

A9 Framing & Nail Schedule

THIS DRAWING DEPICTS MINIMUM CODE REQUIREMENTS PER CRC INFORMATION IS FOR REFERENCE ONLY AND IS NOT A SUBSTITUTE FOR ACCURATE DRAWINGS PREPARED FOR EACH PROPOSED CONSTRUCTION PROJECT.

NOTE: FOR OTHER GRADES, SPECIES AND SPAN CONDITIONS, SEE FULL SCHEDULES IN CBC CHPTR 23.

ALLOWABLE JOIST AND RAFTER SPANS (Excerpted From Tables R802.4 (1), R802.5.1 (1)(2), R502.3.1 (2), & R502.8.1)

DF/Larch #2 Nominal Size (Inches)	Spacing in Inches on center	Floor Joist LL=40 psf, DL=20 psf LL L/defl = 360	Floor Joist LL=40 psf, DL=10 psf LL L/defl = 360	Ceiling Joist (Lim. stor) LL=20 psf, DL=20 psf L/defl = 240	Ceiling Joist (No stor) LL=10 psf, DL=10 psf L/defl = 240	Rafter LL=20 psf, DL=20 psf L/defl = 240 (recmnd)	Rafter LL=20 psf, DL=10 psf L/defl = 240 (recmnd)
2 x 4	12"	not in code	not in code	9 - 10	12 - 5	9 - 10	9 - 10
	16"	not in code	not in code	8 - 9	11 - 3	8 - 6	8 - 11
	24"	not in code	not in code	7 - 2	9 - 10	6 - 11	7 - 10
2 x 6	12"	10 - 6	10 - 9	14 - 0	19 - 6	14 - 4	15 - 6
	16"	9 - 1	9 - 9	12 - 10	17 - 8	12 - 5	14 - 1
	24"	7 - 5	8 - 1	10 - 6	14 - 0	10 - 2	11 - 9
2 x 8	12"	13 - 3	14 - 2	18 - 10	25 - 8	18 - 2	20 - 5
	16"	11 - 6	12 - 7	16 - 3	23 - 0	15 - 9	18 - 2
	24"	9 - 5	10 - 3	13 - 3	18 - 9	12 - 10	14 - 10
2 x 10	12"	16 - 3	17 - 9	22 - 11	Note a	22 - 3	25 - 8
	16"	14 - 1	15 - 5	19 - 10	Note a	19 - 3	22 - 3
	24"	11 - 6	12 - 7	16 - 3	22 - 11	15 - 8	18 - 2
2 x 12	12"	18 - 10	20 - 7	not in code	not in code	25 - 9	Note a
	16"	16 - 3	17 - 10	not in code	not in code	22 - 4	25 - 9
	24"	13 - 4	14 - 7	not in code	not in code	18 - 3	21 - 0

Note a: Exceeds probable availability (typically 24'-0" to 26'-0" max. length. Check local sources)

NOTE: HDRS BASED ON RF LL = 20 PSF,

ALLOWABLE HEADER SPANS From Table R502.5 (1)

DF/Larch #2 Nominal Size (Inches)	Building Width (Span of structure in ft.)	Roof + Clg. + One Floor (Clear Span)	No. of Jack Studs	Roof + Clg. Only (Clear Span)	No. of Jack Studs
2 - 2 x 4 (4 x 4)	20'	2 - 8	1	3 - 6	1
	28'	2 - 4	1	3 - 2	1
	36'	2 - 1	1	2 - 10	1
2 - 2 x 6 (4 x 6)	20'	3 - 11	1	5 - 5	1
	28'	3 - 5	2	4 - 8	1
	36'	3 - 0	2	4 - 2	1
2 - 2 x 8 (4 x 8)	20'	5 - 0	2	6 - 10	1
	28'	4 - 4	2	5 - 11	2
	36'	3 - 10	2	5 - 4	2
2 - 2 x 10 (4 x 10)	20'	6 - 1	2	8 - 5	2
	28'	5 - 3	2	7 - 3	2
	36'	4 - 8	2	6 - 6	2
2 - 2 x 12 (4 x 12)	20'	7 - 1	2	9 - 9	2
	28'	6 - 1	3	8 - 5	2
	36'	5 - 5	3	7 - 6	2
3 - 2 x 8 (6 x 8)	20'	6 - 3	2	8 - 4	1
	28'	5 - 5	2	7 - 6	1
	36'	4 - 10	2	6 - 8	2
3 - 2 x 10 (6 x 10)	20'	7 - 7	2	10 - 6	1
	28'	6 - 7	2	9 - 1	2
	36'	5 - 11	2	8 - 2	2
3 - 2 x 12 (6 x 12)	20'	8 - 10	2	12 - 2	2
	28'	7 - 8	2	10 - 7	2
	36'	6 - 10	2	9 - 5	2

Notes: 1. Built-up headers must be fastened per nailing schedule.
2. Conditions shown are for exterior wall. Tributary width of joist is 1/2 bldg. width.
3. Where 1 jack stud is req'd., and approved header hanger bracket may be used.

NOTE: NAILING REQUIREMENTS ARE FOR COMMON NAILS. (SEE DIMS. BELOW)

NAILING SCHEDULE From Table R602.3 (1)

1. Joist to sill or girder, toenail 3-8d			
2. Bridging to joist, toenail each end 2-8d			
3. Sole plate to joist or blocking, face-nail 16d @ 16" o.c.			
4. Sole plate to joist or blocking, at braced wall panels 3-16d per 16"			
5. Top plate to stud, end-nail 2-16d			
6. Stud to sole plate 4-8d toe nailed, or 2-16d end-nailed			
7. Double studs, face-nailed 16d @ 24" o.c.			
8. Double top plates, face-nail 16d @ 16" o.c.			
9. Double top plates, lap spliced 8-16d			
10. Blocking between joists or rafters to top plate, toenail 3-8d			
11. Rim joist to top plate, toenail 8d @ 6" o.c.			
12. Ceiling joist to top plate, 3-8d toenails			
13. Continuous header, two pieces 16d @ 16" o.c. along each edge			
14. Continuous header to stud, toenail 4-8d			
15. Ceiling joists to plate, toenail 3-8d			
16. Ceiling joists, laps over wall, face nail 3-16d (See Sht. A4 for rafter tie nailing)			
17. Rafter to plate, toenail 3-8d			
18. Built-up corner studs 16d @ 24" o.c.			
19. Built-up girder and beams 20d @ 32" o.c. face nail at top & bottom and staggered on opposite sides, plus 2-20d face nail at each end			
20. Collar tie to rafter, face nail, 3-10d (See Sht. A4 for rafter tie nailing)			
21. Jack rafter to hip, toenail 3-10d, face nail 2-16d			
22. Roof rafter to 2x ridge beam, toenail or face nail 3-16d			
23. Joist to band joist, face nail, 3-16d			
24. Ledger strip, face nail 3-16d			
NOTE: Use Common nails, not box, cooler etc.			
20d	4" X 0.192" DIA	10d	3" X 0.148" DIA
16d	3 1/2" X 0.162" DIA	8d	2 1/2" X 0.131" DIA
12d	3 1/4" X 0.148" DIA	6d	2" X 0.113" DIA

NAME, ADDRESS AND PHONE NO. OF DESIGNER
XXX XXX XXX XXX
XXX XXX XXX XXX

WET SIGNATURE OF DESIGNER ON EACH SHEET
(AND PROFESSIONAL STAMP IF APPLICABLE)

EXAMPLE
RESIDENCE

FRAMING & NAIL
SCHEDULES

SAMPLE DRAWING

SCALE: N.A.

DATE:

SHEET NO.

A9