



CODE ENFORCEMENT AGENCY

1633 Route 51, Suite 100, Jefferson Hills, PA 15025

1-866-410-4952 www.cea-code.com

RESIDENTIAL DECKS 2015-IRC

Section 403.62 of the Commonwealth of Pennsylvania Uniform Construction Code (UCC) states: “An owner or authorized agent who intends to construct, enlarge, alter, repair, move or demolish or change the use of occupancy of a residential building regulated by the Uniform Construction Code shall first apply to the Building Code Official and obtain the required permit.”

PLAN REQUIREMENTS:

Applicant of permit must submit (2) sets of drawings that shall include deck framing (including materials and dimensions), deck cross sections, stairways, guiderails, and handrail details. Dimensions must include height and spans. Bracing & Fastening information must be clearly noted. All posts or postings must show dimensions including in ground depth no less than 36” deep. All contractors must submit copy of Workman’s Compensation (notarized waiver if sole proprietor). All contractors must submit a copy of the PA Home Improvement Contractors License (if applicable).

(b) An application must include (2) copies of a site survey or plot plan for UCC compliance and local Zoning information.

NOTE: Any Electrical components or additions must be applied by a separated Electrical Permit and inspected by CEA prior to final inspection. CEA Electrical (412) 889-1995.

NOTE: ALL decks must be a minimum of southern pine grade #2 or better and shall be pressure treated ACQ or CA-B.

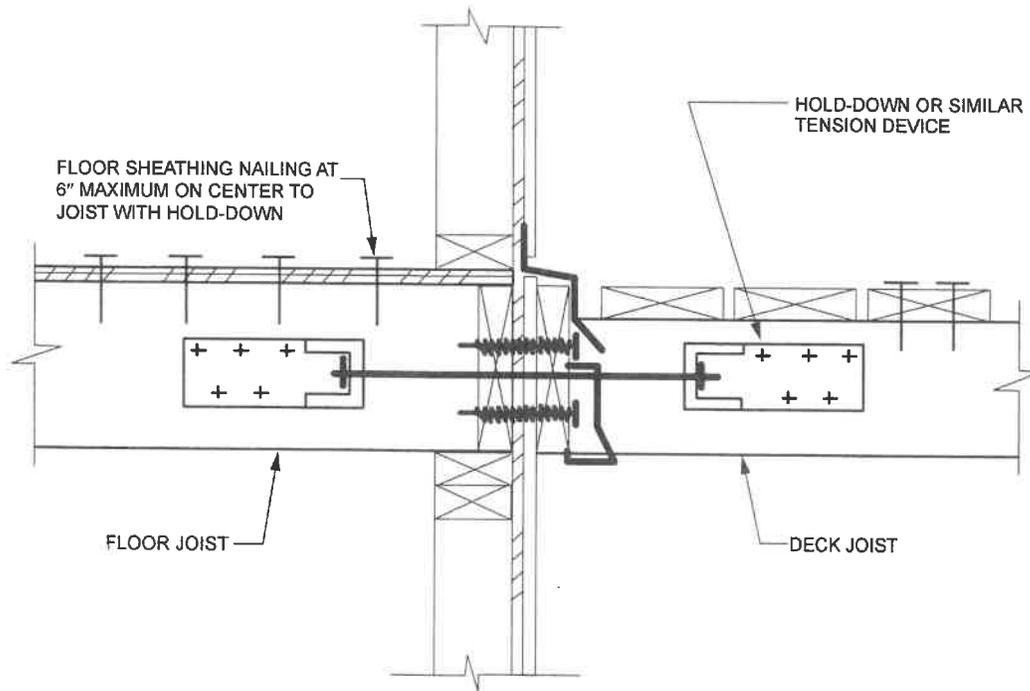
NOTE: Decks shall not be attached to house overhangs, cantilevered bay windows, brick veneers, stone, exterior finishes or chimneys without prior approval from a PA registered Architect or Engineer.

NOTE: Framing hardware and fasteners shall be hot dipped galvanized or stainless steel.

NOTE: Decks surrounding above ground pools above 30” of grade must comply with the regulations.

