In buildings that have no more than two floors and a roof.
2. Where interior basement and foundation walls are constructed at intervals not exceeding 50 feet (15,240 mm).

Wood foundations in Seismic Design Category D(0), D(1), or D(2) shall be designed in accordance with accepted engineering practice.

For new home construction, curb and gutter shall be required to be installed on all sides of the lot adjacent to the public street right-of-way prior to the issuance of the building permit, except for pre-existing public streets which do not have curb & gutter.

R401.3 Drainage. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection that does not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of 6 inches (152 mm) within the first 10 feet (3,048 mm). In addition, the top of any exterior foundation shall extend above the elevation of the street gutter at point of discharge or the inlet of an approved drainage device a minimum of 12 inches (305 mm) plus 2 percent. Alternate elevations are permitted subject to the approval of the building official, provided it can be demonstrated that the required drainage to the point of discharge and away from the structure is provided at all locations on the site.

Exception: Where lot lines, walls, slopes or other physical barriers prohibit 6 inches (152 mm) of fall within 10 feet (3,048 mm), drains or swales shall be constructed to ensure drainage away from the structure. Impervious surfaces within 10 feet (3048 mm) of the building foundation shall be sloped a minimum of 2 percent away from the building.

R403.1.4.1 Frost protection. Except where otherwise protected from frost, foundation walls, piers and other permanent supports of buildings and structures shall be protected from frost by one or more of the following methods:

1. Extended below the frost line specified in Table R301.2.(1).
2. Constructed in accordance with ASCE 32.
3. Erected on solid rock.

Footings shall not bear on frozen soil unless the frozen condition is permanent.

Exceptions:

1. Protection of freestanding accessory structures with an area of 1,000 square feet or less, of light-frame construction, with an eave height of 10 feet (3,048 mm) or less shall not be required.
2. Protection of freestanding accessory structures with an area of 400 square feet (37 m²) or less, of other than light-frame construction, with an eave height of 10 feet (3,048 mm) or less shall not be required.
3. Decks not supported by a dwelling need not be provided with footings that extend below the frost line.

Table N1102.1.2 – Delete and Replace with Table N1102.1 of the 2009 IRC.

N1102.2.9 (R402.2.0) Basement walls. Walls associated with conditioned basements shall be insulated from the top of the basement wall down to 10ft (3048 mm) below grade or to the basement floor, whichever is less. Walls associated with unconditioned basements shall comply with this requirement except where the floor overhead is insulated in accordance with Section N1102.1.2 and N1102.2.8.

Exception: Exterior basement walls of enclosed mechanical rooms.

N1102.4.1.2 (R402.4.1.2) Testing. Not Adopted by the City.

N1102.4.4 (R402.4.4) Rooms containing fuel-burning appliances. Not adopted by the city.

N1103.3.3 (R403.3.3) Duct testing (Mandatory). Not Adopted by the City.

The following amendments to the 2021 International Building Code are adopted and incorporated into the building code:

105.2 Work exempt from permit.

Building:

1. One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, provided the floor area is not greater than exceed 120 square feet (11 m²).
2. Fences not over 6 feet (1,829 mm) high.
3. Oil derricks.
4. Retaining walls that are not over 4 feet (1,219mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
5. Water tanks supported directly upon grade if the capacity is not greater than 5,000 gallons (18,927 L) and the ratio of height to diameter or width is not greater than 2:1.
6. Sidewalks not more than 30 inches (762 mm) above adjacent grade, and not over any basement or story below and are not part of an accessible route.
7. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
8. Temporary motion picture, television and theater stage sets and scenery.

9. Prefabricated swimming pools accessory to a Group R-3 occupancy that are less 24 inches (610 mm) deep, are not greater than 5,000 gallons (18,924 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
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. Non-fixed and moveable fixtures, case, racks, counters and partitions not over 5 feet 9 inches (1,753 mm) in height.

107.2.6 Site Plan. The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades and the proposed finished grades and, as applicable, flood hazard areas, floodways, and design flood elevations, and erosion and sediment controls and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The building official is authorized to waive or modify the requirement for a site plan when the application for permit is for alteration or repair or when otherwise warranted.

The City Engineer may require that the construction documents submitted with the application for permit be accompanied by a final drainage plan for all projects involving one acre or more of land area. The final drainage plan shall conform to the city approved Storm Drainage Design and Technical Criteria Manual. All drainage facilities including storm sewers, on-site detention, drainage ways, detention basins and detention channels shall be designed in compliance with approved engineering design standards and the Storm Drainage and Technical Criteria Manual and are subject to approval of the City Engineer.

109.4 Work commencing before permit issuance. Any person who commences work requiring a permit on a building, structure, electrical, gas, mechanical or plumbing system before obtaining the necessary permits shall be subject to an investigation fee established by the applicable governing authority that shall be in addition to the required permit fees. The minimum investigation fee shall be equal to the amount of the permit fee required by this code. The payment of such fee shall not exempt any person from compliance with all other provisions of this code nor from any penalty prescribed by law.

423.5 Group E occupancies. All Group E occupancies with an occupant load of 50 or more shall have a storm shelter constructed to withstand a design wind speed of 200mph.

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

Exceptions:

1. All R-3 Occupancies.
2. All R-2 buildings with (5) or fewer dwelling units.

1031.3.3. Maximum height from floor. Emergency escape and rescue openings shall have the bottom of the clear openings not greater than 48 inches measured from the floor.

1031.5.2 Ladder and steps. Area wells with a vertical depth greater than 48 inches 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 where 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.

Any or all ordinances in conflict herewith are hereby repealed.

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Second Reading: March 28, 2023
Published:

CITY OF BROOKINGS, SD

Oepke G. Niemeyer, Mayor

ATTEST:

Bonnie Foster, City Clerk