

# RESIDENTIAL DECKS & PORCHES



**Residential decks shall be designed to 60 psf in ground snow load areas 72 psf and below. Ground snow load areas in excess of 72 psf shall be designed to 70 psf or engineered by a licensed State of Washington Engineer.**

*The enclosed pages are for informational purposes only, and may or may not be all inclusive of work required to meet the provisions of the code.*

If your property is located in the National Scenic Area, the Columbia River Gorge Commission may require you to comply with all National Scenic Area regulations. Please contact the Planning Department at (509) 427-3900.

# DECK CONSTRUCTION & FRAMING

- Decks adjacent to manufactured homes shall be free-standing. Covered decks that are free-standing require greater post embedment into the ground.
- Deck footings shall not be poured onto or into fill without a compaction report and engineering

Here's a look at some of the important components of your deck:

## What is your post spacing?

Posts need to be pressure treated and fastened to the center of the concrete footing with approved hardware installed per manufacturers installation instructions.

## POST

A vertical framing support for beams or joists

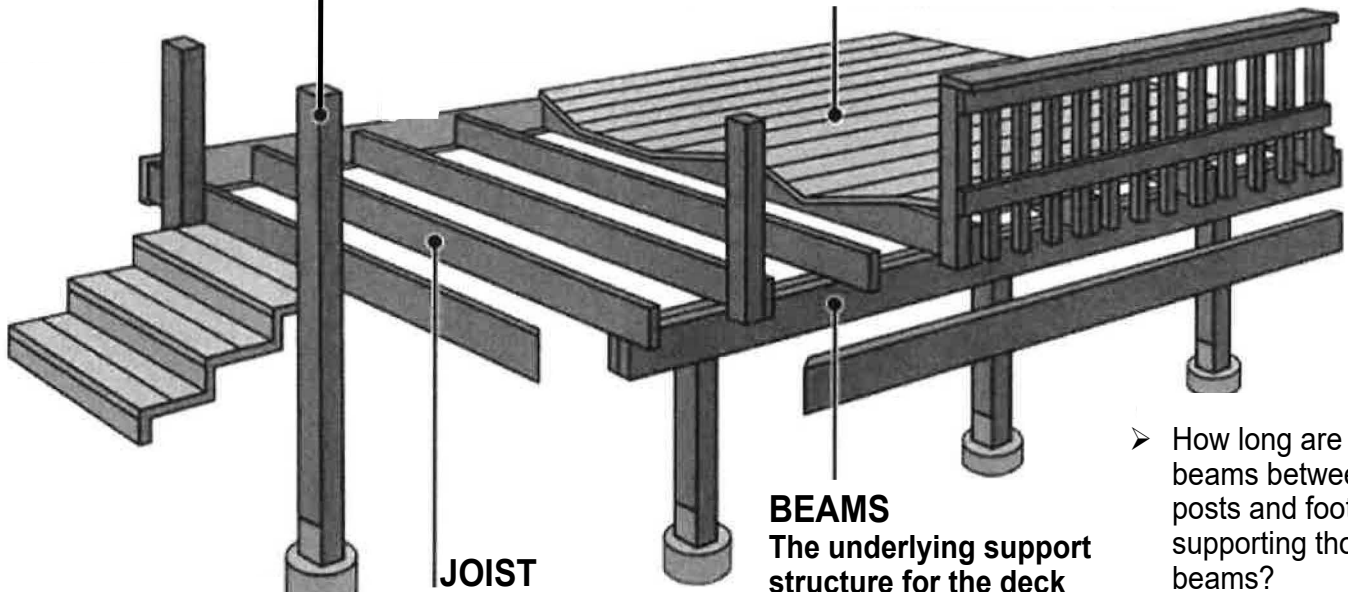
Pressure treated ledger with bolted connection to site built structure.

## DECKING

The actual wood beneath your feet, which should be periodically checked for separation or warping

## What is your decking material?

Manufactured decking shall be installed per manufacturers installation instructions.



## JOIST

The horizontal supporting planks running beneath the deck. Joist rot can weaken the decks strength.

