

# DECK CONSTRUCTION PACKET



**FOR INSPECTIONS, PLEASE CALL (586) 445-5450**

**BUILDING PERMITS** are required for wood decks. Please provide the following when applying:

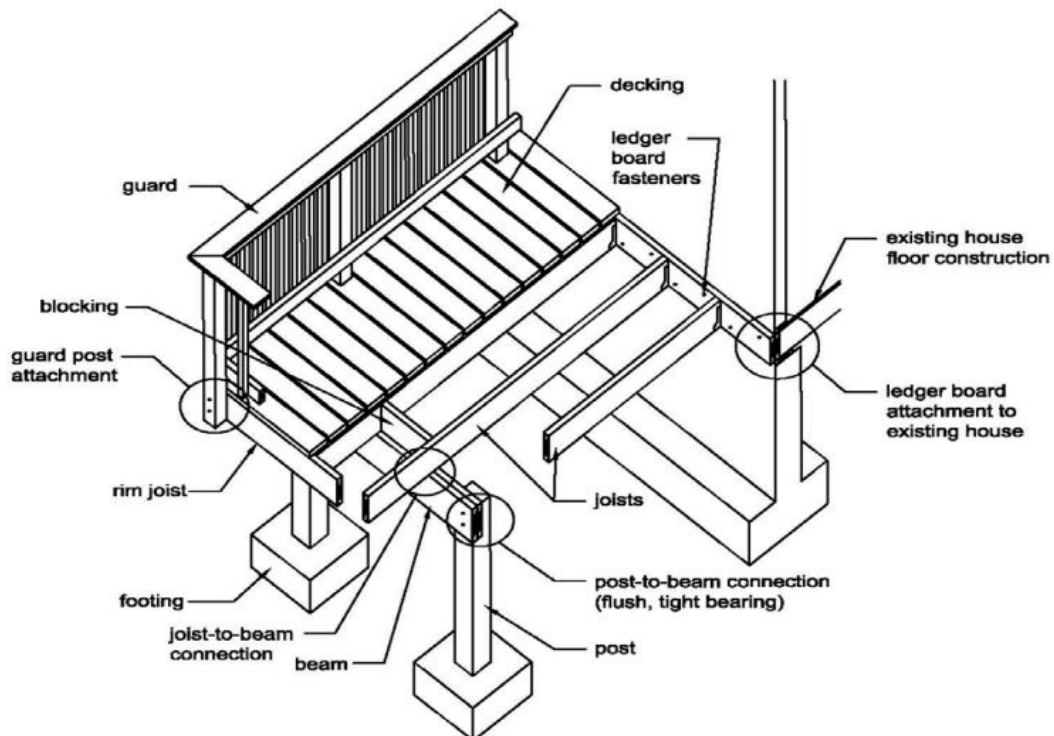
1. Building permit application filled out entirely
2. 2 sets of construction plans (including materials being used)
3. 2 sets of site plans indicating
  - a. Size
  - b. Shape
  - c. Distance from property lines and easements

**REQUIRED INSPECTIONS** (inspections vary by deck type)

1. Post Hole Inspection
2. Final Inspection
3. Decks with solid skirting will require a framing inspection prior to concealing

