

WET USE FACTOR (C_M)

Table I

Apply to Beams & Stringers/Posts & Timbers

5" and thicker lumber

When lumber 5" and thicker is designed for exposed uses where the moisture content will exceed 19% in use for an extended period of time, the design values shown in Tables 4 and 5 should be multiplied by the following adjustment factors:

F_b	F_t	F_v	$F_{C\perp}$	F_C	E
1.00	1.00	1.00	0.67	0.91	1.00

SIZE/DEPTH EFFECT ADJUSTMENT (C_F)

Table J

Apply to Beams & Stringers/Posts & Timbers

5" and thicker lumber

When the depth of a sawn lumber member exceeds 12 inches, the design value for extreme fiber stress in bending (F_b) shall be multiplied by the size factor C_F , as determined by this formula:

$$C_F = \left(\frac{12}{d}\right)^{1/9}$$

Note: The following adjustment factors are derived from the formula above.

Nominal Depth	Net Surfaced Depth (d)	Depth Adjustment Factor (C_F)
14	13.5	0.987
16	15.5	0.972
18	17.5	0.959
20	19.5	0.947
22	21.5	0.937
24	23.5	0.928
26	25.5	0.920
28	27.5	0.912
30	29.5	0.905

FLAT USE FACTOR

Table K

Apply to Beams & Stringers subjected to loads applied on the wide face¹

Grade	F_b	E	Other Properties
Select Structural	0.86	1.00	1.00
No. 1	0.74	0.90	1.00
No. 2	1.00	1.00	1.00

¹ Posts and Timbers graded to Section 70.10, 70.11 and 70.12 of the *Western Lumber Grading Rules* may use the design values in Table 4 without the above flat-use adjustment factors.

ADJUSTMENTS FOR BEAMS & STRINGERS/ POSTS & TIMBERS

Checklist 5

<input type="checkbox"/> Repetitive Member Use Factor (C_r)	Table B, page 7
<input type="checkbox"/> Duration of Load (C_D)	Table C, page 7
<input type="checkbox"/> Compression Perpendicular ($C_{C\perp}$)	Table E, page 9
<input type="checkbox"/> Incising Factor (C_i)	Table G, page 9
<input type="checkbox"/> Wet Use Adjustment (C_M)	Table I, page 12
<input type="checkbox"/> Depth Effect	Table J, page 12
<input type="checkbox"/> Flat Use (C_{fu})	Table K, page 12