## BEAMS

The underlying support structure for the deck frame.

- How long are the beams between posts and footings supporting those beams?
- What is the spacing from beam to beam?

Pre-cast post bases are not code approved for structurally attached decks, covered decks or decks more than 30" above grade.

## Poured in place footings.

Size is determined by spacing of posts and beams for your project. The plans need to show locations.

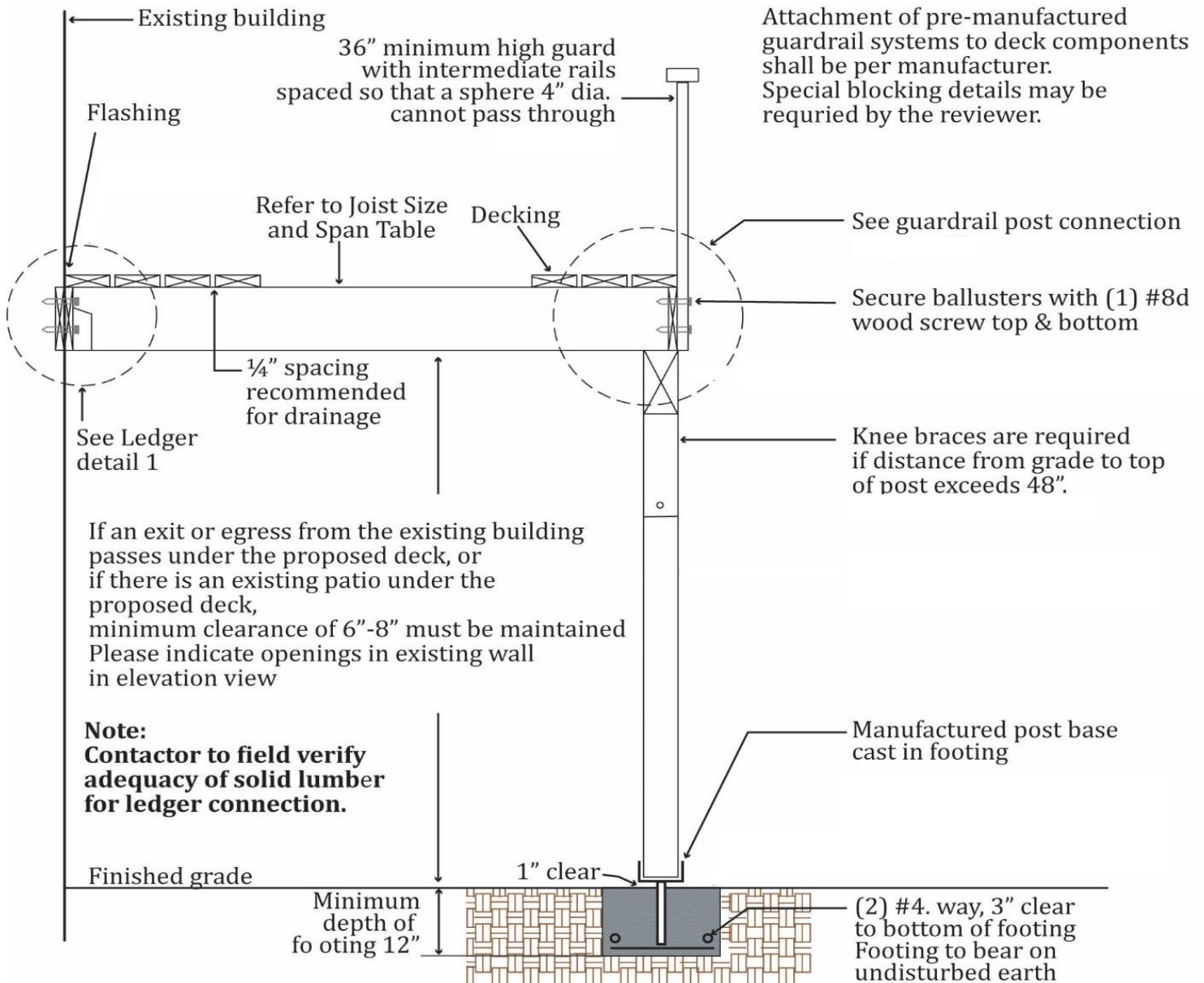
- Will they be round or square?
- How do you plan to do the footings?
- Minimum 18" frost cover is required.

