

ORDINANCE #997
ADOPTION OF THE 2015
INTERNATIONAL RESIDENTIAL BUILDING CODE

An ordinance repealing the 2003 International Residential Code (Ordinance 875) and enacting the adoption of the 2015 International Residential Code relating to the construction, enlargement, alteration, repair, moving, removal, demolition, occupancy, use, height and maintenance of One and Two-Family Dwellings and Townhouses in the City of Yankton, South Dakota.

BE IT ORDAINED, by the Board of Commissioners of the City of Yankton, South Dakota:

Section 1. Chapter 7, Article I, Section 7-11, Ordinance 875, (and all of its sub-parts thereof) is hereby repealed and replaced by a new Section 7-11 to be added to Chapter 7, Article I of the City of Yankton Code of Ordinances to read as follows:

Chapter 7 – BUILDINGS

ARTICLE I. - IN GENERAL

Sec. 7-11. - Residential code adopted; amendments.

That certain documents, one (1) Copy of which is on file in the Office of Community and Economic Development, being marked and designated as:

- (a) “2015 International Residential Code” published by the International Code Council; and
- (b) “2015 International Residential Code” additions, deletions, modifications and amendments by the City of Yankton;

are hereby adopted as the code of the City of Yankton, South Dakota, for regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of One and Two-Family Dwellings and Townhouses in the City of Yankton, South Dakota, providing for the issuance of permits and collection of fees.

[Note: The following portions of this Ordinance are hereby adopted, but shall not be published within the City of Yankton’s Municipal Code or added to Yankton’s Municode online library of municipal ordinances, but rather shall be freely available in print at Yankton City Hall, Office of Community and Economic Development:]

Section 2. The following sections and subsections of the 2015 International Residential Code adopted in this article shall be amended, added, or not adopted by the city as follows. All other sections or subsections of the 2015 International Residential Code as published shall remain the same.

R101.1 Title: These provisions shall be known as the Residential Code for one and two-family dwellings and townhouses and shall be referred to as "This Code."

R103.1 Enforcement Agency: The Office of Community and Economic Development and the official in charge shall be known as the "Building Official."

R105.1 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 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.

R105.2 Work Exempt from a Permit:

1. One story detached accessory structures provided that the floor area does not exceed 120 square feet.
2. Fences not over 7 feet in height.
3. Retaining walls that are not over 6 feet in height measured from the bottom of the grade elevation to the top of the wall.
4. Water tanks supported directly upon grade if the capacity does not exceed 5,000 gallons and the ratio of height to diameter or width does not exceed 2 to 1.
5. Flag poles and similar structures that are less than 30 feet in height above grade.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Swings and other playground equipment.
8. Window awnings supported by an exterior wall that do not project more than 54 inches from the exterior wall and do not require additional support.

Commentary: This section defines the types of work that do not require a building permit. Even though a building permit is not required for a shed less than 120 square feet, or fence less than 7 feet in height, the City's zoning ordinance regulates the placement of these structures.

R106.1 Submittal Documents: Submittal of construction documents and other data shall be submitted with each permit application. The construction documents shall be prepared by a registered design professional where required by South Dakota Codified Law.

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 does not require construction documents to obtain compliance with this code.

R108.2 Schedule of Permit Fees: Permit fees or each permit shall be paid as required in accordance with the fee schedules that have been established by commission resolution.

R109.1.3 Floodplain Inspections: Not Adopted.

Commentary: Floodplain provisions are found in Chapter 11 of Yankton's Code of Ordinances.

R112 Appeals: In order to provide for final interpretations of the provisions of this code and to hear appeals provided, a board of appeals is hereby created which shall be the board of city commissioners. Any person may appeal any notice and order or any action of the building

official by filing at the office of the building official within ten (10) days from the date of the service of such order a written appeal containing:

1. A brief statement of the specific order or action protested, together with any material facts claimed to support the contentions of the person appealing
2. A brief statement of the relief sought and reasons why it is claimed the protested order or action should be reversed, modified or otherwise set aside.
3. Upon receipt of any appeal filed pursuant to this section, the building official shall present it to the city commission within twenty (20) days. As soon as practicable after receiving the written appeal, the city commission shall fix a date, time and place for the hearing of the appeal. Written notice of the time and place of the hearing shall be given at least ten (10) days prior to the date of the hearing to each appellant. Failure of any person to file an appeal in accordance with the provisions of this section shall constitute a waiver of his right to an administrative hearing and adjudication of the notice and order, or any portion, thereof. Enforcement of any notice and order of the building official issued under this article shall be stayed during the pendency of an appeal therefrom which is properly and timely filed.

