

510-RICR-00-00-18

TITLE 510 – BUILDING CODE COMMISSION

CHAPTER 00 – N/A

SUBCHAPTER 00 – N/A

PART 18 – Use of Native Lumber

18.1 Authority and Purpose

- A. The Use of Native Lumber regulation is promulgated by the Building Code Standards Committee pursuant to the R.I. Gen. Laws §§ 23-27.3-100.1.5 and 23-27.3-109.1.
- B. This regulation governs the use of native lumber within the State of Rhode Island. Said lumber shall be certified as to grade and species for use in the building of structures.

18.2 Definitions

- A. "Commissioner" means the State Building Code Commissioner.
- B. "Committee" means the Building Code Standards Committee, R.I. Gen. Laws § 23-27.3-100.1.3, which is part of the State Building Office at the Department of Business Regulation, pursuant to R.I. Gen. Laws § 5-84-3.1.
- C. "IBC" means the version of the International Building Code currently adopted, including any specific Rhode Island amendments, in Part 1 of this Subchapter.
- D. "Native Lumber" means unmarked structural lumber from wood processed in the State of Rhode Island by a mill registered in accordance with provisions of this Part.
- E. "State Building Office" means the Office within the Department of Business Regulation as established pursuant to R.I. Gen. Laws § 5-84-3.1.

18.3 Registration required for Rhode Island Lumber Mills

- A. Each mill engaged in producing native lumber within the State of Rhode Island shall be registered by the State Building Office.
 - 1. Certification of the grade and species of lumber shall be done by the mill.
 - 2. Review of the mill's practices shall be by the State Building Office and suspension of practice and appeals shall be subject to hearings before the Building Code Standards Committee.

B. Application and Fee

1. Complete applications shall be submitted to the State Building Office accompanied by a registration fee of twenty-five (\$25.00) dollars.
2. The registration shall be valid for one (1) year.

C. Renewal of Registration

1. A complete renewal application shall be submitted to the State Building Office accompanied by a renewal fee of ten (\$10.00) dollars.

D. Each registered mill shall be identified by its name or approved logo and/or trademark.

18.4 Investigations and Enforcement Actions

A. Investigations

1. The Commissioner shall investigate the entire process of manufacturing, certifying, handling, storing or transporting of native lumber produced pursuant to the approved regulations and the code provisions as they deem necessary, at any reasonable hour with or without prior notice upon receipt of written complaint. The results of any such investigation shall be forwarded to the Building Code Standards Committee for disposition.

B. Suspension or Revocation of Registration

1. The State Building Code Standards Committee may suspend or revoke the registration of any such mill.
2. Notice of suspension or revocation shall be in writing with the reasons set forth therein and served in accordance with R.I. Gen. Laws §§ 23-27.3-122.1 – 122.4.
3. Upon suspension or revocation of a mill's registration, said mill shall immediately cease engaging in the certification of native lumber.

C. Appeals

1. Anyone aggrieved by the decision of the Committee may appeal to the Sixth Division of the Rhode Island District Court. R.I. Gen. Laws § 23-27.3-127.1.4(f), (g) and (h).
2. Appeals are subject to the Administrative Procedures Act, R.I. Gen. Laws Chapter 42-35.

18.5 Certification and Use of Native Lumber

- A. All native lumber used for structural purposes must be identified by the mills and certified as to species and grade as provided in IBC section 1705.0, as adopted in Part 1 of this Subchapter.
- B. The State Building Office will provide on its website a Certification of Native Lumber form, containing at a minimum the following information:
 - 1. Identifying information about the registered mill, including business address and contact information;
 - 2. Certification that the native lumber has fiber stress qualities equal to or greater than those species and working stresses set forth in the Rhode Island State Building Code and this Part;
 - 3. Specifications regarding the quantity, size, species, grade, character (hardwood/softwood), and moisture content (under 19% or less); and
 - 4. Information regarding the consumer/contractor purchasing the certified native lumber.
- C. Such lumber which is not grade marked or certified by a recognized grading organization designated under IBC section 2303.1.1, as adopted in Part 1 of this Subchapter, shall be classified as an ordinary material and is not required to meet the test requirement of IBC section 1709.2, as adopted in Part 1 of this Subchapter, and shall be permitted for use as follows.

D. Identification and Use of Native Lumber

- 1. The producing mills shall sell or provide the lumber directly to the ultimate consumer or their contract builder for use in an approved structure.
 - 2. The providing mill shall certify in writing to the consumer or builder on a form to be provided by the State Building Office that the quality and safe working stresses of such lumber are equal to or exceed No. 2 grade in accordance with grading practices established by an approved lumber grading or approved testing agency.
 - a. Exception: Load bearing walls shall be of stud grade minimum.
 - 3. This certification shall be filed with the local building official having jurisdiction as part of the building permit application.
- E. Permitted Uses of Native Lumber
 - 1. One (1) and two (2) family dwellings not exceeding three (3) stories in height.

2. General building construction types 3B, 4 or 5B not exceeding ten thousand (10,000) square feet of cumulative floor area or thirty-five feet (35') in height, but not to exceed two (2) stories.
3. Those low stress buildings not intended for human habitation such as barns, sheds, agricultural, detached garages, outbuildings and other accessory structures.
4. Non-structural and non-fire rated applications in any use group of Type 3, 4 or 5 constructions.

