

TOWN OF SOUTH KINGSTOWN
REQUIREMENTS FOR BUILDING PERMITS
RESIDENTIAL SINGLE FAMILY

ADDITIONS

NOTE: Prior to the issuance of your building permit, your soil erosion control devices must be installed on your lot. You must call for an inspection so that an inspector from this office can inspect it for compliance. If the inspection shows compliance, your building permit will be issued. If the inspection fails, you must correct the deficiencies and call for a reinspection. The soil control devices must be maintained until vegetation is established on the disturbed areas.

1. Own the property.
2. If your building request required Zoning Board approval, the Zoning Board's written Decision must accompany the Building Permit application.
3.
 - A. A Plot Plan - To scale, showing distance of foundation, overhangs and decks from all property lines and the survey markers on all corners of said lot and the location of septic tank and leach field.
 - B. A Soil Erosion Plan - Showing Existing & Proposed Grades, Extent of Soil Disturbance, Location of Staked Hay Bales/Siltfence.
 - C. Your builders' Rhode Island building registration number and expiration date.
4. Two (2) sets of building plans to scale, to include:
 - a. foundation plan
 - b. floor plan
 - c. framing plan
 - d. cross section
 - e. elevations
 - f. adjacent existing rooms

NOTE : If your septic system (OWTS) was installed with State approval on or after April 9, 1968, the following applies:

- A. The OWTS is suitable and no application to the Department is necessary for any building construction, renovation or change in use, that does not

- (i) Whenever the proposed construction or renovation changes the structure's footprint such that the OWTS is not in compliance with these Rules;
 - (ii) If the proposed change of use is from a facility that does not prepare food to a restaurant or other facility that prepares food; or
 - (iii) For a change in use, if the OWTS for the new use meets the definition of a large OWTS pursuant to Rule 35.1.
- B. The OWTS is unsuitable for any building construction, renovation or change of use, that results in an increase in the number of bedrooms in a residential structure beyond the number in the original State approval; or an increase in the wastewater flow greater than the OWTS approved design flow for any OWTS. An OWTS Application for New Building Construction or an OWTS Application for Alteration to a Structure shall be required in accordance with Rule 17.5 or Rule 17.6, respectively, whichever is applicable, before the proposed building construction, renovation or change of use may be allowed.

If your septic system (OWTS) and/or cesspool was installed without State approval prior to April 9, 1968, the following applies:

Whenever a person proposes any building construction, renovation, or change of use (as defined in Rule 7) of a structure served by such an OWTS, the OWTS is unsuitable and shall be upgraded to the standards herein. An OWTS Application for New Building Construction or an OWTS Application for Alteration to a Structure shall be required in accordance with Rule 17.5 or Rule 17.6, respectively, whichever is applicable. For the purposes of this Rule, the term "building construction or renovation" shall be defined as any addition, replacement, demolition and reconstruction, or modification of a structure on the subject property which:

- A. Results in any increase in wastewater flow into the OWTS, which for residential structures is equivalent to the addition of one (1) or more bedrooms;
 - B. Involves demolition or replastering or replacement of interior wallboard, interior walls, ceilings, flooring, windows, plumbing fixtures, electrical wiring or kitchen cabinetry, which in total affects over fifty percent (50%) or more of the living area of the existing structure;
 - C. Involves adding an additional floor level or portion of floor level of living space to the structure; or
 - D. Increases the footprint of the living space of the structure.
5. If the plans have trusses (floor or roof), micro lam LVL beams, steel girders or other engineered beams, all calculations and plans must be submitted with the building permit application.

If you have trusses, the layout plan must be submitted with the building permit application and bear the engineer's stamp.

If plans have unusual structural design, an Engineer or Architect must stamp said plans.

6. Wind Design

R301.2.1.1 Design Criteria. Construction in regions where the basic wind speeds from Figure R301.2(4) equal or exceed 110 miles per hour (177.1 km/h) shall be designed in accordance with one of the following. (South Kingstown is in a 110 and 120 mile per hour zone).

- 1. American Forest and Paper Association (AF&PA) Wood Frame Construction Manual for One and Two Family Dwellings (WFCM); or
- 2. Southern Building Code Congress International Standard for Hurricane Resistant Residential Construction (SSTD 10); or
- 3. Minimum Design Loads for Buildings and Other Structures (ASCE-7);

4. Cold-formed steel construction shall be designed in accordance with the provisions of this code.
5. Concrete construction shall be designed in accordance with the provisions of this code.
6. For all communities located in the 110 MPH and 120 MPH wind zones, the prescriptive criteria in Appendix AA may be used for buildings and structures in lieu of items 1-3 above:

Your building plans must indicate how Appendix AA is being met with materials or sections noted on your building plan.