Table R301.2 (1) Climatic and Geographic Design Criteria

Ground Snow Load: 35 psf

Wind Speed: 115 mph

Topographic Effects: No

Seismic Design Category: A

Weathering: Severe

Frost Line Depth: 42 inches

Termite Damage: Slight to Moderate

Winter Design Temperature: -08 degrees Fahrenheit

Ice Barrier Underlayment Requirement: Yes*

Flood Hazards: City of Yankton adopted Floodplain Ordinance and Firm, July 10, 2010.

Air Freezing Index: 2,271

Mean Annual Temperature: 46.6 Degrees Fahrenheit

*Ice Barrier underlayment requirement effective January 2, 2018

Commentary: Table R301.2 (1) defines the minimum geographic design criteria for residential building construction within the City of Yankton. Definitions for the Design Criteria can be found in the foot notes of Table R301.2 (1)

R302.2 Townhouses: Common walls separating townhouses shall be assigned a fire-resistant rating. The common wall shared by two townhouses shall be constructed without mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing.

1. Where a fire sprinkler system in accordance with the IRC is provided, the common wall shall be not less than a 1-hour fire rated wall assembly
2. Where a fire sprinkler system is not provided, the common wall shall be of 2-hour construction.

Commentary: This reduces the required fire resistivity of a common wall between townhouse units from two hours to one hour, but is based upon the national model code that mandates fire

Commentary: This reduces the required fire resistivity of a common wall between townhouse units from two hours to one hour, but is based upon the national model code that mandates fire sprinklers for all townhouses. The local amendment recognizes that a reduced fire resistivity is acceptable if there is a fire sprinkler system installed, which is not a local code mandated but an option of the owner.

R302.2.1 Continuity: The fire resistance rated wall separating townhouses shall be continuous from the foundation to the underside of the roof sheathing, deck or slab. The fire resistance rating shall extend the full length of the wall, including wall extensions through and separating attached enclosed accessory structures.

R302.2.4 Structural Independence: Each individual townhouse shall be structurally independent.

Exceptions:

1. Foundations supporting exterior walls or common walls.
2. Structural rafters may be used for structural independence if set on a common fire rated wall separating each unit, provided the rafter is rated on each side for fire resistivity.
3. Structural roof and wall sheathing from each unit fastened to the common wall framing.
4. Nonstructural wall and roof coverings.
5. Flashing at terminations of roof coverings over common walls.
6. Townhouses separated by a common wall and provided with a fire sprinkler system.

Commentary: The 2015 IRC eliminates the requirement for structural independence provided that the townhouse is provided throughout with a fire sprinkler system.

R302.13 Fire Protection of Floors: Not adopted.

Commentary: The national provision that requires all floor assemblies consisting of light frame construction to be protected on the underside is eliminated. This would have required a homeowner who chooses to finish a basement at a later date to remove the covering to accommodate mechanical, electrical and plumbing systems.

R309.5 Fire Sprinklers: Not adopted.

Commentary: This provision is eliminated based on State Codified Law that does not allow a county or municipality to require an automatic fire extinguishing system in a one and two-family dwelling, townhouse, and their accessory structures.

R310.2.1 Minimum Opening: Emergency and escape rescue openings shall have a net clear opening of not less than 5.0 square feet. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. The net clear height opening shall be not less than 24 inches, and the net clear width shall be not less than 20 inches.

R310.2.2 Window Sill Height: Where a window is provided as the emergency escape and rescue opening, it shall have a sill height of not more than 48 inches above the floor; where the sill height is below grade, it shall be provided with a window well in accordance with Section R310.2.3.

