

# Span Tables

**Table 9.20.17.4.-A**  
**Maximum Allowable Clear Spans for Lintels in Flat Loadbearing Insulating Concrete**  
**Form (ICF) Walls<sup>(1)(2)(3)</sup> (1-10M Bottom Bar)**  
 Forming Part of Sentences 9.3.2.8.(1) and 9.20.17.4.(3)

| Minimum Lintel Thickness, mm | Minimum Lintel Depth, mm | Maximum Clear Span, m            |      |                                                   |      |
|------------------------------|--------------------------|----------------------------------|------|---------------------------------------------------|------|
|                              |                          | Supporting Light-Frame Roof Only |      | Supporting ICF Second Storey and Light-Frame Roof |      |
|                              |                          | Maximum Ground Snow Load, kN/m²  |      |                                                   |      |
|                              |                          | 1.50                             | 3.33 | 1.50                                              | 3.33 |
| 140                          | 200                      | 1.41                             | 1.18 | 1.03                                              | 0.93 |
|                              | 300                      | 1.78                             | 1.50 | 1.30                                              | 1.18 |
|                              | 400                      | 2.08                             | 1.75 | 1.53                                              | 1.38 |
|                              | 500                      | 2.33                             | 1.97 | 1.72                                              | 1.56 |
|                              | 600                      | 2.55                             | 2.16 | 1.89                                              | 1.71 |
| 150                          | 200                      | 1.41                             | 1.18 | 1.02                                              | 0.92 |
|                              | 300                      | 1.78                             | 1.50 | 1.29                                              | 1.17 |
|                              | 400                      | 2.08                             | 1.75 | 1.51                                              | 1.37 |
|                              | 500                      | 2.33                             | 1.97 | 1.70                                              | 1.54 |
|                              | 600                      | 2.54                             | 2.15 | 1.87                                              | 1.70 |
| 160                          | 200                      | 1.41                             | 1.18 | 1.01                                              | 0.91 |
|                              | 300                      | 1.78                             | 1.50 | 1.28                                              | 1.16 |
|                              | 400                      | 2.07                             | 1.75 | 1.50                                              | 1.36 |
|                              | 500                      | 2.32                             | 1.96 | 1.68                                              | 1.53 |
|                              | 600                      | 2.53                             | 2.15 | 1.85                                              | 1.68 |
| 190                          | 200                      | 1.41                             | 1.19 | 0.98                                              | 0.89 |
|                              | 300                      | 1.78                             | 1.50 | 1.24                                              | 1.13 |
|                              | 400                      | 2.06                             | 1.74 | 1.45                                              | 1.32 |
|                              | 500                      | 2.30                             | 1.95 | 1.63                                              | 1.49 |
|                              | 600                      | 2.51                             | 2.13 | 1.78                                              | 1.63 |
| 200                          | 200                      | 1.41                             | 1.19 | 0.97                                              | 0.89 |
|                              | 300                      | 1.77                             | 1.49 | 1.23                                              | 1.12 |
|                              | 400                      | 2.06                             | 1.74 | 1.43                                              | 1.31 |
|                              | 500                      | 2.30                             | 1.95 | 1.61                                              | 1.48 |
|                              | 600                      | 2.50                             | 2.13 | 1.77                                              | 1.62 |

**Table 9.20.17.4.-A (continued)**  
**Maximum Allowable Clear Spans for Lintels in Flat Loadbearing Insulating Concrete**  
**Form (ICF) Walls<sup>(1)(2)(3)</sup> (1-10M Bottom Bar)**  
 Forming Part of Sentences 9.3.2.8.(1) and 9.20.17.4.(3)

| Minimum Lintel Thickness, mm | Minimum Lintel Depth, mm | Maximum Clear Span, m            |      |                                                   |      |
|------------------------------|--------------------------|----------------------------------|------|---------------------------------------------------|------|
|                              |                          | Supporting Light-Frame Roof Only |      | Supporting ICF Second Storey and Light-Frame Roof |      |
|                              |                          | Maximum Ground Snow Load, kN/m²  |      |                                                   |      |
|                              |                          | 1.50                             | 3.33 | 1.50                                              | 3.33 |
| 240                          | 200                      | 1.41                             | 1.19 | 0.94                                              | 0.86 |
|                              | 300                      | 1.76                             | 1.49 | 1.18                                              | 1.09 |
|                              | 400                      | 2.04                             | 1.73 | 1.38                                              | 1.27 |
|                              | 500                      | 2.27                             | 1.93 | 1.55                                              | 1.43 |
|                              | 600                      | 2.47                             | 2.11 | 1.70                                              | 1.56 |

**Notes to Table 9.20.17.4.-A:**

- (1) Deflection criterion is  $L/240$ , where "L" is the clear span of the lintel.
- (2) Linear interpolation is permitted between ground snow loads and between lintel depths.
- (3) 10M stirrups are required at a maximum  $d/2$  spacing for spans greater than 1 200 mm, where "d" is the distance from the top of the lintel to the level of the bottom reinforcing bar in the lintel.

**Table 9.20.17.4.-B**  
**Maximum Allowable Clear Spans for Lintels in Flat Loadbearing Insulating Concrete**  
**Form (ICF) Walls<sup>(1)(2)(3)</sup> (1-15M Bottom Bar)**  
 Forming Part of Sentences 9.3.2.8.(1) and 9.20.17.4.(3)

| Minimum Lintel Thickness, mm | Minimum Lintel Depth, mm | Maximum Clear Span, m            |      |                                                   |      |
|------------------------------|--------------------------|----------------------------------|------|---------------------------------------------------|------|
|                              |                          | Supporting Light-Frame Roof Only |      | Supporting ICF Second Storey and Light-Frame Roof |      |
|                              |                          | Maximum Ground Snow Load, kN/m²  |      |                                                   |      |
|                              |                          | 1.50                             | 3.33 | 1.50                                              | 3.33 |
| 140                          | 200                      | 1.63                             | 1.46 | 1.31                                              | 1.23 |
|                              | 300                      | 2.43                             | 2.08 | 1.81                                              | 1.64 |
|                              | 400                      | 2.90                             | 2.44 | 2.13                                              | 1.93 |
|                              | 500                      | 3.26                             | 2.75 | 2.41                                              | 2.18 |
|                              | 600                      | 3.58                             | 3.03 | 2.65                                              | 2.4  |
| 150                          | 200                      | 1.67                             | 1.49 | 1.33                                              | 1.25 |
|                              | 300                      | 2.48                             | 2.08 | 1.79                                              | 1.62 |
|                              | 400                      | 2.90                             | 2.44 | 2.11                                              | 1.91 |
|                              | 500                      | 3.26                             | 2.75 | 2.38                                              | 2.16 |
|                              | 600                      | 3.57                             | 3.02 | 2.62                                              | 2.38 |
| 160                          | 200                      | 1.70                             | 1.53 | 1.35                                              | 1.26 |
|                              | 300                      | 2.48                             | 2.08 | 1.78                                              | 1.61 |
|                              | 400                      | 2.90                             | 2.44 | 2.09                                              | 1.90 |
|                              | 500                      | 3.25                             | 2.75 | 2.36                                              | 2.14 |
|                              | 600                      | 3.56                             | 3.02 | 2.59                                              | 2.36 |

**Table 9.20.17.4.-B (continued)**  
**Maximum Allowable Clear Spans for Lintels in Flat Loadbearing Insulating Concrete**  
**Form (ICF) Walls<sup>(1)(2)(3)</sup> (1-15M Bottom Bar)**  
 Forming Part of Sentences 9.3.2.8.(1) and 9.20.17.4.(3)

| Minimum Lintel Thickness, mm | Minimum Lintel Depth, mm | Maximum Clear Span, m            |      |                                                   |      |
|------------------------------|--------------------------|----------------------------------|------|---------------------------------------------------|------|
|                              |                          | Supporting Light-Frame Roof Only |      | Supporting ICF Second Storey and Light-Frame Roof |      |
|                              |                          | Maximum Ground Snow Load, kN/m²  |      |                                                   |      |
|                              |                          | 1.50                             | 3.33 | 1.50                                              | 3.33 |
| 190                          | 200                      | 1.80                             | 1.61 | 1.36                                              | 1.24 |
|                              | 300                      | 2.48                             | 2.09 | 1.73                                              | 1.58 |
|                              | 400                      | 2.89                             | 2.44 | 2.03                                              | 1.85 |
|                              | 500                      | 3.23                             | 2.74 | 2.29                                              | 2.09 |
|                              | 600                      | 3.53                             | 3.00 | 2.51                                              | 2.30 |
| 200                          | 200                      | 1.83                             | 1.64 | 1.35                                              | 1.23 |
|                              | 300                      | 2.48                             | 2.09 | 1.71                                              | 1.57 |
|                              | 400                      | 2.88                             | 2.44 | 2.01                                              | 1.84 |
|                              | 500                      | 3.22                             | 2.74 | 2.26                                              | 2.07 |
|                              | 600                      | 3.52                             | 2.99 | 2.48                                              | 2.28 |
| 240                          | 200                      | 1.93                             | 1.65 | 1.30                                              | 1.20 |
|                              | 300                      | 2.47                             | 2.08 | 1.66                                              | 1.52 |
|                              | 400                      | 2.86                             | 2.43 | 1.94                                              | 1.78 |
|                              | 500                      | 3.19                             | 2.72 | 2.18                                              | 2.01 |
|                              | 600                      | 3.47                             | 2.97 | 2.39                                              | 2.20 |

**Notes to Table 9.20.17.4.-B:**

- (1) Deflection criterion is  $L/240$ , where "L" is the clear span of the lintel.
- (2) Linear interpolation is permitted between ground snow loads and between lintel depths.
- (3) 10M stirrups are required at a maximum  $d/2$  spacing for spans greater than 1 200 mm, where "d" is the distance from the top of the lintel to the level of the bottom reinforcing bar in the lintel.

**Table 9.20.17.4.-C**  
**Maximum Allowable Clear Spans for Lintels in Flat Loadbearing Insulating Concrete**  
**Form (ICF) Walls<sup>(1)(2)(3)</sup> (2-15M Bottom Bar)**  
 Forming Part of Sentences 9.3.2.8.(1) and 9.20.17.4.(3)

| Minimum Lintel Thickness, mm | Minimum Lintel Depth, mm | Maximum Clear Span, m            |      |                                                   |      |
|------------------------------|--------------------------|----------------------------------|------|---------------------------------------------------|------|
|                              |                          | Supporting Light-Frame Roof Only |      | Supporting ICF Second Storey and Light-Frame Roof |      |
|                              |                          | Maximum Ground Snow Load, kN/m²  |      |                                                   |      |
|                              |                          | 1.50                             | 3.33 | 1.50                                              | 3.33 |
| 140                          | 200                      | 1.63                             | 1.46 | 1.31                                              | 1.23 |
|                              | 300                      | 2.43                             | 2.18 | 1.96                                              | 1.84 |
|                              | 400                      | 3.22                             | 2.90 | 2.60                                              | 2.42 |
|                              | 500                      | 4.00                             | 3.60 | 3.25                                              | 2.70 |
|                              | 600                      | 4.71                             | 4.20 | 3.61                                              | 2.97 |

**Table 9.20.17.4.-C (continued)**  
**Maximum Allowable Clear Spans for Lintels in Flat Loadbearing Insulating Concrete**  
**Form (ICF) Walls<sup>(1)(2)(3)</sup> (2-15M Bottom Bar)**  
 Forming Part of Sentences 9.3.2.8.(1) and 9.20.17.4.(3)

| Minimum Lintel Thickness, mm | Minimum Lintel Depth, mm | Maximum Clear Span, m            |      |                                                   |      |
|------------------------------|--------------------------|----------------------------------|------|---------------------------------------------------|------|
|                              |                          | Supporting Light-Frame Roof Only |      | Supporting ICF Second Storey and Light-Frame Roof |      |
|                              |                          | Maximum Ground Snow Load, kN/m²  |      |                                                   |      |
|                              |                          | 1.50                             | 3.33 | 1.50                                              | 3.33 |
| 150                          | 200                      | 1.67                             | 1.49 | 1.33                                              | 1.25 |
|                              | 300                      | 2.48                             | 2.23 | 1.99                                              | 1.87 |
|                              | 400                      | 3.29                             | 2.96 | 2.64                                              | 2.45 |
|                              | 500                      | 4.80                             | 3.68 | 3.29                                              | 2.74 |
|                              | 600                      | 4.87                             | 4.20 | 3.64                                              | 3.02 |
| 160                          | 200                      | 1.70                             | 1.53 | 1.35                                              | 1.27 |
|                              | 300                      | 2.53                             | 2.28 | 2.02                                              | 1.90 |
|                              | 400                      | 3.36                             | 3.02 | 2.68                                              | 2.48 |
|                              | 500                      | 4.16                             | 3.76 | 3.27                                              | 2.78 |
|                              | 600                      | 4.95                             | 4.20 | 3.61                                              | 3.08 |
| 190                          | 200                      | 1.80                             | 1.61 | 1.39                                              | 1.32 |
|                              | 300                      | 2.67                             | 2.40 | 2.09                                              | 1.97 |
|                              | 400                      | 3.53                             | 3.19 | 2.77                                              | 2.56 |
|                              | 500                      | 4.38                             | 3.81 | 3.18                                              | 2.90 |
|                              | 600                      | 4.92                             | 4.19 | 3.50                                              | 3.21 |
| 200                          | 200                      | 1.83                             | 1.64 | 1.41                                              | 1.33 |
|                              | 300                      | 2.87                             | 2.44 | 2.11                                              | 2.00 |
|                              | 400                      | 3.78                             | 3.24 | 2.79                                              | 2.55 |
|                              | 500                      | 4.46                             | 3.81 | 3.15                                              | 2.89 |
|                              | 600                      | 4.86                             | 4.18 | 3.47                                              | 3.18 |
| 240                          | 200                      | 2.07                             | 1.74 | 1.46                                              | 1.38 |
|                              | 300                      | 3.07                             | 2.59 | 2.18                                              | 2.07 |
|                              | 400                      | 3.95                             | 3.38 | 2.70                                              | 2.48 |
|                              | 500                      | 4.40                             | 3.80 | 3.04                                              | 2.80 |
|                              | 600                      | 4.78                             | 4.16 | 3.34                                              | 3.08 |

**Notes to Table 9.20.17.4.-C:**

- (1) Deflection criterion is  $L/240$ , where "L" is the clear span of the lintel.
- (2) Linear interpolation is permitted between ground snow loads and between lintel depths.
- (3) 10M stirrups are required at a maximum  $d/2$  spacing for spans greater than 1 200 mm, where "d" is the distance from the top of the lintel to the level of the bottom reinforcing bar in the lintel.

**Table 9.23.4.2.-A**  
**Maximum Spans for Floor Joists – General Cases<sup>(1)</sup>**  
Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and (2), 9.23.4.4.(1) and 9.23.9.4.(1) to (3)

| Commercial Designation                                       | Grade             | Joist Size, mm | Maximum Span, m               |      |      |                   |      |      |                                            |      |      |
|--------------------------------------------------------------|-------------------|----------------|-------------------------------|------|------|-------------------|------|------|--------------------------------------------|------|------|
|                                                              |                   |                | With Strapping <sup>(2)</sup> |      |      | With Bridging     |      |      | With Strapping <sup>(2)</sup> and Bridging |      |      |
|                                                              |                   |                | Joist Spacing, mm             |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm                          |      |      |
|                                                              |                   |                | 300                           | 400  | 600  | 300               | 400  | 600  | 300                                        | 400  | 600  |
| Douglas Fir – Larch (includes Douglas Fir and Western Larch) | Select Structural | 38 x 89        | 2.13                          | 1.97 | 1.73 | 2.19              | 1.99 | 1.73 | 2.19                                       | 1.99 | 1.73 |
|                                                              |                   | 38 x 140       | 3.23                          | 3.07 | 2.73 | 3.44              | 3.12 | 2.73 | 3.44                                       | 3.12 | 2.73 |
|                                                              |                   | 38 x 184       | 3.88                          | 3.69 | 3.51 | 4.18              | 3.92 | 3.59 | 4.37                                       | 4.07 | 3.59 |
|                                                              |                   | 38 x 235       | 4.57                          | 4.34 | 4.13 | 4.86              | 4.57 | 4.29 | 5.05                                       | 4.70 | 4.39 |
|                                                              |                   | 38 x 286       | 5.21                          | 4.95 | 4.71 | 5.49              | 5.16 | 4.85 | 5.66                                       | 5.28 | 4.92 |
|                                                              | No. 1 and No. 2   | 38 x 89        | 2.00                          | 1.85 | 1.66 | 2.09              | 1.90 | 1.66 | 2.09                                       | 1.90 | 1.66 |
|                                                              |                   | 38 x 140       | 3.09                          | 2.91 | 2.62 | 3.29              | 2.99 | 2.62 | 3.29                                       | 2.99 | 2.62 |
|                                                              |                   | 38 x 184       | 3.71                          | 3.53 | 3.36 | 4.00              | 3.76 | 3.44 | 4.19                                       | 3.90 | 3.44 |
|                                                              |                   | 38 x 235       | 4.38                          | 4.16 | 3.96 | 4.66              | 4.38 | 4.11 | 4.84                                       | 4.51 | 4.20 |
|                                                              |                   | 38 x 286       | 4.99                          | 4.75 | 4.52 | 5.26              | 4.94 | 4.65 | 5.43                                       | 5.06 | 4.72 |
|                                                              | No. 3             | 38 x 89        | 1.90                          | 1.69 | 1.38 | 1.95              | 1.69 | 1.38 | 1.95                                       | 1.69 | 1.38 |
|                                                              |                   | 38 x 140       | 2.78                          | 2.41 | 1.97 | 2.78              | 2.41 | 1.97 | 2.78                                       | 2.41 | 1.97 |
|                                                              |                   | 38 x 184       | 3.38                          | 2.93 | 2.39 | 3.38              | 2.93 | 2.39 | 3.38                                       | 2.93 | 2.39 |
|                                                              |                   | 38 x 235       | 4.14                          | 3.58 | 2.93 | 4.14              | 3.58 | 2.93 | 4.14                                       | 3.58 | 2.93 |
|                                                              |                   | 38 x 286       | 4.80                          | 4.16 | 3.39 | 4.80              | 4.16 | 3.39 | 4.80                                       | 4.16 | 3.39 |
|                                                              | Construction      | 38 x 89        | 1.90                          | 1.77 | 1.61 | 2.03              | 1.84 | 1.61 | 2.03                                       | 1.84 | 1.61 |
|                                                              | Standard          | 38 x 89        | 1.81                          | 1.63 | 1.33 | 1.88              | 1.63 | 1.33 | 1.88                                       | 1.63 | 1.33 |
| Hem – Fir (includes Western Hemlock and Amabilis Fir)        | Select Structural | 38 x 89        | 2.08                          | 1.93 | 1.71 | 2.16              | 1.96 | 1.71 | 2.16                                       | 1.96 | 1.71 |
|                                                              |                   | 38 x 140       | 3.18                          | 3.03 | 2.69 | 3.39              | 3.08 | 2.69 | 3.39                                       | 3.08 | 2.69 |
|                                                              |                   | 38 x 184       | 3.82                          | 3.64 | 3.46 | 4.12              | 3.87 | 3.54 | 4.31                                       | 4.02 | 3.54 |
|                                                              |                   | 38 x 235       | 4.50                          | 4.28 | 4.08 | 4.80              | 4.51 | 4.23 | 4.98                                       | 4.64 | 4.33 |
|                                                              |                   | 38 x 286       | 5.14                          | 4.89 | 4.65 | 5.42              | 5.09 | 4.78 | 5.59                                       | 5.21 | 4.86 |
|                                                              | No. 1 and No. 2   | 38 x 89        | 2.00                          | 1.85 | 1.66 | 2.09              | 1.90 | 1.66 | 2.09                                       | 1.90 | 1.66 |
|                                                              |                   | 38 x 140       | 3.09                          | 2.91 | 2.62 | 3.29              | 2.99 | 2.62 | 3.29                                       | 2.99 | 2.62 |
|                                                              |                   | 38 x 184       | 3.71                          | 3.53 | 3.36 | 4.00              | 3.76 | 3.44 | 4.19                                       | 3.90 | 3.44 |
|                                                              |                   | 38 x 235       | 4.38                          | 4.16 | 3.96 | 4.66              | 4.38 | 4.11 | 4.84                                       | 4.51 | 4.20 |
|                                                              |                   | 38 x 286       | 4.99                          | 4.75 | 4.52 | 5.26              | 4.94 | 4.65 | 5.43                                       | 5.06 | 4.72 |
|                                                              | No. 3             | 38 x 89        | 1.90                          | 1.77 | 1.61 | 2.03              | 1.84 | 1.61 | 2.03                                       | 1.84 | 1.61 |
|                                                              |                   | 38 x 140       | 2.99                          | 2.78 | 2.43 | 3.19              | 2.90 | 2.43 | 3.19                                       | 2.90 | 2.43 |
|                                                              |                   | 38 x 184       | 3.60                          | 3.42 | 2.95 | 3.88              | 3.61 | 2.95 | 4.06                                       | 3.61 | 2.95 |
|                                                              |                   | 38 x 235       | 4.24                          | 4.03 | 3.61 | 4.51              | 4.24 | 3.61 | 4.68                                       | 4.37 | 3.61 |
|                                                              |                   | 38 x 286       | 4.84                          | 4.60 | 4.19 | 5.10              | 4.79 | 4.19 | 5.26                                       | 4.90 | 4.19 |
|                                                              | Construction      | 38 x 89        | 1.90                          | 1.77 | 1.61 | 2.03              | 1.84 | 1.61 | 2.03                                       | 1.84 | 1.61 |
|                                                              | Standard          | 38 x 89        | 1.81                          | 1.68 | 1.39 | 1.96              | 1.71 | 1.39 | 1.96                                       | 1.71 | 1.39 |

**Table 9.23.4.2.-A (continued)**  
**Maximum Spans for Floor Joists – General Cases<sup>(1)</sup>**

Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and (2), 9.23.4.4.(1) and 9.23.9.4.(1) to (3)

| Commercial Designation                                                                                                              | Grade             | Joist Size, mm | Maximum Span, m               |      |      |                   |      |      |                                            |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|-------------------------------|------|------|-------------------|------|------|--------------------------------------------|------|------|
|                                                                                                                                     |                   |                | With Strapping <sup>(2)</sup> |      |      | With Bridging     |      |      | With Strapping <sup>(2)</sup> and Bridging |      |      |
|                                                                                                                                     |                   |                | Joist Spacing, mm             |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm                          |      |      |
|                                                                                                                                     |                   |                | 300                           | 400  | 600  | 300               | 400  | 600  | 300                                        | 400  | 600  |
| Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | Select Structural | 38 x 89        | 1.95                          | 1.81 | 1.64 | 2.06              | 1.87 | 1.64 | 2.06                                       | 1.87 | 1.64 |
|                                                                                                                                     |                   | 38 x 140       | 3.05                          | 2.85 | 2.57 | 3.24              | 2.95 | 2.57 | 3.24                                       | 2.95 | 2.57 |
|                                                                                                                                     |                   | 38 x 184       | 3.66                          | 3.48 | 3.31 | 3.94              | 3.70 | 3.38 | 4.12                                       | 3.84 | 3.38 |
|                                                                                                                                     |                   | 38 x 235       | 4.31                          | 4.10 | 3.90 | 4.59              | 4.31 | 4.05 | 4.76                                       | 4.44 | 4.14 |
|                                                                                                                                     |                   | 38 x 286       | 4.91                          | 4.67 | 4.45 | 5.18              | 4.87 | 4.57 | 5.34                                       | 4.98 | 4.64 |
|                                                                                                                                     | No. 1 and No. 2   | 38 x 89        | 1.86                          | 1.72 | 1.58 | 1.99              | 1.81 | 1.58 | 1.99                                       | 1.81 | 1.58 |
|                                                                                                                                     |                   | 38 x 140       | 2.92                          | 2.71 | 2.49 | 3.14              | 2.85 | 2.49 | 3.14                                       | 2.85 | 2.49 |
|                                                                                                                                     |                   | 38 x 184       | 3.54                          | 3.36 | 3.20 | 3.81              | 3.58 | 3.27 | 3.99                                       | 3.72 | 3.27 |
|                                                                                                                                     |                   | 38 x 235       | 4.17                          | 3.96 | 3.77 | 4.44              | 4.17 | 3.92 | 4.60                                       | 4.29 | 4.00 |
|                                                                                                                                     |                   | 38 x 286       | 4.75                          | 4.52 | 4.30 | 5.01              | 4.71 | 4.42 | 5.17                                       | 4.82 | 4.49 |
|                                                                                                                                     | No. 3             | 38 x 89        | 1.81                          | 1.68 | 1.55 | 1.96              | 1.78 | 1.55 | 1.96                                       | 1.78 | 1.55 |
|                                                                                                                                     |                   | 38 x 140       | 2.84                          | 2.64 | 2.43 | 3.08              | 2.80 | 2.43 | 3.08                                       | 2.80 | 2.43 |
|                                                                                                                                     |                   | 38 x 184       | 3.47                          | 3.30 | 2.95 | 3.74              | 3.52 | 2.95 | 3.92                                       | 3.61 | 2.95 |
|                                                                                                                                     |                   | 38 x 235       | 4.09                          | 3.89 | 3.61 | 4.36              | 4.09 | 3.61 | 4.52                                       | 4.22 | 3.61 |
|                                                                                                                                     |                   | 38 x 286       | 4.67                          | 4.44 | 4.19 | 4.92              | 4.62 | 4.19 | 5.08                                       | 4.73 | 4.19 |
|                                                                                                                                     | Construction      | 38 x 89        | 1.81                          | 1.68 | 1.55 | 1.96              | 1.78 | 1.55 | 1.96                                       | 1.78 | 1.55 |
|                                                                                                                                     | Standard          | 38 x 89        | 1.70                          | 1.58 | 1.44 | 1.88              | 1.71 | 1.44 | 1.88                                       | 1.71 | 1.44 |