F. Prohibited Uses of Native Lumber

1. Native lumber shall not be used in engineered plate-truss systems unless such lumber is graded in accordance with IBC section 2303.1.1, as adopted in Part 1 of this Subchapter.

G. Native Softwoods and Hardwoods

1. Native hardwood or softwood lumber may be used in post and beam timber type construction per IBC section 602.4, as adopted in Part 1 of this Subchapter. Such uses as beam, girders, headers, and column supports will require engineering evaluation for the allowable design values and duration of loading factors for all buildings other than One (1) & Two (2) Family Dwellings.
2. Native lumber located near or in contact with the ground shall be naturally durable or pressure-treated in accordance with the provisions of IBC section 2304.12, as adopted in Part 1 of this Subchapter.

H. Sizing Criteria for Native Softwood Lumber

1. Sizing criteria: For lumber sized in accordance with the American Wood Council's (AWC) National Design Specifications (NDS), conventional span tables in this code shall be permitted to be used for establishing span and spacing characteristics for all structural members.
2. Stress increases: Lumber which is sized in excess of the dimensions established by the AWC's NDS for the given nominal size referenced shall be allowed to have increased loads providing structural calculations are submitted verifying such increases. Refer to the Native Lumber Allowable Stress Table in § 18.5(L) of this Part.

I. Moisture Content

1. The moisture content for structural framing shall be nineteen percent (19%) or less unless the producer indicates that the lumber is surfaced green.

J. Post and Beam Type Structures

1. Native hardwood and softwood lumber are permitted in post and beam timber-type structures. Design drawings and calculation shall be by a Rhode Island registered architect or engineer and submitted to the building official for approval.

K. Building Official Responsibilities

1. The building official shall indicate the use of native lumber on the building permit application under the heading "Description of work to be performed" and also the name of the mill providing the native lumber.
2. The building official shall have the right to reject any lumber of questionable quality based on visual observation.

L. Native Lumber Allowable Stress Table

Native Lumber Allowable Stress Table				
Actual Lumber Size Closest Size which does not exceed the Dimensions Shown		Multiplier Factor Lumber Based on Width	Factor to be Added to Column 3 Factor for Lumber Oversized in Thickness	
Column 1	Column 2		Column 4	
Nominal Size	Actual Size Thickness Width		Thickness Increase of 1/4" to 1/2"	Thickness Increase of over 1/2" to 1"
3 x 8	2-1/2 x 7-1/2	1.0 x Fs	+0.10	+0.20
	X 7-3/4	1.07		
	X 8	1.14		
3 x 10	2-1/2 x 9-1/2	1.0	+0.10	+0.20
	X 9-3/4	1.05		
	X 10	1.11		
3 x 12	2-1/2 x 11-1/2	1.0	+0.10	+0.20
	X 11-3/4	1.04		

	X 12	1.09		
3 x 14	2-1/2 x 13-1/2	1.0	+0.10	+0.20
	X 13-3/4	1.04		
	X 14	1.07		
4 x 10	3-1/2 x 9-1/2	1.0	+0.07	+0.14
	X 9-3/4	1.05		
	X 10	1.11		
4 x 12	3-1/2 x 11-1/2	1.0	+0.07	+0.14
	X 11-3/4	1.04		
	X 12	1.09		
4 x 14	3-1/2 x 13-1/2	1.0	+0.07	+0.14
	X 13-3/4	1.04		
	X 14	1.08		

Notes to the Native Lumber Allowable Stress Table

Note 1.	Notation FS is the allowable maximum fiber stress for the assumed grade as established by IBC section 2306.1, as adopted by Part 1 of this Subchapter, ("operating" stress) is the modified allowable maximum fiber stress which may be used in the span tables and for calculating required lumber sizes. F's is found by multiplying Fs by the factors given in the table
Note 2.	Table Columns

Column 1	Is the nominal commonly used lumber size		
Column 2	Is a list of actual sizes of the supplied lumber		
Column 2	Lists the sizes on the basis of a constant thickness and a width increasing by one quarter of one inch (1/4") and one half of one inch (1/2")		
Column 3	Gives the multiplier for increasing the assumed allowable stress (Fs) based on the increases in width as listed in Column 2.		
Column 4	Gives the multiplier for increasing the assumed allowable stress (Fs) based on increases in thickness		
Note 3	Example: Fiber stress for assumed grade = one thousand (1,000) psi – Actual size 3-1/8 x 9-3/4		
	Nominal size 3 X 10	1. Multiplier factor for Width =	1.05
	3-1/8 = increase of 5/8" total	2. Multiplier factor for Thickness=	.20
		3. Operating stress F's = 1.25 x Fs F's = 1.25 x 1,000 = 1,250	Sum = 1.25
	Therefore, F's = 1,250 psi is used for calculations and in the span tables		

18.6 Record-Keeping

- A. Each registered mill shall maintain a file of Certifications of Native Lumber issued. Each certificate shall be numerically sequenced and available for inspection and review during normal working hours by staff of the State Building Office.

18.7 Severability

- A. If any provision of these regulations, or the application thereof to any person or circumstance, is held to be invalid, such invalidity shall not affect other provisions or application of these regulations which can be given effect without the invalid provision or application, and to this end the provisions are declared to be severable.

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