



DECKS

Morehead City Planning & Inspections Department
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1. A deck is an exposed exterior wood floor structure which may be attached to the structure or freestanding. Roofed porches (open or screened-in) may be constructed using these provisions.
2. Support posts shall be supported by a footing.

FOOTING CHART

SIZE	TRIBUTARY AREA	THICKNESS (inches)	
		Precast	Cast-in-place
inches	square feet		
8X16	36	4	6
12X12	40	4	6
16X16	70	8	8
16X24	100		8
24X24	150		8

3. When attached to a structure, the structure to which attached shall have a treated wood band for the length of the deck, or metal flashing (aluminum flashing cannot be used due to galvanic action) shall be used to prevent moisture from coming in contact with the untreated framing of the structure. The deck band and the structure band shall be constructed in contact with each other except on brick veneer structures and where plywood sheathing is required and properly flashed. Siding shall not be installed between the structure and the deck band. If attached to a brick veneer structure, flashing is not required. In addition, the treated deck band shall be constructed in contact with the brick veneer.

4. When the deck is supported at the structure by attaching the deck to the structure, the following attachment schedules shall apply for attaching the deck band to the structure.

All structures EXCEPT brick veneer:

Fasteners	8' maximum joist span	16' maximum joist span
5/8" hot dipped galvanized bolts with washers *	1 @ 3' 6" on center	1 @ 1' 8" on center
AND	AND	AND
12D Common hot dipped galvanized nails **	2 @ 8" on center	3 @ 6" on center

* Minimum edge distance for bolts is 2&1/2 inches
 ** Nails must penetrate the supporting structure band a minimum of 1&1/2 inches.

Brick veneer structures:

Fasteners	8' maximum joist span	16' maximum joist span
5/8" hot dipped galvanized bolts with washers *	1 @ 2' 4" on center	1 @ 1' 4" on center

* Minimum edge distance for bolts is 2&1/2 inches.

Masonry ledge support:

If the deck band is supported by a minimum of 1/2 inch masonry ledge along the foundation wall, 5/8 inch hot dipped galvanized bolts with washers spaced at 48 inches on center may be used.

Other means of support such as joist hangers may be connected to a treated house band and properly flashed.

5. Band joists shall be doubled and of sufficient cross section to support the floor joists framing into the band joist.

6. Girders and band joists shall bear directly on posts or be connected to the side of posts with 2 – 5/8 inch hot dipped galvanized bolts with washers. When bearing directly on posts, connectors shall be provided to resist uplift and sliding.

7. Floor decking shall be No. 2 grade treated Southern Yellow Pine or equivalent. The minimum floor decking thickness shall be as follows:

Joist spacing	Decking (Nominal)
12" on center	1" S4S
16" on center	1" T & G
24" on center	1&1/4" S4S
32" on center	2" S4S

8. Maximum height of deck support posts as follows:

Post size *	Unbraced maximum post height **
4 X 4	8' 0"
6 X 6	20' 0"
***	Over 20' 0"

* This table is based on No. 2 Southern Yellow Pine posts. Maximum tributary area is based on 128 total square feet which may be located at different levels.

** From top of footing to bottom of girder.

*** Decks with post heights over 20' 0" shall be designed and sealed by a Professional Engineer or Architect.

9. Decks shall be braced to provide lateral stability by one of the following methods:

a) When the deck floor height is less than 4' 0" and the deck is attached to the structure in accordance with Section (4) above, lateral bracing is not required.

b) 4X4 wood knee braces may be provided on each column in both directions. The knee braces shall attach to each post at a point not less than 1/3 of the post length from the top of the post, and the braces shall be angled between 45 and 60 degrees from the horizontal. Knee braces shall be bolted to the post and the girder/band with one 5/8 inch hot dipped galvanized bolt with washer at each end of the brace.

c) For freestanding decks without knee braces or diagonal bracing, lateral stability may be provided by embedding the posts in accordance with the following:

Post Size	Maximum tributary area	Maximum post height	Embedment depth	Concrete diameter
4X4	48 S.F.	4' 0"	2' 6"	1' 0"
6X6	120 S.F.	6' 0"	3' 6"	1' 8"

d) 2X6 diagonal vertical cross bracing may be provided in two perpendicular directions for freestanding decks or parallel to the structure at the exterior column line for attached decks. The 2X6's shall be attached to the posts with one 5/8 inch hot dipped galvanized bolt with washers at each end of each bracing member.

For embedment of piles in Coastal Regions:

1. The embedment of piles supporting uncovered decks shall be 6 inches X 6 inches minimum, or if round, have a

minimum tip diameter of 6 inches. For decks less than 5 feet above grade, the piles may be 4 inches X 4 inches minimum.

2. Pile tip shall extend to a depth of not less than 8 feet below the natural grade of finished grade of the lot, whichever is lower. All pilings within the Ocean Hazard Area shall have a tip penetration of at least 5 feet below mean sea level or 16 feet below average original grade, whichever is least.

3. The sills, beams or girders shall be attached to the piling with a minimum of two 5/8 inch galvanized steel bolts per beam member and shall be through bolted at each piling connection. The piling shall not be notched so that the cross-section is reduced below 50%. Sills, beams or girders may be attached using 3/16 inch X 4 inch X 18 inch hot dipped galvanized straps, one each side, bolted with two 1/2 inch galvanized through bolts.

4. Bracing of piles shall comply with section 8. When these heights are exceeded, a line of X bracing shall be provided at all exterior pile lines. X bracing shall be with 2X10's through bolted with two 3/4 inch galvanized bolts at each end.

*Alternate bracing designs are acceptable if they are designed & bear the seal of a Professional Engineer or Architect.