**Table 9.23.4.2.-A (continued)**  
**Maximum Spans for Floor Joists – General Cases<sup>(1)</sup>**

Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and (2), 9.23.4.4.(1) and 9.23.9.4.(1) to (3)

| Commercial Designation                                                                         | Grade             | Joist Size, mm | Maximum Span, m               |      |      |                   |      |      |                                            |      |      |
|------------------------------------------------------------------------------------------------|-------------------|----------------|-------------------------------|------|------|-------------------|------|------|--------------------------------------------|------|------|
|                                                                                                |                   |                | With Strapping <sup>(2)</sup> |      |      | With Bridging     |      |      | With Strapping <sup>(2)</sup> and Bridging |      |      |
|                                                                                                |                   |                | Joist Spacing, mm             |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm                          |      |      |
|                                                                                                |                   |                | 300                           | 400  | 600  | 300               | 400  | 600  | 300                                        | 400  | 600  |
| Northern Species<br>(includes any Canadian species covered by the NLGA Standard Grading Rules) | Select Structural | 38 x 89        | 1.65                          | 1.53 | 1.42 | 1.84              | 1.68 | 1.46 | 1.84                                       | 1.68 | 1.46 |
|                                                                                                |                   | 38 x 140       | 2.59                          | 2.41 | 2.24 | 2.90              | 2.63 | 2.30 | 2.90                                       | 2.63 | 2.30 |
|                                                                                                |                   | 38 x 184       | 3.27                          | 3.11 | 2.94 | 3.52              | 3.31 | 3.03 | 3.69                                       | 3.44 | 3.03 |
|                                                                                                |                   | 38 x 235       | 3.85                          | 3.66 | 3.48 | 4.10              | 3.85 | 3.62 | 4.26                                       | 3.97 | 3.70 |
|                                                                                                |                   | 38 x 286       | 4.39                          | 4.18 | 3.97 | 4.63              | 4.35 | 4.09 | 4.78                                       | 4.45 | 4.15 |
|                                                                                                | No. 1 and No. 2   | 38 x 89        | 1.59                          | 1.48 | 1.37 | 1.80              | 1.64 | 1.43 | 1.80                                       | 1.64 | 1.43 |
|                                                                                                |                   | 38 x 140       | 2.51                          | 2.33 | 2.16 | 2.83              | 2.57 | 2.25 | 2.83                                       | 2.57 | 2.25 |
|                                                                                                |                   | 38 x 184       | 3.19                          | 3.04 | 2.84 | 3.44              | 3.23 | 2.96 | 3.60                                       | 3.36 | 2.96 |
|                                                                                                |                   | 38 x 235       | 3.76                          | 3.58 | 3.41 | 4.01              | 3.77 | 3.54 | 4.16                                       | 3.88 | 3.62 |
|                                                                                                |                   | 38 x 286       | 4.29                          | 4.08 | 3.88 | 4.53              | 4.25 | 4.00 | 4.67                                       | 4.35 | 4.06 |
|                                                                                                | No. 3             | 38 x 89        | 1.54                          | 1.43 | 1.32 | 1.74              | 1.57 | 1.36 | 1.76                                       | 1.60 | 1.36 |
|                                                                                                |                   | 38 x 140       | 2.42                          | 2.24 | 1.94 | 2.74              | 2.38 | 1.94 | 2.75                                       | 2.38 | 1.94 |
|                                                                                                |                   | 38 x 184       | 3.12                          | 2.90 | 2.37 | 3.35              | 2.90 | 2.37 | 3.35                                       | 2.90 | 2.37 |
|                                                                                                |                   | 38 x 235       | 3.67                          | 3.49 | 2.89 | 3.91              | 3.54 | 2.89 | 4.06                                       | 3.54 | 2.89 |
|                                                                                                |                   | 38 x 286       | 4.19                          | 3.98 | 3.36 | 4.42              | 4.11 | 3.36 | 4.55                                       | 4.11 | 3.36 |
|                                                                                                | Construction      | 38 x 89        | 1.54                          | 1.43 | 1.32 | 1.74              | 1.57 | 1.40 | 1.76                                       | 1.60 | 1.40 |
|                                                                                                | Standard          | 38 x 89        | 1.48                          | 1.37 | 1.15 | 1.63              | 1.41 | 1.15 | 1.63                                       | 1.41 | 1.15 |

**Notes to Table 9.23.4.2.-A:**

- (1) Spans apply only where the floors serve residential areas as described in Table 4.1.5.3., or the uniformly distributed *live load* on the floors does not exceed that specified for residential areas as described in Table 4.1.5.3.
- (2) See Sentence 9.23.9.4.(5) for alternatives to strapping.

**Table 9.23.4.2.-B**  
**Maximum Spans for Floor Joists – Special Cases<sup>(1)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and (2), 9.23.4.4.(2) and 9.23.9.4.(4) and (6)

| Commercial Designation                                       | Grade             | Joist Size, mm | Maximum Span, m                               |      |      |                   |      |      |                                         |      |      |
|--------------------------------------------------------------|-------------------|----------------|-----------------------------------------------|------|------|-------------------|------|------|-----------------------------------------|------|------|
|                                                              |                   |                | Joists with Ceilings Attached to Wood Furring |      |      |                   |      |      | Joists with Concrete Topping            |      |      |
|                                                              |                   |                | Without Bridging                              |      |      | With Bridging     |      |      | With or Without Bridging <sup>(2)</sup> |      |      |
|                                                              |                   |                | Joist Spacing, mm                             |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm                       |      |      |
|                                                              |                   |                | 300                                           | 400  | 600  | 300               | 400  | 600  | 300                                     | 400  | 600  |
| Douglas Fir – Larch (includes Douglas Fir and Western Larch) | Select Structural | 38 x 89        | 2.19                                          | 1.99 | 1.73 | 2.19              | 1.99 | 1.73 | 2.19                                    | 1.99 | 1.73 |
|                                                              |                   | 38 x 140       | 3.44                                          | 3.12 | 2.73 | 3.44              | 3.12 | 2.73 | 3.44                                    | 3.12 | 2.73 |
|                                                              |                   | 38 x 184       | 4.24                                          | 3.99 | 3.59 | 4.52              | 4.11 | 3.59 | 4.52                                    | 4.11 | 3.59 |
|                                                              |                   | 38 x 235       | 4.98                                          | 4.69 | 4.29 | 5.47              | 5.20 | 4.58 | 5.77                                    | 5.24 | 4.58 |
|                                                              |                   | 38 x 286       | 5.67                                          | 5.34 | 4.88 | 6.19              | 5.89 | 5.54 | 6.83                                    | 6.37 | 5.58 |
|                                                              | No. 1 and No. 2   | 38 x 89        | 2.09                                          | 1.90 | 1.66 | 2.09              | 1.90 | 1.66 | 2.09                                    | 1.90 | 1.66 |
|                                                              |                   | 38 x 140       | 3.29                                          | 2.99 | 2.62 | 3.29              | 2.99 | 2.62 | 3.29                                    | 2.99 | 2.55 |
|                                                              |                   | 38 x 184       | 4.06                                          | 3.83 | 3.44 | 4.33              | 3.93 | 3.44 | 4.33                                    | 3.81 | 3.11 |
|                                                              |                   | 38 x 235       | 4.78                                          | 4.50 | 4.11 | 5.24              | 4.98 | 4.31 | 5.37                                    | 4.65 | 3.80 |
|                                                              |                   | 38 x 286       | 5.44                                          | 5.12 | 4.68 | 5.93              | 5.64 | 5.00 | 6.24                                    | 5.40 | 4.41 |
|                                                              | No. 3             | 38 x 89        | 1.95                                          | 1.69 | 1.38 | 1.95              | 1.69 | 1.38 | 1.72                                    | 1.49 | 1.21 |
|                                                              |                   | 38 x 140       | 2.78                                          | 2.41 | 1.97 | 2.78              | 2.41 | 1.97 | 2.45                                    | 2.12 | 1.73 |
|                                                              |                   | 38 x 184       | 3.38                                          | 2.93 | 2.39 | 3.38              | 2.93 | 2.39 | 2.98                                    | 2.58 | 2.11 |
|                                                              |                   | 38 x 235       | 4.14                                          | 3.58 | 2.93 | 4.14              | 3.58 | 2.93 | 3.65                                    | 3.16 | 2.58 |
|                                                              |                   | 38 x 286       | 4.80                                          | 4.16 | 3.39 | 4.80              | 4.16 | 3.39 | 4.23                                    | 3.66 | 2.99 |
|                                                              | Construction      | 38 x 89        | 2.03                                          | 1.84 | 1.61 | 2.03              | 1.84 | 1.61 | 2.03                                    | 1.84 | 1.61 |
|                                                              | Standard          | 38 x 89        | 1.88                                          | 1.63 | 1.33 | 1.88              | 1.63 | 1.33 | 1.66                                    | 1.44 | 1.17 |



**Table 9.23.4.2.-B (continued)**  
**Maximum Spans for Floor Joists – Special Cases<sup>(1)</sup>**

Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and (2), 9.23.4.4.(2) and 9.23.9.4.(4) and (6)

| Commercial Designation                                            | Grade             | Joist Size, mm | Maximum Span, m                               |      |      |                   |      |      |                                         |      |      |
|-------------------------------------------------------------------|-------------------|----------------|-----------------------------------------------|------|------|-------------------|------|------|-----------------------------------------|------|------|
|                                                                   |                   |                | Joists with Ceilings Attached to Wood Furring |      |      |                   |      |      | Joists with Concrete Topping            |      |      |
|                                                                   |                   |                | Without Bridging                              |      |      | With Bridging     |      |      | With or Without Bridging <sup>(2)</sup> |      |      |
|                                                                   |                   |                | Joist Spacing, mm                             |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm                       |      |      |
|                                                                   |                   |                | 300                                           | 400  | 600  | 300               | 400  | 600  | 300                                     | 400  | 600  |
| Hem – Fir<br>(includes<br>Western<br>Hemlock and<br>Amabilis Fir) | Select Structural | 38 x 89        | 2.16                                          | 1.96 | 1.71 | 2.16              | 1.96 | 1.71 | 2.16                                    | 1.96 | 1.71 |
|                                                                   |                   | 38 x 140       | 3.39                                          | 3.08 | 2.69 | 3.39              | 3.08 | 2.69 | 3.39                                    | 3.08 | 2.69 |
|                                                                   |                   | 38 x 184       | 4.18                                          | 3.94 | 3.54 | 4.46              | 4.05 | 3.54 | 4.46                                    | 4.05 | 3.54 |
|                                                                   |                   | 38 x 235       | 4.92                                          | 4.63 | 4.23 | 5.39              | 5.13 | 4.52 | 5.69                                    | 5.17 | 4.52 |
|                                                                   |                   | 38 x 286       | 5.60                                          | 5.27 | 4.82 | 6.10              | 5.81 | 5.47 | 6.74                                    | 6.28 | 5.50 |
|                                                                   | No. 1 and No. 2   | 38 x 89        | 2.09                                          | 1.90 | 1.66 | 2.09              | 1.90 | 1.66 | 2.09                                    | 1.90 | 1.66 |
|                                                                   |                   | 38 x 140       | 3.29                                          | 2.99 | 2.62 | 3.29              | 2.99 | 2.62 | 3.29                                    | 2.99 | 2.62 |
|                                                                   |                   | 38 x 184       | 4.06                                          | 3.83 | 3.44 | 4.33              | 3.93 | 3.44 | 4.33                                    | 3.93 | 3.26 |
|                                                                   |                   | 38 x 235       | 4.78                                          | 4.50 | 4.11 | 5.24              | 4.98 | 4.39 | 5.53                                    | 4.88 | 3.99 |
|                                                                   |                   | 38 x 286       | 5.44                                          | 5.12 | 4.68 | 5.93              | 5.64 | 5.25 | 6.54                                    | 5.66 | 4.63 |
|                                                                   | No. 3             | 38 x 89        | 2.03                                          | 1.84 | 1.61 | 2.03              | 1.84 | 1.61 | 2.03                                    | 1.83 | 1.50 |
|                                                                   |                   | 38 x 140       | 3.19                                          | 2.90 | 2.43 | 3.19              | 2.90 | 2.43 | 3.02                                    | 2.62 | 2.14 |
|                                                                   |                   | 38 x 184       | 3.94                                          | 3.61 | 2.95 | 4.17              | 3.61 | 2.95 | 3.68                                    | 3.18 | 2.60 |
|                                                                   |                   | 38 x 235       | 4.63                                          | 4.36 | 3.61 | 5.08              | 4.42 | 3.61 | 4.50                                    | 3.89 | 3.18 |
|                                                                   |                   | 38 x 286       | 5.27                                          | 4.96 | 4.19 | 5.74              | 5.13 | 4.19 | 5.22                                    | 4.52 | 3.69 |
|                                                                   | Construction      | 38 x 89        | 2.03                                          | 1.84 | 1.61 | 2.03              | 1.84 | 1.61 | 2.03                                    | 1.84 | 1.61 |
|                                                                   | Standard          | 38 x 89        | 1.96                                          | 1.71 | 1.39 | 1.96              | 1.71 | 1.39 | 1.74                                    | 1.50 | 1.23 |

Table 9.23.4.2.-B (continued)

Maximum Spans for Floor Joists – Special Cases<sup>(1)</sup>

Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and (2), 9.23.4.4.(2) and 9.23.9.4.(4) and (6)

| Commercial Designation                                                                                                              | Grade             | Joist Size, mm | Maximum Span, m                               |      |      |                   |      |      |                                         |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|-----------------------------------------------|------|------|-------------------|------|------|-----------------------------------------|------|------|
|                                                                                                                                     |                   |                | Joists with Ceilings Attached to Wood Furring |      |      |                   |      |      | Joists with Concrete Topping            |      |      |
|                                                                                                                                     |                   |                | Without Bridging                              |      |      | With Bridging     |      |      | With or Without Bridging <sup>(2)</sup> |      |      |
|                                                                                                                                     |                   |                | Joist Spacing, mm                             |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm                       |      |      |
|                                                                                                                                     |                   |                | 300                                           | 400  | 600  | 300               | 400  | 600  | 300                                     | 400  | 600  |
| Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | Select Structural | 38 x 89        | 2.06                                          | 1.87 | 1.64 | 2.06              | 1.87 | 1.64 | 2.06                                    | 1.87 | 1.64 |
|                                                                                                                                     |                   | 38 x 140       | 3.24                                          | 2.95 | 2.57 | 3.24              | 2.95 | 2.57 | 3.24                                    | 2.95 | 2.57 |
|                                                                                                                                     |                   | 38 x 184       | 4.00                                          | 3.77 | 3.38 | 4.26              | 3.87 | 3.38 | 4.26                                    | 3.87 | 3.38 |
|                                                                                                                                     |                   | 38 x 235       | 4.70                                          | 4.43 | 4.05 | 5.16              | 4.91 | 4.32 | 5.45                                    | 4.95 | 4.32 |
|                                                                                                                                     |                   | 38 x 286       | 5.35                                          | 5.04 | 4.61 | 5.84              | 5.55 | 5.23 | 6.45                                    | 6.01 | 5.26 |
|                                                                                                                                     | No. 1 and No. 2   | 38 x 89        | 1.99                                          | 1.81 | 1.58 | 1.99              | 1.81 | 1.58 | 1.99                                    | 1.81 | 1.58 |
|                                                                                                                                     |                   | 38 x 140       | 3.14                                          | 2.85 | 2.49 | 3.14              | 2.85 | 2.49 | 3.14                                    | 2.85 | 2.49 |
|                                                                                                                                     |                   | 38 x 184       | 3.87                                          | 3.64 | 3.27 | 4.12              | 3.75 | 3.27 | 4.12                                    | 3.75 | 3.27 |
|                                                                                                                                     |                   | 38 x 235       | 4.55                                          | 4.28 | 3.91 | 4.99              | 4.75 | 4.18 | 5.27                                    | 4.79 | 4.13 |
|                                                                                                                                     |                   | 38 x 286       | 5.18                                          | 4.88 | 4.46 | 5.65              | 5.37 | 5.06 | 6.23                                    | 5.81 | 4.79 |
|                                                                                                                                     | No. 3             | 38 x 89        | 1.96                                          | 1.78 | 1.55 | 1.96              | 1.78 | 1.55 | 1.96                                    | 1.78 | 1.50 |
|                                                                                                                                     |                   | 38 x 140       | 3.08                                          | 2.80 | 2.43 | 3.08              | 2.80 | 2.43 | 3.02                                    | 2.62 | 2.14 |
|                                                                                                                                     |                   | 38 x 184       | 3.80                                          | 3.58 | 2.95 | 4.05              | 3.61 | 2.95 | 3.68                                    | 3.18 | 2.60 |
|                                                                                                                                     |                   | 38 x 235       | 4.47                                          | 4.21 | 3.61 | 4.90              | 4.42 | 3.61 | 4.50                                    | 3.89 | 3.18 |
|                                                                                                                                     |                   | 38 x 286       | 5.09                                          | 4.79 | 4.19 | 5.55              | 5.13 | 4.19 | 5.22                                    | 4.52 | 3.69 |
|                                                                                                                                     | Construction      | 38 x 89        | 1.96                                          | 1.78 | 1.55 | 1.96              | 1.78 | 1.55 | 1.96                                    | 1.78 | 1.55 |
|                                                                                                                                     | Standard          | 38 x 89        | 1.88                                          | 1.71 | 1.44 | 1.88              | 1.71 | 1.44 | 1.80                                    | 1.56 | 1.27 |

**Table 9.23.4.2.-B (continued)**  
**Maximum Spans for Floor Joists – Special Cases<sup>(1)</sup>**

Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and (2), 9.23.4.4.(2) and 9.23.9.4.(4) and (6)

| Commercial Designation                                                                         | Grade             | Joist Size, mm | Maximum Span, m                               |      |      |                   |      |      |                                         |      |      |
|------------------------------------------------------------------------------------------------|-------------------|----------------|-----------------------------------------------|------|------|-------------------|------|------|-----------------------------------------|------|------|
|                                                                                                |                   |                | Joists with Ceilings Attached to Wood Furring |      |      |                   |      |      | Joists with Concrete Topping            |      |      |
|                                                                                                |                   |                | Without Bridging                              |      |      | With Bridging     |      |      | With or Without Bridging <sup>(2)</sup> |      |      |
|                                                                                                |                   |                | Joist Spacing, mm                             |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm                       |      |      |
|                                                                                                |                   |                | 300                                           | 400  | 600  | 300               | 400  | 600  | 300                                     | 400  | 600  |
| Northern Species<br>(includes any Canadian species covered by the NLGA Standard Grading Rules) | Select Structural | 38 x 89        | 1.84                                          | 1.68 | 1.46 | 1.84              | 1.68 | 1.46 | 1.84                                    | 1.68 | 1.46 |
|                                                                                                |                   | 38 x 140       | 2.90                                          | 2.63 | 2.30 | 2.90              | 2.63 | 2.30 | 2.90                                    | 2.63 | 2.30 |
|                                                                                                |                   | 38 x 184       | 3.58                                          | 3.37 | 3.03 | 3.81              | 3.46 | 3.03 | 3.81                                    | 3.46 | 3.03 |
|                                                                                                |                   | 38 x 235       | 4.20                                          | 3.96 | 3.62 | 4.61              | 4.39 | 3.86 | 4.87                                    | 4.42 | 3.86 |
|                                                                                                |                   | 38 x 286       | 4.79                                          | 4.51 | 4.12 | 5.22              | 4.96 | 4.68 | 5.76                                    | 5.37 | 4.54 |
|                                                                                                | No. 1 and No. 2   | 38 x 89        | 1.80                                          | 1.64 | 1.43 | 1.80              | 1.64 | 1.43 | 1.80                                    | 1.64 | 1.43 |
|                                                                                                |                   | 38 x 140       | 2.83                                          | 2.57 | 2.25 | 2.83              | 2.57 | 2.25 | 2.83                                    | 2.57 | 2.23 |
|                                                                                                |                   | 38 x 184       | 3.50                                          | 3.29 | 2.96 | 3.72              | 3.38 | 2.96 | 3.72                                    | 3.32 | 2.71 |
|                                                                                                |                   | 38 x 235       | 4.11                                          | 3.87 | 3.54 | 4.51              | 4.29 | 3.76 | 4.69                                    | 4.06 | 3.31 |
|                                                                                                |                   | 38 x 286       | 4.68                                          | 4.40 | 4.03 | 5.10              | 4.85 | 4.36 | 5.44                                    | 4.71 | 3.84 |
|                                                                                                | No. 3             | 38 x 89        | 1.76                                          | 1.60 | 1.36 | 1.76              | 1.60 | 1.36 | 1.70                                    | 1.47 | 1.20 |
|                                                                                                |                   | 38 x 140       | 2.75                                          | 2.38 | 1.94 | 2.75              | 2.38 | 1.94 | 2.42                                    | 2.10 | 1.71 |
|                                                                                                |                   | 38 x 184       | 3.35                                          | 2.90 | 2.37 | 3.35              | 2.90 | 2.37 | 2.95                                    | 2.55 | 2.08 |
|                                                                                                |                   | 38 x 235       | 4.01                                          | 3.54 | 2.89 | 4.09              | 3.54 | 2.89 | 3.61                                    | 3.12 | 2.55 |
|                                                                                                |                   | 38 x 286       | 4.56                                          | 4.11 | 3.36 | 4.75              | 4.11 | 3.36 | 4.18                                    | 3.62 | 2.96 |
|                                                                                                | Construction      | 38 x 89        | 1.76                                          | 1.60 | 1.40 | 1.76              | 1.60 | 1.40 | 1.76                                    | 1.60 | 1.37 |
|                                                                                                | Standard          | 38 x 89        | 1.63                                          | 1.41 | 1.15 | 1.63              | 1.41 | 1.15 | 1.44                                    | 1.25 | 1.02 |

**Notes to Table 9.23.4.2.-B:**

- (1) Spans apply only where the floors serve residential areas as described in Table 4.1.5.3., or the uniformly distributed *live load* on the floors does not exceed that specified for residential areas as described in Table 4.1.5.3.
- (2) No bridging is assumed for spans for floor joists with concrete topping.

