

*Only use metric dimensions when referencing actual dimensions, such as “8 feet 6 inches”, “16 inches on center”, etc. Do not use metric dimensions when referencing nominal lumber dimensions, such as 2x4, 2x6, etc. Also, do not refer to nominal framing lumber with the word “inches” such as “2 inches by 6 inches”. All of this has the potential to be confusing.

Specification for Wood Construction and in compliance with Section 2317.

2315.4.2 Reserved.

SECTION 2316 HIGH-VELOCITY HURRICANE ZONES— SIZES RESERVED

SECTION 2317 HIGH-VELOCITY HURRICANE ZONES— UNIT STRESSES

2317.1 General.

2317.1.1 Lumber used for joists, rafters, trusses, columns, beams and/or other structural members shall be of no less strength than No. 2 grade of Southern Pine, Douglas Fir-Larch, Hem-Fir or Spruce-Pine-Fir. Joists and rafters shall be sized according to AF&PA Span Tables for Joists and Rafters adopted in Section 2314.4.

2317.1.2 Lumber used for studs in exterior walls and interior bearing walls shall be of no less strength than stud grade of Southern Pine, Douglas Fir-Larch, Hem-Fir or Spruce-Pine-Fir and capable of resisting all loads determined in accordance with Chapter 16 (High-Velocity Hurricane Zones). The unbraced height of the wall shall be no more than 8 feet 6 inches (2.6 m) (including top and bottom plates). Heights may be increased where justified by rational analysis prepared by a registered professional engineer or registered architect proficient in structural design.

2317.1.3 Reserved.

2317.1.4 The designer shall specify on the design drawings the size, spacing, species and grade of all load supporting members.

2317.2 Allowable stress design value may be modified for repetitive, duration, etc., factors where design is by a registered professional engineer or registered architect proficient in structural design or where such modified values are reflected in the tables of the standards in Section 2314.4.

SECTION 2318 HIGH-VELOCITY HURRICANE ZONES— VERTICAL FRAMING

2318.1 Studs in bearing and exterior walls. Studs in walls framing over 8 feet 6 inches (2.6 m) (including top and bottom plates) or supporting floor and roof loads shall be designed by rational analysis prepared by a registered professional engineer or registered architect proficient in structural design.

2318.1.1 Minimum size. Studs shall be not less than ~~2 inch by 6 inch (51 mm by 152 mm)~~ 2x6 for exterior walls or ~~2 inch by 4 inch (51 mm by 102 mm)~~ 2x4 for interior bearing or load resisting walls unless designed by rational analysis by

a registered professional engineer or registered architect proficient in structural design.

2318.1.2 Spacing. Studs shall be spaced not more than 16 inches (406 mm) on center unless designed by rational analysis as a system of columns and beams by a registered professional engineer or registered architect proficient in structural design.

2318.1.3 Placing.

2318.1.3.1 Studs in exterior and bearing walls shall be placed with the longer dimension perpendicular to the wall.

2318.1.3.2 Studs in exterior walls and in bearing walls shall be supported by foundation plates, sills, or girders or floor framing directly over supporting walls or girders. Stud bearing walls when perpendicular to supporting joists may be offset from supporting walls or girders not more than the depth of the joists unless such joists are designed for the extra loading conditions.

2318.1.3.3 Stud walls framing into base plates of exterior walls and interior bearing walls resting on masonry or concrete shall be anchored past the plate to the masonry or concrete, or shall be anchored to a sill plate which is anchored in accordance with Section 2318.1.4.1 when the net wind uplift is up to 500 pounds per foot (7297 N/m).

2318.1.4 Sills and/or base plates.

2318.1.4.1 Sills and/or base plates, where provided in contact with masonry or concrete, shall be of an approved durable species or be treated with an approved preservative and shall be attached to the masonry or concrete with $\frac{1}{2}$ -inch (13 mm) diameter bolts with oversized washer spaced not over 2 feet (610 mm) apart and embedded not less than 7 inches (178 mm) into a grout filled cell of masonry or into concrete. Base plates shall be placed in a recess $\frac{3}{4}$ inch (19 mm) deep and the width of the base plate at the edge of a concrete slab, beam/slab or any other type of construction which uses a masonry surface or concrete slab, or be provided with an alternate waterstop method as approved by the building official. Alternate methods of anchorage may be designed by rational analysis by a registered professional engineer or a registered architect proficient in structural design.

2318.1.4.2 Where the base plate of a bearing wall is supported on joists or trusses running perpendicular to the wall and the studs from the wall above do not fall directly over a joist or truss, a double base plate or a single base plate supported by a minimum ~~2 inch by 4 inch (51 mm by 102 mm)~~ inset ribbon shall be used to support the upper stud wall.

2318.1.5 Top plates.

2318.1.5.1 The top plate of stud bearing walls shall be doubled and lapped at each intersection of walls and partitions.

2318.1.5.2 Joints shall be lapped not less than 4 feet (1219 mm).