Appendix AA

AA101.1 General. This appendix contains prescriptive solutions for compliance on wind path load transfer requirements, and shall be used only within the limitations of Section AA101.2.

AA101.2 Conditions of Use. The prescriptive solutions specified in the following sections shall not be permitted to be used in the following conditions:

1. Buildings and structures of any size in 110 MPH or 120 MPH wind zones located in a V zone as determined by community FIRMS.
2. Two or more story buildings and structures of any size located in 120-MPH wind zone with more than 20% exterior fenestration. [Fenestration – Skylights, roof windows, vertical windows (whether fixed or moveable); opaque doors; glazed doors; glass block; and combination opaque/glazed doors.]
3. Two or more story structures with a building height greater than 33' as measured from Grade Plane to the average height of the highest roof surface.
4. Any two or more story structure or building with opening fenestration greater than 40% on any one wall.

AA202 Roofs

- AA202.1 Scope.** The following applies to structures conventionally framed or to truss-type roofs.
- AA202.2 Roof Sheathing.** Roof Sheathing shall be not less than 7/16" finished thickness.
- AA202.3 Roof Nailing.** Roof attachment shall be accomplished with minimum 8d nails as follows:

1. In the 4-foot perimeter edge zone along the edges: 6" o/c.
2. To the intermediate supports within the 4-foot perimeter edge zone: 6" o/c.
3. Along the gable end wall or rake: 4" o/c.
4. All other areas: 6" o/c edge; 12" o/c intermediate.

All Sheathing edges within the 4-foot perimeter edge zone shall be blocked with 2x3 minimum including the ridge line and soffit/fascia area. Provisions for ventilation air shall be maintained.

Exception: 2 x 3 intermediate blocking can be eliminated provided all sheathing is 5/8" nominal tongue and groove structural panels (Blocking is still required at the ridge & soffit.)

- AA202.4 Ridge Straps.** Ridge straps 1-1/4" x 20 gauge shall be attached to each pair of opposing rafters with 5-8d nails at each end into the framing member.

Exceptions:

1. Ridge straps are not required when collar ties of nominal 1 x 6 or 2 x 4 lumber are located within the upper third of the attic space and attached to each rafter with 3-10d nails.
2. Trusses without a framed ridge connection.

3. Plywood gussets of equivalent cross-section.
4. Other engineered connections.
5. At hips, straps shall be installed so each hip jack is connected across the hip line with at least 1-8d into an opposite framing member.

AA202.5 Rake and Eave Overhangs. Overhangs shall be limited to 24". Ladder style rake overhangs attached to the gable end walls shall be limited to 12". Cantilevered rake overhangs at gable end walls shall be limited to 24".

AA202.6 Roof Assembly to Wall Assembly. A design wind load suction of 25 psf shall be used in conjunction with Table R802.11 to establish the required strength of rafter tie-down connections to withstand wind uplift forces.

Exception: Roof truss to wall connection shall be designed to withstand either the load requirements of Table R802.11 or the connection loads indicated on the truss design shop drawings, whichever is greater.

AA203 Walls

AA203.1 Wall Sheathing. Wall Sheathing shall be a minimum 7/16" structural panel. Nailing shall be in accordance with Table R602.3(1) and the following:

1. At the top plate or plates, the sheathing shall extend from the top of the top plate to a minimum of 16" beyond the stud-to-bottom of the top plate connection. A minimum of 4 nails shall be used at each stud fastening and edge-nailed to each plate at 6" o/c.

Alternate: Prefabricated and pre-engineered connection straps approved by the Building Official.

2. If the studs are not continuous to the foundation plate such as at an intermediate floor, the wall sheathing shall be continuous and uninterrupted for a distance of 16" beyond

from top of bottom wall plate to 16" beyond bottom of bottom wall top plate below, with a minimum of 4 nails at each stud, and field-nailed at 6" o/c to floor joist header framing.

Alternate: Prefabricated and pre-engineered connection anchors or fasteners approved by the Building Official.