**Table 9.23.4.2.-C**  
**Maximum Spans for Ceiling Joists – Attic not Accessible by a Stairway**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and 9.23.14.10.(2)

| Commercial Designation                                       | Grade             | Joist Size, mm | Maximum Span, m   |      |      |
|--------------------------------------------------------------|-------------------|----------------|-------------------|------|------|
|                                                              |                   |                | Joist Spacing, mm |      |      |
|                                                              |                   |                | 300               | 400  | 600  |
| Douglas Fir – Larch (includes Douglas Fir and Western Larch) | Select Structural | 38 x 89        | 3.41              | 3.10 | 2.71 |
|                                                              |                   | 38 x 140       | 5.37              | 4.88 | 4.26 |
|                                                              |                   | 38 x 184       | 7.05              | 6.41 | 5.60 |
|                                                              |                   | 38 x 235       | 9.01              | 8.18 | 7.15 |
|                                                              |                   | 38 x 286       | 10.96             | 9.96 | 8.70 |
|                                                              | No. 1 and No. 2   | 38 x 89        | 3.27              | 2.97 | 2.59 |
|                                                              |                   | 38 x 140       | 5.14              | 4.67 | 4.08 |
|                                                              |                   | 38 x 184       | 6.76              | 6.14 | 5.36 |
|                                                              |                   | 38 x 235       | 8.63              | 7.84 | 6.85 |
|                                                              |                   | 38 x 286       | 10.50             | 9.54 | 8.34 |
|                                                              | No. 3             | 38 x 89        | 3.17              | 2.88 | 2.42 |
|                                                              |                   | 38 x 140       | 4.89              | 4.23 | 3.46 |
|                                                              |                   | 38 x 184       | 5.95              | 5.15 | 4.20 |
|                                                              |                   | 38 x 235       | 7.27              | 6.30 | 5.14 |
|                                                              |                   | 38 x 286       | 8.44              | 7.31 | 5.97 |
|                                                              | Construction      | 38 x 89        | 3.17              | 2.88 | 2.51 |
|                                                              | Standard          | 38 x 89        | 3.06              | 2.78 | 2.34 |
| Hem – Fir (includes Western Hemlock and Amabilis Fir)        | Select Structural | 38 x 89        | 3.36              | 3.06 | 2.67 |
|                                                              |                   | 38 x 140       | 5.29              | 4.81 | 4.20 |
|                                                              |                   | 38 x 184       | 6.96              | 6.32 | 5.52 |
|                                                              |                   | 38 x 235       | 8.88              | 8.07 | 7.05 |
|                                                              |                   | 38 x 286       | 10.81             | 9.82 | 8.58 |
|                                                              | No. 1 and No. 2   | 38 x 89        | 3.27              | 2.97 | 2.59 |
|                                                              |                   | 38 x 140       | 5.14              | 4.67 | 4.08 |
|                                                              |                   | 38 x 184       | 6.76              | 6.14 | 5.36 |
|                                                              |                   | 38 x 235       | 8.63              | 7.84 | 6.85 |
|                                                              |                   | 38 x 286       | 10.50             | 9.54 | 8.34 |
|                                                              | No. 3             | 38 x 89        | 3.17              | 2.88 | 2.51 |
|                                                              |                   | 38 x 140       | 4.98              | 4.53 | 3.95 |
|                                                              |                   | 38 x 184       | 6.55              | 5.95 | 5.19 |
|                                                              |                   | 38 x 235       | 8.36              | 7.60 | 6.34 |
|                                                              |                   | 38 x 286       | 10.18             | 9.01 | 7.36 |
|                                                              | Construction      | 38 x 89        | 3.17              | 2.88 | 2.50 |
|                                                              | Standard          | 38 x 89        | 3.06              | 2.78 | 2.43 |

**Table 9.23.4.2.-C (continued)**  
**Maximum Spans for Ceiling Joists – Attic not Accessible by a Stairway**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and 9.23.14.10.(2)

| Commercial Designation                                                                                                              | Grade             | Joist Size, mm | Maximum Span, m   |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|-------------------|------|------|
|                                                                                                                                     |                   |                | Joist Spacing, mm |      |      |
|                                                                                                                                     |                   |                | 300               | 400  | 600  |
| Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | Select Structural | 38 x 89        | 3.22              | 2.92 | 2.55 |
|                                                                                                                                     |                   | 38 x 140       | 5.06              | 4.60 | 4.02 |
|                                                                                                                                     |                   | 38 x 184       | 6.65              | 6.05 | 5.28 |
|                                                                                                                                     |                   | 38 x 235       | 8.50              | 7.72 | 6.74 |
|                                                                                                                                     |                   | 38 x 286       | 10.34             | 9.40 | 8.21 |
|                                                                                                                                     | No. 1 and No. 2   | 38 x 89        | 3.11              | 2.83 | 2.47 |
|                                                                                                                                     |                   | 38 x 140       | 4.90              | 4.45 | 3.89 |
|                                                                                                                                     |                   | 38 x 184       | 6.44              | 5.85 | 5.11 |
|                                                                                                                                     |                   | 38 x 235       | 8.22              | 7.47 | 6.52 |
|                                                                                                                                     |                   | 38 x 286       | 10.00             | 9.09 | 7.94 |
|                                                                                                                                     | No. 3             | 38 x 89        | 3.06              | 2.78 | 2.43 |
|                                                                                                                                     |                   | 38 x 140       | 4.81              | 4.37 | 3.82 |
|                                                                                                                                     |                   | 38 x 184       | 6.32              | 5.74 | 5.02 |
|                                                                                                                                     |                   | 38 x 235       | 8.07              | 7.33 | 6.34 |
|                                                                                                                                     |                   | 38 x 286       | 9.82              | 8.93 | 7.36 |
|                                                                                                                                     | Construction      | 38 x 89        | 3.06              | 2.78 | 2.43 |
|                                                                                                                                     | Standard          | 38 x 89        | 2.94              | 2.67 | 2.33 |
| Northern Species (includes any Canadian species covered by the NLGA Standard Grading Rules)                                         | Select Structural | 38 x 89        | 2.88              | 2.61 | 2.28 |
|                                                                                                                                     |                   | 38 x 140       | 4.53              | 4.11 | 3.59 |
|                                                                                                                                     |                   | 38 x 184       | 5.95              | 5.40 | 4.72 |
|                                                                                                                                     |                   | 38 x 235       | 7.60              | 6.90 | 6.03 |
|                                                                                                                                     |                   | 38 x 286       | 9.25              | 8.40 | 7.34 |
|                                                                                                                                     | No. 1 and No. 2   | 38 x 89        | 2.81              | 2.55 | 2.23 |
|                                                                                                                                     |                   | 38 x 140       | 4.42              | 4.02 | 3.51 |
|                                                                                                                                     |                   | 38 x 184       | 5.81              | 5.28 | 4.61 |
|                                                                                                                                     |                   | 38 x 235       | 7.42              | 6.74 | 5.89 |
|                                                                                                                                     |                   | 38 x 286       | 9.03              | 8.21 | 7.17 |
|                                                                                                                                     | No. 3             | 38 x 89        | 2.74              | 2.49 | 2.18 |
|                                                                                                                                     |                   | 38 x 140       | 4.31              | 3.92 | 3.42 |
|                                                                                                                                     |                   | 38 x 184       | 5.67              | 5.09 | 4.16 |
|                                                                                                                                     |                   | 38 x 235       | 7.19              | 6.23 | 5.08 |
|                                                                                                                                     |                   | 38 x 286       | 8.34              | 7.23 | 5.90 |
|                                                                                                                                     | Construction      | 38 x 89        | 2.74              | 2.49 | 2.18 |
|                                                                                                                                     | Standard          | 38 x 89        | 2.67              | 2.43 | 2.03 |

**Table 9.23.4.2.-D**  
**Maximum Spans for Roof Joists – Specified Roof Snow Loads 1.0 to 2.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                       | Grade             | Joist Size, mm | Maximum Span, m          |      |      |                   |      |      |                   |      |      |
|--------------------------------------------------------------|-------------------|----------------|--------------------------|------|------|-------------------|------|------|-------------------|------|------|
|                                                              |                   |                | Specified Snow Load, kPa |      |      |                   |      |      |                   |      |      |
|                                                              |                   |                | 1.0                      |      |      | 1.5               |      |      | 2.0               |      |      |
|                                                              |                   |                | Joist Spacing, mm        |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm |      |      |
|                                                              |                   |                | 300                      | 400  | 600  | 300               | 400  | 600  | 300               | 400  | 600  |
| Douglas Fir – Larch (includes Douglas Fir and Western Larch) | Select Structural | 38 x 89        | 2.71                     | 2.46 | 2.15 | 2.37              | 2.15 | 1.88 | 2.15              | 1.95 | 1.71 |
|                                                              |                   | 38 x 140       | 4.26                     | 3.87 | 3.38 | 3.72              | 3.38 | 2.95 | 3.38              | 3.07 | 2.68 |
|                                                              |                   | 38 x 184       | 5.60                     | 5.09 | 4.44 | 4.89              | 4.44 | 3.88 | 4.44              | 4.04 | 3.53 |
|                                                              |                   | 38 x 235       | 7.15                     | 6.49 | 5.67 | 6.24              | 5.67 | 4.96 | 5.67              | 5.15 | 4.50 |
|                                                              |                   | 38 x 286       | 8.70                     | 7.90 | 6.91 | 7.60              | 6.91 | 6.03 | 6.91              | 6.27 | 5.48 |
|                                                              | No. 1 and No. 2   | 38 x 89        | 2.59                     | 2.36 | 2.06 | 2.27              | 2.06 | 1.80 | 2.06              | 1.87 | 1.63 |
|                                                              |                   | 38 x 140       | 4.08                     | 3.71 | 3.24 | 3.57              | 3.24 | 2.83 | 3.24              | 2.94 | 2.57 |
|                                                              |                   | 38 x 184       | 5.36                     | 4.87 | 4.26 | 4.69              | 4.26 | 3.72 | 4.26              | 3.87 | 3.38 |
|                                                              |                   | 38 x 235       | 6.85                     | 6.22 | 5.44 | 5.98              | 5.44 | 4.74 | 5.44              | 4.94 | 4.22 |
|                                                              |                   | 38 x 286       | 8.34                     | 7.57 | 6.40 | 7.28              | 6.62 | 5.50 | 6.62              | 6.00 | 4.90 |
|                                                              | No. 3             | 38 x 89        | 2.49                     | 2.16 | 1.76 | 2.14              | 1.85 | 1.51 | 1.91              | 1.65 | 1.35 |
|                                                              |                   | 38 x 140       | 3.56                     | 3.08 | 2.51 | 3.06              | 2.65 | 2.16 | 2.72              | 2.36 | 1.92 |
|                                                              |                   | 38 x 184       | 4.33                     | 3.75 | 3.06 | 3.72              | 3.22 | 2.63 | 3.31              | 2.87 | 2.34 |
|                                                              |                   | 38 x 235       | 5.29                     | 4.58 | 3.74 | 4.55              | 3.94 | 3.22 | 4.05              | 3.51 | 2.86 |
|                                                              |                   | 38 x 286       | 6.14                     | 5.32 | 4.34 | 5.28              | 4.57 | 3.73 | 4.70              | 4.07 | 3.32 |
|                                                              | Construction      | 38 x 89        | 2.51                     | 2.28 | 1.99 | 2.20              | 1.99 | 1.74 | 1.99              | 1.81 | 1.58 |
|                                                              | Standard          | 38 x 89        | 2.41                     | 2.08 | 1.70 | 2.07              | 1.79 | 1.46 | 1.84              | 1.60 | 1.30 |

**Table 9.23.4.2.-D (continued)**  
**Maximum Spans for Roof Joists – Specified Roof Snow Loads 1.0 to 2.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                            | Grade             | Joist Size, mm | Maximum Span, m          |      |      |                   |      |      |                   |      |      |
|-------------------------------------------------------------------|-------------------|----------------|--------------------------|------|------|-------------------|------|------|-------------------|------|------|
|                                                                   |                   |                | Specified Snow Load, kPa |      |      |                   |      |      |                   |      |      |
|                                                                   |                   |                | 1.0                      |      |      | 1.5               |      |      | 2.0               |      |      |
|                                                                   |                   |                | Joist Spacing, mm        |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm |      |      |
|                                                                   |                   |                | 300                      | 400  | 600  | 300               | 400  | 600  | 300               | 400  | 600  |
| Hem – Fir<br>(includes<br>Western<br>Hemlock and<br>Amabilis Fir) | Select Structural | 38 x 89        | 2.67                     | 2.43 | 2.12 | 2.33              | 2.12 | 1.85 | 2.12              | 1.93 | 1.68 |
|                                                                   |                   | 38 x 140       | 4.20                     | 3.82 | 3.33 | 3.67              | 3.33 | 2.91 | 3.33              | 3.03 | 2.65 |
|                                                                   |                   | 38 x 184       | 5.52                     | 5.02 | 4.38 | 4.82              | 4.38 | 3.83 | 4.38              | 3.98 | 3.48 |
|                                                                   |                   | 38 x 235       | 7.05                     | 6.41 | 5.60 | 6.16              | 5.60 | 4.89 | 5.60              | 5.09 | 4.44 |
|                                                                   |                   | 38 x 286       | 8.58                     | 7.80 | 6.81 | 7.50              | 6.81 | 5.95 | 6.81              | 6.19 | 5.41 |
|                                                                   | No. 1 and No. 2   | 38 x 89        | 2.59                     | 2.36 | 2.06 | 2.27              | 2.06 | 1.80 | 2.06              | 1.87 | 1.63 |
|                                                                   |                   | 38 x 140       | 4.08                     | 3.71 | 3.24 | 3.57              | 3.24 | 2.83 | 3.24              | 2.94 | 2.57 |
|                                                                   |                   | 38 x 184       | 5.36                     | 4.87 | 4.26 | 4.69              | 4.26 | 3.72 | 4.26              | 3.87 | 3.38 |
|                                                                   |                   | 38 x 235       | 6.85                     | 6.22 | 5.44 | 5.98              | 5.44 | 4.75 | 5.44              | 4.94 | 4.32 |
|                                                                   |                   | 38 x 286       | 8.34                     | 7.57 | 6.62 | 7.28              | 6.62 | 5.77 | 6.62              | 6.01 | 5.25 |
|                                                                   | No. 3             | 38 x 89        | 2.51                     | 2.28 | 1.99 | 2.20              | 1.99 | 1.74 | 1.99              | 1.81 | 1.58 |
|                                                                   |                   | 38 x 140       | 3.95                     | 3.59 | 3.10 | 3.45              | 3.14 | 2.67 | 3.14              | 2.85 | 2.37 |
|                                                                   |                   | 38 x 184       | 5.20                     | 4.62 | 3.77 | 4.54              | 3.97 | 3.24 | 4.09              | 3.54 | 2.89 |
|                                                                   |                   | 38 x 235       | 6.53                     | 5.65 | 4.61 | 5.61              | 4.86 | 3.97 | 5.00              | 4.33 | 3.53 |
|                                                                   |                   | 38 x 286       | 7.57                     | 6.56 | 5.35 | 6.51              | 5.64 | 4.60 | 5.80              | 5.02 | 4.10 |
|                                                                   | Construction      | 38 x 89        | 2.51                     | 2.28 | 1.99 | 2.20              | 1.99 | 1.74 | 1.99              | 1.81 | 1.58 |
|                                                                   | Standard          | 38 x 89        | 2.43                     | 2.18 | 1.78 | 2.12              | 1.88 | 1.53 | 1.93              | 1.67 | 1.36 |

**Table 9.23.4.2.-D (continued)**  
**Maximum Spans for Roof Joists – Specified Roof Snow Loads 1.0 to 2.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                                                                                              | Grade             | Joist Size, mm | Maximum Span, m          |      |      |                   |      |      |                   |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|--------------------------|------|------|-------------------|------|------|-------------------|------|------|
|                                                                                                                                     |                   |                | Specified Snow Load, kPa |      |      |                   |      |      |                   |      |      |
|                                                                                                                                     |                   |                | 1.0                      |      |      | 1.5               |      |      | 2.0               |      |      |
|                                                                                                                                     |                   |                | Joist Spacing, mm        |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm |      |      |
|                                                                                                                                     |                   |                | 300                      | 400  | 600  | 300               | 400  | 600  | 300               | 400  | 600  |
| Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | Select Structural | 38 x 89        | 2.55                     | 2.32 | 2.03 | 2.23              | 2.03 | 1.77 | 2.03              | 1.84 | 1.61 |
|                                                                                                                                     |                   | 38 x 140       | 4.02                     | 3.65 | 3.19 | 3.51              | 3.19 | 2.79 | 3.19              | 2.90 | 2.53 |
|                                                                                                                                     |                   | 38 x 184       | 5.28                     | 4.80 | 4.19 | 4.61              | 4.19 | 3.66 | 4.19              | 3.81 | 3.33 |
|                                                                                                                                     |                   | 38 x 235       | 6.74                     | 6.13 | 5.35 | 5.89              | 5.35 | 4.68 | 5.35              | 4.86 | 4.25 |
|                                                                                                                                     |                   | 38 x 286       | 8.21                     | 7.46 | 6.52 | 7.17              | 6.52 | 5.69 | 6.52              | 5.92 | 5.17 |
|                                                                                                                                     | No. 1 and No. 2   | 38 x 89        | 2.47                     | 2.24 | 1.96 | 2.16              | 1.96 | 1.71 | 1.96              | 1.78 | 1.56 |
|                                                                                                                                     |                   | 38 x 140       | 3.89                     | 3.53 | 3.08 | 3.40              | 3.08 | 2.69 | 3.08              | 2.80 | 2.45 |
|                                                                                                                                     |                   | 38 x 184       | 5.11                     | 4.64 | 4.05 | 4.46              | 4.05 | 3.54 | 4.05              | 3.68 | 3.22 |
|                                                                                                                                     |                   | 38 x 235       | 6.52                     | 5.93 | 5.18 | 5.70              | 5.18 | 4.52 | 5.18              | 4.70 | 4.11 |
|                                                                                                                                     |                   | 38 x 286       | 7.94                     | 7.21 | 6.30 | 6.94              | 6.30 | 5.50 | 6.30              | 5.73 | 5.00 |
|                                                                                                                                     | No. 3             | 38 x 89        | 2.43                     | 2.20 | 1.93 | 2.12              | 1.93 | 1.68 | 1.93              | 1.75 | 1.53 |
|                                                                                                                                     |                   | 38 x 140       | 3.82                     | 3.47 | 3.03 | 3.33              | 3.03 | 2.65 | 3.03              | 2.75 | 2.37 |
|                                                                                                                                     |                   | 38 x 184       | 5.02                     | 4.56 | 3.77 | 4.38              | 3.97 | 3.24 | 3.98              | 3.54 | 2.89 |
|                                                                                                                                     |                   | 38 x 235       | 6.41                     | 5.65 | 4.61 | 5.60              | 4.86 | 3.97 | 5.00              | 4.33 | 3.53 |
|                                                                                                                                     |                   | 38 x 286       | 7.57                     | 6.56 | 5.35 | 6.51              | 5.64 | 4.60 | 5.80              | 5.02 | 4.10 |
|                                                                                                                                     | Construction      | 38 x 89        | 2.43                     | 2.20 | 1.93 | 2.12              | 1.93 | 1.68 | 1.93              | 1.75 | 1.53 |
|                                                                                                                                     | Standard          | 38 x 89        | 2.33                     | 2.12 | 1.85 | 2.04              | 1.85 | 1.59 | 1.85              | 1.68 | 1.41 |



**Table 9.23.4.2.-D (continued)**  
**Maximum Spans for Roof Joists – Specified Roof Snow Loads 1.0 to 2.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                                                         | Grade             | Joist Size, mm | Maximum Span, m          |      |      |                   |      |      |                   |      |      |
|------------------------------------------------------------------------------------------------|-------------------|----------------|--------------------------|------|------|-------------------|------|------|-------------------|------|------|
|                                                                                                |                   |                | Specified Snow Load, kPa |      |      |                   |      |      |                   |      |      |
|                                                                                                |                   |                | 1.0                      |      |      | 1.5               |      |      | 2.0               |      |      |
|                                                                                                |                   |                | Joist Spacing, mm        |      |      | Joist Spacing, mm |      |      | Joist Spacing, mm |      |      |
|                                                                                                |                   |                | 300                      | 400  | 600  | 300               | 400  | 600  | 300               | 400  | 600  |
| Northern Species<br>(includes any Canadian species covered by the NLGA Standard Grading Rules) | Select Structural | 38 x 89        | 2.28                     | 2.07 | 1.81 | 1.99              | 1.81 | 1.58 | 1.81              | 1.65 | 1.44 |
|                                                                                                |                   | 38 x 140       | 3.59                     | 3.26 | 2.85 | 3.14              | 2.85 | 2.49 | 2.85              | 2.59 | 2.26 |
|                                                                                                |                   | 38 x 184       | 4.72                     | 4.29 | 3.75 | 4.12              | 3.75 | 3.27 | 3.75              | 3.40 | 2.97 |
|                                                                                                |                   | 38 x 235       | 6.03                     | 5.48 | 4.79 | 5.27              | 4.79 | 4.18 | 4.79              | 4.35 | 3.80 |
|                                                                                                |                   | 38 x 286       | 7.34                     | 6.67 | 5.82 | 6.41              | 5.82 | 5.09 | 5.82              | 5.29 | 4.62 |
|                                                                                                | No. 1 and No. 2   | 38 x 89        | 2.23                     | 2.03 | 1.77 | 1.95              | 1.77 | 1.55 | 1.77              | 1.61 | 1.41 |
|                                                                                                |                   | 38 x 140       | 3.51                     | 3.19 | 2.79 | 3.07              | 2.79 | 2.43 | 2.79              | 2.53 | 2.21 |
|                                                                                                |                   | 38 x 184       | 4.61                     | 4.19 | 3.66 | 4.03              | 3.66 | 3.20 | 3.66              | 3.33 | 2.91 |
|                                                                                                |                   | 38 x 235       | 5.89                     | 5.35 | 4.68 | 5.15              | 4.68 | 4.09 | 4.68              | 4.25 | 3.68 |
|                                                                                                |                   | 38 x 286       | 7.17                     | 6.52 | 5.58 | 6.26              | 5.69 | 4.80 | 5.69              | 5.17 | 4.27 |
|                                                                                                | No. 3             | 38 x 89        | 2.18                     | 1.98 | 1.73 | 1.90              | 1.73 | 1.50 | 1.73              | 1.57 | 1.33 |
|                                                                                                |                   | 38 x 140       | 3.42                     | 3.05 | 2.49 | 2.99              | 2.62 | 2.14 | 2.69              | 2.33 | 1.90 |
|                                                                                                |                   | 38 x 184       | 4.28                     | 3.71 | 3.03 | 3.68              | 3.19 | 2.60 | 3.28              | 2.84 | 2.32 |
|                                                                                                |                   | 38 x 235       | 5.23                     | 4.53 | 3.70 | 4.50              | 3.90 | 3.18 | 4.01              | 3.47 | 2.83 |
|                                                                                                |                   | 38 x 286       | 6.07                     | 5.26 | 4.29 | 5.22              | 4.52 | 3.69 | 4.65              | 4.03 | 3.29 |
|                                                                                                | Construction      | 38 x 89        | 2.18                     | 1.98 | 1.73 | 1.90              | 1.73 | 1.51 | 1.73              | 1.57 | 1.37 |
|                                                                                                | Standard          | 38 x 89        | 2.09                     | 1.81 | 1.48 | 1.80              | 1.56 | 1.27 | 1.60              | 1.38 | 1.13 |

