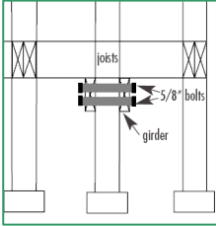


Girder Tables from the Building Code for #2 SYP and a 40 lb. Live Load:

Figure 5.



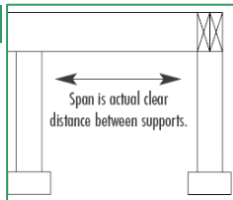
Deck Width (Ft)	Exterior Girder Clear Spans (Feet)		
	Nominal Lumber Size		
	2-2x8	2-2x10	2-2x12
20	5-7	6-9	7-10
24	5-3	6-4	7-4
28	4-10	5-10	6-10
32	4-7	5-6	6-5
36	4-4	5-3	6-1

If you have any questions about these specifications, the use of other materials, standards or the Code requirements for your deck, please call **342-8130**

Span Tables from the building Code for 40 lb. Live Load for # 2 SYP:

Joist Size	Spaced @	Will Span	Joist Size	Spaced @	Will Span
2 x 6	12"OC	10'9"	2 x 10	12"OC	18'
	16"OC	9'9"		16"OC	16'1"
	24"OC	8'6"		24"OC	13'1"
2 x 8	12"OC	14'2"	2 x 12	12"OC	21'9"
	16"OC	12'10"		16"OC	18'10"
	24"OC	11'		24"OC	15'5"

Figure 6.



An attached Deck Diagram...



Deck Band - See Span Table Above
Footings - See Item #2 and #3 Inside
Girders - See Item #4 Inside
Guardrails & Steps - See Item #4 Inside

Joists - See Span Table Above
Ledger - See Item #1 Inside
Posts - See Item #4 Inside

**Rockingham County
 Planning & Inspections**
 Post Office Box 105
 Wentworth, NC 27375

www.co.rockingham.nc.us/planning/index.htm

**Rockingham County
 Procedures & Inspection Guidelines**

*Are You Ready To Get
 All Decked Out?*



*What YOU need to know
 before building an Attached or
 Free-Standing Deck to your home.*

First Things First...

Everyone dreams of the "perfect deck"...

but getting from Point A - "the dream deck" - to Point B - planning and constructing it - is not always easy. This brochure will help you construct a safe, code-compliant "dream deck."

But, First Things First...

Be sure to obtain a building permit for the deck before you build it.

For information on how and where to obtain your building permit, call or visit the Rockingham County Planning & Inspections Office., or simply call at 342-8130. Office hours are Monday through Friday from 8:00 AM to 5:00 PM.

Why the permit and inspections?

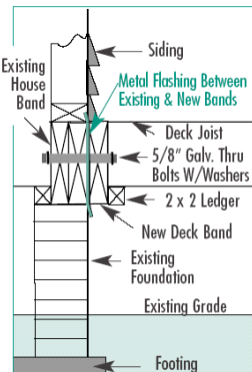
To ensure that the deck will comply with local zoning regulations and with the North Carolina State Building Code. The zoning regulations establish minimum setbacks that must be maintained from property lines. The building code governs the method of construction, materials, means of support, attachment and requires safety features such as guard rails and handrails.

Some Things To Think About...

1. Will your deck be attached to the residence for support or will it be a "free standing" deck?

If attached, this means the deck band will be connected to the house band and that your deck will be supported partially by the existing foundation of the house. Attached decks must be connected to the band or rim joist of the house by "5/8 inch galvanized through bolts". Also, the existing siding (except brick) which covers the house band must be removed so that the deck band makes full contact with the house band. Metal flashing must be installed between the house and deck bands (see flashing detail in Figure 1) to prevent water from rotting the house band. See diagram below for detail.

Figure 1.



All Structures except Brick Veneer			
Fasteners	8' Max. Joist Span	16' Max Joist Span	
5/8" Hot Dipped Galv. Bolts with Washers*	1 @ 3'6" o.c.	1 @ 1'8" o.c.	
and	and	and	
12d Common Hot Dipped Galv. Nails**	2 @ 8" o.c.	3 @ 6" o.c.	
Brick Veneer Structures			
Fasteners	8' Max. Joist Span	16' Max Joist Span	
5/8" Hot Dipped Galv. Bolts with Washers*	1 @ 2'4" o.c.	1 @ 1'4" o.c.	

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

** Nails must penetrate the supporting structure band a minimum of 1 1/2 inches.

2. What distance will you span between supports?

Your joists must be sized to carry a 40 lb. Per sq. ft live load. In some instances, a girder is used to help meet this design criteria and to allow use of smaller individual floor joists. (see floor joist span table in Figure 5)

3. How deep and how large must the footings under support posts be?

Each deck support post must be supported by concrete footings. The size of each footing is determined by the tributary load imposed on it. See the diagram below for an explanation of tributary load. Each footing must be dug down into undisturbed soil and to minimum depth of 12 inches.