3. At the bottom of the wall assembly to the foundation sill plate, the wall sheathing shall be continuous from a point 16" above the top of the bottom wall plate to the bottom of the foundation sill, with a minimum of 4 nails at each stud, 6" field nailed and edge nailed to the foundation sill plate at 6" o/c.

Alternate: Prefabricated pre-engineered connection anchors or fasteners approved by the Building Official.

AA203.2 Shear Walls. A 4' segment of wall sheathing shall be designated as a shear wall at each corner of the structure at each floor and no more than 24' apart along a wall length. The following additional requirements apply:

1. No openings are permitted within this 4' section.

Exception: Window openings are allowed no closer than 2' to corner providing the length of that shear panel is increased to 8'.

2. All edges shall be blocked and nailed at 6" o/c and field nailed at 6" o/c.
3. Studs shall be doubled at each end of the shear wall panel.

AA203.2.1 Shear Wall Hold-downs. 1st story shear walls shall be connected to the foundation below with connection anchoring capable of 3500 lb. hold-down capacity in addition to conventional foundation anchor bolt requirements in the remainder of the panel. The hold-downs shall be fastened to each end of the shear wall at the double stud.

Exceptions:

1. Shear wall hold-downs shall not be required in wind zones I or II (100 mph or 110 mph). (See attached map).
2. Shear wall anchors shall not be required provided $\frac{1}{2}$ " anchor bolts at 48" o/c max are installed with the top of the bolts anchored through the floor system to the bottom plate of the exterior wall frame for the entire foundation perimeter.

AA203.3 Foundation Anchor Bolts. Anchor bolts shall be installed in accordance with Section R403.1.6 and the following:

1 & 2 story buildings: $\frac{1}{2}$ " @ 48" o/c or
 $\frac{5}{8}$ " @ 72" o/c

3 story building: $\frac{1}{2}$ " @ 24" o/c or
 $\frac{5}{8}$ " @ 36" o/c

Alternate: Prefabricated and pre-engineered connections in design and quantity sufficient to equal strength of anchor bolt specifications above.

Exception: See exception #2 to AA203.2.1 above.

AA203.4 Wall Framing.

AA203.4 1. For wind zone 2 (110 mph) and zone 3 (120 mph) the following conditions apply:

1. Exterior bearing and non-bearing walls greater than 10' in height shall be 2 x 6 @ 16" o/c min.
2. Walls with a total height greater than 10' shall be permitted to use 2 x 4 @ 16" o/c providing the wall is limited to 10' in length and the individual studs are not greater than 9' in length.

AA203.4.2. Garage doors. In wind zone 3 (120) mph garage doors shall be limited to 9' x 8' nominal.

AA 204 Deviations.

AA204.1 Deviations. Deviations from the above prescriptive requirements shall only be permitted if stamped calculations and drawings are provided by a Rhode Island registered professional engineer for alternative connections.

7. Energy Conservation. To meet the energy conservation code SBC-8 you may follow one of the following:
- a. Submit a MEC Check Analysis of your residential structure.
 - b. Meet the following prescriptive requirements for South Kingstown and the amount of exterior window area.

Window Area Percentage of Exterior Wall Area	Fenestration U-Factor	Skylight U-Factor	Ceiling R-Value	Frame Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement Wall R-Value	Crawl Space R-Value
0>17.5	0.35	0.60	R-38	R-15 or R-13 +5a	R-13	R-19/30b	R-10	R-10/13c
17.51>25	0.35	0.60	R-38	R-19 or R-13 +5a	R-13	R-30	R-13	R10/13c

Footnote:

- a. "13 +5" means R-13 cavity insulation plus R-5 insulated sheathing.
- b. R-19/30 means R-19 at floors above occupiable (unheated basements) areas; and R-30 above open crawl space and garage areas.
- c. R-10/13 means R-10 continuous or R-13 at cavity.

Notes:

1. If window area exceeds 25% of gross exterior conditioned space wall area, the provisions of Chapters 4 prevail.
2. R-Value 10.0 insulation shall be installed for unheated slab on grade structures from grade to 2' (two feet) below grade and shall be protected against physical damage in accordance with Section R403.3.2 of Residential Code SBC-2.
3. Sliding glass doors and fully glazed patio doors shall be considered windows for the purpose of this table.