R310.2.3.1 Ladder and Steps: Window wells with a vertical depth greater than 48 inches shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or rungs shall have an inside width of not less than 12 inches, shall project not

less than 3 inches from the wall and shall be spaced not more than 18 inches on center vertically for the full height of the window well.

Commentary: These provisions maintain local modifications to allow sill heights of windows and the height of a window well where a ladder is required to be increased from 44 inches to 48 inches, instead of having two standards for the openable area of an egress window

R311.3.1 Floor Elevations at the Required Egress Doors: Landings or finished floors at the required egress door shall be not more than 1-1/2 inches lower than the top of the threshold.

Exception: The landing or floor on the exterior side shall be not more than 7-3/4 inches below the top of the threshold provided the door does not swing over the landing or floor.

R311.3.2 Floor Elevations for Other Exterior Doors. Doors other than the required egress door shall be provided with landings or floors not more than 7-3/4 inches below the top of the threshold.

Exception: A top landing is not required where a stairway of not more than two risers is located on the exterior side of the door, provided that the door does not swing over the stairway.

R311.7.5.1 Risers. The riser height shall be not more than 7-3/4 inches. The riser shall be measured vertically between leading edges of the adjacent treads. The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch. Risers shall be vertical or sloped from the underside of the nosing of the tread above at an angle not more than 30 degrees from the vertical. Open risers are permitted.

Exceptions:

1. The opening between adjacent treads is not limited on spiral stairways.
2. The riser height of spiral stairways shall be in accordance with Section R311.7.10.1.

R311.7.5.2 Treads. The tread depth shall be not less than 9-1/4 inches. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The greatest tread depth within any flight of stairs shall not exceed the smallest by more the 3/8 inch.

Commentary: This allows for a 7-3/4-inch riser and a 9-1/4-inch tread for a step at a landing or stair. This is a change from the 2003 IRC legacy amendment that allowed for an 8-inch riser and a 9-inch tread.

R311.7.8.3 Grip Size. Required handrails shall comply with R33.7.8.3 for graspability with the following exception added.

Exception: Exterior stairs are allowed to have a horizontal 2X member to form a 1-1/2-inch graspable dimension in lieu of the above-referenced R311.7.8.3 standard.

Commentary: The exception recognizes that a flat or horizontal 2X member on an exterior deck provides an adequate gripping surface.

R313.1 Townhouse Automatic Fire Sprinkler Systems: Not adopted.

R313.2 One and Two-Family Dwellings Automatic Fire Sprinkler Systems: Not Adopted.

R313.2.1 Design and installation. When automatic residential fire sprinkler systems installed, it shall be designed and installed in accordance with Section P2904 or NFPA 13D.

Commentary: These provisions have been deleted because South Dakota Codified Law does not allow a county or municipality to mandate automatic fire extinguishers in townhouses or one- and two-family dwellings and their accessory structures. If a building owner chooses to install a residential fire sprinkler system, it shall be installed to a minimum NFPA-13D or equivalent standard.

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 Section R403.3.
3. Constructed in accordance with ASCE 32.
4. Erected on solid rock.

Exceptions:

1. Protection of freestanding accessory structures with an area of 1,600 square feet or less, of light-frame construction, with an eave height of 10 feet or less shall not be required.
2. Decks not supported by a dwelling need not be provided with footings that extend below the frost line.

Commentary: This increases the allowable area of a non-occupied building from 600 to 1,600 square feet before there is a requirement for the footings and foundations to be frost protected. This amendment allows for detached residential garages up to 1,600 square feet to be built with “slab on grade” construction.