- How long are the joists running?
- Do you plan on any joist overhand beyond the edge of the beam?
- How far is the overhang?

**Decks cannot structurally attach to cantilevers, bay windows, stone or masonry veneer or surface materials.**

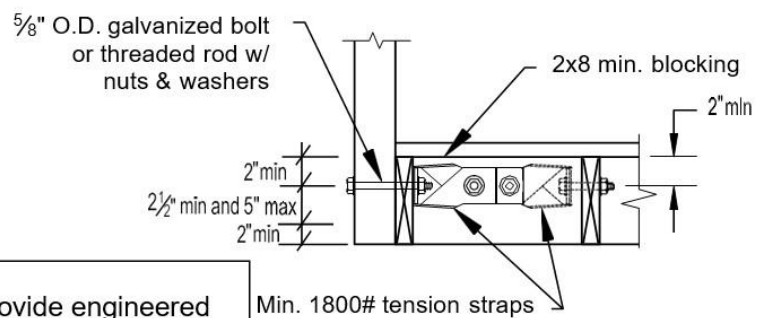
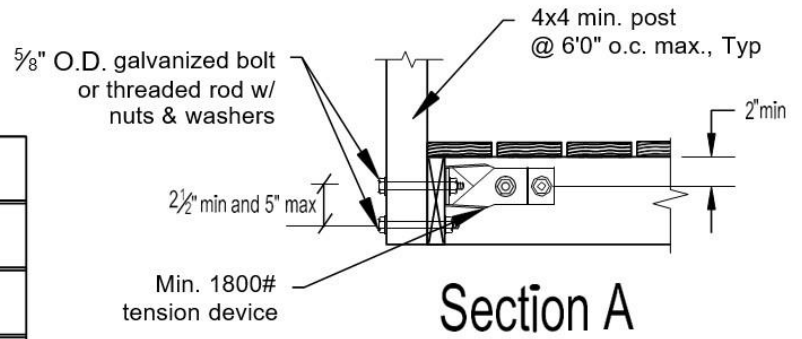
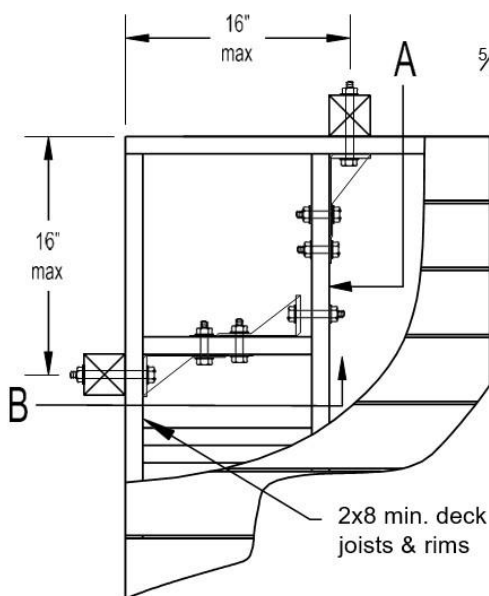
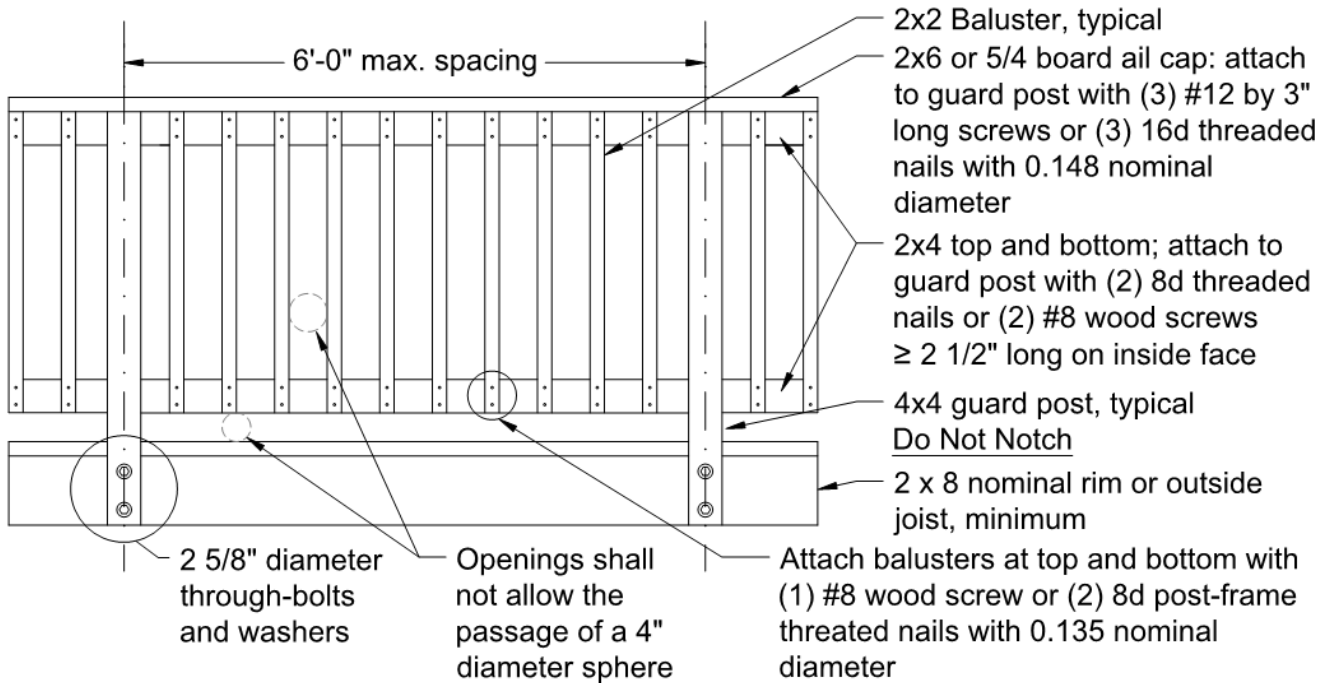
# DECK CONSTRUCTION NOTES