4. Roof/ceiling assemblies in which the finished interior surface is the underside of the roof sheathing, or where the finished ceiling surface is attached to the underside of the roof framing member (i.e. cathedral ceilings), shall have a minimum R-value of 30. Additionally the exterior walls of the structure or portion containing such conditions shall have an accompanying wall insulation value of R-19 or better, and a glass U-factor with a maximum of 0.35.
5. Mass walls shall meet the R-value requirements of Section 402.2.3.
6. Skylights and roof windows shall have a maximum U factor of 0.60.

403.2.1 Duct Insulation – Supply and return ducts shall be insulated to a minimum of R-8. Ducts in floor trusses shall be insulated to a minimum of R-6.

Exception: Ducts or portions thereof located completely inside the building thermal envelope.

8. Plot plan showing existing structure and proposed addition, location of septic system and all accessory structures.
9. If you are adding a den, study or extra bedroom and/or renovating in excess of 50% of the existing floor area and you are not on public sewers, you must apply to DEM for a Systems Suitability approval.
10. Check for proper setbacks for zoning district.
11. If located within 200' of a coastal feature, call 783-3370.
12. If located near a fresh water wetland, call 222-6820.
13. If your property is located adjacent to or near a coastal pond or salt water, you may be in a flood zone that will require that your structure be elevated above a certain elevation above mean sea level and/or you may not exceed 49% of the replacement value of the existing structure.

***ALL OF THE ABOVE ARE GENERAL REQUIREMENTS.
OTHER APPROVALS OR SPECIFICATIONS MAY BE NEEDED
FOR CERTAIN SITUATIONS.***

IF YOU HAVE ANY ADDITIONAL QUESTIONS, PLEASE FEEL FREE TO CALL US AT 789-9331, EXT. 225.

This office would further advise you to keep your septic system design if the building is not tied to public sewers for future reference, and if your property is surveyed, to install permanent markers such as concrete bounds or iron pipes at the time of the survey as the oak stakes rot away or are pulled up by children or other persons. You have paid for the survey once, why pay again?

All Building Permits issued require a Certificate of Occupancy and/or Use. In order to obtain a Certificate of Occupancy and Use you must call this office for the **final inspection**, the structure must be complete, you must have a release from the Utilities Department if you are connected to the Public Sewer line or connected to the South Shore or Middlebridge Water System.

If you have an individual sewage system permit, you must have a letter of conformance from the State Department of Environmental Management.

If you occupy or use a structure without a Certificate of Occupancy and Use and someone is injured on said property, you may not be covered by your insurance, and further it is a violation of the Rhode Island State Law.

**Window Requirements per RI State Building Code
SBC-2-2006 (IRC-2006 w/RI amendments)**

1 – Windborne Debris – Zone 3 only (120 MPH Wind Zone)

See R301.2.1.2

- **Impact Resistance Glass – IZ3 Rating or Impact
Zone 3 Rating**

**(Note: windows will have a label noting IZ3 Rating
Do not remove the label until sign-off by B.I.)**

Exception:

- **Pre-cut Panels – minimum 7/16” thickness and maximum 8’ span – pre-drilled with fasteners are permitted for opening protection in one and two story buildings only. Panels on site at CO Inspection. (Note: This exception is allowed by the Building Code but this may affect insurance rates. The owner should verify this with their insurance carrier.)**

2 – U-Rating – Maximum Glazing U-Factor of .35

**3 – Wind Pressure Requirements (+/_DP Rating)
see R301.2.1**

	Pos	Neg
Zone 2 (110 MPH)	30.52	-40.74
Zone 3 (120 MPH)	36.26	-48.58

**The DP Rating of the windows must have a minimum positive & negative pressure rating as shown for the appropriate zone and exposure. These are the worse case.
Note: For DP ratings other than those values shown – submit the calculations for review prior to rough inspection.**

Note: Windows must be installed per the manufacturer’s instructions for the appropriate zone the structure is located.

New Window Requirements IRC-2006

Section R613 Exterior Window and Glass Doors

R613.2 Window Sills – In dwelling units, where the opening of an operable window is located more than 72 inches (1829 mm) above the finished grade or surface below, the lowest part of the clear opening of the window shall be a minimum of 24 inches (610 mm) above the finished floor of the room in which the window is located. Glazing between the floor and 24 inches (610 mm) shall be fixed or have opening through which a 4-inch diameter (102 mm) sphere cannot pass.

Exceptions:

- 1. Windows whose openings will not allow a 4-inch diameter (102 mm) sphere to pass through the opening when the opening is in its largest opened position.**
- 2. Openings that are provided with window guards that comply with ASTM F2006 or F2090.**