



CHELAN COUNTY
DEPARTMENT OF COMMUNITY DEVELOPMENT
316 WASHINGTON STREET, SUITE 301, WENATCHEE, WA 98801
TELEPHONE: (509) 667-6225 FAX: (509) 667-6475

PERMIT BY INSPECTION

All applicable elements
of the packet must be
followed

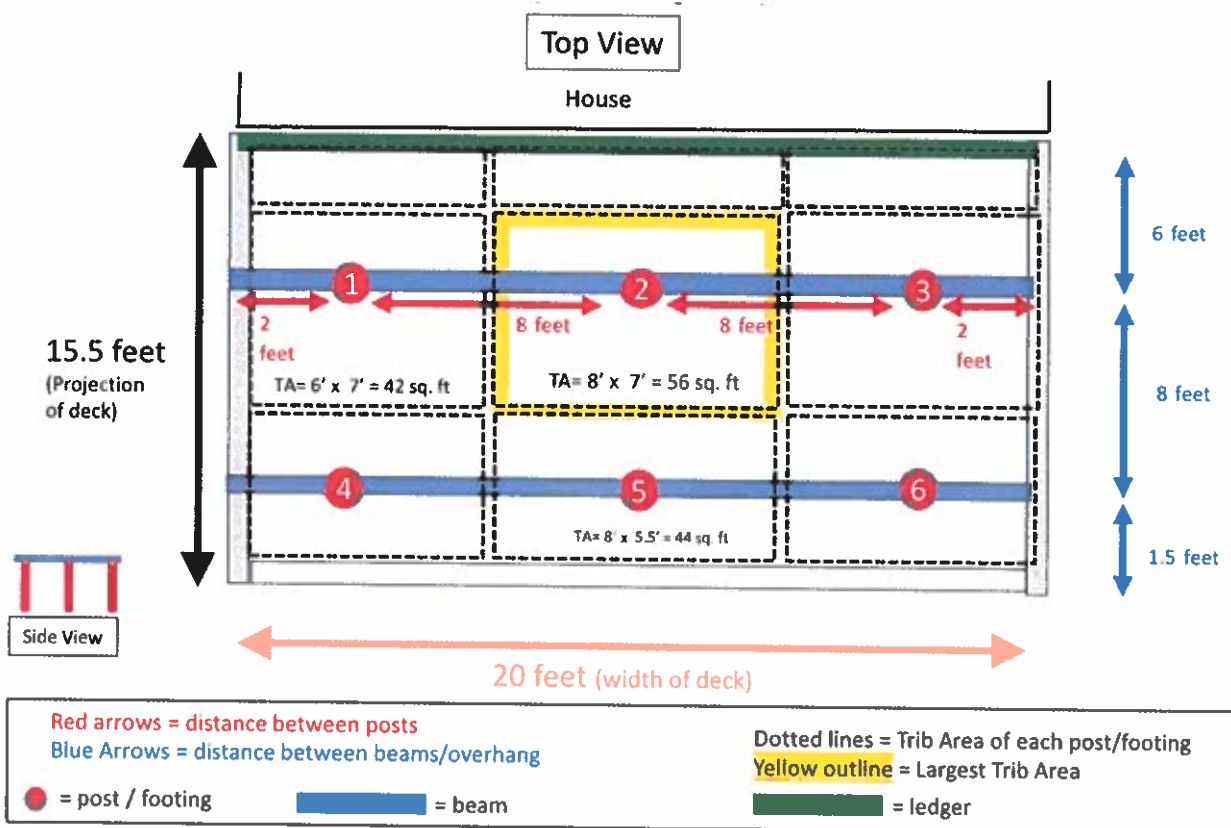
PERMIT BY INSPECTION PROGRAM
RESIDENTIAL AT GRADE DECKS

AT GRADE DECKS NOT EXCEEDING 160 SQUARE FEET IN TRIBUTARY AREA (SEE EXAMPLE)