- Design loading for decks is based on 60 pounds per square feet (PSF) live load, 10 PSF dead load, and 2000 PSF soil-bearing capacity.
- The illustrations and information in this handout may be used for decks whether or not they require a permit.
- All wood must be pressure-treated or naturally resistant to decay. Treat cuts, holes, and notches with end-cut solution.
- Fasteners, hangers, nails, etc., must be stainless steel, hot-dipped galvanized, or as specifically required for the specified wood preservative used. The coating weights for zinc-coated fasteners to be in accordance with ASTM A 153. Provide documentation in the field showing the required fastener protection for the wood chosen for your deck.
- You may modify any components of this handout using accepted engineering practices. Any modifications must be reviewed prior to permit issuance. All attachments must be per manufacturer's installation instructions.



# GUARDS & ATTACHMENTS

Guards are required when the deck is more than 30 inches above grade.



**Note:**

Use above details for guard connections or provide engineered design that shows Guards can resist a single concentrated load of 200 lbs applied in any direction at any point along the top and have attachment devices and supporting structure to transfer this load to appropriate structural elements of the building per IBC sec 1607.7.1.1

# STAIRWAY GEOMETRY

- Stair riser dimensions. Riser height is measured vertically between the tops of adjacent treads. Riser heights are to be uniform throughout the stairway. A  $\frac{3}{8}$  maximum difference is allowed in riser heights.
- Stair tread dimensions. Stair treads are measured horizontally between nosings of adjacent treads. Tread depths are to be uniform throughout the stairway. A  $\frac{3}{8}$  maximum difference is allowed in tread depths.
- Handrails required. At least one handrail must be provided when a stairway is installed and when such stairway has four or more risers.