**Table 9.23.4.2.-E**  
**Maximum Spans for Roof Joists – Specified Roof Snow Loads 2.5 and 3.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                          | Grade             | Joist Size, mm | Maximum Span, m          |      |      |                   |      |      |
|-----------------------------------------------------------------|-------------------|----------------|--------------------------|------|------|-------------------|------|------|
|                                                                 |                   |                | Specified Snow Load, kPa |      |      |                   |      |      |
|                                                                 |                   |                | 2.5                      |      |      | 3.0               |      |      |
|                                                                 |                   |                | Joist Spacing, mm        |      |      | Joist Spacing, mm |      |      |
|                                                                 |                   |                | 300                      | 400  | 600  | 300               | 400  | 600  |
| Douglas Fir – Larch<br>(includes Douglas Fir and Western Larch) | Select Structural | 38 x 89        | 1.99                     | 1.81 | 1.58 | 1.88              | 1.71 | 1.49 |
|                                                                 |                   | 38 x 140       | 3.14                     | 2.85 | 2.49 | 2.95              | 2.68 | 2.34 |
|                                                                 |                   | 38 x 184       | 4.12                     | 3.75 | 3.27 | 3.88              | 3.53 | 3.08 |
|                                                                 |                   | 38 x 235       | 5.27                     | 4.79 | 4.18 | 4.96              | 4.50 | 3.93 |
|                                                                 |                   | 38 x 286       | 6.41                     | 5.82 | 5.09 | 6.03              | 5.48 | 4.79 |
|                                                                 | No. 1 and No. 2   | 38 x 89        | 1.91                     | 1.74 | 1.52 | 1.80              | 1.63 | 1.43 |
|                                                                 |                   | 38 x 140       | 3.01                     | 2.73 | 2.39 | 2.83              | 2.57 | 2.25 |
|                                                                 |                   | 38 x 184       | 3.95                     | 3.59 | 3.14 | 3.72              | 3.38 | 2.90 |
|                                                                 |                   | 38 x 235       | 5.05                     | 4.59 | 3.84 | 4.75              | 4.32 | 3.55 |
|                                                                 |                   | 38 x 286       | 6.14                     | 5.46 | 4.46 | 5.78              | 5.05 | 4.12 |
|                                                                 | No. 3             | 38 x 89        | 1.74                     | 1.50 | 1.23 | 1.60              | 1.39 | 1.13 |
|                                                                 |                   | 38 x 140       | 2.48                     | 2.15 | 1.75 | 2.29              | 1.98 | 1.62 |
|                                                                 |                   | 38 x 184       | 3.01                     | 2.61 | 2.13 | 2.79              | 2.41 | 1.97 |
|                                                                 |                   | 38 x 235       | 3.69                     | 3.19 | 2.61 | 3.41              | 2.95 | 2.41 |
|                                                                 |                   | 38 x 286       | 4.28                     | 3.70 | 3.03 | 3.95              | 3.42 | 2.79 |
|                                                                 | Construction      | 38 x 89        | 1.85                     | 1.68 | 1.47 | 1.74              | 1.58 | 1.38 |
|                                                                 | Standard          | 38 x 89        | 1.68                     | 1.45 | 1.19 | 1.55              | 1.34 | 1.10 |

**Table 9.23.4.2.-E (continued)**  
**Maximum Spans for Roof Joists – Specified Roof Snow Loads 2.5 and 3.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                | Grade             | Joist Size, mm | Maximum Span, m          |      |      |                   |      |      |
|-------------------------------------------------------|-------------------|----------------|--------------------------|------|------|-------------------|------|------|
|                                                       |                   |                | Specified Snow Load, kPa |      |      |                   |      |      |
|                                                       |                   |                | 2.5                      |      |      | 3.0               |      |      |
|                                                       |                   |                | Joist Spacing, mm        |      |      | Joist Spacing, mm |      |      |
|                                                       |                   |                | 300                      | 400  | 600  | 300               | 400  | 600  |
| Hem – Fir (includes Western Hemlock and Amabilis Fir) | Select Structural | 38 x 89        | 1.97                     | 1.79 | 1.56 | 1.85              | 1.68 | 1.47 |
|                                                       |                   | 38 x 140       | 3.10                     | 2.81 | 2.46 | 2.91              | 2.65 | 2.31 |
|                                                       |                   | 38 x 184       | 4.07                     | 3.70 | 3.23 | 3.83              | 3.48 | 3.04 |
|                                                       |                   | 38 x 235       | 5.20                     | 4.72 | 4.12 | 4.89              | 4.44 | 3.88 |
|                                                       |                   | 38 x 286       | 6.32                     | 5.75 | 5.02 | 5.95              | 5.41 | 4.72 |
|                                                       | No. 1 and No. 2   | 38 x 89        | 1.91                     | 1.74 | 1.52 | 1.80              | 1.63 | 1.43 |
|                                                       |                   | 38 x 140       | 3.01                     | 2.73 | 2.39 | 2.83              | 2.57 | 2.25 |
|                                                       |                   | 38 x 184       | 3.95                     | 3.59 | 3.14 | 3.72              | 3.38 | 2.95 |
|                                                       |                   | 38 x 235       | 5.05                     | 4.59 | 4.01 | 4.75              | 4.32 | 3.72 |
|                                                       |                   | 38 x 286       | 6.14                     | 5.58 | 4.68 | 5.78              | 5.25 | 4.32 |
|                                                       | No. 3             | 38 x 89        | 1.85                     | 1.68 | 1.47 | 1.74              | 1.58 | 1.38 |
|                                                       |                   | 38 x 140       | 2.91                     | 2.65 | 2.16 | 2.74              | 2.45 | 2.00 |
|                                                       |                   | 38 x 184       | 3.72                     | 3.22 | 2.63 | 3.44              | 2.98 | 2.43 |
|                                                       |                   | 38 x 235       | 4.55                     | 3.94 | 3.22 | 4.20              | 3.64 | 2.97 |
|                                                       |                   | 38 x 286       | 5.28                     | 4.57 | 3.73 | 4.88              | 4.22 | 3.45 |
|                                                       | Construction      | 38 x 89        | 1.85                     | 1.68 | 1.47 | 1.74              | 1.58 | 1.38 |
|                                                       | Standard          | 38 x 89        | 1.76                     | 1.52 | 1.24 | 1.62              | 1.40 | 1.15 |

**Table 9.23.4.2.-E (continued)**  
**Maximum Spans for Roof Joists – Specified Roof Snow Loads 2.5 and 3.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                                                                                                 | Grade             | Joist Size, mm | Maximum Span, m          |      |      |                   |      |      |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|--------------------------|------|------|-------------------|------|------|
|                                                                                                                                        |                   |                | Specified Snow Load, kPa |      |      |                   |      |      |
|                                                                                                                                        |                   |                | 2.5                      |      |      | 3.0               |      |      |
|                                                                                                                                        |                   |                | Joist Spacing, mm        |      |      | Joist Spacing, mm |      |      |
|                                                                                                                                        |                   |                | 300                      | 400  | 600  | 300               | 400  | 600  |
| Spruce – Pine – Fir<br>(includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | Select Structural | 38 x 89        | 1.88                     | 1.71 | 1.49 | 1.77              | 1.61 | 1.41 |
|                                                                                                                                        |                   | 38 x 140       | 2.96                     | 2.69 | 2.35 | 2.79              | 2.53 | 2.21 |
|                                                                                                                                        |                   | 38 x 184       | 3.89                     | 3.54 | 3.09 | 3.66              | 3.33 | 2.91 |
|                                                                                                                                        |                   | 38 x 235       | 4.97                     | 4.52 | 3.94 | 4.68              | 4.25 | 3.71 |
|                                                                                                                                        |                   | 38 x 286       | 6.05                     | 5.50 | 4.80 | 5.69              | 5.17 | 4.52 |
|                                                                                                                                        | No. 1 and No. 2   | 38 x 89        | 1.82                     | 1.65 | 1.44 | 1.71              | 1.56 | 1.36 |
|                                                                                                                                        |                   | 38 x 140       | 2.86                     | 2.60 | 2.27 | 2.69              | 2.45 | 2.14 |
|                                                                                                                                        |                   | 38 x 184       | 3.76                     | 3.42 | 2.99 | 3.54              | 3.22 | 2.81 |
|                                                                                                                                        |                   | 38 x 235       | 4.81                     | 4.37 | 3.82 | 4.52              | 4.11 | 3.59 |
|                                                                                                                                        |                   | 38 x 286       | 5.85                     | 5.31 | 4.64 | 5.50              | 5.00 | 4.37 |
|                                                                                                                                        | No. 3             | 38 x 89        | 1.79                     | 1.62 | 1.42 | 1.68              | 1.53 | 1.34 |
|                                                                                                                                        |                   | 38 x 140       | 2.81                     | 2.56 | 2.16 | 2.65              | 2.40 | 2.00 |
|                                                                                                                                        |                   | 38 x 184       | 3.70                     | 3.22 | 2.63 | 3.44              | 2.98 | 2.43 |
|                                                                                                                                        |                   | 38 x 235       | 4.55                     | 3.94 | 3.22 | 4.20              | 3.64 | 2.97 |
|                                                                                                                                        |                   | 38 x 286       | 5.28                     | 4.57 | 3.73 | 4.88              | 4.22 | 3.45 |
|                                                                                                                                        | Construction      | 38 x 89        | 1.79                     | 1.62 | 1.42 | 1.68              | 1.53 | 1.34 |
|                                                                                                                                        | Standard          | 38 x 89        | 1.72                     | 1.56 | 1.29 | 1.62              | 1.46 | 1.19 |

**Table 9.23.4.2.-E (continued)**  
**Maximum Spans for Roof Joists – Specified Roof Snow Loads 2.5 and 3.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                                                         | Grade             | Joist Size, mm | Maximum Span, m          |      |      |                   |      |      |
|------------------------------------------------------------------------------------------------|-------------------|----------------|--------------------------|------|------|-------------------|------|------|
|                                                                                                |                   |                | Specified Snow Load, kPa |      |      |                   |      |      |
|                                                                                                |                   |                | 2.5                      |      |      | 3.0               |      |      |
|                                                                                                |                   |                | Joist Spacing, mm        |      |      | Joist Spacing, mm |      |      |
|                                                                                                |                   |                | 300                      | 400  | 600  | 300               | 400  | 600  |
| Northern Species<br>(includes any Canadian species covered by the NLGA Standard Grading Rules) | Select Structural | 38 x 89        | 1.68                     | 1.53 | 1.34 | 1.58              | 1.44 | 1.26 |
|                                                                                                |                   | 38 x 140       | 2.65                     | 2.40 | 2.10 | 2.49              | 2.26 | 1.98 |
|                                                                                                |                   | 38 x 184       | 3.48                     | 3.16 | 2.76 | 3.27              | 2.97 | 2.60 |
|                                                                                                |                   | 38 x 235       | 4.44                     | 4.04 | 3.53 | 4.18              | 3.80 | 3.32 |
|                                                                                                |                   | 38 x 286       | 5.41                     | 4.91 | 4.29 | 5.09              | 4.62 | 4.04 |
|                                                                                                | No. 1 and No. 2   | 38 x 89        | 1.64                     | 1.49 | 1.31 | 1.55              | 1.41 | 1.23 |
|                                                                                                |                   | 38 x 140       | 2.59                     | 2.35 | 2.05 | 2.43              | 2.21 | 1.93 |
|                                                                                                |                   | 38 x 184       | 3.40                     | 3.09 | 2.70 | 3.20              | 2.91 | 2.53 |
|                                                                                                |                   | 38 x 235       | 4.34                     | 3.94 | 3.35 | 4.09              | 3.71 | 3.10 |
|                                                                                                |                   | 38 x 286       | 5.28                     | 4.76 | 3.89 | 4.97              | 4.40 | 3.59 |
|                                                                                                | No. 3             | 38 x 89        | 1.60                     | 1.46 | 1.21 | 1.51              | 1.37 | 1.12 |
|                                                                                                |                   | 38 x 140       | 2.45                     | 2.12 | 1.73 | 2.26              | 1.96 | 1.60 |
|                                                                                                |                   | 38 x 184       | 2.98                     | 2.58 | 2.11 | 2.76              | 2.39 | 1.95 |
|                                                                                                |                   | 38 x 235       | 3.65                     | 3.16 | 2.58 | 3.37              | 2.92 | 2.38 |
|                                                                                                |                   | 38 x 286       | 4.23                     | 3.66 | 2.99 | 3.91              | 3.39 | 2.76 |
|                                                                                                | Construction      | 38 x 89        | 1.60                     | 1.46 | 1.27 | 1.51              | 1.37 | 1.20 |
|                                                                                                | Standard          | 38 x 89        | 1.46                     | 1.26 | 1.03 | 1.34              | 1.16 | 0.95 |

**Table 9.23.4.2.-F**  
**Maximum Spans for Roof Rafters – Specified Roof Snow Loads 1.0 to 2.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                       | Grade             | Rafter Size, mm | Maximum Span, m          |      |      |                    |      |      |                    |      |      |
|--------------------------------------------------------------|-------------------|-----------------|--------------------------|------|------|--------------------|------|------|--------------------|------|------|
|                                                              |                   |                 | Specified Snow Load, kPa |      |      |                    |      |      |                    |      |      |
|                                                              |                   |                 | 1.0                      |      |      | 1.5                |      |      | 2.0                |      |      |
|                                                              |                   |                 | Rafter Spacing, mm       |      |      | Rafter Spacing, mm |      |      | Rafter Spacing, mm |      |      |
|                                                              |                   |                 | 300                      | 400  | 600  | 300                | 400  | 600  | 300                | 400  | 600  |
| Douglas Fir – Larch (includes Douglas Fir and Western Larch) | Select Structural | 38 x 89         | 3.41                     | 3.10 | 2.71 | 2.98               | 2.71 | 2.37 | 2.71               | 2.46 | 2.15 |
|                                                              |                   | 38 x 140        | 5.37                     | 4.88 | 4.26 | 4.69               | 4.26 | 3.72 | 4.26               | 3.87 | 3.38 |
|                                                              |                   | 38 x 184        | 7.05                     | 6.41 | 5.60 | 6.16               | 5.60 | 4.89 | 5.60               | 5.09 | 4.44 |
|                                                              |                   | 38 x 235        | 9.01                     | 8.18 | 7.15 | 7.87               | 7.15 | 6.24 | 7.15               | 6.49 | 5.62 |
|                                                              |                   | 38 x 286        | 10.96                    | 9.96 | 8.70 | 9.58               | 8.70 | 7.40 | 8.70               | 7.90 | 6.52 |
|                                                              | No. 1 and No. 2   | 38 x 89         | 3.27                     | 2.97 | 2.59 | 2.86               | 2.59 | 2.27 | 2.59               | 2.36 | 2.06 |
|                                                              |                   | 38 x 140        | 5.14                     | 4.67 | 3.95 | 4.49               | 4.08 | 3.34 | 4.08               | 3.60 | 2.94 |
|                                                              |                   | 38 x 184        | 6.76                     | 5.88 | 4.80 | 5.74               | 4.97 | 4.06 | 5.06               | 4.38 | 3.58 |
|                                                              |                   | 38 x 235        | 8.30                     | 7.19 | 5.87 | 7.02               | 6.08 | 4.96 | 6.19               | 5.36 | 4.38 |
|                                                              |                   | 38 x 286        | 9.63                     | 8.34 | 6.81 | 8.14               | 7.05 | 5.76 | 7.18               | 6.22 | 5.08 |
|                                                              | No. 3             | 38 x 89         | 2.65                     | 2.30 | 1.87 | 2.24               | 1.94 | 1.58 | 1.98               | 1.71 | 1.40 |
|                                                              |                   | 38 x 140        | 3.78                     | 3.28 | 2.68 | 3.20               | 2.77 | 2.26 | 2.82               | 2.44 | 1.99 |
|                                                              |                   | 38 x 184        | 4.61                     | 3.99 | 3.26 | 3.89               | 3.37 | 2.75 | 3.43               | 2.97 | 2.43 |
|                                                              |                   | 38 x 235        | 5.63                     | 4.88 | 3.98 | 4.76               | 4.12 | 3.37 | 4.20               | 3.64 | 2.97 |
|                                                              |                   | 38 x 286        | 6.53                     | 5.66 | 4.62 | 5.52               | 4.78 | 3.91 | 4.87               | 4.22 | 3.44 |
|                                                              | Construction      | 38 x 89         | 3.17                     | 2.88 | 2.42 | 2.77               | 2.50 | 2.04 | 2.51               | 2.21 | 1.80 |
|                                                              | Standard          | 38 x 89         | 2.56                     | 2.22 | 1.81 | 2.17               | 1.88 | 1.53 | 1.91               | 1.65 | 1.35 |

**Table 9.23.4.2.-F (continued)**  
**Maximum Spans for Roof Rafters – Specified Roof Snow Loads 1.0 to 2.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                   | Grade             | Rafter Size, mm | Maximum Span, m          |      |      |                    |      |      |                    |      |      |
|----------------------------------------------------------|-------------------|-----------------|--------------------------|------|------|--------------------|------|------|--------------------|------|------|
|                                                          |                   |                 | Specified Snow Load, kPa |      |      |                    |      |      |                    |      |      |
|                                                          |                   |                 | 1.0                      |      |      | 1.5                |      |      | 2.0                |      |      |
|                                                          |                   |                 | Rafter Spacing, mm       |      |      | Rafter Spacing, mm |      |      | Rafter Spacing, mm |      |      |
|                                                          |                   |                 | 300                      | 400  | 600  | 300                | 400  | 600  | 300                | 400  | 600  |
| Hem – Fir<br>(includes Western Hemlock and Amabilis Fir) | Select Structural | 38 x 89         | 3.36                     | 3.06 | 2.67 | 2.94               | 2.67 | 2.33 | 2.67               | 2.43 | 2.12 |
|                                                          |                   | 38 x 140        | 5.29                     | 4.81 | 4.20 | 4.62               | 4.20 | 3.67 | 4.20               | 3.82 | 3.33 |
|                                                          |                   | 38 x 184        | 6.96                     | 6.32 | 5.52 | 6.08               | 5.52 | 4.82 | 5.52               | 5.02 | 4.38 |
|                                                          |                   | 38 x 235        | 8.88                     | 8.07 | 7.05 | 7.76               | 7.05 | 6.16 | 7.05               | 6.41 | 5.54 |
|                                                          |                   | 38 x 286        | 10.81                    | 9.82 | 8.58 | 9.45               | 8.58 | 7.28 | 8.58               | 7.80 | 6.42 |
|                                                          | No. 1 and No. 2   | 38 x 89         | 3.27                     | 2.97 | 2.59 | 2.86               | 2.59 | 2.27 | 2.59               | 2.36 | 2.06 |
|                                                          |                   | 38 x 140        | 5.14                     | 4.67 | 4.08 | 4.49               | 4.08 | 3.50 | 4.08               | 3.71 | 3.08 |
|                                                          |                   | 38 x 184        | 6.76                     | 6.14 | 5.04 | 5.90               | 5.21 | 4.26 | 5.31               | 4.60 | 3.75 |
|                                                          |                   | 38 x 235        | 8.63                     | 7.54 | 6.16 | 7.36               | 6.37 | 5.20 | 6.49               | 5.62 | 4.59 |
|                                                          |                   | 38 x 286        | 10.11                    | 8.75 | 7.15 | 8.54               | 7.40 | 6.04 | 7.53               | 6.52 | 5.33 |
|                                                          | No. 3             | 38 x 89         | 3.17                     | 2.83 | 2.31 | 2.76               | 2.39 | 1.95 | 2.44               | 2.11 | 1.72 |
|                                                          |                   | 38 x 140        | 4.67                     | 4.04 | 3.30 | 3.95               | 3.42 | 2.79 | 3.48               | 3.01 | 2.46 |
|                                                          |                   | 38 x 184        | 5.68                     | 4.92 | 4.02 | 4.80               | 4.16 | 3.40 | 4.23               | 3.67 | 2.99 |
|                                                          |                   | 38 x 235        | 6.95                     | 6.02 | 4.91 | 5.87               | 5.08 | 4.15 | 5.18               | 4.48 | 3.66 |
|                                                          |                   | 38 x 286        | 8.06                     | 6.98 | 5.70 | 6.81               | 5.90 | 4.82 | 6.01               | 5.20 | 4.25 |
|                                                          | Construction      | 38 x 89         | 3.17                     | 2.88 | 2.51 | 2.77               | 2.51 | 2.14 | 2.51               | 2.28 | 1.89 |
|                                                          | Standard          | 38 x 89         | 2.68                     | 2.32 | 1.90 | 2.27               | 1.96 | 1.60 | 2.00               | 1.73 | 1.41 |

**Table 9.23.4.2.-F (continued)**  
**Maximum Spans for Roof Rafters – Specified Roof Snow Loads 1.0 to 2.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                                                                                              | Grade             | Rafter Size, mm | Maximum Span, m          |      |      |                    |      |      |                    |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|--------------------------|------|------|--------------------|------|------|--------------------|------|------|
|                                                                                                                                     |                   |                 | Specified Snow Load, kPa |      |      |                    |      |      |                    |      |      |
|                                                                                                                                     |                   |                 | 1.0                      |      |      | 1.5                |      |      | 2.0                |      |      |
|                                                                                                                                     |                   |                 | Rafter Spacing, mm       |      |      | Rafter Spacing, mm |      |      | Rafter Spacing, mm |      |      |
|                                                                                                                                     |                   |                 | 300                      | 400  | 600  | 300                | 400  | 600  | 300                | 400  | 600  |
| Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | Select Structural | 38 x 89         | 3.22                     | 2.92 | 2.55 | 2.81               | 2.55 | 2.23 | 2.55               | 2.32 | 2.03 |
|                                                                                                                                     |                   | 38 x 140        | 5.06                     | 4.60 | 4.02 | 4.42               | 4.02 | 3.51 | 4.02               | 3.65 | 3.19 |
|                                                                                                                                     |                   | 38 x 184        | 6.65                     | 6.05 | 5.28 | 5.81               | 5.28 | 4.61 | 5.28               | 4.80 | 4.19 |
|                                                                                                                                     |                   | 38 x 235        | 8.50                     | 7.72 | 6.74 | 7.42               | 6.74 | 5.89 | 6.74               | 6.13 | 5.35 |
|                                                                                                                                     |                   | 38 x 286        | 10.34                    | 9.40 | 8.21 | 9.03               | 8.21 | 7.17 | 8.21               | 7.46 | 6.52 |
|                                                                                                                                     | No. 1 and No. 2   | 38 x 89         | 3.11                     | 2.83 | 2.47 | 2.72               | 2.47 | 2.16 | 2.47               | 2.24 | 1.96 |
|                                                                                                                                     |                   | 38 x 140        | 4.90                     | 4.45 | 3.89 | 4.28               | 3.89 | 3.40 | 3.89               | 3.53 | 3.08 |
|                                                                                                                                     |                   | 38 x 184        | 6.44                     | 5.85 | 5.11 | 5.62               | 5.11 | 4.41 | 5.11               | 4.64 | 3.89 |
|                                                                                                                                     |                   | 38 x 235        | 8.22                     | 7.47 | 6.38 | 7.18               | 6.52 | 5.39 | 6.52               | 5.82 | 4.75 |
|                                                                                                                                     |                   | 38 x 286        | 10.00                    | 9.06 | 7.40 | 8.74               | 7.66 | 6.25 | 7.80               | 6.76 | 5.52 |
|                                                                                                                                     | No. 3             | 38 x 89         | 3.06                     | 2.78 | 2.31 | 2.67               | 2.39 | 1.95 | 2.43               | 2.11 | 1.72 |
|                                                                                                                                     |                   | 38 x 140        | 4.67                     | 4.04 | 3.30 | 3.95               | 3.42 | 2.79 | 3.48               | 3.01 | 2.46 |
|                                                                                                                                     |                   | 38 x 184        | 5.68                     | 4.92 | 4.02 | 4.80               | 4.16 | 3.40 | 4.23               | 3.67 | 2.99 |
|                                                                                                                                     |                   | 38 x 235        | 6.95                     | 6.02 | 4.91 | 5.87               | 5.08 | 4.15 | 5.18               | 4.48 | 3.66 |
|                                                                                                                                     |                   | 38 x 286        | 8.06                     | 6.98 | 5.70 | 6.81               | 5.90 | 4.82 | 6.01               | 5.20 | 4.25 |
|                                                                                                                                     | Construction      | 38 x 89         | 3.06                     | 2.78 | 2.43 | 2.67               | 2.43 | 2.12 | 2.43               | 2.20 | 1.93 |
|                                                                                                                                     | Standard          | 38 x 89         | 2.78                     | 2.41 | 1.97 | 2.35               | 2.04 | 1.66 | 2.07               | 1.79 | 1.47 |