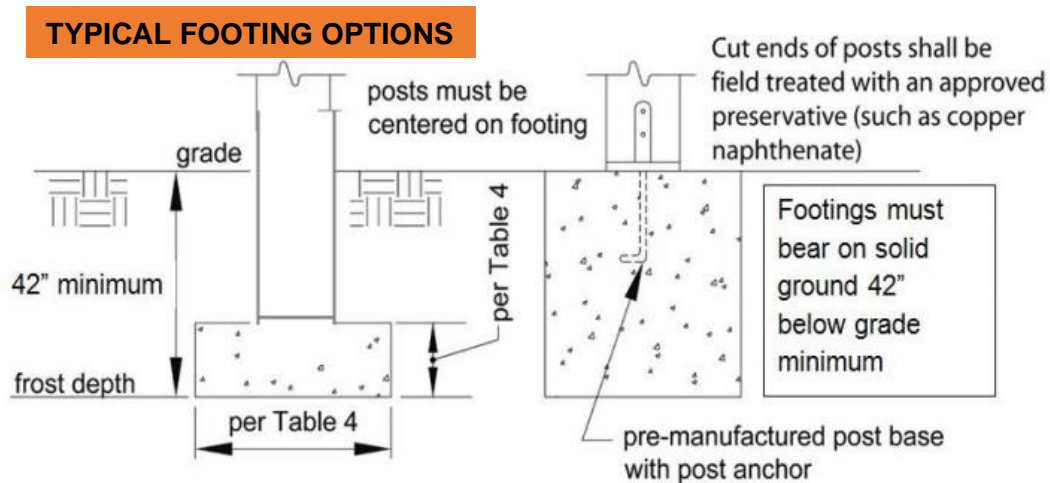
### **MATERIALS**

1. All wood in contact with the ground shall be approved pressure treated wood suitable for ground contact. All other wood not in contact with the ground shall be approved pressure treated, or naturally durable wood, such as; Redwood, Cedar, or other approved material.
2. Wood-Plastic Composite shall bear a label indicating the required performance levels and compliance to ASTM-D 7032. Wood-plastic composites shall be installed per the manufacturer's instructions. All plastic composite materials shall have a flame spread index of 200 or less when tested in accordance with ASTM E84 or UL 723.
3. All screws, nails, bolts, washers, and nuts used with preservative treated wood shall be hot-dipped zinc coated galvanized steel, stainless steel, silicon bronze, or copper.
4. Hardware and connectors (joist hangers, or post anchors) shall be protected in accordance with the manufacturer's recommendations; minimum ASTM-A 653 Type G185 zinc-coated galvanized steel.



## FOUNDATION

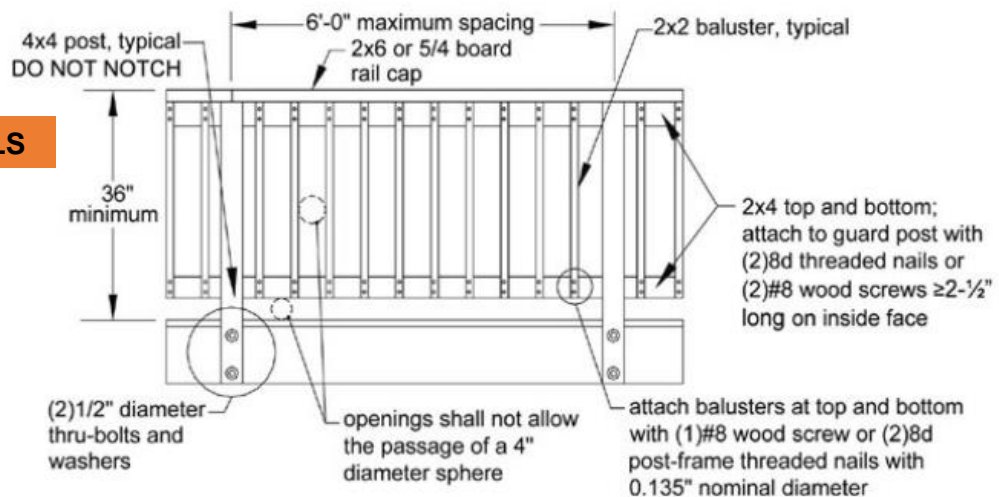
1. All posts shall bear on undisturbed soil at least 42" below grade and shall be backfilled with pea gravel or encased in cement. Footing inspection is required prior to placement of concrete.
2. Posts closer than 3'-0" to an existing house foundation wall must bear on undisturbed soil at the same elevation as the house foundation.



## GUARDRAIL REQUIREMENTS

1. Any raised floor surfaces located more than 30 inches above grade require a guard
2. Height of guards shall not be less than 36 inches
3. Openings in spindles shall not exceed 4 inches
4. Posts shall be a 4x4 minimum
  - a. Notching of guardrail posts is prohibited