1. Ground snow loads cannot exceed 70 PSF
2. All material must be pressure-preservative-treated lumber or plastic composite
3. All fasteners smaller than ½ inch in diameter must be hot-dipped galvanized or stainless steel
4. Soils must meet presumptive soil bearing value of 1500 PSF minimum
5. Minimum footing size shall be as follows;
 - a. Square footings: 15-inches thick and 35 square inches minimum plain concrete
 - b. Round footings: 15-inches thick and 40 square inches minimum plain concrete
 - c. Minimum depth is 24-inches below grade
6. Minimum deck posts shall be as follows;
 - a. Tributary area 60 SF max: 4 x 4 posts with a maximum span of 6'-5"
 - b. Tributary area 100 SF max: 4 x 6 posts with a maximum span of 5'-3"
 - c. Tributary area 100 SF max: 6 x 6 posts with a maximum span of 10'-8"
 - d. Tributary area 160 SF max: 8 x 8 posts with a maximum span of 14'
7. Maximum deck beams shall be as follows;
 - a. Per Table R507.5(1)
8. All post, beam, joists and other connections shall be positive connections to transfer all vertical and lateral loads
9. Maximum deck joist spans shall be as follows;
 - a. Per Table R507.6
10. Deck ledgers shall be 2 x 8 minimum and be connected to the band joist, unless self-supported, as follows;
 - a. Per Table R507.9.1.3(1)
 - b. Figure R507.9.3(1)

11. If deck exceeds 30-inches above grade at any point within 36-inches horizontally of the open side, a guard must be installed as follows;
 - a. A 36-inch guard is required
 - b. Guards shall not have openings that would allow the passage of a 4-inch in diameter sphere
12. If stairs are installed they must be installed as follows;
 - a. 36-inch minimum width
 - b. 7-3/4-inch maximum riser height and 10-inch minimum tread depth
 - c. 3 x 3 landing at the top and bottom of stairs
 - d. Handrail on at least one side for flights of stairs with 4 or more risers

Tributary Load Example:



Tributary area of Panels 1 through 6 cannot exceed 160 square feet in area.

SECTION R507 EXTERIOR DECKS
TABLE R507.5(1)
MAXIMUM DECK BEAM SPAN—60 PSF LIVE LOAD OR 70 PSF GROUND SNOW LOAD^c

BEAM SPECIES ^d	BEAM SIZE ^e	MAXIMUM BEAM SPAN ^{a, b, f} (feet-inches)						
		6	8	10	12	14	16	18
		DECK JOIST SPAN ^{a, i} (feet)						
Douglas fir-larch ^g , Hem-fir ^g , Spruce -pine-fir ^g	1 - 2 x 6	3-5	2-10	2-5	2-2	2-0	1-10	1-9
	1 - 2 x 8	4-7	3-8	3-2	2-10	2-7	2-5	2-4
	1 - 2 x 10	5-8	4-9	4-1	3-8	3-4	3-1	2-11
	1 - 2 x 12	6-7	5-8	5-0	4-6	4-1	3-10	3-7
	2 - 2 x 6	5-2	4-6	4-0	3-5	3-1	2-10	2-7
	2 - 2 x 8	6-11	6-0	5-3	4-7	4-1	3-8	3-5
	2 - 2 x 10	8-5	7-4	6-6	5-10	5-2	4-9	4-5
	2 - 2 x 12	9-10	8-6	7-7	6-11	6-4	5-9	5-4
	3 - 2 x 6	6-6	5-7	5-0	4-7	4-2	3-9	3-5
	3 - 2 x 8	8-8	7-6	6-8	6-1	5-6	5-0	4-7
	3 - 2 x 10	10-7	9-2	8-2	7-6	6-11	6-4	5-10
	3 - 2 x 12	12-4	10-8	9-7	8-9	8-1	7-7	7-1
Redwood ^h , Western Cedars ^h , Ponderosa Pine ^h , Red Pine ^h	1 - 2 x 6	3-6	2-11	2-6	2-3	2-0	1-11	1-9
	1 - 2 x 8	4-6	3-10	3-3	2-11	2-8	2-6	2-4
	1 - 2 x 10	5-6	4-9	4-2	3-9	3-5	3-2	3-0
	1 - 2 x 12	6-4	5-6	4-11	4-6	4-2	3-11	3-8
	2 - 2 x 6	5-3	4-7	4-1	3-6	3-2	2-11	2-8
	2 - 2 x 8	6-8	5-9	5-2	4-8	4-2	3-10	3-6
	2 - 2 x 10	8-2	7-1	6-4	5-9	5-4	4-10	4-6
	2 - 2 x 12	9-5	8-2	7-4	6-8	6-2	5-9	5-5
	3 - 2 x 6	6-4	5-8	5-1	4-8	4-3	3-10	3-6
	3 - 2 x 8	8-4	7-3	6-5	5-11	5-5	5-1	4-8
	3 - 2 x 10	10-2	8-10	7-11	7-2	6-8	6-3	5-11
	3 - 2 x 12	11-10	10-3	9-2	8-4	7-9	7-3	6-10