**Table 9.23.4.2.-F (continued)**  
**Maximum Spans for Roof Rafters – Specified Roof Snow Loads 1.0 to 2.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1), 9.23.4.5.(1) and 9.23.14.10.(2)

| Commercial Designation                                                                         | Grade             | Rafter Size, mm | Maximum Span, m          |      |      |                    |      |      |                    |      |      |
|------------------------------------------------------------------------------------------------|-------------------|-----------------|--------------------------|------|------|--------------------|------|------|--------------------|------|------|
|                                                                                                |                   |                 | Specified Snow Load, kPa |      |      |                    |      |      |                    |      |      |
|                                                                                                |                   |                 | 1.0                      |      |      | 1.5                |      |      | 2.0                |      |      |
|                                                                                                |                   |                 | Rafter Spacing, mm       |      |      | Rafter Spacing, mm |      |      | Rafter Spacing, mm |      |      |
|                                                                                                |                   |                 | 300                      | 400  | 600  | 300                | 400  | 600  | 300                | 400  | 600  |
| Northern Species<br>(includes any Canadian species covered by the NLGA Standard Grading Rules) | Select Structural | 38 x 89         | 2.88                     | 2.61 | 2.28 | 2.51               | 2.28 | 1.99 | 2.28               | 2.07 | 1.81 |
|                                                                                                |                   | 38 x 140        | 4.53                     | 4.11 | 3.59 | 3.95               | 3.59 | 3.14 | 3.59               | 3.26 | 2.85 |
|                                                                                                |                   | 38 x 184        | 5.95                     | 5.40 | 4.72 | 5.20               | 4.72 | 4.12 | 4.72               | 4.29 | 3.68 |
|                                                                                                |                   | 38 x 235        | 7.60                     | 6.90 | 6.03 | 6.64               | 6.03 | 5.11 | 6.03               | 5.48 | 4.51 |
|                                                                                                |                   | 38 x 286        | 9.25                     | 8.40 | 7.01 | 8.08               | 7.26 | 5.93 | 7.34               | 6.40 | 5.23 |
|                                                                                                | No. 1 and No. 2   | 38 x 89         | 2.81                     | 2.55 | 2.23 | 2.46               | 2.23 | 1.95 | 2.23               | 2.03 | 1.77 |
|                                                                                                |                   | 38 x 140        | 4.42                     | 4.02 | 3.44 | 3.86               | 3.51 | 2.91 | 3.51               | 3.14 | 2.56 |
|                                                                                                |                   | 38 x 184        | 5.81                     | 5.13 | 4.19 | 5.00               | 4.33 | 3.54 | 4.41               | 3.82 | 3.12 |
|                                                                                                |                   | 38 x 235        | 7.24                     | 6.27 | 5.12 | 6.12               | 5.30 | 4.33 | 5.40               | 4.67 | 3.82 |
|                                                                                                |                   | 38 x 286        | 8.40                     | 7.27 | 5.94 | 7.10               | 6.15 | 5.02 | 6.26               | 5.42 | 4.43 |
|                                                                                                | No. 3             | 38 x 89         | 2.62                     | 2.27 | 1.85 | 2.22               | 1.92 | 1.57 | 1.95               | 1.69 | 1.38 |
|                                                                                                |                   | 38 x 140        | 3.74                     | 3.24 | 2.65 | 3.16               | 2.74 | 2.24 | 2.79               | 2.42 | 1.97 |
|                                                                                                |                   | 38 x 184        | 4.56                     | 3.94 | 3.22 | 3.85               | 3.33 | 2.72 | 3.40               | 2.94 | 2.40 |
|                                                                                                |                   | 38 x 235        | 5.57                     | 4.82 | 3.94 | 4.71               | 4.08 | 3.33 | 4.15               | 3.60 | 2.94 |
|                                                                                                |                   | 38 x 286        | 6.46                     | 5.60 | 4.57 | 5.46               | 4.73 | 3.86 | 4.82               | 4.17 | 3.41 |
|                                                                                                | Construction      | 38 x 89         | 2.74                     | 2.49 | 2.11 | 2.40               | 2.18 | 1.90 | 2.18               | 1.93 | 1.57 |
|                                                                                                | Standard          | 38 x 89         | 2.22                     | 1.93 | 1.57 | 1.88               | 1.63 | 1.33 | 1.66               | 1.44 | 1.17 |

**Table 9.23.4.2.-G**  
**Maximum Spans for Roof Rafters – Specified Roof Snow Loads 2.5 and 3.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and 9.23.4.5.(1)

| Commercial Designation                                          | Grade             | Rafter Size, mm | Maximum Span, m          |      |      |                    |      |      |
|-----------------------------------------------------------------|-------------------|-----------------|--------------------------|------|------|--------------------|------|------|
|                                                                 |                   |                 | Specified Snow Load, kPa |      |      |                    |      |      |
|                                                                 |                   |                 | 2.5                      |      |      | 3.0                |      |      |
|                                                                 |                   |                 | Rafter Spacing, mm       |      |      | Rafter Spacing, mm |      |      |
|                                                                 |                   |                 | 300                      | 400  | 600  | 300                | 400  | 600  |
| Douglas Fir – Larch<br>(includes Douglas Fir and Western Larch) | Select Structural | 38 x 89         | 2.51                     | 2.28 | 1.99 | 2.37               | 2.15 | 1.88 |
|                                                                 |                   | 38 x 140        | 3.95                     | 3.59 | 3.14 | 3.72               | 3.38 | 2.95 |
|                                                                 |                   | 38 x 184        | 5.20                     | 4.72 | 4.12 | 4.89               | 4.44 | 3.83 |
|                                                                 |                   | 38 x 235        | 6.64                     | 6.03 | 5.08 | 6.24               | 5.67 | 4.68 |
|                                                                 |                   | 38 x 286        | 8.08                     | 7.23 | 5.90 | 7.60               | 6.65 | 5.43 |
|                                                                 | No. 1 and No. 2   | 38 x 89         | 2.41                     | 2.19 | 1.86 | 2.27               | 2.06 | 1.71 |
|                                                                 |                   | 38 x 140        | 3.76                     | 3.26 | 2.66 | 3.46               | 3.00 | 2.45 |
|                                                                 |                   | 38 x 184        | 4.58                     | 3.96 | 3.24 | 4.21               | 3.65 | 2.98 |
|                                                                 |                   | 38 x 235        | 5.60                     | 4.85 | 3.96 | 5.15               | 4.46 | 3.64 |
|                                                                 |                   | 38 x 286        | 6.50                     | 5.63 | 4.59 | 5.98               | 5.17 | 4.23 |
|                                                                 | No. 3             | 38 x 89         | 1.79                     | 1.55 | 1.26 | 1.64               | 1.42 | 1.16 |
|                                                                 |                   | 38 x 140        | 2.55                     | 2.21 | 1.80 | 2.35               | 2.03 | 1.66 |
|                                                                 |                   | 38 x 184        | 3.10                     | 2.69 | 2.20 | 2.86               | 2.47 | 2.02 |
|                                                                 |                   | 38 x 235        | 3.80                     | 3.29 | 2.68 | 3.49               | 3.02 | 2.47 |
|                                                                 |                   | 38 x 286        | 4.41                     | 3.82 | 3.12 | 4.05               | 3.51 | 2.87 |
|                                                                 | Construction      | 38 x 89         | 2.30                     | 2.00 | 1.63 | 2.12               | 1.84 | 1.50 |
|                                                                 | Standard          | 38 x 89         | 1.73                     | 1.50 | 1.22 | 1.59               | 1.38 | 1.12 |

**Table 9.23.4.2.-G (continued)**  
**Maximum Spans for Roof Rafters – Specified Roof Snow Loads 2.5 and 3.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and 9.23.4.5.(1)

| Commercial Designation                                | Grade             | Rafter Size, mm | Maximum Span, m          |      |      |                    |      |      |
|-------------------------------------------------------|-------------------|-----------------|--------------------------|------|------|--------------------|------|------|
|                                                       |                   |                 | Specified Snow Load, kPa |      |      |                    |      |      |
|                                                       |                   |                 | 2.5                      |      |      | 3.0                |      |      |
|                                                       |                   |                 | Rafter Spacing, mm       |      |      | Rafter Spacing, mm |      |      |
|                                                       |                   |                 | 300                      | 400  | 600  | 300                | 400  | 600  |
| Hem – Fir (includes Western Hemlock and Amabilis Fir) | Select Structural | 38 x 89         | 2.48                     | 2.25 | 1.97 | 2.33               | 2.12 | 1.85 |
|                                                       |                   | 38 x 140        | 3.90                     | 3.54 | 3.10 | 3.67               | 3.33 | 2.91 |
|                                                       |                   | 38 x 184        | 5.13                     | 4.66 | 4.07 | 4.82               | 4.38 | 3.77 |
|                                                       |                   | 38 x 235        | 6.55                     | 5.95 | 5.01 | 6.16               | 5.60 | 4.61 |
|                                                       |                   | 38 x 286        | 7.97                     | 7.12 | 5.81 | 7.50               | 6.55 | 5.34 |
|                                                       | No. 1 and No. 2   | 38 x 89         | 2.41                     | 2.19 | 1.91 | 2.27               | 2.06 | 1.80 |
|                                                       |                   | 38 x 140        | 3.79                     | 3.42 | 2.79 | 3.57               | 3.14 | 2.57 |
|                                                       |                   | 38 x 184        | 4.80                     | 4.16 | 3.40 | 4.42               | 3.83 | 3.12 |
|                                                       |                   | 38 x 235        | 5.87                     | 5.08 | 4.15 | 5.40               | 4.68 | 3.82 |
|                                                       |                   | 38 x 286        | 6.81                     | 5.90 | 4.82 | 6.27               | 5.43 | 4.43 |
|                                                       | No. 3             | 38 x 89         | 2.21                     | 1.91 | 1.56 | 2.03               | 1.76 | 1.43 |
|                                                       |                   | 38 x 140        | 3.15                     | 2.73 | 2.23 | 2.90               | 2.51 | 2.05 |
|                                                       |                   | 38 x 184        | 3.83                     | 3.32 | 2.71 | 3.52               | 3.05 | 2.49 |
|                                                       |                   | 38 x 235        | 4.68                     | 4.06 | 3.31 | 4.31               | 3.73 | 3.05 |
|                                                       |                   | 38 x 286        | 5.43                     | 4.71 | 3.84 | 5.00               | 4.33 | 3.54 |
|                                                       | Construction      | 38 x 89         | 2.33                     | 2.09 | 1.71 | 2.20               | 1.93 | 1.57 |
|                                                       | Standard          | 38 x 89         | 1.81                     | 1.57 | 1.28 | 1.66               | 1.44 | 1.18 |

**Table 9.23.4.2.-G (continued)**  
**Maximum Spans for Roof Rafters – Specified Roof Snow Loads 2.5 and 3.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and 9.23.4.5.(1)

| Commercial Designation                                                                                                                 | Grade             | Rafter Size, mm | Maximum Span, m          |      |      |                    |      |      |
|----------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------|--------------------------|------|------|--------------------|------|------|
|                                                                                                                                        |                   |                 | Specified Snow Load, kPa |      |      |                    |      |      |
|                                                                                                                                        |                   |                 | 2.5                      |      |      | 3.0                |      |      |
|                                                                                                                                        |                   |                 | Rafter Spacing, mm       |      |      | Rafter Spacing, mm |      |      |
|                                                                                                                                        |                   |                 | 300                      | 400  | 600  | 300                | 400  | 600  |
| Spruce – Pine – Fir<br>(includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | Select Structural | 38 x 89         | 2.37                     | 2.15 | 1.88 | 2.23               | 2.03 | 1.77 |
|                                                                                                                                        |                   | 38 x 140        | 3.73                     | 3.39 | 2.96 | 3.51               | 3.19 | 2.79 |
|                                                                                                                                        |                   | 38 x 184        | 4.90                     | 4.45 | 3.89 | 4.61               | 4.19 | 3.66 |
|                                                                                                                                        |                   | 38 x 235        | 6.26                     | 5.69 | 4.97 | 5.89               | 5.35 | 4.68 |
|                                                                                                                                        |                   | 38 x 286        | 7.62                     | 6.92 | 5.90 | 7.17               | 6.52 | 5.43 |
|                                                                                                                                        | No. 1 and No. 2   | 38 x 89         | 2.29                     | 2.08 | 1.82 | 2.16               | 1.96 | 1.71 |
|                                                                                                                                        |                   | 38 x 140        | 3.61                     | 3.28 | 2.86 | 3.40               | 3.08 | 2.66 |
|                                                                                                                                        |                   | 38 x 184        | 4.74                     | 4.31 | 3.52 | 4.46               | 3.96 | 3.23 |
|                                                                                                                                        |                   | 38 x 235        | 6.06                     | 5.27 | 4.30 | 5.59               | 4.84 | 3.96 |
|                                                                                                                                        |                   | 38 x 286        | 7.06                     | 6.11 | 4.99 | 6.49               | 5.62 | 4.59 |
|                                                                                                                                        | No. 3             | 38 x 89         | 2.21                     | 1.91 | 1.56 | 2.03               | 1.76 | 1.43 |
|                                                                                                                                        |                   | 38 x 140        | 3.15                     | 2.73 | 2.23 | 2.90               | 2.51 | 2.05 |
|                                                                                                                                        |                   | 38 x 184        | 3.83                     | 3.32 | 2.71 | 3.52               | 3.05 | 2.49 |
|                                                                                                                                        |                   | 38 x 235        | 4.68                     | 4.06 | 3.31 | 4.31               | 3.73 | 3.05 |
|                                                                                                                                        |                   | 38 x 286        | 5.43                     | 4.71 | 3.84 | 5.00               | 4.33 | 3.54 |
|                                                                                                                                        | Construction      | 38 x 89         | 2.25                     | 2.05 | 1.77 | 2.12               | 1.93 | 1.63 |
|                                                                                                                                        | Standard          | 38 x 89         | 1.87                     | 1.62 | 1.33 | 1.72               | 1.49 | 1.22 |

**Table 9.23.4.2.-G (continued)**  
**Maximum Spans for Roof Rafters – Specified Roof Snow Loads 2.5 and 3.0 kPa**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(1) and 9.23.4.5.(1)

| Commercial Designation                                                                         | Grade             | Rafter Size, mm | Maximum Span, m          |      |      |                    |      |      |
|------------------------------------------------------------------------------------------------|-------------------|-----------------|--------------------------|------|------|--------------------|------|------|
|                                                                                                |                   |                 | Specified Snow Load, kPa |      |      |                    |      |      |
|                                                                                                |                   |                 | 2.5                      |      |      | 3.0                |      |      |
|                                                                                                |                   |                 | Rafter Spacing, mm       |      |      | Rafter Spacing, mm |      |      |
|                                                                                                |                   |                 | 300                      | 400  | 600  | 300                | 400  | 600  |
| Northern Species<br>(includes any Canadian species covered by the NLGA Standard Grading Rules) | Select Structural | 38 x 89         | 2.12                     | 1.93 | 1.68 | 1.99               | 1.81 | 1.58 |
|                                                                                                |                   | 38 x 140        | 3.33                     | 3.03 | 2.65 | 3.14               | 2.85 | 2.49 |
|                                                                                                |                   | 38 x 184        | 4.38                     | 3.98 | 3.33 | 4.12               | 3.75 | 3.07 |
|                                                                                                |                   | 38 x 235        | 5.60                     | 4.99 | 4.08 | 5.27               | 4.59 | 3.75 |
|                                                                                                |                   | 38 x 286        | 6.69                     | 5.79 | 4.73 | 6.15               | 5.33 | 4.35 |
|                                                                                                | No. 1 and No. 2   | 38 x 89         | 2.07                     | 1.88 | 1.62 | 1.95               | 1.77 | 1.49 |
|                                                                                                |                   | 38 x 140        | 3.26                     | 2.84 | 2.32 | 3.02               | 2.61 | 2.13 |
|                                                                                                |                   | 38 x 184        | 3.99                     | 3.46 | 2.82 | 3.67               | 3.18 | 2.60 |
|                                                                                                |                   | 38 x 235        | 4.88                     | 4.23 | 3.45 | 4.49               | 3.89 | 3.17 |
|                                                                                                |                   | 38 x 286        | 5.66                     | 4.90 | 4.00 | 5.21               | 4.51 | 3.68 |
|                                                                                                | No. 3             | 38 x 89         | 1.77                     | 1.53 | 1.25 | 1.63               | 1.41 | 1.15 |
|                                                                                                |                   | 38 x 140        | 2.52                     | 2.19 | 1.78 | 2.32               | 2.01 | 1.64 |
|                                                                                                |                   | 38 x 184        | 3.07                     | 2.66 | 2.17 | 2.82               | 2.45 | 2.00 |
|                                                                                                |                   | 38 x 235        | 3.76                     | 3.25 | 2.66 | 3.45               | 2.99 | 2.44 |
|                                                                                                |                   | 38 x 286        | 4.36                     | 3.77 | 3.08 | 4.01               | 3.47 | 2.83 |
|                                                                                                | Construction      | 38 x 89         | 2.01                     | 1.74 | 1.42 | 1.85               | 1.60 | 1.31 |
|                                                                                                | Standard          | 38 x 89         | 1.50                     | 1.30 | 1.06 | 1.38               | 1.19 | 0.98 |

**Table 9.23.4.2.-H**  
**Maximum Spans for Built-up Floor Beams Supporting not more than One Floor<sup>(1)(2)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(3), 9.23.4.4.(3) and 9.23.8.1.(1)

| Commercial Designation                                       | Grade             | Supported Length, m <sup>(3)(4)</sup> | Maximum Span, m <sup>(5)(6)</sup> |           |           |           |           |           |           |           |           |
|--------------------------------------------------------------|-------------------|---------------------------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                                              |                   |                                       | Size of Built-up Beam, mm         |           |           |           |           |           |           |           |           |
|                                                              |                   |                                       | 3- 38x184                         | 4- 38x184 | 5- 38x184 | 3- 38x235 | 4- 38x235 | 5- 38x235 | 3- 38x286 | 4- 38x286 | 5- 38x286 |
| Douglas Fir – Larch (includes Douglas Fir and Western Larch) | Select Structural | 2.4                                   | 3.36                              | 3.70      | 3.99      | 4.30      | 4.73      | 5.09      | 5.23      | 5.66      | 5.99      |
|                                                              |                   | 3.0                                   | 3.12                              | 3.44      | 3.70      | 3.99      | 4.39      | 4.73      | 4.84      | 5.34      | 5.66      |
|                                                              |                   | 3.6                                   | 2.94                              | 3.23      | 3.48      | 3.75      | 4.13      | 4.45      | 4.41      | 5.03      | 5.41      |
|                                                              |                   | 4.2                                   | 2.79                              | 3.07      | 3.31      | 3.52      | 3.92      | 4.23      | 4.09      | 4.72      | 5.14      |
|                                                              |                   | 4.8                                   | 2.67                              | 2.94      | 3.17      | 3.29      | 3.75      | 4.04      | 3.82      | 4.41      | 4.92      |
|                                                              |                   | 5.4                                   | 2.54                              | 2.83      | 3.04      | 3.11      | 3.59      | 3.89      | 3.60      | 4.16      | 4.65      |
|                                                              |                   | 6.0                                   | 2.41                              | 2.73      | 2.94      | 2.95      | 3.40      | 3.75      | 3.42      | 3.95      | 4.41      |
|                                                              | No. 1 and No. 2   | 2.4                                   | 2.97                              | 3.42      | 3.82      | 3.63      | 4.19      | 4.68      | 4.21      | 4.86      | 5.43      |
|                                                              |                   | 3.0                                   | 2.65                              | 3.06      | 3.42      | 3.24      | 3.75      | 4.19      | 3.76      | 4.35      | 4.86      |
|                                                              |                   | 3.6                                   | 2.42                              | 2.80      | 3.13      | 2.96      | 3.42      | 3.82      | 3.44      | 3.97      | 4.44      |
|                                                              |                   | 4.2                                   | 2.24                              | 2.59      | 2.89      | 2.74      | 3.17      | 3.54      | 3.18      | 3.67      | 4.11      |
|                                                              |                   | 4.8                                   | 2.10                              | 2.42      | 2.71      | 2.56      | 2.96      | 3.31      | 2.98      | 3.44      | 3.84      |
|                                                              |                   | 5.4                                   | 1.98                              | 2.28      | 2.55      | 2.42      | 2.79      | 3.12      | 2.81      | 3.24      | 3.62      |
|                                                              |                   | 6.0                                   | 1.88                              | 2.17      | 2.42      | 2.29      | 2.65      | 2.96      | 2.66      | 3.07      | 3.44      |
| Hem – Fir (includes Western Hemlock and Amabilis Fir)        | Select Structural | 2.4                                   | 3.32                              | 3.65      | 3.93      | 4.24      | 4.66      | 5.03      | 5.16      | 5.61      | 5.93      |
|                                                              |                   | 3.0                                   | 3.08                              | 3.39      | 3.65      | 3.93      | 4.33      | 4.66      | 4.76      | 5.27      | 5.61      |
|                                                              |                   | 3.6                                   | 2.90                              | 3.19      | 3.44      | 3.70      | 4.08      | 4.39      | 4.35      | 4.96      | 5.34      |
|                                                              |                   | 4.2                                   | 2.75                              | 3.03      | 3.27      | 3.47      | 3.87      | 4.17      | 4.02      | 4.65      | 5.07      |
|                                                              |                   | 4.8                                   | 2.63                              | 2.90      | 3.12      | 3.24      | 3.70      | 3.99      | 3.66      | 4.35      | 4.85      |
|                                                              |                   | 5.4                                   | 2.49                              | 2.79      | 3.00      | 2.95      | 3.53      | 3.83      | 3.32      | 4.10      | 4.58      |
|                                                              |                   | 6.0                                   | 2.28                              | 2.69      | 2.90      | 2.70      | 3.35      | 3.70      | 3.04      | 3.87      | 4.35      |
|                                                              | No. 1 and No. 2   | 2.4                                   | 3.11                              | 3.55      | 3.82      | 3.80      | 4.39      | 4.88      | 4.41      | 5.10      | 5.70      |
|                                                              |                   | 3.0                                   | 2.78                              | 3.21      | 3.55      | 3.40      | 3.93      | 4.39      | 3.95      | 4.56      | 5.10      |
|                                                              |                   | 3.6                                   | 2.54                              | 2.93      | 3.28      | 3.11      | 3.59      | 4.01      | 3.60      | 4.16      | 4.65      |
|                                                              |                   | 4.2                                   | 2.35                              | 2.72      | 3.04      | 2.88      | 3.32      | 3.71      | 3.34      | 3.85      | 4.31      |
|                                                              |                   | 4.8                                   | 2.20                              | 2.54      | 2.84      | 2.69      | 3.11      | 3.47      | 3.12      | 3.60      | 4.03      |
|                                                              |                   | 5.4                                   | 2.07                              | 2.39      | 2.68      | 2.54      | 2.93      | 3.27      | 2.94      | 3.40      | 3.80      |
|                                                              |                   | 6.0                                   | 1.97                              | 2.27      | 2.54      | 2.41      | 2.78      | 3.11      | 2.79      | 3.22      | 3.60      |

