780 CMR: MASSACHUSETTS AMENDMENTS TO THE INTERNATIONAL BUILDING CODE 2009

CHAPTER 23: WOOD

2302.1 Add a new definition as follows:

NATIVE LUMBER. Native lumber is wood processed in the Commonwealth of Massachusetts by a mill registered in accordance with 780 CMR 110.R4. Such wood may be ungraded but is stamped or certified in accordance with 780 CMR 110.R4.

2303.1.12 Add subsection:

2303.1.12 Native Lumber. *Native lumber* shall be acceptable for use in one- and two-family dwellings, barns, sheds, and agricultural and accessory structures. *Native lumber* shall also be acceptable for use in one- or two-story structures as columns when the design loads are 25% greater than required in Chapter 16; as joists, principal beams, and girders in floor constructions when the design loads are 15% greater than required in Chapter 16; and as other elements when the design loads are as required in Chapter 16.

When native lumber is used, it shall be subject to the following requirements:

1. <u>Sizing Criteria</u>: For lumber, sized in accordance with the DOC PS-20, figures for maximum fiber stress and modulus of elasticity for framing grade No. 2 shall be used in establishing span and spacing characteristics for all structural members.

2. <u>Stress Criteria</u>: Lumber which is sized in excess of the dimensions established by the DOC PS-20 for the given nominal size referenced shall be allowed to have a maximum fiber stress increase above that provided in section 2303.1.12 item 1 in proportion to the increased bearing capacity of the cross section as provided in Table 2303.1.12.

2303.1.12 Insert TABLE 2303.1.12

TABLE 2303.1.12 NATIVE LUMBER - ALLOWABLE STRESSES

Nominal Size	Actual Lumber Size (closest size which does not exceed the size shown) width (in.) x height (in.)	M u l t i p l i e r factor based on lumber width		
			> $\frac{1}{4}$ and $\leq \frac{1}{2}$ in.	> $\frac{1}{2}$ and ≤ 1 in.
3 x 8	$ \begin{array}{c} 2 \frac{1}{2} \times 7 \frac{1}{2} \\ 2 \frac{1}{2} \times 7 \frac{3}{4} \\ 2 \frac{1}{2} \times 8 \end{array} $	1.0 x Fs 1.07 1.14	0.10	0.20
3 x 10	2 ¹ / ₂ x 9 ¹ / ₂ 2 ¹ / ₂ x 9 ³ / ₄ 2 ¹ / ₂ x 10	1.0 1.05 1.11	0.10	0.20
3 x 12	2 ¹ / ₂ x 11 ¹ / ₂ 2 ¹ / ₂ x 11 ³ / ₄ 2 ¹ / ₂ x 12	1.0 1.04 1.09	0.10	0.20
3 x 14	2 ¹ / ₂ x 13 ¹ / ₂ 2 ¹ / ₂ x 13 ³ / ₄ 2 ¹ / ₂ x 14	1.0 1.04 1.07	0.10	0.20
4 x 10	3 ¹ / ₂ x 9 ¹ / ₂ 3 ¹ / ₂ x 9 ³ / ₄ 3 ¹ / ₂ x 10	1.0 1.05 1.11	0.07	0.14
4 x 12	3 ¹ / ₂ x 11 ¹ / ₂ 3 ¹ / ₂ x 11 ³ / ₄ 3 ¹ / ₂ x 12	1.0 1.04 1.09	0.07	0.14
4 x 14	3 ¹ / ₂ x 13 ¹ / ₂ 3 ¹ / ₂ x 13 ³ / ₄ 3 ¹ / ₂ x 14	1.0 1.04 1.08	0.07	0.14

NON-TEXT PAGE