### GUARDRAIL DETAILS



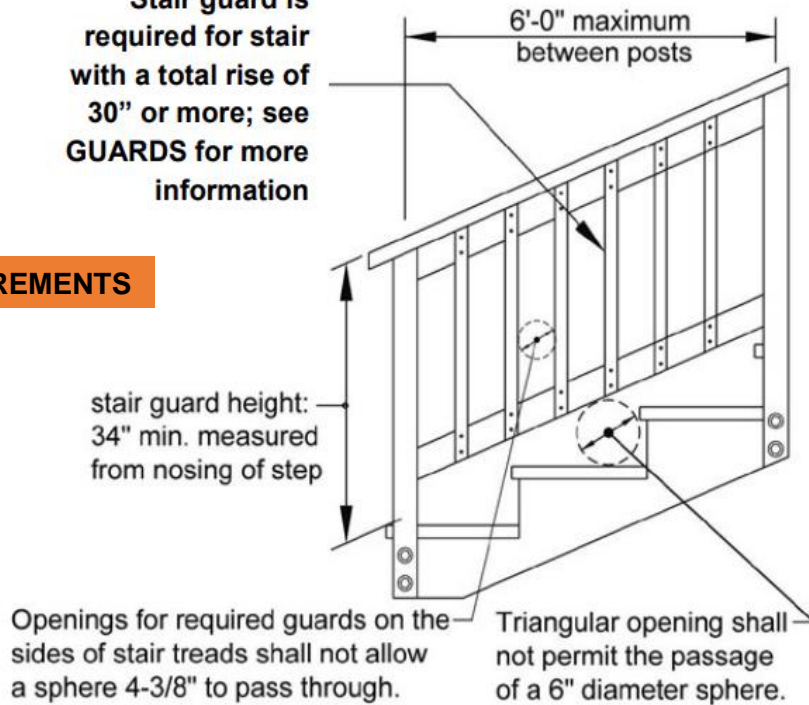
Courtesy of American Wood Council - Leesburg, VA

## HANDRAILS

1. Stairs with four or more risers shall have a handrail on at least one side at a height between 34 and 38 inches.

Stair guard is required for stair with a total rise of 30" or more; see GUARDS for more information

### STAIR GUARD REQUIREMENTS

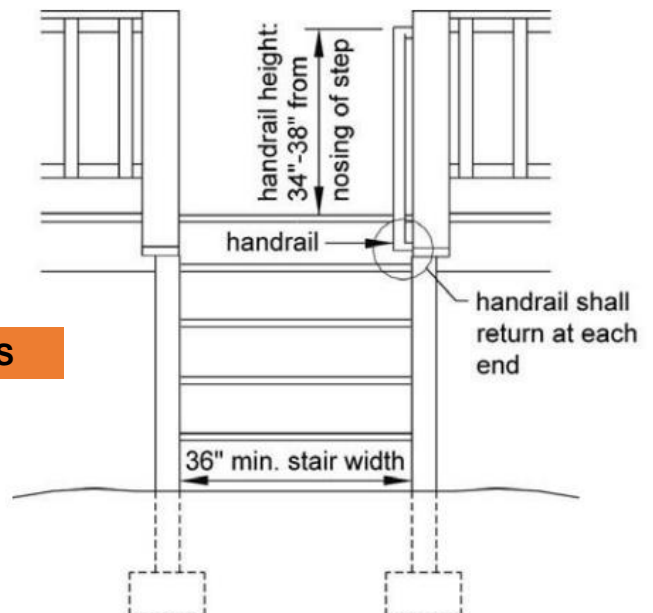


Courtesy of American Wood Council - Leesburg, VA

## STEP REQUIREMENTS

1. Rise minimum 4" maximum 8 1/4" (all steps must have an equal rise)
2. Stair width minimum 36"
3. Tread minimum 9"
4. Nosing minimum 3/4" maximum 1 1/4"

### MISC. STAIR REQUIREMENTS



Courtesy of American Wood Council - Leesburg, VA

## FRAMING REQUIREMENTS

### 1. DECKING

Wood must be 2x4 or greater; Wood- Plastic composite per manufacturer's specifications

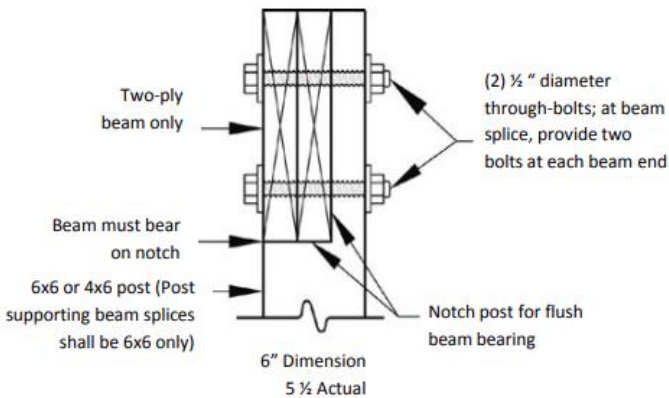
### 2. POSTS

Minimum post size 4"x 4"

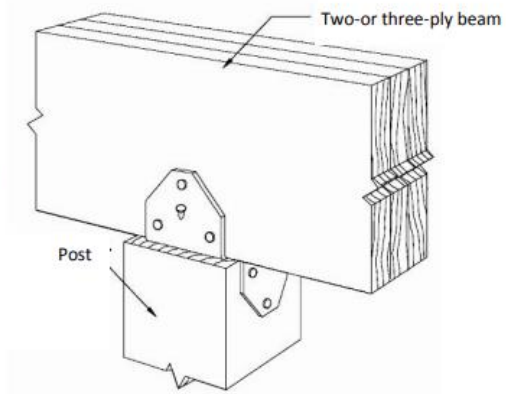
### 3. BEAMS

Beams shall be attached to the post by one of the acceptable methods shown below.

