

DEPT. OF INDUSTRY, LABOR & HUMAN RELATIONS 147  
 Structural Ind 53

(b) No part of any of the above referenced standards shall supersede the general live load requirements of section Ind 53.11.

(6) RECONSTITUTED WOOD BASE-FIBER AND PARTICLE PANEL MATERIALS. Materials of this type, when used structurally, shall be approved by the department in accordance with the requirements of section Ind 50.12. Evaluation will be based on ASTM D 1037 [Ind 51.25 (44)].

(7) SOLID WOOD FLOOR AND ROOF SHEATHING. Minimum thickness of nonstress rated lumber used for floor and roof sheathing shall be in accordance with Table 53-XVI.

TABLE 53-XVI  
 MINIMUM NET THICKNESS OF LUMBER PLACED (INCHES)

Use	Span (Inches)	Perpendicular to Support		Diagonal to Support	
		Surfaced Dry†	Surfaced Unseasoned	Surfaced Dry†	Surfaced Unseasoned
Floors.....	24	3/4	25/32	3/4	25/32
	16	5/8	11/16	5/8	11/16
Roofs.....	24	5/8	11/16	3/4	25/32

†Maximum 19% moisture content.

(a) The above dimensions shall be the minimum dimensions for lumber with grades as specified in Table 53-XVII.

TABLE 53-XVII  
 MINIMUM BOARD GRADES†

Grading Agency	Solid Floor or Roof Sheathing	Spaced Roof Sheathing
West Coast Lumber Inspection Bureau.....	Utility	Standard
Western Wood Products Association.....	4 Common or Utility	3 Common or Standard
Southern Pine Inspection Bureau.....	No. 3	No. 2
Redwood Inspection Service.....	Merchantable	Construction, common
National Lumber Grades Authority.....	4 Common or Utility	3 Common or Standard
Northern Hardwood and Pine Manufacturers Association.....	4 Common	3 Common
Northeastern Lumber Manufacturers Association.....	4 Common	3 Common

†The above grades are taken from grading rules approved by the American Lumber Standards Committee.

(8) TIMBER FASTENERS. The design and use of timber fasteners shall be in accordance with the requirements of National Design Specification for Wood Construction [Ind 51.27 (8)].

(9) WOOD FOUNDATIONS AND WALLS BELOW GRADE. (a) *Design.* The design of wood foundations and walls below grade shall be in accordance with the following adopted standard and listed exceptions: "All-Weather Wood Foundation System, Basic Requirements," Technical Report No. 7 [Ind 51.27 (8)].

1. Exceptions: a. Section 3.3.1. Fasteners for use in preservative treated wood shall meet the requirements of this article. Fasteners of silicon bronze or copper or stainless steel types 304 or 316, as defined by the American Iron and Steel Institute classification, shall be permitted in preservative treated wood above or below grade. Fasteners or fastener materials not otherwise permitted under this article shall be permitted if adequate comparative tests for durability, including the effects associ-

ated with wood treating chemicals, demonstrate performance equal to or greater than the specified fasteners or fastener materials.

b. Section 6.7. Six-mil thick polyethylene sheeting shall be applied over the below-grade portion of exterior basement walls prior to back-filling. Joints in the polyethylene sheeting shall be lapped 6 inches and bonded. The top edge of the polyethylene sheeting shall be bonded to the plywood sheathing. A treated lumber or plywood strip shall be attached to the wall to cover the top edge of the polyethylene sheeting. The wood strip shall extend several inches above and below finish grade level, as required to protect the polyethylene from exposure to light and from mechanical damage at or near grade. The joint between the strip and the wall shall be caulked full length prior to fastening the strip to the wall. Alternatively, asbestos-cement board, brick, stucco or other covering appropriate to the architectural treatment may be used in place of the wood strip. The polyethylene sheeting shall extend down to the bottom of the wood footing plate but shall not overlap or extend into the gravel footing.

(b) *Materials.* All lumber and plywood shall be treated in accordance with the following adopted standard and shall be identified as to conformance with such standard by an approved inspection agency:

1. "Quality Control Program for Soft-Wood Lumber, Timber and Plywood Pressure Treated with Water-Borne Preservatives for Ground Contact Use in Residential and Light Commercial Foundations" [Ind 51.27 (6a)].

**History:** Cr. Register, July, 1974, No. 223, eff. 1-1-75; am. (2) Register, December, 1974, No. 228, eff. 1-1-75; r. and recr. (2), Register, April, 1975, No. 232, eff. 5-1-75; am. (1) (a), (3) and (8) (intro.), cr. (9), Register, December, 1978, No. 276, eff. 1-1-79.

**Ind 53.62 Special systems.** (1) **WOOD TRUSSES.** Wood trusses shall be constructed in accordance with the following recommended standard and the listed exceptions:

(a) "Design Specification for Metal Plate Connected Wood Trusses" [Ind 51.27 (10)].

1. Exceptions and additions:

a. Section 302.2. Moment coefficients used in the design of top chord members shall be based on the assumption of no fixity at member ends or joints due to plate connectors. Moment and buckling factors as shown in Table 1 of TPI-78 are acceptable.

b. Metal plate connectors shall be identifiable as stated in Ind 53.61 (8) (a).

c. The modification of design stresses for duration of load shall be as specified in Ind 53.61 (1) (a) 1. c.

(b) For trusses with nail-glued plywood gusset plates, calculations and design reference source shall be submitted to the department.

Register, January, 1980, No. 289  
Building and heating, ventilating  
and air conditioning code