



Decks

General Information For Decks, porches or balconies

- 1) Footings
 - a. Depth: 36" below finished grade minimum
 - b. Column (post): shall be supported on a 6" thick pad of poured concrete

- 2) Lumber
 - a. Use only approved treated lumber
 - b. Do not exceed allowable spans

- 3) Stairways
 - a. Maximum of 8-1/4" riser
 - b. Minimum 9" tread (run)
 - c. All risers shall be uniform in size. The greatest riser height shall not exceed the smallest by more than 3/8"
 - d. No open risers are allowed
 - e. A nosing not less than 3/4" nor more than 1-1/4" shall be provided on stairway with solid risers. A nosing is not required where the tread depth is a minimum of 11"

- 4) Handrails and Guardrails
 - a. Handrails are required on at least one side of stairways with more than three risers
 - b. Handrails shall be installed at a height between 34"- 38" measured vertically from the nosing of the treads and serve each tread the full length of the interior stairs with more than three risers and exterior stairs with more than two risers
 - c. Surfaces 30" or more above grade shall have guardrails installed at a minimum height of 36"
 - d. Spacing of guardrail openings shall not allow the passage of a 4" diameter sphere
 - e. Required guards shall not be constructed with horizontal rails or other ornamental pattern that results in a ladder effect
 - f. The triangle openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway shall not allow the passage of a 6" diameter sphere

- 5) Flooring (Deck Surface)
 - a. Where the deck is supported to an exterior wall, it shall be positively anchored to the primary structure and designed for both vertical and lateral loads as applicable. Such attachment shall not be accomplished by the use of toe-nails or nails subject to withdrawal. Decks shall be self-supporting where a positive attachment to the primary structure is not possible. When a deck has cantilevered framing members,



it shall be designed and constructed to resist uplift resulting from the full live load acting on the cantilevered portion of the deck.

- 6) Joist spans
 - a. The following is an example of commonly used lumber species. For other grades and species and other load conditions, refer to AF&PA span tables for joists and rafters

Residential living area live load=40psf		DEAD LOAD =20 PSF			
		2x6	2x8	2x10	2x12
		Maximum Floor Joist Spans			
Joist Spacing (inches)	SPECIE & GRADE	(ft.-in.)	(ft.-in.)	(ft.-in.)	(ft.-in.)
12 o.c.	Southern Pine #2	10-9	14-2	16-11	19-10
16 o.c.	Southern Pine #2	9-6	2-4	14-8	17-2
24 o.c.	Southern Pine #2	7-9	10-0	12-0	14-0

- 7) The ends of each joist, beam or girder shall have no less than 1-1/2" of bearing on wood or metal and no less than 3" on masonry or concrete or by the use of approved joist hangers. Joist framing from opposite sides over a bearing support shall lap a minimum of 3" and shall be nailed together with a minimum of 3 10D face nails. A wood or metal splice with the strength equal to or greater than that provided by the nailed lap is permitted. Joist framing into the side of a wood girder shall be supported by approved framing anchors or on ledger strips not less than nominal 2" by 2"
- 8) Fasteners for treated and fire-retardant wood shall be of hot-dipped galvanized steel, stainless steel, silicon bronze or copper of proper size and type. Bolts may be only steel of 1/2" diameter or greater