

Headers Supporting Roof – Sizing Table

Design Criteria

| | |
|--------------------|---|
| Span: | Simple |
| Load: | Dead load = 15 psf |
| Deflection limits: | L/480 under snow load and L/360 under total load |
| Lateral supports: | At points of bearing and at every 2 feet along the top edge |
| Soffit: | Roof truss soffit up to 24 inches |
| Building: | NBC 2015 Part 9 |

Serviceability and Ultimate Limit States

24F-1.9E Headers

| Roof span (ft) | Snow load = 30 psf Header clear span (ft) | | | | Snow load = 40 psf Header clear span (ft) | | | |
|-------------------|--|------------------------------------|------------------------------------|--------------------------------------|--|------------------------------------|------------------------------------|--------------------------------------|
| | 0 to 5 | 6 | 8 | 10 | 0 to 5 | 6 | 8 | 10 |
| | 32 | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" |
| 34 | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 9-1/2" |
| 36 | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 9-1/2" |
| 38 | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 11-7/8" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 11-7/8" |
| 40 | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 11-7/8" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 11-7/8" |

| Roof span (ft) | Snow load = 50 psf Header clear span (ft) | | | | Snow load = 75 psf Header clear span (ft) | | | |
|-------------------|--|------------------------------------|-------------------------------------|-------------------------------------|--|------------------------------------|--------------------------------------|--------------------------------------|
| | 0 to 5 | 6 | 8 | 10 | 0 to 5 | 6 | 8 | 10 |
| | 32 | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 11-7/8" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 11-7/8" |
| 34 | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 9-1/2" | 3-1/2" x 14" 5-1/2" x 11-7/8" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 11-7/8" | 3-1/2" x 14" 5-1/2" x 14" |
| 36 | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 9-1/2" | 3-1/2" x 14" 5-1/2" x 11-7/8" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 11-7/8" | - 5-1/2" x 14" |
| 38 | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 9-1/2" | 3-1/2" x 14" 5-1/2" x 11-7/8" | 3-1/2" x 9-1/2" 5-1/4" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/4" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/4" x 11-7/8" | - 5-1/4" x 14" |
| 40 | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 9-1/2" | 3-1/2" x 14" 5-1/2" x 11-7/8" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 9-1/2" 5-1/2" x 9-1/2" | 3-1/2" x 11-7/8" 5-1/2" x 11-7/8" | - 5-1/2" x 14" |

Notes:

- This table is applicable to lintels meeting the above design criteria and is based on dry service conditions, standard-term duration of load, and uniformly distributed loads.
- Minimum bearing length shall be 3 inches, except for shaded areas, which shall be 4-1/2 inches.
- Lintels may consist of multiple plies, provided that the individual plies are fastened securely. For 2-ply and 3-ply 1-3/4-inch lintels, use the lintel sizes for 3-1/2-inch and 5-1/2-inch widths, respectively.