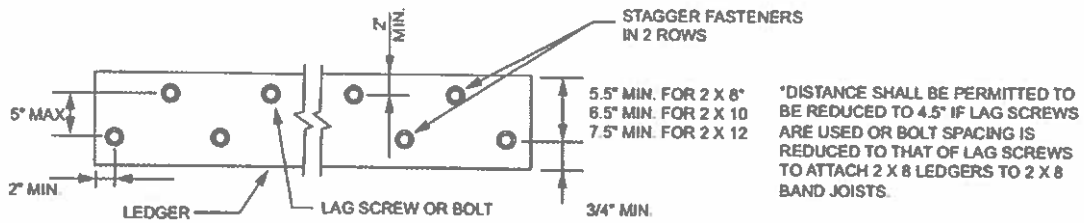
SECTION R507 EXTERIOR DECKS
**TABLE R507.6
MAXIMUM DECK JOIST SPANS**

LOAD ^a (psf)	JOIST SPECIES ^b	JOIST SIZE	ALLOWABLE JOIST SPAN ^c (feet-inches)			MAXIMUM CANTILEVER ^d (feet-inches) ADJACENT JOIST SPAN ^e							
			JOIST SPACING (inches)			JOIST BACK SPAN ^e (feet)							
			12	16	24	4	6	8	10	12	14	16	18
60 Live Load or 70 Ground Snow Load	Douglas fir-larch ^e , Hem-fir ^e , Spruce-pine-fir ^e	2×6	7-11	7-1	5-9	1-0	1-6	NP	NP	NP	NP	NP	NP
		2×8	10-5	9-5	7-8	1-0	1-6	2-0	2-1	NP	NP	NP	NP
		2×10	13-3	11-6	9-5	1-0	1-6	2-0	2-6	2-8	NP	NP	NP
		2×12	15-5	13-4	10-11	1-0	1-6	2-0	2-6	3-0	3-3	NP	NP
	Redwood ^f , Western Cedars ^f , Ponderosa Pine ^f , Red Pine ^f	2×6	7-4	6-8	5-10	1-0	1-4	NP	NP	NP	NP	NP	NP
		2×8	9-8	8-10	7-4	1-0	1-6	1-11	NP	NP	NP	NP	NP
		2×10	12-4	11-0	9-0	1-0	1-6	2-0	2-6	2-6	NP	NP	NP
		2×12	14-9	12-9	10-5	1-0	1-6	2-0	2-6	3-0	3-0	NP	NP

SECTION R507 EXTERIOR DECKS
 TABLE R507.9.1.3(1)
 DECK LEDGER CONNECTION TO BAND JOIST

LOAD ^c (psf)	JOIST SPAN ^a (feet)	ON-CENTER SPACING OF FASTENERS ^b (inches)		
		1/2-inch diameter lag screw with 1/2-inch maximum sheathing ^{d, e}	1/2-inch diameter bolt with 1/2-inch maximum sheathing ^e	1/2-inch diameter bolt with 1-inch maximum sheathing ^f
60 Live Load or 70 Ground Snow Load	6	22	36	35
	8	16	31	26
	10	13	25	21
	12	11	20	17
	14	9	17	15
	16	8	15	13
	18	7	13	11

SECTION R507 EXTERIOR DECKS



For SI: 1 inch = 25.4 mm.

FIGURE R507.9.1.3(1)
PLACEMENT OF LAG SCREWS AND BOLTS IN LEDGERS