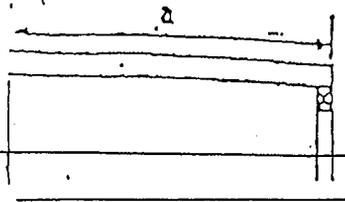


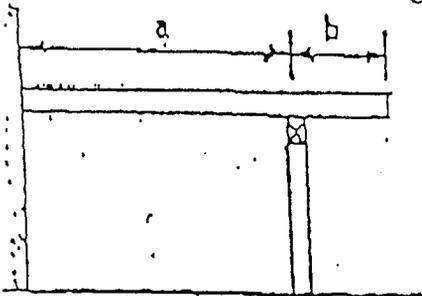
WOOD DECKS - SAMPLE CALCULATIONS FOR USING THE SPAN TABLE



CASE I SOLUTION: Refer to table for joist and beam sizes.

Example: $a = 12'$, Post Spacing = $8'$

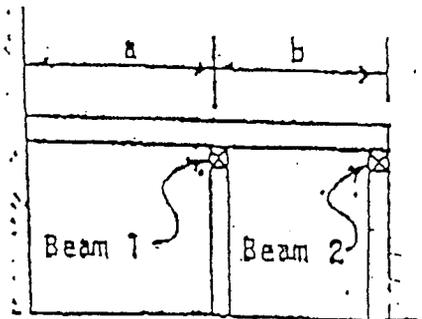
Refer to the span table. Joist size may be either 2×8 's $12''$ O.C. or 2×10 's $16''$ O.C. Beam size may be either $3-2 \times 8$'s or $2-2 \times 10$'s



CASE II SOLUTION: Use "a" for joist size and "a" + "b" to determine beam size (The length of "b" is restricted by both the length of "a" and the size of the joists.)

Example: $a = 8'$, $b = 2'$, Post Spacing = $10'$

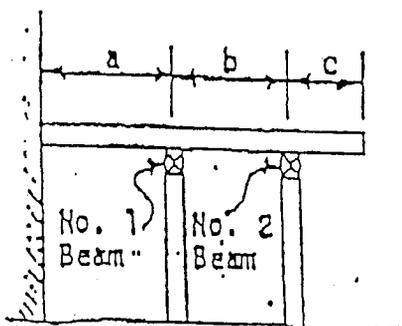
Find the joist size required by looking under $8'$ on the table. Joist length is indicated as 2×6 's $16''$ O.C. or 2×8 's $24''$ O.C. For sizing the beam, use a joist length of $10'$ ($8' + 2' = 10'$) and a post spacing of $10'$. The table indicates that $4-2 \times 8$'s or $3-2 \times 10$'s are required for the beam



CASE III SOLUTION: Use "a" or "b", whichever is greater, to determine joist size. Use "a" + "b", to determine the size of Beam No. 1 and use joist length "b" to determine the size of Beam No. 2.

Example: $a = 6'$, $b = 7'$, Post Spacing = $9'$

The joist length ($7'$) is determined by the longest span joist ("b"). The table indicates that 2×6 's $16''$ O.C. or 2×8 's $24''$ O.C. are required for a $7'$ span. For Beam No. 1, use joist length of $13'$ ($6' + 7' = 13'$) and post spacing of $9'$. The table indicates that $3-2 \times 10$'s or $2-2 \times 12$'s are required for Beam No. 1. For Beam No. 2 use joist length of $7'$ with a post spacing of $9'$. The table indicates that $4-2 \times 6$'s or $3-2 \times 8$'s are required for Beam No. 2.



CASE IV SOLUTION: Use "a" or "b", whichever is greater, to determine joist size. Use "a" + "b" to determine the size of Beam No. 1 and "b" + "c" to determine the size of Beam No. 2 (The length of "c" is restricted by both the length of "b" and the size of the joist.)

Example: $a = 7'$, $b = 8'$, $c = 2'$, Post spacing = $12'$

The longest joist span is $8'$; therefore, the table indicates that 2×6 's $16''$ O.C. or 2×8 's $24''$ O.C. are required. For Beam No. 1, use joist length of $15'$ ($7' + 8' = 15'$) and post spacing of $12'$. The table indicates that $3-2 \times 12$'s are required for Beam No. 1. For Beam No. 2, use joist length of $10'$ ($8' + 2' = 10'$) and post spacing of $12'$. The table indicates that $3-2 \times 10$'s or $3-2 \times 12$'s are required for Beam No. 2.

NOTES: Post size must be adequate to provide full beam bearing, ie., one-member and two-member beams must be placed on a 4×4 post; three-member beams must be placed on 4×6 or 6×6 posts, and four-member beams must be placed on 8×8 posts.

Most of the boxes in this table contain two optional means of support. Wood members may be increased above those indicated in the table, but in no event may lesser members be used.