N1101.2 (R101.3) Intent: This chapter regulates the design and construction of buildings for the effective use and conservation of energy over the useful life of each new building. Additions, alterations, renovations, or repairs to an existing building, ding system or portion thereof may conform to the provisions of this code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code. This chapter is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This chapter is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

Table N1102.1.1 (R402.1.1)
INSULATION AND FENESTRATION
REQUIREMENTS BY COMPONENT^{a,k}
FOR NEW CONSTRUCTION

Climate Zone ^b	Fenestration U-Factor ^b	Sky Light U Factor ^b	Glazed Fenestration SHGC ^{b,c}	Ceiling R Value ^j	Wood Frame Wall R Value	Mass wall R Value	Floor R Value	Basement Wall R Value ^c	Slab R Value ^d	Crawl Space Wall Value ^c
5	0.6	NR	NR	38	20 or 13+5 ^h	5/10 ⁱ	13 ^g	7/10	5 2 feet	7/10

a. R-values are minimums. U-factors and Solar Heat Gain Coefficient (SHGC) are maximums. When insulation is installed in a cavity which is less than the label or design

thickness of the insulation, the installed *R*-value of the insulation shall not be less than the *R*-value specified in the table.

b. The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.

Exception: Skylights may be excluded from glazed fenestration SHGC requirements in Climate Zones 1 through 5 where the SHGC for such skylights does not exceed 0.30.

c. 7/10 means R-7 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall. The perimeter wall of an enclosed mechanical room is allowed to not be a component of the thermal envelope.

d. R-5 shall be added to the required slab edge *R*-values for heated slabs. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 1 through 5 for heated slabs.

e. There are no SHGC requirements in the Marine Zone.

f. Basement wall insulation is not required in warm-humid locations as defined by Figure N1101.10 and Table N1101.10.

g. Or insulation sufficient to fill the framing cavity, R-7 minimum.

h. The first value is cavity insulation, the second value is continuous insulation, 13+5 means R-13 cavity insulation plus R-5 continuous insulation.

i. The second *R*-value applies when more than half the insulation is on the interior of the mass wall.

j. The minimum *R*-value for ceilings shall be measured at a distance 24 inches from the interior of the top plate. Insulation shall be placed to extend to the top plate as allowed by the rafter or truss heel space.

k. Requirements by of N1102.1.1 shall only apply to new construction.

Commentary: Table N1102.1.1 (R402.1.1) requires the jurisdiction to insert those thermal envelope elements that are applicable to the Climate Zone that the jurisdiction is located. The changes to the prescriptive energy requirements that are found in Climate Zone 5 as listed in the 2009 International Energy Code

N1102.2.9 (R402.2.9) Basement Walls: Walls associated with conditioned basements shall be insulated from the top of the basement wall to the basement floor. Walls associated with unconditioned basements shall meet this requirement unless the floor overhead is insulated in accordance with Sections N1102.1.2 and N1102.2.8.

Exception: Exterior basement walls of enclosed mechanical rooms or unfinished basement rooms.

Commentary: This eliminates the requirement to insulate the basement exterior walls of mechanical rooms and the requirement to insulate an unfinished basement.

N1102.4.1.2 (R402.4.1.2) Testing: Not adopted

N1103.3.2.1 (R403.3.2.1) Sealed Air Handler: Not adopted

Commentary: Manufacturers are held to a maximum 2 % air leakage requirement at this time.

N1103.3.3 (R403.3.3) Duct Testing: Not adopted

Commentary: The testing of duct sealing in a new house would be an expense of approximately \$400 or more. This maintains a local amendment to visually inspect for air leakage instead of having a testing and balancing company perform the test.

N1103.3.5 (R403.3.5) Building Cavities: Building framing cavities shall not be used as ducts or plenums.

Exception: Stud spaces and floor joist cavities may be used for return air plenums

Commentary: With the local exception, the use of a floor joist and stud space that is inside of the thermal envelope is allowed to continue instead of a new mandate to require all plenums to be ducted.

N1104.1 (R404.1) Lighting Equipment: Not adopted.

Commentary: To conserve energy, the 2015 IRC requires at least 75 percent of the lamps in permanently installed lighting fixtures to be compact fluorescent lamps or other high-efficacy lamps. The 75 percent requirement of CFL's may be met at the time of inspection, but the owner may install or replace with less expensive options

N1107.1.1 (R501.1.1) Additions, Alterations, or Repairs: Additions, alterations, or repairs to an existing building, building system or portions may comply with Section N1108, N1109 or N1110. Unaltered portions of the existing building or building supply system shall not be required to comply with this chapter.

