

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 x 6	9-11	9-0	7-7	6-8	6-8	6-8
	2 x 8	13-1	11-10	9-8	10-1	10-1	9-8
	2 x 10	16-2	14-0	11-5	14-6	14-0	11-5
	2 x 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 x 6	9-6	8-8	7-2	6-3	6-3	6-3
	2 x 8	12-6	11-1	9-1	9-5	9-5	9-1
	2 x 10	15-8	13-7	11-1	13-7	13-7	11-1
	2 x 12	18-0	15-9	12-10	18-0	15-9	12-10
Redwood, western cedars, ponderosa pine ^e , red pine ^e	2 x 6	8-10	8-0	7-0	5-7	5-7	5-7
	2 x 8	11-8	10-7	8-8	8-6	8-6	8-6
	2 x 10	14-11	13-0	10-7	12-3	12-3	10-7
	2 x 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, $L/\Delta = 360$.
- c. Ground snow load, live load = 40 psf, dead load = 10 psf, $L/\Delta = 360$ at main span, $L/\Delta = 180$ 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.

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.

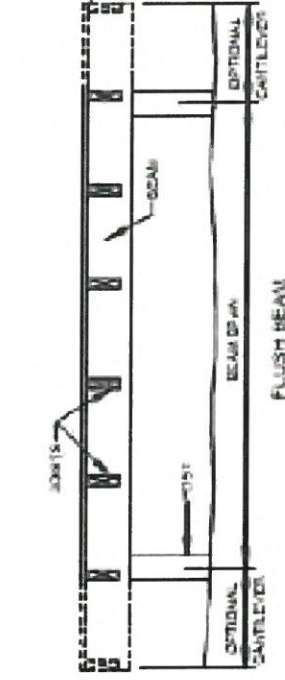
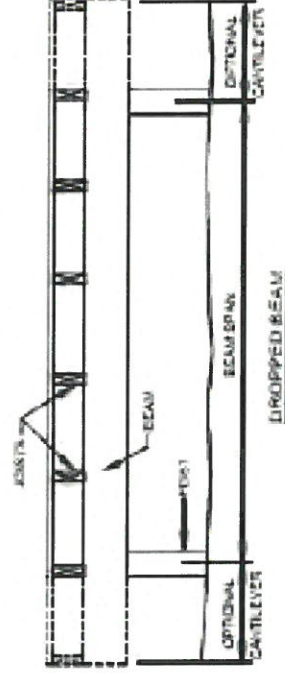
- a. Maximum angle of 45 degrees from perpendicular for wood deck boards

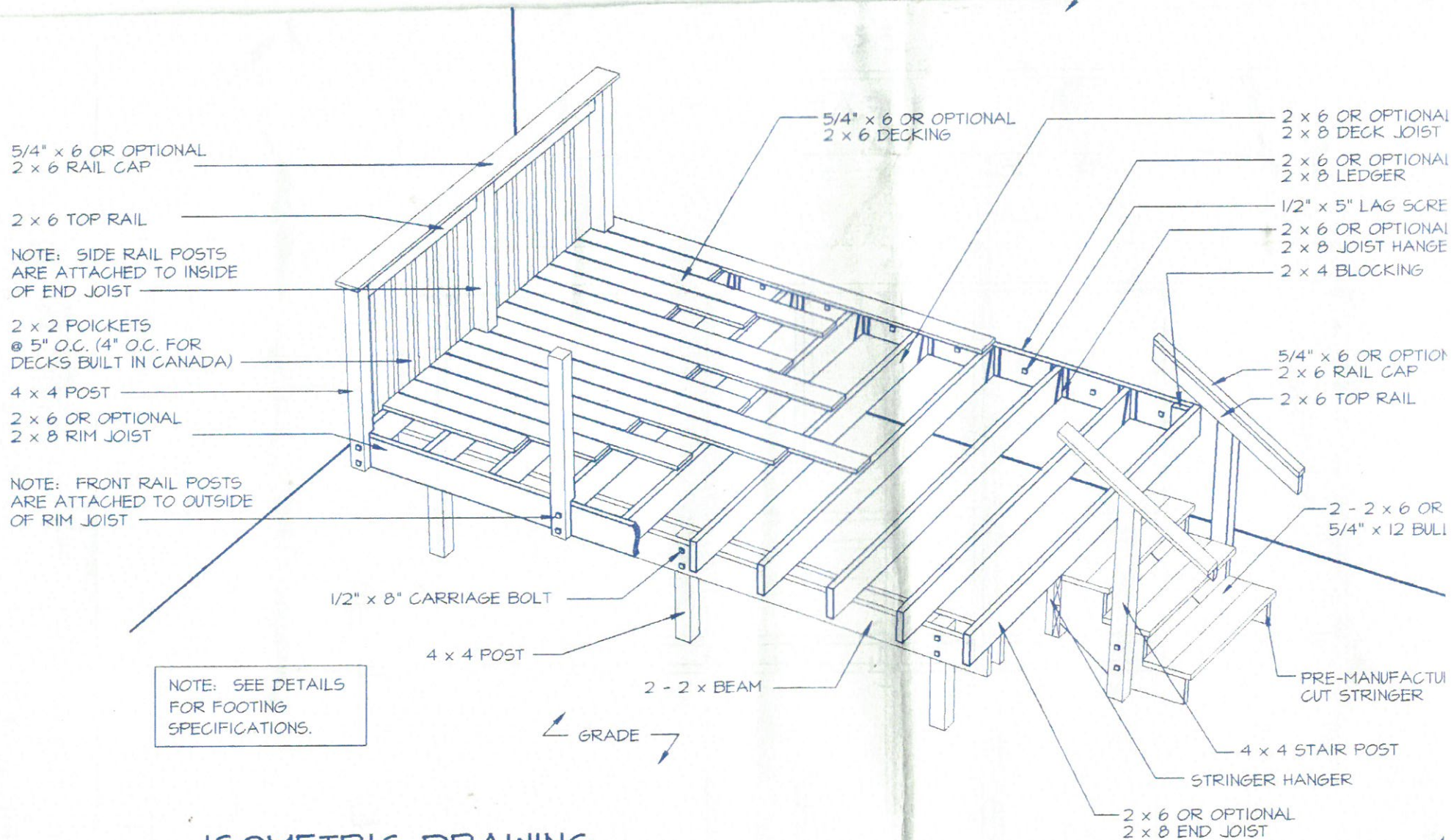
TABLE R507.6.5
DECK BEAM SPAN LENGTHS^{a, b} (ft. - in.) (feet - inches)

