Proposed Modification to the Florida Building Code

Modification #:

Section 553.73, Fla Stat

Name:Building Code Advisory Board of Palm Beach CountyAddress100 Australian Aveemailbghianda@co.palm-beach.fl.usPhone:561 233-5100Fax:561 233-5286Code:BuildingSection #:Table 2307.6B

Text of Modification [additions underlined; deletions stricken]:

TABLE 2307.6B ALLOWABLE SPANS AND LOADS FOR WOOD STRUCTURAL PANEL SHEATHING AND SINGLE FLOOR GRADES CONTINUOUS OVER TWO OR MORE SPANS WITH LONG PANEL DIMENSION PERPENDICULAR TO SUPPORTS^{1,6}

Sheathing Grade Roof ²		Roof ⁷				Floor
Span Rating	Panel Thickness (in) 7	Maximum Span (in)		Load (PSF)		Maximum Span (in)
Roof ⁻⁷ /Floor Span		With Edge Supported2	Without Edge Support	Total Load	Live Load	
12/0 16/0 20/0 24/16 32/16 40/20 48/28 54/32 60/48	5/16 5/16, 3/8 5/16, 3/8 3/8, 7/16, 1/2 7/16, 1/2 15/32, 1/2, 19/32, 5/8 19/32, 5/8, 3/4, 7/8 23/32, 3/4, 7/8 7/8, 1 7/8, 1 7/8, 1, 1 1/8	12 16 20 24 24 32 40 48 54 60	12 16 20 20 24 28 32 36 40 48	40 40 40 40 50 40 40 40 45 45 45	30 30 30 30 40 30 30 35 35 35	$ \begin{array}{c} 0\\ 0\\ 0\\ 0\\ 16_{5}\\ 16^{4.5}\\ 20\\ 24\\ 32\\ 48\\ \end{array} $
Single Floor Grade			Floor			
Span Rating	Panel Thickness (in)	Maximum Span (in)		Load (Psf)		Maximum Span (in)
		With Edge Supported ²	With Edge Support	Total Load	Live Load	

16 in. o.c.	19/32, 5/8	24	24	40	40	16 ₅
20 in. o.c.	19/32, 5/8, 3/4	32	32	35	30	$20^{4,5}$
24 in. o.c.	23/32, 3/4	48	36	50	25	24
32 in. o.c.	7/8, 1	48	40	50	40	32 48
28 in. o.c.	1- 3/32, 1- 1/8	60	48	50	40	40

1 in = 25.4 mm

1 psf = 47.8803 Pa

Notes:

1. The allowable loads were determined using a dead load of 10psf. If the dead load exceeds 10psf then the live load will be reduced accordingly.

 Tongue and groove edges, panel edge clips (one midway between each support, except two equally spaced between supports 48 in on center), lumber blocking, or other. Only lumber blocking shall satisfy blocked diaphragm requirements.

3. For ½-inch panels maximum span shall be twenty-four inches.

4. Maximum framing space shall be 24 inches on center for floors where 1-1/2 inches of cellular or lightweight concrete is applied over panels.

5. Maximum frame spacing shall be 24 inches on center where 3/4-inch wood strip flooring is installed at right angles to joist.

6. Shall apply only to panels 24 inches or wider.

7. In no case shall any roof sheathing be less than 32/16 Span Index, 19/32-in. wood structural panel for spans 16-inches or more on center in wind speed regions of 110-140 mph, Exposure B. Roof sheathing span ratings and panel thickness highlighted in the table shall not be permitted where wind speeds exceed 100 mph.

Fiscal Impact Statement [Provide documentation of the costs and benefits of the proposed modifications to the code for each of the following entities. Cost data should be accompanied by a listing of assumptions and supporting documentations. Explain expected benefits.]:

- A. Impact to local entity relative to enforcement of code: None.
- B. Impact to building and property owners relative to cost of compliance with code: None.
- C. Impact to industry relative to cost of compliance with code: None.

Please explain how the proposed modification meets the following requirements:

1. Has a reasonable and substantial connection with the health, safety, and welfare of the general public: Yes.

2. Strengthens or improves the code, and provides equivalent or better products, methods, or systems of construction:

Strengthens code by addressing current wind speed limitations specified in Section 2301.1.2, (and its referenced Sections: 2306 Fastenings; 2307 Floor Framing; 2308

Vertical Framing; and 2309 Roof and Ceiling Framing) The general provisions and the standards described therein are limited to wind speed areas of 100mph or less. The modifications to Table 2307.6B seek to enhance code provisions by including minimum span index ratings and panel thickness for roof sheathing in Florida's other prevalent wind speed areas (i.e. those exceeding 100 mph) that is necessary for nail withdrawal resistance in mechanically attached roof systems.

Per Figure 1606, State of Florida Basic Wind Speed Map

Approx. Number of Counties Partially or Wholly in Wind Region
10
35
42
25
8

3.Does not discriminate against materials, products, methods, or systems of construction of demonstrated capabilities: No

4. Does not degrade the effectiveness of the code:

Improves utility and applicability of Table 2307.6B for all Florida wind regions by categorizing/delineating the appropriate panel span index rating and thickness for structural panel roof sheathing suitable for wind speed areas of 100 mph or less, and those span ratings and thickness necessary in Florida's other predominant wind speed areas exceeding 100mph.

Form No. 2000-01

Effective date: 11/28/00

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Committee Action: Committee Action: Committee Action: Committee Action:

Committee Reason: Committee Reason: Committee Reason: Committee Reason:

Commission Action: Commission Action: Commission Action:

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