

TABLE RB02.5(1) GIDER SPANS AND HEADER SPANS FOR EXTERIOR BEARING WALLS (Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir and required number of jack studs)					
GIRDERS AND HEADERS SUPPORTING	SIZE	BUILDING WIDTH (feet)			SPAN (feet)
		20	28	35	
Roof ceiling and one clear span floor	2-2x4	3-2	2-3	1	2-6
	2-2x6	4-1	3-2	2	3-3
	2-2x8	5-1	4-1	3	4-1
	2-2x10	7-1	6-1	5	5-7
	2-2x12	8-5	7-3	6	6-6
Roof ceiling and two clear span floors	2-2x6	3-1	2-1	1	2-4
	2-2x8	4-1	3-1	2	3-1
	2-2x10	5-1	4-1	3	4-0
	2-2x12	6-5	5-3	4	5-0
Roof ceiling and over center-webbing floor	2-2x4	3-1	2-1	1	2-2
	2-2x6	4-1	3-1	2	3-0
	2-2x8	5-1	4-1	3	3-9
	2-2x10	7-1	6-1	5	5-1
	2-2x12	9-2	8-0	7	6-3
	4-2x6	7-5	6-3	5	5-11
	4-2x10	10-1	8-9	7	7-2
	4-2x12	12-1	10-9	9	8-2
	2-2x4	2-7	1-3	1	2-0
	2-2x6	3-10	2-4	2	3-0
	2-2x8	4-10	3-4	3	3-9
	2-2x10	6-10	5-11	5	5-4
	2-2x12	8-1	6-11	7	6-8
Roof ceiling and one clear span floor	2-2x6	4-1	3-1	2	4-8
	2-2x8	5-1	4-1	3	5-7
	2-2x10	7-1	6-2	5	7-1
	2-2x12	9-1	8-2	7	8-5
	4-2x6	7-0	6-1	5	6-7
	4-2x10	10-1	8-2	7	8-5
	4-2x12	12-1	10-2	9	9-5
	2-2x6	3-8	2-7	2	2-10
	2-2x8	4-7	3-6	3	3-8
	2-2x10	6-8	5-7	5	5-7
	2-2x12	8-9	7-8	7	7-8
	4-2x6	6-8	5-7	5	6-5
	4-2x10	10-1	8-2	7	8-5
	4-2x12	12-1	10-2	9	9-5
	2-2x6	3-10	2-7	2	2-11
	2-2x8	4-9	3-6	3	3-7
	2-2x10	6-10	5-7	5	5-7
	2-2x12	8-11	7-8	7	7-8
	4-2x6	6-8	5-7	5	6-5
	4-2x10	10-1	8-2	7	8-5
	4-2x12	12-1	10-2	9	9-5
	2-2x6	3-8	2-7	2	2-10
	2-2x8	4-7	3-6	3	3-8
	2-2x10	6-8	5-7	5	5-7
	2-2x12	8-9	7-8	7	7-8
	4-2x6	6-8	5-7	5	6-5
	4-2x10	10-1	8-2	7	8-5
	4-2x12	12-1	10-2	9	9-5

Fig. 51: 1 inch=25.4mm, 1 pound per square foot=0.0478N/m<sup>2</sup>

- Spans are given in feet and inches.
- Tabulated values assume #2 grade lumber.
- Balancing with a measured perpendicular to the ridge for rafters between those shown, spans are permitted to be interpolated.
- No. Number of jack studs required to support each end. When the number of jack studs is 1, the span is limited to the full height of the rafter by an approved framing anchor attached to the full-height wall stud and to the header.
- less 20% ground snow load for cases in which ground snow load is less than 20% and the roof live load is equal to or less than 20%.

TABLE RB02.5(2) GIDER SPANS AND HEADER SPANS FOR INTERIOR BEARING WALLS (Maximum spans for Douglas fir-larch, hem-fir, southern pine and spruce-pine-fir and required number of jack studs)					
GIRDERS AND HEADERS SUPPORTING	SIZE	BUILDING WIDTH (feet)			SPAN (feet)
		20	28	35	
One floor only	2-2x4	2-4	1-1	1	2-4
	2-2x6	3-4	2-1	2	3-1
	2-2x8	4-4	3-1	3	4-1
	2-2x10	6-4	5-0	4	5-2
	2-2x12	8-4	7-1	5	6-3
	4-2x6	6-4	5-1	4	5-2
	4-2x10	10-4	8-1	6	8-3
	4-2x12	12-4	10-1	8	9-3
Two floor only	2-2x4	2-2	1-1	1	2-2
	2-2x6	3-2	2-1	2	3-2
	2-2x8	4-2	3-1	3	4-2
	2-2x10	6-2	5-1	4	5-3
	2-2x12	8-2	7-1	5	6-4
	4-2x6	4-1	3-1	3	4-1
	4-2x10	8-1	6-1	5	7-1
	4-2x12	10-1	8-1	7	8-1
	2-2x4	2-1	1-1	1	2-1
	2-2x6	3-1	2-1	2	3-1
	2-2x8	4-1	3-1	3	4-1
	2-2x10	6-1	5-1	4	6-1
	2-2x12	8-1	7-1	5	8-1
	4-2x6	4-1	3-1	3	4-1
	4-2x10	8-1	6-1	5	7-1
	4-2x12	10-1	8-1	7	8-1
	2-2x4	2-1	1-1	1	2-1
	2-2x6	3-1	2-1	2	3-1
	2-2x8	4-1	3-1	3	4-1
	2-2x10	6-1	5-1	4	6-1
	2-2x12	8-1	7-1	5	8-1
	4-2x6	4-1	3-1	3	4-1
	4-2x10	8-1	6-1	5	7-1
	4-2x12	10-1	8-1	7	8-1