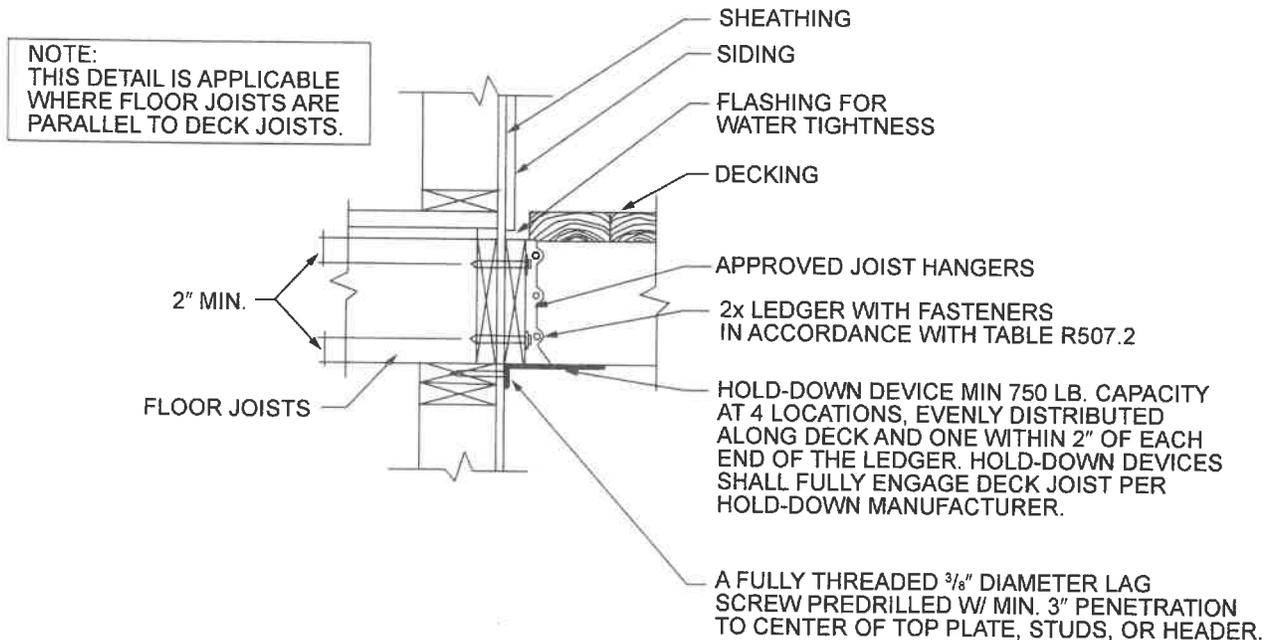
NO deck shall be used or occupied until all final inspections have been performed and approved.

FLOORS



For SI: 1 inch = 25.4 mm.

FIGURE 507.2.3(1)
DECK ATTACHMENT FOR LATERAL LOADS



For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

FIGURE R507.2.3(2)
DECK ATTACHMENT FOR LATERAL LOADS

R507.4 Decking. Maximum allowable spacing for joists supporting decking shall be in accordance with Table R507.4. Wood decking shall be attached to each supporting member with not less than (2) 8d threaded nails or (2) No. 8 wood screws.

R507.5 Deck joists. Maximum allowable spans for wood deck joists, as shown in Figure R507.5, shall be in accordance with Table R507.5. Deck joists shall be permitted to cantilever not greater than one-fourth of the actual, adjacent joist span.

R507.5.1 Lateral restraint at supports. Joist ends and bearing locations shall be provided with lateral restraint to prevent rotation. Where lateral restraint is provided by joist hangers or blocking between joists, their depth shall equal not less than 60 percent of the joist depth. Where lateral restraint is provided by rim joists, they shall be secured to the end of each joist with not less than (3) 10d (3-inch × 0.128-inch) nails or (3) No. 10 × 3-inch (76 mm) long wood screws.

**TABLE R507.4
MAXIMUM JOIST SPACING**

| MATERIAL TYPE AND NOMINAL SIZE | MAXIMUM ON-CENTER JOIST SPACING | |
|--------------------------------|-----------------------------------|-----------------------------------|
| | Perpendicular to joist | Diagonal to joist ^a |
| 1 1/4-inch-thick wood | 16 inches | 12 inches |
| 2-inch-thick wood | 24 inches | 16 inches |
| Plastic composite | In accordance with Section R507.3 | In accordance with Section R507.3 |

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 degree = 0.01745 rad.

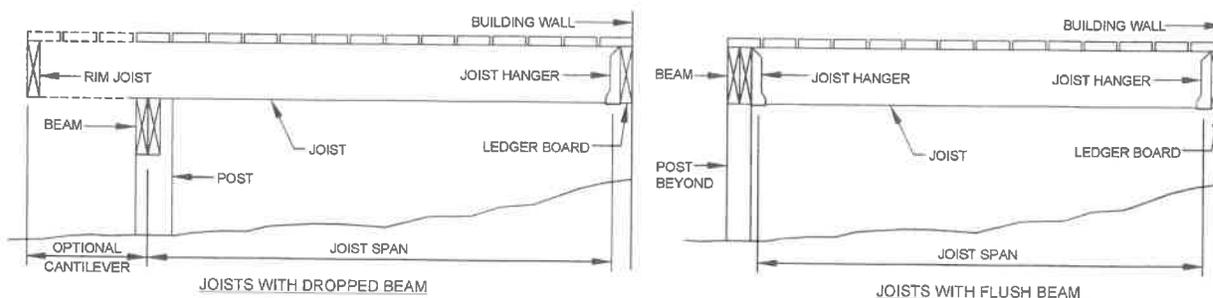
a. Maximum angle of 45 degrees from perpendicular for wood deck boards