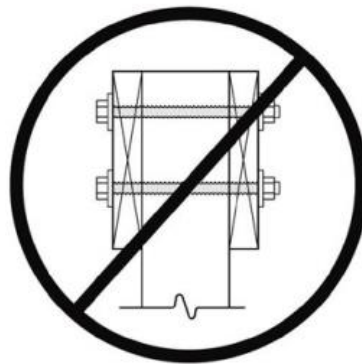
## POST TO BEAM CONNECTIONS



**Notched Post**



**Post Cap**

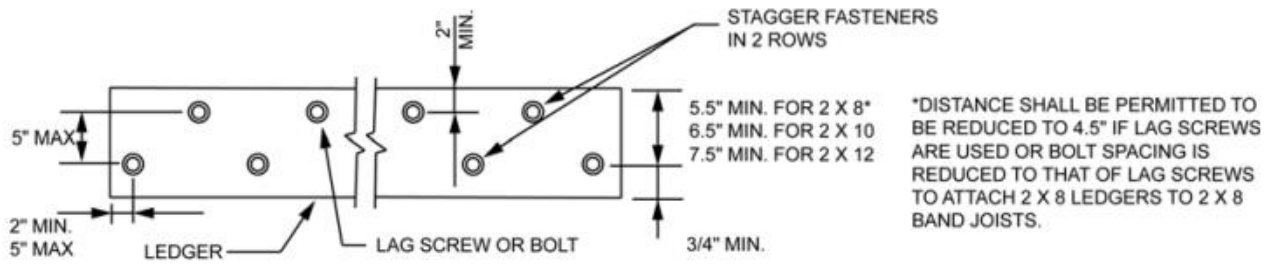


**Prohibited Connection**

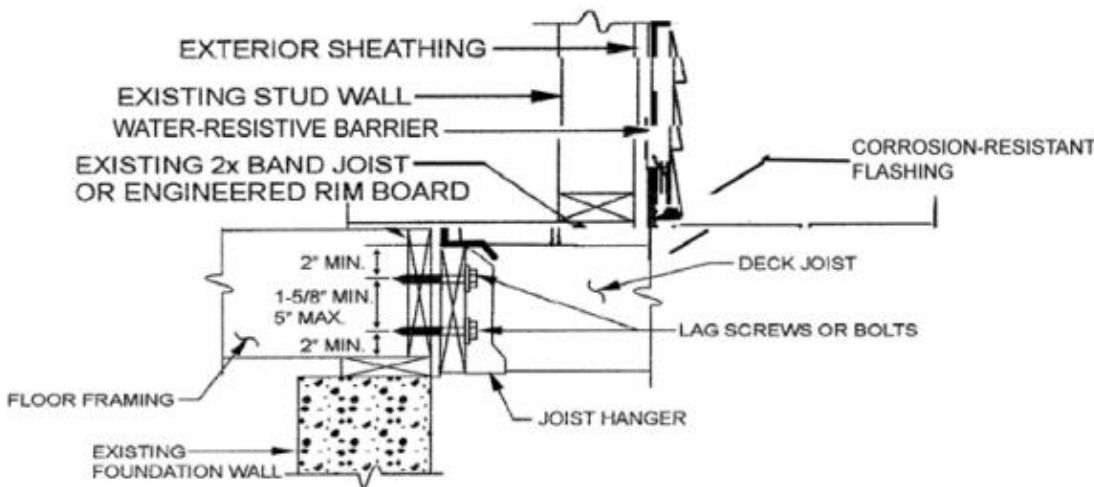
Courtesy of American Wood Council - Leesburg, VA

FRAMING CONTINUED

**PLACEMENT OF LAG SCREWS & BOLTS IN LEDGERS AND BAND JOISTS**



For SI: 1 inch = 25.4 mm.