N1109.1 (R503.1) General: Alterations to any building or structure may comply with the requirements of the code for new construction. Alterations shall be such that the existing building or structure is no less conforming to the provisions of this chapter than the existing building or structure was prior to the alteration.

N1110.1 (R504.1) General: Buildings, structures, and parts may be repaired in compliance with Section N1107.3. Work on non-damaged components necessary for the required repair of damaged components shall be considered part of the repair and shall not be subject to the requirements for alterations in this chapter. Routine maintenance required by Section N1107.3, ordinary repairs exempt from permit, and abatement of wear due to normal service conditions shall not be subject to the requirements in this section.

Commentary: These amendments clarify that the energy efficiency standards apply to new construction.

Part VII, Plumbing: The following chapters are not adopted by the city: Chapter 25 Plumbing Administration; Chapter 26 General Plumbing Requirements; Chapter 27 Plumbing Fixtures; Chapter 28 Water Heaters; Chapter 29 Water Supply and Distribution; Chapter 30 Sanitary Drainage; Chapter 31 Vents; Chapter 32 Traps; and Chapter 33 Storm Drainage. The provisions of the Plumbing Code of the City of Yankton or the most current plumbing code adopted by the South Dakota State Plumbing Commission shall apply to the installation, alterations, repairs, and replacement of plumbing systems, including equipment, appliances, fixtures, and appurtenances, and where connected to a water or sewage system for detached one- and two-family dwellings and multiple single-family dwellings (town houses) not more than three stories high with separate means of egress and their accessory structures.

Commentary: Part VII—Plumbing, of the IRC references the International Plumbing Code. The South Dakota State Plumbing Commission has mandated the use of the 2015 Uniform Plumbing Code. To avoid inconsistencies, the plumbing chapters referenced in Part VII are not adopted by the City and instead any plumbing systems for residential construction are referenced to the Plumbing Code or the most current Uniform Plumbing Code adopted by the South Dakota State Plumbing Commission.

Part VIII, Electrical: The following chapters are not adopted by the city: Chapter 34 General Requirements; Chapter 35 Electrical Definitions; Chapter 36 Services; Chapter 37 Branch Circuit and Feeder Requirements; Chapter 38 Wiring Methods; Chapter 39 Power and Lighting Distribution; Chapter 40 Device and Luminaires; Chapter 41 Appliance Installation; Chapter 42 Swimming Pools; Chapter 43 Class 2 Remote-Control, Signaling and Power- Limited Circuits. The provisions of the Electrical Code of the City of Yankton or the most current code adopted National Electrical Code by the South Dakota State Electrical Commission shall apply to the installation, alteration, repair, relocation, replacement, addition to, use, or maintenance of any electrical system, apparatus, wiring, or equipment for electrical, light, heat, power, fire alarms, and associate controls for detached one- and two-family dwellings and multiple single-family dwellings (town houses) not more than three stories high with separate means of egress and their accessory structures.

Commentary: Part VIII, Electrical of the IRC references the electrical standards. The South Dakota State Electrical Commission has mandated the use of the 2017 National Electrical Code and does not recognize any inconsistencies that may be found in Part VIII of the IRC. To avoid inconsistencies, the electrical chapters referenced in Part VIII are not adopted by the City and instead any electrical systems for residential construction are referenced directly to the 2017 National Electrical Code or the most current electrical code adopted by the South Dakota State Electrical Commission.

Section 3. That any section, subsection, sentence, clause or phrase of this ordinance is for any reason, held to be unconstitutional, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance

Section 4. That the finance Officer is hereby ordered and directed to cause this ordinance to be published as required by law

Section 5. That this ordinance and the rules, regulations, provisions, requirement, orders, and matters established and adopted hereby shall take effect and be in full force 20 days from the date of its final passage, adoption and publication.

Adopted: 8-28-17
1st Reading: 8-14-17
2nd Reading: 8-28-17
Publication Date: 9-7-17
Effective Date: 9-27-17



Jake Hoffner, Mayor

Attest:


Al Viereck, Finance Officer