**TABLE R507.5
DECK JOIST SPANS FOR COMMON LUMBER SPECIES^f (ft. - in.)**

| SPECIES ^a | SIZE | SPACING OF DECK JOISTS WITH NO CANTILEVER ^b (Inches) | | | SPACING OF DECK JOISTS WITH CANTILEVERS ^c (Inches) | | |
|--|--------|--|-------|-------|--|------|-------|
| | | 12 | 16 | 24 | 12 | 16 | 24 |
| Southern pine | 2 × 6 | 9-11 | 9-0 | 7-7 | 6-8 | 6-8 | 6-8 |
| | 2 × 8 | 13-1 | 11-10 | 9-8 | 10-1 | 10-1 | 9-8 |
| | 2 × 10 | 16-2 | 14-0 | 11-5 | 14-6 | 14-0 | 11-5 |
| | 2 × 12 | 18-0 | 16-6 | 13-6 | 18-0 | 16-6 | 13-6 |
| Douglas fir-larch ^d , hem-fir ^d spruce-pine-fir ^d | 2 × 6 | 9-6 | 8-8 | 7-2 | 6-3 | 6-3 | 6-3 |
| | 2 × 8 | 12-6 | 11-1 | 9-1 | 9-5 | 9-5 | 9-1 |
| | 2 × 10 | 15-8 | 13-7 | 11-1 | 13-7 | 13-7 | 11-1 |
| | 2 × 12 | 18-0 | 15-9 | 12-10 | 18-0 | 15-9 | 12-10 |
| Redwood, western cedars, ponderosa pine ^e , red pine ^e | 2 × 6 | 8-10 | 8-0 | 7-0 | 5-7 | 5-7 | 5-7 |
| | 2 × 8 | 11-8 | 10-7 | 8-8 | 8-6 | 8-6 | 8-6 |
| | 2 × 10 | 14-11 | 13-0 | 10-7 | 12-3 | 12-3 | 10-7 |
| | 2 × 12 | 17-5 | 15-1 | 12-4 | 16-5 | 15-1 | 12-4 |

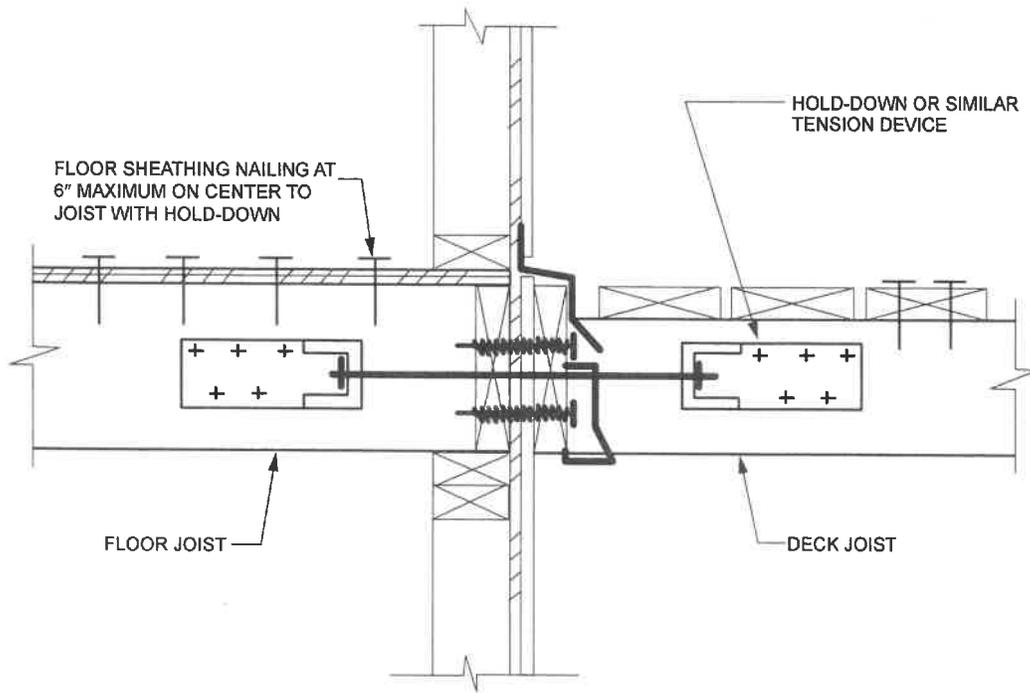
For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa, 1 pound = 0.454 kg.