SPECIES ^c	SIZE ^d	DECK JOIST SPAN LESS THAN OR EQUAL TO: (feet)							
		6	8	10	12	14	16	18	
Southern pine	1-2 x 6	4-11	4-0	3-7	3-3	3-0	2-10	2-8	
	1-2 x 8	5-11	5-1	4-7	4-2	2-10	3-7	3-5	
	1-2 x 10	7-0	6-0	5-5	4-11	4-7	4-3	4-0	
	1-2 x 12	8-3	7-1	6-4	5-10	5-5	5-0	4-9	
	2-2 x 6	6-11	5-11	5-4	4-10	4-6	4-3	4-0	
	2-2 x 8	8-9	7-7	6-9	6-2	5-9	5-4	5-0	
	2-2 x 10	10-4	9-0	8-0	7-4	6-9	6-4	6-0	
	2-2 x 12	12-2	10-7	9-5	8-7	8-0	7-6	7-0	
	3-2 x 6	8-2	7-5	6-8	6-1	5-8	5-3	5-0	
	3-2 x 8	10-10	9-6	8-6	7-9	7-2	6-8	6-4	
Douglas fir-larch, ^e hem-fire, ^f spruce-pine-fire, ^f redwood, ^f western cedars, ^f ponderosa pine, ^f red pine ^f	3-2 x 10	13-0	11-3	10-0	9-2	8-6	7-11	7-6	
	3-2 x 12	15-3	13-3	11-10	10-9	10-0	9-4	8-10	
	3 x 6 or 2-2 x 6	5-5	4-8	4-2	3-10	3-6	3-1	2-9	
	3 x 8 or 2-2 x 8	6-10	5-11	5-4	4-10	4-6	4-1	3-8	
	3 x 10 or 2-2 x 10	8-4	7-3	6-6	5-11	5-6	5-1	4-8	
	3 x 12 or 2-2 x 12	9-8	8-5	7-6	6-10	6-4	5-11	5-7	
	4 x 6	6-5	5-6	4-11	4-6	4-2	3-11	3-8	
	4 x 8	8-5	7-3	6-6	5-11	5-6	5-2	4-10	
	4 x 10	9-11	8-7	7-8	7-0	6-6	6-1	5-8	
	4 x 12	11-5	9-11	8-10	8-1	7-6	7-0	6-7	
	3-2 x 6	7-4	6-8	6-0	5-6	5-1	4-9	4-6	
	3-2 x 8	9-8	8-6	7-7	6-11	6-5	6-0	5-8	
	3-2 x 10	12-0	10-5	9-4	8-6	7-10	7-4	6-11	
	3-2 x 12	13-11	12-1	10-9	9-10	9-1	8-6	8-1	

For S1: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 pound per square foot = 0.0479 kPa, 1 pound = 0.454 kg.