**Table 9.23.4.2.-H (continued)**  
**Maximum Spans for Built-up Floor Beams Supporting not more than One Floor<sup>(1)(2)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(3), 9.23.4.4.(3) and 9.23.8.1.(1)

| Commercial Designation                                                                                                              | Grade             | Supported Length, m <sup>(3)(4)</sup> | Maximum Span, m <sup>(5)(6)</sup> |           |           |           |           |           |           |           |           |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                                                                                                                     |                   |                                       | Size of Built-up Beam, mm         |           |           |           |           |           |           |           |           |
|                                                                                                                                     |                   |                                       | 3- 38x184                         | 4- 38x184 | 5- 38x184 | 3- 38x235 | 4- 38x235 | 5- 38x235 | 3- 38x286 | 4- 38x286 | 5- 38x286 |
| Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | Select Structural | 2.4                                   | 3.17                              | 3.49      | 3.76      | 4.05      | 4.46      | 4.81      | 4.93      | 5.42      | 5.73      |
|                                                                                                                                     |                   | 3.0                                   | 2.95                              | 3.24      | 3.49      | 3.76      | 4.14      | 4.46      | 4.58      | 5.04      | 5.42      |
|                                                                                                                                     |                   | 3.6                                   | 2.77                              | 3.05      | 3.29      | 3.54      | 3.90      | 4.20      | 4.31      | 4.74      | 5.11      |
|                                                                                                                                     |                   | 4.2                                   | 2.63                              | 2.90      | 3.12      | 3.36      | 3.70      | 3.99      | 4.09      | 4.51      | 4.85      |
|                                                                                                                                     |                   | 4.8                                   | 2.52                              | 2.77      | 2.99      | 3.22      | 3.54      | 3.81      | 3.82      | 4.31      | 4.64      |
|                                                                                                                                     |                   | 5.4                                   | 2.42                              | 2.67      | 2.87      | 3.09      | 3.41      | 3.67      | 3.60      | 4.14      | 4.46      |
|                                                                                                                                     |                   | 6.0                                   | 2.34                              | 2.57      | 2.77      | 2.95      | 3.29      | 3.54      | 3.32      | 3.95      | 4.31      |
|                                                                                                                                     | No. 1 and No. 2   | 2.4                                   | 3.07                              | 3.38      | 3.64      | 3.92      | 4.32      | 4.65      | 4.57      | 5.25      | 5.59      |
|                                                                                                                                     |                   | 3.0                                   | 2.85                              | 3.14      | 3.38      | 3.52      | 4.01      | 4.32      | 4.09      | 4.72      | 5.25      |
|                                                                                                                                     |                   | 3.6                                   | 2.63                              | 2.95      | 3.18      | 3.22      | 3.71      | 4.06      | 3.73      | 4.31      | 4.82      |
|                                                                                                                                     |                   | 4.2                                   | 2.44                              | 2.80      | 3.02      | 2.98      | 3.44      | 3.84      | 3.46      | 3.99      | 4.46      |
|                                                                                                                                     |                   | 4.8                                   | 2.28                              | 2.63      | 2.89      | 2.79      | 3.22      | 3.60      | 3.23      | 3.73      | 4.17      |
|                                                                                                                                     |                   | 5.4                                   | 2.15                              | 2.48      | 2.77      | 2.63      | 3.03      | 3.39      | 3.05      | 3.52      | 3.93      |
|                                                                                                                                     |                   | 6.0                                   | 2.04                              | 2.35      | 2.63      | 2.49      | 2.88      | 3.22      | 2.89      | 3.34      | 3.73      |
| Northern Species (includes any Canadian species covered by the NLGA Standard Grading Rules)                                         | Select Structural | 2.4                                   | 2.84                              | 3.12      | 3.36      | 3.62      | 3.99      | 4.30      | 4.33      | 4.85      | 5.23      |
|                                                                                                                                     |                   | 3.0                                   | 2.63                              | 2.90      | 3.12      | 3.34      | 3.70      | 3.99      | 3.88      | 4.47      | 4.85      |
|                                                                                                                                     |                   | 3.6                                   | 2.48                              | 2.73      | 2.94      | 3.05      | 3.48      | 3.75      | 3.54      | 4.08      | 4.57      |
|                                                                                                                                     |                   | 4.2                                   | 2.31                              | 2.59      | 2.79      | 2.82      | 3.26      | 3.57      | 3.28      | 3.78      | 4.23      |
|                                                                                                                                     |                   | 4.8                                   | 2.16                              | 2.48      | 2.67      | 2.64      | 3.05      | 3.41      | 3.06      | 3.54      | 3.96      |
|                                                                                                                                     |                   | 5.4                                   | 2.04                              | 2.35      | 2.57      | 2.49      | 2.87      | 3.21      | 2.89      | 3.34      | 3.73      |
|                                                                                                                                     |                   | 6.0                                   | 1.93                              | 2.23      | 2.48      | 2.36      | 2.73      | 3.05      | 2.74      | 3.16      | 3.54      |
|                                                                                                                                     | No. 1 and No. 2   | 2.4                                   | 2.59                              | 2.99      | 3.29      | 3.16      | 3.65      | 4.08      | 3.67      | 4.24      | 4.74      |
|                                                                                                                                     |                   | 3.0                                   | 2.31                              | 2.67      | 2.99      | 2.83      | 3.27      | 3.65      | 3.28      | 3.79      | 4.24      |
|                                                                                                                                     |                   | 3.6                                   | 2.11                              | 2.44      | 2.73      | 2.58      | 2.98      | 3.33      | 3.00      | 3.46      | 3.87      |
|                                                                                                                                     |                   | 4.2                                   | 1.95                              | 2.26      | 2.52      | 2.39      | 2.76      | 3.09      | 2.77      | 3.20      | 3.58      |
|                                                                                                                                     |                   | 4.8                                   | 1.83                              | 2.11      | 2.36      | 2.24      | 2.58      | 2.89      | 2.59      | 3.00      | 3.35      |
|                                                                                                                                     |                   | 5.4                                   | 1.72                              | 1.99      | 2.23      | 2.11      | 2.43      | 2.72      | 2.45      | 2.82      | 3.16      |
|                                                                                                                                     |                   | 6.0                                   | 1.64                              | 1.89      | 2.11      | 2.00      | 2.31      | 2.58      | 2.32      | 2.68      | 3.00      |

**Notes to Table 9.23.4.2.-H:**

- (1) Beam spans apply only where the floors serve residential areas as described in Table 4.1.5.3., or the uniformly distributed *live load* on the floors does not exceed that specified for residential areas as described in Table 4.1.5.3.
- (2) When the floors have a concrete topping of not more than 51 mm, the spans must be multiplied by 0.8.
- (3) Supported length means half the sum of the joist spans on both sides of the beam.
- (4) Straight interpolation may be used for other supported lengths.
- (5) Spans are clear spans between supports. For total span, add two bearing lengths.
- (6) 3-ply beams with supported lengths greater than 4.2 m require 114 mm bearing. All other beams require 76 mm bearing.

**Table 9.23.4.2.-I**  
**Maximum Spans for Built-up Floor Beams Supporting not more than Two Floors<sup>(1)(2)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(3), 9.23.4.4.(3) and 9.23.8.1.(1)

| Commercial Designation                                       | Grade             | Supported Length, m <sup>(3)(4)</sup> | Maximum Span, m <sup>(5)(6)</sup> |           |           |           |           |           |           |           |           |
|--------------------------------------------------------------|-------------------|---------------------------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                                              |                   |                                       | Size of Built-up Beam, mm         |           |           |           |           |           |           |           |           |
|                                                              |                   |                                       | 3- 38x184                         | 4- 38x184 | 5- 38x184 | 3- 38x235 | 4- 38x235 | 5- 38x235 | 3- 38x286 | 4- 38x286 | 5- 38x286 |
| Douglas Fir – Larch (includes Douglas Fir and Western Larch) | Select Structural | 2.4                                   | 2.80                              | 3.08      | 3.32      | 3.49      | 3.93      | 4.24      | 4.05      | 4.67      | 5.16      |
|                                                              |                   | 3.0                                   | 2.55                              | 2.86      | 3.08      | 3.12      | 3.60      | 3.93      | 3.62      | 4.18      | 4.67      |
|                                                              |                   | 3.6                                   | 2.33                              | 2.69      | 2.90      | 2.85      | 3.29      | 3.68      | 3.30      | 3.82      | 4.27      |
|                                                              |                   | 4.2                                   | 2.16                              | 2.49      | 2.75      | 2.64      | 3.04      | 3.40      | 2.99      | 3.53      | 3.95      |
|                                                              |                   | 4.8                                   | 2.00                              | 2.33      | 2.60      | 2.38      | 2.85      | 3.18      | 2.69      | 3.30      | 3.69      |
|                                                              |                   | 5.4                                   | 1.82                              | 2.20      | 2.45      | 2.17      | 2.68      | 3.00      | 2.45      | 3.08      | 3.48      |
|                                                              |                   | 6.0                                   | 1.67                              | 2.08      | 2.33      | 2.00      | 2.51      | 2.85      | 2.26      | 2.83      | 3.30      |
|                                                              | No. 1 and No. 2   | 2.4                                   | 2.22                              | 2.56      | 2.87      | 2.72      | 3.14      | 3.51      | 3.15      | 3.64      | 4.07      |
|                                                              |                   | 3.0                                   | 1.99                              | 2.29      | 2.56      | 2.43      | 2.80      | 3.14      | 2.82      | 3.25      | 3.64      |
|                                                              |                   | 3.6                                   | 1.81                              | 2.09      | 2.34      | 2.22      | 2.56      | 2.86      | 2.57      | 2.97      | 3.32      |
|                                                              |                   | 4.2                                   | 1.68                              | 1.94      | 2.17      | 2.05      | 2.37      | 2.65      | 2.38      | 2.75      | 3.07      |
|                                                              |                   | 4.8                                   | 1.57                              | 1.81      | 2.03      | 1.92      | 2.22      | 2.48      | 2.23      | 2.57      | 2.88      |
|                                                              |                   | 5.4                                   | 1.48                              | 1.71      | 1.91      | 1.81      | 2.09      | 2.34      | 2.10      | 2.43      | 2.71      |
|                                                              |                   | 6.0                                   | 1.40                              | 1.62      | 1.81      | 1.72      | 1.98      | 2.22      | 1.99      | 2.30      | 2.57      |
| Hem – Fir (includes Western Hemlock and Amabilis Fir)        | Select Structural | 2.4                                   | 2.76                              | 3.04      | 3.27      | 3.43      | 3.88      | 4.18      | 3.99      | 4.60      | 5.09      |
|                                                              |                   | 3.0                                   | 2.51                              | 2.82      | 3.04      | 2.97      | 3.55      | 3.88      | 3.34      | 4.12      | 4.60      |
|                                                              |                   | 3.6                                   | 2.15                              | 2.65      | 2.86      | 2.56      | 3.24      | 3.62      | 2.88      | 3.65      | 4.20      |
|                                                              |                   | 4.2                                   | 1.90                              | 2.40      | 2.72      | 2.26      | 2.85      | 3.35      | 2.55      | 3.21      | 3.87      |
|                                                              |                   | 4.8                                   | 1.70                              | 2.15      | 2.56      | 2.03      | 2.56      | 3.08      | 2.30      | 2.88      | 3.46      |
|                                                              |                   | 5.4                                   | 1.56                              | 1.95      | 2.35      | 1.86      | 2.32      | 2.79      | 2.11      | 2.62      | 3.14      |
|                                                              |                   | 6.0                                   | 1.44                              | 1.79      | 2.15      | 1.72      | 2.14      | 2.56      | 1.96      | 2.42      | 2.88      |
|                                                              | No. 1 and No. 2   | 2.4                                   | 2.33                              | 2.69      | 3.01      | 2.85      | 3.29      | 3.68      | 3.30      | 3.82      | 4.27      |
|                                                              |                   | 3.0                                   | 2.08                              | 2.41      | 2.69      | 2.55      | 2.94      | 3.29      | 2.96      | 3.41      | 3.82      |
|                                                              |                   | 3.6                                   | 1.90                              | 2.20      | 2.45      | 2.33      | 2.68      | 3.00      | 2.70      | 3.12      | 3.48      |
|                                                              |                   | 4.2                                   | 1.76                              | 2.03      | 2.27      | 2.15      | 2.49      | 2.78      | 2.50      | 2.88      | 3.22      |
|                                                              |                   | 4.8                                   | 1.65                              | 1.90      | 2.13      | 2.01      | 2.33      | 2.60      | 2.30      | 2.70      | 3.02      |
|                                                              |                   | 5.4                                   | 1.55                              | 1.79      | 2.00      | 1.86      | 2.19      | 2.45      | 2.11      | 2.54      | 2.84      |
|                                                              |                   | 6.0                                   | 1.44                              | 1.70      | 1.90      | 1.72      | 2.08      | 2.33      | 1.96      | 2.41      | 2.70      |



**Table 9.23.4.2.-I (continued)**  
**Maximum Spans for Built-up Floor Beams Supporting not more than Two Floors<sup>(1)(2)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(3), 9.23.4.4.(3) and 9.23.8.1.(1)

| Commercial Designation                                                                                                              | Grade             | Supported Length, m <sup>(3)(4)</sup> | Maximum Span, m <sup>(5)(6)</sup> |           |           |           |           |           |           |           |           |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                                                                                                                     |                   |                                       | Size of Built-up Beam, mm         |           |           |           |           |           |           |           |           |
|                                                                                                                                     |                   |                                       | 3- 38x184                         | 4- 38x184 | 5- 38x184 | 3- 38x235 | 4- 38x235 | 5- 38x235 | 3- 38x286 | 4- 38x286 | 5- 38x286 |
| Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | Select Structural | 2.4                                   | 2.64                              | 2.91      | 3.13      | 3.37      | 3.71      | 4.00      | 4.05      | 4.52      | 4.87      |
|                                                                                                                                     |                   | 3.0                                   | 2.45                              | 2.70      | 2.91      | 3.12      | 3.45      | 3.71      | 3.62      | 4.18      | 4.52      |
|                                                                                                                                     |                   | 3.6                                   | 2.31                              | 2.54      | 2.73      | 2.79      | 3.24      | 3.49      | 3.14      | 3.82      | 4.25      |
|                                                                                                                                     |                   | 4.2                                   | 2.07                              | 2.41      | 2.60      | 2.46      | 3.04      | 3.32      | 2.77      | 3.50      | 3.95      |
|                                                                                                                                     |                   | 4.8                                   | 1.85                              | 2.31      | 2.48      | 2.21      | 2.79      | 3.17      | 2.50      | 3.14      | 3.69      |
|                                                                                                                                     |                   | 5.4                                   | 1.69                              | 2.13      | 2.39      | 2.02      | 2.53      | 3.00      | 2.28      | 2.85      | 3.42      |
|                                                                                                                                     |                   | 6.0                                   | 1.56                              | 1.95      | 2.31      | 1.86      | 2.32      | 2.79      | 2.11      | 2.62      | 3.14      |
|                                                                                                                                     | No. 1 and No. 2   | 2.4                                   | 2.41                              | 2.79      | 3.03      | 2.95      | 3.41      | 3.81      | 3.42      | 3.95      | 4.42      |
|                                                                                                                                     |                   | 3.0                                   | 2.16                              | 2.49      | 2.79      | 2.64      | 3.05      | 3.41      | 3.06      | 3.53      | 3.95      |
|                                                                                                                                     |                   | 3.6                                   | 1.97                              | 2.27      | 2.54      | 2.41      | 2.78      | 3.11      | 2.79      | 3.23      | 3.61      |
|                                                                                                                                     |                   | 4.2                                   | 1.82                              | 2.11      | 2.35      | 2.23      | 2.57      | 2.88      | 2.59      | 2.99      | 3.34      |
|                                                                                                                                     |                   | 4.8                                   | 1.71                              | 1.97      | 2.20      | 2.09      | 2.41      | 2.69      | 2.42      | 2.79      | 3.12      |
|                                                                                                                                     |                   | 5.4                                   | 1.61                              | 1.86      | 2.08      | 1.97      | 2.27      | 2.54      | 2.28      | 2.63      | 2.95      |
|                                                                                                                                     |                   | 6.0                                   | 1.53                              | 1.76      | 1.97      | 1.86      | 2.15      | 2.41      | 2.11      | 2.50      | 2.79      |
| Northern Species (includes any Canadian species covered by the NLGA Standard Grading Rules)                                         | Select Structural | 2.4                                   | 2.29                              | 2.60      | 2.80      | 2.80      | 3.23      | 3.57      | 3.24      | 3.75      | 4.19      |
|                                                                                                                                     |                   | 3.0                                   | 2.04                              | 2.36      | 2.60      | 2.50      | 2.89      | 3.23      | 2.90      | 3.35      | 3.75      |
|                                                                                                                                     |                   | 3.6                                   | 1.87                              | 2.16      | 2.41      | 2.28      | 2.64      | 2.95      | 2.65      | 3.06      | 3.42      |
|                                                                                                                                     |                   | 4.2                                   | 1.73                              | 2.00      | 2.23      | 2.11      | 2.44      | 2.73      | 2.45      | 2.83      | 3.17      |
|                                                                                                                                     |                   | 4.8                                   | 1.62                              | 1.87      | 2.09      | 1.98      | 2.28      | 2.55      | 2.29      | 2.65      | 2.96      |
|                                                                                                                                     |                   | 5.4                                   | 1.52                              | 1.76      | 1.97      | 1.86      | 2.15      | 2.41      | 2.11      | 2.50      | 2.79      |
|                                                                                                                                     |                   | 6.0                                   | 1.44                              | 1.67      | 1.87      | 1.72      | 2.04      | 2.28      | 1.96      | 2.37      | 2.65      |
|                                                                                                                                     | No. 1 and No. 2   | 2.4                                   | 1.94                              | 2.24      | 2.50      | 2.37      | 2.73      | 3.06      | 2.75      | 3.17      | 3.55      |
|                                                                                                                                     |                   | 3.0                                   | 1.73                              | 2.00      | 2.24      | 2.12      | 2.44      | 2.73      | 2.46      | 2.84      | 3.17      |
|                                                                                                                                     |                   | 3.6                                   | 1.58                              | 1.83      | 2.04      | 1.93      | 2.23      | 2.50      | 2.24      | 2.59      | 2.90      |
|                                                                                                                                     |                   | 4.2                                   | 1.46                              | 1.69      | 1.89      | 1.79      | 2.07      | 2.31      | 2.08      | 2.40      | 2.68      |
|                                                                                                                                     |                   | 4.8                                   | 1.37                              | 1.58      | 1.77      | 1.67      | 1.93      | 2.16      | 1.94      | 2.24      | 2.51      |
|                                                                                                                                     |                   | 5.4                                   | 1.29                              | 1.49      | 1.67      | 1.58      | 1.82      | 2.04      | 1.83      | 2.11      | 2.36      |
|                                                                                                                                     |                   | 6.0                                   | 1.22                              | 1.41      | 1.58      | 1.50      | 1.73      | 1.93      | 1.74      | 2.01      | 2.24      |

**Notes to Table 9.23.4.2.-I:**

- (1) Beam spans apply only where the floors serve residential areas as described in Table 4.1.5.3., or the uniformly distributed *live load* on the floors does not exceed that specified for residential areas as described in Table 4.1.5.3.
- (2) When the floors have a concrete topping of not more than 51 mm, the spans must be multiplied by 0.8.
- (3) Supported length means half the sum of the joist spans on both sides of the beam.
- (4) Straight interpolation may be used for other supported lengths.
- (5) Spans are clear spans between supports. For total span, add two bearing lengths.
- (6) 3-ply beams require 114 mm bearing. 4-ply and 5-ply beams with supported lengths greater than 3 m require 114 mm bearing. All other beams require 76 mm bearing.

**Table 9.23.4.2.-J**  
**Maximum Spans for Built-up Floor Beams Supporting not more than Three Floors<sup>(1)(2)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(3), 9.23.4.4.(3) and 9.23.8.1.(1)

| Commercial Designation                                       | Grade             | Supported Length, m <sup>(3)(4)</sup> | Maximum Span, m <sup>(5)(6)</sup> |           |           |           |           |           |           |           |           |
|--------------------------------------------------------------|-------------------|---------------------------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                                              |                   |                                       | Size of Built-up Beam, mm         |           |           |           |           |           |           |           |           |
|                                                              |                   |                                       | 3- 38x184                         | 4- 38x184 | 5- 38x184 | 3- 38x235 | 4- 38x235 | 5- 38x235 | 3- 38x286 | 4- 38x286 | 5- 38x286 |
| Douglas Fir – Larch (includes Douglas Fir and Western Larch) | Select Structural | 2.4                                   | 2.38                              | 2.74      | 2.95      | 2.91      | 3.36      | 3.75      | 3.37      | 3.89      | 4.35      |
|                                                              |                   | 3.0                                   | 2.13                              | 2.46      | 2.74      | 2.60      | 3.00      | 3.36      | 2.92      | 3.48      | 3.89      |
|                                                              |                   | 3.6                                   | 1.88                              | 2.24      | 2.51      | 2.24      | 2.74      | 3.06      | 2.53      | 3.18      | 3.56      |
|                                                              |                   | 4.2                                   | 1.66                              | 2.08      | 2.32      | 1.99      | 2.49      | 2.84      | 2.25      | 2.81      | 3.29      |
|                                                              |                   | 4.8                                   | 1.50                              | 1.88      | 2.17      | 1.80      | 2.24      | 2.65      | 2.04      | 2.53      | 3.02      |
|                                                              |                   | 5.4                                   | 1.38                              | 1.71      | 2.05      | 1.65      | 2.04      | 2.44      | 1.88      | 2.31      | 2.75      |
|                                                              |                   | 6.0                                   | 1.28                              | 1.58      | 1.88      | 1.53      | 1.89      | 2.24      | 1.75      | 2.14      | 2.53      |
|                                                              | No. 1 and No. 2   | 2.4                                   | 1.85                              | 2.14      | 2.39      | 2.26      | 2.61      | 2.92      | 2.63      | 3.03      | 3.39      |
|                                                              |                   | 3.0                                   | 1.66                              | 1.91      | 2.14      | 2.02      | 2.34      | 2.61      | 2.35      | 2.71      | 3.03      |
|                                                              |                   | 3.6                                   | 1.51                              | 1.74      | 1.95      | 1.85      | 2.13      | 2.39      | 2.14      | 2.48      | 2.77      |
|                                                              |                   | 4.2                                   | 1.40                              | 1.62      | 1.81      | 1.71      | 1.98      | 2.21      | 1.99      | 2.29      | 2.56      |
|                                                              |                   | 4.8                                   | 1.31                              | 1.51      | 1.69      | 1.60      | 1.85      | 2.07      | 1.86      | 2.14      | 2.40      |
|                                                              |                   | 5.4                                   | 1.23                              | 1.42      | 1.59      | 1.51      | 1.74      | 1.95      | 1.75      | 2.02      | 2.26      |
|                                                              |                   | 6.0                                   | 1.17                              | 1.35      | 1.51      | 1.43      | 1.65      | 1.85      | 1.66      | 1.92      | 2.14      |
| Hem – Fir (includes Western Hemlock and Amabilis Fir)        | Select Structural | 2.4                                   | 2.22                              | 2.70      | 2.91      | 2.64      | 3.31      | 3.70      | 2.98      | 3.78      | 4.29      |
|                                                              |                   | 3.0                                   | 1.85                              | 2.35      | 2.70      | 2.21      | 2.79      | 3.31      | 2.50      | 3.14      | 3.78      |
|                                                              |                   | 3.6                                   | 1.61                              | 2.02      | 2.43      | 1.92      | 2.40      | 2.89      | 2.18      | 2.71      | 3.24      |
|                                                              |                   | 4.2                                   | 1.43                              | 1.78      | 2.14      | 1.71      | 2.13      | 2.54      | 1.95      | 2.40      | 2.86      |
|                                                              |                   | 4.8                                   | 1.30                              | 1.61      | 1.92      | 1.56      | 1.92      | 2.28      | 1.77      | 2.18      | 2.58      |
|                                                              |                   | 5.4                                   | 1.19                              | 1.47      | 1.74      | 1.44      | 1.76      | 2.08      | 1.64      | 2.00      | 2.35      |
|                                                              |                   | 6.0                                   | 1.11                              | 1.36      | 1.61      | 1.34      | 1.63      | 1.92      | 1.53      | 1.85      | 2.18      |
|                                                              | No. 1 and No. 2   | 2.4                                   | 1.94                              | 2.24      | 2.51      | 2.37      | 2.74      | 3.06      | 2.75      | 3.18      | 3.56      |
|                                                              |                   | 3.0                                   | 1.74                              | 2.00      | 2.24      | 2.12      | 2.45      | 2.74      | 2.46      | 2.84      | 3.18      |
|                                                              |                   | 3.6                                   | 1.58                              | 1.83      | 2.05      | 1.92      | 2.24      | 2.50      | 2.18      | 2.60      | 2.90      |
|                                                              |                   | 4.2                                   | 1.43                              | 1.69      | 1.89      | 1.71      | 2.07      | 2.32      | 1.95      | 2.40      | 2.69      |
|                                                              |                   | 4.8                                   | 1.30                              | 1.58      | 1.77      | 1.56      | 1.92      | 2.17      | 1.77      | 2.18      | 2.51      |
|                                                              |                   | 5.4                                   | 1.19                              | 1.47      | 1.67      | 1.44      | 1.76      | 2.04      | 1.64      | 2.00      | 2.35      |
|                                                              |                   | 6.0                                   | 1.11                              | 1.36      | 1.58      | 1.34      | 1.63      | 1.92      | 1.53      | 1.85      | 2.18      |

