

# DECK CONSTRUCTION

SITE PLAN AND DETAILED DRAWINGS REQUIRED WITH APPLICATION

<b>1. FOOTING:</b>	Depth	_____ (30" min.)
	Diameter	_____ (2 x post dimension)
	Material	_____
<b>2. POSTS</b>	Size	_____ (based on height)
	Spacing	_____
	Anchorage to Footing	_____
<b>3. BEAMS</b>	Size	_____
	Spacing	_____
	Anchorage to Posts	_____
<b>4. LEDGER</b>	Size	_____
	Bolt size & spacing	_____
	Flashing	_____
<b>5. JOISTS</b>	Size	_____ (2 X ?)
	Spacing	_____ (12, 16, 24" O/C)
	Anchorage to Beam	_____ (hanger/rest)
	Anchorage to Ledger	_____ (hanger/rest)
	Cantilever	_____ (3' back/1' out min.)
<b>6. DECKING</b>	Size & type	_____
	Anchorage to Joists	_____ (nail, screw, clip)
<b>7. GUARD (RAIL)</b>	Height	_____ (36" min.)
	Post size/spacing	_____ (4x4 typical)
	Anchorage to joists	_____
	Top element size	_____ (2x? or precut)
	Bottom element size	_____
	Spindle/Baluster	_____ (4" max. spacing)
<b>8. STAIRS</b>	Stringer size	_____
	Anchorage to joists	_____
	Tread size	_____ (9" min.)
	Riser height	_____ (8 1/4" max.)

**ADDITIONAL NOTES** – ALL HARDWARE MUST BE COMPATABLE WITH ACQ PRESSURE TREATED LUMBER.  
ALUMINIUM FLASHING NOT PERMITTED WITH ACQ LUMBER  
RISERS MUST BE CLOSED TO MAX. 4" OPENING.  
HANDRAILS MUST BE INSTALLED ON STAIRS (2 5/8" MAX. / 1 1/4" MIN.)  
GUARD/RAIL FOR STAIRS IS MEASURED FROM NOSE OF TREAD TO TOP OF RAIL

# DECK SPAN TABLES

## GENERAL

THE FOLLOWING TABLES ARE BASED ON SOUTHERN YELLOW PINE NO. 2 OR BETTER, AGENCY GRADE MARKED.

TOTAL LOAD = 40 PSF LIVE + 10 PSF DEAD = 50 POUNDS PER SQUARE FOOT

FLOOR JOIST MAXIMUM SPANS*		
SIZE	16" O.C.	24" O.C.
2" X 6"	9' - 9"	7' - 11"
2" X 8"	12' - 10"	10' - 6"
2" X 10"	16' - 5"	13' - 4"

\*ADDITIONAL CANTILEVERED SPANS UP TO 2' MAY BE ADDED TO THE JOIST SPANS SHOWN

DECK BOARD MAX. SPANS	
SIZE	MAX. SPANS
5/4" X 4"	16"
5/4" X 6"	16"
2" X 4"	24"
2" X 6"	24"

BEAM SIZES AND MAXIMUM SPANS <sup>1</sup>						
JOIST SIZE <sup>4</sup>	END BEAMS <sup>2</sup>			CENTER BEAMS <sup>3</sup>		
	NO.	SIZE	MAX. BEAM SPAN	NO.	SIZE	MAX. BEAM SPAN
2" X 6"	2	2" X 8"	8'	2	2" X 10"	8'
	1	2" X 10"	8' <sup>5</sup>			
2" X 8"	2	2" X 10"	10'	2	2" X 12"	8'
	1	2" X 12"	8'			
2" X 10"	2	2" X 12"	10'	2	2" X 12"	8'
	1	2" X 10"	8' <sup>6</sup>			

### NOTES

<sup>1</sup> DOUBLE BEAMS BEAR DIRECTLY ON TOP OF POSTS. SINGLE BEAMS BEAR ON A NOTCH IN THE POST. FIRMLY SECURE BEAMS TO POSTS. CLINCH-NAIL DOUBLE BEAMS 10" O.C. WITH 16 PENNY NAILS 1-1/2" FROM TOP AND BOTTOM EDGE.

<sup>2</sup> SUPPORTING ENDS OF JOISTS ONLY, INCLUDING CANTILEVERED SPAN, IF ANY (2' MAX. OVERHANG).

<sup>3</sup> SUPPORTING MIDDLE OF JOISTS OR ENDS OF IN-LINE POSTS.

<sup>4</sup> JOISTS BEAR ON TOP OF BEAMS OR ON 2" X 2" LEDGERS NAILED TO BEAMS. NAIL LEDGERS TO BEAMS WITH 16 PENNY NAILS IN PRE-DRILLED HOLES AT EACH JOIST LOCATION, AND 6" O.C. OR LESS BETWEEN JOISTS. TOENAIL ENDS OF JOISTS TO BEAMS WITH TWO 16 PENNY NAILS.

<sup>5</sup> WHEN JOISTS ARE CANTILEVERED, USE 2" X 10" #1 GRADE LUMBER.

<sup>6</sup> NOTCH JOISTS FOR 2" X 2" LEDGERS.

### RECOMMENDED POST SIZES\*

JOIST SIZE	DECK HEIGHT						
	4'	4' TO 8'	8'	8' TO 12'	12'	12' TO 16'	16'
2" X 6"	4" X 4"	4" X 4"	4" X 4"	4" X 6"	4" X 6"	6" X 6"	6" X 6"
2" X 8"	4" X 4"	4" X 6"	4" X 6"	6" X 6"	6" X 6"	6" X 6"	6" X 6"
2" X 10"	4" X 6"	4" X 6"	4" X 6"	6" X 6"	6" X 6"	6" X 6"	6" X 6"

\*INSTALL SWAY BRACING ON PERIMETER POSTS CONSISTING OF X-BRACES AND/OR KNEE BRACES. NAIL WITH THREE 16 PENNY NAILS, AT EACH END, IN PRE-DRILLED HOLES. POSTS SHOULD BEAR ON STONE BASE BELOW THE FROST LINE WITH STONE BACKFILL.

### NAILING

USE HOT DIP GALVANIZED RING SHANK NAILS APPROXIMATELY 3 TIMES AS LONG AS THE THICKNESS OF WOOD BEING ATTACHED. PRE-DRILL HOLES IN LEDGERS, BRACES, AND IN ENDS OF DECK BOARDS TO PREVENT SPLITTING, AS WELL AS WHEN NAILING BEAMS AND CLEATS TO POSTS. WHENEVER POSSIBLE, NAIL DECK BOARDS WITH BARK SIDE UP TO REDUCE CUPPING.

### SPACING BETWEEN BOARDS

KILN DRYING AFTER TREATMENT (KDAT) IS RECOMMENDED TO REDUCE SHRINKAGE AND WARPING. KDAT BOARDS SHOULD BE SPACED 1/8 INCH. NON-KDAT BOARDS SHOULD BE NAILED WITH LITTLE OR NO SPACING TO ALLOW FOR SHRINKAGE.