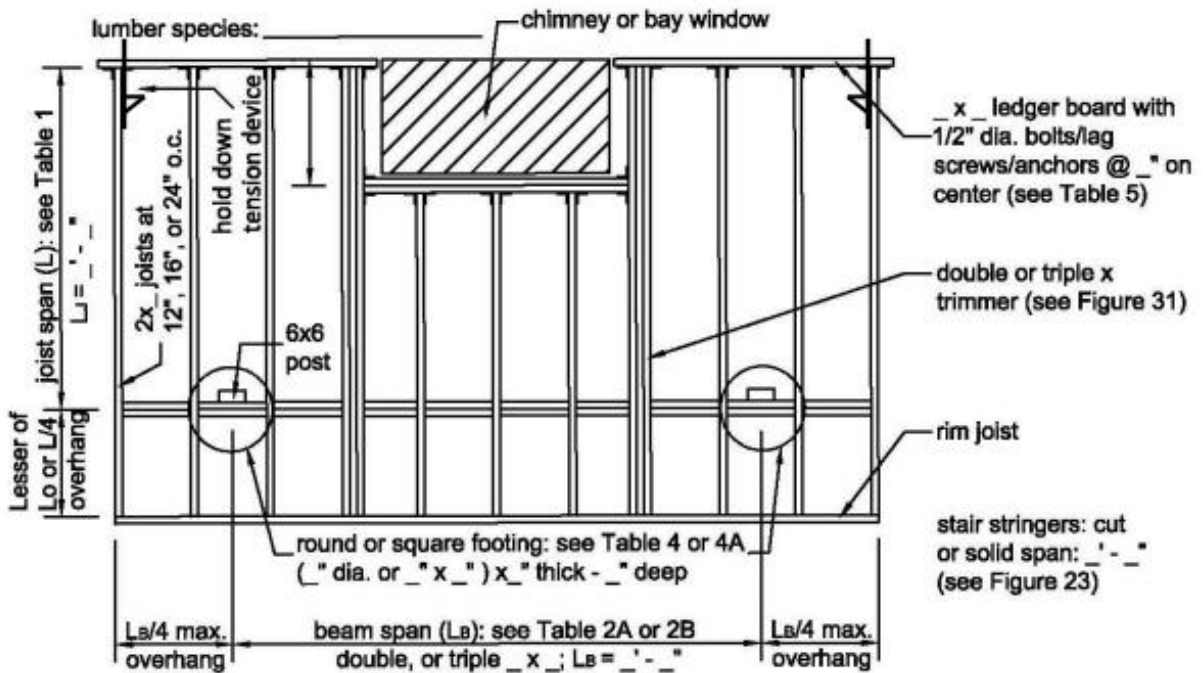


For SI: 1 inch = 25.4 mm.

SIZE	DECK JOIST SPAN LESS THAN OR EQUAL TO:						
	6'	8'	10'	12'	14'	16'	18'
(2) 2X6	6'-11"	5'-11"	5'-4"	4'-10"	4'-6"	4'-3"	4'-0"
(2) 2X8	8'-9"	7'-7"	6'-9"	6'-2"	5'-9"	5'-4"	5'-0"
(2) 2X10	10'-4"	9'-0"	8'-0"	7'-4"	6'-9"	6'-4"	6'-0"
(2) 2X12	12'-2"	10'-7"	9'-5"	8'-7"	8'-0"	7'-6"	7'-0"
(3) 2X6	8'-2"	7'-5"	6'-8"	6'-1"	5'-8"	5'-3"	5'-0"
(3) 2X8	10'-10"	9'-6"	8'-6"	7'-9"	7'-2"	6'-8"	6'-4"
(3) 2X10	13'-0"	11'-3"	10'-0"	9'-2"	8'-6"	7'-11"	7'-6"
(3) 2X12	15'-11"	13'-3"	11'-10"	10'-9"	10'-0"	9'-4"	8'-10"

SIZE	MAXIMUM JOIST SPANS			ALLOWABLE OVERHANG		
	12"	16"	24"	12"	16"	24"
2X6	9'-11"	9'-0"	7'-7"	1'-0"	1'-1"	1'-3"
2X8	13'-1"	11'-10"	9'-8"	1'-10"	2'-0"	2'-4"
2X10	16'-2"	14'-0"	11'-5"	3'-1"	3'-5"	2'-10"
2X12	18'-0"	16'-6"	13'-6"	4'-6"	4'-2"	3'-4"

### TYPICAL DECK FRAMING PLAN



Courtesy of American Wood Council - Leesburg, VA

**SAMPLE PLOT PLAN**

