American Society of Agricultural and Biological Engineers.

ASABE EP 484.2 Diaphragm Design of Metal-clad, Post-Frame Rectangular Buildings

ASABE EP 486.2 Shallow Post Foundation Design

ASABE 559.1 Design Requirements and Bending Properties for Mechanically Laminated Columns

APA—The Engineered Wood Association.

ANSI 117 Standard Specifications for Structural Glued Laminated Timber of Softwood Species

ANSI A190.1 Structural Glued Laminated Timber

Panel Design Specification

Plywood Design Specification Supplement 1—Design & Fabrication of Plywood Curved Panel

Plywood Design Specification Supplement 2—Design & Fabrication of Glued Plywood-lumber Beams

Plywood Design Specification Supplement 3—Design & Fabrication of Plywood Stressed-skin Panels

Plywood Design Specification Supplement 4—Design & Fabrication of Plywood Sandwich Panels

Plywood Design Specification Supplement 5—Design & Fabrication of All-plywood Beams

EWS T300 Glulam Connection Details

EWS S560 Field Notching and Drilling of Glued Laminated Timber Beams

EWS S475 Glued Laminated Beam Design Tables

EWS X450 Glulam in Residential Construction

EWS X440 Product and Application Guide: Glulam

EWS R540 Builders Tips: Proper Storage and Handling of Glulam Beams

Truss Plate Institute, Inc.

TPI 1 National Design Standard for Metal Plate Connected Wood Truss Construction

West Coast Lumber Inspection Bureau

AITC 104 Typical Construction Details

AITC 110 Standard Appearance Grades for Structural Glued Laminated Timber

AITC 113 Standard for Dimensions of Structural Glued Laminated Timber

AITC 119 Standard Specifications for Structural Glued Laminated Timber of Hardwood Species

AITC 200 Inspection Manual

2306.1.1 Joists and rafters. The design of rafter spans is permitted to be in accordance with the AWC STJR.

2306.1.2 Plank and beam flooring. The design of plank and beam flooring is permitted to be in accordance with the AWC *Wood Construction Data No. 4*.

2306.1.3 Treated wood stress adjustments. The allowable unit stresses for *preservative-treated wood* need not be adjusted for treatment, but are subject to other adjustments.

The allowable unit stresses for *fire-retardant-treated wood*, including fastener values, shall be developed from an *approved* method of investigation that considers the effects of anticipated temperature and humidity to which the *fire-retardant-treated wood* will be subjected, the type of treatment and the redrying process. Other adjustments are applicable except that the impact load duration shall not apply.

2306.1.4 Lumber decking. The capacity of lumber decking arranged according to the patterns described in Section 2304.9.2 shall be the lesser of the capacities determined for flexure and deflection according to the formulas in Table 2306.1.4.

TABLE 2306.1.4
ALLOWABLE LOADS FOR LUMBER DECKING

PATTERN	ALLOWABLE AREA LOAD[a, b]	
	Flexure	Deflection
Simple span	$\sigma_b = \frac{8F_b'd^2}{l^2 6}$	$\sigma_\Delta = \frac{384\Delta E'd^3}{5l^4 12}$
Two-span continuous	$\sigma_b = \frac{8F_b'd^2}{l^2 6}$	$\sigma_\Delta = \frac{185\Delta E'd^3}{l^4 12}$
Combination simple- and two-span continuous	$\sigma_b = \frac{8F_b'd^2}{l^2 6}$	$\sigma_\Delta = \frac{131\Delta E'd^3}{l^4 12}$
Cantilevered pieces intermixed	$\sigma_b = \frac{20F_b'd^2}{3l^2 6}$	$\sigma_\Delta = \frac{105\Delta E'd^3}{l^4 12}$
Controlled random layup		
Mechanically laminated decking	$\sigma_b = \frac{20F_b'd^2}{3l^2 6}$	$\sigma_\Delta = \frac{100\Delta E'd^3}{l^4 12}$
2-inch decking	$\sigma_b = \frac{20F_b'd^2}{3l^2 6}$	$\sigma_\Delta = \frac{100\Delta E'd^3}{l^4 12}$
3-inch and 4-inch decking	$\sigma_b = \frac{20F_b'd^2}{3l^2 6}$	$\sigma_\Delta = \frac{116\Delta E'd^3}{l^4 12}$

For SI: 1 inch = 25.4 mm.

a. σ_b = Allowable total uniform load limited by bending.
σ_Δ = Allowable total uniform load limited by deflection.

b. d = Actual decking thickness.
l = Span of decking.
F_b' = Allowable bending stress adjusted by applicable factors.
E' = Modulus of elasticity adjusted by applicable factors.