**Table 9.23.4.2.-J (continued)**  
**Maximum Spans for Built-up Floor Beams Supporting not more than Three Floors<sup>(1)(2)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(3), 9.23.4.4.(3) and 9.23.8.1.(1)

| Commercial Designation                                                                                                              | Grade             | Supported Length, m <sup>(3)(4)</sup> | Maximum Span, m <sup>(5)(6)</sup> |           |           |           |           |           |           |           |           |
|-------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                                                                                                                                     |                   |                                       | Size of Built-up Beam, mm         |           |           |           |           |           |           |           |           |
|                                                                                                                                     |                   |                                       | 3- 38x184                         | 4- 38x184 | 5- 38x184 | 3- 38x235 | 4- 38x235 | 5- 38x235 | 3- 38x286 | 4- 38x286 | 5- 38x286 |
| Spruce – Pine – Fir (includes Spruce (all species except Coast Sitka Spruce), Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | Select Structural | 2.4                                   | 2.35                              | 2.58      | 2.78      | 2.89      | 3.30      | 3.55      | 3.24      | 3.89      | 4.33      |
|                                                                                                                                     |                   | 3.0                                   | 2.02                              | 2.40      | 2.58      | 2.40      | 3.00      | 3.30      | 2.71      | 3.42      | 3.89      |
|                                                                                                                                     |                   | 3.6                                   | 1.74                              | 2.20      | 2.43      | 2.08      | 2.62      | 3.06      | 2.35      | 2.95      | 3.54      |
|                                                                                                                                     |                   | 4.2                                   | 1.55                              | 1.94      | 2.31      | 1.85      | 2.31      | 2.77      | 2.10      | 2.61      | 3.12      |
|                                                                                                                                     |                   | 4.8                                   | 1.40                              | 1.74      | 2.09      | 1.68      | 2.08      | 2.48      | 1.91      | 2.35      | 2.80      |
|                                                                                                                                     |                   | 5.4                                   | 1.28                              | 1.59      | 1.90      | 1.54      | 1.90      | 2.26      | 1.76      | 2.16      | 2.55      |
|                                                                                                                                     |                   | 6.0                                   | 1.19                              | 1.47      | 1.74      | 1.44      | 1.76      | 2.08      | 1.64      | 2.00      | 2.35      |
|                                                                                                                                     | No. 1 and No. 2   | 2.4                                   | 2.01                              | 2.32      | 2.60      | 2.46      | 2.84      | 3.17      | 2.85      | 3.29      | 3.68      |
|                                                                                                                                     |                   | 3.0                                   | 1.80                              | 2.08      | 2.32      | 2.20      | 2.54      | 2.84      | 2.55      | 2.95      | 3.29      |
|                                                                                                                                     |                   | 3.6                                   | 1.64                              | 1.90      | 2.12      | 2.01      | 2.32      | 2.59      | 2.33      | 2.69      | 3.01      |
|                                                                                                                                     |                   | 4.2                                   | 1.52                              | 1.75      | 1.96      | 1.85      | 2.15      | 2.40      | 2.10      | 2.49      | 2.78      |
|                                                                                                                                     |                   | 4.8                                   | 1.40                              | 1.64      | 1.84      | 1.68      | 2.01      | 2.24      | 1.91      | 2.33      | 2.60      |
|                                                                                                                                     |                   | 5.4                                   | 1.28                              | 1.55      | 1.73      | 1.54      | 1.89      | 2.12      | 1.76      | 2.16      | 2.46      |
|                                                                                                                                     |                   | 6.0                                   | 1.19                              | 1.47      | 1.64      | 1.44      | 1.76      | 2.01      | 1.64      | 2.00      | 2.33      |
| Northern Species (includes any Canadian species covered by the NLGA Standard Grading Rules)                                         | Select Structural | 2.4                                   | 1.91                              | 2.20      | 2.46      | 2.33      | 2.69      | 3.01      | 2.70      | 3.12      | 3.49      |
|                                                                                                                                     |                   | 3.0                                   | 1.70                              | 1.97      | 2.20      | 2.08      | 2.41      | 2.69      | 2.42      | 2.79      | 3.12      |
|                                                                                                                                     |                   | 3.6                                   | 1.56                              | 1.80      | 2.01      | 1.90      | 2.20      | 2.46      | 2.18      | 2.55      | 2.85      |
|                                                                                                                                     |                   | 4.2                                   | 1.43                              | 1.66      | 1.86      | 1.71      | 2.03      | 2.27      | 1.95      | 2.36      | 2.64      |
|                                                                                                                                     |                   | 4.8                                   | 1.30                              | 1.56      | 1.74      | 1.56      | 1.90      | 2.13      | 1.77      | 2.18      | 2.47      |
|                                                                                                                                     |                   | 5.4                                   | 1.19                              | 1.47      | 1.64      | 1.44      | 1.76      | 2.01      | 1.64      | 2.00      | 2.33      |
|                                                                                                                                     |                   | 6.0                                   | 1.11                              | 1.36      | 1.56      | 1.34      | 1.63      | 1.90      | 1.53      | 1.85      | 2.18      |
|                                                                                                                                     | No. 1 and No. 2   | 2.4                                   | 1.61                              | 1.86      | 2.08      | 1.97      | 2.28      | 2.55      | 2.29      | 2.64      | 2.96      |
|                                                                                                                                     |                   | 3.0                                   | 1.44                              | 1.67      | 1.86      | 1.76      | 2.04      | 2.28      | 2.05      | 2.36      | 2.64      |
|                                                                                                                                     |                   | 3.6                                   | 1.32                              | 1.52      | 1.70      | 1.61      | 1.86      | 2.08      | 1.87      | 2.16      | 2.41      |
|                                                                                                                                     |                   | 4.2                                   | 1.22                              | 1.41      | 1.57      | 1.49      | 1.72      | 1.93      | 1.73      | 2.00      | 2.23      |
|                                                                                                                                     |                   | 4.8                                   | 1.14                              | 1.32      | 1.47      | 1.40      | 1.61      | 1.80      | 1.62      | 1.87      | 2.09      |
|                                                                                                                                     |                   | 5.4                                   | 1.08                              | 1.24      | 1.39      | 1.32      | 1.52      | 1.70      | 1.53      | 1.76      | 1.97      |
|                                                                                                                                     |                   | 6.0                                   | 1.02                              | 1.18      | 1.32      | 1.25      | 1.44      | 1.61      | 1.45      | 1.67      | 1.87      |

**Notes to Table 9.23.4.2.-J:**

- (1) Beam spans apply only where the floors serve residential areas as described in Table 4.1.5.3., or the uniformly distributed *live load* on the floors does not exceed that specified for residential areas as described in Table 4.1.5.3.
- (2) When the floors have a concrete topping of not more than 51 mm, the spans must be multiplied by 0.8.
- (3) Supported length means half the sum of the joist spans on both sides of the beam.
- (4) Straight interpolation may be used for other supported lengths.
- (5) Spans are clear spans between supports. For total span, add two bearing lengths.
- (6) 3-ply beams with supported lengths greater than 4.2 m require 152 mm bearing. All other beams require 114 mm bearing.

**Table 9.23.4.2.-K**  
**Maximum Spans for Glued-Laminated Floor Beams – 20f-E Grade(1)**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(3), 9.23.4.4.(3) and 9.23.8.1.(1)

| Number of Storeys Supported | Beam Width, mm | Supported Length, m <sup>(2)(3)</sup> | Maximum Span, m <sup>(4)(5)(6)(7)</sup> |      |      |      |      |       |       |
|-----------------------------|----------------|---------------------------------------|-----------------------------------------|------|------|------|------|-------|-------|
|                             |                |                                       | Beam Depth, mm                          |      |      |      |      |       |       |
|                             |                |                                       | 228                                     | 266  | 304  | 342  | 380  | 418   | 456   |
| 1                           | 80             | 2.4                                   | 4.32                                    | 5.04 | 5.76 | 6.48 | 7.20 | 7.92  | 8.64  |
|                             |                | 3.0                                   | 3.87                                    | 4.51 | 5.15 | 5.80 | 6.44 | 7.09  | 7.73  |
|                             |                | 3.6                                   | 3.53                                    | 4.12 | 4.70 | 5.29 | 5.88 | 6.47  | 7.06  |
|                             |                | 4.2                                   | 3.27                                    | 3.81 | 4.36 | 4.90 | 5.44 | 5.99  | 6.53  |
|                             |                | 4.8                                   | 3.06                                    | 3.57 | 4.07 | 4.58 | 5.09 | 5.60  | 6.11  |
|                             |                | 5.4                                   | 2.88                                    | 3.36 | 3.84 | 4.32 | 4.80 | 5.28  | 5.76  |
|                             |                | 6.0                                   | 2.73                                    | 3.19 | 3.64 | 4.10 | 4.56 | 5.01  | 5.47  |
|                             | 130            | 2.4                                   | 5.51                                    | 6.43 | 7.35 | 8.26 | 9.18 | 10.10 | 11.02 |
|                             |                | 3.0                                   | 4.93                                    | 5.75 | 6.57 | 7.39 | 8.21 | 9.03  | 9.86  |
|                             |                | 3.6                                   | 4.50                                    | 5.25 | 6.00 | 6.75 | 7.50 | 8.25  | 9.00  |
|                             |                | 4.2                                   | 4.16                                    | 4.86 | 5.55 | 6.25 | 6.94 | 7.64  | 8.33  |
|                             |                | 4.8                                   | 3.90                                    | 4.54 | 5.19 | 5.84 | 6.49 | 7.14  | 7.79  |
|                             |                | 5.4                                   | 3.67                                    | 4.28 | 4.90 | 5.51 | 6.12 | 6.73  | 7.35  |
|                             |                | 6.0                                   | 3.48                                    | 4.07 | 4.65 | 5.23 | 5.81 | 6.39  | 6.97  |
| 2                           | 80             | 2.4                                   | 3.28                                    | 3.83 | 4.37 | 4.92 | 5.47 | 6.01  | 6.56  |
|                             |                | 3.0                                   | 2.93                                    | 3.42 | 3.91 | 4.40 | 4.89 | 5.38  | 5.87  |
|                             |                | 3.6                                   | 2.68                                    | 3.12 | 3.57 | 4.02 | 4.46 | 4.91  | 5.36  |
|                             |                | 4.2                                   | 2.48                                    | 2.89 | 3.31 | 3.72 | 4.13 | 4.54  | 4.96  |
|                             |                | 4.8                                   | 2.32                                    | 2.71 | 3.09 | 3.48 | 3.86 | 4.25  | 4.64  |
|                             |                | 5.4                                   | 2.19                                    | 2.55 | 2.91 | 3.28 | 3.64 | 4.01  | 4.37  |
|                             |                | 6.0                                   | 2.07                                    | 2.42 | 2.77 | 3.11 | 3.46 | 3.80  | 4.15  |
|                             | 130            | 2.4                                   | 4.18                                    | 4.88 | 5.57 | 6.27 | 6.97 | 7.66  | 8.36  |
|                             |                | 3.0                                   | 3.74                                    | 4.36 | 4.99 | 5.61 | 6.23 | 6.85  | 7.48  |
|                             |                | 3.6                                   | 3.41                                    | 3.98 | 4.55 | 5.12 | 5.69 | 6.26  | 6.83  |
|                             |                | 4.2                                   | 3.16                                    | 3.69 | 4.21 | 4.74 | 5.27 | 5.79  | 6.32  |
|                             |                | 4.8                                   | 2.96                                    | 3.45 | 3.94 | 4.43 | 4.93 | 5.42  | 5.91  |
|                             |                | 5.4                                   | 2.79                                    | 3.25 | 3.72 | 4.18 | 4.64 | 5.11  | 5.57  |
|                             |                | 6.0                                   | 2.64                                    | 3.08 | 3.53 | 3.97 | 4.41 | 4.85  | 5.29  |

**Table 9.23.4.2.-K (continued)**  
**Maximum Spans for Glued-Laminated Floor Beams – 20f-E Grade(1)**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(3), 9.23.4.4.(3) and 9.23.8.1.(1)

| Number of Storeys Supported | Beam Width, mm | Supported Length, m <sup>(2)(3)</sup> | Maximum Span, m <sup>(4)(5)(6)(7)</sup> |      |      |      |      |      |      |
|-----------------------------|----------------|---------------------------------------|-----------------------------------------|------|------|------|------|------|------|
|                             |                |                                       | Beam Depth, mm                          |      |      |      |      |      |      |
|                             |                |                                       | 228                                     | 266  | 304  | 342  | 380  | 418  | 456  |
| 3                           | 80             | 2.4                                   | 2.75                                    | 3.21 | 3.66 | 4.12 | 4.58 | 5.04 | 5.50 |
|                             |                | 3.0                                   | 2.46                                    | 2.87 | 3.28 | 3.69 | 4.10 | 4.51 | 4.92 |
|                             |                | 3.6                                   | 2.24                                    | 2.62 | 2.99 | 3.37 | 3.74 | 4.11 | 4.49 |
|                             |                | 4.2                                   | 2.08                                    | 2.42 | 2.77 | 3.12 | 3.46 | 3.81 | 4.15 |
|                             |                | 4.8                                   | 1.94                                    | 2.27 | 2.59 | 2.91 | 3.24 | 3.56 | 3.89 |
|                             |                | 5.4                                   | 1.83                                    | 2.14 | 2.44 | 2.75 | 3.05 | 3.36 | 3.66 |
|                             |                | 6.0                                   | 1.74                                    | 2.03 | 2.32 | 2.61 | 2.90 | 3.19 | 3.48 |
|                             | 130            | 2.4                                   | 3.50                                    | 4.09 | 4.67 | 5.25 | 5.84 | 6.42 | 7.01 |
|                             |                | 3.0                                   | 3.13                                    | 3.66 | 4.18 | 4.70 | 5.22 | 5.74 | 6.27 |
|                             |                | 3.6                                   | 2.86                                    | 3.34 | 3.81 | 4.29 | 4.77 | 5.24 | 5.72 |
|                             |                | 4.2                                   | 2.65                                    | 3.09 | 3.53 | 3.97 | 4.41 | 4.85 | 5.30 |
|                             |                | 4.8                                   | 2.48                                    | 2.89 | 3.30 | 3.72 | 4.13 | 4.54 | 4.95 |
|                             |                | 5.4                                   | 2.34                                    | 2.72 | 3.11 | 3.50 | 3.89 | 4.28 | 4.67 |
|                             |                | 6.0                                   | 2.22                                    | 2.58 | 2.95 | 3.32 | 3.69 | 4.06 | 4.43 |

**Notes to Table 9.23.4.2.-K:**

- (1) Spans apply only where the floors serve residential areas as described in Table 4.1.5.3., or the uniformly distributed *live load* on the floors does not exceed that specified for residential areas as described in Table 4.1.5.3.
- (2) Supported length means half the sum of the joist spans on both sides of the beam.
- (3) Straight interpolation may be used for other supported lengths.
- (4) Spans are valid for glued-laminated timber conforming to CAN/CSA-O122 and CSA O177.
- (5) Spans are clear spans between supports. For total span, add two bearing lengths.
- (6) Provide a minimum bearing length of 89 mm. (Alternatively, the bearing length may be designed in accordance with Part 4.)
- (7) Top edge of beam assumed to be fully laterally supported by joists.

**Table 9.23.4.2.-L**  
**Maximum Spans for Built-up Ridge Beams and Lintels Supporting the**  
**Roof and Ceiling Only, No. 1 or No. 2 Grade**

Forming Part of Sentences 9.3.2.8.(1), 9.23.4.2.(4), 9.23.4.5.(1), 9.23.12.3.(1) and (3), and 9.23.14.10.(2)

| Commercial Designation                                                                                                                | Beam or Lintel Size, mm | Maximum Span, m <sup>(1)(2)(3)</sup> |      |      |      |      |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------------------------------|------|------|------|------|
|                                                                                                                                       |                         | Specified Snow Load, kPa             |      |      |      |      |
|                                                                                                                                       |                         | 1.0                                  | 1.5  | 2.0  | 2.5  | 3.0  |
| Douglas Fir – Larch<br>(includes Douglas Fir and Western Larch)                                                                       | 3-38x184                | 2.65                                 | 2.28 | 2.03 | 1.85 | 1.71 |
|                                                                                                                                       | 4-38x184                | 3.06                                 | 2.64 | 2.35 | 2.14 | 1.97 |
|                                                                                                                                       | 5-38x184                | 3.43                                 | 2.95 | 2.62 | 2.39 | 2.21 |
|                                                                                                                                       | 3-38x235                | 3.25                                 | 2.79 | 2.49 | 2.26 | 2.09 |
|                                                                                                                                       | 4-38x235                | 3.75                                 | 3.22 | 2.87 | 2.61 | 2.41 |
|                                                                                                                                       | 5-38x235                | 4.19                                 | 3.60 | 3.21 | 2.92 | 2.70 |
|                                                                                                                                       | 3-38x286                | 3.77                                 | 3.24 | 2.88 | 2.62 | 2.43 |
|                                                                                                                                       | 4-38x286                | 4.35                                 | 3.74 | 3.33 | 3.03 | 2.80 |
|                                                                                                                                       | 5-38x286                | 4.86                                 | 4.18 | 3.72 | 3.39 | 3.13 |
| Hem – Fir (includes Western Hemlock and Amabilis Fir)                                                                                 | 3-38x184                | 2.78                                 | 2.39 | 2.13 | 1.94 | 1.79 |
|                                                                                                                                       | 4-38x184                | 3.21                                 | 2.76 | 2.46 | 2.24 | 2.07 |
|                                                                                                                                       | 5-38x184                | 3.59                                 | 3.09 | 2.75 | 2.50 | 2.31 |
|                                                                                                                                       | 3-38x235                | 3.40                                 | 2.93 | 2.61 | 2.37 | 2.19 |
|                                                                                                                                       | 4-38x235                | 3.93                                 | 3.38 | 3.01 | 2.74 | 2.53 |
|                                                                                                                                       | 5-38x235                | 4.39                                 | 3.78 | 3.36 | 3.06 | 2.83 |
|                                                                                                                                       | 3-38x286                | 3.95                                 | 3.40 | 3.02 | 2.75 | 2.54 |
|                                                                                                                                       | 4-38x286                | 4.56                                 | 3.92 | 3.49 | 3.18 | 2.94 |
|                                                                                                                                       | 5-38x286                | 5.10                                 | 4.38 | 3.90 | 3.55 | 3.28 |
| Spruce – Pine – Fir<br>(includes Spruce (all species except Coast Sitka Spruce) Jack Pine, Lodgepole Pine, Balsam Fir and Alpine Fir) | 3-38x184                | 2.88                                 | 2.48 | 2.21 | 2.01 | 1.86 |
|                                                                                                                                       | 4-38x184                | 3.30                                 | 2.86 | 2.55 | 2.32 | 2.14 |
|                                                                                                                                       | 5-38x184                | 3.55                                 | 3.10 | 2.82 | 2.59 | 2.40 |
|                                                                                                                                       | 3-38x235                | 3.53                                 | 3.03 | 2.70 | 2.46 | 2.27 |
|                                                                                                                                       | 4-38x235                | 4.07                                 | 3.50 | 3.12 | 2.84 | 2.62 |
|                                                                                                                                       | 5-38x235                | 4.54                                 | 3.91 | 3.49 | 3.17 | 2.93 |
|                                                                                                                                       | 3-38x286                | 4.09                                 | 3.52 | 3.13 | 2.85 | 2.63 |
|                                                                                                                                       | 4-38x286                | 4.72                                 | 4.06 | 3.62 | 3.29 | 3.04 |
|                                                                                                                                       | 5-38x286                | 5.28                                 | 4.54 | 4.04 | 3.68 | 3.40 |

**Notes to Table 9.23.4.2.-L:**

- (1) Beam and lintel spans are calculated based on a maximum supported length of 4.9 m. Spans may be increased by 5% for supported lengths of not more than 4.3 m, by 10% for supported lengths of not more than 3.7 m, and by 25% for supported lengths of not more than 2.4 m.
- (2) For ridge beams, supported length means half the sum of the rafter, joist or truss spans on both sides of the beam. For lintels, supported length means half the sum of truss, roof joist or rafter spans supported by the lintel plus the length of the overhang beyond the lintel.
- (3) Provide minimum 76 mm bearing.