- a. No. 2 grade with wet service factor.
- b. Ground snow load, live load = 40 psf, dead load = 10 psf, L/Δ = 360.
- c. Ground snow load, live load = 40 psf, dead load = 10 psf, L/Δ = 360 at main span, L/Δ = 180 at cantilever with a 220-pound point load applied to end.
- d. Includes incising factor.
- e. Northern species with no incising factor
- f. Cantilevered spans not exceeding the nominal depth of the joist are permitted.



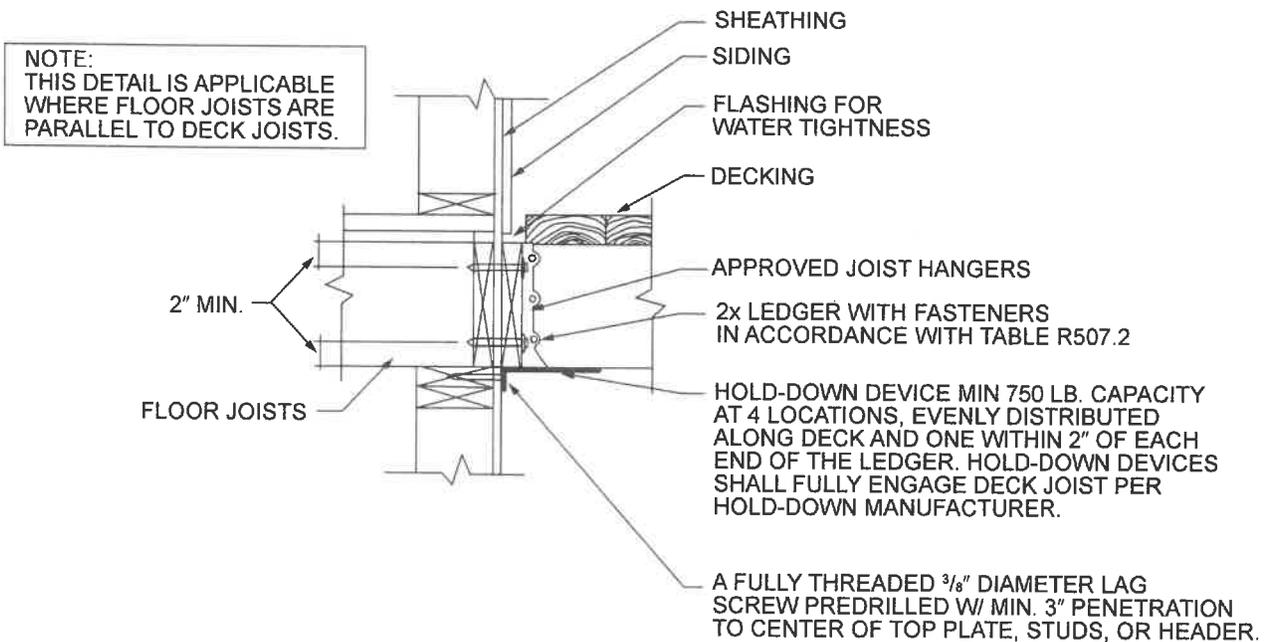
**FIGURE R507.5
TYPICAL DECK JOIST SPANS**

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FIGURE 507.2.3(1)
DECK ATTACHMENT FOR LATERAL LOADS



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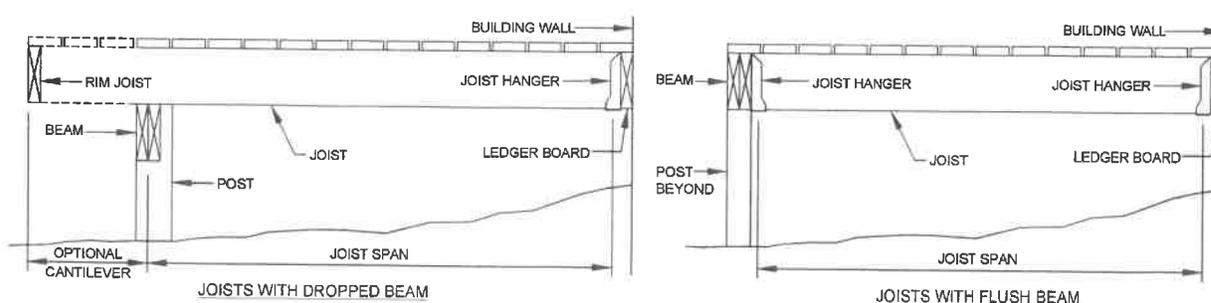
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d. Includes incising factor.

e. Northern species with no incising factor

f. Cantilevered spans not exceeding the nominal depth of the joist are permitted.



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