Figure 2.

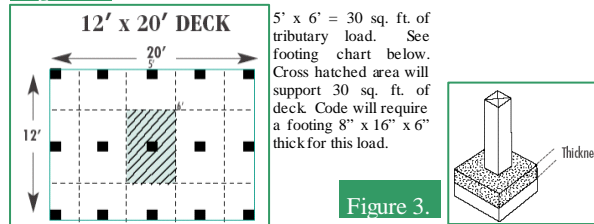
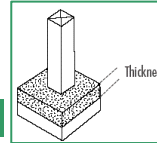


Figure 3.

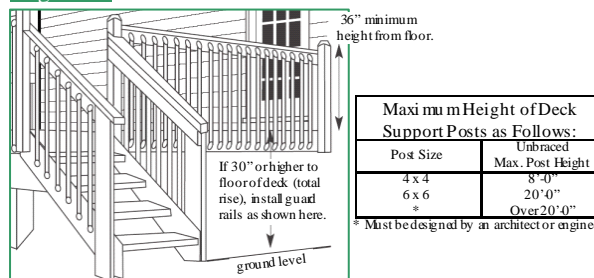


Footing Chart				
SIZE (inches)		TRIBUTARY AREA (square feet)	THICKNESS (inches)	
Precast footings	Poured in Place Footings		Precast	Cast-in-place
8 x 16	8 x 16	36	4	6
12 x 12	12 x 12	40	4	6
16 x 16	16 x 16	70	8	8
	16 x 24	100		8
	16 x 24	150		8

4. How high off the ground will the floor of your deck be?

If the walking surface of the deck is 30 inches off of the ground, your deck must be surrounded by guard rails which are a minimum of 36 inches in height. The steps for the deck must also have guard/hand rails on both sides if there are 4 or more individual risers (spaces between steps). If the steps have a total rise of 30" or more above ground level, guard rails/hand rails must also be provided on open sides of the steps. (see diagram below)

Figure 4.



Maximum Height of Deck Support Posts as Follows:		
Post Size	Unbraced Max. Post Height	
4 x 4	8'-0"	
6 x 6	20'-0"	
*	Over 20'-0"	

* Must be designed by an architect or engineer.

5. Bracing your deck for lateral support.

If your planned deck is attached and over 4' above the ground (measured from top of footing to deck floor), bracing for lateral support is required. Free-standing decks greater than 30" in height (measured from the top of footing to deck floor) also require bracing. Several methods of bracing are acceptable depending on whether the deck is free standing or attached.

Consult with one of our specialist (342-8130) to select a method that meets code and which will work best for your project.

Our Recommendations for a "Minimum Code" and a "Code Plus" Deck

Lumber:

First, all lumber should be treated or decay resistant. We all assume that you will use pressure treated Southern Yellow Pine #2 (SYP) with joist spacing set at 16 inches on center (OC). Other species of lumber are acceptable for use. For specific allowable spans on other species, consult the building code or call our office at 342-8130.

You only need to build to Minimum Code. However, if you want a sturdier deck, we have also given you our recommendations for a Code Plus deck.

	Minimum Code Deck	Code Plus Deck
Footing Depth:	12" to bottom of footing	2'
Footing Size:	8" x 16" x 6"	16" x 16" x 8"
Post Size:	4" x 4" x varies up to 8'	6" x 6"
Girder Size:	2-2" x 8" (see girder table in Figure 5)	2-2" x 12" through bolted to posts
Post Spacing:	(see span table in Figure 6)	6' maximum between posts around perimeter and in lines across the deck floor
Deck Band & Ledger:	2-2" x 8" for Band 2" x 2" for Ledger or use Joist Hanger (see girder table in Figure 5)	Deck band- use 2-2" x 10" Ledger- use 2" x 2" with 3 nails under each joist *(May substitute 2-2" x 8" for band if joist hangers are used in lieu of ledgers)
Joist Size:	(see span table in Figure 6)	Use 2" x 8" spaced 16" OC
Deck Flooring:	5/4" x 6"	Use 5/4" x 6" or 2" x 6" flooring with 1/8" space between
Guard Rail & Height:	Max. clear space between pickets is 4" Height: 36" maximum	Must be 36" high- use 2" x 4" rail with 2" x 2" pickets spaced 4" OC

* This option requires the Code Plus features.

Important Note:

The Building Code also regulates items such as the stringers and treads for steps, fastening (nailing and/or bolting) and bracing for lateral stability. Be sure to discuss these with one of our specialists if you have questions about what the code requires.