**Table 9.23.12.3.-A**  
**Maximum Spans for Douglas Fir – Larch Lintels – No. 1 or No. 2 Grade – Non-structural Sheathing<sup>(1)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.5.(1) and 9.23.12.3.(1) and (3)

| Lintel Supporting                                                       | Lintel Size, <sup>(2)</sup> mm | Maximum Span, m <sup>(3)(4)</sup>  |      |      |      |      |                |
|-------------------------------------------------------------------------|--------------------------------|------------------------------------|------|------|------|------|----------------|
|                                                                         |                                | Exterior Walls                     |      |      |      |      | Interior Walls |
|                                                                         |                                | Specified Snow Load, kPa           |      |      |      |      |                |
|                                                                         |                                | 1.0                                | 1.5  | 2.0  | 2.5  | 3.0  |                |
| Limited attic storage and ceiling                                       | 2-38x89                        | This Area Intentionally Left Blank |      |      |      |      | 1.25           |
|                                                                         | 2-38x140                       |                                    |      |      |      |      | 1.78           |
|                                                                         | 2-38x184                       |                                    |      |      |      |      | 2.17           |
|                                                                         | 2-38x235                       |                                    |      |      |      |      | 2.65           |
|                                                                         | 2-38x286                       |                                    |      |      |      |      | 3.08           |
| Roof and ceiling only (tributary width of 0.6 m maximum) <sup>(5)</sup> | 2-38x89                        | 2.68                               | 2.34 | 2.13 | 1.97 | 1.86 | 1.97           |
|                                                                         | 2-38x140                       | 4.21                               | 3.68 | 3.34 | 3.10 | 2.92 | 3.10           |
|                                                                         | 2-38x184                       | 5.50                               | 4.84 | 4.39 | 4.08 | 3.84 | 4.08           |
|                                                                         | 2-38x235                       | 6.61                               | 5.97 | 5.56 | 5.21 | 4.88 | 5.21           |
|                                                                         | 2-38x286                       | 7.66                               | 6.92 | 6.44 | 6.09 | 5.66 | 6.09           |
| Roof and ceiling only (tributary width of 4.9 m maximum) <sup>(6)</sup> | 2-38x89                        | 1.25                               | 1.07 | 0.96 | 0.87 | 0.80 | 0.87           |
|                                                                         | 2-38x140                       | 1.78                               | 1.53 | 1.36 | 1.24 | 1.15 | 1.24           |
|                                                                         | 2-38x184                       | 2.17                               | 1.86 | 1.66 | 1.51 | 1.40 | 1.51           |
|                                                                         | 2-38x235                       | 2.65                               | 2.28 | 2.03 | 1.85 | 1.71 | 1.85           |
|                                                                         | 2-38x286                       | 3.08                               | 2.64 | 2.35 | 2.14 | 1.98 | 2.14           |
| Roof, ceiling and 1 storey <sup>(3)(6)(7)</sup>                         | 2-38x89                        | 0.96                               | 0.88 | 0.82 | 0.77 | 0.73 | 0.68           |
|                                                                         | 2-38x140                       | 1.37                               | 1.26 | 1.17 | 1.10 | 1.04 | 0.97           |
|                                                                         | 2-38x184                       | 1.67                               | 1.53 | 1.42 | 1.34 | 1.26 | 1.18           |
|                                                                         | 2-38x235                       | 2.04                               | 1.88 | 1.74 | 1.63 | 1.54 | 1.44           |
|                                                                         | 2-38x286                       | 2.37                               | 2.18 | 2.02 | 1.90 | 1.79 | 1.67           |
| Roof, ceiling and 2 storeys <sup>(3)(6)(7)</sup>                        | 2-38x89                        | 0.86                               | 0.81 | 0.77 | 0.73 | 0.70 | 0.61           |
|                                                                         | 2-38x140                       | 1.23                               | 1.16 | 1.09 | 1.04 | 0.99 | 0.87           |
|                                                                         | 2-38x184                       | 1.50                               | 1.41 | 1.33 | 1.27 | 1.21 | 1.06           |
|                                                                         | 2-38x235                       | 1.84                               | 1.72 | 1.63 | 1.55 | 1.48 | 1.30           |
|                                                                         | 2-38x286                       | 2.13                               | 2.00 | 1.89 | 1.80 | 1.72 | 1.51           |

**Table 9.23.12.3.-A (continued)**  
**Maximum Spans for Douglas Fir – Larch Lintels – No. 1 or No. 2 Grade – Non-structural Sheathing<sup>(1)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.5.(1) and 9.23.12.3.(1) and (3)

| Lintel Supporting                                | Lintel Size, <sup>(2)</sup> mm | Maximum Span, m <sup>(3)(4)</sup> |      |      |      |      |                |
|--------------------------------------------------|--------------------------------|-----------------------------------|------|------|------|------|----------------|
|                                                  |                                | Exterior Walls                    |      |      |      |      | Interior Walls |
|                                                  |                                | Specified Snow Load, kPa          |      |      |      |      |                |
|                                                  |                                | 1.0                               | 1.5  | 2.0  | 2.5  | 3.0  |                |
| Roof, ceiling and 3 storeys <sup>(3)(6)(7)</sup> | 2-38x89                        | 0.81                              | 0.77 | 0.73 | 0.71 | 0.68 | 0.57           |
|                                                  | 2-38x140                       | 1.15                              | 1.10 | 1.05 | 1.01 | 0.97 | 0.82           |
|                                                  | 2-38x184                       | 1.40                              | 1.33 | 1.28 | 1.22 | 1.18 | 1.00           |
|                                                  | 2-38x235                       | 1.71                              | 1.63 | 1.56 | 1.50 | 1.44 | 1.22           |
|                                                  | 2-38x286                       | 1.99                              | 1.89 | 1.81 | 1.74 | 1.67 | 1.41           |

**Notes to Table 9.23.12.3.-A:**

- (1) Where structural sheathing is used, lintel spans may be increased by 15%. Structural sheathing consists of a minimum 9.5 mm thick structural panel conforming to CSA O121, CSA O151, CSA O325 or CSA O437.0 fastened with at least two rows of fasteners to the exterior face of the lintel, and a single row to the top plates and studs. Fasteners shall conform to Table 9.23.3.5.-A.
- (2) A single piece of 89 mm thick lumber may be used in lieu of 2 pieces of 38 mm thick lumber on edge.
- (3) If floor joists span the full width of the *building* without support, lintel spans shall be reduced by 15% for "roof, ceiling and 1 storey," by 20% for "roof, ceiling and 2 storeys," and by 25% for "roof, ceiling and 3 storeys."
- (4) For ends of lintels fully supported by walls, provide minimum 38 mm bearing for lintel spans up to 3 m, or minimum 76 mm bearing for lintel spans greater than 3 m.
- (5) Spans for 0.6 m tributary width are calculated for lintels in end walls that support only a 0.6 m width of roof and ceiling, but do not support roof joists, roof rafters or roof trusses.
- (6) Lintel spans are calculated based on a maximum floor joist, roof joist or rafter span of 4.9 m and a maximum roof truss span of 9.8 m. Lintel spans may be increased by 5% if rafter and joist spans are no greater than 4.3 m and roof truss spans are no greater than 8.6 m. Spans may be increased by 10% if rafter and joist spans are no greater than 3.7 m and roof truss spans are no greater than 7.4 m.
- (7) Spans apply only where the floors serve residential areas as described in Table 4.1.5.3., or the uniformly distributed *live load* does not exceed that specified for residential areas as described in Table 4.1.5.3.

**Table 9.23.12.3.-B**  
**Maximum Spans for Hem – Fir Lintels – No. 1 or No. 2 Grade – Non-structural Sheathing<sup>(1)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.5.(1) and 9.23.12.3.(1) and (3)

| Lintel Supporting                                                       | Lintel Size, <sup>(2)</sup> mm | Maximum Span, m <sup>(3)(4)</sup>  |      |      |      |      |                |
|-------------------------------------------------------------------------|--------------------------------|------------------------------------|------|------|------|------|----------------|
|                                                                         |                                | Exterior Walls                     |      |      |      |      | Interior Walls |
|                                                                         |                                | Specified Snow Load, kPa           |      |      |      |      |                |
|                                                                         |                                | 1.0                                | 1.5  | 2.0  | 2.5  | 3.0  |                |
| Limited attic storage and ceiling                                       | 2-38x89                        | This Area Intentionally Left Blank |      |      |      |      | 1.31           |
|                                                                         | 2-38x140                       |                                    |      |      |      |      | 1.87           |
|                                                                         | 2-38x184                       |                                    |      |      |      |      | 2.27           |
|                                                                         | 2-38x235                       |                                    |      |      |      |      | 2.78           |
|                                                                         | 2-38x286                       |                                    |      |      |      |      | 3.23           |
| Roof and ceiling only (tributary width of 0.6 m maximum) <sup>(5)</sup> | 2-38x89                        | 2.68                               | 2.34 | 2.13 | 1.97 | 1.86 | 1.97           |
|                                                                         | 2-38x140                       | 4.21                               | 3.68 | 3.34 | 3.10 | 2.92 | 3.10           |
|                                                                         | 2-38x184                       | 5.50                               | 4.84 | 4.39 | 4.08 | 3.84 | 4.08           |
|                                                                         | 2-38x235                       | 6.61                               | 5.97 | 5.56 | 5.21 | 4.90 | 5.21           |
|                                                                         | 2-38x286                       | 7.66                               | 6.92 | 6.44 | 6.09 | 5.82 | 6.09           |



**Table 9.23.12.3.-B (continued)**  
**Maximum Spans for Hem – Fir Lintels – No. 1 or No. 2 Grade – Non-structural Sheathing<sup>(1)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.5.(1) and 9.23.12.3.(1) and (3)

| Lintel Supporting                                                       | Lintel Size, <sup>(2)</sup> mm | Maximum Span, m <sup>(3)(4)</sup> |      |      |      |      |                |
|-------------------------------------------------------------------------|--------------------------------|-----------------------------------|------|------|------|------|----------------|
|                                                                         |                                | Exterior Walls                    |      |      |      |      | Interior Walls |
|                                                                         |                                | Specified Snow Load, kPa          |      |      |      |      |                |
|                                                                         |                                | 1.0                               | 1.5  | 2.0  | 2.5  | 3.0  |                |
| Roof and ceiling only (tributary width of 4.9 m maximum) <sup>(6)</sup> | 2-38x89                        | 1.31                              | 1.13 | 1.00 | 0.91 | 0.84 | 0.91           |
|                                                                         | 2-38x140                       | 1.87                              | 1.61 | 1.43 | 1.30 | 1.20 | 1.30           |
|                                                                         | 2-38x184                       | 2.27                              | 1.95 | 1.74 | 1.58 | 1.42 | 1.58           |
|                                                                         | 2-38x235                       | 2.78                              | 2.39 | 2.13 | 1.92 | 1.71 | 1.92           |
|                                                                         | 2-38x286                       | 3.23                              | 2.77 | 2.47 | 2.17 | 1.94 | 2.17           |
| Roof, ceiling and 1 storey <sup>(3)(6)(7)</sup>                         | 2-38x89                        | 1.01                              | 0.93 | 0.86 | 0.81 | 0.76 | 0.69           |
|                                                                         | 2-38x140                       | 1.44                              | 1.32 | 1.23 | 1.14 | 1.05 | 0.95           |
|                                                                         | 2-38x184                       | 1.75                              | 1.61 | 1.47 | 1.34 | 1.23 | 1.12           |
|                                                                         | 2-38x235                       | 2.14                              | 1.96 | 1.76 | 1.60 | 1.48 | 1.35           |
|                                                                         | 2-38x286                       | 2.49                              | 2.22 | 2.00 | 1.82 | 1.69 | 1.55           |
| Roof, ceiling and 2 storeys <sup>(3)(6)(7)</sup>                        | 2-38x89                        | 0.91                              | 0.85 | 0.80 | 0.76 | 0.72 | 0.60           |
|                                                                         | 2-38x140                       | 1.29                              | 1.21 | 1.13 | 1.05 | 0.98 | 0.82           |
|                                                                         | 2-38x184                       | 1.57                              | 1.44 | 1.33 | 1.24 | 1.16 | 0.98           |
|                                                                         | 2-38x235                       | 1.90                              | 1.73 | 1.60 | 1.49 | 1.40 | 1.19           |
|                                                                         | 2-38x286                       | 2.15                              | 1.97 | 1.82 | 1.70 | 1.60 | 1.37           |
| Roof, ceiling and 3 storeys <sup>(3)(6)(7)</sup>                        | 2-38x89                        | 0.85                              | 0.81 | 0.77 | 0.74 | 0.69 | 0.55           |
|                                                                         | 2-38x140                       | 1.21                              | 1.14 | 1.06 | 1.00 | 0.95 | 0.76           |
|                                                                         | 2-38x184                       | 1.43                              | 1.33 | 1.25 | 1.18 | 1.12 | 0.91           |
|                                                                         | 2-38x235                       | 1.72                              | 1.60 | 1.50 | 1.42 | 1.35 | 1.10           |
|                                                                         | 2-38x286                       | 1.95                              | 1.82 | 1.72 | 1.63 | 1.55 | 1.27           |

**Notes to Table 9.23.12.3.-B:**

- (1) Where structural sheathing is used, lintel spans may be increased by 15%. Structural sheathing consists of a minimum 9.5 mm thick structural panel conforming to CSA O121, CSA O151, CSA O325 or CSA O437.0 fastened with at least two rows of fasteners to the exterior face of the lintel, and a single row to the top plates and studs. Fasteners shall conform to Table 9.23.3.5.-A.
- (2) A single piece of 89 mm thick lumber may be used in lieu of 2 pieces of 38 mm thick lumber on edge.
- (3) If floor joists span the full width of the *building* without support, lintel spans shall be reduced by 15% for "roof, ceiling and 1 storey," by 20% for "roof, ceiling and 2 storeys," and by 25% for "roof, ceiling and 3 storeys."
- (4) For ends of lintels fully supported by walls, provide minimum 38 mm bearing for lintel spans up to 3 m, or minimum 76 mm bearing for lintel spans greater than 3 m.
- (5) Spans for 0.6 m tributary width are calculated for lintels in end walls that support only a 0.6 m width of roof and ceiling, but do not support roof joists, roof rafters or roof trusses.
- (6) Lintel spans are calculated based on a maximum floor joist, roof joist or rafter span of 4.9 m and a maximum roof truss span of 9.8 m. Lintel spans may be increased by 5% if rafter and joist spans are no greater than 4.3 m and roof truss spans are no greater than 8.6 m. Spans may be increased by 10% if rafter and joist spans are no greater than 3.7 m and roof truss spans are no greater than 7.4 m.
- (7) Spans apply only where the floors serve residential areas as described in Table 4.1.5.3., or the uniformly distributed *live load* does not exceed that specified for residential areas as described in Table 4.1.5.3.

**Table 9.23.12.3.-C**  
**Maximum Spans for Spruce – Pine – Fir Lintels – No. 1 or No. 2 Grade – Non-structural Sheathing<sup>(1)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.5.(1) and 9.23.12.3.(1) and (3)

| Lintel Supporting                                                       | Lintel Size, <sup>(2)</sup> mm | Maximum Span, m <sup>(3)(4)</sup>  |      |      |      |      |                |
|-------------------------------------------------------------------------|--------------------------------|------------------------------------|------|------|------|------|----------------|
|                                                                         |                                | Exterior Walls                     |      |      |      |      | Interior Walls |
|                                                                         |                                | Specified Snow Load, kPa           |      |      |      |      |                |
|                                                                         |                                | 1.0                                | 1.5  | 2.0  | 2.5  | 3.0  |                |
| Limited attic storage and ceiling                                       | 2-38x89                        | This Area Intentionally Left Blank |      |      |      |      | 1.27           |
|                                                                         | 2-38x140                       |                                    |      |      |      |      | 1.93           |
|                                                                         | 2-38x184                       |                                    |      |      |      |      | 2.35           |
|                                                                         | 2-38x235                       |                                    |      |      |      |      | 2.88           |
|                                                                         | 2-38x286                       |                                    |      |      |      |      | 3.34           |
| Roof and ceiling only (tributary width of 0.6 m maximum) <sup>(5)</sup> | 2-38x89                        | 2.55                               | 2.23 | 2.02 | 1.88 | 1.77 | 1.88           |
|                                                                         | 2-38x140                       | 4.01                               | 3.50 | 3.18 | 2.96 | 2.78 | 2.96           |
|                                                                         | 2-38x184                       | 5.27                               | 4.61 | 4.18 | 3.88 | 3.66 | 3.88           |
|                                                                         | 2-38x235                       | 6.37                               | 5.76 | 5.34 | 4.96 | 4.67 | 4.96           |
|                                                                         | 2-38x286                       | 7.38                               | 6.67 | 6.21 | 5.87 | 5.61 | 5.87           |
| Roof and ceiling only (tributary width of 4.9 m maximum) <sup>(6)</sup> | 2-38x89                        | 1.27                               | 1.11 | 1.01 | 0.93 | 0.87 | 0.93           |
|                                                                         | 2-38x140                       | 1.93                               | 1.66 | 1.48 | 1.35 | 1.25 | 1.35           |
|                                                                         | 2-38x184                       | 2.35                               | 2.02 | 1.80 | 1.64 | 1.52 | 1.64           |
|                                                                         | 2-38x235                       | 2.88                               | 2.47 | 2.20 | 2.01 | 1.84 | 2.01           |
|                                                                         | 2-38x286                       | 3.34                               | 2.87 | 2.56 | 2.33 | 2.09 | 2.33           |
| Roof, ceiling and 1 storey <sup>(3)(6)(7)</sup>                         | 2-38x89                        | 1.05                               | 0.96 | 0.89 | 0.84 | 0.79 | 0.74           |
|                                                                         | 2-38x140                       | 1.49                               | 1.37 | 1.27 | 1.19 | 1.13 | 1.02           |
|                                                                         | 2-38x184                       | 1.82                               | 1.67 | 1.55 | 1.44 | 1.33 | 1.20           |
|                                                                         | 2-38x235                       | 2.22                               | 2.04 | 1.89 | 1.73 | 1.59 | 1.45           |
|                                                                         | 2-38x286                       | 2.58                               | 2.36 | 2.15 | 1.96 | 1.81 | 1.66           |
| Roof, ceiling and 2 storeys <sup>(3)(6)(7)</sup>                        | 2-38x89                        | 0.94                               | 0.88 | 0.83 | 0.79 | 0.76 | 0.64           |
|                                                                         | 2-38x140                       | 1.34                               | 1.26 | 1.19 | 1.13 | 1.06 | 0.88           |
|                                                                         | 2-38x184                       | 1.63                               | 1.53 | 1.44 | 1.33 | 1.25 | 1.05           |
|                                                                         | 2-38x235                       | 1.99                               | 1.87 | 1.72 | 1.60 | 1.50 | 1.27           |
|                                                                         | 2-38x286                       | 2.31                               | 2.12 | 1.96 | 1.82 | 1.71 | 1.45           |

**Table 9.23.12.3.-C (continued)**  
**Maximum Spans for Spruce – Pine – Fir Lintels – No. 1 or No. 2 Grade – Non-structural Sheathing<sup>(1)</sup>**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.5.(1) and 9.23.12.3.(1) and (3)

| Lintel Supporting                                | Lintel Size, <sup>(2)</sup> mm | Maximum Span, m <sup>(3)(4)</sup> |      |      |      |      |                |
|--------------------------------------------------|--------------------------------|-----------------------------------|------|------|------|------|----------------|
|                                                  |                                | Exterior Walls                    |      |      |      |      | Interior Walls |
|                                                  |                                | Specified Snow Load, kPa          |      |      |      |      |                |
|                                                  |                                | 1.0                               | 1.5  | 2.0  | 2.5  | 3.0  |                |
| Roof, ceiling and 3 storeys <sup>(3)(6)(7)</sup> | 2-38x89                        | 0.88                              | 0.83 | 0.80 | 0.77 | 0.74 | 0.59           |
|                                                  | 2-38x140                       | 1.25                              | 1.19 | 1.14 | 1.08 | 1.02 | 0.81           |
|                                                  | 2-38x184                       | 1.52                              | 1.44 | 1.35 | 1.27 | 1.21 | 0.97           |
|                                                  | 2-38x235                       | 1.86                              | 1.73 | 1.62 | 1.53 | 1.45 | 1.17           |
|                                                  | 2-38x286                       | 2.11                              | 1.96 | 1.84 | 1.74 | 1.66 | 1.35           |

**Notes to Table 9.23.12.3.-C:**

- (1) Where structural sheathing is used, lintel spans may be increased by 15%. Structural sheathing consists of a minimum 9.5 mm thick structural panel conforming to CSA O121, CSA O151, CSA O325 or CSA O437.0 fastened with at least two rows of fasteners to the exterior face of the lintel, and a single row to the top plates and studs. Fasteners shall conform to Table 9.23.3.5.-A.
- (2) A single piece of 89 mm thick lumber may be used in lieu of 2 pieces of 38 mm thick lumber on edge.
- (3) If floor joists span the full width of the *building* without support, lintel spans shall be reduced by 15% for "roof, ceiling and 1 storey," by 20% for "roof, ceiling and 2 storeys," and by 25% for "roof, ceiling and 3 storeys."
- (4) For ends of lintels fully supported by walls, provide minimum 38 mm bearing for lintel spans up to 3 m, or minimum 76 mm bearing for lintel spans greater than 3 m.
- (5) Spans for 0.6 m tributary width are calculated for lintels in end walls that support only a 0.6 m width of roof and ceiling, but do not support roof joists, roof rafters or roof trusses.
- (6) Lintel spans are calculated based on a maximum floor joist, roof joist or rafter span of 4.9 m and a maximum roof truss span of 9.8 m. Lintel spans may be increased by 5% if rafter and joist spans are no greater than 4.3 m and roof truss spans are no greater than 8.6 m. Spans may be increased by 10% if rafter and joist spans are no greater than 3.7 m and roof truss spans are no greater than 7.4 m.
- (7) Spans apply only where the floors serve residential areas as described in Table 4.1.5.3., or the uniformly distributed *live load* does not exceed that specified for residential areas as described in Table 4.1.5.3.

**Table 9.23.12.3.-D**  
**Maximum Spans for Glued-Laminated Timber Lintels – 20f-E Stress Grade – Exterior Walls – Roof and Ceiling Load Only**  
 Forming Part of Sentences 9.3.2.8.(1), 9.23.4.5.(1) and 9.23.12.3.(1) and (3)

| Lintel Size, mm | Maximum Span, m <sup>(1)(2)(3)</sup>  |      |      |                                       |      |      |                                       |      |      |                                       |      |      |                                       |      |      |
|-----------------|---------------------------------------|------|------|---------------------------------------|------|------|---------------------------------------|------|------|---------------------------------------|------|------|---------------------------------------|------|------|
|                 | Specified Snow Load, kPa              |      |      |                                       |      |      |                                       |      |      |                                       |      |      |                                       |      |      |
|                 | 1.0                                   |      |      | 1.5                                   |      |      | 2.0                                   |      |      | 2.5                                   |      |      | 3.0                                   |      |      |
|                 | Supported length, m <sup>(4)(5)</sup> |      |      | Supported length, m <sup>(4)(5)</sup> |      |      | Supported length, m <sup>(4)(5)</sup> |      |      | Supported length, m <sup>(4)(5)</sup> |      |      | Supported length, m <sup>(4)(5)</sup> |      |      |
|                 | 2.4                                   | 3.6  | 4.8  | 2.4                                   | 3.6  | 4.8  | 2.4                                   | 3.6  | 4.8  | 2.4                                   | 3.6  | 4.8  | 2.4                                   | 3.6  | 4.8  |
| 130 x 304       | 6.23                                  | 5.63 | 5.24 | 5.63                                  | 5.09 | 4.73 | 5.24                                  | 4.73 | 4.40 | 4.95                                  | 4.48 | 4.17 | 4.73                                  | 4.28 | 3.87 |
| 80 x 380        | 6.52                                  | 5.89 | 5.48 | 5.89                                  | 5.32 | 4.96 | 5.48                                  | 4.96 | 4.52 | 5.19                                  | 4.69 | 4.11 | 4.96                                  | 4.39 | 3.80 |
| 130 x 342       | 6.80                                  | 6.15 | 5.72 | 6.15                                  | 5.56 | 5.17 | 5.72                                  | 5.17 | 4.81 | 5.41                                  | 4.89 | 4.55 | 5.17                                  | 4.67 | 4.35 |
| 80 x 418        | 7.00                                  | 6.33 | 5.89 | 6.33                                  | 5.72 | 5.32 | 5.89                                  | 5.32 | 4.96 | 5.57                                  | 5.03 | 4.52 | 5.32                                  | 4.81 | 4.18 |
| 130 x 380       | 7.36                                  | 6.65 | 6.19 | 6.65                                  | 6.01 | 5.59 | 6.19                                  | 5.59 | 5.21 | 5.86                                  | 5.29 | 4.92 | 5.59                                  | 5.06 | 4.70 |
| 80 x 456        | 7.48                                  | 6.76 | 6.29 | 6.76                                  | 6.10 | 5.68 | 6.29                                  | 5.68 | 5.29 | 5.95                                  | 5.37 | 4.93 | 5.68                                  | 5.13 | 4.56 |
| 130 x 418       | 7.91                                  | 7.15 | 6.65 | 7.15                                  | 6.46 | 6.01 | 6.65                                  | 6.01 | 5.59 | 6.29                                  | 5.68 | 5.29 | 6.01                                  | 5.43 | 5.05 |
| 80 x 494        | 7.94                                  | 7.17 | 6.68 | 7.17                                  | 6.48 | 6.03 | 6.68                                  | 6.03 | 5.61 | 6.31                                  | 5.71 | 5.31 | 6.03                                  | 5.45 | 4.94 |
| 80 x 532        | 8.39                                  | 7.58 | 7.06 | 7.58                                  | 6.85 | 6.38 | 7.06                                  | 6.38 | 5.93 | 6.67                                  | 6.03 | 5.61 | 6.38                                  | 5.76 | 5.32 |
| 130 x 456       | 8.44                                  | 7.63 | 7.10 | 7.63                                  | 6.89 | 6.41 | 7.10                                  | 6.41 | 5.97 | 6.71                                  | 6.07 | 5.65 | 6.41                                  | 5.80 | 5.39 |

**Notes to Table 9.23.12.3.-D:**

- (1) Spans are valid for glued-laminated timber conforming to CAN/CSA-O122 and CSA O177.
- (2) Provide minimum 89 mm bearing. (Alternatively, the bearing length may be calculated in accordance with Part 4.)
- (3) Top edge of lintel assumed to be fully laterally supported.
- (4) Supported length means half the length of trusses or rafters, plus the length of the overhang beyond the wall.
- (5) For intermediate supported lengths, straight interpolation may be used.