



Handout R.13

Prescriptive Residential Wood Deck Construction Guide

Residential wood decks attached to a single family home, duplex or townhouse falling under the scope of the International Residential Code may be constructed in accordance with the **Prescriptive Residential Wood Deck Construction Guide** published by the American Wood Council.

The guide may be obtained by clicking on [Prescriptive Residential Wood Deck Construction Guide](#) to view.

A permit is required for any deck over 30 inches above finished grade either attached to or detached from a residence. The following is a list of requirements for a deck permit:

PLOT PLAN

- 1. Provide one as-built drawing if submitted electronically or two copies by paper submittal, sealed by a professional land surveyor registered in the state of Alaska, showing the existing home and the proposed deck drawn to scale
- 2. Show external dimensions of the deck, stairs and the distance from all lot lines
- 3. Dimensions of any upper floor projections and deck overhangs
- 4. Location of existing structures, easements and utilities
- 5. Show clearance of the deck to any overhead wires

CONSTRUCTION PLANS

- 6. Submit one complete set of plans if submitted electronically or two copies by paper submittal, that are neat and legible with all dimensions shown
- 7. Show any existing windows or doors beneath new deck location for added loading to existing headers where a new deck is added to an existing home
- 8. Show the location of any windows within 36" horizontally of a new stairway or lower landing
- 9. Provide a side and/or front elevation drawing that shows the house and proposed deck including height above grade and any cantilever of the house where the deck connects

FRAMING PLAN

- 10. Include all measurements, layout, species and grade of all structural members including
- 11. Floor joist orientation, size and spacing
- 12. Size and location of all beams, ledger boards, columns, and posts
- 13. Location of stairs including dimensions
- 14. Clarify changes of elevation of deck floors or unusual framing issues

FOOTINGS

- 15. Specify type of footings and locations: pipe piles, helical piles, concrete footings
- 16. Reference any MOA policies used for pipe or helical piles; specify loads to be achieved
- 17. Show footing dimensions, depth and reinforcing as appropriate

DETAILS

- 18. All construction to be of pressure-preservative treated wood or naturally durable material where exposed to weather

- 19. All fasteners to be hot-dipped galvanized or stainless steel where used in treated wood or exposed to weather
- 20. Show ledger to house connection; include fastener diameter, length, spacing and what it is attaching to
- 21. Indicate whether joists are bearing, and/or hangered
- 22. Show joist uplift clips at outer support
- 23. Show blocking of joists over beams and bearing points
- 24. Specify beam to column connection, column to footing connections including part numbers of manufactured metal brackets
- 25. Show brace sizes, locations, species, grade, and connections
- 26. Specify lateral bracing/connection of the deck to the house (lateral tie-back)
- 27. Show the type of decking, orientation and fastening
- 28. Show flashing or weatherproofing at the deck to house connection
- 29. The deck shall be no lower than 7-3/4" below door threshold where door opens in and deck no lower than 1-1/2" below the threshold where the door opens out

STAIRS

- 30. Provide the stair layout, dimensions, and member sizes
- 31. Show stair stringer arrangement and detail including size, species, and grade
- 32. Stair stringer spacing to be no larger than 18" for cut wood stringers
- 33. Show structural connection at head of stairway to deck
- 34. Show structural connection to foundation or landing at bottom of stairway
- 35. Show treads and risers and identify size, species, and grade
- 36. A flight of stairs shall not have a vertical rise larger than 12 feet – 7 inches
- 37. Show the width of stairs (36" minimum)
- 38. Rise and run (rise: 7-3/4" maximum, run: 10" minimum)
- 39. Greatest riser height within any flight of stairs cannot exceed the smallest by more than 3/8"
- 40. Risers shall have no openings passing a 4" diameter sphere where 30" or more above grade or surface below
- 41. Landings at top and bottom of stairway to be the same width as the stairway and 36" minimum in the direction of travel
- 42. Provide a graspable handrail on at least one side placed between 34" and 38" above stair nosings for flights with four or more risers
- 43. Handrail is to be continuous and starts and stops directly above the top riser and lowest riser and returns to structure at ends

GUARDS

- 44. Guards are required at all open-sided walking surfaces including stairs and landings located higher than 30" above grade or surface below within 36" horizontally
- 45. Indicate where guards occur and their height
- 46. Guards at open-sided decks or landings shall not be less than 36" above walking surface
- 47. Guards at open sides of stairs shall have a height not less than 34" and not more than 38" where the top of the guard also serves as a handrail
- 48. Guards shall not have openings which allow the passage of a 4" diameter sphere
- 49. The triangular openings at the open side of a stair, formed by the riser, tread and bottom rail of a guard shall not allow passage of a sphere 6" in diameter
- 50. Guards on the open sides of stairs shall not have openings which allow passage of a sphere 4-3/8" in diameter
- 51. The top rail of guards shall be of sufficient strength to resist a concentrated load of 200 pounds placed anywhere on the top rail and in any direction. Guard in-fill components are required to resist a 50-pound load applied horizontally on an area of one-square foot

Robert Doehl
 Robert Doehl, Building Official
 May 7, 2021
 (ref: 15-12; 16-04)