TABLE RB02.3(1) FASTENER SCHEDULE FOR STRUCTURAL MEMBERS			
DESCRIPTION OF BUILDING MATERIALS	DESCRIPTION OF FASTENER	SPACING OF FASTENERS	
		Edges (Inches)	Intermediate Support (Inches)
wood structural panels, soffits, roof and wall sheathing to framing, and partitionboard wall sheathing to framing	6d common nail (subfloor, wall)	6	12 *
5/16" - 1/2"	8d common nail (roof)	6	12 *
1-1/8" - 1-1/4"	10d common nail or 8d deflected nail	6	12
Other wall sheathing "			
1/2" regular cellular sheathing	1-1/2" galvanized roofing nail 6d common nail slope 189°, 1-1/2" long	3	6
1/2" regular cellular sheathing	1-3/4" galvanized roofing nail 6d common nail slope 189°, 1-3/4" long	3	6
25/32" structural cellular sheathing	1-1/2" galvanized roofing nail 6d common nail slope 189°, 1-3/4" long	3	6
1/2" gypsum sheathing	1-1/2" galvanized roofing nail 6d common nail slope 189°, 1-1/2" long	4	8
5/8" gypsum sheathing	1-1/2" galvanized roofing nail 6d common nail slope 189°, 1-1/2" long	4	8
wood structural panels, combination soffits and partitionboard wall sheathing to framing	8d deflected nail or 8d common nail	6	12
3/4" and less	8d common nail or 8d deflected nail	6	12
1-1/8" - 1-1/4"	10d common nail or 8d deflected nail	6	12

Fig. 52: 1 inch = 25.4mm, 1 foot = 304.8mm, 1 mile per hour = 1.609km/h.

- All nails are smooth-common, box or deflected shanks except where otherwise stated. Nails used for framing and sheathing connections shall have minimum average bending yield strengths as shown: 30ksi (207 MPa) for shank diameter of .1875 inch (20d common nail), 50ksi (340 MPa) for shank diameter larger than .1875 inch but not larger than .1717 inch, and 100ksi (689 MPa) for shank diameter of .1423 inch less.
- Staples are 16 gauge wire and have a minimum 7/16-inch on diameter crown width.
- Nails shall be spaced of not more than 6 inches on center of all joists where spans are 48 inches or greater.
- Four-foot- by-8-foot or 4-foot- by-9-foot panels shall be applied vertically.
- Spacing of fasteners not included in this table shall be based on table RB02.3(1).
- For regions having basic wind speed of 110mph or greater, 8d deflected nails shall be used for attaching plywood and wood structural panel roof sheathing to minimum 48-inch distance from gable end walls. If mean roof height is more than 25 feet, up to 25 feet maximum.
- For regions having basic wind speed of 100mph or less, nails for attaching wood structural panel roof sheathing to gable end walls framing shall be spaced 6 inches on center. When basic wind speed is greater than 100mph, nails for attaching panel roof sheathing to intermediate supports shall be spaced 6 inches on center for minimum 48-inch distance from rafter ends and gable end walls and sections on center to gable end wall framing.
- Gypsum sheathing shall conform to ASTM C79 and shall be installed in accordance with 6A.253. Reinforced sheathing shall conform to either ASTM 184.1 or ASTM C 208.
- Spacing of fasteners on floor sheathing panel edges applies to panel edges supported by framing members and at all floor perimeters only. Spacing of fasteners on roof sheathing panel edges applies to panel edges supported by framing members and at all roof plane perimeters. Blocking of roof or floor sheathing panel edges perpendicular to the framing members shall not be required except at intersection of adjacent roof planes. Floor and roof perimeter shall be supported by framing members or solid blocking.



## Gider Spans & Fastener Schedule Portland Remodel Portland, ME

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DATE	REVISIONS:
04/01/14	-

Date : 05/29/14  
 Scale : 1/4"=1'-0"  
 Drawn By: JTM  
 Project: A041014  
 Sheet Number: 5 of 5