- Ground snow load, live load = 40 psf, dead load = 10 psf, $L/\Delta = 360$ at main span, $L/\Delta = 180$ at cantilever with a 220-pound point load applied at the end.
- Beams supporting deck joists from one side only.
- No. 2 grade, wet service factor.
- Beam depth shall be greater than or equal to depth of joists with a flush beam condition.
- Includes incising factor.
- Northern species. Incising factor not included.
- Beam cantilevers are limited to the adjacent beam's span divided by 4.

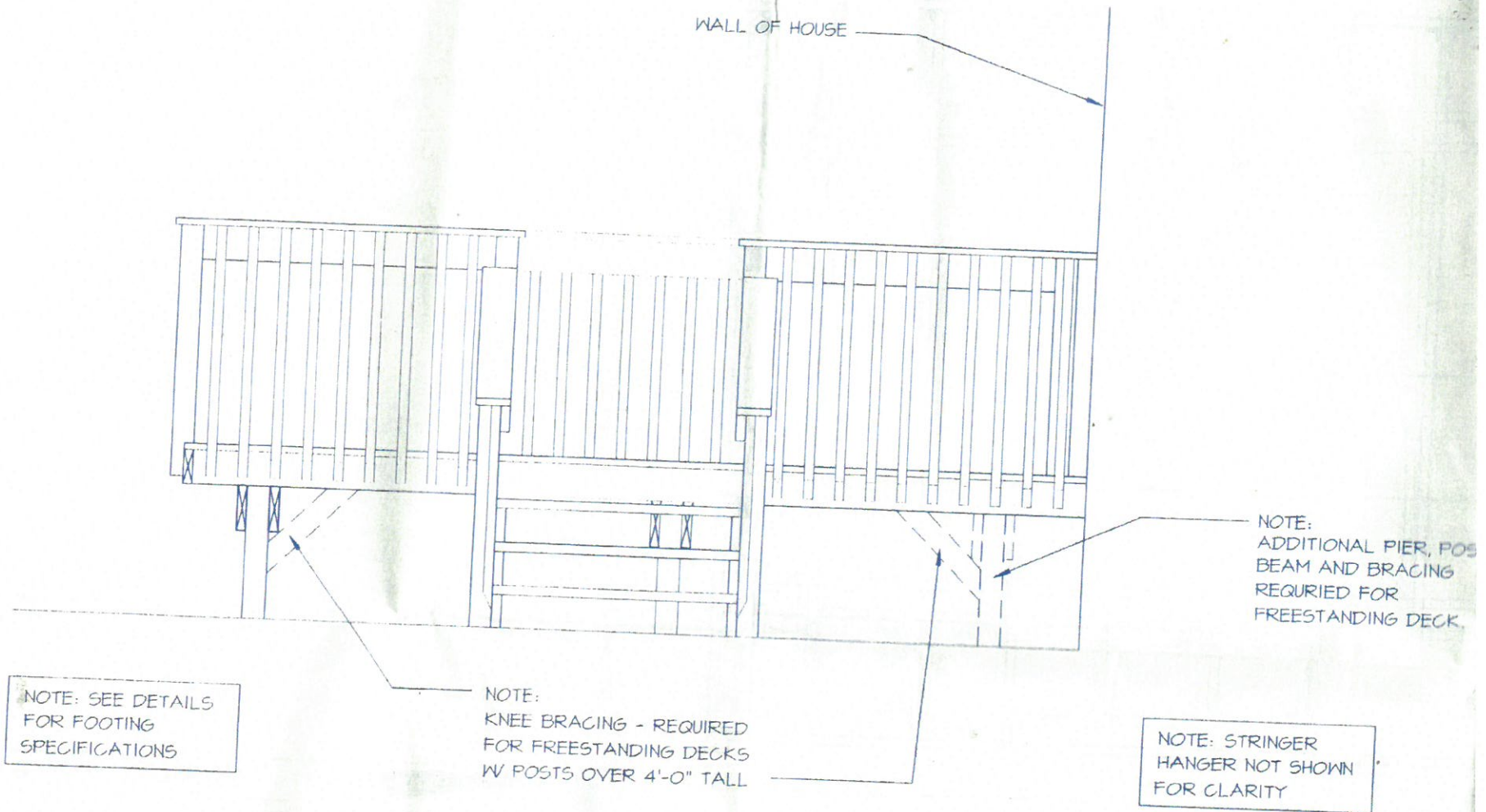




ISOMETRIC DRAWING

SCALE: 1/2" = 1'-0"

EASY RAISED DECK



TYPICAL RIGHT SIDE ELEVATION

SCALE: 1/2" = 1'-0"

EASY RAISED DECK